

Curriculum Vitae

Name : **Dr. Indresh Kumar**

Father's Name : Shri Janki Prasad Shukla

Date of Birth : 02.01.19991

Mob. No & Emails : +91-9140303442, +91-7398217652
indkmrshukla@gmail.com

Designation : **Assistant Professor**
Department of Chemistry
**Bappa Sri Narain Vocational Post Graduate
College (KKV), Lucknow-22600, India**

Present Address : E-3/316, Vinay Khand, Gomtinagar, Lucknow-
226010, U.P; India



Educational Qualifications

Ph.D. Awarded from **Department of Chemistry, University of Lucknow**, Lucknow, India, under supervision of **Prof. Radhey Mohan Naik**.
Thesis Title: ***"Synthesis, Characterization and Kinetics of Some Metal Nanoparticles and Nanomaterials in Aqueous Medium"***

Master of Science (M.Sc.) Awarded in **2013** from CSJM University, Kanpur, U.P. India.

Bachelor of Science (B.Sc.) Awarded in **2010** from Lucknow University, Lucknow, U.P. India with Physics and Chemistry as majors.

Intermediate (10+2) Passed in **2007** from National Inter College Fatehpur, Barabanki (U.P. Board Allahabad) with Science and Math's.

High School Passed in **2005** from National Inter College Fatehpur, Barabanki (U.P. Board Allahabad) with Science and Math's.

Professional/Teaching Experience: (8-Year for U.G. Classes & 4-Year for P.G. Classes)

- 1.** Assistant Professor, at **Bappa Shri Narayan P.G. College (KKV), Lucknow**, U.P. India, from **24/11/2022 - till date**.
- 2.** Assistant Professor, at **Shri Jai Narayan Mishra Post Graduate College (KKC), Lucknow**, U.P. India from **2018-2022**.
- 3.** Taught B.Sc. and M.Sc. Classes at **University of Lucknow, Lucknow** from **2017-2021**.

4. Assistant Professor (Part-Time), at **Bappa Shri Narayan P.G. College (KKV), Lucknow, UP India** from **2014 - 2018**.

Teaching Interest:

Physical Chemistry:

Quantum Mechanics, Thermodynamics, Chemical Dynamics, Macromolecules, Surface Chemistry, Electro-Chemistry.

Inorganic Chemistry:

Coordination Chemistry, Organotransition metal complexes (OTM), Group theory, Electron Spin Resonance (ESR) Spectroscopy, Nuclear Magnetic Resonance (NMR) Spectroscopy, Mossbauer Spectroscopy.

Research Interests:

Metal Nanomaterials

1. Solution chemical synthesis, Kinetic study, structural/morphological study, and Biological properties.
2. Emerging nanotechnology for sensors and medical applications.

Future Research Plans

1. Synthesis, characterization and Kinetic study of silver nanoparticles with NTM/PCM/INZ in aqueous medium by using Surfactants.
2. Electro Kinetic analysis of Metal/Metal oxide nanoparticles.
3. Drug determination by using metal nanoparticles.

Awards:

1. **Best paper presentation award** in National conference on “**Computational and characterization Techniques in Engineering & Sciences**” organized by Department of Applied Science & Humanities, Rajkiya Engineering College Ambedkar Nagar U.P. on **September 06,07 2019**.
2. **Best paper presentation award** in Inter National conference on “**International Conference on Materials Science and Spectroscopy (ICMSS-2021)**” organized by School of Science, Maharishi University of Information Technology, Lucknow, Uttar Pradesh, India on **September 22,24 2021**.
3. **Uddeepan (Best Research paper award)** awarded by “**University of Lucknow (UoL)**” Lucknow, U.P. on **April 27, 2022**.

Invited Speaker:

1. I delivered invited lecture based on “**Basic Introduction of Spectroscopic Techniques and Applications**” at **S.R Group of Institution**, Lucknow, U.P, India, on 25/12/2021.
2. I delivered invited lecture based on “**Basic Introduction of Spectroscopic Techniques and Applications**” at **Babu Banarasi Das Northern India Institute of Technology**, Lucknow, U.P, India, on 23/12/2021.
3. I delivered invited lecture based on “**Basic Introduction of Spectroscopic Techniques and their Applications**” at **S.R Group of Institution**, Lucknow, U.P, India, on 24/11/2020.
4. I delivered invited lecture based on “**Basic Introduction of Spectroscopic Techniques and their Applications**” at **Babu Banarasi Das Northern India Institute of Technology**, Lucknow, U.P, India, on 05/11/2019.

