BIOGRAPHICAL SKETCH

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NAME	POSITION TITLE
Kumar Ranjan Bhushan	Postdoctoral Fellow
eRA COMMONS USER NAME	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
University of Delhi	B.S.	1993	Chemistry
University of Delhi	M.S.	1995	Chemistry
University of Delhi	Ph.D.	2000	Chemistry

A. Position and Honors

Positions

01/97- 01/99 Junior Research Fellow, Council of Scientific & Industrial Research (CSIR), Department of Chemistry, University of Delhi, Delhi, India

01/99- 04/01 Senior Research Fellow, CSIR, Department of Chemistry, University of Delhi, Delhi, India.

05/01- 04/02 Postdoctoral Research Associate, College of Pharmacy, Rutgers, State University of New Jersey, NJ

05/02- 09/05 Postdoctoral Research Associate, Dept. of Chemistry/Bioinformatics Program, Boston University, Boston, MA

10/05- present Postdoctoral Fellow, Division of Hematology/ Oncology, Beth Israel Deaconess Medical Center, Harvard Medical School, Harvard University, Boston, MA

Honors and Awards

10/05 - present Postdoctoral Research Position, Harvard University, MA

05/02 - 09/05 Postdoctoral Research Position, Boston University, MA

2003 Award of STTR grants from National Institute of Health (Co P.I.)

05/01- 04/02 Postdoctoral Research Position, Rutgers University, NJ

2001 Award of “Second Prize on Presentation” at IUPAC International Symposium on Green Chemistry

01/99 - 04/01 Senior Research Fellowship Award of CSIR, India

2000 Senior Research Fellowship (Extended) of CSIR, India

01/97 - 01/99 Junior Research Fellowship of CSIR, India

1996 Qualified Junior Research Fellowship & National Eligibility Test (NET) for Lecturership (all India), CSIR and University Grant Commission

Other Experience and Professional Membership

2006 - Invited Reviewer of:

1) Royal Society of Chemistry
2) Green Chemistry
3) Organic and Biomolecular Chemistry
4) Synlett
5) International Journal of Applied Chemistry

Affiliation:

Member, American Association for the Advancement of Science
Member, American Chemical Society
Member, Organic division, American Chemical Society

