

Mohd. Hanief Najar

Ph.D. (NIT Srinagar), M.Sc. (KU), NET (CSIR-UGC)

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PIN: 193501, J&K, India.

Present: Assistant Professor (Chemistry), Govt. Degree College Anantnag.

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Dr. Mohd. Hanief Najar is an Assistant professor in the Department of Chemistry, Govt. College of Engineering and Technology Safapora, Ganderbal. He did his Master's from University of Kashmir and pursued his Ph. D. in the field of Material Sciences (Nano Sciences) from the Department of Chemistry, National Institute of Technology Srinagar, Kashmir. He has qualified National Eligibility Test (NET) conducted by joint CSIR-UGC, New Delhi. He has published more than 15 research articles in the Journals of high International repute. In addition, books and a book chapter also adds to his credit. Moreover, He presented a number of research papers in International, National and Regional Conferences. He also presented papers in National Seminars and Symposiums. Furthermore, He has also participated in many National level Workshops. His research interest's lies in the areas of Photoadduct and Ferrite based Nano-materials and their Nano-composites with conducting polymers, Graphene based materials for EMI shielding, adsorption and in the waste water treatment.

(A) Educational Qualifications

Degree	Division	Year of Passing	Institute/University
Ph.D.	Grade A	2016	NIT Srinagar
M.Sc.	First (66.8%)	2010	KU
B.Sc.	First (68.5%)	2008	ICSC-KU
B.Ed.	First (69.4%)	2011	KU

(B) NET Exam

Qualified National Eligibility Test (NET) for Lectureship in 2011 conducted by Joint CSIR-UGC.

(C) Area of Specialization

- ❖ Inorganic Chemistry

(D) Area of Research

- ❖ Conducting Polymer Nanocomposite materials
- ❖ Metal Complexes and Photo adducts
- ❖ Metal oxides and Ferrite nanoparticles
- ❖ Metal nanoparticles
- ❖ Graphene based nanomaterial's

(E) Areas of Expertise

- ❖ Characterization techniques: UV-Visible, FTIR spectroscopy, XRD, SEM, TEM, EDX.
- ❖ Properties: Dielectric, optical, electronic, Magnetic, Thermal and Mechanical. Moreover, EMI Shielding, adsorption, photo catalysis and Waste water treatment.

(F) Experience

- ❖ Teaching Experience : 5 years

(G) Project (Fellowship)

Worked as Junior Research Fellow (JRF) in a DST Sponsored Project entitled, "Photo adduct based Nanocomposite: Synthesis, Characterization, Electrical, Thermal and Mechanical Properties" vide number SR/NM/NS-97/2008, Dated: 02-06-2010 sanctioned under Nano Mission by DST, GOI with a financial support of 25 lacs.

(H) Books and Book Chapters

- Book chapter entitled "Conducting Polymers: Synthesis and Applications", Published by Akinik Publishers, March-2019

- Book entitled "A Comprehensive Guide to Coordination Chemistry, Spectra and Magnetism" published by Lambert Academic Publishing Germany, March 2020.
- Book entitled "Green Chemistry: Principles and Designing of Green Synthesis" Published by De Gruyter, October 2021.

(I) Training Programme's

- "Three week Orientation/Induction Programme (from 26th April, 2017)"
Conducted by Institute of Advanced studies in Education (Govt. College of Education) Srinagar, J&K.
- "One Month Orientation Programme (06-Sept. to 06-Oct. 2017)"
Conducted by UGC-Human Resource Development Centre, University of Kashmir, J&K.

(J) Editorial Board Membership

- Applied Chemical Engineering (Journal, ISSN: 2578-2010), Enpress Publishers, Tustin USA, from 16-01-2018 to Present.
- Composite Materials Research (Journal, ISSN: 2251-2667), PiscoMed Publishing, Singapore, from 02-05-2018 to Present.
- Journal of Electronic Research and Application (ISSN: 2208-3510), Bio-Byword Scientific Publishing, Sydney Australia, from 11-05-2018 to Present.
- Frontiers of Mechatronical Engineering (Journal), PiscoMed Publishing, Singapore, from 03-01-2018 to Present.

(K) Journal Papers Reviewed

- Applied Surface Science (Elsevier, ISSN: 0169-4332, IF=4.43),
Manuscript Number: APSUSC-D-18-09598.