Project work/ Dissertation/ Master thesis supervised/supervising

M.Sc. Dissertation/Master thesis supervising: 03

Details of M.Sc. Dissertation awarded under my Supervision

<i>S.No.</i>	<i>Name of student</i>	<i>Year of Award</i>	<i>Topic of Research</i>
1.	KM. Shivani Sahu	2022	<i>“Synthesis and Characterization of CdS Nanoparticles Using Eichhornia Crassipes Leaf Extract”</i>
2.	Mr. Sagar Maurya	2022	<i>“Green Route to Synthesize Zinc Oxide Nanoparticles using Senna Auriculata Leaf Extract”</i>
3.	Mr. Shubhendra Yadav	2022	<i>“Fabrication and Characterization of Zinc Oxide Nanoparticles Using Cassia Auriculata Aqueous Leaf Extract”</i>

Professional Memberships

1. Life Member of **Indian Science Congress Association** (ISCA), India.
2. Life Member of “**Revelation**” journal of popular science (**ISSN:2456-7698**) U.P, India.
3. Life Member of “**B.S.N.V. Vigyan Parishad**” journal of popular science (**ISSN:2350-0123**) U.P, India.

4. Extra-Curricular Activity:

1. Visited many schools/institutes as **Judge** for Science Exhibition, Model competition, science talks etc.
2. NSS- Certificate, University of Lucknow.
3. One-year “**Advanced Diploma in Computer Application**”.

Experience in Instrumentation and Analytical Techniques

Major hands-on experiences: UV-Visible Spectrophotometer, FTIR Spectrophotometer and pH- meter.

Experiences in Software's: Data Analyses and Interpretation

C, C++, MatLab, FORTRAN77, Origin, Mathematica, and Image-J

Conference/seminar organized/Member

1. Member of Organizing Committee in International Indo Egyptian Conference on “**Health Science and Radiology**” (IECHSR-2020) National Research Centre Cairo, Egypt, 22-24 August, 2020
2. Media Committee member in World Conference on “**Role of Medicinal Chemistry in Current Scenario**” (RMCCS-2020) Department of Chemistry, University of Lucknow, Lucknow, India, July, 3-5, 2020
3. Communication Committee Member in National Conference on “**Prospectus of Science and Society in the Era of Artificial Intelligence**” (NSPSSEAI-2020), Department of Physics, B.S.N.V.P.G. College Lucknow, 03-04 March, 2020.
4. Hall Management Committee member in National Conference on “**Chemical Science: Advancing Frontiers-2019**”, Department of Chemistry, University of Lucknow, Lucknow, India, March 15-16, 2019.

Member of Research Cell:

1. Member of Research cell at **Sri Jai Narain Misra P.G (KKC) College Lucknow**, for session 2020-2021 & 2021-2022.

Workshop/Schoolings

1. **DST-STUTI Seven-Day Training Program** on “**Materials Science, Nanotechnology, and Quantum Optics**”, organized by Department of Physics, Lucknow University, Lucknow on **06-12 August, 2022**.
2. **AICTE Training and Learning (ATAL) Academy FDP** on “**Current trend in Engineering Nano-Materials, Characterizations and their Applications**”, organized by Department of Physics, Indira Gandhi National Tribal University (IGNTU), M.P; on **06-10 Oct., 2021**
3. Workshop on “**ICC-IPO IPR Awareness Program for University**”, organized by Indian Chamber of Commerce at Department of Sociology, Lucknow University, Lucknow on **31 July, 2019**.
4. Workshop on “**Summer Training School on Instrumentation and Characterization**” organized by Department of Chemistry, Babasaheb Bhimrao Central University, Lucknow, India, **7-8 Nov., 2018**.

