BIMAL K. BANIK, Ph. D. C. Chem. F. R. S. C.

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CAREER GOALS:

- To conduct competitive research on chemical and biological science, specifically on antibiotics, anticancer agents, hormones, biocatalysis, drug-delivery, green chemistry, polyaromatic hydrocarbons, mechanistic investigation of biological and chemical processes, method development, ultrasound-assisted processes, microwave-induced reactions, natural products chemistry, *in vitro* and *in vivo* tests, and structure-activity relationships studies of organic compounds for the development of anticancer and antibacterial agents
- To perform collaborative research on topics of current interests (nanomedicine and drug delivery) with researchers and students
- To initiate science and health-related research and educational program that will benefit the university/institute, college, high school districts, faculty, students, staff, and community
- To teach organic and medicinal chemistry at the undergraduate and graduate level with distinction; To transfer and share knowledge among various colleagues, students and national and international community
- To mentor and supervise students, researchers and guide them for their establishment in life
- To perform administrative and academic responsibilities to enhance the visibility of the department, institute, organization and the community; To develop clear plan in academic and administrative activities; To serve the college, university, scientific organization, research center and community for the benefits of society with dedication and sincerity

WORK EXPERIENCE:

Academic and Professional Appointments:

Vice President of Research & Education Development, Community Health Systems of South Texas (CHSST), Edinburg, Texas

November, 2014-present

First President's Endowed Professor, The University of Texas-Pan American, Edinburg, Texas

June, 2007-August, 2013 (recommended for extension)

Professor (**Tenured**), The University of Texas-Pan American, Department of Chemistry, Edinburg, Texas

September, 2007-November, 2014

Adjunct Professor, The University of Texas at San Antonio, Texas

January, 2010-August, 2012

Adjunct Professor, The University of Texas Health Science Center at San Antonio, Texas

September, 2008-August, 2012

Associate Professor (**Tenured**), The University of Texas-Pan American, Department of Chemistry, Edinburg, Texas

Septemeber, 2006-August, 2007

Assistant Professor, The University of Texas-Pan American, Department of Chemistry, Edinburg, Texas

August, 2004-August, 2006

Assistant Professor, The University of Texas M. D. Anderson Cancer Center, Department of Molecular Pathology, Houston, Texas

September, 1997-2004

Research Scientist and Research Associate, The University of Texas M. D. Anderson Cancer Center, Department of Molecular Pathology, Houston, Texas

January, 1995-August, 1997

Research Assistant Professor, Stevens Institute of Technology, Department of Chemistry and Chemical Biology, Hoboken, New Jersey

January, 1994-December, 1994

Research Associate and Teaching Fellow, Stevens Institute of Technology, Department of Chemistry and Chemical Engineering, Hoboken, New Jersey (Mentor: Professor A. K. Bose)

January, 1990-December, 1993

Research Associate, Case Western Reserve University, Department of Chemistry, Cleveland, Ohio (Mentor: Professor R. G. Salomon)

Janauary, 1989-January, 1990

Research Associate, Indian Association for the Cultivation of Science, Department of Organic Chemistry, Calcutta (Mentor: Professor U. R. Ghatak)

September, 1987-December, 1988

Research Scholar, Indian Association for the Cultivation of Science, Department of Organic Chemistry, Calcutta (Mentor: Professor U. R. Ghatak)

March, 1982-September, 1987

Research and Education: Administrative Appointments:

November, 2014-present
Vice President of Research & Education Development, Community Health Systems of South Texas (CHSST), Edinburg, Texas
Non-profit research and education development organization

September, 2006-August, 2012
Program Director of the NIH grant, The University of Texas-Pan American, Edinburg, Texas
Multimillion dollar research grants

September, 2006
Program Director of the NIH-RISE grant, The University of Texas-Pan American, Edinburg, Texas
Multimillion dollar research grants

September, 2008-August, 2012
Program Director of the NCI grant, The University of Texas-Pan American, Edinburg, Texas
Multimillion dollar research grants

January, 2010-June, 2015
Founder and Editor-in-Chief, Organic & Medicinal Chemistry Letters (Springer)

June, 2015-present
Founder and Section Editor, Organic & Medicinal Chemistry, Chemistry Central Journal (Springer)

July, 2012-present
Founder and Editor-in-Chief, Current Organocatalysis (Bentham Publisher)

July, 2012-present
Founder and Editor-in-Chief, Current Microwave Chemistry (Bentham Publisher)

July, 2015-present
Founder and Editor-in-Chief, Asian Journal of Organic & Medicinal Chemistry

July, 2015-present
Associate Editor, Asian Journal of Chemistry

November, 2012-December, 2014
Editor-in-Chief, Frontiers in Chemistry; Journal of Medicinal & Pharmaceutical Chemistry (NATURE Publishing Group)

December, 2014-present
Volume Editor and Series Editor-in-Chief, E-Books on Synthetic Methods, Bentham Publisher

2004-present
Guest Editor: Tetrahedron Symposium-in-Print, Current Medicinal Chemistry, and Molecules

1997-present

Editorial Board Member of 26 national and international journals

2000-present
Panel Member of NIH/NCI and NSF Grants' Study Sections; Reviewer of NIH, NSF, NCI, ACS, Research Corporation, DOD, NRC (Canada), Belgium, Spain and Austria Government Research Grants

1997-present
Reviewer of 93 national and international journals

1997-present
Reviewer of international Ph. D. theses (8 universities and research centers)

2000-present
Reviewer of Faculty Promotion & Tenure of 3 USA and international universities/research centers

June, 2012
Program Director of the NIH-SEPA grant, The University of Texas-Pan American, Edinburg, Texas
Multimillion dollar research grants

September, 2012-2013
Program Director of the NIH-R25 grant, The University of Texas-Pan American, Edinburg, Texas
Multimillion dollar research grants

June, 2009-August, 2010
Program Director of the NCI, Arra grant, The University of Texas-Pan American, Edinburg, Texas

September, 2005-May, 2008
Chairman of the Faculty Research Council, The University of Texas-Pan American, Edinburg, Texas

September, 2000-August, 2002
Chairman of the Drug Discovery Symposium, The University of Texas M. D. Anderson Cancer Center, Houston, Texas

September, 2000-August, 2002
Chairman of the Chemistry Club, The University of Texas M. D. Anderson Cancer Center, Houston, Texas

September, 1997-August, 2003
Director of the Analytical Chemistry Core Laboratory, The University of Texas M. D. Anderson Cancer Center, Houston, Texas
Multimillion dollar research grants

September, 2000-August, 2013
Chairman of 20 Sessions at the American Chemical Society (ACS) National Meetings

October, 2008
Chairman of a Session at the Nobel Prize Celebration Meeting (100th year anniversary), Germany

June, 2008-April 2014
Advisor of the Chemistry Honors Club, The University of Texas-Pan American, Edinburg, Texas

November, 2011-April 2014
Advisor of the National Society of Collegiate Scholar for the students, The University of Texas-Pan American, Edinburg, Texas

August, 2012
Organizer and Chairman of an international symposium on Microwave, Philadelphia, USA (funded by American Chemical Society and CEM)

March, 2012
Organizer and Principal Investigator of an international symposium on Green Chemistry, India (funded by India-USA Joint Collaboration)

September, 1997-present
Managed several accounts, wrote numerous reports and successfully completed many procedures for external funding; created numerous collaborations with other institutions and international countries: USA, India, Spain, Canada and Mexico; invited more than 400 Ph. D. level scientists/faculties as the editorial board members and recruited more than 100 of them based upon the interests and achievements

Administrative Supervision:

Supervised 12 Personal Office Assistants and 3 Personal Secretaries

EDUCATION:

Ph.D. in Organic Chemistry from Jadavpur University; Ph. D. thesis work was conducted at the Indian Association for the Cultivation of Science, Calcutta, India (Mentor: Professor U. R. Ghatak)

Master of Science (M. Sc. in Chemistry), Burdwan University ***(1st class 1st in organic chemistry: Top ranked student in organic chemistry among all the students of the university; educational transcript is evaluated by a global agency of USA, GPA 4.00/4.00)***,West Bengal, India

Bachelor of Science with Honors (B. Sc. Hons. in Chemistry), Bejoy Narayan College**,** Burdwan University ***(1st class 1st: Top ranked student in chemistry among all the students of the university, Gold medalist by the Governor of the State; educational transcript is evaluated by a global agency of USA, GPA 3.90/4.00; highest GPA in the whole university that consists of 62 colleges)***, West Bengal, India

RESEARCH:

Principal Investigator:

Awarded approximately $7.250 Million Dollar Research Grants from NIH, NCI, Private Foundations, University of Texas M. D. Anderson Cancer Center, University of Texas Health Science Center at San Antonio and the University of Texas-Pan American (1994-2014); Principal Investigator of $4,500,000.00 grant (submitted)

Co-Principal Investigator:

Awarded approximately $441,000.00 Dollar Research Grants from NIH

Director, University of Texas M. D. Anderson Cancer Center, Houston, Core Research Laboratory supported by NCI:

Awarded approximately $1.00 Million Dollar Instrumentation Grant funded by National Cancer Institute (1999)

Chair of the Chemistry Department Instrumental and Research Enhancement, UTPA:

Awarded $837,000.00 Dollar Instrumentation Grant (2010)

At Stevens Institute of Technology, Hoboken, New Jersey:

- Co-Principal Investigator of the Division of Health and Human Services, National Institutes of Health grant, "Enantiopure β-Lactam Synthons via Ferrier Rearrangement", 1994-96, $225,000.00

At the University of Texas M. D. Anderson Cancer Center, Houston, Texas:

- Principal Investigator of the University of Texas M. D. Anderson Cancer Center's recruitment grant, "Synthesis of Polycyclic Aromatic Compounds as Anticancer Agents", 1995-1996, $100,000.00

- Principal Investigator of the University of Texas M. D. Anderson Cancer Center's grant on cancer research, "Polyaromatic Compounds as Anticancer agents", 1999-2002, $125,000.00

- Principal Investigator of the University of the Texas M. D. Anderson Cancer Center's Bridge grant on cancer research, "Design, Synthesis and Biological Evaluation of Organic Compounds", 2001-2002, $140,000.00

- Principal Investigator of a few Private Foundations and Endowment grants and gift supports (the Former Vice President for Research of the University of Texas M. D. Anderson Cancer Center's initiated projects) on "Synthesis and Biological Evaluation of Novel Polycyclic Aromatic Compounds as Anticancer Agents" and "Development of New Polycyclic Aromatic Compounds as Anticancer Agents: *In Vitro* and *In Vivo* Tests", 1997-2003, $1,000,075.00

- Co-Principal Investigator of the University of Texas M. D. Anderson Cancer Center's grant on New Technology Development, "Novel Antimicrobial Agents", 2003-2004, $75,000.00

At the University of Texas-Pan American, Edinburg, Texas:

- Principal Investigator of the "Recruitment Start Up" grant, The University of Texas-Pan American, 2004-2006, $30,000.00

- Principal Investigator of the "Optically Active β-Lactams as Anticancer Agents" grant, National Institutes of Health (HHRC), 2005-2007, $30,000.00

- Principal Investigator of the "Novel β-Lactams as Anticancer Agents" grant, National Institutes of Health, 2006-2012, $730,000.00

- Co-Principal Investigator of the "Sponsored Research Infrastructure Program at University of Texas-Pan American" grant, National Institutes of Health, 2007-2009, $216,000.00

- Principal Investigator of the "Synthesis of the Lead Anticancer β-Lactams" grant, Biomedical Research Initiative, National Institutes of Health, 2005, $5,000.00

- Principal Investigator of the "Asymmetric Synthesis of the Anticancer β-Lactams" grant, Faculty Research Council, The University of Texas-Pan American, 2006, $4,000.00

- Principal Investigator of the "Bismuth Salts-Catalyzed Peracetylation of Carbohydrates" grant, Undergraduate Research Initiative, The University of Texas Pan American, 2006, $1,500.00

- Principal Investigator of the "Preparation of TX-228", A Contract from the University of Texas M. D. Anderson Cancer Center, 2006, $5,100.00

- Principal Investigator of the "Preparation of Two Antibacterial Agents", A Contract from the University of Texas M. D. Anderson Cancer Center, 2006, $4,100.00

- Principal Investigator of the "Synthesis of β-Lactams with Heterocyclic Groups" grant, Undergraduate Research Initiative, The University of Texas-Pan American, 2005, $1,500.00

- Principal Investigator of the "Novel Polycyclic Aromatic Compounds as New Anticancer Agents" grant, Faculty Research Council, The University of Texas-Pan American, 2006, $4,000.00

- Principal Investigator of the "Novel Synthesis of Pyrroles of Biological Significance" grant, University Research Initiative, The University of Texas-Pan American, 2006, $1,500.00

- Principal Investigator of the "Bismuth Nitrate-Catalyzed Preparation of Aspirin" grant, University Research Initiative, The University of Texas-Pan American, 2006, $1,500.00

- Principal Investigator of "Lewis Acids-Catalyzed Electrophilic Reaction of Indoles with Carbonyl Compounds" grant, University Research Initiative, University of Texas-Pan American, 2006, $1,500.00

- Principal Investigator of "Bismuth Nitrate-Catalyzed Michael Reactions of Indoles in Aqueous Solution" grant, University Research Initiative, University of Texas-Pan American, 2007, $2,000.00

- Principal Investigator of "Microwave-Induced Organic Reactions" grant, American Chemical Society Project SEED, 2007, $3,000.00

- Principal Investigator of the "Preparation of Two Antibacterial Agents", A Contract from the University of Texas M. D. Anderson Cancer Center, 2008, $5,100.00

- Principal Investigator of the "Novel Synthesis of β-Lactams" grant, University Research Initiative, The University of Texas-Pan American, 2008, $2,000.00

- Principal Investigator of the "Novel Indolininone of Biological Significance" grant, University Research Initiative, The University of Texas Pan American, 2008, $2,000.00

- Principal Investigator of the "Intermolecular Fridel-Crafts Reaction with β-Lactams", University Research Initiative grant, The University of Texas-Pan American, 2008, $2,000.00

- Principal Investigator of the "Anticancer β-Lactams: Diastereoselectivity of Cycloaddition Reaction", University Research Initiative grant, The University of Texas-Pan American, 2008, $2,000.00

- Principal Investigator of the "Bismuth Nitrate-Catalyzed Aza-Michael Reactions of 3-Amino β-Lactams", University Research Initiative grant, The University of Texas-Pan American, 2008, $2,000.00

- Principal Investigator of the "Bismuth Nitrate-Catalyzed Synthesis of Pyrrole-Substituted β-Lactams", University Research Initiative grant, The University of Texas-Pan American, 2008, $2,000.00

- Principal Investigator of the "Novel Glycosylation of Estrone", University Research Initiative grant, The University of Texas-Pan American, 2008, $2,000.00

- Principal Investigator of the "Synthesis of Aza Indole as Cancer Cell Growth Inhibitor", University Research Initiative grant, The University of Texas-Pan American, 2008, $2,000.00

- Principal Investigator of the "Synthesis of Indoles as Kinase Inhibitors", University Research Initiative grant, The University of Texas-Pan American, 2008, $2,000.00

- Principal Investigator of the "Aromatic Diamines: Synthesis of Heterocycles via Bismuth Nitrate-Catalyzed Reaction", University Research Initiative grant, The University of Texas-Pan American, 2008, $2,000.00

- Program Director of the "UTPA-Cancer Center at UTHSCSA Border Partnership" grant, NIH/NCI grant, 2008-2012, $1,543,083.00; UTPA (PI: Dr. Banik) received $910,083.00 (see below) and UTHSCSA received approximately $633,000.00

- Principal Investigator of the "Polycyclic Aromatic Compounds as New Anticancer Agents" grant, NIH/NCI grant, 2008-2012, $910,083.00

- Principal Investigator of the "Novel Acylation of Indoles with β-Lactams" grant, National Institutes of Health, 2008-2009, $20, 000.00

- Principal Investigator of the "Collaborative Research Partnership" contract award, University of Texas-Health Science Center of San Antonio, 2008-2009, $31, 000.00

- Principal Investigator of the "Synthetic Studies on Polyaromatic Compounds", University Research Initiative grant, The University of Texas-Pan American, 2008, $2,000.00

- Principal Investigator of the "Polycyclic Aromatic Compounds as New Anticancer Agents" grant, NIH/NCI, 2009-2010, $168,874.00

- Principal Investigator of the "Surface-Mediated Bismuth Nitrate-Induced Nitration of Polyaromatic Compounds", University Research Initiative grant, The University of Texas-Pan American, 2009, $2,000.00

- Principal Investigator of the "Collaborative Research Partnership" contract award, University of Texas-Health Science Center of San Antonio, 2009-2010, $62, 000.00

- Consultant and Member of the Training Core Committee of the "Partnership for the Advancement of Cancer Research", National Cancer Institute grant (PI: Dr. Mary O'Connell, 2009-2012, $198, 970.00

- Principal Investigator of the "Synthesis of 3-Vinyl β-Lactams and Related Study", University Research Initiative grant, The University of Texas-Pan American, 2009, $2,000.00

- Principal Investigator of the "Functionalization of 3-Amino β-Lactams", University Research Initiative grant, The University of Texas-Pan American, 2009, $2,000.00

- Principal Investigator of the "Synthesis of Polycyclic Indoles", University Research Initiative grant, The University of Texas-Pan American, 2010, $2,000.00

- Principal Investigator of the "Synthesis of Unsaturated β-Lactams", University Research Initiative grant, The University of Texas Pan American, 2009, $2,000.00

- Principal Investigator of the "Synthesis of β-Lactams Using Solid Phase", University Research Initiative grant, The University of Texas-Pan American, 2009, $2,000.00

- Principal Investigator of the "Collaborative Research Partnership" contract award, UT Health Science Center of San Antonio, 2010-2011, $62, 000.00

- Principal Investigator of the "Synthesis and Preclinical Development of Anticancer β-Lactam", Kleberg Foundation, 2011-2014, $750,000.00

- Principal Investigator of the "Collaborative Research Partnership" contract award, UT Health Science Center of San Antonio, 2011-2012, $62,000.00

- Principal Investigator of the "Polycyclic Aromatic Compounds as Anticancer Agents", National Cancer Institute, 2011-2012, $118,000.00

- Organizer and Chair of the "Microwave-Assisted Chemistry", American Chemical Society and CEM Microwave Company, 2011-2012, $11,000.00

- Principal Investigator of the "Collaborative Research Partnership" contract award, University of Texas-Health Science Center of San Antonio, 2012-2013, $62,000.00

- Principal Investigator of the "Collaborative Research Partnership" contract award, University of Texas-Health Science Center of San Antonio, 2013-2014, $62,000.00

- Principal Investigator of the "Liposomal Formulation and Delivery of Anticancer Beta Lactams", Kleberg Foundation, 2014-2015, $223, 000.00

At the Community Health Systems of South Texas, Edinburg, Texas:

- Principal Investigator of the "Chemical and Biochemical Research with High School Students and Teachers", US Government, 2017-2019, $4,500,000.00 (the results of this grant application will be made available in January, 2017)

RESEARCH ACTIVITIES WITH INTERNATIONAL COUNTRIES:

- Principal Investigator of the "India-US Joint Workshop on Scientific Collaboration", 2011 (approximately $100,000.00 USD; India Government financially supported 9 US and numerous Indian scientists to participate in this international collaboration)

- Principal Investigator of the "US-Mexico Joint Research Collaboration", 2009-2012 (approximately $120,000.00 USD; Mexico Government financillay supported 2 postdoctoral fellows, 1 research scientist and 3 master students at my research laboratory)

PUBLICATIONS (Patent, Paper, Editorial, Book Chapter, Foreword, Perspective, Review, and Commentary):

256 Articles; the following patent list is found at the Thomson/Delphion website on April 17, 2006 (www.delphion.com/fcgi-bin/patsearch); A few patents marked with "A" may merge together; the total number of citations of 190 published papers in journals exceeds 5000; 5 papers became top 25 most requested and top-cited articles out of 8 millions on ScienceDirect Website published by Elsevier Publisher; paper has been recognized at the cover page of an international journal; a volume of an international journal has been published using my 30 papers only (no papers from other authors are included in this volume); the impact factor of my published papers according to Institute of Scientific Information (ISI) exceeds 400; the total number of media exposures on my contribution exceeds 200. *Indicates principal and corresponding author

Becker and Banik have contributed equally in these patents

1. F. F. Becker* and **B. K. Banik***, "Polycyclic β-Lactam Derivatives for the Treatment of Cancer"**, World Patent, Number WO103456A2**, 2012.

2. F. F. Becker* and **B. K. Banik***, "Polycyclic β-Lactam Derivatives for the Treatment of Cancer"**, US Patent, Number US8946409**, 2015.

3. **B. K. Banik*** and F. F. Becker*, "Polycyclic Aromatic Compounds as Antimicrobial and Antiviral Compounds", **World Patent, Number WO039507A1,** 2005.

4. **B. K. Banik*** and F. F. Becker*, "Antimicrobial and Antiviral Compounds", **World Patent**, **Number WO05039507A3**, 2005.

5. **B. K. Banik*** and F. F. Becker*, "Antimicrobial and Antiviral Compounds", **US Patent**, **Number US20050107430A1**, 2005.

6. F. F. Becker* and **B. K. Banik***, "Antitumor Chrysene Compounds", **European Patent, Number EP1124552A4**, 2005.

7. F. F. Becker* and **B. K. Banik*,** "Antitumor Dibenzofluorene Compounds", **European Patent, Number EP1 135379**, 2004.

8. F. F. Becker* and **B. K. Banik*,** "Antitumor Dibenzofluorene Compounds", **US Patent, Number US20020103191A1**, 2002.

9. F. F. Becker* and **B. K. Banik***, "Antitumor Dibenzofluorene Compounds", **US Patent, Number US6479662,** 2002.

10. F. F. Becker* and **B. K. Banik*,** "Antitumor Dibenzofluorene Compounds", **US Patent, Number US6184224**, 2002.

11. F. F. Becker* and **B. K. Banik*,** "Antitumor Dibenzofluorene Compounds", **US Patent, Number US6362200**, 2002.

12. F. F. Becker* and **B. K. Banik***, "Antitumor Chrysene Compounds", **European Patent, Number EP1124552A1**, 2000.

13. F. F. Becker* and **B. K. Banik***, "Antitumor Dibenzofluorene Compounds", **European Patent**, **Number EP1135379A1**, 2001.

14. F. F. Becker* and **B. K. Banik***, "Antitumor Dibenzofluorene Compounds", **US Patent**, **Number US6184224**, 2001.

15. F. F. Becker* and **B. K. Banik***, "Antitumor Dibenzofluorene Compounds", **European Patent, Number EP1135379A1**, 2001.

16. F. F. Becker* and **B. K. Banik***, "Antitumor Chrysene Compounds", **World Patent, Number WO24394A1**, 2000.

17. F. F. Becker* and **B. K. Banik***, "Antitumor Chrysene Compounds" , **US Patent, Number US6015811**, 2000.

18. F. F. Becker* and **B. K. Banik***, "Antitumor Dibenzofluorene Compounds", **World Patent, Number WO0032583C2**, 2000.

19. F. F. Becker* and **B. K. Banik***, "Antitumor Dibenzofluorene Compounds", **Canadian Patent, Number CA2352878AA**, 2000.

20. F. F. Becker* and **B. K. Banik***, "Antitumor Chrysene Compounds", **Canadian Patent, Number CA2346873AA**, 2000.

21. F. F. Becker* and **B. K. Banik***, "Antitumor Dibenzofluorene Compounds", **World Patent**, **Number WO0032583A1**, 2000.

Two patent applications have been submitted:

22. **B. K. Banik***, D. Bandyopadhyay and J. Short, "Anticancer Estradiol Derivatives", **US Patent**, submitted, 2012 (File Number UTSR.P0027US.P1; Serial number 61/740,078, December 20, 2012).

23. **B. K. Banik*** and D. Bandyopadhyay, "Citrus Fruits as the Reaction Vessels", **US Patent**, submitted, 2013 (File Number HSCS.P0006US.P1; Seial Number 61/837,983; June 21, 2013).

COMMENTARY:

1. **B. K. Banik**, "Bismuth Nitrate-catalyzed Michael Reactions", **Thomson-ISIR Web of Science Database has described it as a Fast Breaking Paper in the field of Chemistry (top 1% paper)**, **June, 2004**. **This paper has also ranked number 2 out of top 20 most cited publications in the prestigious, Journal of Organic Chemistry, American Chemical Society during 2002-2004** (Sales and Marketing Report by the ACS), 2005.

FOREWORD of a BOOK:

1. **B. K. Banik**, "Bioactive Natural Products: Chemistry and Biology", **Wiley-VCH (Germany),** 2014, 1-5.

PERSPECTIVES:

1. **B. K. Banik***, "My Silver Jubilee With Beta Lactams", **Heterocyclic Letters (India)**, 2014, 4, 441-452.

2. **B. K. Banik***, "Research on Polyaromatic Compounds: A Perspective", **Heterocyclic Letters (India)**, 2014, 4, 453-461.

3. **B. K. Banik***, "Microwave-Induced Reactions for the Past Twenty Five Years", **Heterocyclic Letters (India)**, 2014, 4, 463-466.

4. **B. K. Banik***, "My Love with Iodine", **Heterocyclic Letters (India)**, 2014, 4, 467-470.

5. **B. K. Banik***, "A Personal Journey Toward Beta Lactams: Synthesis and Medicinal Studies", **Asian J. Organic & Medicinal Chemistry**, 2016, in press.

JOURNALS and BOOKS EDITORIAL PREFACE and OVERVIEW:

1. **B. K. Banik***, "β-Lactams: Synthesis, Stereochemistry, Synthons and Biological Evaluation", **Current Medicinal Chemistry (Bentham Publisher)**, 2004, 11, Number 14.

2. **B. K. Banik***, "Current Approaches to the Development of New Chemotherapeutic Anticancer Agents", **Current Medicinal Chemistry (Bentham Publisher)**, 2001, 8, Number 12.

3. **B. K. Banik***, "Iodine-Catalyzed Organic Reactions", **Molecules (Switzerland)**, 2009.

4. **B. K. Banik***, "Organobismuth Chemistry and Material Chemistry", **Molecules (Switzerland)**, 2010.

5. **B. K. Banik***, "Beta-Lactam Chemistry", **Tetrahedron Symposium-in-Print (UK)**, 2012, 68, 10632.

6. **B. K. Banik***, "Iodine-Catalyzed Organic Reactions", **Molecules (Switzerland)**, 2012.

7. **B. K. Banik***, "Iodine-Catalyzed Organic Reactions", **Molecules (Switzerland)**, 2012.

8. **B. K. Banik***, "Editorial Preface", **Current Microwave Chemistry (Bentham Publisher)**, 2014, 1, 1.

9. **B. K. Banik***, "Editorial Preface", **Current Organocatalysis (Bentham Publisher)**, 2014, 1, 1.

10. **B. K. Banik***, "Editorial Overview-2014", **Current Organocatalysis (Bentham Publisher)**, 2015, 2, 1.

11. **B. K. Banik***, "Editorial Overview-2014", **Current Microwave Chemistry (Bentham Publisher)**, 2015, 2, 1.

12. **B. K. Banik***, "Microwave in Chemical and Medicinal Sciences", **Current Medicinal Chemistry (Bentham Publisher)**, "Editorial Preface-2016".

13. **B. K. Banik***, "Editorial Preface", **Asian Journal of Organic and Medicinal Chemistry**, 2016, in press.

14. **B. K. Banik***, "Editorial Overview-2015", **Current Organocatalysis (Bentham Publisher)**, 2016, 3, 1.

15. **B. K. Banik***, "Editorial Overview-2015", **Current Microwave Chemistry (Bentham Publisher)**, 2016, 3, 1.

16. **B. K. Banik***, "Heterocyclic Scaffolds", Topics in Heterocyclic Chemistry, **Springer Book (UK** and **Germany)**, 2010, Volume 22, Preface.