B. Selected peer-reviewed publications (in chronological order)

1. Synthesis of novel fungicidal organomercurials using microwaves, M. Kidwai*, **K.R. Bhushan**, P. Kumar & R. Kumar, *Monatsh. Chemie*., 1997, *128*, 1291-1295.
2. A rapid one-pot synthesis of 5-substituted-2-mercapto-1,3,4-thiadiazoles using microwaves, M. Kidwai* & **K.R. Bhushan**, *Indian J. Chem*., 1998, *37B*, 427-428.
3. Microwave induced synthesis of ferrocenyl substituted 1,2,4-s-trizalo[3,4-b]-1,3,4-thiadiazoles, M. Kidwai*, **K.R. Bhushan** & P. Kumar , *Monatsh. Chemie*.,1999, *130*, 585-88.
4. A novel synthetic method for fungicidal organomercurials, M. Kidwai* & **K.R. Bhushan**, *Chem. Papers*, **1999**, *53*, 114-117.
5. Fluorination of 2-chloro-3-formylquinolines using microwaves, M. Kidwai*, P. Sapra & **K.R. Bhushan**, *Indian J. Chem*., 1999, *38B*,114-115.
6. A rapid and cheap synthesis of cephalosporins, M. Kidwai*, **K.R. Bhushan** & P. Misra, *Chem. Lett*., 1999, *6*, 487-88.
7. Synthesis of novel antibacterial cephalosporin derivatives using microwaves, M. Kidwai*, P. Misra & **K.R. Bhushan**, *Indian J. Chem*.,1999, *38B*, 993-997.
8. Microwave assisted synthesis of novel organomercurials in 'dry media', M. Kidwai*, P. Misra & **K.R. Bhushan**, *Polyhedron*, 1999, *18*, 2641-2643.
9. Synthetic strategies and medicinal properties of beta-lactams, M. Kidwai*, P. Sapra & **K.R. Bhushan**, *Current Med. Chem*., 1999, *6*, 195-215.
10. Alumina supported synthesis of quinolines using microwaves, M. Kidwai*, **K.R. Bhushan**, P. Sapra, R.K.Saxena & R.Gupta , *Bioorg. Med. Chem*., 2000, *8*, 69-72.
11. Microwave assisted stereoselective synthesis and antibacterial activity of new beta-lactam derivatives, M. Kidwai*, P. Sapra, **K.R. Bhushan**, R.K.Saxena, R.Gupta & M. Singh , *Montash Chemie*., 2000, *131*, 85-90.
12. Microwave assisted synthesis of new fungicidal pyrazoles, M. Kidwai*, **K.R. Bhushan** & P. Misra , *Indian J. Chem*., 2000, *39B*, 458-461.
13. Synthesis of novel fungicidal thiobarbituric acid derivatives, M. Kidwai* & **K.R. Bhushan**, *Egyptian J. Chem*., 2000, *43*, 333-340.
14. A novel route to 1,2,4-triazoles, M. Kidwai*, P. Misra, **K.R. Bhushan** & B. Dave, *Synth. Commun*., 2000, *30*, 3031-3040.
15. Alumina supported synthesis of aminoazoles using microwaves, M. Kidwai*, B. Dave & **K.R. Bhushan**, *Chem. Papers*, 2000, *54*, 231-234.
16. Microwave assisted solid phase synthesis of cephalosporin derivatives with antibacterial activity M. Kidwai*, P. Misra, **K.R. Bhushan**, R.K.Saxena & M.Singh, *Montash. Chemie.*, 2000, *131*, 937-943.
17. Microwave activated solid-support synthesis of antibacterial quinolones, M. Kidwai*, P. Misra, B. Dave, **K.R. Bhushan**, R.K. Saxena & M. Singh, *Montash. Chemie*, 2000, *131*,1207-1212.
18. Novel one pot synthesis of new pyrano-pyrimidines using microwaves, M. Kidwai*, R. Venkataramanan, R.K. Garg & **K.R. Bhushan** , *J.Chem. Res.(S)*, 2000, 586-587.
19. Alumina supported synthesis of thiadiazolyl thiadiazolones, M. Kidwai*, P. Misra & **K.R. Bhushan**, *Synth. Commun* , 2001, *31*, 817-822.
20. Microwave assisted synthesis of novel 1,2,4-Triazines in dry media, M. Kidwai*, P. Sapra, **K.R. Bhushan** & P. Misra, *Synth. Commun*., 2001, *31*, 1639-1645.
21. Microwave assisted solid support synthesis of pyrazolino/iminopyrimidino/thioxopyrimidino imidazolines, M.Kidwai*, P. Sapra, **K.R. Bhushan** & P. Misra *Synthesis*, 2001, *10*, 1509-1512.
22. Microwave induced synthesis and antibacterial activity of cephalosporin derivatives using solid support, M. Kidwai*, P. Sapra, **K.R. Bhushan**, P. Misra, R.K. Saxena ,R. Gupta & M. Singh, *Bioorg. Chem.*, 2001, *29***,** 380-386.
23. Microwave assisted synthesis of fungicidal compounds using knovenagel condensation in dry media, M. Kidwai*, P. Sapra & **K.R. Bhushan**, *J. Indian Chem. Soc.,* 2002*, 79***,** 596-598.
24. Synthesis of deacylated antibacterial cephalosporins by lipase catalysis and microwave assisted transformation on solid support, M. Kidwai*, B. Dave, **K.R. Bhushan** , P. Misra, R.K. Saxena, R. Gupta, R. Gulati & M. Singh, *Biocatal. Biotransform.*, 2002, *20***,** 377-379.
25. Synthesis of photolabile 2-(2-nitrophenyl) propyloxycarbonyl protected amino acids, **K.R. Bhushan**, C. DeLisi & R.A. Laursen*, *Tetrahedron Lett.,* 2003, *44*, 8585-8588.
26. Light-directed maskless synthesis of peptide arrays using photolabile amino acid monomers, **K.R. Bhushan***, Org. Biomol. Chem., 2006, 04, 1857-1859.

