Curriculum Vitae

Dr. Ratnesh Kumar
A. N. College, Patna
Date of Birth: 3rd July, 1985
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Present Position:

Assistant Professor in Department of Chemistry, A. N. College, (Patna), Patliputra University, Patna.

Educational Qualifications:

Ph.D in Electrochemistry (2018) **:** University of Delhi, Delhi, Thesis entitled "Electrochemical investigation of power spectrum based theories on rough Pt electrode: E, EC', EE and EDL response" **(**under the guidance of **Prof. Rama Kant**)

- **M. Sc. Chemistry (Physical) (2010)** **:** Sri Venkateswara College**,** University of Delhi, India
  Secured – 65 %
- **B. Sc. (2008)** **:** Dyal Singh College**,** University of Delhi, India
  Secured – 75 %

Teaching Experience

Worked as Assistant Professor in the Department of Chemistry, Kisan College, Sohsarai (Nalanda), Patliputra University, Patna from 09-11-2017 to 30-08-2021.

Worked as Assistant Professor (adhoc) in the Department of Chemistry, University of Delhi, Delhi from 08-08-2016 to 19-05-2017.

Academic Fellowships and Awards:

1. **Cleared CSIR-National Eligibility Test** CSIR-JRF-NET (December 2010) in Chemical Sciences.
2. **Cleared Graduate Aptitude Test in Engineering (GATE)** in Chemistry (March 2010 and 2011).

Publications

1. **Ratnesh Kumar**, Himanshi Goyal, Shailendra Kumar Jha and Rama Kant*. ***J. Electroanal. Chem,*** **2022,** 905, 115899.

2. **Ratnesh Kumar**, and Rama Kant*. ***Electrochim Acta***, **2017**, 257, 473-482.

3. Niladri Roy Chowdhury, **Ratnesh Kumar**, and Rama Kant*. ***J. Electroanal. Chem.***, **2017**, 802, 64-77.

4. **Ratnesh Kumar**, Shweta Dhillon, and Rama Kant*. ***J. Electroanal. Chem.***, **2016**, *780*, 337–354.

5. Shruti Srivastav, Shweta Dhillon, **Ratnesh Kumar**, and Rama Kant*. ***J. Phys. Chem. C***, **2013**, *117*, 8594–8603.

Technical Experience During Research:-

(1) **List of Softwares used for research:**

(i) Latex
(ii) Mathematica
(iii) Matlab
(iv) Microsoft office, excel and powerpoint.

(2) **List of Instruments used for research:**

(i) Autolab III equipped with Nova software.
(ii) Gamry Reference 600.
(iii) Scanning electron microscopy.
(iii) Atomic force microscopy.
(iv) pH meter and viscometer

Projects/ Experiemnts:-

(1) Preparing rough and nanoparticles deposited electrode by mechanical and electrochemical methods.

(2) Characterizing electrode surface using atomic force microscopy and scanning electron microscopy.

Orientation and Refresher Courses:

1. Successfully completed 81st Orientation Programme organized by Human Resource Development Centre (HRDC), Patna University, Patna from 24-11-2018 to 21/12/2018.
2. Successfully completed Online Refresher Course in Chemistry organized by SWAYAM ARPIT S.G.T.B. Khalsa College, University of Delhi, Delhi from 01-12-2021 to 31/03/2022.

Conferences and Seminars:

1. National Conference on Recent Advances in Physical Sciences (NCRAPS-2019) organized by R.N. College, Hazipur (Vaishali), 12th -13th October 2019.

1. R. Kumar and R. Kant, Understanding anomalous response of Pt nanoparticles deposited rough electrodes: SEM, chronoamperometry and impedance (Poster), in Abstract 6th MRS-2015: 17th

national symposium in Chemistry, Chemical research society of india, 23th Nov.-25th Nov. 2015, IISER, Mohali.

2. R. Kumar and R. Kant, Experimental validation of theory for EC' reaction on the rough platinum electrode (Poster), in Abstract CSIR-NSC (17)-2015: 17th national symposium in Chemistry, Chemical research society of india, 6th Feb-8th Feb. 2015, CSIR-NCL, Pune and IISER, Pune and S.P. Pune University.
3. IUCr workshop on X-ray diffraction systems and related applications containing XRD basics, experimental techniques and data analysis using Highscore Plus Software, held at University of Delhi on 25-26th Sep. 2014.
4. R. Kumar} and R. Kant, Experimental validation of theory for electrochemical impedance of EDL in viscous medium on heterogeneous electrode (Poster), in Abstract ICONEST-2014, 7-9 August 2014, conducted by the electrochemical society of India at Indian institute of science Bangalore, Bangalore – 110007, India.
5. R. Kumar} and R. Kant, Determination of fractal dimension, microscopic area and diffusion coefficient on nanostructured rough electrode (Poster), in Abstract 6th International conference on nano science and technology, 2-5, March, 2014, organized by institute of nanoscience and technology at University of Punjab University, Punjab.
6. Workshop on Information Literacy and Competency, held at University of Delhi on 17th Jan 2013.
7. R. Kumar and R. Kant, Anomalous chronoamperometric response under potential step perturbation on mechanically rough electrodes (Oral), in Abstract seventeenth national convention of electrochemists (NCE-17), 14-15 Sept. 2012, jointly organized by SEAST, CSIR-Central Electrochemical Research Institute, Karaikudi and B.S. Abdur Rehman University, Chennai.
8. S. Srivastav, R. Kumar and R. Kant, Admittance Response of Finite Fractal Electrodes in Presence of Electrolyte Resistance (Poster), in Abstract 2nd Indo-Italian Workshop on Electrochemistry for Future Energy Solution, 30th Nov. to 3rd Dec. 2011, Department of Chemistry, University of Delhi, Delhi.

Declaration:-

I hereby declare that the above details furnished are true to the best of my knowledge and belief. I assure that my performance will do the best of my ability and to the satisfaction of the concerned.

Date **Ratnesh Kumar**

Place