

A Brief Profile of Dr. D. Krishna Bhat

Name : Dr. D. KRISHNA BHAT
Designation : Professor
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Educational Qualification: M.Sc. (Mangalore University, 1992),
Ph.D. (Mangalore University, 1997)



Awards/Recognitions:

- ✚ Secured a position in the list of **top 2% scientists of the world for career long and single year (2020) impact** according to the study conducted by Stanford University in collaboration with Elsevier publications.
- ✚ Recognized as **Highly Cited Author (top 5 %, capped at top 100 papers)** across **Royal Society of Chemistry journals (2020)**.
- ✚ The paper titled “Enhanced Thermoelectrics Performance of Bulk Tin Telluride: Synergistic Effect of Calcium and Indium Co-doping.” has been selected as **Editor’s Choice** in volume 4 of **Materials Today Physics** (An Elsevier publication). It is the only paper from India selected under Editor’s choice in Materials Today Physics.
- ✚ The paper titled “Rhodium Doping Augments Photocatalytic Activity of Barium Titanate: Effect of Electronic Structure Engineering.” has been recognized as **HOT article** by **Nanoscale Advances** (A journal from Royal Society of Chemistry).
- ✚ The paper titled “Enhanced Thermoelectrics Performance of Bulk Tin Telluride: Synergistic Effect of Calcium and Indium Co-doping.” published in **Materials Today Physics** (An Elsevier publication) has been recognized as **most cited article by Scopus**.
- ✚ The paper titled “**Zn: A versatile resonant dopant for SnTe thermoelectrics.**” published in **Materials Today Physics** (An Elsevier publication) has been recognized as **most cited**

article by Scopus.

- ✚ The paper titled “Enhanced photocatalytic performance of N-doped RGO-FeWO₄/Fe₃O₄ ternary nanocomposite in environmental applications.” published in **Materials Today Chemistry** (An Elsevier publication) has been recognized as **most cited article by Scopus**.
- ✚ The paper titled “Bi and Zn co-doped SnTe thermoelectrics: Interplay of resonance levels and heavy hole band dominance leading to enhanced performance and a record high room temperature ZT.” published in **Journal of Materials Chemistry C** (A Royal Society of Chemistry Publication) has been recognized as **most popular article in 2020**.
- ✚ SERC Young Scientist Award, Department of Science and Technology (2006).
- ✚ SERC Visiting Fellowship, Department of Science and Technology (2006).

Areas of Research Interest:

- ❖ **Nanomaterials:** Synthesis of nanoparticles by hydrothermal, microwave and ultrasonic methods; characterization and study of properties; use of nanoparticles in the fabrication of supercapacitors; preparation of nanocomposites with polymer matrix, graphene and graphene nanocomposites for supercapacitor and perovskite oxide for photocatalysis applications.
- ❖ **Thermoelectrics:** Synthesis of chalcogenides and perovskite oxide based thermoelectric materials and electronic structure engineering for achieving high figure of merit.
- ❖ **Polymer Science:** Preparation of biodegradable polymer blends using commercial and natural polymers; characterization and study of physico-chemical properties of polymer blends.
- ❖ **Solution Chemistry:** Study of molecular interactions in polymer solutions; solutions of biologically important molecules in water and non-aqueous solvents in the presence of metal salts.

Research Projects:

- *Principal Investigator* of CSIR Research project titled ‘Development of novel thermoelectric materials’, Grant amount: 10.5 lakhs (2017-20).

- *Principal Investigator* of SERB Research project titled ‘High performance thermoelectric materials via band engineering’, Grant amount: 26.76 lakhs (2016-19).
- *Co-Investigator* of DRDO Research project titled ‘Development of supercapacitors based on polymer electrolytes’, Grant amount: 14.9 lakhs (2010-13).
- *Principal Investigator* of DRDO Research project titled ‘Molecular interactions in dipeptide metal salt solution systems’, Grant amount: 14.12 lakhs (2008-11).
- *Co-ordinator of* TEQIP Network Institutions Project titled ‘Preparation of ZnO nanomaterials for photocatalytic applications’, Grant amount: 1.5 lakhs (2007-08).
- *Co-ordinator of* SERC Young Scientist Project titled ‘Development of new magnetic nanocomposites’, Grant amount: 11.52 lakhs (2006-09).
- *Co-ordinator* of MHRD R&D Project titled ‘Development of new biodegradable polymers’, Grant amount: Rs. 9.0 lakhs (2005-08).
- *Co-Investigator* of DRDO Research project titled ‘Synthesis and evaluation of electrical, electronic, electrochemical and optical properties of some conducting polyheterocycles’, Grant amount: Rs. 15.21 lakhs (2003-06).
- *Co-ordinator* of MHRD R&D Project titled ‘Molecular interactions in some ionomer and polyelectrolyte solutions’, Grant amount: Rs.5.0 lakhs (2003-06).

