

BIO-DATA

INDRAPAL KARBHAL

M.Sc, M.Phil (Chemistry), CSIR-UGC, JRF, NET, GATE

Assistant Professor

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Personal:

1. **Name** : **INDRAPAL KARBHAL**
2. **Father's Name** : Mr. Gowardhan Lal
3. **Mother's Name** : Mrs. Rajan Bai
4. **Date of Birth** : June 04,1986
5. **Residential Address** : Village– Mudhiya, Post – Suregaon
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Pin Code – 491225
6. **Contact Address** : School of Studies in Chemistry
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Pin Code – 492010
7. **Gender** : Male
8. **Status** : Single
9. **Nationality** : Indian
10. **Language Known** : English & Hindi
11. **Blood Group** : 'B' +Ve
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13. **Contact No.** : +91 8605985169

Educational Qualifications:

Examination/ Degree	Board/University	Subject	Year	Division/ Percent
CSIR-UGC JRF	CSIR-New Delhi	Chemical Science	June 2012	Qualified
CSIR- NET	CSIR-New Delhi	Chemical Science	Dec. 2011	Qualified
GATE Ph. D	IIT Delhi National Chemical Laboratory Pune	Chemistry Physical and material Chemistry (Energy Storage)	2012 Running	Qualified Running
M. Phil.	Pt. Ravishankar Shukla University, Raipur	Chemistry (Phy.Org. Chem.)	2011	I, 71.60%
M. Sc.	Pt. Ravishankar Shukla University, Raipur	Chemistry	2010	I, 64.46%
B.Sc.	Pt. Ravishankar Shukla University, Raipur	Chemistry, Botany, Zoology	2008	II, 56.61%
12 th	C.G Board, Raipur	Physics, Chemistry, Biology	2005 .	I, 66%

Experience:

Teaching experience

As Assistant professor, Teaching post graduate students, School of studies in chemistry,
Pt. Ravishankar Shukla University Raipur (C. G.), 27 February, 2017 to till date.

CSIR-UGC NET Teaching Experience:

CSIR-NET Coaching experience at UGC Coaching Centre, Pt. Ravishankar Shukla University Raipur (C.G.) during May and June 2012 in the subject of **Chemical Science**.

Research Experience:

1. *Four year , during Ph. D. (Physical and Material Chemistry) work on energy storage with thesis title “Heteroatom doped Carbon based material and composites: Synthesis, Characterization and Energy storage Application”.*
 2. One year, During M. Phil. (Chemistry), worked on Physical Organic Chemistry (Kinetics) and submitted dissertation to Pt. Ravishankar Shukla University, Raipur (C.G.) entitled *“Esterolytic Cleavage of Carboxylate and Phosphate Esters by Hydroxamate Ions in Micellar Media”.*
 3. Three year and 5 month Ph D (Chemistry), working on Physical and Material Chemistry Division at National Chemical Laboratory Pune *entitled “Heteroatom Doped Carbon Based Materials and Composites: Synthesis, Characterization and Energy Storage Application”.*
- Well versed in the synthesis of preparation of hetero atom (B and N) carbon, 0D quantum dots, 1D nanotubes, 2D nanosheets and 3D porous carbon (honey comb morphology) for energy storage devices.
 - Experience on the handling of the all the electrochemical technique like voltammogramic techniques, Impedance techniques, battery analyzer etc.
 - Experience in the doing of the electrochemical applications of the materials and testing of the materials for the batteries, supercapacitor application.
 - Familiar to operate instruments like XRD, Raman, UV-vis., FTIR and have theoretical knowledge of SEM, HR-TEM, XPS, AFM techniques.
 - Assisted M. Tech. Trainee students for their project work

Research Interest

Synthesis and Design of heteroatom (B and N) doped carbon with 0D quantum dots, 1D nanotubes, 2D nanosheets and 3D porous carbon (honey comb morphology) and their application in Energy Storage such as Supercapacitor, Li ion battery. Synthesis and design of metal nanoparticles and metal oxide and their use in biological and photocatalysis.

Research Publication:

1. 9 Paper published in International Journal.

