



Bharathiar University

State University | "A⁺⁺" Grade by NAAC | 26th Rank in MoE-NIRF
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Dr B. MURUGESAPANDIAN Assistant Professor Department of Chemistry Bharathiar University Coimbatore Tamil Nadu E-mail: bmurugesapandian@buc.edu.in Phone: 9003858901 Office Number: 0422-2428312	
Research Area • Multi-functional materials • Coordination Chemistry • Main group chemistry	Courses Teaching • Inorganic Spectroscopy • Solid State Chemistry • Organic Chemistry
Research Experience: 21	Teaching Experience: 11
Research Credentials (as on July 2024 – Source: Google scholar) H-index: 1821 Citations: 22 i10-index: 32	
Publications International Journals: 12	
Career At Bharathiar University 1. Designation : Assistant Professor Period : September 2014 - Till Date	
Education Ph. D. Subject : Chemistry Institution : Indian Institute of Technology Kanpur Affiliated University : Indian Institute of Technology Kanpur Year of Award : September 2008 M. Sc. Subject : Chemistry Institution : V.H.N.S.N. College Affiliated University : Madurai Kamaraj University Year of Award : April 2002 B. Sc. Subject : Chemistry Institution : V.H.N.S.N. College Affiliated University : Madurai Kamaraj University Year of Award : April 2000	
Projects National Level Ongoing - 1 completed - 1	Research Guidance Completed Ph.D. - 4



Publications

International Journals - 12

12. Amino thiophenol and 7-diethylamino-4-hydroxycoumarin derived probe for reversible turn off-on-off detection of Cu²⁺ ions and cysteine

Spectrochim Acta A Mol Biomol Spectrosc. 2025, 327, 125315 (February 2025)

Kuppusamy Suganthirani, Thangaraj Thiruppathiraja, Senthilkumar Lakshmi pathi, Jan Grzegorz Malecki, Balasubramanian Murugesapandian*

11. An interesting aggregation induced red shifted emissive and ESIPT active hydroxycoumarin tagged symmetrical azine: Colorimetric and fluorescent turn on-off-on response towards Cu²⁺ and Cysteine, real sample analysis and logic gate application

Spectrochim Acta A Mol Biomol Spectrosc. 2025, 326, 125270 (February 2025)

Moorthy Mathivanan, Jan Grzegorz Malecki, Balasubramanian Murugesapandian*

10. Sensing features, on-site detection and bio-imaging application of a tripodal tris (hydroxycoumarin) based probe towards Cu²⁺/His

Spectrochim Acta A Mol Biomol Spectrosc. 2025, 324, 124972 (January 2025)

Rajendran Kishore Kumar, Ottoor Anitha, Kuppusamy Suganthirani, Karthi Muthuswamy, Subramaniam Selvakumar, Balasubramanian Murugesapandian*

9. Tetra-coordinated organoboron complexes with triaminoguanidine-salicylidene based ligands: aggregation induced enhanced emission and mechanoresponsive features

Dalton Trans., 2025, 54, 3897-3910 (January 2025)

Balamurugan Tharmalingam, Rajendran Kishore Kumar, Ottoor Anitha, Werner Kaminsky, Jan Grzegorz Malecki, Balasubramanian Murugesapandian

8. AIE active hydroxycoumarin-anthranilic acid coupled enamine: Sequential detection of Cu²⁺/S²⁻ ions and live cell imaging application

Microchem. J. 2024, 207, 112080 (November 2024)

Kuppusamy Suganthirani, Rajendran Kishore Kumar, Thangaraj Thiruppathiraja, Panneerselvan Prabha, Senthilkumar Lakshmi pathi, Subramaniam Selvakumar, Jan Grzegorz Malecki, Balasubramanian Murugesapandian*

7. Pyridine appended pyrimidine bis hydrazone: Zn²⁺/ATP detection, bioimaging and functional properties of its dinuclear Zn (II) complex

Talanta, 2024, 273, 125900 (June 2024)

Ottoor Anitha, Sandipan Ghorai, Thangaraj Thiruppathiraja, Humayun Amir, Abinayaselvi Murugan, Ramalingam Natarajan, Senthilkumar Lakshmi pathi, Chinnuswamy Viswanathan, Mathivanan Jothi, Balasubramanian Murugesapandian*

6. Diethylaminophenol appended pyrimidine bis hydrazone for the sequential detection of Al³⁺ and PPI ions

Spectrochim Acta A Mol Biomol Spectrosc., 2023, 302, 123077 (December 2023)

O Anitha, T Thiruppathiraja, S Lakshmi pathi, B Murugesapandian*

5. An AIE active acidochromic pyrimidine-functionalized two-in-one fluorescent probe for selective relay detection of Al³⁺/Zn²⁺ and PPI with various detection applications

New J. Chem., 2023, 47, 18461-18475 (September 2023)

Ottoor Anitha, Janardhanan Aiswarya, Thangaraj Thiruppathiraja, Senthilkumar Lakshmi pathi, Jan Grzegorz Malecki, Balasubramanian Murugesapandian

4. Fluoride Binding Potential of Selected Phytochemicals: A Pilot Study

Environmental Science and Pollution Research, 2023, 30, 101888–101895 (August 2023)

Harsheema Ottapillakkil, Anitha Ottoor, Surya Manoharan, Murugesapandian Balasubramanian, Ekambaram Perumal

3. Visualization of latent fingerprints using an AIE-active unsymmetrical azine: 2-Naphthol-pyrrole acrylate conjugate and its fluorescent sensing of Cu²⁺ and S²⁻ ions, smartphone and logic gate applications

J. Photochem. Photobiol. A Chem. 2023, 442, 114757 (August 2023)

Balamurugan Tharmalingam, Ottoor Anitha, Janardhanan Aiswarya, Thangaraj Thiruppathiraja, Senthilkumar Lakshmi pathi, Balasubramanian Murugesapandian*



2. A unique methanol responsiveness, AIE, acidochromism and mechanofluorochromic features of flexible ethylenediamine bridged rhodamine B-diethylamino hydroxycoumarin conjugate

Journal of Molecular Liquids, 2023, 382, 121845 (July 2023)

Moorthy Mathivanan, Balamurugan Tharmalingam, Ottoor Anitha, Thangaraj Thiruppathiraja, Senthilkumar Lakshmiopathi, Jan Grzegorz Ma?ecki, Balasubramanian Murugesapandian

1. Multi-stimuli responsiveness of pyrimidine bishydrazone: AIE, tuneable luminescence, white light emission, mechanochromism, acidochromism and its anticounterfeiting applications

Dyes and Pigments, 2023, 212, 111091 (January 2023)

Ottoor Anitha, Moorthy Mathivanan, Balamurugan Tharmalingam, Thangaraj Thiruppathiraja, Sandipan Ghorai, Ramalingam Natarajan, Viruthachalam Thiagarajan, Senthilkumar Lakshmiopathi, Balasubramanian Murugesapandian

Projects

Completed - 1

1. Design and Synthesis of Polynuclear complexes in Small Molecule Activation DST – SERB 22,48,000 (September 2015 - September 2018)

Ongoing - 1

1. Development of Efficient Water Splitting Molecular Electrocatalysts towards Clean Energy Applications DST – SERB 28,93,264 (February 2024 - February 2017)