Research Guidance:

PhD Guided: 8, Working: 5, PG Project Guided: 40, UG project: 10

List of Research Publications:

Number of publications: Journals: **135**; Conference presentations: **95**

Total Impact Factor: **440**; Number of citations: **3341**; i10 index: **88**; h index: **36**.

(List of research publications is given at the end.)

Book Published:

- ❖ Y.N. Sudhakar, M. Selvakumar, **D. K. Bhat**, “Biopolymer Electrolytes: Fundamentals and Applications in Energy Storage” *Elsevier Oxford UK*, **2018**, ISBN: 9780128134474.

Experience in Administrative Positions, Curriculum and Lab Development, Student Welfare, Professional and Outreach Activities:

- ✚ Worked as Head of Chemistry Department for one full term of 2 years and three months as in-charge HOD.
- ✚ Served in different capacities (member, secretary, chairman) of several academic committees related to teaching and research such as doctoral thesis assessment, research progress assessment, PhD comprehensive exam, PhD admission test, and departmental undergraduate/postgraduate committees. Involved in the preparation of lab manuals for I/II Sem. B.Tech. Chemistry course, M.Sc. Chemistry Physical Chemistry course and M.Tech. Nanotechnology labs.
- ✚ Served as member of BOE, BOS, doctoral assessment committees of several other colleges (MIT Manipal, Mangalore University, Kuvempu University, Mysore University, RV College Bangalore, PESIT Bangalore, PESITM Shimoga, Dayananda Sagara University).
- ✚ Worked with Prof. CNR Rao at JNCASR under SERC visiting fellowship. Worked at the Theoretical Sciences Unit of JNCASR, Visited NUS Singapore and worked with Prof. Suresh Valiaveetil of chemistry department under research interaction scheme of TEQIP.
- ✚ Chaired seminar sessions in a number of national and international conferences and has presented research papers at several conferences across India and Abroad.
- ✚ Served as referee/external examiner for PhD theses of several universities (VTU Belgaum, NIT Raipur, NIT Trichy, NIT Calicut, Calicut University, Mysore University, Gandhigram Rural Institute, SRM University). Served as external examiner for evaluation of theory papers and practical exams at several Institutes.
- ✚ Served as subject expert for faculty selections at MAHE, Manipal, NIT Raipur and local colleges.
- ✚ Serving as reviewer for a number of reputed journals of Elsevier, Wiley, Royal Society of Chemistry, American Chemical Society, Springer and Taylor and Francis.
- ✚ Worked as the Hostel Warden, Student Counselor, Nodal Officer (Finance) in TEQIP@NITK, Nodal officer for Unnath Bharat Abhiyan, NITK Surathkal, Secretary of NITK PTA, member of Organizing Committees of a number of Institute functions and technical workshops. Actively participating in coaching of under privileged students.

LIST OF RESEARCH PUBLICATIONS
(Last five years)