17. **B. K. Banik***, "Beta-Lactams: Unique Structures of Distinction for Novel Molecules", Topics in Heterocyclic Chemistry**, Springer Book (UK** and **Germany)**, 2012, Volume 30, Preface.

18. **B. K. Banik*** and D. Bandyopadhyay, "Microwave in Chemistry", **Springer Book (UK** and **Germany)**, 2015, under preparation (finalized 11 chapters, submission date: March, 2016), 2016.

19. **B. K. Banik***, "Beta Lactam Chemistry", **Springer Book (UK** and **Germany)**, 2016, under progress.

BOOKS EDITOR:

1. **B. K. Banik***, "Heterocyclic Scaffolds", Topics in Heterocyclic Chemistry, **Springer (UK** and **Germany)**, 2010, Volume 22.

2. **B. K. Banik***, "Beta-Lactams: Unique Structures of Distinction for Novel Molecules", Topics in Heterocyclic Chemistry**, Springer (UK** and **Germany)**, 2012, Volume 30.

3. **B. K. Banik*** and D. Bandyopadhyay, "Microwave in Chemistry", **Springer Book (UK** and **Germany)**, 2016 (finalized 11 chapters, submission date: March, 2016).

4. **B. K. Banik***, "Beta Lactams-Gifts to Human", **Springer Book (UK** and **Germany)**, 2016 (submission date: June, 2016).

5. **B. K. Banik***, "Handbook in Anticancer Research", **Springer Handbook Series (UK** and **Germany)**, 2016-2018 (**Series of Handbooks; each book may have more than 1000 pages**, **under editorial and management consideration**).

BOOK CHAPTERS:

1. (a) A. K. Bose, M. S. Manhas, **B. K. Banik** and V. Srirajan, "β-Lactams: Cyclic Amides of Distinction", In *The Amide Linkage: Selected Structural Aspects in Chemistry, Biochemistry, and Material Science*, Eds: A. Greenberg, C. M. Breneman and J. F. Liebman, **John Wiley & Sons Inc.**, (**Germany** and **USA)**, 2000, 157-214.
(b) A. K. Bose, M. S. Manhas, **B. K. Banik** and V. Srirajan, "β-Lactams: Cyclic Amides of Distinction", In *The Amide Linkage: Selected Structural Aspects in Chemistry, Biochemistry, and Material Science*, Eds: A. Greenberg, C. M. Breneman and J. F. Liebman, **John Wiley & Sons Inc. (Germany** and **USA)**, 2003, 157-214.

2. **B. K. Banik***, I. Banik and F. F. Becker, "Anticancer β-Lactams", **Springer (Germany)**, 2010, 22, 349-373.

3. **B. K. Banik***, "Microwave-Induced Chemical Manipulation Synthesis of β-Lactams", **CRC (UK** and **USA)**, 2013, 31-72.

4. I. Banik and **B. K. Banik***, "Synthesis of β-Lactams and Their Chemical Manipulation Via Microwave-Induced Reactions", **Springer (Germany)**, 2012, 30, 183-222.

5. D. Bandyopadhyay and **B. K. Banik***, "Green Synthetic Approaches for Biologically Relevant Heterocycles", **Elsevier, Academic Press (UK)**, 2014, 517-552.

6. D. Bandyopadhyay and **B. K. Banik***, "Microwave-Assisted Chemistry: Synthesis of Medicinally Important Molecules", **Springer (Germany)**, 2016, in press.

REVIEWS:

1. D. Bandyopadhyay, A. Chavez and **B. K. Banik***, "Microwave-Induced Bismuth Salts-Catalyzed Synthesis of Medicinally Important Molecules", **Current Medicinal Chemistry (Bentham Publisher)**, 2016, in press.

2. D. Bandyopadhyay and **B. K. Banik***, "Microwave-Induced Medicinal Chemistry", **Current Medicinal Chemistry (Bentham Publisher)**, 2016, in press.

3. **B. K. Banik***, "Samarium Metal in Organic Synthesis", **Eur. J. Org. Chem.** (**VCH-Wiley, Germany**), 2002, 15, 2431-2444.

4. A. K. Bose, M. S. Manhas, S. N. Ganguly, A. H. Sharma and **B. K. Banik**, "MORE Chemistry for Less Pollution: Applications for Process Development", **Synthesis (Thieme, Germany)**, 2002, 11, 1578-1591.

5. **B. K. Banik*** and F. F. Becker, "Synthesis, Electrophilic Substitution and Structure-Activity Relationship Studies of Polycyclic Aromatic Compounds for the Development of Anticancer Agents", **Current Medicinal Chemistry (Bentham Publisher)**, 2001, 8, 1513-1533.

6. **B. K. Banik***, "Tributyltin Hydride Induced Intramolecular Aryl Radical Cyclizations: Synthesis of Biologically Interesting Organic Compounds", **Current Organic Chemistry (Bentham Publisher)**, 1999, 3, 469-496.

7. A. K. Bose, **B. K. Banik**, N. Lavlinskaia, M. Jayaraman and M. S. Manhas, "MORE Chemistry in a Microwave", **Chem. Tech**. (**American Chemical Society**), 1997, 27(9), 18-24.

PAPERS:

1. A. K. Chakraborti, **B. K. Banik** and U. R. Ghatak, "A Novel Oxidation Catalyst Derived from Ruthenium (II)-2,2'-Bipyridine Complex for Chemoselective Degradation of Aromatic Rings to Carboxylic Acids", **Indian J. Chem.,** 1984, 23B, 291-292.

2. **B. K. Banik**, A. K. Chakraborti and U. R. Ghatak, "An Efficient Synthesis of 2-Substituted 3,3-Dimethylcyclohexane-1-ones. A Simple Synthetic Route to Podocarpa-8,11,13-triene Intermediates", **J. Chem. Res. (S) (Royal Society, UK)**, 1986, 406-407; **J. Chem. Res. (M),** 1986, 3391.

3. **B. K. Banik**, S. Ghosh and U. R. Ghatak, "Stereoselective Total Synthesis of (±)-Nimbidiol", **Indian J. Chem.,** 1988, 27B, 103-104.

4. **B. K. Banik**, S. Ghosh and U. R. Ghatak, "Influence of Methoxy-and Methyl-Aromatic Substituents on Stereochemistry of the Products in the Acid-Catalyzed Cyclization of 2-(2-Arylethyl)-1,3,3-trimethyl cyclohexanols: Stereocontrolled Total Synthesis of (±)-Nimbidiol and (±)-Nimbiol", **Tetrahedron (Elsevier, UK),** 1988,44, 6947-6955.

5. **B. K. Banik** and U. R. Ghatak, "Synthetic Studies Toward Complex Diterpenoids: Synthesis and Oxidative Cleavage of (±)-19,20-Cycloabieta-19-oxo-8,11,13-triene", **Tetrahedron (Elsevier, UK)**, 1989, 45, 3547-3556.

6. **B. K. Banik** and U. R. Ghatak, "An Expeditious Total Synthesis of (±)-Sempervirol, (±)-Sugiol and (±)-Xanthopherol Methyl Ether by Acid-Catalyzed Cyclialkylation Route", **Synthetic Communications (Francis & Taylor, USA)**, 1989, 19, 1351-1367.

7. U. R. Ghatak, **B. K. Banik** and S. Ghosh, "An Efficient Synthesis of 2-Substituted 3,3-dimethyl cyclohexan-1-ones: A Simple Stereospecific Synthetic Route to Podacarpa-8,11,13-triene Diterpenoids", **Essential Oils, Fragrances and Flavors**, **India,** 1989, 127.

8. S. Pal, S. Ghosh, **B. K. Banik**, S. K. Alam and U. R. Ghatak, "Synthesis of (±)-2-Methoxy-9a-carbamorphinan and (±)-2-Methoxy-9a-carba-14a-morphinan: Acid Catalyzed Cyclizations of 1-m-Methoxybenzyl-,4a,5,6,7,8-hexahydronaphthalene-2(3H) one and 1-m-Methoxybenzyl-octalins", **Synthetic Communications (Francis & Taylor, USA)**, 1990, 20, 2203-2216.

9. S. Ghosh, **B. K. Banik** and U R. Ghatak, "Influence of Electron Donating Aromatic Substituents on the Stereochemistry of the Products in Cycloalkylation of 2-(2-Arylethyl)-3,3-dimethyl-1-methylene cyclohexane and Related Substrates. Mechanisms of Aromatic Cycloalkylation", **J. Chem. Soc., Perkin Trans I** (**Royal Society, UK**), 1991, 3189-3193.

10. S. Ghosh, **B. K. Banik** and U. R. Ghatak, "An Expeditious Synthesis of 1,2,3,4-Tetrahydro-1,1-dimethyl Phenanthrenes", **J. Chem. Soc., Perkin Trans I** (**Royal Society, UK**), 1991, 3195-3197.

11. A. K. Bose, M. S. Manhas, **B. K. Banik** et al., "Microwave-induced Organic Reaction Enhancement Chemistry. Simplified Techniques", **J. Org. Chem. (American Chemical Society)**, 1991, 56, 6968-6970.

12. **B. K. Banik**, M. S. Manhas, Z. Kaluza, K. J. Barakat and A. K. Bose, "Microwave-induced Organic Reaction Enhancement Chemistry: Convenient Synthesis of Enantiopure Hydroxy-β-Lactams", **Tetrahedron Lett. (Elsevier, UK)**, 1992, 33, 3603-3606.

13. S. Pal, **B. K. Banik** and U. R. Ghatak, "A Facile Synthetic Route to 1,1-Disubstituted-2,5-dihydro-1H-benz[f]indene-4,9-diones", **Synthesis (Thieme, Germany)**, 1992, 11, 1073-1075.

14. **B. K. Banik**, M. S. Manhas and A. K. Bose, "Versatile β-Lactam Synthons: Enantiospecific Synthesis of (-)-Polyoxamic acid", **J. Org. Chem. (American Chemical Society)**, 1993, 58, 307-309.

15. **B. K. Banik**, M. S. Manhas, S. N. Newaz and A. K. Bose, "Facile Preparation of Carbapenem Synthons via Microwave Induced Rapid Reaction", **Bioorg. Med. Chem. Lett**. **(Elsevier, UK),** (Symposium-in-Print on β-Lactam Antibiotics), 1993, 3, 2363-2368.

16. A. K. Bose, **B. K. Banik**, K. J. Barakat and M. S. Manhas, "Simplified Rapid Hydrogenation Under Microwave Irradiation: Selective Transformations of β-Lactams", **Synlett (Thieme, Germany)**, 1993, 8, 575-576.

17. A. K. Bose, **B. K. Banik**, S. N. Newaz and M. S. Manhas, "Vinyl β-Lactams: Convenient Elaboration of the Thienamycin Side Chain", **Synlett (Thieme, Germany)**, 1993, 897-899.

18. S. Pal, **B. K. Banik** and U. R. Ghatak, "Condensed Cyclic and Bridged-ring Systems. Acid-Catalyzed Intramolecular Alkylations in 1-Diazoacetyl-9-methoxy-1-methyl-1,2,3,4-tetrahydrophenanthrenes", **J. Chem. Soc., Perkin Trans I** (**Royal Society, UK**), 1994, 1105-1110.

19. A. K. Bose, M. S. Manhas, **B. K. Banik** and E. W. Robb, "Microwave-Induced Organic Reaction Enhancement (MORE) Chemistry: Techniques for Rapid, Safe, and Inexpensive Synthesis", **Res. Chem**. **Intermed**., 1994, 20, 1.

20. **B. K. Banik**, M. S. Manhas and A. K. Bose, "Stereospecific Glycosylation via Ferrier Rearrangement for Optical Resolution", **J. Org. Chem**. **(American Chemical Society)**, 1994, 59, 4714-4716.

21. A. K. Bose, **B. K. Banik** and M. S. Manhas, "Stereocontrol of β-Lactam Formation Using Microwave Irradiation", **Tetrahedron Lett. (Elsevier, UK)**, 1995, 36, 213-216.

22. **B. K. Banik**, G. V. Subbaraju, M. S. Manhas and A. K. Bose, "Fused Tricyclic β-Lactams via Intramolecular Aryl Radical Cyclization", **Tetrahedron Lett. (Elsevier, UK)**, 1996, 37, 1363-1366.

23. **B. K. Banik**, M. S. Manhas, E. W. Robb and A. K. Bose, "Environmentally Benign Chemistry: Microwave-Induced Stereocontrolled Synthesis of β-lactam Synthons", **Heterocycles (Elsevier, UK)**, 1997, 44, 405-415.

24. **B K. Banik**, M. S. Manhas and A. K. Bose, "Enantiopure Hydroxy β-Lactams via Glycosylation", **Tetrahedron Lett. (Elsevier, UK)**, 1997, 38, 5077-5080.

25. **B. K. Banik**, O. Zegrocka, M. S. Manhas and A. K. Bose, "Enantiomerically Pure β-Lactams with the Thienamycin Side Chain via Glycosylation", **Heterocycles (Elsevier, UK)**, 1997, 46, 173-176.

26. **B. K. Banik***, "Synthesis of Bicyclo-(3,2,1)-octanone Intermediates Through Metal-Catalyzed Decomposition of Diazomethyl Ketones", **Synthetic Communications (Francis & Taylor, USA)**, 1997, 27, 3637-3655.

27. **B. K. Banik**, M. Jayaraman, V. Srirajan, M. S. Manhas and A. K. Bose, "Rapid Synthesis of β-Lactams as Intermediates for Natural Products via Eco-friendly Reactions**", J. Ind. Chem. Soc.,** 1997, 74, 943-947.

28. **B. K. Banik**, V. S. Raju, M. S. Manhas and A. K. Bose, "Tetracyclic Isoquinolones and Quinazolones via Aryl Radical Cyclizations", **Heterocycles (Elsevier, UK)**, 1998, 47, 639-642.

29. **B. K. Banik***, C. Mukhopadhyay, M. S. Venkatraman and F. F. Becker, "A Facile Reduction of Aromatic Nitro Compounds to Aromatic Amines by Samarium and Iodine", **Tetrahedron Lett. (Elsevier, UK)**, 1998, 39, 7243-7246.

30. **B. K. Banik***, M. S. Venkatraman, C. Mukhopadhyay and F. F. Becker, "Benzylic Oxidation by Sodium Bismuthate in Acetic Acid: A Simple Method for the Synthesis of Polycyclic Aromatic Ketones", **Tetrahedron Lett. (Elsevier, UK)**, 1998, 39, 7247-7250.

31. Becker and **B. K. Banik***, "Polycyclic Aromatic Compounds as Anticancer Agents: Synthesis and Biological Evaluation of Some Chrysene Derivatives", **Bioorg. Med. Chem. Lett. (Elsevier, UK)**, 1998, 8, 2877-2880.

32. **B. K. Banik**, K. J. Barakat, D. R. Wagle, M. S. Manhas and A. K. Bose, "Microwave Assisted Rapid and simplified Hydrogenation", **J. Org. Chem**. **(American Chemical Society)**, 1999, 64, 5746-5753.

33. **B. K. Banik***, O. Zegrocka, I. Banik, L. Hackfeld and F. F. Becker, "Samarium-Induced Iodine-Catalyzed Reduction of the Imines: Synthesis of Secondary Amine Derivatives", **Tetrahedron Lett**. **(Elsevier, UK)**, 1999, 40, 6731-6734.

34. **B. K. Banik***, A. Ghatak, M. S. Venkatraman and F. F. Becker, "Sodium Bismuthate-Mediated Oxidation of Allylic and Benzylic Alcohols", **Synthetic Communications (Francis & Taylor, USA)**, 2000, 30, 2701-2705.

35. M. S. Manhas, **B. K. Banik**, A. Mathur, J. Vincent and A. K. Bose, "Microwave-Assisted Synthesis of Vinyl β-Lactam: Synthons for Natural Products", **Tetrahedron (Elsevier, UK)**, (Special issue on β-Lactam Antibiotics), 2000, 56, 5587-5601.

36. A. K. Bose**, B. K. Banik***, C. Mathur, D. R. Wagle and M. S. Manhas, "Polyhydroxy Amino Acid derivatives via β-Lactams Using Enantiospecific Approaches and Microwave Techniques", **Tetrahedron (Elsevier, UK)**, (Special issue on β-Lactam Antibiotics), 2000, 56, 5603-5619.

37. F. F. Becker, C. Mukhopadhyay, L. Hackfeld, I. Banik and **B. K. Banik***, "Polycyclic Aromatic Compounds as Anticancer Agents: Synthesis and Biological Evaluation of Dibenzofluorene Derivatives", **Bioorg. Med. Chem. (Elsevier, UK)**, 2000, 8, 2693.

38. **B. K. Banik***, O. Zegrocka and F. F. Becker, "Samarium-Mediated Iodine-Catalyzed Reductive Amination of Adamantyl Methyl Ketone", **J. Chem. Res.** (**Royal Society, UK**), 2000, 321.

39. **B. K. Banik***, A. Ghatak, C. Mukhopadhyay and F. F. Becker, "Sodium Bismuthate Mediated Oxidation Study of Hydrofluorenes", **J. Chem. Res**. (**Royal Society, UK**), 2000, 108-109.

40. **B. K. Banik***, M. Suhendra, I. Banik and F. F. Becker, "Indium/Ammonium Chloride Mediated Reduction of Aromatic Nitro Compounds: Practical Synthesis of 6-Amino Chrysene", **Synthetic Communications (Francis & Taylor, USA)**, 2000, 30, 3745-3754.

41. **B. K. Banik*,** A. Ghatak and F. F. Becker, "Indium-Mediated Synthesis of 3-Unsubstituted β-Lactams", **J. Chem. Soc., Perkin Trans 1** (**Royal Society, UK**), 2000, 2179-2181.

42. A. Ghatak, F. F. Becker and **B. K. Banik***, "Samarium-Induced Reductive Coupling of Ketones in the Presence of Alkyl Halides", **Tetrahedron Lett**. **(Elsevier, UK)**, 2000, 41, 3793-3796.

43. M. K. Basu, F. F. Becker and **B. K. Banik***, "Ultra Sound-Promoted Samarium/Ammonium Chloride Mediated Highly Efficient Reduction of Aromatic Nitro Compounds", **Tetrahedron Lett. (Elsevier, UK)**, 2000, 41, 5603-5606.

44. M. K. Basu, F. F. Becker and **B. K. Banik***, "Ultrasound-Promoted Samarium/Ammonium Chloride MediatedREductive Coupling of Reduction of Aromatic Ketones", **J. Chem. Res**. (**Royal Society, UK**), 2000, 406-407.

45. S. Samajdar, F. F. Becker and **B. K. Banik***, "Surface-Mediated Highly Efficient Aromatic Nitration by Bismuth Nitrate", **Tetrahedron Lett. (Elsevier, UK)**, 2000, 41, 8017-8020. **American Chemical Society, Chemical & Engineering News has highlighted this method in 2001.**

46. **B. K. Banik*** and F. F. Becker, "Unprecedented Stereoselectivity in the Staudinger Reaction with Polycyclic Aromatic Imines", **Tetrahedron Lett. (Elsevier, UK)**, 2000, 41, 6551.

47. A. Ghatak, F. F. Becker and **B. K. Banik***, "Synthesis of 3-Unsubstitiuted Ferrocenyl β-Lactams by Indium Induced Reaction", **Heterocycles (Elsevier, UK)**, 2000, 53, 2769-2773.

48. **B. K. Banik***, C. Mukhopadhyay and F. F. Becker, "An Expeditious One-Pot Synthesis of Hydrofluorene Derivatives", **Synthetic Communications (Francis & Taylor, USA)**, 2001, 31, 2399-2403.

49. **B. K. Banik*** and F. F. Becker, "Polycyclic Aromatic Compounds as Anticancer Agents: Structure-Activity Relationships Study of New Chrysene and Pyrene Derivatives', **Bioorg. Med. Chem. (Elsevier, UK)**, 2001, 9, 593-605.

50. **B. K. Banik*,** L. Hackfeld and F. F. Becker, "Studies of the Indium-Mediated Reduction of Imines", **Synthetic Communications (Francis & Taylor, USA)**, 2001, 31, 1581-1586.

51. C. Mukhopadhyay, F. F. Becker and **B. K. Banik***, "A Novel Catalytic Role of Molecular Iodine in the Oxidation of Benzylic Alcohols: Microwave-Assisted Reaction", **J. Chem. Res**. (**Royal Society, UK**), 2001, 28-31.

52. S. Samajdar, F. F. Becker and **B. K. Banik*,** "Surface-Mediated Selective Oxidation of Alcohols by Bismuth Nitrate", **Synthetic Communications (Francis & Taylor, USA)**, 2001, 31, 2691-2695.

53. **B. K. Banik***, S. Samajdar, I. Banik, O. Zegrocka and F. F. Becker, "Indium-Mediated Stereoselective Glycosylation of Alcohols", **Heterocycles (Elsevier, UK)**, 2001, 55, 227-230.

54. M. K. Basu and **B. K. Banik***,"Samarium-Mediated Barbier Reaction of Carbonyl Compounds", **Tetrahedron Lett. (Elsevier, UK)**, 2001, 42, 187-190.

55. S. Ng, I. Banik, A. Okawa, F. F. Becker and **B. K. Banik***, "Synthesis of Tricyclic β-Lactams via Palladium Acetate Mediated Heck Reaction", **J. Chem. Res**. (**Royal Society, UK**), 2001, 118-119.

56. **B. K. Banik***, I. Banik, L. Hackfeld and F. F. Becker, "Indium-Induced Reductive Cyclization: Synthesis of Biologically Active Heterocyclic Compounds", **Heterocycles (Elsevier, UK)**, 2001, 56, 467-470.

57. **B. K. Banik*,** A. Ghatak, S. Samajdar, M. K. Basu, L. Hackfeld, I. Banik, O. Zegrocka and F. F. Becker, "A New Synthetic Method for the Reduction of Imines by Samarium-Induced Reaction", **Indian J. Chemistry**, 2001, 40B, 1134-1139.

58. S. Samajdar, F. F. Becker and **B. K. Banik***, "Montmorillonite KSF-Mediated Facile Synthesis of Pyrroles", **Heterocycles (Elsevier, UK)**, 2001, 55, 1019-1022.

59. S. Samajdar, M. K. Basu, F. F. Becker and **B. K. Banik***, "A New Molecular Iodine-Catalyzed Thioketalization of Carbonyl Compounds: Selectivity and Scope", **Tetrahedron Lett**. **(Elsevier, UK)**, 2001, 42, 4425-4428.

60. S. Samajdar, F. F. Becker and **B. K. Banik*,** "Bismuth Nitrate Impregnated Montmorillonite: A Versatile Reagent for the Synthesis of Nitro Compounds of Biological Significance", **Arkivoc (USA)**, 2001, 27.

61. **B. K. Banik*,** S. Samajdar and A. Ghatak, "A Convenient Samarium-Mediated Reduction of Ferrocenyl Imines", **Heterocycles (Elsevier, UK)**, 2001, 55, 1957-1961.

62. S. Samajdar, M. K. Basu, F. F. Becker and **B. K. Banik***, "Bismuth Nitrate-Mediated Deprotection of Oximes", **Synthetic Communications (Francis & Taylor, USA)**, 2002, 32, 1917-1921. **American Chemical Society, Chemical & Engineering News has highlighted this method in 2001.**

63. M. K. Basu, S. Samajdar, F. F. Becker and **B. K. Banik***, "A New Molecular Iodine-Catalyzed Acetalization of Carbonyl Compounds", **Synlett (Thieme, Germany)**, 2002, 319-321.

64. S. K. Dasgupta and **B. K. Banik***, "New Entry to N-Unsubstituted β-Lactams Under Solid-Support", **Tetrahedron Lett. (Elsevier, UK)**, 2002, 43, 9445-9447.

65. I. Banik, F. F. Becker and **B. K. Banik***, "Stereoselective Synthesis of β-Lactams with Polyaromaic Imines: Entry to New and Novel Anticancer Agents", **J. Med. Chem**. (**American Chemical Society**), 2003, 46, 12-15.

66. N. Srivastava and B. K. Banik*, "Bismuth Nitrate-Catalyzed Versatile Michael Reactions", **J. Org. Chem (American Chemical Society)**, 2003, 68, 2109-2114.

67. I. Banik, L. Hackfeld and **B. K. Banik*,** "Cycloaddition of with Naphthalenyl and Anthracenyl Imines: Interesting Aspects of the Staudinger Reaction", **Heterocycles (Elsevier, UK)**, 2003, 59, 505-508.

68. **B. K. Banik*,** S. Samajdar and I. Banik, "Indium-Induced Facile Rearrangement of β-Lactams to Oxazines", **Tetrahedron Lett. (Elsevier, UK)**, 2003, 44, 1699-1701.

69. N. Srivastava, S. K. Dasgupta and **B. K. Banik***, "A Remarkable Bismuth Nitrate-Catalyzed Protection of Carbonyl Compounds", **Tetrahedron Lett. (Elsevier, UK)**, 2003, 44, 1191-1193.

70. **B. K. Banik***, D. Adler, P. Nguyen and N. Srivastava, "A New Bismuth Nitrate-Induced Stereospecific Glycosylation of Alcohols", **Heterocycles (Elsevier, UK)**, 2003, 61, 101-104.

71. **B. K. Banik*,** S. Samajdar, I. Banik, S. Ng and J. Hann, "Montmorillonite Impregnated with Bismuth Nitrate: Microwave-Assisted Facile Nitration of β-Lactams", **Heterocycles (Elsevier, UK)**, 2003, 61, 97-100.

72. **B. K. Banik***, "Samarium-Induced Reductive Dimerization of Aryl Ketones in Aqueous Alcohol", **Chemistry-An Indian Journal**, 2003, 1, 149-150.

73. S. Samajdar and **B. K. Banik***, "Samarium-Induced Reductive Dimerization of Ketimines", **Chemistry-An Indian Journal**, 2003, 1, 230-231.

74. M. K. Basu, S. Samajdar and **B. K. Banik***, "Bismuth Nitrate Mediated Expeditious Deprotection of Hydrazones", **Chemistry-An Indian Journal**, 2003, 1, 227. **American Chemical Society, Chemical & Engineering News has highlighted this method in 2001.**

75. **B. K. Banik***, S. Samajdar and I. Banik, "Simple Synthesis of Substituted Pyrroles", **J. Org. Chem. (American Chemical Society)**, 2004, 69, 213-216.

76. **B. K. Banik***, I. Banik, S. Samajdar and M. Wilson, "Facile Synthesis of Biologically Active Heterocycles by Indium-Induced Reactions of Aromatic Nitro Compounds in Aqueous Ethanol", **Heterocycles (Elsevier, UK)**, 2004, 63, 283-296.

77. **B. K. Banik***, F. F. Becker and I. Banik, "Synthesis of Anticancer β-Lactams: Mechanism of Action", **Bioorg. Med. Chem. (Elsevier, UK)**, 2004, 12, 2523-2528.

78. **B. K. Banik***, M. S. Venkatraman, I. Banik and M. K. Basu, "Samarium-Induced Reductive Dimerization of Methyl Cinnamate: Synthesis of 2,8-Diamino Chrysene", **Tetrahedron Lett. (Elsevier, UK)**, 2004, 45, 4737-4739.

79. **B. K. Banik***, I. Banik and F. F. Becker, "Indium/Ammonium Chloride-Induced Selective Reduction of Aromatic Nitro Compounds", **Organic Syntheses (USA)**, 2004, 81, 188-196.

80. **B. K. Banik***, I. Banik, S. Samajdar and R. Cuellar, "Samarium/NBS-Induced Reductive Dimerization of Carbonyl Compounds", **Tetrahedron Lett. (Elsevier, UK)**, 2005, 46, 2319-2322.

81. **B. K. Banik***, M. Chapa, J. Marquez and M. Cardona, "A Remarkable Iodine-Catalyzed Protection of Carbonyl Compounds", **Tetrahedron Lett. (Elsevier, UK)**, 2005, 46, 2341-2343.

