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# HARSHA INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi and affiliated to VTU, Karnataka)

Vardanayakanahalli, Jakkannahalli post  
Nelamangala, Bengaluru Rural Dist- 562123

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## RESEARCH PAPERS PUBLISHED

By

Dr B S Krishna,

Professor and HoD,

Dept of Basic Science & Humanities,

Harsha Institute of Technology.

1. *Green synthesized USZ/polypyrrole nanocomposites for enhanced electrochemical and butane gas sensing application, Pavithra, Kathyani, Nanjundaswamy, Krishna B S, Ionics (Springer) September-2025*
2. *Carbon quantum dots: An overview of their synthesis from natural plant sources, and their potential use as antimicrobial agents; M.R. Malini Bharath K. Devendra, H.R. Panchami, Nagaraju Kottam, B.S. Krishna <https://doi.org/10.1016/j.synthmet.2025.117977> (Synthetic Metals 316 (2025)).*
3. H. Gujjammaa, B.S. Krishna and et al, "Phyllantus acidus mediated combustion method synthesized yttria stabilized zirconia, its application as photocatalyst and antibacterial agent" Desalination and water treatment, 317 (2024) 100301.
4. Pavithra S, Anil Rao H N, Thejas R, Krishna B.S, Nagaraju G "Preparation of Polypyrrole by Chemical Oxidation: Applications for Sensor Studies", Macro Molecular Research (Springer Nature, 2023)
5. Anusuya A.M., B. S. Krishna, S. B. Benaka Prasad, M.S.Raghu, M.K. Prashanth, Krishna and PrakasKrishnaiah. "Novel transition metal complexes of 5-(2-phenyl-1H-benzo[d]imidazol-1-yl) quinolin-8-ol as active pharmacophore: Experimental and computational explorations: "Chemical Data Collections, volume36, december2021, 100777. **Journal raking-Q3**



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6. Anusuya A.M., B.S. Krishna, S.B. Benaka Prasad, K. Yogeshkumar, R. Raveesha, and M.K. Prashanth. "Novel Heterocyclic Transition Metal Complexes: Synthesis, Characterization, Antimicrobial and Anticancer Activity." *Asian journal of chemistry*, volume 33 (10), 2021, 2519-2524. **Journal ranking-Q4**
  7. A. M. Anusuya, B. S. Krishna, S. B. Benaka Prasad, K. Yogesh Kumar and M. K. Prashanth. "ANTI MICROBIAL AND ANTIOXIDANT ACTIVITY OF NEW TRANSITION METAL COMPLEXES DERIVED FROM 5-(2-(4-METHOXYPHENYL)-1H-BENZO [D] IMIDAZOL-1-YL) QUINOLIN-8-OL". *International journal of pharmaceutical sciences and research*. 12(8), 1000-07, 2021. E-ISSN: 0975-8232; P-ISSN: 2320-5148. (Received on 26 June 2021; received in revised form, 22 July 2021; accepted, 23 July 2021; published 01 August 2021). **Web of science**
  8. SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL APPLICATIONS OF SOME HETEROCYCLIC MOLECULES OF TRANSITION METAL COMPLEXES, Anusuya AM, **Krishna. B S**, *International Journal of Scientific Research and Review*, Volume 07, Issues 05, Page 182-190, May 2019, (ISSNNO. 2279-543X, UGC JOURNAL NO.64650, IMPACT FACTOR 6.1).
  9. Synthesis characterization and biological applications of some heterocyclic molecules of benzaldehyde substituted benzimidazole derivatives 8-hydroxyquinoline transition metal, A. M. Anusuya, B.S. Krishna, *Journal of engineering science and technology-2019*, Volum-2, Issue 6, Page nos.8-15 (ISSNNO.2279-543X,UGC JOURNALNO.64650,IMPACTFACTOR6.1).
  10. Effect of textile mill waste water on growth of Maize (*Zeamays.l*), Mididoddi Nataraj, B S Krishna, *International Journal of Advanced Research Ideas and Innovations in Technology* 2018,4,535–537(IP4.295)ISSN:2454-132X.
  11. Terephthalic acid derived ligand-stabilized palladium nanocomposite catalyst for Heck coupling reaction: without surface-modified heterogenous catalyst" *Applied organo metallic chemistry*,  
*Jithendra kumara K.S., Krishnamurthy G., Kumaraswamy B.E., Shashikumar N.D., Satishnaik, Krishna B.S. and Nagarajnaik*, June 2016, Elsevier ISSN:1099-0739, Impact factor 2.452.
  12. Surfactant immobilized inter layer species bonded to montmorillonite as recyclable adsorbent for Lead ions, B.S. Krishna et al, *J Colloid & Interface Sci.* 2004, 271, 271–276.



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13. Surfactant modified clay as adsorbent for chromate, B.S. Krishna et al, Applied Clay Science 2001,20,65–70.
14. Thermodynamics of Chromium(VI) anionic species sorption onto surfactant modified montmorillonite clay, B.S. Krishna et al, J Colloid & Interface Sci. 2000,229–236.
15. Organo clays as recyclable adsorbents for iodine: A study of thermodynamic parameter, B.S. Krishna et al, Clay Research 1999, 18,1-10.
16. Chemically modified clays as recyclable adsorbent for iodine, B.S. Krishna et al, Bull.Mater.Sci.1998, 21,355–361.

### **PAPERS PRESENTED AT NATIONAL & INTERNATIONAL CONFERENCES**

1. Adsorption of iodine on chemically modified clays: Thermodynamic parameters, B.S. Krishna et al, 12<sup>th</sup> National symposium on recent trends in clay research at Nagpur 9–10<sup>th</sup> July 1998.
2. Chemically modified clays as adsorbent for chromate ions in aqueous environment, B.S. Krishna et al, 2<sup>nd</sup> International seminar on environmental Science at Trivandrum, December 1998.
3. Surfactant modified smectite clay as recyclable adsorbent for chromate, B.S. Krishna et al, Sri M Visveswaraya Memorial national seminar on environmental pollution & Management, 24 –25<sup>th</sup> November 2000 at UAS, Dharwad, Karnataka.
4. Chemically modified clays as remedial materials for sorption of lead ions, B.S. Krishna et al, International symposium on clays in relation to environment & Industry, 25 – 27<sup>th</sup> November 2000 at Annamalai University, Tamil Nadu.
5. Participated workshop on “Role of chemistry in higher engineering courses” held at Sambaram Institute of Technology on 20/01/2018.
6. Attended workshop on “New model curriculum for first year BE/BTech CBCS syllabus 2018-19 under TEQUIP-1.3 held at BIT on 08/05/2018.
7. Invited as Chief Judge for the National Conference on Recent Trends in Mechanical Engineering and Applied Sciences held at SKIT on 17/05/2018.



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## Awards and Achievements

### Scholarship and Awards

- Junior Research Fellowship by BARC, Bombay
- Senior Research Fellowship by BARC, Bombay
- Best research paper at the National Conference on Catalysis

### Professional Achievements

- **VTU-BOE Member** for the AY2024-25
- **VTU-BOE Member** for the AY2022-23
- **VTU-BOE Member** for the AY2018-19
- **VTU Doctoral Committee Member** for Chemistry Board.
- **VTU-BOE Member** for the AY2015-16
- **VTU Recognized Guide (since 2016)**
- **Selection Committee Member** for recruiting **Scientific Officer Grade** level in **Central Power Research Institute (CPRI)**, Government of India, Bangalore Branch.