1. U.S. Shenoy, D.K. Goutham, **D.K. Bhat**, “Probing of Bi doped GeTe thermoelectrics leads to revelation of resonant states.” *Journal of Alloys and Compounds*, **2022**, 921, 165965.
2. Y.N. Sudhakar, M. Selvakumar, **D.K. Bhat**, “Enhancement and investigation of biodegradability of poly (methyl methacrylate) and poly (vinyl chloride) by blending with biodegradable polymer”, *Polymer Bulletin*, **2022**, <https://doi.org/10.1007/s00289-022-04319-7>
3. U.S. Shenoy, D.K. Goutham, **D.K. Bhat**, “A case of perfect convergence of light and heavy hole valence bands in SnTe: The role of Ge and Zn co-dopants.” *Materials Advances*, **2022**, 3, 5941 - 5946.
4. U.S. Shenoy, D.K. Goutham, and **D.K. Bhat**, “Resonance states and hyperconvergence induced by tungsten doping in SnTe: Multiband transport leading to a propitious thermoelectric material.” *Journal of Alloys and Compounds*, **2022**, 905, 164146.
5. S.K. Kihoi, U.S. Shenoy, J.N. Kahi, H. Kim, **D.K. Bhat** and H.S. Lee, “Ultra-low lattice thermal conductivity and enhanced mechanical properties of Cu and Sb co-doped SnTe thermoelectric material with a complex microstructure evolution.” *ACS Sustainable Chemistry and Engineering*, **2022**, 10, 1367 - 1372.
6. U.S. Shenoy, **D.K. Bhat**, “Halide (X = I, Br, Cl) Doping to tune the electronic structure for conversion of $\text{Pb}_{0.6}\text{Sn}_{0.4}\text{Te}$ into a high performing thermoelectric material.” *Energy Advances*, **2022**, 1, 15 – 20.
7. U.S. Shenoy, **D.K. Bhat**, Shenoy S.U. and Bhat, D.K. “Molybdenum as a versatile dopant in SnTe: A promising material for thermoelectric application.” *Energy Advances*, **2022**, 1, 9 - 14.
8. U.S. Shenoy, **D.K. Bhat**, “Selective co-doping improves the thermoelectric performance of SnTe: An outcome of electronic structure engineering.” *Journal of Alloys and Compounds*, **2021**, 892, 162221.

9. R. Basu, S. Mandava, U.S. Shenoy, D.K. Bhat, B. Khasimsaheb, A.K. Debnath, A. Singh, S. Neeleshwar, “Synergistic manifestation of band and scattering engineering in single aliovalent Sb alloyed anharmonic SnTe alloy in concurrence with rule of parsimony.” *Materials Advances*, **2021**, 2, 7891 - 7906.
10. J.N. Kahi, U.S. Shenoy, S.K. Kihoi, H. Kim, S. Yi, **D.K. Bhat**, H.S. Lee, “Optimized electronic performance in half-Heusler Ti-doped NbFeSb materials by stoichiometric tuning at the Fe and Sb sites.” *Journal of Alloys and Compounds*, **2021**, 891, 162033.
11. U.S. Shenoy, **D.K. Bhat**, “Vanadium: A protean dopant in SnTe for augmenting its thermoelectric performance.” *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 13033 - 13038.
12. U.S. Shenoy, **D.K. Bhat**, “Improving ZT of SnTe by electronic structure engineering: Unusual behaviour of Bi dopant in the presence of Pb as a co-dopant.” *Materials Advances*, **2021**, 2, 6267 - 6271.
13. H. Bantawal, U.S. Shenoy, **D.K. Bhat**, “Vanadium doped CaTiO₃ cuboids: Role of vanadium in improving the photocatalytic activity.” *Nanoscale Advances*, **2021**, 3, 5301 - 5311.
14. S.K. Kihoi, U.S. Shenoy, **D.K. Bhat**, H.S. Lee, “Complimentary effect of co-doping aliovalent elements Bi and Sb in self-compensated SnTe-based thermoelectric materials.” *Journal of Materials Chemistry C*, **2021**, 9, 9922 - 9931.
15. U.S. Shenoy, **D.K. Bhat**, “Electronic structure modulation of Pb_{0.6}Sn_{0.4}Te via zinc doping and its effect on the thermoelectric properties.” *Journal of Alloys and Compounds*, **2021**, 872, 159681.
16. M. Sethi, U.S. Shenoy, **D.K. Bhat**, “Hassle-free solvothermal synthesis of NiO nanoflakes for supercapacitor application.” *Physica B Condensed Materials*, **2021**, 611, 412959.
17. S.K. Kihoi, J.N. Kahi, H. Kim, U.S. Shenoy, **D.K. Bhat**, S. Yi, H.S. Lee, “Optimized Mn and Bi co-doping in SnTe based thermoelectric material: A case of band engineering and density of states tuning.” *Journal of Materials Science and Technology*, **2021**, 85, 76