- Material Research Innovations (Taylor & Francis, ISSN: 1432-8917),
Manuscript Number: MRI2846.

(L) Research Publications

1. **Mohd. Hanief Najar**, Kowsar Majid; Synthesis, Characterization, Electrical and Thermal properties of Nanocomposite of polythiophene with nano-Photoadduct: A potent composite for electronic use, 2013, 24, 4332-4339, *J. Mater. Sci.: Mater. In Electron.* (Springer, IF= 2.32, ISSN: 0957-4522, Referred, Indexed and International).
2. **Mohd. Hanief Najar**, Kowsar Majid; Nanocomposite of polypyrrole with the nanophotoadduct of Sodium pentacyanonitrosylferrate (II) dihydrate and EDTA: A potential candidate for Capacitor and a Sensor for HF radio wave detection, 2014, 198, 76-83, *Synth. Met.* (Elsevier, IF= 2.53, ISSN: 0379-6779, Referred, Indexed and International).
3. **Mohd. Hanief Najar**, Kowsar Majid; Synthesis and characterization of nanocomposite of polythiophene with $\text{Na}_2[\text{Fe}(\text{CN})_3(\text{OH})(\text{NO})\text{C}_6\text{H}_{12}\text{N}_4] \cdot \text{H}_2\text{O}$: A potent material for EMI shielding applications, 2015, 26, 6458-6470, *J. Mater. Sci.: Mater. In Electron.* (Springer, IF= 2.32, ISSN: 0957-4522, Referred, Indexed and International).
4. **Mohd. Hanief Najar**, Rafia Mushtaq, Kowsar Majid, M. Abdullah Dar; Synthesis and Thermal Degradation behavior of the Complexes of Monoethanolamine with Co (II), Ni (II), Zn (II) and Cd (II): A Comparative Study, 2015, 81, 31936-31939, *Chem. Phys. Letters* (Elixir, ISSN: 2229-712X Referred, Indexed and International).
5. **Mohd. Hanief Najar**, Kowsar Majid; Enhanced photocatalytic activity exhibited by PTh/ $[\text{Fe}(\text{CN})_3(\text{NO})(\text{bpy})] \cdot 4\text{H}_2\text{O}$ nanocomposite fibers via a synergistic approach, 2015, 5, 107209-107221, *RSC. Adv.* (Royal Society of

- Chemistry, IF= 3.0, ISSN: 2046-2069, Referred, Indexed and International).
6. **Mohd. Hanief Najar**, M. Abdullah Dar, Kowsar Majid, R.K. Kotnala, Jyoti Shah; Synthesis and characterization of $\text{Li}_{0.5}\text{Fe}_{2.5-x}\text{Gd}_x\text{O}_4$ ferrite nano-particles as a potential candidate for microwave device applications, 2016, 90, 443-452, **Materials and Design (Elsevier, IF=4.52, ISSN: 0264-1275, Referred, Indexed and International)**.
 7. **Mohd. Hanief Najar**, Kowsar Majid; Investigation of the Transport properties of PPy/[Fe(EDTA)(NH₃)Cl] H₂O nanocomposite prepared by chemical oxidation method, 2016, 6, 25449-25459, RSC. Adv. (Royal Society of Chemistry, IF=3.0, ISSN: 2046-2069, Referred, Indexed and International).
 8. **Mohd. Hanief Najar**, M. Abdullah Dar, Kowsar Majid, R. K. Kotnala, Jyoti Shah, S. K. Dhawan, M. Farukh; Surfactant assisted synthesis of Polythiophene/Ni_{0.5}Zn_{0.5}Fe_{2-x}Ce_xO₄ ferrite composites: Study of structural, dielectric and magnetic properties for EMI shielding applications, 2017, 19, 10629-10643, **Phys. Chem. Chem. Phys. (Royal Society of Chemistry, IF=4.0, ISSN 1463-9076, Referred, Indexed and International)**.
 9. **Mohd. Hanief Najar**, Kowsar Majid, M. Abdullah Dar; Electric modulus based relaxation dynamics, ac-conductivity and I-V characteristics in PTh/[Co(EDTA)NH₃Cl] H₂O nanocomposite prepared by chemical oxidation method, 2017, 28, 11243-11252, **J. Mater. Sci.: Mater. In Electron. (Springer, IF= 2.32, ISSN: 0957-4522, Referred, Indexed and International)**.
 10. **Mohd. Hanief Najar**, Mubashir Koul, Kowsar Majid, Study of optical and electrical properties of [Co(NH₃)₃(C₁₂H₈N₂)Cl] Cl₂ prepared by a photochemical

route, 2017, 104, 45782-45784, *Applied Chemistry* (Elixir, ISSN: 2229-712X, Referred, Indexed and International).