82. **B. K. Banik***, M. Farnandez and C. Alvarez, "Iodine-Catalyzed Michael Reaction of Indoles Under Solventless Conditions", **Tetrahedron Lett. (Elsevier, UK)**, 2005, 46, 2479-2482.

83. **B. K. Banik***, I. Banik, M. Renteria and S. Dasgupta, "Bismuth Nitrate-Catalyzed Straightforward Synthesis of Pyrroles", **Tetrahedron Lett. (Elsevier, UK)**, 2005, 46, 2643-2645.

84. **B. K. Banik***, I. Banik and F. F. Becker, "Stereocontrolled Synthesis of Anticancer β-Lactams via the Staudinger Reaction", **Bioorg. Med. Chem. (Elsevier, UK)**, 2005, 13, 3611-3622.

85. **B. K. Banik***, M. Fernandez and C. Alvarez, "Sodium Bismuthate-Mediated Oxidation of Baccatin", **Synthetic Communications (Francis & Taylor, USA)**, 2005, 35, 3065.

86. **B. K. Banik***, I. Banik, N. Aounallah and M. Castillo, "Samarium-Induced Convenient Reductive Dimerization of Aromatic Ketones: A Mechanistic Approach", **Tetrahedron Lett. (Elsevier, UK)**, 2005, 46, 7065-7068.

87. K. R. Landis-Piwowar, D. Chen, Q. C. Cui, V. Minic, F. F. Becker, **B. K. Banik*** and Q. P. Dou*, "Apoptotic-Inducing Activity of Novel Polycyclic Aromatic Compounds in Human Leukemic Cells", **Internationl Journal of Molecular Medicine**, 2006, 17, 931-935.

88. **B. K. Banik***, I. Banik, C. Aguilar and M. Medina "Bismuth Nitrate-catalyzed Acetylation of Hydroxy β-Lactams", **Chemistry-An Indian Journal**, 2006, 3, 76-78.

89. **B. K. Banik***, M. Cardona and J. Marquez, "Sodium Bismuthate-Induced Oxidation Study of Aromatic Hydrocarbons", **Chemistry-An Indian Journal**, 2006, 3, 72-75.

90. **B. K. Banik*** and M. Cardona, "Facile Synthesis of Pyrroles Fused with Indole Systems", **Tetrahedron Lett**. **(Elsevier, UK)**, 2006, 47, 7385-7387.

91. **B. K. Banik***, I. Garcia and M. Cardona, "Bismuth Nitrate-Catalyzed Novel Synthesis of Substituted Pyrrole Bound to Indolinone", **J. Mex. Chem. Soc.** 2006, 50, 196.

92. **B. K. Banik***, C. Aguilar and D. Garcia, "Both Enantiomers of the Taxol Side Chain via Optical Resolution of Hydroxy β-Lactams", **J. Mex. Chem. Soc.** 2006, 50, 195.

93. **B. K. Banik***, F. Morales and H. Aguilar, "Optically Active β-Lactams with Thienamycin Side Chain via Bismuth Salts-Catalyzed Glycosylation", **J. Mex. Chem. Soc.** 2006, 50, 194.

94. **B. K. Banik***, I. Garcia and F. Morales, "Bismuth Nitrate-Catalyzed Michael Reaction of Indoles in Water", **Heterocycles (Elsevier, UK)**, 2007, 71, 919-924.

95. C. Mukhopadhyay, A. Datta and **B. K. Banik**, "Dowex-50 in Aqueous Medium: Highly Efficient Biginelli Condensation for the Synthesis of 4-Aryl-3,4-dihydropyrimidones", **Heterocycles (Elsevier, UK)**, 2007, 71, 181-188.

96. C. Mukhopadhyay, A. Datta and **B. K. Banik**, "Microwave-Induced Biginelli Condensation for the Synthesis of Dihydropyrimidones", **J. Het. Chem. (Elsevier, UK**), 2007, 44, 979-981.

97. **B. K. Banik*** and R. Garza, "Iodine-Catalyzed Facile Deprotection of Acetal and Ketal in Acetone", **Chem. Edu. (USA)**, 2007, 12, 75-76.

98. A. Bose, P. Sanjoto, S. Villarreal, H. Aguilar and **B. K. Banik***, "Novel Nitration of Estrone by Metal Nitrate", **Tetrahedron Lett. (Elsevier, UK)**, 2007, 48, 3945-3947.

99. **B. K. Banik**,* I. Garcia, F. Moarles and C. Aguilar, "Novel Synthesis of Substituted Pyrroles Bound to Indolinone via Molecular Iodine-Catalyzed Reaction", **Heterocyclic Communications (Freund Publisher, Israel)**, 2007, 13, 109-112.

100. **B. K. Banik**, B. Lecea, A. Arrieta, A. Cozar and F. P. Cossio*, "On the Stereodivergent Behavior Observed in the Staudinger Reaction Between Methoxyketene and (E)-N-Arylbenzylidenearyl Amines", **Angew. Chem. Int. Ed. (Wiley, Germany)**, 2007, 46, 3028-3032**.**

101. **B. K. Banik***, C. Mukhopadhya and C. Logan, "Optical Resolution of Dibenzofluorenol: Intermediates for Anticancer Agents", **Synthetic Communications (Francis & Taylor, USA)**, 2007, 37, 3895-3900.

102. I. Garcia and **B. K. Banik***, "Influence of Class Notes on the Academic Performance of Undergraduates Organic Chemistry Students", **Chem. Edu. (USA)**, 2008, 13, 257-259.

103. **B. K. Banik***, A. Reddy, A. Dutta and C. Mukhopadhyay, "Bismuth Nitrate-Induced Three Component Reactions Toward Dihydropyrimidones", **Tetrahedron Lett. (Elsevier, UK)**, 2007, 48, 7392-7394.

104. **B. K. Banik***, H. Aguilar and Daniel Cordova, "Unprecedented Stereocontrol of β-Lactam Formation Derived From N-Cinnamylidenearylamine", **Heterocycles. (Elsevier, UK)**, 2007, 71, 2321-2324.

105. K. K. Laali, T. Okazaki, F. Sultana, S. D. Bunge, **B. K. Banik** and C. Swartz, "Stable Ion NMR and GIAO-DFT Study of the Carbocations from Benzofluorenes and Dibenzofluorenes: Synthesis of Nitro Derivatives, Mutagenicity Assay and X-ray Analysis", **Eur. J. Org. Chem. (John Wiley, Germany)**, 2008, 10, 1740-1752.

106. S. Rivera, D. Banyopadhyay and **B. K. Banik***, "Facile Synthesis of N-Substituted Pyrroles Via Microwave-Induced Bismuth Nitrate-catalyzed Reaction Under Solventless Conditions", **Tetrahedron Lett. (Elsevier, UK)**, 2009, 50, 5445-5448.

107. **B. K. Banik***, O. Zegrocka , M. S. Manhas and A. K. Bose, "A Facile Iodine-Catalyzed Stereospecific Glycosylation: Enantiomerically Pure β-Lactams with the Thienamycin Side Chain", **Heterocycles** (**Elsevier, UK)**, 2009, 78, 2443-2454.

108. A. Kall, D. Bandyopadhyay and **B. K. Banik***, "Microwave-induced Aza-Michael Reaction in Water: A Remarkable Simple Procedure", **Synthetic Communications (Frances Taylor, USA)**, 2010, 40, 1730-1735.

109. G. Sanchez, D. Bandyopadhyay, S. Jaggi, C. G. Gonzalez and **B. K. Banik***, "An Expeditious Synthesis of 3-Amino β-Lactams Derived from Polyaromatic Compounds", **Heterocyclic Communications, (Freund Publisher, Israel)**, 2009, 323-325.

110. **B. K. Banik***, S. Samajdar and F, F. Becker "Asymmetric Synthesis of Anticancer β-Lactams Via Staudinger Reaction", **Molecular Medicine Reports, (Greece)**, 2010, 3, 319-321.

111. H. Aguilar and **B. K. Banik**, "Stereoselctivity of 3,3-Disubstituted β-Lactam Formation Via Staudinger Reaction", **Heterocycles Communications (Freund Publisher, Israel)**, 2009, 15, 365-368.

112. D. Bandyopadhyay, M. Xavier and **B. K. Banik***, "Highly Stereoselective Beta-Lactam Synthesis via the Staudinger Reaction Using Polyaromatic Imines", **Heterocyclic Communications (Freund Publisher, Israel)**, 2009, 15, 229-232.

113. L. Iglesias, C. Aguilar, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Synthesis of Bis Indoloylmethane Under Solventless Conditions", **Synthetic Communications (Frances Taylor, US)**, 2010, 40, 3678-3682.

114. **B. K. Banik***, M. Negi, M. S. Manhas and A. K. Bose, "Chemoenzymatic Preparation of Intermediates for the Taxol Side Chain and Analogs", **Molecular Medicine Reports (Greece)**, 2010, 3, 317-318.

115. **B. K. Banik*** and F. F. Becker, "Selective Anticancer Activity of β-Lactams Derived From Polyaromatic Compounds", **Molecular Medicine Reports (Greece)**, 2010, 3, 315-316.

116. **B. K. Banik***, I. Banik and F, F. Becker "Asymmetric Synthesis of Anticancer β-Lactams v*ia* Staudinger Reaction: Utilization of Chiral Ketene from Carbohydrate", **Eur. J. Med. Chem. (Elsevier, UK)**, 2010, 45, 846-848.

117. D. Bandyopadhyay and **B. K. Banik***, "Microwave-Induced Stereoselectivity of β-Lactam Formation with Dihydrophenanthrenyl Imines via Staudinger Reaction", **Helv. Chim. Acta. (Switzerland)**, 2010, 93, 298-301.

118. **B. K. Banik***, C. Mukhopadhyay and F, F. Becker, "Synthesis and Biological Evaluation of Novel Dibenzofluorene Derivatives as Anticancer Agents", **Oncology Letters (Greece)**, 2010, 309-311.

119. D. Bandyopadhyay, G. Sanchez Rivera, I. Salinas, H. Aguilar and **B. K. Banik***, "Remarkable Iodine-Catalyzed Synthesis of Novel Pyrrole-Bearing N-Polyaromatic β-Lactams", **Molecules (Switzerland)**, 2010, 15, 1082-1088.

120. D. Bandyopadhyay, S. Mukherjee and **B. K. Banik***, "An Expeditious Synthesis of N-Substituted Pyrroles by Microwave-induced Iodine-Catalyzed Reactions Under Solventless Conditions", **Molecules (Switzerland)**, 2010, 15, 2520-2525.

121. D. Bandyopadhyay, S. Mukherjee, R. Rodriguez and **B. K. Banik***, "An Effective Microwave-Induced Iodine-Catalyzed Method for the Synthesis of Quinoxalines via Condensation of 1,2-Diamines with 1,2-Dicarbonyl Compounds", **Molecules (Switzerland)**, 2010, 15, 4207-4212.

122. D. Bandyopadhyay, A. Banik, S. Batta and **B. K. Banik***, "Microwave-Assisted Ruthenium Trichloride-Catalyzed Synthesis of Pyrrole Fused with Indolinone", **Heterocyclic Communications (Freund Publisher, Israel)**, 2009, 121-122.

123. **B. K. Banik*** and F. F. Becker, "Novel 6,12-disubstituted chrysene as potent anticancer agent: Synthesis, in vitro and in vivo study", **Eur. J. Med. Chem. (Elsevier, UK)**, 2010, 45,10, 4687-4691.

124. **B. K. Banik***, M. K. Basu and F. F. Becker, "Novel Disubstituted Chrysene as a Potent Agent Against Colon Cancer", **Oncology Letters (Greece)**, 2010, 1033-1036.

125. A. Banik, S. Batta, D. Bandyopadhyay and **B. K. Banik***, "A Highly Efficient Bismuth Salts-Catalyzed Route for the Effective Synthesis of Amino Phosphonates", **Molecules (Switzerland)**, 2010, 15, 8205-8213.

126. G. Eyambe, L. Canales and **B. K. Banik***, "Antimicrobial Eugenol Derivatives", **Heterocyclic Letters (India)**, vol. 1, 2011, 154-157.

127. A. Shaikh and **B. K. Banik***, "A Novel Asymmetric Synthesis of 3-Pyrrole Substituted β-Lactams Via Bismuth Nitrate-Catalyzed Reaction", **Helv. Chim. Acta. (Switzerland)**, 2012, 95, 839-844.

128. **B. K. Banik***, "Curing Cancer Through Manipulation of Molecules", **International Innovation (UK)**, 2011, 50-51.

129. H. Mohamed and **B. K. Banik***, "Synthesis of Vinyl β-Lactams: Insights on the Mechanism of Their Formation", **Heterocyclic Letters (India)**, 2011, 23-26.

130. D. Abrego, D. Banyopadhyay and **B. K. Banik***, "Indium-Induced Synthesis of Pyrrole-Substituted Indole Derivatives", **Heterocyclic Letters (India)**, 1 (2), 2011, 87-93.

131. L. Canales, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Induced Selective Nitration of Eugenol", **Org. & Med. Chem. Lett. (Germany)**, 2011, 1, 9-12.

132. D. Bandyopadhyay, J. Velaquez and **B. K. Banik***, "Indium-Catalyzed Streker Reaction in Water", **Org. & Med. Chem. Lett. (Germany)**, 2011, 1, 11-15.

133. S. Samajdar, I. Banik and **B. K. Banik***, "Indium-Induced Highly Stereoselective Thioglycosylation of Peracetylated Bromoglucose", **Heterocyclic Letters (India)**, 2011, 41-42.

134. D. Alvarez and **B. K. Banik***, "Stereospecific Synthesis of Glycosyl Chloride Using a Combination of Bismuth Nitrate and Bismuth Chloride", **Heterocyclic Letters (India)**, 2011, 37-39.

135. J. Lerma and **B. K. Banik***, "Synthesis of Glucose Peracetate via Bismuth Nitrate-Induced Reaction", **Heterocyclic Letters (India)**, 2011, 35-36.

136. R. Rodriguez and **B. K. Banik***, "Unprecedented Stereoselectivity of β-Lactam Formation via Staudinger Reaction with Conjugated Imines Derived from Polyaromatic Systems", **Heterocyclic Letters (India)**, 2011, 31-34.

137. K. Ramos and **B. K. Banik***, "Microwave-Induced Clay-Mediated Preparation of Imines: One-Pot Synthesis of β-Lactams", **Heterocyclic Letters (India)**, 2011, 27-30.

138. I. Banik, S. Samajdar and **B. K. Banik***, "Stereospecific Chiral Resolution of Trans 2-Phenylcyclohexanol via Indium-Induced Glycosylation", **Heterocyclic Letters (India)**, 2011, 47-48.

139. S. Rivera, D. Bandyopadhyay and **B. K. Banik***, "Microwave-Induced Bismuth Nitrate-Catalyzed Electrophilic Substitution of 7-Aza Indole with Activated Carbonyl Compounds Under Solvent-Free Conditions", **Heterocyclic Letters (India)**, 2011, 43-46.

140. A. L. Shaikh, O. Esparza and **B. K. Banik***, "An Efficient Synthesis of Optically Active Trans (3R,4R)-N-(Chrysenyl)-3-Acetoxy-4-Aryl-2-Azatidinones Using Caryene as a Chiral Auxiliary", **Helv. Chim. Acta. (Switzerland)**, 2011, 94, 2188-2193.

141. D. Bandyopadhyay, J. Granados, J. Short and **B. K. Banik***, "Polycyclic Aromatic Compounds as Anticancer Agents: Evaluation of Synthesis and In Vitro Cytotoxicity", **Oncology Letters (Greece)**, 2012, 3, 45-49.

142. D. Bandyopadhyay, S. Mukherjee, J. Granados, J. Short and **B. K. Banik***, "Ultrasound-Assisted Bismuth Nitrate-Induced Green Synthesis of Novel Pyrrole Derivaives and Their Biological Evaluation as Anticancer Agents", **Eur. J. Med. Chem. (Elsevier, UK)**, 2012, 50, 209-215.

143. I. Banik, S. Samajdar, M. K. Basu and **B. K. Banik***, "Molecular Iodine-Catalyzed Protection of Carbonyl Compounds", **Heterocyclic Letters (India)**, 2011, 111-118.

144. **B. K. Banik***, "Sterospecific Synthesis of Tetrahydroisoquinolines via Microwave-Induced Reaction", **Heterocyclic Letters (India)**, 2011, 49-51.

145. I. Banik, S. Samajdar and **B. K. Banik***, "Microwave-Induced Stereospecific Synthesis of β-Lactams Derived from Polyaromatic Imines: Influence of Multicyclic Rings at the Nitrogen", **Heterocyclic Letters (India)**, 2011, 55-57.

146. I. Banik, S. Samajdar and **B. K. Banik***, "Microwave-Induced Sodium-Methoxide-Mediated Molecular Rearrangements of β-Lactams to 3-Substituted Pyrrolidines", **Heterocyclic Letters (India)**, 2011, 69-72.

147. D. Bandyopadhyay, Y. Mora, J. A. Trevino Cantu and **B. K. Banik***, "An Easy and Straightforward Route for the Synthesis of Disubstituted Imidazoles", **Heterocyclic Letters (India)**, 2011, 61-63.

148. D. Bandyopadhyay, M. Yanez and **B. K. Banik***, "Microwave-Induced Stereoselectivity of β-Lactam Formation: Effects of Solvents", **Heterocyclic Letters (India)**, 2011, 65-67.

149. D. Bandyopadhyay, R. S. Fonseca and **B. K. Banik***, "Microwave-Induced Bismuth Nitrate-Mediated Selective Hydrolysis of Amide", **Heterocyclic Letters (India)**, 2011, 75-77.

150. S. Rivera, L. Iglesias, D. Bandyopadhyay and **B. K. Banik***, "Microwave-Induced Bismuth Nitrate-Catalyzed Electrophilic Substitution of Indole with Keto Ester Under Solvent-Free Conditions", **Heterocyclic Letters (India)**, 2011, 73-74.

151. I. Banik, F. F. Becker and **B. K. Banik***, "Stereoselective Synthesis of β-Lactams Derived from Chrysenyl Imine", **Heterocyclic Letters (India)**, 2011, 79-81.

152. I. Banik, A. Okawa and **B. K. Banik***, "Synthesis of Racemic and Optically Active β-Lactams Derived from Allyl and Propargyl Imine", **Heterocyclic Letters (India)**, 2011, 83-85.

153. S. Mukherjee, R. Danso and **B. K. Banik***, "Novel Synthesis of β-Substituted Benzoates in the Presence of Triethylamine", **Heterocyclic Letters (India)**, 2011, 53-54.

154. I. Banik, L. Heckfeld and **B. K. Banik***, "Ultrasound-Induced Synthesis of Quinolines Via Reductive Coupling With Zinc in Water", **Heterocyclic Letters (India)**, 2011, 59-60.

155. S. Mukherjee, R. Solano Fonseca, R. Danso and **B. K. Banik***, "Microwave-Induced Bismuth Nitrate-Catalyzed Intramolecular Diels-Alder Reaction", **Heterocyclic Letters (India)**, 2011, 87-88.

156. M. Castillo, M. Ortiz and **B. K. Banik***, "Microwave-Assisted Synthesis of Polyhydroquinoline in the Absence of Solvent", **Heterocyclic Letters (India)**, 2011, 89-91.

157. H. Aguilar, A. Reddy and **B. K. Banik***, "Microwave-Induced Bismuth Nitrate-Catalyzed Pechman Reaction Under Solventless Condition", **Heterocyclic Letters (India)**, 2011, 95-96.

158. R. Rodriguez, K. Gomez and **B. K. Banik***, "Microwave-Assisted Synthesis of Pyridinyl Substituted Quinoline Through Bismuth Nitrate-Catalyzed Diels-Alder Reaction", **Heterocyclic Letters (India)**, 2011, 93-94.

159. R. Solano Fonseca, S. Mukherjee and **B. K. Banik***, "Asymmetric Synthesis of β-Lactam Using S-Citranellal", **Heterocyclic Letters (India)**, 2011, 97-98.

160. D. Bandyopadhyay, S. Maldonado and **B. K. Banik***, "Phosphoric Acid-Catalyzed Aza Michael Reaction in Water", **Heterocyclic Letters (India)**, 2011, 13-16.

161. D. Bandyopadhyay, S. Mukherjee, L. Turrubiartes and **B. K. Banik***, "Ultrasound-Assisted Aza-Michael Reaction in Water", **Ultrasonics Sonochemistry (Elsevier)**, 2012, 19, 969-973.

162. D. Bandyopadhyay and **B. K. Banik***, "Microwave-Induced Bismuth Nitrate-Catalyzed Expeditious Enamination of β-Dicarbonyl Compounds Under Solvent-Free Conditions", **Heterocyclic Letters (India)**, 2011, 17-21.

163. A. Ghatak and **B. K. Banik***, "Indium-Induced Reformatsky Reaction for the Synthesis of β-Lactams", **Heterocyclic Letters (India)**, 2011, 99-101.

164. R. Andoh-Baidoo, R. Danso, S. Mukherjee, Debasish Bandyopadhyay and **B. K. Banik***, "Microwave-Induced N-Bromosuccinimide-Mediated Novel Synthesis of Pyrroles Via Paal-Knorr Reaction", **Heterocyclic Letters (India)**, 2011, 107-109.

165. R. Andoh-Baidoo, S. Mukherjee and **B. K. Banik***, "Microwave-Induced N-Bromosuccinimide-Mediated Novel Synthesis of Pyrroles", **Heterocyclic Letters (India)**, 2011, 103-106.

166. **B. K. Banik*** and M. S. Manhas, "Iodine-Catalyzed Stereospecific Glycosylation of Alcohols: Enantiopure β-Lactams", **Tetrahedron Symposium-in-Print (UK, Elsevier)**, 2012, 68, 10769-10779.

167. M. Banik, A Reddy, B. Ramirez, D. Bandyopadhyay and **B. K. Banik***, "Polystyrenesulfonate-Catalyzed Paal-Knoor Synthesis of Pyrroles", **Org. & Med. Chem. Lett. (Germany)**, 2012, **2**:11-14 (doi:10.1186/2191-2858-2-11).

168. R. Vargas, B. Leal, A. Reddy, D. Bandyopadhyay and **B. K. Banik***, "Microwave-Assisted Polystyrenesulfonate-Catalyzed Synthesis of Novel Pyrroles", **Org. & Med. Chem. Lett. (Germany)**, 2012, 2: 24-30 (doi:10.1186/2191-2858-2-24).

169. D. Bandyopadhyay, S Maldanado and **B. K. Banik***, "Microwave-Assisted Bismuth Nitrate-Catalyzed Unique Route Toward Dihydropyridines", **Molecules (Switzerland)**, 2012, 17, 2643-2662.

170. D. Bandyopadhyay, J. Cruz and **B. K. Banik***, "Microwave-Induced Synthesis of 3-Pyrrole Substituted β-Lactams Via Bismuth Nitrate-Catalyzed Reactions", **Tetrahedron Symposium-in-Print (UK)**, 2012, 68, 10686-10695.

171. I. Renteria, P. Gonzalez, A. Garcia, **B. K. Banik** and G. Rivera, "Recent Advances in Anticancer Drug Design", **Current Medicinal Chemistry (Bentham Publisher)**, 2012, 19, 4377.

172. **B. K. Banik***, "Curious Science: Ringing the Changes for Cancer", **International Innovation (UK)**, 2012, 114-116.

173. D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Induced Microwave-Assisted Expeditious Synthesis of Vanillin From Curcumin", **Org. & Med. Chem. Lett. (Germany)**, 2012, **2**:15-18 (doi:10.1186/2191-2858-2-15).

174. D. Bandyopadhyay, J. Cruz, R. N. Jadav and **B. K. Banik***, "An Expeditious Iodine-Catalyzed Synthesis of 3-Pyrrole Substituted 2-Azetidinones", **Molecules (Switzerland)**, 2012, 17, 11570-11584 (doi: 10.3390/molecules171011570).

175. **B. K. Banik***, "Diastereoselective and Enantioselective Synthesis and Biological Evaluation of Anticancer β-Lactams", **Recent Adavnces in Chemical Science**, **Burdwan University**, **University Grant Commission (India)**, 2013, 60-82.

176. D. Bandyopadhyay, J. Cruz, L. Morales, H. Arman, E. Cuate, Y. Lee, **B. K. Banik*** and D. Kim*, "A Practical Green approach Toward Quinoxalines and Bis-Quinazolines and Their Biological Evaluation Against A431, Human Skin Cancer Cell Lines", **Future Med. Chem. (UK)**, 2013, 5, 1377-1390.

177. A. Shaikh and **B. K. Banik***, "Novel Asymmetric Synthesis of 3-Pyrrole-Substituted β-Lactams Through Bismuth Nitrate-Catalyzed Reaction", **SOAJ Org. Biomol. Chem.**, 01, ID 010301, 2013.

178. R. Yadav, A. Reddy and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Microwave-Assisted Aza Diels-Alder Reaction for the Synthesis of Bycyclo (2,2,2)-octanones Scaffold", **Current Microwave Chemistry (Bentham Publisher)**, 2014, 1, 94-97.

179. D. Bandyopadhyay, E. Rhodes and **B. K. Banik***, "A Green, Chemoselective, and Practical approach Toward N-(2-azetidinonyl)-2,5-disubstituted Pyrroles", **Royal Society Advance (RSC, UK)**, 2013, 3, 16756-16764.

180. **B. K. Banik***, "Anticancer β-Lactams and Related Investigations: Synthesis and Biological Evaluation", **J. Ind. Chem. Soc.**, 2014, 91, 1837-1860 (**Professor P. K. Bose Memorial Endowement Award Lecture).**

181. D. Bandyopadhyay*, L. Smith, R. N. Jadav and **B. K. Banik***, "An Expeditious Green Route Toward 2-Aryl-4-phenyl-1H-imidazoles", **Organic & Medicinal Chemistry Letters (Springer, Germany)**, 2014, 4:9 (doi:10.1186/s13588/014-0009-7).

182. D. Bandyopadhyay, G. Rivera, J. Sanchez, J. Rivera, J. Granados, A. Guerrero, F. Chang, R. Dearth, J. Short* and **B. K. Banik***, "Bismuth Nitrate-Induced Novel Nitration of Estradiol: An Entry to New Anticancer Agents", **Eur. J. Med. Chem. (Elsevier, UK)**, 2014, 82, 574-583.

183. D. Bandyopadhyay*, A. Zavala and **B. K. Banik***, "Organocatalyzed Green Synthesis of 2, 3-Dihydropyrazines en Route to Medicinally Privileged Novel Polyheterocyclic Systems", **Current Organocatalysis (Bentham Publisher)**, 2014, 1, 59-65.

184. **B. K. Banik***, "A Personal Perspective on Medicinal and Pharmaceutical Chemistry", **Frontiers in Medicinal and Pharmaceutical Chemistry (Grand Challenge Article, Nature Publishing Group, Switzerland)**, doi:10.3389/fchem.2014.00008.

185. Ram N. Yadav and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Reaction of Hydroxy β-Lactams With Glycal", **Synthetic Communication (USA),** 2014, Submitted.

186. S. Chandra, R. N. Jadav and **B. K. Banik***, "Conventional Teaching Versus Power Point Teaching Method", **Bulgarian J. Science Edu. (Bulgaria),** 2014, 23, 497-499.

187. D. Bandyopadhyay, J. Sanchez, A. Guerrero, F. Chang, J. Granados, J. Short* and **B. K. Banik***, "Design, Syntheses and Biological Evaluation of Novel Pyrene Derivatives as Anticancer Agents", **Eur. J. Med. Chem. (Elsevier, UK)**, 2015, 89, 851-862.

188. S. Chandra, R. N. Jadav and **B. K. Banik***, "Indium Bromide-Catalyzed Novel Hydrogenolysis", **Tetrahedron Lett. (Elsevier, UK)**, 2015, in press.

