Dr.Rajender Kumar (Assistant Professor)

Department of Applied Chemistry

SV National Institute of Technology

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Research Interest

Biomaterials, Nano Biomaterials, Bionanofluidics, Antibiofouling Polymers and Antimicrobial Peptides.

Postdoctoral fellow June 2011- Dec 2013

Worked as Postdoctoral Fellow at BenGuiron University of Negev, Israel.

Doctor of Philosophy (Chemistry)

November 2010

(Indian Institute of Technology Roorkee India)

Supervisor: Prof. Ravi Bhushan

"Liquid Chromatographic Chiral Separation of Some Biologically Useful Molecules"

Master of Science in Chemistry

July 2005

(H.P University Summer Hill, Shimla (India)-5)

Bachelor of Science in Chemistry, Botany and Zoology

July 2003

(Himachal Pradesh University, Shimla (India)-5)

Academic Experience

Assistant Professor

Present position

Department of Applied Chemistry, SV. National Institute of Technology, Surat-395007, Gujarat, India Since December 2013.

Assistant Professor

December 2010-May 2011

Assistant Professor (Permanent Cadre) in Dept. of Chemistry, HansRaj College, Delhi University, India.

Honors and Fellowships

- ➤ Awarded Postdoctoral Fellowship by Israel Ministry of Science and Higher Education. 2012-2013
- ➤ Awarded Visiting Scholar Fellowship by Centre for International Mobility Finland under Finnish Government Scholarship Pool to work at Laboratory of Analytical Chemistry, University of Helsinki for Academic Year 2011-2012
- Awarded Post Doctoral Fellowship by Blaustein Centre for Scientific Cooperation (Israel) For 2011-2012.
- Awarded Postdoctoral Fellowship by Israel Government under VATAT Programme for 2011-2012.
- Nominated by the University Grant Commission, New Delhi, to Visit Finland as a Visiting Scholar under Finnish Government Scholarship Pool for the Academic Year 2010-2011.
- Awarded International Travel Grant by Department of Science and Technology, Govt. of India for Attending 21st International Symposium on Pharmaceutical and Biomedical Analysis from 11-14 October 2009 at Orlando, Florida, USA.
- > CSIR-JRF-NET-2006 awarded by Council of Scientific and Industrial Research New Delhi (INDIA).
- For Graduate Aptitude Test in Engineering (GATE)-2006 With Score of 95 Percentile and All India Rank of 213.

Memberships of Scientific Societies

- 1. Life member of Indian Society of Analytical Scientists.
- 2. North American Membrane Society.

Selected Publications

1. Rajender Kumar, Jüergen Martens and Ravi Bhushan, Enantiomerization Study of Atropine and its Semipreparative Enantioseparation along with (1RS,2SR)-(±)-Ephedrine on Polyacrylamide Column using High-Performance Liquid Chromatography. **Journal of**

जार्राह्य थाः रजात् ॥

- Liquid Chromatography and related Technologies (Online published March 2014) DOI: 10.1080/10826076.2014.883539
- 2. Ravi Bhushan and Rajender Kumar, "Reversed-phase high performance liquid chromatographic separation of diastereomers of β-amino alcohols and microwave assisted synthesis of Marfey's reagent, its chiral variants and diastereomers" Journal of Chromatography A 1216 (2009) 2592-2596.
- 3. Ravi Bhushan and Rajender Kumar, "Analytical and preparative enantioseparation of dl-penicillamine and dl-cysteine by high-performance liquid chromatography on α-acid glycoprotein and β-cyclodextrin columns using ninhydrin as a reversible tagging reagent" Journal of Chromatography A 1216 (2009) 3413-3417.
- 4. Ravi Bhushan and Rajender Kumar, Analysis of multicomponent mixture and simultaneous enantioresolution of proteinogenic and non proteinogenic amino acids by reversed-phase high-performance liquid chromatography using chiral variants of Sanger's reagent" Analytical and Bioanalytical Chemistry 394 (2009) 1697–1705.
- 5. Ravi Bhushan and Rajender Kumar, "Comparative application of microwave, ultrasonication, ultracentrifugation and conventional heating for preparation of sample as dinitrophenyl-derivative for direct enantioseparation of certain amino alcohols and 1-amino-2-propanol from Vitamin B₁₂ hydrolysate on a1-acid glycoprotein and β-cyclodextrin columns" Journal of Chromatography A 1216 (2009) 7941–7945.
- 6. Ravi Bhushan and Rajender Kumar, "Enantioresolution of Penicillamine" Review: Biomedical Chromatography 24 (2010) 66-82.

International Conferences

- Gold-coated Oligoamide Mimetic of Thin Film Composite Membrane Synthesized using Layer Chemistry for Study of Adsorption of foulants and surfactants, Rajender Kumar* and Roni Kasher *Oral presentation at North American Membrane Society Conference 2012 held at New Orleans from 9-13 June 2012
- 2. Gold-coated Oligoamide Mimetic of Thin Film RO and NF Membranes Synthesized by Covalent Layer Chemistry for Adsorption Studies of Organic Foulants and Surfactants, Rajender Kumar and Roni Kasher * Presented at symposium "From Molecules to

Materials: Advances and Challenges" held at the David Lopatie Conference Centre, Weizmann Institute of Science on July 15–16, 2012

3. Direct analytical and Preparative Separation of Enantiomers of Ephedrine and Atropine by Reversed-Phase High-Performance Liquid Chromatography Using Polyacrylamide Column and Photodiode Array Detection, R Bhushan and Rajender Kumar *Presented at 21st International Symposium on Pharmaceutical and Biomedical Analysis From 11-14 October 2009 at Orlando, Florida, USA.