18. M. Sethi, U.S. Shenoy, **D.K. Bhat**, "Simple solvothermal synthesis of porous graphene-NiO nanocomposites with high cyclic stability for supercapacitor application." *Journal of Alloys and Compounds*, **2021**, 854, 157190.
19. U.S. Shenoy, **D.K. Bhat**, "Electronic structure engineering of SrTiO₃ via rhodium doping: A DFT study." *Journal of Physics and Chemistry of Solids*, **2021**, 148, 109708.
20. Y.N. Sudhakar, M. Selvakumar, **D.K. Bhat**, "Investigations on thermo-mechanical properties of organically modified clay nanocomposites for packaging applications." *Polymers and Polymer Composites*, **2021**, 29, 1191 - 1199.
21. U.S. Shenoy, **D.K. Bhat**, "Vanadium doped BaTiO₃ as high performance thermoelectric material: Role of electronic structure engineering." *Materials Today Chemistry*, **2020**, 18, 100384.
22. **D.K. Bhat**, H. Bantawal, U.S. Shenoy, "Rhodium doping augments photocatalytic activity of barium titanate: Effect of electronic structure engineering." *Nanoscale Advances*, **2020**, 2, 5688 - 5698.
23. **D.K. Bhat**, U.S. Shenoy, "Resonance levels in GeTe thermoelectrics: Zinc as a new multifaceted dopant." *New Journal of Chemistry*, **2020**, 44, 17664 - 17670.
24. S. Balachandran, K.J. Jothi, K. Selvakumar, **D.K. Bhat**, K. Sathiyarayanan, M. Swaminathan, "Solar active ZnO-Eu₂O₃ for energy and environmental applications." *Materials Chemistry and Physics*, **2020**, 256, 123624.
25. M. Sethi, U.S. Shenoy, **D.K. Bhat**, "Porous graphene-NiFe₂O₄ nanocomposite with high electrochemical performance and high cyclic stability for energy storage application." *Nanoscale Advances*, **2020**, 2, 4229 - 4241.
26. M. Sethi, **D.K. Bhat**, "Engineering porous nanopillars of Co₃O₄: Hydrothermal synthesis and energy storage applications." *AIP Conference Proceedings*, **2020**, 2247, 040014.
27. H. Bantawal, **D.K. Bhat**, "BaTiO₃-graphene nanocomposite as a photocatalyst for the

- degradation of methylene blue.” *AIP Conference Proceedings*, **2020**, 2247, 040004.
28. M. Sethi, **D.K. Bhat**, “Novel porous graphene synthesized through solvothermal approach as high performance electrode material for supercapacitors.” *AIP Conference Proceedings*, **2020**, 2244, 040002.
 29. **D.K. Bhat**, U.S. Shenoy, “Mg/Ca doping ameliorates the thermoelectrics properties of GeTe: influence of electronic structure engineering.” *Journal of Alloys and Compounds*, **2020**, 834, 155989.
 30. **D.K. Bhat**, U.S. Shenoy, “SnTe thermoelectrics: Dual step approach for enhanced performance.” *Journal of Alloys and Compounds*, **2020**, 834, 155181.
 31. U.S. Shenoy, **D.K. Bhat**, “Enhanced thermoelectric properties of vanadium doped SrTiO₃: A resonant dopant approach.” *Journal of Alloys and Compounds*, **2020**, 832, 154958.
 32. M. Sethi, **D.K. Bhat**, “NiO nanoplates for energy storage application: Role of electrolyte concentration on the energy storage property.” *Materials Today Proceedings*, **2020**, 33, 5103 – 5108.
 33. H. Bantawal, U.S. Shenoy, **D.K. Bhat**, “Vanadium-doped SrTiO₃ nanocubes: Insight into role of vanadium in improving the photocatalytic activity.” *Applied Surface Science*, **2020**, 513, 145858.
 34. Y.N. Sudhakar, M. Selvakumar, **D.K. Bhat**, S. Karazhanov, R.S. Chandrabose, “Supercapacitor studies of activated carbon functionalized with poly(ethylene dioxythiophene): Effects of surfactants, electrolyte concentration on electrochemical properties.” *Materials Letters*, **2020**, 273, 127978.
 35. M. Sethi, U.S. Shenoy, M. Selvakumar, **D.K. Bhat**, “Facile solvothermal synthesis of NiFe₂O₄ nanoparticles for high performance supercapacitor applications.” *Frontiers of Material Science*, **2020**, 14, 120 - 132.
 36. M. Sethi, U.S. Shenoy, **D.K. Bhat**, “Porous graphene-NiCo₂O₄ nanorod hybrid composite as high performance supercapacitor electrode material.” *New Journal of Chemistry*, **2020**, 44, 4033 - 4041.