189. F. F. Becker and **B. K. Banik***, "Synthesis and Biological Evaluation of Novel Dibenzofluorenes", **Frontiers in Medicinal and Pharmaceutical Chemistry (NATURE Publishing Group, Switzerland)**, **2:55; DOI: 10.3389/fchem.2014.00055;** 2014.

190. S. Chandra, R. N. Yadav, L. Lareeb and **B. K. Banik***, "Synthesis of 3-Unsubstituted β-Lactams Using Radical Reactions", **Chem. Edu. (USA)**, 2015, 20, 4-5.

191. R. N. Yadav, S. Sardar and **B. K. Banik***, "Hafnium Tetrachloride and TrimethylSilyl Cyanide-Catalyzed Coupling of Sugar", **Chemistry Central Journal (Germany)**, 2015, Submitted.

192. A. Nambiar, R. Rodriguez, R. N. Yadav and **B. K. Banik***, "Synthesis of Novel C-4 Disubstituted β-Lactam that have Pyrrole", **Heterocyclic Lett. (India)**, 2014, 4, 417-419.

193. D. Bandyopadhyay, S. Samono, J. C. Villalobos-Rocha, L. E. Sancez-Torres, B. Nogueda-Torres, G. Rivera* and **B. K. Banik***, "A Practical Green Synthesis and Biological Evaluation of Benzimidazoles Against Two Neglected Tropical Diseases: Chagas and Leishmaniasis", **Current Medicinal Chemistry (Bentham Publisher)**, 2016, in press.

194. D. Bandyopadhyay, S. Mukherjee and **B. K. Banik***, "A Selective Expeditious and Sustainable Entry En Route to Benzopyrazines and bis-Benzopyrazines", **Comb. Chem. High Throughput Screen (Bentham Publisher)**, 2015, 18, 53-62.

195. S. Chandra, R. N. Jadav and **B. K. Banik***, "Presentation Examination is a Powerful Tool in Undergraduates' Education", **J. Chem. Edu., (Bulgaria)** 2014, Submitted.

196. F. Cossio*, M. Sierra* and **B. K. Banik***, "Photochemical Synthesis of β-Lactams Via Chromium Carbonyl Complex: Computational Studies"**, J. Am. Chem. Soc. (ACS, USA)**, 2015, under preparation.

197. **B. K. Banik***, D. Bandyopadhyay and F. F. Becker, "Synthesis and Biological Evaluation of Novel β-Lactams against Pancreatic Cancers Cell Lines", **J. Med. Chem. (ACS, USA)**, 2015, under preparation.

MEETING PRESENTATIONS and ABSTRACTS including INVITED LECTURES: Total meeting presentations Abstracts (457); Senior and corresponding authors of more than 436 presentations; I am one of the authors who presented maximum number of presentations at the American Chemical Society (ACS) National Meetings; ACS selected 7 presentations as the "Presentation on Demand"; ACS, Chemical & Engineering News highlighted 5 research papers; 50 Invited lectures at different University, Research Institute, National/International Conference, Public and Industry; 7 distinguished lectures and 6 educational presentations

Presented papers in meetings with co-author students of many Nations including: India, USA, Bangladesh, Pakistan, Germany, Poland, Spain, Mexico, China, Cuba, Russia, South Africa, Japan, Honduras, Turkey, Brazil, Peru, Argentina, South Korea, Thailand, Hong Kong, Philippines and Taiwan

National and International Presentations:

1. **B. K. Banik**, M. S. Manhas and A. K. Bose, "Enantiospecific Total Synthesis of (-)-Polyoxamic Acid via a β-Lactam Synthon", Presented at the American Chemical Society National Meeting, Washington D. C., August, 1992, ORGN-437.

2. A. K. Bose, **B. K. Banik**, S. N. Newaz and M. S. Manhas, "Microwave-induced Organic Reaction Enhancement Chemistry: Monocyclic β-Lactams with Thienamycin Side Chain", Presented at the American Chemical Society Middle Atlantic Regional Meeting, Arlington, VA, December, 1992, ORGN-409.

3. **B. K. Banik***, A. K. Bose and M. S. Manhas, "Microwave Induced Organic Reaction Enhancement Chemistry: Selectivity in Hydrogenation Reaction", Presented at the American Chemical Society Middle Atlantic Meeting, NY, June, 1993, ORGN-124.

4. **B. K. Banik**, M. Negi, S. S. Bari, P. Sanchez, M. S. Manhas and A. K. Bose, "Chemoenzymatic Preparation of Optically Active Intermediates for the Taxol Side Chain", Presented at the American Chemical Society National Meeting, San Diego, CA, March, 1994, ORGN-435.

5. **B. K. Banik**, M. S. Manhas and A. K. Bose, "Facile Asymmetric Synthesis of the Taxol Side Chain via Glycosylation of 3-Hydroxy β-Lactams", Presented at the American Chemical Society National Meeting, San Diego, CA, March, 1994, ORGN-436.

6. A. K. Bose, M. S. Manhas, **B. K. Banik** and M. Patel, "Stereoselectivity Control of β-Lactam Formation Using Microwave Irradiation", Presented at the American Chemical Society National Meeting, Washington, D.C., August, 1994, ORGN- 31.

7. A. K. Bose, M. S. Manhas, **B. K. Banik**, G. V. Subbaraju, V. S. Raju and R. Naqvi, "Fused Tricyclic β-Lactams Via Intramolecular Aryl Radical Cyclization", Presented at the American Chemical Society National Meeting, Washington, D.C., August, 1994, ORGN-32.

8. A. K. Bose, M. S. Manhas, **B. K. Banik**, N. Lavlinskaia, L. Marcos and G. Marchese, "Rapid, Safe and Inexpensive Reactions in the Microwave Oven for Undergraduate and Pre-college Laboratory", Presented at the American Chemical Society National meeting, Anaheim, CA, April, 1995, CHED-12.

9. **B. K. Banik**, O. Zegrocka, M. S. Manhas and A. K. Bose, "Enantiomerically Pure β-Lactams with the Thienamycin Side Chain via Glycosylation", Presented at the American Chemical Society National Meeting, Anaheim, CA, April, 1995, ORGN-508.

10. A. K. Bose, **B. K. Banik**, M. S. Manhas and E. W. Robb, "Microwave-induced Organic Reactions for Environmentally Benign Chemistry", Presented at the International Symposium by American Chemical Society, Honolulu, Hawaii, December, 1995, ORGN-654.

11. **B. K. Banik**, M. S. Manhas and A. K. Bose, "Enantiopure Hydroxy β-Lactams via Glycosylation: Chiral Synthesis of Taxol Side Chain and Analogs", Presented at the American Chemical Society National Meeting, San Francisco, CA, April, 1997, ORGN- 623.

12. A. K. Bose, **B. K. Banik**, A. Bhattacharjee and M. S. Manhas**, "**Microwave Assisted Enantiospecific Synthesis of Hydroxythreonine from D-Mannitol", Presented at the American Chemical Society National Meeting, Anaheim, CA, March, 1999, CARB-67.

13. M. S. Manhas, **B. K. Banik** and A. K. Bose, "Ferrier Rearrangement for Enantiopure Taxol Synthons", Presented at the American Chemical Society National Meeting, Anaheim, CA, March, 1999, CARB-66.

14. **B. K. Banik***, C. Mukhopadhyay, M. S. Venkatraman, I. Banik and F. F. Becker, "Reduction by Samarium and Iodine: Expeditious Synthesis of Aromatic Amines", Presented at the American Chemical Society National Meeting, Anaheim, CA, March, 1999, ORGN-237.

15. **B. K. Banik***, M. S. Venkatraman, C. Mukhopadhyay and F. F. Becker, "Oxidation by Sodium Bismuthate: Facile Synthesis of Polycyclic Aromatic Carbonyl Compounds and Allylic Aldehydes", Presented at the American Chemical Society National Meeting, Anaheim, CA, March, 1999, ORGN-236.

16. **B. K. Banik*** and F. F. Becker, "Polycyclic Aromatic Compounds as Anticancer Agents: Effects of Chain Length and Nature of the Spacer", Presented at the American Chemical Society National Meeting, Anaheim, CA, March, 1999, MEDI-45.

17. F. F. Becker and **B. K. Banik***, "Chrysene Derivatives Exhibiting Anticancer Activity: Synthesis and Biological Evaluation", Presented at the American Chemical Society National Meeting, Anaheim, CA, March, 1999, MEDI-44.

18. **B. K. Banik***, C. Mukhopadhyay and F. F. Becker, "An Expeditious One Pot Synthesis of Hydrofluorene Derivatives", Presented at the American Chemical Society National Meeting, New Orleans, LA, August, 1999, MEDI-50.

19. **B. K. Banik***, C. Mukhopadhyay, L. Hackfeld, I. Banik and F. F. Becker, "Polycyclic Aromatic Compounds as Anticancer Agents: Synthesis and Biological Evaluation of Dibenzfluorene Derivatives", Presented at the American Chemical Society National Meeting, New Orleans, LA, August, 1999, MEDI-238.

20. **B. K. Banik*,** I. Banik, M. Suhendra and F. F. Becker, "Indium/Ammonium Chloride Mediated Facile Reduction of Aromatic Nitro Compounds to the Aromatic Amines", Presented at the American Chemical Society National Meeting, San Francisco, CA, March, 2000, ORGN-555.

21. **B. K. Banik***, O. Zegrocka, and F. F. Becker, "Samarium-Induced Iodine-Catalyzed Reduction of the Adamantan Imines: Enantiospecific Synthesis of Some Adamantane Amines", Presented at the American Chemical Society National Meeting, San Francisco, CA, March, 2000, ORGN-595.

22. **B. K. Banik*,** L. Hackfeld and F. F. Becker, "Indium-Induced Reduction of the Imines", Presented at the American Chemical Society National Meeting, San Francisco, CA, March, 2000, ORGN-592.

23. **B. K. Banik*,** A. Ghatak and F. F. Becker, "Indium-Induced Facile Synthesis of 3-Unsubstituted β-Lactams", Presented at the American Chemical Society National Meeting, Washington, D.C., August, 2000, ORGN-452.

24. **B. K. Banik*,** A. Ghatak and F. F. Becker, "Samarium-Induced Alkyl Halides Mediated Reductive Coupling of Ketones", Presented at the American Chemical Society National Meeting, Washington, D. C., August, 2000, ORGN-453.

25. C. Mukhopadhyay, F. F. Becker and **B. K. Banik*, "**A Novel Catalytic Role of Molecular Iodine in the Oxidation of Benzylic Alcohols: Microwave-Assisted Reaction", Presented at the American Chemical Society and the Pacific Chemical Society Meeting, Honolulu, December, 2000, ORGN-802.

26. M. S. Manhas, A. K. Bose and **B. K. Banik**, "Homochiral β-Lactam Synthons for the Synthesis of Natural and Non-Natural Products", Presented at the Indian Science Congress, New Delhi, January, 2001.

27. A. Ghatak, F. F. Becker and **B. K. Banik*, "**Indium-Mediated Facile Synthesis of Ferrocenyl β-Lactams", Presented at the American Chemical Society National Meeting, San Diego, CA, April, 2001, ORGN-417.

28. M. K. Basu, F. F. Becker and **B. K. Banik*,** "Ultrasound-Promoted Highly Efficient Reduction of Aromatic Nitro Compounds to the Aromatic Amines by Samarium/Ammonium Chloride", Presented at the American Chemical Society National Meeting, San Diego, CA, April, 2001, ORGN-419.

29. I. Banik, L. Hackfeld, F. F. Becker and **B. K. Banik*,** "Indium-Mediated Reductive Cyclizations in Aqueous Ethanol: Synthesis of Heterocyclic Compounds of Biological Interests", Presented at the American Chemical Society National Meeting, San Diego, CA, April, 2001, ORGN-418.

30. **B. K. Banik*,** S. Samajdar, M. K. Basu and F. F. Becker, "Bismuth Nitrate-Mediated Oxidative Deprotection of Oximes and Hydrazones", Presented at the American Chemical Society National Meeting, San Diego, CA, April, 2001, ORGN-415 (**American Chemical Society has highlighted it in the Chemical & Engineering News, 2001, April 16, p 35-39**).

31. **B. K. Banik*,** S. Samajdar and F. F. Becker, "Bismuth Nitrate on Clay: Regioselective Aromatic Nitration", Presented at the American Chemical Society National Meeting, San Diego, CA, April, 2001, ORGN-414 (**American Chemical Society has highlighted it in the Chemical & Engineering News, 2001, April 16, p 35-39**).

32. **B. K. Banik*,** S. Samajdar and F. F. Becker, "Surface-Mediated Facile Selective Oxidation of Alcohols by Bismuth Nitrate", Presented at the American Chemical Society National Meeting, San Diego, CA, April, 2001, ORGN-416 (**American Chemical Society has highlighted it in the Chemical & Engineering News, 2001, April 16, p 35-39**).

33. **B. K. Banik*,** S. Samajdar, I. Banik, O. Zegrocka and F. F. Becker, "New Indium Mediated Stereospecific Glycosylation of Alcohols", Presented at the American Chemical Society National Meeting, Chicago, IL, August, 2001, ORGN-98.

34. **B. K. Banik*,** S. Samajdar, L. Hackfeld, O. Zegrocka and F. F. Becker, "Expeditious Samarium-Induced Reduction of Imines: Effects of Solvents", Presented at the American Chemical Society National Meeting, Chicago, IL, August, 2001, ORGN-97.

35. **B. K. Banik*** and M. K. Basu, "Samarium-Mediated Barbier Addition of Carbonyl Compounds", Presented at the American Chemical Society National Meeting, Chicago, IL, August, 2001, ORGN-96.

36. M. S. Manhas, S. H. Park, S. Rumthao, M. Jayaraman, **B. K. Banik**, A. H. Sharma and A. K. Bose, "Microwave Assisted N-Labeling of Homochiral β-Lactam Synthons for Metabolite Studies", Presented at the American Chemical Society National Meeting, Chicago, IL, August, 2001, ORGN-261.

37. **B. K. Banik*,** A. Ghatak and F. F. Becker, "Indium-Induced Expeditious Synthesis of Monocyclic β-Lactams", Presented at the American Chemical Society National Meeting, Orlando, FL, April, 2002, ORGN-308.

38. **B. K. Banik*,** S. Samajdar, I. Banik and F. F. Becker "A Facile Indium-Induced Rearrangement of β-Lactams: Synthesis of Oxazines", Presented at the American Chemical Society National Meeting, Orlando, FL, April, 2002, ORGN-307.

39. **B. K. Banik*,** S. Samajdar, A. Ghatak and F. F. Becker, "A Convenient Samarium-Induced Reduction of Ferrocenyl Imines", Presented at the American Chemical Society National Meeting, Orlando, FL, April, 2002, ORGN-305.

40. **B. K. Banik*,** S. Samajdar, S. Ng and F. F. Becker, "Bismuth Nitrate/ Clay-Mediated Nitration of β-Lactams Under Microwave Irradiation", Presented at the American Chemical Society National Meeting, Orlando, FL, April, 2002, ORGN-306.

41. **B. K. Banik*** and F. F. Becker, "Novel β-Lactams with Polyaromatic Imines: Unprecedented Stereospecific Synthesis", Presented at the American Chemical Society National Meeting, Orlando, FL, April, MEDI-89.

42. **B. K. Banik*** and F. F. Becker, "Biological Investigation of Novel β-Lactams as Anticancer Agents", Presented at the American Chemical Society National Meeting, Orlando, FL, April, 2002, MEDI-213.

43. **B. K. Banik*,** I. Banik and F. F. Becker, "Polycyclic Aromatic Compounds as Anticancer Agents: Effects of the Terminal Heterocyclic Systems", Presented at the American Chemical Society National Meeting, Orlando, FL, April, 2002, MEDI-212.

44. **B. K. Banik*,** M. K. Basu, M. S. Venkatraman and F. F. Becker, "Polycyclic Aromatic Compounds as Anticancer Agents: Effects of the Chiral Side Chains", Presented at the American Chemical Society National Meeting, Orlando, FL, April, 2002, MEDI-211.

45. **B. K. Banik*,** M. K. Basu and S. Samajdar, "A New Iodine-Catalyzed Acetalization of Carbonyl Compounds", Presented at the American Chemical Society National Meeting, Boston, MA, August, 2002, ORGN-688.

46. **B. K. Banik*,** S. Samajdar and M. K. Basu, "A New Iodine-Catalyzed Thioketalization of Carbonyl Compounds: Selectivity and Scope", Presented at the American Chemical Society National Meeting, Boston, MA, August, 2002, ORGN-689.

47. **B. K. Banik*** and S. Samajdar, "A New Iodine-Catalyzed Facile Synthesis of Pyrroles", Presented at the American Chemical Society National Meeting, Boston, MA, August, ORGN-687.

48. **B. K. Banik*,** M. S. Venkatraman, M. K. Basu and F. F. Becker, "Polycyclic Aromatic Compounds as Anticancer agents: Synthesis and Biological Evaluation of 2, 8-Disubstituted Chrysenes", Presented at the American Chemical Society National Meeting, Boston, MA, August, 2002, MEDI-144.

49. **B. K. Banik*,** A. Ghatak and F. F. Becker, "Polycyclic Aromatic Compounds as Anticancer Agents: Synthesis and Biological Evaluation of 2-Methoxy Dibenzo(a,g)fluorenes", Presented at the American Chemical Society National Meeting, Boston, MA, August, 2002, MEDI-145.

50. **B. K. Banik*,** I. Banik, M. Wilson and S. Samajdar, "Indium-Induced Facile Rearrangement of β-Lactam to Oxazines", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2003, ORGN-386.

51. **B. K. Banik*,** I. Banik and L. Hackfeld, "Cycloaddition with Naphthalenyl and Antharacenyl Imines: Excellent Stereocontrol in the Staudinger Reaction", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2003, ORGN-385.

52. **B. K. Banik*** and N. Srivastava, "Bismuth Nitrate-Induced Michael Reaction of Amines, Thiols, and Carbamates", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2003, ORGN-383 (**American Chemical Society has highlighted this paper in Chemical & Engineering News, April 07, 2003, p 28-30**).

53. **B. K. Banik*** and N. Srivastava, "Bismuth Nitrate-Induced Michael Reaction of Indoles", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2003, ORGN-384 (**American Chemical Society has highlighted this paper in Chemical & Engineering News, April 07, 2003, p 28-30**).

54. **B. K. Banik*** and S. K. Dasgupta, "New Entry to N-Unsubstituted β-Lactams Using Rink Resin as the Solid Support", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2003, ORGN-389.

55. **B. K. Banik*** and S. K. Dasgupta, "Highly Diastereoselective Synthesis of 2,5-Disubstituted-1,3-dioxolan-4-ones via Molecular Iodine-Catalyzed Reaction", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2003, ORGN-387.

56. **B. K. Banik*,** S. K. Dasgupta and N. Srivastava, "Intramolecular Coupling of Diimines using a Samarium-Induced Reaction: Synthesis of Heterocycles", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2003, ORGN-388.

57. **B. K. Banik*** and N. Srivastava, "Bismuth Nitrate-Induced Facile Stereospecific Glycosylation of Alcohols", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2003, ORGN-386.

58. **B. K. Banik***, "Molecular Iodine-Catalyzed Highly Efficient Michael Reaction of Indoles: A Remarkably Mild and Solvent-Free Condition", Presented at the National Organic Symposium Meeting, Bloomington, IN, June, 2003, D-07.

59. **B. K. Banik***, "A Remarkable Bismuth Nitrate-Catalyzed Protection of Carbonyl Compounds: Diastereoselective Ketal Synthesis", Presented at the National Organic Symposium Meeting, Bloomington, IN, June, 2003, D-06.

60. **B. K. Banik*,** I. Banik, L. Hackfeld and F. F. Becker, "Isomeric Chrysenes as New Anticancer Agents: Effects of Electron Donating and Withdrawing Groups", Presented at the American Chemical Society National Meeting, New York City, NY, September, 2003, MEDI-249.

61. **B. K. Banik*,** C. Mukhopadhyay and F. F. Becker, "Synthesis and Biological Evaluation of Dibenzofluorene Derivatives as Anticancer Agents: Effects of a C-13 Methyl Group", Presented at the American Chemical Society National Meeting, New York City, NY, September, 2003, MEDI-267.

62. **B. K. Banik***, "Convenient Protocol for the Samarium-Induced Reductive Dimerization of Carbonyl Compounds: A Mechanistic Approach", Presented at the ACS National Meeting, San Diego, California, March, 2005, ORGN-99.

63. **B. K. Banik***, "Samarium-Induced Reaction of Imines: A Synthetic Approach Toward Polycyclic Amino Derivatives", Presented at the ACS National Meeting, San Diego, California, March, 2005, ORGN-100.

64. **B. K. Banik*** and S. Samajdar, "Indium-Mediated Stereospecific Thioglycosylation", Presented at the ACS National Meeting, San Diego, California, March, 2005, ORGN-101.

65. **B. K. Banik***, I. Banik, S. Samajdar and C. A. Reyes, "Bismuth Nitrate-Induced Nitration Study of β-Lactams", Presented at the ACS National Meeting, Washington, D. C., August, 2005, ORGN-103.

66. **B. K. Banik*** and R. Garza, "Bismuth Nitrate-Catalyzed Multi-Component Reactions", Presented at the ACS National Meeting, Washington, D. C., August, 2005, ORGN-104.

67. **B. K. Banik***, I. Banik, J. Marquez and C. Alvarez, "Bismuth Nitrate-Catalyzed Synthesis of Pyrroles", Presented at the ACS National Meeting, Washington, D. C., August, 2005, ORGN-102.

68. **B. K. Banik***, M. Cardona and M. Fernandez, "Bismuth Nitrate-Induced Synthesis of Pyrroles Bound to Indolinone", Presented at the ACS National Meeting, Washington, D. C., August, 2005, ORGN-101.

69. **B. K. Banik***, I. Banik and F. F. Becker, "Biological Evaluation and Mechanism of Action of Anticancer β-Lactams", Presented at the ACS National Meeting, Washington, D. C., August, 2005, ORGN-99.

70. **B. K. Banik***, I. Banik and F. F. Becker, "Diastereoselective Synthesis of β-Lactams Using Polyaromaic Imines", Presented at the ACS National Meeting, Washington, D. C., August, 2005, ORGN-100.

71. **B. K. Banik***, "Bismuth Nitrate-Catalyzed Optical Resolution of Hydroxy β-Lactams: Preparation of Both Enantiomers of the Taxol Side Chain", Presented at the ACS National Meeting, Atlanta, GA, March, 2006, ORGN-323.

72. **B. K. Banik***, "Bismuth Nitrate-Catalyzed Synthesis of 3-Pyrrole Substituted Monocyclic β-Lactams", Presented at the ACS National Meeting, Atlanta, GA, March, 2006, ORGN-324.

73. **B. K. Banik***, "Bismuth Nitrate-Catalyzed Stereospecific Glycosylation: Enantiomerically Pure β-Lactams with Thienamycin Side Chain", Presented at the ACS National Meeting, Atlanta, GA, March, 2006, ORGN-325.

74. **B. K. Banik***, I. Garcia and K. Gomez, "Michael Reaction of Indoles in Aqueous Media", Presented at the ACS National Meeting, San Francisco, CA, September, 2006, ORGN-518.

75. **B. K. Banik***, I. Garcia and F. Morales, "Bismuth Nitrate-catalyzed Paal Knorr Reactions of 3-Amino β-Lactams", Presented at the ACS National Meeting, San Francisco, CA, September, 2006, ORGN-515.

76. **B. K. Banik***, H. Aguilar and L. Canales, "Sodium Bismuthate-Induced Oxidation of Aromatic Hydrocarbons", Presented at the ACS National Meeting, San Francisco, CA, September, 2006, ORGN-517.

77. **B. K. Banik*** and C. Aguilar, "Lewis Acid-Catalyzed Electrophilic Substitution of Indole with Carbonyl Compounds", Presented at the ACS National Meeting, San Francisco, CA, September, 2006, ORGN-516.

78. **B. K. Banik***, I. Garcia and D. Owens, "Bismuth Nitrate-Catalyzed Michael Reaction in Aqueous Media", Presented at the ACS National Meeting, Chicago, IL, March, 2007, ORGN-475.

79. **B. K. Banik***, J. Lerma and M. Hernandez, "Bismuth Triflate-Catalyzed Peracetylation of Carbohydrates", Presented at the ACS National Meeting, Chicago, IL, March, 2007, ORGN-477.

80. **B. K. Banik*** and D. Garcia, "Bismuth Nitrate-catalyzed Simple Preparation of Aspirin", Presented at the ACS National Meeting, Chicago, IL, March, 2007, ORGN-478.

81. **B. K. Banik***, F. Morales and M. Cardona, "Iodine-Catalyzed Synthesis of Pyrrole Bound to Indolinone", Presented at the ACS National Meeting, Chicago, IL, March, 2007, ORGN-479.

82. **B. K. Banik***, I. Salinas and H. Aguilar, "Bismuth Nitrate-Catalyzed Synthesis of 3-Pyrrole Substituted Monocyclic β-Lactams", Presented at the ACS National Meeting, Chicago, IL, March, 2007, ORGN-476**.**

83. **B. K. Banik***, H. Aguilar, A. Bose, W. P. Sanjoto and S. Villarreal, "Nitration of Estrone Through Bismuth Nitrate-Induced Reaction", Presented at the ACS National Meeting, Chicago, IL, March, 2007, ORGN-480.

84. I. Garcia and **B. K. Banik***, "Synthesis of Pyrrole-Substituted β-Lactams", Presented at the National Organic Symposium, Duke University, NC, June, 2007.

85. **B. K. Banik*** and I. Garcia, "Bismuth Nitrate-Catalyzed Preparation of Pyrrole-Substituted β-Lactams", Presented at the ACS National Meeting, Boston, MA, August, 2007, ORGN-745.

86. **B. K. Banik***, A. Reddy, A. Dutta and C. Mukhopadhyay, "Bismuth Nitrate-Catalyzed Three Component Reactions Toward Heterocycles", Presented at the ACS National Meeting, Boston, MA, August, 2007, ORGN-746.

87. **B. K. Banik***, A. Reddy and P. Ruiz, "Bismuth Nitrate-Catalyzed Three Component Reactions Toward Beta Amino Ketones", Presented at the ACS National Meeting, Boston, MA, August, 2007, ORGN-744.

88. A. Kall, D. Owens, D. Bandyopadhyaya and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Michael Reaction in Water and Organic Solvents", Presented at the American Chemical Society National Meeting, New Orleans, LA, April, 2008, ORGN-192.

89. I. Garcia, D. Bandyopadhyay and **B. K. Banik***, "Stereocontrolled Synthesis Toward Novel Bis β-Lactams", Presented at the American Chemical Society National Meeting, New Orleans, LA, April, 2008, ORGN-524.

90. F. Morales, I. Garcia and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Michael Reaction of 3-Amino β-Lactams in Water and Organic Solvents", Presented at the American Chemical Society National Meeting, New Orleans, LA, April, 2008, ORGN-523.

91. **B. K. Banik,** B. Lecea, A. Arrieta, A. Cozar and F. P. Cossio, "Recent Computational Studies on the Staudinger Reaction Between Ketenes and Imines", Presented at the 8th Triebnial Congress of the World Association of Theoretical and Computation Chemists, September, 2008, ORGN-005.

92. **B. K. Banik***, F. F Becker and I. Banik, "Synthesis and Biological Evaluation of Anticancer β-Lactams", Presented at the 9th Tetrahedron International Meeting, Berkeley, CA, July, 2008, ORGN 320.

93. **B. K. Banik***, L. Iglesias, S. Rivera and D. Bandyopadhyay, "Bismuth Nitrate-Catalyzed Reaction of Indole with Activated Ester", Presented at the American Chemical Society National Meeting, Philadelphia, PA, August, 2008, ORGN-685.