List of Publications

1. Chinky Gangwar, Bushra Yaseen, **Indresh Kumar**, Rasmi Nayak, Joy Sarkar, Abu Baker, Amit Kumar, Himanshu Ojha, Narendra Kumar Singh, Radhey Mohan Naik, “**Nano palladium/palladium**

- oxide formulation using *Ricinus communis* plant leaves for antioxidant and cytotoxic activities". Inorganic Chemistry Communications, Communicated (2022) (I.F: 3.17).
2. Chinky Gangwar, Bushra Yaseen, **Indresh Kumar**, Rasmi Nayak, Joy Sarkar, Abu Baker, Amit Kumar, Himanshu Ojha, Narendra Kumar Singh, Radhey Mohan Naik, "Anticancerous and Antioxidant properties of fabricated silver nanoparticles involving bio-organic framework using medicinal plant *Blumea lacera*". Chemical Papers (Springer), Communicated (2022) (I.F: 2.16).
 3. Abhishek Srivastava, Radhey Mohan Naik, Jyoti Rai, **Indresh Kumar**, Bushra Yaseen, Chinky Gangwar, "Kinetic study of Hg(II)- promoted substitution of cyanide from hexacyanoferrate(II) in an anionic surfactant medium by 2,2-bipyridine". Journal of Surfactant Deterg. (Wiley), 1-10 (2022) (I.F: 1.95).
 4. Divyanshi Srivastava, Rajesh Kumar Shukla, Sheo Kumar Mishra, Chinky Gangwar, **Indresh Kumar**, Radhey Mohan Naik, Santosh Kumar Singh, "Fabrication of polyaniline/graphene oxide composites for implementation in humidity sensing" Luminescence (Wiley), 1-13 (2022) (I.F: 2.46).
 5. **Indresh Kumar**, Rasmi Nayak, Lal Babu Chaudhary, Vashist Narayan Pandey, Sheo Kumar Mishra, Narendra Kumar Singh, Abhishek Srivastava, Surendra Prasad, Radhey Mohan Naik, "Fabrication of α -Fe₂O₃ Nanostructures: Synthesis, Characterization and their promising application in the treatment of Carcinoma A-549 Lung cancer cells" ACS Omega 7 (25), 21882-21890 (2022) (I.F: 4.132).
 6. **Indresh Kumar**, Chinky Gangwar, Bushra Yaseen, Pradeep Kumar Pandey, Sheo Kumar Mishra, Radhey Mohan Naik, "Kinetic and Mechanistic studies of the formation of Silver Nanoparticles by nicotinamide as a Reducing agent". ACS Omega 7 (16), 13778-13788 (2022) (I.F: 4.132).
 7. Bushra Yaseen, Chinky Gangwar, **Indresh Kumar**, Joy Sarkar, Radhey Mohan Naik, "Detailed Kinetic and Mechanistic study for the preparation of Silver Nanoparticles by a chemical reduction method in the presence of Neuroleptic agent (Gabapentin) at an alkaline and its characterization". ACS Omega 7 (7), 5739-5750 (2022) (I.F: 4.132).
 8. **Indresh Kumar**, Bushra Yaseen, Chinky Gangwar, Sheo K. Mishra, Radhey Mohan Naik, "Environmental benign synthesis and characterization of nickel oxide nanoparticles using chicken egg white as template and evaluations of their antibacterial/antifungal activities". Materials Today: Proceedings, Elsevier 46, 2272-2276 (2021) (I.F: 1.46).