37. S. Mutyala, M.M.J. Sadiq, M. Gurulakshmi, C. Suresh, **D.K. Bhat**, K. Shanthi, J. Mathiyarasu, "Disintegration of flower like MoS₂ to limply allied layers on spherical nanoporous TiO₂: Enhanced visible light photocatalytic degradation of methylene blue." *Journal of Nanoscience and Nanotechnology*, **2020**, 20, 1118 - 1129.
38. U.S. Shenoy, **D.K. Bhat**, "Bi and Zn co-doped SnTe thermoelectrics: interplay of resonance levels and heavy hole band dominance leading to enhanced performance and record high room temperature ZT." *Journal of Materials Chemistry C*, **2020**, 8, 2036 - 2042.
39. D.N. Sangeetha, **D.K. Bhat**, S.S. Kumar, M. Selvakumar, "Improving hydrogen evolution reaction and capacitive properties on CoS/MoS₂ decorated carbon fibers." *International Journal of Hydrogen Energy*, **2020**, 45, 7788 - 7800.
40. **D.K. Bhat**, S.U. Shenoy, "Zn: A versatile resonant dopant for SnTe thermoelectrics." *Materials Today Physics*, **2019**, 11, 100158.
41. H. Bantawal, M. Sethi, S.U. Shenoy and **D.K. Bhat**, "Porous graphene wrapped SrTiO₃ nanocomposite: Sr-C bond as an effective coadjutant for high performance photocatalytic degradation of methylene blue." *ACS Applied Nano Materials*, **2019**, 2, 6629 - 6636.
42. M. Sethi, **D.K. Bhat**, "Electrochemical study of graphene-NiCo₂O₄ nanocomposite prepared through solvothermal approach." *AIP Conference Proceedings*, **2019**, 2142, 140027.
43. M. Sethi, H. Bantawal, S.U. Shenoy, **D.K. Bhat**, "Eco-friendly synthesis of porous graphene and its utilization as high performance supercapacitor electrode material." *Journal of Alloys and Compounds*, **2019**, 799, 256 - 266.
44. C. Prabukumar, M.M.J. Sadiq, **D.K. Bhat**, K.U. Bhat, "SnO₂ nanoparticles functionalized MoS₂ nanosheets as an electrode material for supercapacitor application." *Materials Research Express*, **2019**, 6, 085526.
45. U.S. Shenoy, **D.K. Bhat**, "Electronic structure engineering of tin telluride through co-doping of bismuth and indium for high performance thermoelectrics: a synergistic effect

leading to record high room temperature ZT in tin telluride.” *Journal of Materials Chemistry C*, **2019**, 7, 4817 - 4821.

46. M. Sethi, **D.K. Bhat**, “Facile solvothermal synthesis and high supercapacitor performance of NiCo₂O₄ nanorods.” *Journal of Alloys and Compounds*, **2019**, 781, 1013 - 1020.
47. U.S. Shenoy, H. Bantawal, **D.K. Bhat**, “Band engineering of SrTiO₃: Effect of synthetic technique and site occupancy of doped rhodium.” *The Journal of Physical Chemistry C*, **2018**, 122, 27567 - 27574.
48. D.N. Sangeetha, **D.K. Bhat**, M. Selvakumar, “h-MoO₃/activated carbon nanocomposites for electrochemical applications” *Ionics*, **2018**, 25, 607 - 616.
49. H. Bantawal, **D.K. Bhat**, “Hierarchical porous BaTiO₃ nano-hexagons as a visible light photocatalyst.” *International Journal of Engineering and Technology*, **2018**, 7, 105 - 109.
50. H. Bantawal, S.U. Shenoy, **D.K. Bhat**, “Tuning photocatalytic activity of SrTiO₃ by varying the Sr/Ti Ratio: Unusual effect of viscosity of synthesis medium.” *The Journal of Physical Chemistry C*, **2018**, 122, 20027 - 20033.
51. M.M.J. Sadiq, S.U. Shenoy, **D.K. Bhat**, “Synthesis of BaWO₄/NRGO-g-C₃N₄ nanocomposites with excellent multifunctional catalytic performance via microwave approach” *Frontiers of Materials Science*, **2018**, 12, 247 - 263.
52. C. Prabukumar, M.M.J. Sadiq, **D.K. Bhat**, K.U. Bhat, “Effect of solvent on the morphology of MoS₂ nanosheets prepared by ultrasonication-assisted exfoliation” *AIP Conference Proceedings*, **2018**, 1943, 020084.
53. **D.K. Bhat**, S.U. Shenoy, “Enhanced thermoelectric performance of bulk tin telluride: Synergistic effect of calcium and indium co-doping” *Materials Today Physics*, **2018**, 4, 12 -18.
54. M.M.J. Sadiq, S.U. Shenoy, **D.K. Bhat**, “Novel NRGO-CoWO₄-Fe₂O₃ nanocomposite as an efficient catalyst for dye degradation and reduction of 4-nitrophenol” *Materials Chemistry and Physics*, **2018**, 208, 112 - 122.