94. **B. K. Banik***, S. Rivera, L. Igelesias and D. Bandyopadhyay, "Bismuth Nitrate-Catalyzed Reaction of Aza Indole with Activated Ester", Presented at the American Chemical Society National Meeting, Philadelphia, PA, August, 2008, ORGN-687.

95. **B. K. Banik***, S. Samano and D. Bandyopadhyay, "Bismuth Nitrate-Catalyzed Reaction of Aza Indole with Activated Ester", presented at the American Chemical Society National Meeting, Philadelphia, PA, August, 2008, ORGN-688.

96. F. Morales, H. Aguilar and **B. K. Banik***, "Diastereoselectivity of β-Lactam Formation Reaction with Cinnamyl Imines", Presented at the American Chemical Society National Meeting, Philadelphia, PA, August, 2008, ORGN-686.

97. S. Rivera, L. Iglesias, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Synthesis of Indoles and Azaindoles With Activated Compounds", Presented at the Annual NIH Biomedical Conference, Orlando, FL, November, 2008.

98. H. Mahamad, D. Bandyopadhyay and **B. K. Banik***, "Synthesis of Vinyl β Lactams With Polycyclic Aromatic Imines", Presented at the American Chemical Society National Meeting, Salt Lake City, UT, March, 2009, ORGN-59.

99. S. Rivera, D. Bandyopadhyay and **B. K. Banik***, "Microwave-Assisted Bismuth Nitrate-Catalyzed Novel Synthesis of Pyrroles", Presented at the American Chemical Society National Meeting, Salt Lake City, UT, March, 2009, CHED-38.

100. E. Cuate, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Straightforward Synthesis of Quinoxalines", Presented at the American Chemical Society National Meeting, Salt Lake City, UT, March, 2009, ORGN-215.

101. R. Rodriguez, H. Aguilar and **B. K. Banik***, "Microwave-Assisted Unprecedented Stereocontrol of β-Lactam Formation Derived from Conjugated Imines", Presented at the American Chemical Society National Meeting, Salt Lake City, UT, March, 2009, CHED-39.

102. **B. K. Banik***, E. Cuate and D. Bandyopadhyay, "Bismuth Nitrate-induced Expeditious Synthesis of Quinoxalines", Presented at the Tetrahedron Annual International Symposium, Paris, France, June, 2009, B-75.

103. **B. K. Banik***, S. Rivera and D. Bandyopadhyay, "Microwave-induced Bismuth Nitrate-catalyzed Novel Synthesis of Pyrroles", Presented at the Tetrahedron Annual International Symposium, Paris, France, June, 2009, A-76

104. **B. K. Banik*** and H. Aguilar, "Stereoselectivity of 3, 3-Disubstituted β-Lactam Formation via the Staudinger Reaction With Polyaromatic Imines", Presented at the Tetrahedron Annual International Symposium, Paris, France, June, 2009, C-78.

105. **B. K. Banik***, R. Rodriguez and H. Aguilar,"Unprecedented Stereocontrol of β-Lactam Formation Derived from Conjugated Arylimine via Staudinger Reaction", Presented at the Tetrahedron Annual International Symposium, Paris, France, June, 2009, B-74.

106. **B. K. Banik***, D. Abrego and D. Bandyopadhyay, "Indium-Induced Synthesis of Pyrrole Substituted Indolinones", Presented at the National Organic Symposium, Boulder, CO, June, 2009, B-91.

107. **B. K. Banik*** and R. Rodriguez, "An Exploratory Approach Toward Anticancer β-Lactam Derived from Polyaromatic Compounds", Presented at the National Organic Symposium, Boulder, CO, June, 2009, A-93.

108. **B. K. Banik***, E. Cuate and D. Bandyopadhyay, "Bismuth Nitrate-Induced Straightforward Synthesis of Quinoxalines", Presented at the National Organic Symposium, Boulder, CO, June, 2009, A-92.

109. D. Bandyopadhyay, E. Cuate and **B. K. Banik***, "Green Chemistry: Indium-Promoted Practical Method for the Synthesis of Quinoxalines", Presented at the American Chemical Society National Meeting, Washington, D. C., August, 2009, ORGN-413.

110. D. Bandyopadhyay, M. Xavier and **B. K. Banik***, "Synthesis of Phthalimido β-Lactams Via the Staudinger Reaction Using Polyaromatic Imines", Presented at the American Chemical Society National Meeting, Washington, D. C., August, 2009, ORGN-650.

111. R. C. Gonzalez, D. Bandyopadhyay and **B. K. Banik***, "Synthesis of 3-Amino β-Lactams Derived From Polyaromatic Compounds", Presented at the American Chemical Society National Meeting, Washington, D. C., August, 2009, ORGN-432.

112. D. Bandyopadhyay, A. Banik, S. Batta and **B. K. Banik***, "Microwave-Induced Ruthenium Trichloride-Catalyzed Synthesis of Pyrrole Fused with Indole System in Water", Presented at the American Chemical Society National Meeting, Washington, D. C., August, 2009, ORGN-414.

113. D. Bandyopadhyay, D. Abrego and **B. K. Banik***, "Microwave-Assisted Indium-Catalyzed Synthesis of Pyrrole Fused with Indole System: An Eco-friendly Approach", Presented at the American Chemical Society National Meeting, Washington, D. C., August, 2009, ORGN-108.

114. J. Escano, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Salts-Induced Alkylation of Active Methylene Compounds with Benzylic Alcohols: A Remarkable Simple and Efficient Procedure", Presented at the American Chemical Society National Meeting, Washington, D. C., August, 2009, ORGN-107.

115. D. Bandyopadhyay and **B. K. Banik***, "Microwave-Induced Stereocontrol of β-Lactam Formation with Dihydrophenanthrenyl Imine Via Staudinger Reaction", Presented at the American Chemical Society National Meeting, Washington, D. C., August, 2009, ORGN-649.

116. D. Bandyopadhyay, A. Kall and **B. K. Banik***, "Microwave-Induced Aza-Michael Reaction in Water: A Remarkable Simple and Environmentally Benign Procedure", Presented at the American Chemical Society National Meeting, Washington, D. C., August, 2009, ORGN-646.

117. D. Bandyopadhyay, A. Banik, S. Batta and **B. K. Banik***, "Bismuth Salts-Catalyzed Easy and Highly Efficient Route to the Synthesis of Amino Phosphonates", Presented at the American Chemical Society National Meeting, Washington, D. C., August, 2009, ORGN-645.

118. A. Kall, D. Bandyopadhyay and **B. K. Banik***, "Iodine-Catalyzed Asymmetric Synthesis of Pyrrole-Substituted β-Lactams", Presented at the American Chemical Society National Meeting, San Francisco, CA, March, 2010, ORGN-257.

119. K. Ramos, D. Bandyopadhyay and **B. K. Banik***, "Phosphoric Acid-Catalyzed Michael Reaction of Indoles with Carbonyl Compounds", Presented at the American Chemical Society National Meeting, San Francisco, CA, March, 2010, ORGN-195.

120. **B. K. Banik***, I. Banik and F. F. Becker, "Anticancer β-Lactam Via Cycloaddition Reaction: Utilization of Chiral Ketene Derived from Carbohydrate", Presented at the American Chemical Society National Meeting, San Francisco, CA, March, 2010, ORGN-258.

121. **B. K. Banik***, S. Samajdar and F. F. Becker, "Asymmetric Synthesis of Novel Anticancer β-Lactams Via Staudinger Reaction", Presented at the American Chemical Society National Meeting, San Francisco, CA, March, 2010, ORGN-259.

122. S. Mukherjee, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Synthesis of Quinazolines ", Presented at the Green Chemistry Meeting, Denver, CO, July, 2010, ORGN-110.

123. S. Mukherjee, I. Banik, S. Samajdar, F. F. Becker and **B. K. Banik***, "Chiral Synthesis of Novel Anticancer β-Lactams", Presented at the American Chemical Society National Meeting, Boston, MA, August, 2010, ORGN-762.

124. D. Bandyopadhyay, L. C. Turrubiartes, F. F. Becker and **B. K. Banik***, "Diasteroselectivity of β-Lactam formation with Polyaromatic Imines; Synthesis of Novel Anticancer Agents", Presented at the American Chemical Society National Meeting, Boston, MA, August, 2010, ORGN-763.

125. D. Bandyopadhyay, L. C. Turrubiartes and **B. K. Banik***, "Ultrasound-Assisted Aza Michael Reaction in Water", Presented at the American Chemical Society National Meeting, Anaheim, CA, March, 2011, ORGN-480.

126. D. Bandyopadhyay, S. Mukherjee, J. Short, C. Granados, F. Dean and **B. K. Banik***, "Ultrasound-Assisted Bismuth Nitrate-Catalyzed Synthesis and Biological Evaluation of N-Substituted Pyrrole Derivatives", Presented at the American Chemical Society National Meeting, Anaheim, CA, March, 2011, ORGN-486.

127. D. Bandyopadhyay, J. Short, C. Granados, F. Dean and **B. K. Banik***, "Synthesis and Biological Evaluation of New Polyaromatic Anticancer Agents", Presented at the American Chemical Society National Meeting, Anaheim, CA, March, 2011, ORGN-643.

128. **B. K. Banik***, D. Bandyopadhyay, J. Short, C. Granados and F. Dean, "Synthesis of Polycyclic Aromatic Compounds and Their Biological Evaluation as Anticancer Agents", Presented at the NIH/NCI Biomedical Symposium, Bethesda, MD, July, 2011, P-5.

129. S. Samajdar, I. Banik and **B. K. Banik***, "Indium-Induced Glycosylation of Alcohols and Thiols", Presented at the American Chemical Society National Meeting, Denver, CO, August, 2011, ORGN-916.

130. I. Banik, S. Samajdar and **B. K. Banik***, "Synthesis of Novel Anticancer β-Lactams", Presented at the American Chemical Society National Meeting, Denver, CO, August, 2011, ORGN-917.

131. D. Bandyopadhyay, G. Rivera, J. C. Grandos, F. M. Chang, J. D. Short and **B. K. Banik***, "Bismuth Nitrate-Induced Novel Nitration of Estradiol: An Entry to New Anticancer Agents", Presented at the American Chemical Society National Meeting, San Diego, CA, March, 2012, ORGN-824.

132. D. Bandyopadhyay, J. C. Grandos, J. D. Short and **B. K. Banik***, "Synthesis of Pyrenyl Compounds as Potential Anticancer Agents", Presented at the American Chemical Society National Meeting, San Diego, CA, March, 2012, ORGN-825.

133. D. Bandyopadhyay, R. C. Gonzales and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Expeditious Synthesis of 2, 4, 6-Triarylpyridines", Presented at the American Chemical Society National Meeting, San Diego, CA, March, 2012, ORGN-826.

134. D. Bandyopadhyay, S. Maldonado and **B. K. Banik***, "Microwave-Assisted Green Route Toward Hantzsch 1, 4-Dihydropyridines", Presented at the American Chemical Society National Meeting, Philadelphia, PA, August, 2012, ORGN-210; **Selected for Presentation on Demand.**

135. D. Bandyopadhyay and **B. K. Banik***, "Synthesis of Vanillin from Curcumin: An Easy and Practical Approach", Presented at the American Chemical Society National Meeting, Philadelphia, PA, August, 2012, ORGN-784; **Selected for Presentation on Demand.**

136. **B. K. Banik*** and M. S. Manhas, "Stereospecific Novel Glycosylation of Hydroxy β-Lactams Via Iodine-Catalyzed Reaction", Presented at the American Chemical Society National Meeting, Philadelphia, PA, August, 2012, ORGN-153.

137. D. Bandyopadhya, J. Cruz and **B. K. Banik***, "Synthessis of 3-Pyrrole-Substituted β-Lactams: A Novel Approach", Presented at the American Chemical Society National Meeting, Philadelphia, PA, August, 2012, ORGN-152; **Selected for Presentation on Demand**

138. **B. K. Banik***, Banik I., D. Bandyopadhya and F. F. Becker, "Microwave-Induced Synthessis of Anticancer β-Lactams", Presented at the American Chemical Society National Meeting, Philadelphia, PA, August, 2012, ORGN-405 (**American Chemical Society has highlighted it in the Chemical & Engineering News, 2012, September)**.

139. D. Bandyopadhya, S. Samno, J. Rocha, L. Torres, B. Torres, G. Rivera and **B. K. Banik***,, "Green Synthesis and Invitro Biological Evaluation of Benzimidazoles Agaisnt Chagas Disease and Leishmaniasis", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2013, ORGN-273; **Selected for Presentation on Demand**.

140. D. Bandyopadhya and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Paal-Knoor Reaction of 3-Amino β-Lactams: A Green Approach Toward Substituted Pyrroles", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2013, ORGN-898.

141. D. Bandyopadhyay, J. Cruz, L. Morales, H. D. Arman, E. Cuate, Y. Lee, D. J. Kim and **B. K. Banik***, "Green Synthesis and Biological Evaluation of Quinazolines and Bis Quinazolines as Stat3 Phosphorylation/Activation Inhibitor", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2013, ORGN-272; **Selected for Presentation on Demand.**

142. D. Bandyopadhyay, J. Cruz, R. Jadav and **B. K. Banik***, "Clauson-Kass Reaction of 3-Amino β-Lactams: A Novel Entry Toward N-(2-azetidinone)-substituted Pyrroles", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2013, ORGN-897; **Selected for Presentation on Demand**.

143. A. Chavez, D. Bandyopadhyay and **B. K. Banik***, "Stereoselective Synthesis of Novel bis-β-Lactams", Presented at the American Chemical Society National Meeting, New Orleans, LA, March, 2013, ORGN-944; **Selected for Presentation on Demand**.

144. D. Bandyopadhyay, L. C. Smith and **B. K. Banik***, "Ultrasound-assisted Green Approach Toward Substituted 2, 4 (1H)-Diarylimidazoles", Presented at the American Chemical Society National Meeting, Indianapolis, IN, September, 2013, ORGN-353.

145. D. Bandyopadhyay, A. Zavala, M, Yanez and **B. K. Banik***, "Microwave-Assisted Bismuth Nitrate Pentahydrate-Catalyzed Novel Entry Toward 3,3-Di(3-indolyl)-2-oxindoles", Presented at the American Chemical Society National Meeting, Indianapolis, IN, September, 2013, ORGN-352.

146. D. Bandyopadhyay, E. Razo and **B. K. Banik***, "Microwave-Assisted Practical Green Approach Toward Coumarols", Presented at the American Chemical Society National Meeting, Indianapolis, IN, September, 2013, ORGN-143.

147. D. Bandyopadhyay, A. E. Rodriguez, L. E. Gonzalez and **B. K. Banik***, "First Report for the One-Pot Synthesis of Hydroxy-9-phenyldecahydro-1H-xanthene-1,8(8aH)-dione Follwing Green Route", Presented at the American Chemical Society National Meeting, Indianapolis, IN, September, 2013, ORGN-142.

148. A. N. Chavez, R. Yadav and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Microwave-Induced Faciles Synthesis of Dioxo-octahydroxanthenes", Presented at the American Chemical Society National Meeting, Dallas, TX, March, 2014, ORGN-716.

149. R. Reddaboyba, D. Bandyopadhyay, R. Yadav and **B. K. Banik*,** "Diastereoselectives Synthesis of β-Lactams Derived From Ketones", Presented at the American Chemical Society National Meeting, Dallas, TX, March, 2014, ORGN-693.

150. D. Bandyopadhyay, D. Garcia and **B. K. Banik*,** "Ultrasound-Assisted Organo-Catalyzed Synthesis of Quinaoxalines", Presented at the American Chemical Society National Meeting, Dallas, TX, March, 2014, ORGN-689.

151. R. Yadav, A Babolla, S. Chandra and **B. K. Banik*,** "Bismuth Nitrate-Catalyzed Microwave-Assisted Aza Diels Alder Reaction for the Synthesis of Bicyclo (2,2,2)-octanones", Presented at the American Chemical Society National Meeting, Dallas, TX, March, 2014, ORGN-688.

152. D. Bandyopadhyay, A. Zavala and **B. K. Banik*,** "Organocatalyzed Practical and Ecofriendly Synthesis of 2,4-Dihydropyrazines", Presented at the American Chemical Society National Meeting, Dallas, TX, March, 2014, ORGN-686.

153. D. Bandyopadhyay, C. Garcia and **B. K. Banik*,** "Synthesis of Pyridopyrazines Under Controlled Microwave Exposure: A Green Procedure", Presented at the American Chemical Society National Meeting, Dallas, TX, March, 2014, ORGN-638.

154. D. Bandyopadhyay, D. Garcia and **B. K. Banik***, "Ultrasound-Assisted Organocatalyzed Synthesis of Clinically Priviledged Benzimidazoles", Presented at the American Chemical Society National Meeting, Dallas, TX, March, 2014, ORGN-639.

155. A. Chavez, R. Yadav, E. Razo and **B. K. Banik***, "Microwave-Induced Unprecedented β-Lactam Formation Reaction in the Absence of a Tertiary Base", Presented at the American Chemical Society National Meeting, San Francisco, CA, August, 2014, ORGN-1051.

156. D. Bandyopadhyay, D. Garcia and **B. K. Banik***, "Ultrasound-Assisted Lewis Acid-Catalyzed Sustainable Rote Toward Benzimidazole", Presented at the American Chemical Society National Meeting, San Francisco, CA, August, 2014, ORGN-975.

157. D. Bandyopadhyay, D. Garcia and **B. K. Banik***, "Green Synthesis of Polyhydroquinoline: An Easy and Practical Approach", Presented at the American Chemical Society National Meeting, San Francisco, CA, August, 2014, ORGN-974.

158. D. Bandyopadhyay, A. Velasco, A. Zavela and **B. K. Banik***, "Organocatalyzed Ecofriendly Route Toward Medicinally Privileged Indoles", Presented at the American Chemical Society National Meeting, San Francisco, CA, August, 2014, ORGN-770.

159. S. Chandra, L. Garcia, R. Yadav and **B. K. Banik***, "Facile Synthesis of Chiral β-Lactam Derivatives From Carbohydrate Through Cycloaddition Reaction", Presented at the American Chemical Society National Meeting, San Francisco, CA, August, 2014, ORGN-228.

160. A. Paniagua, S. Chandra, R. Yadav, D. Bandyopadhyay and **B. K. Banik***, "Copper-Free Intramolecular β-Lactam Tethered Azide-Alkyne (3+2) Cycloaddition: An Efficient Synthesis of Enantiopure Tricyclic β-Lactam Triazoles", Presented at the American Chemical Society National Meeting, San Francisco, CA, August, 2014, ORGN-227.

161. R. Yadav, A. Paniagua, S. Chandra, D. Bandyopadhyay and **B. K. Banik***, "Intramolecular Azide-Alkyne (3+2) Cycloaddition: An Efficient Route to Azetotriazole Diazepinone", Presented at the American Chemical Society National Meeting, San Francisco, CA, August, 2014, ORGN-225.

162. D. Bandyopadhyay, J. Perez, H. Cardenas and **B. K. Banik**, "Organocatalyzed Green Synthesis of bis-Benzopyrzines: An Entry to Novel Heteroaromatics", Presented at the American Chemical Society National Meeting, Denver, CO, March, 2015, ORGN-534.

163. D. Bandyopadhyay, O. Rodriguez, L. Chapa, A. Zavala and **B. K. Banik**, "Ultrasound-assisted Green Synthesis of Diversely Substituted Oxindoles", Presented at the American Chemical Society National Meeting, Denver, CO, March, 2015, ORGN-533.

Invited Presentations:

1. **B. K. Banik**, S. Ghosh and U. R. Ghatak, "An Efficient Synthesis of 2-Substituted 3,3-Dimethylcyclohexan-1-ones: A Simple Synthetic Route to Podocarpa-8,11,13-trieneDiterpenoids", Presented at the 11th International Congress of Essential Oils, Fragrances and Flavors, New Delhi, November, 1989.

2. A. K. Bose, M. S. Manhas, **B. K. Banik** and E. W. Robb, "Microwave-induced Organic Reaction enhancement Chemistry: Techniques for Rapid, Safe and Inexpensive Synthesis", Presented at Joint NSF/EPRI Workshop in California, March, 1993.

3. M. S. Manhas, M. Negi, **B. K. Banik**, M. Yalala and A. K. Bose, "Homochiral Synthesis for the Taxol Side Chain and Analogs via Chemoenzymatic Reactions", Presented at the IUPAC pre-symposium meeting, New Delhi, December, 1994.

4. M. S. Manhas, **B. K. Banik** and A. K. Bose, "Ferrier Type Glycosylation for the Synthesis of Both Enantiomers of β-Lactams", Presented at the 10th IUPAC Meeting, Bangalore, December, 1994.

5. A. K. Bose, M. S. Manhas, **B. K. Banik** and E. W. Robb, "Microwave Induced Rapid Reactions for Preparative Organic Chemistry", Presented at the International Microwave Power Institute, Chicago, July, 1994 (**Proceedings of 29thMicrowave Power Symposium by IMPI, 1994, 35)**.

6. M. S. Manhas, **B. K. Banik** and A. K. Bose, "Strategies for Mirror Image Molecules", Presented at the 10th IUPAC post-symposium Meeting, Hyderabad, December, 1994.

7. A. K. Bose, M. S. Manhas and **B. K. Banik,** "Synthetic Strategies for Mirror Image Molecules", Presented in Jamaica, January, 1994.

8. A. K. Bose, **B. K. Banik**, M. S. Manhas, E. W. Robb, N. Lavlinskaia, "Medicinal Chemistry in the Microwave Oven: Environmentally Benign Processes", Presented at the International Conference of Microwave and High Frequency Heating, Cambridge University, UK, September, 1995.

9. M. Jayaraman, **B. K. Banik**, A. Okawa, E. W. Robb, M. S. Manhas, A. K. Bose, "Microwave Assisted Stereocontrolled Synthesis of β-Lactam Intermediates of Taxol and Analogs", Presented at the First World Congress Microwave Processing, Walt Disney Village, Florida, January, 1997.

10. **B. K. Banik***, "Microwave Assisted β-Lactam Synthesis", Presented at the Meeting of Microwave Induced Organic Reactions at the Stevens Institute of Technology, Hoboken, New Jersey, April, 1999 (**Distinguished lecture**).

11. M. S. Manhas, S. N. Ganguly**, B. K. Banik,** S. S. Bari, A. Ritter, M. Lea, S. G. Amin, B. N. Pramanik and M. Chmielewski, "Undergraduate Projects in Technology and Medicine (UPTAM)-A Novel Introduction to Biosciences", Presented at the American Chemical Society National Meeting, Anaheim, CA, March, 1999, CHED-804.

12. **B. K. Banik***, "Synthesis and Structure-Activity Relationship Study of Polycyclic Aromatic Compounds as Anticancer Agents", Presented at the Golden Jubilee Celebration of the Indian Association for the Cultivation of Science, India, January, 2000 (**Distinguished lecture on the occasion of Professor A. K. Bose's 75th birthday**).

13. **B. K. Banik*,** "Research on Antibiotics and Anticancer Drugs", Presented at the Golden Jubilee Celebration of the Bejoy Narayan College, India, January, 2000.

14. **B. K. Banik**, M. S. Manhas, Rumthao, M. Jayaraman, A. H. Sharma, A. K. Ganguly. M. Huarotte and A. K. Bose "MORE Chemistry Techniques for Process Development", Presented at the fifth International Electronic Conference on Synthetic Organic Chemistry (ECSOC-5), Mass, Belgium, September, 2001, E0047.

15. **B. K. Banik*,"**Polyaromatic Compounds as Novel Anticancer Agents: Synthesis and Biological Investigation", Presented at the University of South Florida, H. Lee Moffitt Cancer Center, Tampa, FL, December, 2001.

16. **B. K. Banik***, "Synthesis and Biological Evaluation of Novel Organic Compounds", Presented at the Memorial Sloan-Kettering Cancer Center, New York, October, 2003.

17. **B. K. Banik***, "Synthesis, Biological Evaluation and Mechanism of Action of Novel Organic Compounds", Presented at the Saint Louis University, Missouri, December, 2003.

18. **B. K. Banik***, "Drugs in Search of Targets and Diseases", Presented at the International Symposium on Drug Discovery at Cross Roads-Confluence of Chemistry, Biology & Information Technology, Kolkata, India, February, 2003.

19. **B. K. Banik***, S. Samajdar and I. Banik, "A New and Expeditious Reduction of Ketimines to Vicinal Diamines by Samarium-Mediated Reaction", Presented at the International Union & Pure and Applied Chemistry Meeting, Toronto, Canada, July, 2003, P 23.

20. I. Banik**,** A. Ghatak, M. K. Basu and **B. K. Banik***, "Samarium-Induced Reductive Dimerization of Carbonyl Compounds in Aqueous Solution", Presented at the International Union & Pure and Applied Chemistry Meeting, Toronto, Canada, July, 2003, P 24.

21. **B. K. Banik*,** "Novel Polycyclic Aromatic Compounds as Anticancer Agents: Synthesis and Biological Evaluation", Presented at the Wyeth Research, Boston, July, 2003.

22. **B. K. Banik***, "An Exploratory Structure-Based Approach for the Synthesis of Biologically Active Organic Compounds", Presented at the University of Texas-Pan American, Texas, March, 2004.

23. **B. K. Banik***, "An Exploratory Structure-Based Approach for the Synthesis of Novel Organic Compounds", Presented at the Kent State University, Ohio, April, 2004.

24. **B. K. Banik***, I. Banik and N. Aounallah, "Sm/NBS-Induced Reductive Dimerization of Carbonyl Compounds", Presented at the National Organic Symposium, Salt Lake City, Utah., June, 2005, P-12.

25. **B. K. Banik***, I. Banik and C. Logan, "Synthesis of Hydrofluorenes in a One-Pot Method", Presented at the National Organic Symposium, Salt Lake City, Utah., June, 2005, P-11.

26. **B. K. Banik***, "An Exploratory Structure-Based Approach for the Synthesis of Biologically Active Organic Compounds", Presented at the University of Texas-San Antonio, November, 2005.

27. **B. K. Banik***, I. Garcia and M. Cardona, "Bismuth Nitrate-Catalyzed Novel Synthesis of Substituted Pyrrole Bound to Indolinone", Presented at the International Union & Pure and Applied Chemistry Meeting, Merida, Mexico, June, 2006, ICOS-190.

28. **B. K. Banik***, C. Aguilar and D. Garcia, "Both Enantiomers of the Taxol Side Chain via Optical Resolution of Hydroxy β-Lactams", Presented at the International Union & Pure and Applied Chemistry Meeting, Merida, Mexico, June, 2006, ICOS-189.

29. **B. K. Banik***, F. Morales and H. Aguilar, "Optically Active β-Lactams with Thienamycin Side Chain via Bismuth Salts-Catalyzed Glycosylation", Presented at the International Union & Pure and Applied Chemistry Meeting, Merida, Mexico, June, 2006, ICOS-186.

30. **B. K. Banik***, "Synthesis, Biological Evaluation and Mechanism of Action of Novel Organic Compounds", Presented at the Florida A & M University, Tallahassee, FL, January, 2007.

31. Eyambe, G.* and **B. K. Banik***, "Transformation of Eugenol and the Antimicrobial Activity of the Novel Products Epoxy-Eugenol and Bromo-Alcohol", Presented at the TACLS Annual Conference, Austin, TX April, 2008.

32. F. P. Cossio*, A. Arrieta, B. Lecea, M. A. Sierra, I. Fernandez and **B. K. Banik**, "Recent Computational Studies on the Staudinger Reaction Between Ketenes and Imines", Presented at the WATOC, Sydney, Australia, September, 2008.

33. **B. K. Banik***, I. Banik and F. F. Becker, "Synthesis and Biological Evaluation of Anticancer β-Lactams", Presented at the 100th anniversary of the Nobel Prize Celebration Ceremony in Germany, Nuremberg, Germany, October, 2008 (**Distinguished lecture as the Chair of the New Drugs and Targets Session**).