9. **Indresh Kumar**, Bushra Yaseen, Chinky Gangwar, Rupal Yadav, Sheo K. Mishra, Radhey Mohan Naik, **“Ovalbumin mediated eco-friendly synthesis of silver oxide nanoparticles and their antibacterial and antifungal studies”**. Materials Today: Proceedings, Elsevier 46, 2230-2234 (2021) (**I.F: 1.46**).
10. Sheo K. Mishra, Umesh K. Tripathi, Ram R. Awasthi, Rajesh K. Shukla, **Indresh Kumar**, Radhey Mohan Naik, **“CTAB mediated synthesis of ZnO nanoparticles: Structural, optical and enhanced blue-green optical emission”**. Materials Today: Proceedings, Elsevier 46, 2229-2234 (2021) (**I.F: 1.46**).
11. Sheo K. Mishra, Umesh K. Tripathi, Ram R. Awasthi, K. C. Dubey, Rajesh K. Shukla, **Indresh Kumar**, Radhey Mohan Naik, Devendra Pratap Mishra, **“Sol-gel derived Al-doped ZnO nanoplates: Structural and optical properties”**. Materials Today: Proceedings, Elsevier 46, 2197-2200 (2021) (**I.F: 1.46**).
12. Chinky Gangwar, Bushra Yaseen, **Indresh Kumar**, Narendra Kumar Singh, Radhey Mohan Naik, **“A growth kinetic study of tannic acid-mediated monodispersed silver nanoparticles synthesized by chemical reduction method and its characterization”**. ACS Omega 6 (34), 22344-22356 (2021) (**I.F: 4.132**).
13. Rupal Yadav, **Indresh Kumar**, Radhey Mohan Naik, **“Kinetic Trace determination of isoniazid at micro level using kinetic spectrophotometric method”**. Journal of the Serbian Chemical Society (2021) (**I.F: 1.24**).
14. Narendra Kumar Singh, Manish Kumar Yadav, Reena Parihar, **Indresh Kumar**, **“Low Temperature Synthesis of spinel-type $\text{Co}_x\text{Fe}_{3-x}\text{O}_4$ ($0 \leq x \leq 1.5$) Oxide and its Application for Oxygen Evolution Electrocatalysis in Alkaline Solution”**
Int. J. Electrochem. Sci., 15 (2020) 6605 – 6619, doi: 10.20964/2020.07.10 (**I.F: 1.76**).
15. Narendra Kumar Singh, Priya Sharma, **Indresh Kumar**, Amritpal Singh Chaddha, **“Oxygen evolution electrocatalytic properties of perovskite-type $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0 \leq x \leq 0.8$) oxides obtained by polyvinylpyrrolidone sol-gel route”** Int. J. Electrochem. Sci., 14 (2019) 11379 – 11390, doi: 10.20964/2019.12.70 (**I.F: 1.76**).
16. Radhey M. Naik, Richa Rastogi, Rupal Yadav, **Indresh Kumar** **“The Mercury (II) Catalyzed Ligand Substitution Reaction Between Hexacyanoruthenate (II) and Ligand 4, 4'-bipyridine in Aqueous Medium RAD”** International Journal of Chemical and Physical Sciences., 6 (2017) 38-49.

Conference / Symposium Presented

1- International seminar on-

“New Horizons of Astronomy (ISNHS-2016)” jointly Organized by Council of Science & Technology, U.P. & Department of mathematics & Astronomy, University of Lucknow on **9th November 2016**.

2- National Conference On –

“Recent Advances and Innovations in Chemical and Material Science-RAICMS-2017” Department of Chemistry Shri Jai Narayan P.G. College Lucknow on **23 & 24 February, 2017**.

3- National Seminar On-

“Digital Learning Opportunities and Challenges in Higher Education Institutes” NSDLOCHEI-2018 May 05, 2018 Organized by Department of Physics, B.S.N.V. Post Graduate College, Lucknow.

4- International Conference on –

“Chemical Sciences: National and Global Prospective” organized by Department of Chemistry Lucknow Christian college, Lucknow on **29-31 October, 2018**.

5- National Conference on –

“Chemical Sciences: Advancing Frontiers” organized by Department of Chemistry University of Lucknow, Lucknow on March **15.16, 2019**.

6- International Conference on –

“Global Conference on The Control of Green House Gases at The Source by Physical and Chemical Technology” organized by Department of Chemistry, School of Physical & Decision Science, Babasaheb Bhimrao Ambedkar Central University, Vidya Vihar, Raebareli Road Lucknow, on **22-24 April, 2019**.

7- National Conference on –

“Computational and Characterization Techniques in Engineering & Science (CCTES-19)” organized by Department of Applied Science & Humanities, Rajkiya Engineering College Ambedkar Nagar U.P. on **September 06, 07 2019**.

8- International Carbohydrate Conference (XXXIV) on –

“Emerging frontiers in Carbohydrate chemistry and Glycobiology” organized by Department of Chemistry University of Lucknow, Lucknow on **5-7-December, 2019**.

9- International Conference on –

“Inter National Conference on Diverse Emerging Materials and their Application (ICDEMA-2021)” organized by Department of Physics, University of Lucknow, Lucknow on **14-15-March, 2020**.

10- National e-Conference on –

“Recent Advances in Chemical Sciences” organized by Department of Chemistry University of Lucknow, Lucknow on **15-June, 2021**.