55. M.M.J. Sadiq, **D.K. Bhat**, “Novel NiWO₄-ZnO-NRGO ternary nanocomposites with enhanced photocatalytic activity” *Materials Today: Proceedings*, **2018**, 5, 22412 - 22420.
56. S. Shetty, M.M.J. Sadiq, **D.K. Bhat**, A.C Hegde, “Electrodeposition of Ni-Mo-rGO composite electrodes for efficient hydrogen production in alkaline medium” *New Journal of Chemistry*, **2018**, 42, 4661 - 4669.
57. S. Shenoy, **D.K. Bhat**, “Enhanced bulk thermoelectric performance of Pb_{0.6}Sn_{0.4}Te: Effect of magnesium doping” *The Journal of Physical Chemistry C*, **2017**, 121, 20696 - 20703.
58. M.M.J. Sadiq, S. Mutyala, J. Mathiyarasu, **D.K. Bhat**, “RGO/ZnWO₄/Fe₃O₄ nanocomposite as an efficient electrocatalyst for oxygen reduction reaction” *Journal of Electroanalytical Chemistry*, **2017**, 799, 102 - 110.
59. M.M.J. Sadiq, **D.K. Bhat**, “Novel RGO/ZnWO₄/Fe₃O₄ nanocomposite as high performance electrocatalyst for oxygen evolution reaction in basic medium” *Juniper Online Journal Material Science*, **2017**, 2, 555584.
60. M.M.J. Sadiq, S.U. Shenoy, **D.K. Bhat**, “NiWO₄-ZnO-NRGO ternary nanocomposite as an efficient photocatalyst for degradation of methylene blue and reduction of 4-nitro phenol” *Journal of Physics and Chemistry of Solids*, **2017**, 109, 124 - 133.
61. S. Shetty, M.M.J. Sadiq, **D.K. Bhat**, A.C. Hegde, “Electrodeposition and characterization of Ni-Mo alloy as an electrocatalyst for alkaline water electrolysis” *Journal of Electroanalytical Chemistry*, **2017**, 796, 57 - 65.
62. M.M.J. Sadiq, S.U. Shenoy, **D.K. Bhat**, “Enhanced photocatalytic performance of N-doped RGO-FeWO₄/Fe₃O₄ ternary nanocomposite in environmental applications” *Materials Today Chemistry*, **2017**, 4, 133 - 141.
63. **D.K. Bhat**, S.U. Shenoy, “High thermoelectric performance of co-doped tin telluride due to synergistic effect of magnesium and indium” *The Journal of Physical Chemistry C*, **2017**, 121, 7123 - 7130.
64. M.M.J. Sadiq, **D.K. Bhat**, “A facile microwave approach to synthesize RGO-BaWO₄ composites for high performance visible light induced photocatalytic degradation of dyes”

AIMS Materials Science, **2017**, 4, 487 - 502.

65. M.M.J. Sadiq, S.U. Shenoy, **D.K. Bhat**, “High performance bifunctional catalytic activity of novel zinc tungstate - reduced graphene oxide nanocomposite” *Advanced Science Engineering and Medicine*, **2017**, 9, 115 - 121.
66. M.M.J. Sadiq, **D.K. Bhat**, “Novel ZnWO₄/RGO nanocomposite as high performance photocatalyst” *AIMS Materials Science*, **2017**, 4, 158 - 171.

Membership of Academical Bodies:

1. Life member of Indian Society of Technical Education.
2. Life member of Indian Association of Applied Psychologists.
3. Life member of Indian Council of Chemists.
4. Life member of Society for Advancement of Electrochemical Science and Technology.
5. Life member of Chemical Research Society of India.
6. Life member of Indian Science Congress Association.
7. Life member of Materials Research Society of India.
8. Life member of Catalysis Society of India.
9. Life member of The Indian Thermodynamics Society.
10. Life member of Society for Materials Chemistry.