27. Photolabile peptide nucleic acid monomers: synthesis and photodeprotection, **K.R. Bhushan***, Synlett, 2006, 13, 2130-2132.

Patent Disclosure

Synthesis of photolabile 2-(2-nitrophenyl) propyloxycarbonyl protected amino acids; C. P. DeLisi, R.A. Laursen & **K.R. Bhushan**; *U.S. Pat. Appl. Pub.,* 2005*,* US 20050101763.

Oral/Poster Presentation in Conferences and Symposia

1. National seminar on perspective in interfacial areas of chemistry and biology, Dept. of Chemistry, University of Delhi, 20-22 Jan 1998, Delhi.---oral presentation. ("Dry synthesis of bioactive organomercurials," M. Kidwai & **K.R. Bhushan***).
2. International conference on microwave chemistry, 06-11 Sept 1998, Prague, Czech Republic. ---poster accepted. ("Synthesis of novel antibacterial cephalosphorin derivatives using microwaves," M. Kidwai & **K.R. Bhushan***).
3. 1st National symposium on green chemistry, Dept. of Chemistry, University of Delhi, 11-13 Jan 1999, Delhi, India --- poster presentation. ("Synthesis of quinoline derivatives using microwave in dry media," M. Kidwai & **K.R. Bhushan***).
4. International symposium on trends in medicinal chemistry and biocatalysis, Dept. of Chemistry, University of Delhi, 26-29 Jan 2000, Delhi. --- poster presentation. ("Synthesis of thiadiazolyl thiadiazolones using microwaves." M. Kidwai, **K.R. Bhushan*** & P. Misra).
5. IUPAC international symposium in green chemistry, Dept. of Chemistry, University of Delhi, 10-13 Jan 2001, Delhi, India.--- poster presentation ---2nd award. ("Eco friendly approach for nitrogen heterocycles." M. Kidwai, **K.R. Bhushan*** & B. Dave).
6. 232nd ACS national meeting, 10-14 Sept, 2006, San Francisco, CA. ---poster presentation. ("Synthesis of photolabile 2-(3, 4-methylenedioxy 6-nitrophenyl)-propyloxycarbonyl-protected amino acids," **K.R. Bhushan***).
7. 5th Annual meeting of the society for molecular imaging, 30 Aug-02 Sept, 2006, Hawaii--- poster presentation. ("Improved Synthesis of Near-Infrared Bisphosphonate Derivatives for the Detection of Breast Cancer Microcalcifications," **K.R. Bhushan***, E. Vinogradov, R.E. Lenkinski, & J.V. Frangioni).
8. 233rd ACS national meeting, 25-29 March, 2007, Chicago, IL. ---Oral presentation accepted. ("Near-infrared/magnetic resonance dual contrast agents for imaging breast cancer microcalcification," **K. R. Bhushan***, R. E. Lenkinski, & J. V. Frangioni)
9. 233rd ACS national meeting, 25-29 March, 2007, Chicago, IL. ---Oral presentation accepted. ("Near-infrared fluorescent bisphosphonates: Synthesis and in vivo optical imaging of breast cancer microcalcification," **K. R. Bhushan***, R. E. Lenkinski, & J. V. Frangioni)

C. Research Support

1. STTR Grant (P.I.: C.P. DeLisi) 8/2003- 7/2004
   National Institute of Health (NIH)
   Development of a peptide array synthesis system