LIST OF PUBLICATION

S. No.	Title	Authers Name	Journal Name	Impact Factor
1.	Facile Synthesis of Unique Cellulose Triacetate Based Flexible and High Performance Gel Polymer Electrolyte for Lithium Ion Batteries	Trupti C. Nirmale, Indrapal Karbhal , Ramchandra S. Kalubarme, Manjusha V. Shelke, Anjani J. Varma and Bharat B. Kale	<i>ACS Applied Material Interfaces</i> DOI: 10.1021/acsami.7b07020	7.5
2.	Ammonia-modified graphene sheets decorated with magnetic Fe ₃ O ₄ nanoparticles for the photocatalytic and photo-Fenton degradation of phenolic compounds under sunlight irradiation	Purna K. Boruah, Bhagyasmeeta Sharma, Indrapal Karbhal , Manjusha V. Shelke, and Manash R. Das.	<i>Journal of Hazardous Materials</i> , 2017 , 325, 90-100.	6.06
3.	Impact of rare-earth metal oxide (Eu ₂ O ₃) on the electrochemical properties of a polypyrrole/CuO polymeric composite for supercapacitor applications."	Majumder, Mandira, Ram Bilash Choudhary, Anukul K. Thakur, Indrapal Karbhal	<i>RSC Advances</i> , 2017 , 7, 20037-20048.	3.10
4.	Facile synthesis and electrochemical evaluation of PANI/CNT/MoS ₂ ternary composite as an electrode material for high performance	Anukul K. Thakur, , Ashvini B. Deshmukh, Ram Bilash Choudhary, Indrapal Karbhal , Mandira Majumder, and Manjusha V. Shelke.	<i>Materials Science and Engineering: B</i> , 2017 , 223 24-34.	2.55

	supercapacitor			
5.	Facile Green Synthesis of BCN Nanosheets as High-Performance Electrode Material for Electrochemical Energy Storage”	Indrapal Karbhal , Rami Reddy Devarapalli, Joyashish Debgupta, Vijayamohanan K. Pillai, Pulickel M. Ajayan, and Manjusha V. Shelke.	<i>Chemistry–A European Journal</i> , 2016 , 22,7134-7140	5.31
6.	Sunlight assisted degradation of dye molecules and reduction of toxic Cr (vi) in aqueous medium using magnetically recoverable Fe ₃ O ₄ /reduced graphene oxide nanocomposite	Purna K. Boruah, Priyakshree Borthakur, Gitashree Darabdharma, Chaitanya K. Kamaja, Indrapal Karbhal , Manjusha V. Shelke, Pallabi Phukan, Dulen Saikia, and Manash R. Das.	<i>RSC Advances</i> 2016 , 6, 11049-11063.	3.13
7.	O-Nucleophilicity of Hydroxamate Ions for Cleavage of Carboxylate and Phosphate Esters in Cationic Micelles	Manmohan L. Satnami, Indrapal Karbhal , Hitesh K. Dewangan.	<i>International Journal of Chemical Kinetics</i> , 2014 , 46, 419-432.	1.38
8.	Nucleophilic Attach of Salicylhydroxamate Ion at C=O and P=O Centers in Cationic Micellar Media	Manmohan Lal Satnami, , Sunita Dhritlahre, Rekha Nagwanshi, Indrapal Karbhal , Kallol K. Ghosh, and Faruk Nome	<i>Journal of Physical Chemistry B</i> , 2010 , 114, 16759-16765	3.17
9.	Electrochemical Energy Storage in PolyHIPE derived Nitrogen Enriched Hierarchical Porous Carbon Nanosheets, an electrode for ultracapacitor	Ashvini B. Deshmukh ¹ , Archana C. Nalawade, Indrapal Karbhal, Mohammed Shadbar Qureshi, Manjusha V. Shelke	Carbon (Submitted Revised)	6.3

Conference Attended:

1. Participated in the “**47th Annual Convention of Chemists 2010 and International Conference on Recent Advances in Chemical Sciences**” held at School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur (C.G.).
2. Participated in the 2nd TAPSUN Conference on “**ADVANCES IN FUTURISTIC SOLAR ENERGY MATERIALS \$ TECHNOLOGIES**” held at CSIR_CLRI, Chennai during September 13-14, 2013.
3. Participated in the “**17th CRSI NATIONAL SYMPOSIUM IN CHEMISTRY**” held from 6-8 February, 2015 at CSIR – National Chemical Laboratory, Pune (India).

4. Presented a poster in the international conference on “**NANOSCIENCE AND TECHNOLOGY (ICONSAT 2016)**” Organized by IISER Pune, India from 29th February to 2nd March 2016.
5. Presented a poster at National Chemical Laboratory, Pune on “**National Science Day**” organized 25th and 26th February, 2015.
6. Presented a poster at National Chemical Laboratory, Pune on “**National Science Day**” organized 25th and 26th February, 2016.

Workshop Attended:

1. Participated in the “*International Workshop on Nanotechnology and Advanced Functional Material*” from 24th to 25th July 2013 and made a *Poster Presentation*” held at National chemical Laboratory Pune and Organized by Material Research Society of India, (MRSI) (Pune Chapter).
2. Participated in the “*2nd Indo-US Workshop on Engineered Nanocarbons for Electrochemical Energy Storage*” conducted at the CSIR-Central Electrochemical Research Institute, Karaikudi, India during 19-20 June, 2015.

INSPIRE Internship Camp Attended:

1. Participated in “**An Initiative of Department of Science and Technology, New Delhi, India, INSPIRE Internship Camp**” during May 29 to June 2 of 2012, at Pt. Ravishankar Shukla University, Raipur.