Curriculum vitae

Dr. Saurabh kumar Yadav
Assistant Professor
Department of Chemistry,
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Citation indices	All	Since 2017
Citations	408	261
h-index	9	8
i10-index	8	7

FIELD

- Analytical Chemistry
- Forensic Chemistry
- Electrochemistry
- Materials Science
- Sensor
- Biosensor

EDUCATIONAL QUALIFICATIONS

- 2015 Ph.D.
  Entitled: **"Nanomaterial Based Sensors for the Determination of Biomolecules and Drugs",** Department of Chemistry, ***Indian Institute of Technology Roorkee (IITR),*** India.
- 2011 M.Sc.(Analytical Chemistry): Department of Chemistry, ***Banaras Hindu University***, Varanasi, India.
- 2009 B.Sc.:Udai Pratap Autonomous College (V.B.S. Purvanchal University), Varanasi, India.

CURRENT RESEARCH INTERESTS

- Analytical and mechanistic aspects of biomolecules and drugs.
- Modification of electrode using nanomaterial, polymer, hybrid nanostructured materials, aptamer.
- Sensors and biosensor for biomolecules, drugs and doping agents.
- Solar cell, fuel cell, photocatalysis and energy devices.

RESEARCH EXPERIENCE

2013-14 Senior Research Fellow of Council of Scientific & Industrial Research (CSIR), New Delhi, India.
2011-13 Junior Research Fellow of Council of Scientific & Industrial Research (CSIR), New Delhi, India.

PROFESSIONAL EXPERIENCE

2016-17 Assistant Professor Department of Chemistry, Motihari ollege of Engineering, Motihari, Bihar
2016-17 Assistant Professor, Department of Chemistry, Dr. Shakuntala Misra National Rehabilitation University, Lucknow India
2015-16 Assistant Professor, Department of Applied Chemistry, Babasaheb Bhimrao Ambedkar University, Lucknow, India
2014- 15 Junior Analyst at National Dope Testing Laboratory, India (accredited by International Olympic Commission (IOC) and World Anti-Doping Agency (WADA) to do the testing for the banned drugs in sports).

RESEARCH PUBLICATIONS

1. **Saurabh K. Yadav**, Bharati Agrawal, Pranjal Chandra, Rajendra N. Goyal; "*In vitro* chloramphenicol detection in a *Haemophilus influenza* model using an aptamer-polymer based electrochemical biosensor", *Biosensors and Bioelectronics*, Volume 55, 15 May 2014, Pages 337-342.

2. **Saurabh K. Yadav**, Pravir K. Choubey, Bharati Agrawal, Rajendra N. Goyal; "Carbon nanotube embedded poly 1,5-diaminonapthalene modified pyrolytic graphite sensor for the determination of sulfacetamide in pharmaceutical formulations", *Talanta,* Volume 118, 15 January 2014, Pages 96-103.

3. **Saurabh K. Yadav**, Rosy, Munetaka Oyama, Rajendra N. Goyal; "A biocompatible nano gold modified palladium sensor for determination of dopamine in biological fluids", *Journal of The Electrochemical Society*, 161(1) H41-H46 (2014).

4. **Saurabh K. Yadav**, Bharati Agrawal, Rajendra N. Goyal; "AuNPs-poly-DAN modified pyrolytic graphite sensor for the determination of Cefpodoxime Proxetil in biological fluids" *Talanta*, Volume 108, 15 April 2013, Pages 30-37.

5. **Saurabh K. Yadav**, Pranjal Chandra, Rajendra N. Goyal, **Yoon-Bo Shim**; "A review on determination of steroids in biological samples exploiting nanobio-electroanalytical methods", *Analytica Chimica Acta,* Volume 762, 31 January 2013, Pages 14-24.

6. **Saurabh K. Yadav**, Pranjal Chandra, Rajendra N. Goyal, **Yoon-Bo Shim**; "Chromatography-based determination of anabolic steroids in biological fluids: Future Prospects Using Electrochemistry and Miniaturized Microchip Device", *Chromatographia,* DOI 10.1007/s10337-012-2351-0.