11. **Mohd. Hanief Najar**, Synthesis, Characterization and I-V characteristics in $[\text{Co}(\text{NH}_3)_4(\text{C}_3\text{H}_4\text{N}_2)\text{Cl}]\text{Cl}_2$ prepared by a photochemical route, 2018, 1(2), 1-4, JK Knowledge Initiatives (JKHED, ISSN - 2457-0974, Local).
12. **Mohd. Hanief Najar**, Ishtiyag Ahmad Najar, Ajmal R Bhat, Rouf Ahmad Khan, Materials Engineered for the Photocatalytic Degradation of Dyes in Waste Water, 2018, 1, 1-5, JK Journal of Architecture & Engineering Sciences (JKHED, ISSN - 2457-0974, Local).
13. **Mohd. Hanief Najar**, Kowsar Majid, M. Abdullah Dar, Apparent colossal dielectric constant in $\text{Na}[\text{Fe}(\text{CN})_4(\text{C}_3\text{H}_4\text{N}_2)\text{NO}] \cdot 2\text{H}_2\text{O}$ embedded PTh nano strips for energy storage applications, 2018, 4(1), 8-14, *Appl. Sci. Lett.* (ASP, ISSN: 2394-479X, Referred, Indexed and International).

(M) International, National and Regional Conferences

1. **Mohd. Hanief Najar**, Kowsar Majid. Synthesis, characterization and application of photoadduct of sodium nitroprusside and hexamine as dopant in polythiophene composite, "National Conference on Recent Trends in Material Science Research", (Organized by NIT Srinagar on 3-5 September -2012).
2. **Mohd. Hanief Najar**, Kowsar Majid. Composite of Polythiophene with the photoadduct of Sodium nitroprusside and Imidazole: Synthesis and Characterization, "Ninth JK Science Congress 2013 & Regional Science Congress", (Organized by University of Kashmir on 1-3 October-2013).
3. **Mohd. Hanief Najar**, Kowsar Majid. Synthesis and characterization of nanocomposite of Polythiophene with Photoadduct of $\text{Na}_2[\text{Fe}(\text{CN})_5\text{NO}] \cdot 2\text{H}_2\text{O}$ and hexamine: Study of thermal and electrical properties, "5th International conference on applied physical, chemical sciences, mathematical and

statistical and environmental sciences", (Organized by Krishi Sanskriti at JNU on 2-3 May -2015)

4. **Mohd. Hanief Najar**, Kowsar Majid, M. Abdullah Dar. Study of structural and electrical properties of Gd doped Li- ferrite nano-crystals synthesized by chemical route method, "National Conference on "Advances in materials and material processing", (Organized by NIT Sgr. on 21-23 May-2015).
5. **Mohd. Hanief Najar**, M. Abdullah Dar, Kowsar Majid. Study of dye adsorbing properties of $\text{Ni}_{0.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$ ferrite nano crystals synthesized by sol gel method, "National Conference on "Advances in materials and material processing", (Organized by NIT Srinagar on 21-23 May-2015).
6. **Mohd. Hanief Najar**, Kowsar Majid. Synthesis and EMI shielding properties of PANI/Ferrite nano-composites using chemical oxidative polymerization method "11th JK Science Congress 2015", (Organized by University of Kashmir on 12-14 October-2015).
7. **Mohd. Hanief Najar**, Kowsar Majid. Investigation of the Transport properties of PPy/[Fe(EDTA)(NH₃)Cl] H₂O nanocomposite prepared by chemical oxidation method "International Conference on Nanotechnology and STEM-ER 2016", (Organized by Aligarh Muslim University and Ohio State University, USA on 12-15 March-2016).
8. **Mohd. Hanief Najar**, M. Abdullah Dar, Kowsar Majid. Synthesis of a Core shell Structured PANI/Li_{0.5}Fe_{2.5-x}Gd_xO₄ nanomaterial for EMI Shielding application "Ist International Conference on Recent Developments in Science, Humanities and Management-2018", (Organized by Amar Singh College, Cluster University Srinagar on 17-18 April 2018)