34. **B. K. Banik***, "Design, Synthesis, Biological Evaluation and Mechanism of Action of Anticancer β-Lactams ", Presented at the International Symposium in Saha Institute of Nuclear Physics, Kolkata, India, January, 2009.

35. **B. K. Banik***, "Design, Synthesis, Biological Evaluation and Mechanism of Action of Novel Organic Compounds ", Presented at the U. R. Ghatak and P. C. Dutta Memorial Symposium, Indian Association for the Cultivation of Science, Kolkata, India, January, 2009.

36. **B. K. Banik***, "Discovery of Innovative Small Molecules as Anticancer Agents", Presented at the Kalyani University, India, January, 2009.

37. **B. K. Banik***, "An Exploratory Synthetic and Biological Studies of Medicinally Important Organic Compounds", Presented at the Burdwan University, India, January, 2009.

38. **B. K. Banik***, "Bismuth Nitrate-Induced Stereoselective and Catalyzed Reaction Toward Biologically Active Molecules", Presented at the Indian Association for the Cultivation of Science, India, January, 2011.

39. **B. K. Banik***, "Search for New Drugs: Entry to Novel Anticancer β-Lactams", Presented at the International Symposium (Tripura University), India, January, 2011.

40. **B. K. Banik***, "Microwave-Induced Stereocontrolled Synthesis of β-Lactams", Presented at the International India-US Scientific Collaboration Symposium (Dehradoon), India, March, 2012 (**Distinguished lecture as the US Principal Investigator**).

41. **B. K. Banik***, "Enantioselective Synthesis of β-Lactams", Presented at the Indian Association for the Cultivation of Science, Kolkata, India, March, 2012.

42. **B. K. Banik***, "Enantio- and Diastereoselective Synthesis of Anticancer β-Lactams", Presented at the Burdwan University, India, University Grant Commission Symposium, Burdwan, India, March, 2012 (**Distinguished lecture**).

43. **B. K. Banik***, "Ringing the Changes of Cancer Through β-Lactams", Presented at the 100th Year Anniversary of the Indian Science Congress, Calcutta, January, 2013 (**Distinguished lecture; Acharya Prafulla Chandra Ray Memorial Session with a Nobel Laureate**).

44. J. Cruz, D. Bandyopadhyay, and **B. K. Banik***, "Clauson-Kass Reaction of 3-Amnio β-Lactams: A Novel Entry Toward N-(2-azetidinone)-substituted Pyrroles As Potential Anticancer Agents, Presented at the Vista Summit, UTPA, September, 2013.

45. **B. K. Banik***, "Asymmetric Synthesis of β-Lactams", Presented at the Burdwan University Annual Symposium, January, 2013.

46. **B. K. Banik***, "Synthesis of Anticancer β-Lactams and Their Medicinal Evaluation", Presented at the Michigan Technogical University, February, 2013.

47. **B. K. Banik***, "Microwave-Induced Green Chemistry: Synthetic Method Toward Biologically Active Molecules", Presented at the Delhi University, December, 2013 (**Distinguished lecture organized by the Royal Society of Chemistry, American Chemical Society and Indian Chemical Society**).

48. **B. K. Banik***, "Anticancer β-Lactams: Mechanism of Actions", Presented at the Panjub University, December, 2013(**Distinguished lecture organized by the Indian Chemical Society on the occasion of Professor P. K. Bose Endowment Award given to me for outstanding research**).

49. **B. K. Banik***, "Enantiosective Synthesis of Heterocycles", Presented at the Indian Association for the Cultivation of Science, December, 2013.

50. **B. K. Banik***, "Bismuth Salts-Catalyzed Organic Reactions", Presented at the Burdwan University, December, 2013.

Selected Invited Educational Presentations:

1. **B. K. Banik***, "The Freedom of India: Struggle and Success", Presented at the Rio Grande Valley Indian Association on the occasion of Indian Independence Day Celebration, August, 2011 (**Award Winning Lecture**).

2. **B. K. Banik***, "Education and Success: Dream for Future", Presented at the US National Society of Collegiate Scholar Induction Ceremony at the University of Texas-Pan American, November, 2011 (**Distinguished Member Lecture**).

3. **B. K. Banik***, "Burdwan University Reunion: A Journey After 32 Years", Presented at the Burdwan University Alumni Reunion, India, March, 2012.

4. **B. K. Banik***, "Education, Dream and Discover", Presented at the University of Texas-Pan American Chemistry Honor Society, April, 2012 (**Advising Lecture to the Students as the Founder and Advisor of Chemistry Honor Society**).

5. **B. K. Banik***, "Novel Anticancer Molecules: A New Perspective", Presented at the department of Physics & Geology, University of Texas-Pan American, October, 2011

6. **B. K. Banik***, "Aims Toward a Bright Career", Presented at the Michigan Technogical University, February, 2013.

Regional and State Presentations:

1. **B. K. Banik**, O. Zegrocka, M. S. Manhas and A. K. Bose, "Synthesis of Optically Active β-Lactams via Glycosylation", Presented at the Annual Meeting of New Jersey Academy of Science, April, 1994.

2. **B. K. Banik**, G. V. Subba Raju, V. S. Raju, R. Naqvi and M. S. Manhas, "Synthesis of Tricyclic β-Lactams Via Radical Cyclization", Presented at the Annual Meeting of New Jersey Academy of Science, April, 1994.

3. S. A. Shah, **B. K. Banik**, M. S. Manhas, A. K. Bose, "Absolute Configuration of a Glycine Derive β-Lactam", Presented at the Annual Meeting of New Jersey Academy of Science, April, 1994.

4. **B. K. Banik**, M. S. Manhas and A. K. Bose, "Synthesis of Optically Active 4-Unsubstituted β-Lactams", Presented at the American Chemical Society Middle-Atlantic Meeting, Washington D.C., May, 1995.

5. M. Ortiz, J. Marquez and **B. K. Banik***, "A Remarkably Simple Protection of Carbonyl Compounds as Ketal via Bismuth Nitrate Catalyzed Reaction", Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-11.

6. J. Marquez, M. Ortiz and **B. K. Banik***, "An Expeditious Synthesis of Substituted Pyrroles via Bismuth Nitrate-Catalyzed Reaction", Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-10.

7. C. A. Alvarez, R. I. Cuellar and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Novel Synthesis of Substituted Pyrrole Bound to Indolinone", Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-09.

8. R. I. Cuellar, C. A. Alvarez and **B. K. Banik***, "Sodium Bismuthate-Induced Reaction of Baccatin: Key Materials for the Semi synthesis of Taxol", Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-08.

9. M. Chapa, M. Fernandez and **B. K. Banik***, "Bismuth Nitrate-Induced Reaction of Indole and β-Keto ester", Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-07.

10. M. Fernandez, M. Chapa and **B. K. Banik***, "Bismuth Nitrate-Induced Michael Reaction of Aza indole", Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-06.

11. M. Renteria, M. Cardona and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Facile Peracetylation of Glucose Using Stoichiometric Amount of Acetic Anhydride", Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-05.

12. M. Cardona, M. Renteria and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Facile Thioglycosylation of Peracetylated Glucose", Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-04.

13. M. Castillo, C. Logan, N. Aounallah and **B. K. Banik*,** "Bismuth Nitrate-Catalyzed Acetylation and Oxidation of Hydroxy β-Lactams: A Dual Mechanism" Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-03.

14. C. Logan, M. Castillo, N. Aounallah and **B. K. Banik*,** "Synthesis and Biological Evaluation of Dibenzofluorene Derivatives as Anticancer Agents" Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-02.

15. N. Aounallah, C. Logan, M. Castillo and **B. K. Banik*,** "An Expeditious Samarium/N-Bromosuccinimide-Mediated Reductive Coupling of Aromatic Ketones" Presented at the South Texas Section of ACS Meeting, Edinburg, Texas, November, 2004, ORGN-01.

16. R. Sakaria and **B. K. Banik***, "Synthesis of Pyrrole substituted 2-Azetidinones", Presented at the LSAMP Annual Meeting , Dallas, September, 2005.

17. C. Logan and **B. K. Banik***, "Dibenzofluorene Derivatives as Highly Potent Anticancer Agents", Presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-P-25.

18. J. Marquez and **B. K. Banik***, "Paal Knoor Synthesis of Pyrroles is Revisited", presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-76.

19. C. A. Alvarez and **B. K. Banik***, "Novel Synthesis of Heterocycles: Pyrrole Bound to Indolinone", Presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-75.

20. R. I. Cuellar and **B. K. Banik***, "A Highly Selective Bismuth salts-Induced Allylic Oxidation of Baccatin", Presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-P-23.

21. M. Chapa and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Novel Carbon-Carbon Bond Formation Reaction of Indole with β-Keto Ester", presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-61.

22. M. Fernandez and **B. K. Banik***, "Bismuth Nitrate-Induced Michael-type of Reaction of Aza indole", Presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-74.

23. M. Cardona and **B. K. Banik***, "A Remarkable Bismuth Nitrate-Catalyzed Facile Peracetylation of Carbohydrates", Presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-P-21.

24. M. Castillo and **B. K. Banik*,** "Synthetic Studies in β-Lactam Antibiotics: Dual Role of Bismuth Nitrate in the Acetylation and Oxidation of Hydroxy Azetidinone", Presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-P-22.

25. C. Logan and **B. K. Banik*,** "Dibenzofluorene Derivatives as Highly Potent Anticancer Agents", Presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-P-25.

26. N. Aounallah and **B. K. Banik*,** "Electron Transfer via a Samarium/N-Bromosuccinimide-Mediated Reaction: Reductive Coupling of Aromatic Ketones", Presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-64.

27. R. Garza and **B. K. Banik*,** "Protection of Carbonyl Compounds via Bismuth Nitrate Catalyzed Reaction", Presented at the Texas Academy of Science Annual Meeting, Edinburg, Texas, March, 2005, CHEM-P-24.

28. C. Alvarez and **B. K. Banik***, "A Simple Protection of Carbonyl Compounds via Bismuth Nitrate-Catalyzed Reaction", Presented at the Texas Academy of Science Annual Meeting, Beaumont, March, 2006, CJ-28.

29. J. Marquez and **B. K. Banik***, "Synthesis of Anticancer β-Lactams Through Cycloaddition Reaction", Presented at the Texas Academy of Science Annual Meeting, Beaumont, March, 2006, CJ-31.

30. C. Aguilar, J. Marquez and **B. K. Banik***, "Bismuth Nitrate-Induced Reaction of Indole with Carbonyl Compounds", Presented at the Texas Academy of Science Annual Meeting, Beaumont, March, 2006, P23-CJ.

31. H. Aguilar, K. Gomez and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Oxidation and Acetylation Reaction of Hydroxy β-Lactams", Presented at the Texas Academy of Science Annual Meeting, Beaumont, March, 2006, P24-CJ.

32. I. Garcia, R. Garza and **B. K. Banik***, "An Expeditious Iodine-Induced Three Component Reaction", Presented at the Texas Academy of Science Annual Meeting, Beaumont, March, 2006, CJ-29.

33. M. Medina, L. Canales and **B. K. Banik***, "Isolation and Structural Modification of Eugenol", Presented at the Texas Academy of Science Annual Meeting, Beaumont, March , 2006, P25-CJ.

34. L. Canales, M. Medina and **B. K. Banik***, "Chemical and Biological Investigations on Eugenol", Presented at the UTSA Biotechnology Inauguration Meeting, San Antonio, TX, August, 2006.

35. H. Aguilar and **B. K. Banik***, "Synthesis of Anticancer β-Lactams", Presented at the UTSA Biotechnology Inauguration Meeting, San Antonio, TX, August, 2006.

36. F. Morales, C. Aguilar and **B. K. Banik***, "Synthesis of Bis Indoles", Presented at the UTSA Biotechnology Inauguration Meeting, San Antonio, TX, August, 2006 (**Frances Morales had received an award in the poster competition).**

37. C. Miranda, D. Bandyopadhyay and **B. K. Banik*,** "Glycosylation of Nitro Estrone", Presented at the UTSA Science Conference, San Antonio, TX, August, 2008.

38. L. Iglesias, D. Bandyopadhyay and **B. K. Banik*,** "Bismuth Nitrate-catalyzed Synthesis of Bis Indoles", Presented at the UTSA Science Conference, San Antonio, TX, August, 2008.

39. S. Rivera, D. Bandyopadhyay and **B. K. Banik*,** "Synthetic Studies on Bis Aza Indoles", Presented at the UTSA Science Conference, San Antonio, TX, August, 2008.

40. J. Escano, D. Bandyopadhyay and **B. K. Banik*,** "Lewis acid catalyzed Alkylation of Alcohols With Dicarbonyl Compounds", Presented at the UTSA Science Conference, San Antonio, TX, August, 2008 (**Jerome Escano had been awarded a prize**).

41. M. Hashim, D. Bandyopadhyay and **B. K. Banik*,** "Cycloaddition Reaction Toward Vinyl β-Lactams", Presented at the UTSA Science Conference, San Antonio, TX, August, 2008 (**Hashim Mahammad had been awarded a prize**).

42. R. Rodriguez and **B. K. Banik*,** "Diastereoselectivity in β-Lactam Formation Reaction: Unprecedented Observation", Presented at the UTSA Science Conference, San Antonio, TX, August, 2008. (**Robert Rodriguez had been awarded a prize**).

43. S. Samano, D. Bandyopadhyay and **B. K. Banik*,** "Bismuth Nitrate-Catalyzed Microwave-Induced Synthesis of Novel Imidazoles", Presented at the UTSA Science Conference, San Antonio, TX, August, 2008 (**Selina Samano had been awarded a prize**).

44. R. Rordiguez, H. Aguilar and **B. K. Banik*,** "Distereoselective Synthesis of β-Lactams Derived from Conjugated Compounds", Presented at the American Chemical Society Regional Meeting, Little Rock, Arkansas, October, 2008.

45. A. Kall, L. Chee, D. Bandyopadhyay and **B. K. Banik***, Microwave Induced Aza-Michael Reaction in Water: A Remarkably Simple Procedure", Presented at the UTSA Science Conference, San Antonio, TX, August, 2009.

46. J. Escano, M. Rangel and **B. K. Banik*,** "Diastereoselective Synthesis of Novel Spiro-β-Lactams via Staudinger Cycloaddition", Presented at the UTSA Science Conference, San Antonio, TX, August, 2009.

47. D. Abrego, C. Carames, D. Bandyopadhyay and **B. K. Banik*** ,"Indium-catalyzed Synthesis of Pyrrole-substituted Indolinones", Presented at the UTSA Science Conference, San Antonio, TX, August, 2009.

48. M. Abundis, A. Thomas, D. Bandyopadhyay and **B. K. Banik***, **"**Bismuth nitrate-catalyzed Microwave-induced Synthesis of novel phenthrolinone derivatives", Presented at the UTSA Science Conference, San Antonio, TX, August, 2009.

49. E. Cuate, K. Ramos, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Induced Remarkable Synthesis of Quinoxalines", Presented at the UTSA Science conference, San Antonio, TX, August, 2009.

50. M. I. Hashim, J. M. Velazquez and **B. K. Banik***. **"**Synthesis of Vinyl-β-Lactams via Staudinger Cycloaddition Reaction Derived from Polyaromatic Imines and Unsaturated Acid", Presented at the UTSA Science conference, San Antonio, TX, August, 2009.

51. A. Reyna, S. Maldonado, D. Bandyopadhyay and **B. K. Banik***, "Synthesis of Polyaromatic β-Lactams Using Diethyl Ketomalonate", Presented at the UTSA Science conference, San Antonio, TX, August, 2009.

52. E. Gonzalez, R. Galvez, D. Bandyopadhyay and **B. K. Banik***, "Radical-Mediated Reactions Toward Polycyclic β-Lactams", Presented at the UTSA Science conference, San Antonio, TX, August, 2009.

53. L. Canales, L. Rodriguez and **B. K. Banik*** "Synthetic Studies on Naturally Occurring Eugenol", Presented at the UTSA Science conference, San Antonio, TX, August, 2009.

54. J. A. Cantu, K. J. Pascual, C. Gonzales, D. Bandyopadhyay and **B. K. Banik***, "An Easy and Straightforward Route for the Synthesis of Disubstituted Imidazoles", Presented at the UTSA Science conference, San Antonio, TX, August, 2009.

55. G. Rivera, O. Esparza, D. Bandyopadhyay and **B. K. Banik***, "Novel Nitration of β-Estradiol by Metal Nitrates", Presented at the UTSA Science conference, San Antonio, TX, August, 2009.

56. D. Bandyopadhyay and **B. K. Banik***, "Polycyclic Aromatic Compounds as Anticancer Agents." Presented at the UTHSCSA-UTPA Partnership Meeting, Port Aransas, TX, May, 2010.

57. S. Mukherjee and **B. K. Banik***, "Novel β-Lactams as Anticancer Agents." Presented at the UTHSCSA-UTPA Partnership Meeting, Port Aransas, TX, May, 2010.

58. J. Cruz, D. Bandyopadhyay and **B. K. Banik***, "Synthesis and Biological Evaluation of Pyrrole-Substituted β-Lactams as Anticancer Agents." Presented at the RGV Vista Summit, Edinburg, TX, November, 2012 (**only three presentations were selected from whole UTPA**).

Presentations at the Universities: 181

My students have presented a number of papers in the Summer Research Program sponsored by UTB, Texas

4 presentations in 2009 (August)

4 presentations in 2008 (August)

2 presentations in 2007 (August)

My students have presented a number of papers in the Summer Research Program sponsored by UTPA, Texas

6 presentations in 2009 (August)

5 presentations in 2010 (August)

9 presentations in 2011 (August)

4 presentations in 2012 (August)

1-26. Presentations by the students (undergraduates and graduates) at the various scientific meetings sponsored by **American Chemical Society, New Jersey Academy of Science, New York Cardiac Center, HHMI, Roche Pharmaceutical Company, Schering-Plough Pharmaceutical Company, Merck Pharmaceutical Company, J & J Pharmaceutical Company, Union City New Jersey Board of Education, Stevens Institute of Technology and the University of Texas M. D. Anderson Cancer Center**. The name of the students who presented are: Mary Wilson, Shonmei Wu, Sze Sze Ng, Jennie Hann, Michelle Suhendra, Akash Bhagat, Tai Li Chang, Dorothy Adler, Edith Borges, Amanda Mower, Monica Veldez, Juan Alvarado, Bhavna Chadwa, David Clayton, Tom Pae, Patricia Sanchez, Paula Rodrigues, Varsha Valecha, Annie Barton, Arijit Chakraborty, Ronald Delo, Andrew Post, Julie Issaction, Ketan Shah, Madhumeeta Patel and Saurabh Desai (1990-2002). **B. K. Banik** was their mentor and senior author in these presentations.

27. J. Marquez and **B. K. Banik***, "A Novel Iodine-Catalyzed Protection of Carbonyl Compounds", Presented at the HESTEC Annual Meeting, Edinburg, September, 2005, ORGN-006.

28. M. Castillo and **B. K. Banik***, "Dual Role of Bismuth Nitrate in the Acetylation and Oxidation of Hydroxy Azetidinone", Presented at the HESTEC Annual Meeting, Edinburg, September, 2005, ORGN-005.

29. L. Canales and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Thioglycosylation of Peracetylated Sugars", Presented at the HESTEC Annual Meeting, Edinburg, September, 2005, ORGN-004.

30. M. Perez and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Novel Carbon-Carbon Bond Formation Reaction of Indole with Beta Keto Ester", Presented at the HESTEC Annual Meeting Edinburg, September, 2005, ORGN-003.

31. C. Alvarez and **B. K. Banik***, "A New Michael Reaction of Indole via Iodine-Catalyzed Reactions", Presented at the HESTEC Annual Meeting, Edinburg, September, 2005, ORGN-002.

32. C. Aguilar and **B. K. Banik***, "Synthesis of Bis-Indole via Bismuth Nitrate-Catalyzed Reactions", Presented at the HESTEC Annual Meeting, Edinburg, September, 2005, ORGN-001.

33. I. Garcia and **B. K. Banik***, "Acid-Catalyzed Michael Reaction of Indoles in Aqueous Media", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-011.

34. D. Owens, I. Garcia and **B. K. Banik***, "Acid-Catalyzed Michael Reaction of Amines and Carbamates in Aqueous Media", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-010.

35. L. Canales, M. Medina and **B. K. Banik***, "Chemical Modifications of Eugenol", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-009.

36. I. Garcia, D. Garcia and **B. K. Banik***, "Preparation of Aspirin Through a Novel Catalytic Process", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-008.

37. H. Aguilar and **B. K. Banik***, "Synthesis of Anticancer β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-007 (**selected as the best and award winning presentation**)

38. F. Morales, I. Garcia and **B. K. Banik***, "Effects of Lewis Acids on the Reaction Between Isatin and Hydroxyproline", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-006.

39. C. Aguilar and **B. K. Banik***, "Synthetic Studies Toward Bis-Indole Derivatives", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-005.

40. D. Cordova, H. Aguilar and **B. K. Banik***, "Microwave-Induced Synthesis of β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-004.

41. A. Bose, H. Aguilar and **B. K. Banik***, "Microwave-Induced New Nitration of Estrone Through Bismuth Nitrate-Induced Reaction", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-003.

42. P. Sanjoto, H. Aguilar and **B. K. Banik***, "Nitration of Estrone Through Metal Salts-Induced Reactions", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-002.

43. S. Villarreal, H. Aguilar and **B. K. Banik***, "A Novel Nitration of Estradiol Through Metal Salts-Induced Reactions", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2006, ORGN-001.

44. I. Garcia and **B. K. Banik***, "Novel Anticancer β-Lactams: A Remarkable Approach Toward Lead Medicinally Active Compounds", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

45. A. Kall, I. Garcia, D. Bandyopadhyay and **B. K. Banik***, "Acid-Catalyzed Michael Reaction of Amines and Carbamates in Aqueous Media", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

46. L. Canales and **B. K. Banik***, "Isolation and Structural Modification of Eugenol", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

47. R. Rodriguez, H. Aguilar and **B. K. Banik***, "Synthesis of Anticancer β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

48. F. Morales, I. Garcia and **B. K. Banik***, "Novel Synthesis of Substituted Pyrrole Bound to Indolinone via Molecular Iodine-Catalyzed Reaction", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

49. D. Bandyopadhyay and **B. K. Banik***, "A Novel Route Toward the Synthesis of 2,4(5)-Disubstituted Imidazoles from Simple Building Blocks", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

50. J. Lerma, D. Alvarez, M. Hernandez and **B. K. Banik***, "Peracetylation of Carbohydrates", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

51. A. Bose, W. Sanjoto, S. Villarreal, H. Aguilar and **B. K. Banik***, "Nitro Estrone: A New Steroid Through Bismuth Nitrate-Induced Reaction", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

52. S. Villarreal, A. Bose, W. Sanjoto, H. Aguilar and **B. K. Banik***, "Nitro Estradiol Through Bismuth Nitrate-Induced Reaction", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

53. D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate Pentahydrate: An Efficient Catalyst for Michael Addition of 1, 3-Diketo Compounds", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

54. I. Salinas, H. Aguilar and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Synthesis of 3-Pyrrole Substituted Monocyclic β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

55. D. Ramirez, I. Garcia, F. Morales and **B. K. Banik***, "Acid-Catalyzed Michael Reaction of Indoles in Aqueous Media", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

56. P. Ruiz, S. Jaggi, A. Reddy and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Three Component Mannich Reaction", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

57. J. Lugo, C. Aguilar and **B. K. Banik***, "Lewis Acid-Catalyzed Electrophilic Substitution of Indole with Carbonyl Compounds", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

58. C. Miranda, H. Aguilar and **B. K. Banik***, "Novel Glycosylation of Estrone", presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

59. K. Miranda, I. Garcia and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Synthesis of Pyrrole Substituted β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

60. D. Mahammed, I Garcia, D. Garcia, and **B. K. Banik***, "Preparation of Aspirin Through a Novel Catalytic Process", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

61. I. Salinas, H. Aguilar and **B. K. Banik*,** "Studies on Antibiotics: Pyrrole-Substituted Monocyclic β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2007.

62. S. Rivera and **B. K. Banik*,** "Bismuth Nitrate-Catalyzed Novel Synthesis of Medicinally Active Pyrroles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

63. S. Samano, Y. Mora, D. Bandyopadhyay and **B. K. Banik***, "Microwave-induced Synthesis of Disubstituted Imidazoles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

64. M. Hashim, D. Bandyopadhyay and **B. K. Banik***, "A Novel Synthetic Approach Toward Enantioselective Anticancer β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

65. L. Iglesias, S. Rivera, D. Bandyopadhyay and **B. K. Banik***, "Microwave-Induced Bismuth Nitrate-Catalyzed Expeditious Synthesis of Bis Indoles Under Solventless Conditions", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

66. K. Ramos, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Induced Novel Nitration of 9-Bromophenanthrene: Approach Toward Unusual Polycyclic Aromatic Hydrocarbon", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

67. K. Miranda and **B. K. Banik***, "Synthesis of Stable Schiff Bases", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

68. E. Cuate, C. Choudhary, D. Bandyopadhyay and **B. K. Banik***, "Novel Synthesis of Unusual *bis*-β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

69. C. Miranda, A. Bose**,** D. Bandyopadhyay and **B. K. Banik***, "Novel Glycosylation of Estrone", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

70. A. Nambiar, R. Rodriguez and **B. K. Banik***, "Novel Synthesis of Pyrrole-Substituted β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

71. M. M. Javier, D. Bandyopadhyay and **B. K. Banik***, "Synthesis of 3-Heterosubstituted Anticancer β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

72. J. Escano, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Salts-Catalyzed Michael Addition of Benzyl alcohols to 1,3-Di-Keto Compounds:, Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

73. D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Induced Extremely Easy and Straightforward Synthesis of Quinoxalines", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

74. D. Bandyopadhyay and **B. K. Banik***, "Stereoselective Synthesis of Double β-Lactams as Potent Anti-cancer Agents", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

75. D. Bandyopadhyay and **B. K. Banik***, "Ruthenium (III) Chloride-Induced Easy Synthesis of Novel Heterocyclic-Substituted Indolinones", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

76. D. Bandyopadhyay, A. Kall and **B. K. Banik***, "An Extremely Efficient Green Synthesis of β-Aminoketones", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

77. C. Gonzales, D. Bandyopadhyay and **B. K. Banik***, "Oxidative *N*-Deanisylation of β-Lactams: A Convenient Access Toward Bioactive Azepinoindole Derivatives", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

78. A. Banik, S. Batta, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Easy and Highly Efficient Route for the Synthesis of Medicinally Important α-Amino Phosphonates", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008 (**Antara Banik was awarded the First Prize in the high school student's poster competition**).

79. A. Thomas, Debasish Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Induced Novel Nitration of Estradiol", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

80. A. Kall, D. Bandyopadhyay and **B. K. Banik***, "Microwave-Induced Aza-Michael Reaction in Water: A Remarkable Simple Procedure", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2008.

81. S. Maldonado, A. Reyna, D. Bandyopadhyay and **B. K. Banik***, "Stereoselective Synthesis Novel Indole fused β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

82. R. Galvez, E. Gonzalez, D. Bandyophadyay and **B. K. Banik***, "Stereoselective Synthesis of Novel β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

83. L. Chee, E. Cuate, D. Bandyophadyay and **B. K. Banik***, "Bismuth Nitrate Catalyzed Cascade Michael Addition/Reduction of Indoles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

84. L. Rodriguez, R. C. Gonzales, D. Bandyopadhyay and **B. K. Banik***, "Ceric Ammonium Nitrate Induced *N*-Deanisylation of β-Lactams: A Route for the Synthesis of Azepinoindole", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

85. C. Camares, D. Bandyopadhyay, and **B. K. Banik***, "An Easy Access for the Synthesis of Novel Anticancer Agents", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

86. A. Thomas, D. Bandyopadhyay, and **B. K. Banik***, "An Exploratory Nitration and Reduction Study of Chrysene: Intermediates for the Synthesis of Novel Anticancer Agents", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009 (**Angela Thomas has been selected as the best high school student researcher and she has been awarded a prize**).