7. Pankaj Gupta, **Saurabh K. Yadav**, and Rajendra N. Goyal; "A sensitive polymelamine modified sensor for the determination of lomefloxacin in biological fluids", *Journal of The Electrochemical Society*, 162(1) H86-H92 (2015).

8. Pankaj Gupta, **Saurabh K. Yadav**, Bharati Agrawal, Rajendra N. Goyal; "A novel graphene and conductive polymer modified pyrolytic graphite sensor for determination of propranolol in biological fluids", *Sensors and Actuators B: Chemical*, Volume 204, 1 December 2014, Pages 791-798.

9. Rosy, **Saurabh K. Yadav**, Bharati Agrawal, Munetaka Oyama, Rajendra N. Goyal; "Graphene modified palladium sensor for electrochemical analysis of norepinephrine in pharmaceuticals and biological fluids", *Electrochimica Acta*, Volume 125, 10 April 2014, Pages 622-629.

10. Rajendra N. Goyal, Davinder Kaur, Bharati Agrawal, **Saurabh Kumar Yadav**; "Electrochemical investigations of mometasone furoate, a topical corticosteroid, in micellar medium", *Journal of Electroanalytical Chemistry*, Volume 695, 15 April 2013, Pages 17-23.

CONFERENCES ATTENDED

1. A paper entitled "Facile voltammetric approach for the effective detection of propranolol" was presented in the conference organised by Indian Society of Analytical Scientists from March 27th to 29th, 2014, at Varanasi (India).

2. A paper entitled "A biocompatible nano gold modified palladium sensor for determination of dopamine in biological fluids" was presented in the international conference organised by Indian Society of Electro-analytical Chemistry (BARC, Mumbai) from February 20th to 25th, 2014, at Amritsar (India).

3. A paper entitled "AuNPs-poly-DAN modified pyrolytic graphite sensor for the determination of Cefpodoxime Proxetil in biological fluids" was presented in the international conference organised by Indo-US Science and Techonology Forum from February 26th to 28th, 2013, at Varanasi (India).

4. A paper entitled "Electrochemical investigations of mometasone furoate, a topical corticosteroid, in micellar medium" was presented in the international conference organised by Indian Society of Electro-analytical Chemistry (BARC, Mumbai) from January 16th to 20th, 2013, at Ramoji Film City (Hyderabad, India).

SKILLS AND ACHIEVEMENTS

Instruments: Bioanalytical system (CV, SWV, DPV, CPE), High Performance Liquid Chromatography (HPLC), Gas Chromatography (GC), Gas Chromatography-Mass spectrometry (GC-MS/MS), Liquid Chromatography-Mass spectrometry (LC-MS/MS) along with several characterization technique like NMR, IR, UV-Vis, Raman, Electrochemical impedance Spectroscopy (EIS), Elemental Analyzer, Atomic Absorption Spectroscopy (AAS), Field Emission Scanning Electron Microscopy (FE-SEM), Atomic Force Microscopy (AFM), Quartz crystal microbalance (QCM), X-ray photoelectron spectroscopy (XPS).

Software: FORTRAN (language), Gaussian (learning, geometry optimization; energy optimization; HOMO, LUMO structure and energy gap; theoretical IR, NMR and UV; dipole moment calculation etc.), Origin, Chem Draw and MS Office.

Languages: English, Hindi.

EXTRA CURRICULARS

2013 Volunteer in Modern Trends In Inorganic Chemistry-XV (MTIC-XV).

2012 Volunteer in school on analytical chemistry organised by Association of environmental analytical chemistry of India (AEACI).

PERSONAL DETAILS

Father's Name: Rajendra Prasad Yadav
Date of Birth: July 11, 1988
Gender: Male
Blood Group: O+
Nationality: Indian