(N) Conference Proceedings

1. **Mohd. Hanief Najar**, Kowsar Majid. A photo-catalyst based on PTh/[Fe(CN)₃(NO)(bpy)]₄H₂O nanocomposite fibers for MO dye degradation "International Conference on Nanotechnology for Better Living-2016", (Organized by NIT Srinagar & IIT Kanpur on 25-29 May, 2016).
<http://rpsonline.com.sg/proceedings/9789810975197/pdf/nbl16-rps-104.pdf>

(O) Workshops, Seminars and Symposiums

1. **Mohd. Hanief Najar**. Awarded first best speaker in the Seminar Activity in M.Sc. Curriculum (2010).
2. **Mohd. Hanief Najar**. Received certificate of appreciation in a Seminar on the eve of IYC 2011", (Organized by Department of Chemistry, University of Kashmir in the year-2011).
3. **Mohd. Hanief Najar**. Seminar themed at "Chemistry, our life and our future on the eve of IYC 2011", (Organized by NIT Srinagar on 15-Nov.-2011).
4. **Mohd. Hanief Najar**. Waste Water Treatment Effluent Management & its Recycling, "UGC Sponsored National Level Workshop", (Organized by Ghandi Memorial College Srinagar, J&K on 30- March-2013).
5. **Mohd. Hanief Najar**. National Mission on Education through Information communication Technology (NME-ICT), "MHRD Sponsored Awareness Workshop", (Organized by NIT Srinagar, J&K on 18-June-2013).
6. **Mohd. Hanief Najar**. Synthesis and characterization of nanomaterial's (SCNM-2016), "TEQIP-II Sponsored National Level Workshop", (Organized by Centre for Nano Science and Technology, JNT University Hyderabad during 14-18 March-2016).

7. **Mohd. Hanief Najar**. Modern Trends in Chemistry and Chemistry Education "Two day Science Academies Lecture Workshop-2017" (Organized by University of Kashmir, Srinagar on 19-20 July 2017).
8. **Mohd. Hanief Najar**, Ishtiyaq Ahmed Najar. Characterization of solid waste generated at Doodhpathri (Budgam), (J&K), India "One Day National Seminar-2017 on Biodiversity and Climate Change: Challenges and Prospects" (Organized by Govt. SAM Degree College Budgam, J&K on 26 Oct. 2017).
9. **Mohd. Hanief Najar**, Ishtiyaq Ahmed Najar. An EMI shield based on $Ni_{0.5}Zn_{0.5}Fe_{2-x}Ce_xO_4$ /PTh nanocomposites prepared by in situ emulsion polymerization "Two day National Symposium on Frontiers in Chemical Sciences (FICS)-2017" (Organized by Govt. Degree College Sopore on 4-5 Nov. 2017).
10. **Mohd. Hanief Najar**. Disaster Resilience of Kashmir in the Face of Climate Change "RUSA Sponsored Three day National Workshop" (Organized by Abdul Ahad Azad Memorial Degree College Bemina on 13-15 Nov. 2017).
11. **Mohd. Hanief Najar**. Remote Sensing & GIS for Natural Recourses and Environmental Management "Two Day National Workshop" (Organized by Sri-Pratap College, Cluster University Srinagar in collaboration with Env. & Remote Sensing J&K on 23-24 March-2018).

(P) Service Posting's

- Amar Singh College, Gogji Bagh Srinagar-190001 (07 April to 22 May 2017)
- Govt. Degree College Ganderbal-191201 (23 May 2017 to 03 Feb 2018)
- Govt. College of Engineering and Technology Safapora Ganderbal-193504 (05 Feb 2018 to 07 Nov. 2023)

- **Govt. Degree College Anantnag-192101 (08-Nov. 2023 to Present)**

References:

- Dr. Kowsar Majid, Department of Chemistry, National Institute of Technology Srinagar, Hazratbal Srinagar-190006, J&K India
- Principal, GDC Ganderbal-191201, J&K India
- Principal, Govt. College of Engineering and Technology Safapora Ganderbal-193504, J&K India

DECLARATION

I hereby, solemnly declare that the above furnished information is true to the best of my knowledge and belief.

Place: Ganderbal

**Sd-
(Dr. Mohd. Hanief Najar)**