87. S. Samano, D. Bandyopadhyay and **B. K. Banik***, "*An Efficient Route for the Synthesis of Benzimidazoles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

88. D. Bandyopadhyay, S. Rivera and **B. K. Banik***, "Highly Efficient Green Synthesis of Pyrroles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

89. D. Bandyopadhyay, G. R. Sánchez, A. E. Kall and **B. K. Banik***, "*An Easy Access for the Synthesis of Phthalimido β-Lactams from Polyaromatic Imines", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

90. L. Canales, D. Bandyopadhyay and **B. K. Banik***, "Synthetic modifications on Eugenol: A Medicinally Important Clove Oil Component", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

91. M. Abundis, D. Bandyopadhyay and **B. K. Banik***, "*A Green Approach for the Synthesis of Novel Heterocycles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

92. K. Ramos, D. Bandyopadhyay and **B. K. Banik***, "A Novel Route for the Synthesis Polyaromatic Anticancer Compounds", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

93. J. A. Cantu, D. Bandyopadhyay and **B. K. Banik***, "A Novel Route toward the Synthesis of Heteroaromatics from Dicarbonyl Precursors", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

94. M. Hashim, D. Bandyopadhyay and **B. K. Banik***, "A Novel Route toward Enantioselective Synthesis of Anticancer β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009 (**M. Hashim has been selected as the second prize winner among all the master students in COSE**).

95. G. R. Sánchez, D. Bandyopadhyay and **B. K. Banik***, "Novel Synthetic Modification of β-Estradiol", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

96. E. Cuate, D. Bandyopadhyay and **B. K. Banik***, "*Indium-mediated Eco-friendly Procedure for the Synthesis of Novel Heteroaromatics*", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

97. E. Gonzalez, D. Bandyopadhyay and **B. K. Banik***, "*Radical-Mediated Reactions toward the Synthesis of Heteropolycyclic β-Lactams*", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

98. D. M. Abrego, D. Bandyopadhyay and **B. K. Banik***, **"**Indium-promoted Eco-friendly Approach for the Synthesis of Pyrrole fused with indolinone system**",** Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

99. R. C. Gonzales, D. Bandyopadhyay and **B. K. Banik***, "*Microwave-induced stereocontrol in the Synthesis of Anticancer β-Lactams*", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

100. J. M. Velazquez, D. Bandyopadhyay and **B. K. Banik***, "An Expeditious Synthesis of Amino β-lactams from Polyaromatic Imines", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

101. A. Reyna, D. Bandyopadhyay and **B. K. Banik***, "Polyaromatic Amines and Aliphatic Carbonyl Compound derived β-Lactams"**,** Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

102. A. Banik, S. Batta, D. Bandyopadhyay and **B. K. Banik*, "**An Excellent Strategy for the Synthesis of Pyrrole fused with Indolinone in $RuCl_3$/Water System**",** Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

103. A. E. Kall, D. Bandyopadhyay and **B. K. Banik***, "A Green Approach toward aza-Michael Addition"**,** Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

104. J. Escano, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate Pentahydrate-Catalyzed Synthesis of Diazepine", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2009.

105. M. Solis, R. Solano, S. Mukherjee, D. Bandyopadhyay and **B. K. Banik***, "Stereoselective Synthesis of Optically Active β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

106. R. Andoh-Baidoo, S. Mukherjee, D. Bandyopadhyay and **B. K. Banik***, "Microwave-Assisted N-bromosuccinimide-Mediated Novel Synthesis of Pyrroles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

107. A. Vasquez, B. Perez, S. Mukherjee, D. Bandyopadhyay and **B. K. Banik***, "Microwave-Induced Expeditious Bismuth Nitrate-Catalyzed Synthesis of Indoloquinolines", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

108. I. Garrera, S. Mukherjee, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Remarkable Annulations of Phenols with Ketones", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

109. J. Morales, S. Mukherjee and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Novel Acylation of Indoles: Synthesis of 3-Substituted Indoles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

110. J. Vasquez, D. Bandyopadhyay and **B. K. Banik***, "A Truly Green Synthesis of Aminonitriles Via Strecker Reaction", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

111. R. Nandipati, R. Solano, S. Mukherjee and **B. K. Banik***, "A Convenient and Cost-Effective Method of N-Acetylation of Aniline", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

112. R. Solano, D. Bandyopadhyay, S. Mukherjee and **B. K. Banik***, "Green Synthesis of Benzodiazepine Using Bismuth Salts as Catalysts", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

113. R. Danso, S. Mukherjee and **B. K. Banik***, "An Efficient Route for the Synthesis of Substituted Indoles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

114. A. McCallum and **B. K. Banik***, "Microwave-Assisted Synthesis of Polycyclic Indoles via Bismuth Nitrate-Induced Reactions", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

115. C. Chapa and **B. K. Banik***, "Synthesis of Schiff Bases From Diethyl Ketomalonate and Reduction Study", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

116. J. Moreno, R. Danso, D. Bandyopadhyay, S. Mukherjee and **B. K. Banik***, "Nucleophilic Addition of Heterocyclic Compounds to Indoles Via Bismuth Nitrate-Catalyzed Reactions", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

117. L. Zingg and **B. K. Banik***, "Synthesis of Novel 3-Unsubsituted β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010. (**L. Zingg has received 3rd prize**).

118. S. Maldonado, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Green Synthesis of Hantzsch 1,4-Dihydropyridines", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

119. C. Carames, D. Bandyopadhyay and **B. K. Banik***, "Novel Anticancer Agents Derived From Polyaromatic Compounds", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

120. L. Turrubiartes, D. Bandyopadhyay, S. Mukherjee and **B. K. Banik***, "Ultrasound-Assisted Environmentally Benign Aza-Michael Reaction in Water", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010.

121. R. Gonzales, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Novel Route Toward Unique Triarylpyridines", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2010 (**C. Gonzales has received 3rd prize**).

122. G. M. Saenz and **B. K. Banik***, "New Electrophilic Iodination of β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

123. A. N. Chavez and **B. K. Banik***, "Novel synthesis of Sulfonamide-Substituted Anticancer β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

124. R. Vargas, B. Leal, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Novel Bromination of Indole by N-Bromosuccinimide", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

125. B. Leal, R. Vargas, D. Bandyopadhyay and **B. K. Banik***, "Microwave-Assisted Diasteroselective Synthesis of Anticancer β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

126. L. Turrubiartes, D. Bandyopadhyay, S. Mukherjee and **B. K. Banik***, "Ultrasound-Assisted Aza-Michael Reaction in Water", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

127. M. Solis, S. Mukherjee, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-catalyzed Novel Acylation of Indoles: Synthesis of 3-Substituted Indoles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

128. M. Solis, S. Mukherjee, D. Bandyopadhyay and **B. K. Banik***, "Stereospecific Synthesis of Chiral β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

129. R. Nandipati, S. Mukherjee and **B. K. Banik***, "A Simple Method of N-Acetylation of Primary Aromatic Amines Using Molecular Sieves as Drying Agent", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

130. R. C. Gonzales, D. Bandyopadhyay, S. Mukherjee and **B. K. Banik***, "*Bismuth Nitrate-Catalyzed Krohnke Reaction*", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

131. A. Bobbala, D. Bandyopadhyay and **B. K. Banik***, "*Polyaromatic Compounds as Anticancer Agents*", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

132. H. Gellang, D. Bandyopadhyay and **B. K. Banik***, "*Bismuth Nitrate-Catalyzed Nucleophilic Addition of Indoles*", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

133. J. Vasquez, D. Bandyopadhyay and **B. K. Banik***, "Indium-Catalyzed Synthesis of Aminonitriles Via Imine", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

134. B. Leal, R. Vargas and **B. K. Banik***, "Importance of Different Solvents in Pyrrole Synthesis", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

135. J. Marquez and **B. K. Banik***, "A Remarkable Iodine-Catalyzed Protection of Carbonyl Compounds", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

136. A. Garza and **B. K. Banik***, "Synthetic Studies Toward Novel Anticancer Agents", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

137. L. Salazar, B. Ramirez and **B. K. Banik***, "Oxidative N-Dearylation in β-Lactams With Bismuth Nitrate, Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

138. M. Banik, D. Bandyopadhyay and **B. K. Banik***, "Polystyrenesulfonate-Catalyzed Novel synthesis of Anticancer Pyrroles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

139. J. Velazquez, D. Bandyopadhyay and **B. K. Banik***, "An Expeditious Synthesis of Amino β-Lactams from Polyaromatic Imines", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

140. M. Guerra and **B. K. Banik***, "Polycyclic Aromatic Compounds as Anticancer Agents", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

141. H. Gellang, A. Chavez and **B. K. Banik***, "Structure-Activity Relationships in Amino β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

142. D. Lidhar, D. Bandyopadhyay and **B. K. Banik***, "Asymmetric Synthesis of β-Lactams Derived From Carbohydrates", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

143. S. Maldonado, D. Bandyopadhyay and **B. K. Banik***, "An Expeditious Synthesis of Hantzsch 1,4-Dihydropyridines", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

144. A. K. Vasquez, D. Bandyopadhyay and **B. K. Banik***, "Bismuth Nitrate-Catalyzed Synthesis of Indoloquinolines", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

145. A. Bhatla, A. Reddy and **B. K. Banik***, "Structure-Activity Relationships in β-Lactams: Preparation of 2-Azetidinone Containing Sulfur at C-3 Position", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

146. S. Yarra, A. Reddy and **B. K. Banik***, "A Novel Approach Toward Substituted Aza β-Lactams", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

147. R. Danso and **B. K. Banik***, "A Remarkable Synthesis of Substituted Indoles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

148. M. Yanez, D. Bandyopadhyay and **B. K. Banik***, "Microwave-Assisted Synthesis of β-Lactams: Effects of Solvents", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

149. A. Reddy, J. Velaquez, B. Leal, R. Vargas and **B. K. Banik***, "Synthesis of Pyrroles", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

150. C. Tran, S. Rico, **B. K. Banik*** and H. Ahmad*, "Anticancer effect of Polycyclic Aromatic Hydrocarbon Derivatives, TX-301 and TX314 on Hepa1c1c7, MCF7, hepG2 and NIH3T3 Cancer Cells", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2011.

151. R. Jadav, D. Bandyopadhyay and **B. K. Banik***, "Unusual Aromatic Amination using Norborneneas Organocatalyst", Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2012 (**R. Jadav received second prize**).

152. J. Cruz, D. Bandyopadhyay and **B. K. Banik***, "Novel Pyrrole-Substituted β-Lactams, Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2012 (**J. Cruz received third prize**).

153. A. Albustamy, R. N. Jadav and **B. K. Banik***, "Preparation of Hydroxy β-Lactams, Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2012.

154. J. Vennatt, R. N. Jadav and **B. K. Banik***, "Bismuth Triflate-Catalyzed Glycosylation, Presented at the HESTEC Annual Meeting, Edinburg, TX, September, 2012.

ANALYTICAL, BIOCHEMICAL, and CHEMICAL RESAERCH EXPERIENCE:

Nuclear Magnetic Resonance Spectroscopy, High Performance Liquid Chromatography, Mass Spectroscopy, Gas Chromatography, Infra-red Spectroscopy, Ultraviolet Spectroscopy, Polarimeter, Automated microwave-induced technology, Ultrasound, Organic synthesis and medicinal chemistry, Biomedical Science, Catalysis, Steroids and Fertility, Mechanism of

organic reactions, Metal-mediated processes, Environmentally benign methods, Medicinally active drug candidates and Natural products

TEACHING

Taught more than 2600 students in classroom during 1990-1994 and 2004-2014 (undergraduates and graduates)

LECTURE SERIES to STUDENTS in CLASSROOM at the University of Texas-Pan American (2004-2014):

2004 (Fall): one course of organic chemistry lecture and two courses of organic chemistry laboratory:

Evaluation by the students:

Organic chemistry 2302-01 lecture: **100%** (excellent and good; excellent 87% and good 13%)

Organic chemistry 2102-03 laboratory: **93.82%** (excellent and good; excellent 85% and good 15%)

Organic chemistry 2102-04 laboratory: **96.78%** (excellent and good; excellent 85% and good 15%)

2005 (Spring): one course of organic chemistry lecture and three courses of organic chemistry laboratory:

Evaluation by the students:

Organic chemistry 2303-02 lecture: **98.11%** (excellent and good; excellent 85% and good 15%)

Organic chemistry 2103-01 laboratory: **95.98%** (excellent and good; excellent 82% and good 18%)

Organic chemistry 2103-05 laboratory: **99.16%** (excellent and good; excellent 87% and good 13%)

Organic chemistry 2103-06 laboratory: **99.41%** (excellent and good; excellent 88% and good 12%)

2005 (Summer): one course of organic chemistry lecture and two courses of organic chemistry laboratory:

Evaluation by the students in summer is not a standard practice at UTPA

2005 (Fall): one course of organic chemistry lecture, three courses of organic chemistry laboratory, chemistry problem courses and chemistry honors thesis courses:

Evaluation by the students:

Organic chemistry 2302-01 lecture: **95.43%** (excellent and good; excellent 80% and good 20%)

Organic chemistry 2102-01 laboratory: **94.09%** (excellent and good; excellent 67% and good 33%)

Organic chemistry 2102-02 laboratory: **91.66%** (excellent and good; excellent 70% and good 30%)

Organic chemistry 2102-03 laboratory: **94.73%** (excellent and good; excellent 74% and good 26%)

Organic chemistry 2102-08 laboratory: **96.49%** (excellent and good; excellent 97% and good 3%)

2006 (Spring): one course of organic chemistry lecture, two courses of organic chemistry laboratory, chemistry problem courses and chemistry honors thesis courses:

Evaluation by the students:

Organic chemistry 2303-03 lecture: **95.10%** (excellent and good; excellent 91% and good 9%)

Organic chemistry 2103-03 laboratory: **99.33%** (excellent and good; excellent 90% and good 10%)

Organic chemistry 2103-04 laboratory: **92.15%** (excellent and good; excellent 86% and good 14%)

2006 (Summer): one course of organic chemistry lecture and two courses of organic chemistry laboratory:

Evaluation by the students in summer is not a standard practice at UTPA

2006 (Fall): one course of organic chemistry lecture, one course of advanced organic chemistry, lecture chemistry problem courses and chemistry honors thesis courses:

Evaluation by the students:

Organic chemistry 2303-03 lecture: **98.10%** (excellent and good; excellent 91% and good 9%)

Advanced organic chemistry: **100.00%** (excellent and good; excellent 94% and good 6%)

2007 (Spring): one course of organic chemistry lecture, one course of advanced organic chemistry lecture, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Evaluation by the students:

Organic chemistry lecture: **95.00%** (excellent and good; excellent 85% and good 15%)

Advanced organic chemistry: **100.00%** (excellent and good; excellent 95% and good 5%)

2007 (Fall): one course of organic chemistry lecture, one course of organic chemistry lab, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Evaluation by the students:

Organic chemistry lecture: **85.12%** (excellent and good; excellent 80% and good 20%)

Advanced organic chemistry: **100.00%** (excellent and good; excellent 90%, good 10%)

2008 (Spring): one course of organic chemistry lecture, two courses of organic chemistry laboratory, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **96.14%** (excellent and good; excellent 82% and good 18%)

Organic chemistry lab: **88.88%** (excellent and good; excellent 89% and good 11%)

2008 (Fall): one course of organic chemistry lecture, one course of Advanced organic chemistry laboratory, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **93.82%** (excellent and good; excellent 84% and good 16%)

Advanced organic chemistry lecture: **96.03%** (excellent and good; excellent 85% and good15%)

Guided two teaching assistants**: 92.00%** (excellent and good; excellent 85% and good 15%)

2009 (Spring): one course of organic chemistry lecture, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **90.70%** (excellent and good; excellent 86% and good 14%)

Guided two teaching assistants**: 93.10%** excellent and good; excellent 85% and good 15%)

2009 (Fall): one course of organic chemistry lecture, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **92.50%** (excellent and good; excellent 86% and good 14%)

Guided two teaching assistants**: 93.40%** excellent and good; excellent 83% and good 17%)

2010 (Spring): one course of organic chemistry lecture, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **90.0%** (excellent and good; excellent 87% and good 13%)

Guided two teaching assistants**: 93.00%** excellent and good; excellent 84% and good 16%)

2010 (Fall): one course of organic chemistry lecture, one course of organic chemistry lab, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **92.0%** (excellent and good; excellent 87% and good 13%)

Organic chemistry lab: **95.0%** (excellent and good; excellent 88% and good 12%)

2011 (Spring): one course of organic chemistry lecture, one course of organic chemistry lab, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **91.0%** (excellent and good; excellent 85% and good 15%)

Organic chemistry lab: **98.0%** (excellent and good; excellent 88% and good 12%)

2011 (Fall): one course of organic chemistry lecture, one course of advanced organic chemistry, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **95.0%** (excellent and good; excellent 88% and good 12%)

Advanced organic chemistry lecture: **99.0%** (excellent and good; excellent 94% and good 6%)

2012 (Spring): one course of organic chemistry lecture, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **89%** (excellent and good; excellent 90% and good 10%)

2012 (Fall): one course of organic chemistry lecture, one course of advanced organic chemistry, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **88%** (excellent and good; excellent 90% and good 10%)

Advanced organic chemistry lecture: **100%** (excellent and good; excellent 93% and good 7%)

2013 (Spring): one course of organic chemistry lecture, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **97%** (excellent and good; excellent 92% and good 8%)

2013 (Fall): Two courses of organic chemistry lectures, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Organic chemistry lecture: **95%** (excellent and good; excellent 86% and good 14%)

Organic chemistry lecture: **94%** (excellent and good; excellent 85% and good 15%)

2014 (Spring): One course of organic chemistry lecture, chemistry problem courses, chemistry honors thesis courses and graduate thesis courses:

Evaluation is not known

Total Average Evaluation (excellent and good) by the students for the past 10 years (approximately): 96.00%

Total Average Excellent Evaluation by the students in 33 courses for the past10 years (approximately): 86.00%

Total Average Good Evaluation by the students in 35 courses for the past 10 years (approximately): 14.00%

Instrctor of Records of Various Undergraduate Teaching and Laboratory Courses (Guided numerous teaching assistants): 2004-2014

STUDENT'S COMMENTS:

Received 2,500 exceptional comments by the students in evaluation documents, Rate My Professor Website and through emails and letters.

Outstanding and Excellent: 980/1000 students; Average and weak: 20/1000 students

More than 2000 exceptional and positive written comments were made by the students in their confidential evaluation documents that were sent to the VP of Academic Affairs and Provost.

LECTURE and SEMINAR SERIES to GRADUATE STUDENTS (M. S. and Ph. D.) at Stevens Institute of Technology, New Jersey (1990-94):

Several higher level special courses on the following subjects:

Organic Chemistry Laboratory Methods and Preparation; New Synthetic Methods, Radical Cyclization Toward Biologically Active Compounds; Beta-Lactam Antibiotics; Anticancer Drug Development; Microwave-Induced Organic Reactions; Electrophilic and Nucleophilic Reactions; Name Reactions; Synthesis of Heterocycles; Chemistry of Carbohydrates; Chemoenzymatic Reactions

RESEARCH LABORATORY COURSES to UNDERGRADUATE STUDENTS (B. S.) at the University of Texas Pan American (2004-2013):

Several theses, research and problem courses at the research laboratory to chemistry, biology, clinical science, dentistry and pharmacy major students

LABORATORY COURSES to UNDERGRADUATE and GRADUATE STUDENTS (B. S., M. S. and Ph. D.) at Stevens Institute of Technology (1990-1994):

Several theses, research and problem courses at the research laboratory to chemistry, biology and chemical engineering major students

LABORATORY COURSES to STUDENTS (B. S., M. S., Ph. D. and M. D.) at the University of Texas M. D. Anderson Cancer Center, Houston (1995-2004):

Mentored students in research

SEMINAR to STUDENTS (B. S., M. S. and Ph. D.) and FACULTIES at Stevens Institute of Technology, New Jersey (1990-94):

Presented a number of seminars on organic and medicinal chemistry

SEMINAR to STUDENTS (M. S. and Ph. D.) and FACULTIES at Case Western Reserve University, Ohio (1989):

Presented a number of seminars on organic chemistry

COURSES DEVELOPED:

- Developed a special medicinal chemistry lecture course for the master students at the Stevens Institute of Technology, New Jersey, 1993-1994
- Developed a special organic chemistry course for the undergraduate students at the Stevens Institute of Technology, New Jersey, 1993-1994
- Developed a special medicinal chemistry research course work for the undergraduate and master students at the Stevens Institute of Technology, New Jersey, 1992-1994
- Developed an advanced organic chemistry course for the undergraduate and master students at the UTPA, 2006; Developed with three other faculties organic chemistry laboratory course for the undergraduate students at the UTPA, 2005; Developed an advanced organic and bioorganic chemistry course for the undergraduate and master students at the UTPA, 2007

LABORATORY/FACILITY DEVELOPMENT:

- As the Principal Investigator, developed an advanced medicinal and bioorganic chemistry research laboratory in the department of molecular pathology starting from the root of the procedure at the University of Texas M. D. Anderson Cancer Center, 1995

- As the Convener, initiated a procedure and generated fund that was used to purchase 11 chemistry journals at the Library of the University of Texas M. D. Anderson Cancer Center, 1997

- As Director, developed an advanced analytical chemistry instrumental center (NMR and Mass Spectrometer center, funded by NCI) at the University of Texas M. D. Anderson Cancer Center, 1997

- As a Member, participated in the development of a research laboratory facilities at the University of Texas Health Science Center at San Antonio (Edinburg), 2006

- Designed my own laboratory through several negotiations with UTPA administration and departmental space committee at the UTPA (Edinburg), 2007

- As the Chair of the departmental instrumentation committee, generated fund to purchase a 600 MHz NMR Machine at the UTPA (Edinburg), 2010

- Working with high school districts, educationalist and policy makers to create an excellent research laboratory for competitive research program, 2014-2015

INNOVATION in the CLASSROOM:

- Written class notes for students and distributed them for the past 11 years (2004-2014). Identified an innovative approach of providing these class notes to the students prior to teaching the subject matter in advance. An investigation of this approach was tested among approximately 2500 students; 800 class notes were given to the students belong to University of Texas System.

- New experiment for students for their practical class is dveloped. This experiment was performed by several hundred students successfully within the allocated time

- Innovated more than 300 unknown projects that were used to complete several courses required for the class students to complete their degree

- Innovated a different teaching method followed by a presentation examination. This method of teaching and examination is extremely beneficial for students because not only does it allow students to step out of their comfort zone and interact with the class but it also allows professors to see their students in a different light. This method also gives the students a glimpse of what it is like to present in front of a large group at the collegiate level, similar to presenting research.

- Demonstrated classroom students to search for publications in scientific literature, to identify the periodic progress in a particular area and to draw chemical structures with their conformation and configuration

- Demonstrated Group Learning Method, Co-operative Learning Method, Instant Learning Method and Curious Learning Method extensively in the classroom

TEACHING, MENTORING and ADVISING EXCELLENCE:

- Selected for the UTPA Faculty Excellence Award for mentoring and advising, 2013

- Received the Prestigious University of Texas Board of Regents' Outstanding Teaching Award (Best Faculty Teaching Award at the University of Texas System) through an Open Competition, 2009

- Received National Collegiate Scholars (Washington, D. C.) Inspire-Integrity Award (Best Advisor Award in USA) , 2012

- Graduate Faculty by the approval of the President of the University of Texas-Pan American, 2005-2014

- Graduate Faculty of the University of Texas at San Antonio, 2009-2013

- Selected as one of the Finalists for the University of Texas Chancellor Award (Minnie Stevens Piper Award) for teaching at the UT-Pan American, 2012, 2011, 2010, 2008, 2007 and 2006

- Selected as the Finalist for the UT System Board of Academy Member at the UTPA, 2013

- Recognized as an excellent classroom teacher (in a scale of excellent, good, average and poor) by more than 100 the University of Texas-Pan American students in written statements, 352 reports by unidentified students of the University of Texas-Pan American as documented at the "Rate My Professors" website (highest at the whole institution; 2004-2014)

- Created First Postdoctoral Position and First Assistant Professor of Research Position at the whole UTPA, 2007 and 2012

- Received excellent evaluation (on an average of approximately 96% in 37 courses) in classroom teaching by the students at the University of Texas-Pan American in all courses, 2004-2014

- Designated as the most productive Ph. D. associate in research, mentoring and teaching out of 100 Ph. D. scientists by the Mentor in his professional career of more than 50 years (documented in several letters by the Mentor in 2004-2006)

- Served as a mentor of high school and college students sponsored by American Chemical Society, New York Cardiac Center, HHMI, New York and New Jersey Board of Education at Stevens Institute of Technology, 1990-1994

- Considered one of the very Best Mentors out of the 300 Ph. D. and M. D. level mentors over the last 18 years by the ACS Director of the student program, 2006 and 2007

- Served as the Mentor of undergraduate and master students sponsored by the King Foundation, Kleberg Foundation, and Stringer Fund at the UT M. D. Anderson Cancer Center, 1995-2003

- Awarded two certificates for excellent mentorship for teaching economically disadvantaged students, Union City, New Jersey Board of Education, 1993-1994; New Jersey Senator Bob Menendez awarded citations for teaching and mentoring excellence

- Received more than 50 certificates for excellent teaching, supervision and mentoring (1990-2013)

DIRECT MENTORING at the RESEARCH LABORATORY:

Research Areas: Chemistry, Biology, Pharmacology, Pharmacy and Medicine

Topics of Research: Anticancer Drugs, Antibiotics and Infection, Hormones & Fertility, Natural Products, Microwave, Ultrasound, Chagas Disease, and Compounds for Different Types of Medical Disorders in Human and Animal

Independently supervised, mentored and directed 450 national and international students including 20 postdoctoral fellows (Ph. D.s) and 2 university assistant professors. Many former research students have completed Ph. D., M. D., M. D. Ph. D., D. Pharm., and D. D. S. degree. Some of them are working as University Faculty Member and Industries as Group Leader, CEO, Director, Principal Scinetist and Senior Research Scientists. Former research students have received numerous awards at the University, State and International levels.

Students and Teachers at the Community Health Systems of South Texas: Working with a few high school districts and social leaders to include several hundreds high school juniors and seniors as well as high school teachers; planned to recruit doctoral level scientists as a part of this plan.

STATUS of MY STUDENTS:

Many of my students have completed higher degrees and education from Harvard University, MIT, Northwestern University, Yale University, Stanford University, Rutgers University, University of Texas at San Antonio, Stevens Institute of Technology, New Jersey Institute of Technology, Baylor College of Medicine, University of Texas South Western Medical University, University of Texas M. D. Anderson Cancer Center, University of Texas at Austin, New Jersey Medical University, University of Iowa, University of Texas Health Science Center at San Antonio, University of Texas-Galveston Medical School, University of Philadelphia, State University of New York at Buffalo, University of Reynosa, UTPA and Vanderbilt University.

Many of my students have become University Professor and CEO/Director/Principal Scientist/Research Scientist of Chemical and Drug Companies.

Many of them are working at Merck Pharmaceutical Company, Johnson & Johnson, Procter & Gamble, Bristol Myers Pharmaceutical Company, Dow Chemical Company, Calcutta University, Polish Academy of Science, University of Mexico, University of Germany, Colgate-Palmolive, University of Texas at San Antonio, Chemsyn, Syngene Pharmaceutical Company, G. V. Biochemicals, and University of Texas-Pan American.

FOUNDER and ADVISOR:

- Founder and Advisor of Chemistry Honors Society (approximately 100 students)
- Advisor of US National Society of Collegiate Scholars (approximately1200 students)
- Taught, mentored, advised students and postdoctoral fellows of many Nations including: India, USA, Bangladesh, Pakistan, Germany, Poland, Russia, Cuba, Spain, Mexico, China, Japan, Turkey, Brazil, Peru, Argentina, South Korea, Indonesia, Honduras, Thailand, Hong Kong, Philippines, Africa and Taiwan

SERVICE:

EDITORIAL BOARD MEMBER of the INTERNATIONAL RESEARCH JOURNALS:

- Chemistry-An Indian Journal (2003-present)
- Bulletin of the Catalysis Society of India (2004-present)
- E-Journal of Chemistry (2004-present)
- Heterocyclic Communications (Israel, 2006-present)
- Scientific Journals International (USA, 2006-present)
- International Agricultural Journal on Citrus Fruits (USA, 2007-present)
- Organic Chemistry Insights (USA, 2007-present)
- The Open Natural Products Journal (USA, 2008-present)
- Current Organic Synthesis (Bentham, 2009-present)
- Current Medicinal Chemistry (Bentham, 2009-present)
- Organic Chemistry International (USA, 2010-present)
- Heterocyclic Letters (India, 2010-present)
- International Journal of Molecular Medicine (Greece, 2011-present)
- Dove Publisher (India, 2011-present)
- Organic & Biomolecular Journal SOAJ (India, 2013-present)
- J. Org. Chem. Res. (India, 2012-present)
- Organic Chemistry International (USA, 2010-present)
- Conference Papers in Biology (USA, 2010-present)
- Biochemistry Research International (USA, 2013-present)
- Journal of Drug Delivery (USA, 2013-present)
- HOAJ-Biology (UK, 2013, present)
- International Journal of Carbohydrate Chemistry (USA, 2013-present)
- Journal of Applied Chemistry (USA, 2013-present)
- Journal of Cancer Research (USA, 2013-present)
- Research Report in Medicinal Chemistry (Baharin, 2012-present)
- Defence Science Journal (India, 2015-present)
- Molecules (Switzerland, 2015-present)

MEMBER at the NATIONAL and INTERNATIONAL LEVEL:

- American Chemical Society, 1990-present
- Division of Organic Chemistry, American Chemical Society, 1991-present
- Division of Medicinal Chemistry, American Chemical Society, 1996-present
- International Union of Pure and Applied Chemistry, 1997-present
- American Association for the Advancement of Science, 1995-2004 and 2013-present

- Royal Society of Chemistry (England), 1998-present
- Texas Faculty Association, 2008-2014
- US National Society of Collegiate Scholars "Distinguished Membership", 2011

EDITOR-in-CHIEF of the INTERNATIONAL and NATIONAL JOURNALS/BOOKS:

- Current Medicinal Chemistry on Anticancer Agents, (Journal by Bentham, 2001)
- Current Medicinal Chemistry on Antibacterial Agents, (Journal by Bentham, 2003)
- Molecules on Iodine-Catalyzed Organic Reactions, 2009 and 2012 (Journal by MDPI)
- Molecules on Organobismuth Chemistry, 2010, (Journal by MDPI)
- Topics in Heterocyclic Chemistry, Springer (Book, Germany), 2010
- Topics in Heterocyclic Chemistry, Springer (Book, Germany), 2012
- Tetrahedron Symposium-in-Print on Beta-Lactams (Journal by Elsevier), 2011
- Current Medicinal Chemistry on Microwave-Induced Reactions (Journal by Bentham), 2016
- Springer Book Series on Microwave-Assisted Chemistry, Springer (Book, Germany), 2016
- Springer Series on Sustainable Chemical Processes, Springer (Journal, Germany), 2015, under consideration by the management
- Tetrahedron Symposium-in-Print on Microwave-Induced Chemistry (Journal by Elsevier), 2016, under consideration by the management
- Springer Handbook Series on Anticancer Research (Book by Elsevier), 2016, under consideration by the management
- Topics in Heterocyclic Chemistry, Springer (Book, Germany), 2016

EDITOR-in-CHIEF, FOUNDER and SECTION EDITOR of the INTERNATIONAL JOURNALS:

Editor-in-Chief: Journal of Medicinal & Pharmaceutical Chemistry, 2012-2014 (Journal of Frontiers in Chemistry; NATURE Publishing Group)

Editor-in-Chief and Founder: Current Organocatalysis, 2012-present (Journal by Bentham)

Editor-in-Chief and Founder: Current Microwave Chemistry, 2012-present (Journal by Bentham)

Editor-in-Chief and Founder: Organic & Medicinal Chemistry Letters, 2010-2015 (Journal by Springer)

Section Editor and Founder: Organic & Medicinal Chemistry, Chemistry Central Journal, 2015-present (Journal by Springer)

Volume Editor and Series Editor-in-Chief: E-Books on Synthetic Methods, Bentham Publisher, 2014-present

Editor-in-Chief and Founder: Asian Journal of Organic & Medicinal Chemistry, 2015-present

Associate Editor, Asian Journal of Chemistry, 2016-present

As the Editor-in-Chief recruited more than 100 national and international editorial board members

REVIEWER and EXAMINER at the NATIONAL and INTERNATIONAL LEVEL:

- Reviewer of International grants (Austria and Canada), 2000-present
- Reviewer of American Chemical Society grants (USA), 2004-2010
- Reviewer of National Science Foundation grants (USA), 2004-2013
- Panel Member of NSF grants (2008-2010)
- Panel Member of NIH/NCI grants (2008-2011)
- Reviewer of National Institutes of Health grants (USA), 2006-2013
- Reviewer of the DOD grant applications and Panel, 2008-2010
- Reviewer of UTPA faculty research grants (USA), 2005-2008
- Reviewer of Research Corporation grants (USA), 2008-2009
- Reviewed more than 1400 external and internal research grants and manuscripts, 1997-present
- Reviewer of a Drug Company in Spain, 2008
- Reviewer of Round Table Group Expert Consortium (New York); Round Table Group has been featured in the New York Times, Wall Street Journal and Fortune Magazine
- Reviewer of Ph. D. Science theses, 1998-2015; reviewed 21 Ph. D. dissertations
- Reviewer of Faculty Promotion and Tenure Applications of 3 national and international universities/research centers, 2000-2014

CHAIRMAN at the NOBEL PRIZE RESEARCH CELEBRATION MEETING (INTERNATIONAL LEVEL):

Chaired a session in Nurenberg, Germany (Antineoplastic Agents: New Strategies and New Compounds) at the 2nd World Conference on Magic Bullets celebrating the 100th Anniversary of the Nobel Prize Award to Dr. Paul Ehrlich, 2008

CHAIRMAN and ORGANIZER at the INTERNATIONAL MEETING:

Chaired a session at the international meeting in Tripura (India), 2011

Chaired many research symposiums in Delhi, Dehradoon, Calcutta and Burdwan

Acted as the Principal Investigator and organizer of a Workshop at the India-USA Collaborative Forum in Uttarkand (India), 2011

American Chemical Society and CEM microwave distributor approved my proposal to organize and chair a national and international conference on microwave-induced chemistry at Philadelphia, 2012

ADVISORY BOARD MEMBER at the INTERNATIONAL MEETING:

Acted as an Advisory Board Member at the international meeting in Tripura (India), 2011

Acted as an Advisory Board Member at the international meeting in Dehradoon (India) through India-US scientific collaboration, 2012

Selected as an Advisory Board Member at the international meeting in Maharastra (India), 2014

ORGANIZER of STATE RESEARCH CONFERENCES:

Organized a regional research conference with the University of Texas San Antonio Health Science Center (Professor Naylor) at Kerrville, Texas, May 2009; More than 40 speakers presented their research at a National level

Organized a regional research conference with the University of Texas San Antonio Health Science Center (Professor Naylor) at Port Aransas, Texas, May 2010; More than 30 speakers presented their research

Organized a regional research conference with the University of Texas Health Science Center (with Professor Naylor) at Edinburg, Texas, April 2011; More than 30 speakers presented their research

CHAIRMAN at the NATIONAL LEVEL:

Introduced **more than 250 national and international scientist speakers** including students in these following US national meetings mentioned below.

American Chemical Society invited to act as the Chairman and/or Organizer of the following research sessions:

- New Reactions and Methodologies, Dallas, TX, 2014
- Molecular Recognitions and Self Assembly, New Orleans, LA, 2013
- Microwave-Induced Organic Reactions, Philadelphia, PA, 2012
- New Reactions and Methodologies, San Diego, CA, 2012
- New Reactions and Methodologies, Denver, CO, 2011
- New Reactions and Methodologies, Anaheim, CA, 2011
- New Reactions and Methodologies, San Francisco, CA, 2010
- Asymmetric Reactions and Syntheses, Washington, D. C., 2009
- Aromatics and Heterocyles, Salt Lake City, UT, 2009
- New Reactions and Methodologies, Philadelphia, PA, 2008
- New Reactions and Methodologies, New Orleans, LA, 2008
- New Reactions and Methodologies, Boston, MA, 2007
- New Reactions and Methodologies, Chicago, IL, 2007
- Metal-Mediated Reactions and Syntheses, San Francisco, CA, 2006
- Metal-Mediated Reactions and Syntheses, Atlanta, 2006
- Total Synthesis of Complex Natural Products, Washington, D. C., 2005
- New Reactions and Methodologies, San Diego, CA, 2005
- Total Synthesis of Complex Organic Molecules, Philadelphia, PA, 2004
- Asymmetric Reactions and Syntheses, Boston, MA, 2002

CHAIRMAN and DIRECTOR at the UNIVERSITY LEVEL:

- Acted as the Chairman for chemistry department chair evaluation of the UTPA, 2010-2011
- Acted as the Chairman of the Faculty Research Council of the University of Texas Pan American, 2005-2008; wrote critiques on more than 450 grant applications
- Revised the criteria for Faculty Research Council Funding of the University of Texas-Pan American funding on behalf of the committee, 2008
- Acted as the Chairman of the HESTEC Science Symposium Students' Research Presentations of the UTPA, 2009- 2011
- Acted as the Chairman of the Instrumentation and Research Enhancement Committee, Chemistry Department, 2009-2012
- Acted as the Chairman of the Chemistry department Students' research Symposium of the UTPA, 2010-2012
- Acted as the Chairman of the Promotion & Tenure Committee of the faculty of the Chemistry department
- Acted as the Chairman of the Promotion & Tenure Committee of the faculty of the College of Science & Mathematics of the UTPA, 2011-2012
- Acted as the Chairman of the Annual Merit Evaluation Committee of the Chemistry department, 2010
- Served as the chairman of the departmental salary compensation committee for the lecturer of the University of Texas Pan American, 2010
- Selected and acted as the Director of the research core facility (library and instrumentation: NMR, IR, Mass, HPLC and Polarimeter), The University of Texas M. D. Anderson Cancer Center, 1997-2004

COMMITTEE MEMBER at the UNIVERSITY LEVEL:

- Served as one of the members of the drug-discovery, bench to clinic, exploration in science and green innovation symposium university committee of the University of Texas-Pan American, 2006-2012; invited and brought Nobel Prize Winner, Distinguish Professor of Cornell University and Whitehouse Undersecretary for research presentations
- Wrote several thousands of letters of recommendations for students and faculties for scholarship, graduate/postgraduate study, immigration and academic/research position, 1990-present
- Hosted 3 American Chemical Society Presidents, 2000, 2008 and 2009

- Hosted 1 Nobel Prize Winner, 1 White House Secretary, 1 EPA Executive and several Distinguihsed Scientists at the UTPA, 2009-2013

- Served as a member of the Research Infrastructure Task Force at the University Level, 2009-2010

- Served as a member of the research employee hiring committee at the University Level, 2011

- Served as a member of a committee of the UTPA International Student Office on the Immigration Issue for the students, 2009-2010

- Served as a member of Endowed Professor Search Committee of the University of Texas-Pan American, 2009

- Served as a member of biotechnology employee search of the clinical science department of the University of Texas-Pan American, 2005-2007

- Served as a member of 60 departmental, college and university committees at the University of Texas-Pan American: Promotion & Tenure, Vice-President for Research & Spnsored project search, task force committee to evaluate Vice President for Research & Sponsored project, undergraduate research presentation symposium, research enhancement, Staff evaluation, research space, biochemistry faculty search, Science and Engineering Dean search, inorganic chemistry faculty search, research enhancement, research instrumentation, analytical chemistry faculty search, departmental chair search, master degree program implementation, annual faculty evaluation, organic chemistry lecture organization, organic chemistry laboratory organization, organic chemistry lecture course reorganization, faculty annual evaluation, safety, organic chemistry book selection, merit instrument, graduate program planning, honors thesis, master degree program development, chemical education faculty search and Howard Hughes Medical Institute student selection, 2004-2014

- Served as a member of the UTPA instrumentation grant committee, 2005-2009

REVIEWER:

- Served as a member of a committee of the UTPA International Student Office on the Immigration Issue for the students

- Served as the chairman and a member of the undergraduate students theses committee, department of chemistry and biology, the UT-Pan American, 2005-2014

- Served as the chairman and a member of the graduate students theses committee, chemistry and biology, the UT-Pan American, 2007-2014

- Served as a member of the Research Scientist search committee and 20 other committees, The UT M. D. Anderson Cancer Center, 1999-2003

- Served as an Examiner of many high school and college students' research presentations, 1990-2013

HONORS, AWARDS and RECOGNITIONS:

NATIONAL and INTERNATONAL LEVEL:

- Research is selected as a plenary lecture at the World Congress on Green Chemisty, Florida, 2015
- Selected as the Winner for excellence in advising/mentoring students at the UTPA and College of Science & Mathematics, 2013
- Selected as one of the speakers an an international symposium ("Open access-what's new, what's worked, what has n't") sponsored by the Council of Scientific Editor, San Antonio, 2014
- Received Professor P. K. Bose Endowment Award for excellence in research by the Indian Chemical Society, December, 2013
- Selected for Mahatma Gandhi Pravasi Award for outstanding contribution as a Global Indian in International Arena; The ceremony was held in October, 2013 at the House of Lords, UK
- Selected as one of the Finalists of the University of Texas System-Academy Membership, 2013
- Awarded Mahatma Gandhi Gold Medal for outstanding accomplishments and service by the Energy and Climate Minister at the House of Lords, UK, 2012
- Received US National Society of Collegiate Scholars Advisor Award (best advisor in USA) for outstanding advising, 2013 and 2012
- Organized US National Society of Collegiate Scholars New Member Induction Ceremony at the UTPA, 2011-2013
- Received Nomination for the "Inspire-Integrity" Award by UTPA students from the US National Society of Collegiate Scholars for outstanding advising, 2013
- Received Hind Ratan Award for outstanding accomplishments and service, India, 2013
- Member of the International Core Committee of the International Conference on Global Opportunities for Latest Development in Chemistry and Technology, North Maharastha University, India, 2014
- Invited speaker on Green Chemistry, Health and Energy Symposium organized by the Royal Society of Chemistry (UK), American Chemical Society, Canadian Chemical Society, Brazilian Chemical Society and Delhi University, New Delhi, India, December, 2013
- Received the National Society of Collegiate Scholars "Distinguished Membership" for contribution to the classroom, the campus and the community, Washington, D. C., 2011-2014
- Invited by the President of National Society of Collegiate Scholars (UTPA Chapter) to deliver the Key-Note Lecture at the Induction Ceremony at the UTPA, 2011

- Chemical & Engineering News (C & E News, highest circulating and prestigious scientific magazine in the world), American Chemical Society have decided to publish an article based on the session that I have organized at the Philadelphia National Meeting, August, 2012; This article was published in C & E News in September 24, 2012

- Hosted three American Chemical Society Presidents, 2000, 2008 and 2009

- Received the Inspire-Integrity Award sponsored by the National Society of Collegiate Scholars for advising students for their career path, Washington, D. C., 2012

- Delivered plenary lectures in international meetings sponsored by Burdwan University, India, 2012 and 2013

- Delivered a plenary lecture at the 100th Year Anniversary of the Indian Science Congress (4 chemists were only chosen including a Nobel Prize Winner), 2013

- Delivered a plenary lecture at IACS (Nobel Laureate C. V. Raman's Institute), India, 2012

- As the Principal Investigator, received international funding (approximately $100,000.000 USD) to organize, chair and preside international symposium on Green Chemistry in India, 2011

- As the Principal Investigator, my students received international funding (approximately $120,000.000 USD) to conduct research at my laboraorty from the Mexico Govermenment, 2009-2012

- Delivered a plenary lecture at Dehradoon (India) in an international meeting sponsored by India-USA Joint Collaboration, 2012

- Received invitation to serve as an external reviewer of the faculty promotion & tenure of the University of Massachusetts, Boston, 2011

- Received invitation to serve as an external reviewer of the faculty promotion & tenure of the Indian Association for the Cultivation of Science, Calcutta, 2010-2011

- ACS selected national meeting presntations as the "presentation on demand" based upon presentations at the Philadelphia (2012) and New Orleans (2013) meetings

- Received the Indian Association of the Rio Grande Valley's Community Service Award for outstanding contributions in the field of science and tireless service to the student community and academia, 2011

- NIH/NCI has highlighted my biography and research accomplishments in their website, 2011

- Two publications had become first and fourth top cited according to BioMedLib, 2011

- Invited to present paper and organize session in an international symposium on anticancer drugs, Stockholm, Sweden, 2011

- Invited to present paper and organize session in an international symposium on biomedical science, Montreal, Canada, 2011

- Invited to present paper in an international symposium on "Challenges in Organic Synthesis" at London by the Royal Society of Chemistry, Cambridge, UK, 2011

- Invited to present paper in an international symposium on "Organic Chemistry" at Amsterdam, Netherlands by the Elsevier Publisher, UK, 2011

- Received invitation to become the Advisory Board Member of the University of Texas M. D. Anderson Cancer Center Educational Grant, 2011

- Invited by American Chemical Society to evaluate undergraduates' research posters, 2011

- Received invitation to deliver a lecture and serve as a chair of a session at the international meeting in Athens, Greece on Drug Discovery, 2010 and 2011

- Received invitation to participate as a Collaborator and a Member of the Training Core of the National Cancer Institute Research Grant in Cancer Health Disparities Geographical Management Program and Biospeciman Science, 2011

- Invited to present paper and organize session in an international symposium on Optical Engineering and Photonic Technology (International Multi-conference on Engineering and Technological Innovation), Orlando, Florida, 2009-2010

- Selected as the organizer, presider, and chair for an international symposium on Microwave in Chemical Synthesis in honor of Professor A. K. Bose, Philadelphia, 2012; Received Grants from American Chemical Society and CEM Microwave Company

- Received invitation to participate in an international meeting at Paris in May 2010 organized by the chemistry Journal Angew. Chem. International Edition (ranked number 1)

- Delivered two lectures at the Indian Association for the Cultivation of Science, 2010 and 2011

- Received invitation to join the UT Health Science Center at San Antonio as an Adjunct Professor, 2010

- Received invitation to join the UT at San Antonio as an Adjunct Professor, 2009

- Received invitation to participate as a Collaborator and a Member of the Training core of the National Cancer Institute Research Grant in Cancer Health Disparities Geographical Management Program and Biospeciman Science, 2009-present

- Received invitation to participate as a Consultant of the NIH Research Grant in Biology, 2009

- Received invitation to join the MDR Education Market Research, CT, USA, 2009-2013

- Received invitation to serve as a participant in a survey of the science content of the future US MCAT Examination, 2009; This study has been conducted by the Association of American Medical Colleges

- Received the University of Texas Board of Regents' Outstanding Teaching Award, 2009 (Best Teacher award at the inaugural year of this award)

- Received invitation to act as an Advisory Board Member at the International Meeting of Tripura University, India, 2009

- Received invitation to deliver a speech to the International Symposium on the Organic Chemistry of Sulfur, Firenze, Italy, 2009-2010

- Received invitation to deliver a speech to the Quantitative Methods in Libraries International Conference, Organic Synthesis and Drug Discovery, Crete, Greece, 2009, 2010 and 2011

- Received invitation by Professor Rivera to act as the research mentor of several undergraduates of the University of Reynosa (Mexico), 2009-2010

- Received invitation to present research papers in San Francisco, Hong Kong and Manchester on Chemistry and Chemical Biology organized by Royal Society of Chemistry, England, 2008, 2009, 2010, 2011 and 2012

- Received invitation to present research papers in Australia and Bulgaria on Apparel Manufacturing, High Energetic Materials and Socio-Economic Impact of Natural Change organized by the Director of the Australian Institute of High Energetic Materials, 2009-2010

- Received invitation to present research papers in Beijing, China on Chemistry organized by Elsevier Publisher, UK, 2009-2010

- Received invitation to present research papers at the Annual International Conference of Medichem (Smart Chemistry in Drug Discovery) in Beijing, China, 2009-2011

- Chemical & Engineering News had highlighted my recognitions in the following areas: UT Board of Regents' Teaching Award, Inspire-Integrity Award, ACS-Member Service Award and Mahatma Gandhi Award, 2009-2012

- Received 10 invitations to present research papers at the Zing Chemistry Conferences on the shores of the Caribbean and Red Seas, 2008-2011

- Received Provost's Award for International Studies, 2009

- Served as the Research Presentation Moderator at an International Meeting sponsored by Saha Institute of Nuclear Physics (Calcutta University, India), 2009

- Served as a Judge of the student research presentations at an International Meeting sponsored by Saha Institute of Nuclear Physics (Calcutta University, India), 2009

- Received invitation to deliver a speech at the Annual World Congress of Catalytic Asymmetric Synthesis, 2009 and 2010

- Requested by a Distinguish Chair Professor of Southern Methodist University, Dallas to write a letter of support for his lifetime achievement award in research, teaching and service, 2009

- Received Invitation to attend a celebration in honor of Professor Biehl for his teaching by the University of Pittsburg, PA, 2010

- Received invitation to deliver lecture at the International Multi-Conference on Complexity, Informatics and Cybernetics, Orlando, Florida, 2009-2010

- Delivered lecture and chair a session at the 100th year anniversary of the Nobel Prize Celebration in Germany, 2008

- Received invitation to visit Jamaica and/or Toronto Institute of Pharmaceutical Technology and start collaborative research with the Chairman of the Blue Cross of Jamaica Limited, 2008

- Received invitation to deliver lecture at the Central Drug & Research Institute in India, 2008

- The Times of India (Education Division), highest circulating English Newspaper has published an article based on my significant achievements in the Expert Section, 2009 and 2013

- Received Travel Award to serve as a Judge of the presentations at the biomedical research conference sponsored by NIH in Florida in November 2008; Invited by NIH to serve as a Judge at the annual biomedical conferences, 2010 and 2011

- Received invitation to deliver research lectures at the Indian Science Congress in New Delhi and Asaam and International Symposium in Calcutta, 2007, 2008, 2009

- Received invitation for a Visiting Professor Position from the University of Spain by Professors Cossio and Palomo, 2008

- Selected as a Consultant for a Drug Company in Spain, 2008

- Received invitation for a reception by the ACS for helping the society to increase student membership in higher education and research, 2008; recruited highest number of members to the ACS; given Member Service Award by the ACS, 2008

- Awarded First President's Endowed Professorship at the UTPA in its 81st year of history, 2007

- Interviewed by Science Journal Reporter to evaluate suitability of research (conducted by Harvard University Professor) for special recognition at the American Chemical Society National Meeting, Chicago, March, 2007; This interview was published in SCIENCE

- Invited by the CEM Microwave to participate in dinner and scientific discussion at Boston on the occasion of M. J. Collins Award (August 2007, August 2008 and August 2009)

- Invited by the ACS to the ACS author and reviewer appreciation reception in Chicago (March 2007), Boston (August 2007), New Orleans (March 2008), Philadelphia (August 2008), Salt Lake City (March 2009), Washington, D. C. (August 2009) and Boston (2010)

- Invited to serve as a Publication Committee Member, International Symposium on Human Health Effects of Fruits and Vegetables conducted by Texas A & M University, October, 2007

- Designated by the Director of the SEED program of the ACS as one of the best Mentors out of 300 national and international Ph. D. and M. D. Mentors for the last 18 years, 2006

- Supervised and mentored approximately 450 national and international students including 20 postdoctoral fellows and 2 assistant professors

- Invited by the Royal Society of Chemistry to participate in dinner and scientific discussion at Indianapolis (2013), New Orleans (2013), Philadelphia (2012), Boston (2010), Washington, D. C. (August 2009), Salt Lake City (March 2009), Philadelphia (2008), New Orleans (2008), Boston (2007), Chicago (2007), San Francisco (September 2006), Atlanta (March 2006) and Washington, D. C. (September 2005)

- Proposed by the Frontier in Bioscience to become author/editor of "Encyclopedia in Medicine", 2009

- Proposed by OMICS/IPR (India) to become author of "High Quality" Reference Book, 2009

- Proposed by the John Wiley Book Company to become Author of Text books on organic chemistry for undergraduates and graduates, 2008-2009

- Proposed by the Springer Book Company to become Editor and Author of two books based on Beta Lactam; these books have been published in 2010 and 2012.

- Proposed by the Springer Book Company to become Editor and Author of a third book based on Microwave in Chemistry, 2014

- Proposed by the Linus Book Company to become Editor and Author of a book on Organic Chemistry, 2007 and 2008

- Proposed by the Thompson Book Company to become Editor and Author of a book based on a subject of current interest, February, 2006

- Proposed by the Houghton Mifflin Book Compan to become Editor and Author of a book based on a subject of current interest, March, 2006

- Proposed by the John Wiley Book Company to become Editor and Author of a book based on Beta Lactam: Chemistry and Biology, April, 2006

- Invited by the Wiley to participate in a group discussion on the merit, scope and applicability of organic chemistry text book at Atlanta, Georgia, April, 2006 and Anaheim, California, 2011

- Reviewed chapters in text books by Wiley, Thompson and Springer, 2003-present

- Participated to improve the search facility of chemical database by Wiley, Denver, 2010

- Proposed by the Francis & Taylor Book Company to become Editor of a book on Total Synthesis of Complex Molecules, August, 2005

- Invited by the author and referee division of the Royal Society of Chemistry, England and ACS to participate in scientific discussion, 2004-2009

- Received more than 200 invitations to deliver lecture at different scientific meetings (USA, India, Germany, China, Hong Kong, Greece, Italy, France, Jamaica, Sweden, Pakistan, Norway, Canada, Mexico, Venezuela, Brazil, Spain, New Zealand, Austria, Australia and Turkey)

- Chemical & Engineering News highlighted research based on presentations at the New Orleans National Meeting, March, 2003

- Chemical & Engineering News highlighted research based on presentations at the San Diego National Meeting, March, 2001; Chemical & Engineering News highlighted 5 presentations from more than 10,000 presentations in 2001 and 2003

- Chemical & Engineering News selected numerous of our presentations as "Presentation on Demand" (see the presentation section)

- Received more than 100 invitations to deliver lectures at different US institutions and international conferences in 2010-2014

STATE and UNIVERSITY LEVEL:

- Acted as one of the Members of the Planning Committee of the Science & Engineering Symposium of the HESTEC, UTPA, 2006-2012; Invited and brought Nobel Prize Winner, Distinguish Professor from Cornell University and US White House Undersecretary

- Recognized at the UTPA website as the Best Chemist, 2010

- As the chair of the research committee of the chemistry department, generated fund for the purchase of New NMR Instrument at the UTPA, 2009 (837,000.000 dollar)

- Acted as the Chairman of the Faculty Research Council of the UT-Pan American, 2005 to 2008

- Selected as one of the finalists for the UT Chancellor Award (Minne Stevens Piper Award) at the UTPA for teaching excellence for six years, 2007 to 2012

- Nominated for UTPA Faculty Excellence Award in Advising & Mentoring, 2012 and 2013; Selected for the award in 2013

- Acted as the chairman of the drug-discovery symposiums and chemistry club meeting of the UT M. D. Anderson Cancer Center, 2000-2001

- Developed analytical research lab at the UT M. D. Anderson Cancer Center, 2000-2001

- Generated funding from the administration for the purchase of 9 chemistry journals at the UT M. D. Anderson Cancer Center, 2000-2001

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