List of publications (Journal/ Book Chapter):

1) Colorimetric 'Naked-Eye' Chemodosimeter for the Detection of CN^- Ion: Experimental and Theoretical Studies. Komal Kumar Yadav, Ashish Raina, Aditya Kumar, Saurav Kumar Ojha, Animesh Kumar Ojha and **Tamal Ghosh**. *ACS Omega*, 2025, vol. 10, issue 14, 14514-14521. DOI: 10.1021/acsomega.5c01287
2) Book Chapter Title: "Illuminating Advances: Photochemistry and Photophysics of N-Heterocyclic Carbenes (NHCs) and Its Structural Correlation". Authors: Krishanu Bandyopadhyay, Abhineet Verma, **Tamal Ghosh**, Ravi Kumar Kanaparthi, Sudeena Nadendla and Satyen Saha. Publisher: IntechOpen Limited (London). DOI: 10.5772/intechopen.1004054. Published on: 16 April 2024. [Book Title: Revolutionizing Energy Conversion - Photoelectrochemical Technologies and Their Role in Sustainability. Editors: Dr. Mahmoud Zendehdel, Dr. Narges Yaghoobi Nia and Prof. Mohamed Samer].
3) Cyanide Selective Colorimetric and turn-on Fluorimetric Sensing by naphthohydrazide Derivative and its application in real sample analysis. Komal Kumar Yadav, Ashish Raina and **Tamal Ghosh**. *Materials Today: Proceedings*, 2023, vol. 78, Part 1, 108-113.
4) Selective colorimetric and fluorimetric detection of cyanide by malonohydrazide derivative and its live cell imaging. Ashish Raina, Komal Kumar Yadav, Yadvendra Singh and **Tamal Ghosh**. *Journal of Chemical Sciences*, 2021, vol. 133 (3), 85. DOI: doi.org/10.1007/s12039-021-01936-z
5) Cyanide selective chemodosimeter in aqueous medium, on test strips and its application in real sample analysis. Ashish Raina, Yadvendra Singh, Komal Kumar Yadav and **Tamal Ghosh**. *Journal of Chemical Sciences*, 2020, vol. 132 (1), 128. DOI: doi.org/10.1007/s12039-020-01832-y
6) Correlation Between Pharmacokinetic Properties and ^{15}N-NMR and ^{13}C-NMR Chemical Shifts of Angiotensin Converting Enzyme Inhibitors. N. C. Bhanumathi Devi, N. S. Rao, **Tamal Ghosh**, A. Mukerjee. *INDIAN DRUGS*, 2019, vol. 56 (10), 26-32.
7) ^{15}N-NMR spectroscopic studies and investigation of spectral data property relationships of proton pump inhibitors. N. C. Bhanumathi Devi, N. Someswara Rao, **Tamal Ghosh**, Alok Mukerjee. *Journal of Applied Pharmaceutical Science*, 2019, vol. 9 (6), 61-66.
8) A Novel Design Strategy for Chitosan containing azo-based Schiff bases for Colorimetric Sensing of Anions. Nidhi Nigam, Santosh Kumar, P. K. Dutta and **Tamal Ghosh**. *Journal of Polymer Materials*, 2018, vol. 35, 137-148.

9) A cyanide selective colorimetric and turn-on fluorescent probe in solution and on test strips and its live cell imaging. Yadvendra Singh, Israr Ahmad and **Tamal Ghosh**. *Sensors and Actuators B: Chemical*, 2017, vol. 242, 1079-1085.
10) Colorimetric and ON-OFF-ON fluorescent chemosensor for the sequential detection of Cu(II) and Cysteine and its application in imaging of living cells. Yadvendra Singh, Shiva Arun, Brijesh Kumar Singh, Pradip Kumar Dutta and **Tamal Ghosh**. *RSC Advances*, 2016, vol. 6, 80268–80274.
11) Chitosan containing azo-based Schiff bases: Thermal, antibacterial and birefringence properties for bio-optical devices. Nidhi Nigam, Santosh Kumar, P. K. Dutta, S. Pei and **Tamal Ghosh**. *RSC Advances*, 2016, vol. 6, pp. 5575-5581.
12) Highly selective colorimetric and fluorometric chemosensor for cyanide on silica gel and DMSO/H_2O (7:3 v/v) mixed solvent and its imaging in living cells. Yadvendra Singh, **Tamal Ghosh**. *Talanta*, 2016, vol. 148, pp. 257-263.
13) Studies on thermo-optic property of chitosan–alizarin yellow GG complex: a direction for devices for biomedical applications. Nidhi Nigam, Santosh Kumar, Pradip Kumar Dutta, **Tamal Ghosh**. *Bulletin of Materials Science*, 2015, vol. 38, pp. 1639-1643.
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15) Selective colorimetric sensing of CN^- by dihydropyrazol-3-ol derivative in CH_3CN/H_2O medium. Israr Ahmad, Amit Sharma, **Tamal Ghosh**. *Supramolecular Chemistry*, 2012, Vol. 24, pp. 221-227.
16) Preparation, characterization and optical properties of a novel azo-based chitosan biopolymer. Santosh Kumar, Nidhi Nigam, **Tamal Ghosh**, Pradip K. Dutta, S.P. Singh, Prashant K. Datta, Lijia An, Tong Fei Shi. *Materials Chemistry and Physics*, 2010, vol. 120, pp. 361-370.
17) Preparation, Characterization and Optical Properties of a Chitosan-Anthraldehyde Crosslinkable Film. Santosh Kumar, Nidhi Nigam, **Tamal Ghosh**, P. K. Dutta, R. S. Yadav, A. C. Pandey. *Journal of Applied Polymer Science*, 2010, vol. 115, pp. 3056-3062.
18) Studies on Chitosan-Alizarin Yellow GG Complex for Optical and Biomedical Applications. Santosh Kumar, Nidhi Nigam, **Tamal Ghosh**., Pradip K. Dutta, S. P. Singh, L. Mishra, Prasanta K. Datta. *Journal of Polymer Materials*, 2009, vol. 26, 411-416.

19) DNA binding and cleavage properties of a newly synthesized Ru(II)-polypyridyl complex. Amrita Ghosh, Amit Mandoli, D. Krishna Kumar, **Tamal Ghosh**, Bhavanath Jha, Jim A Thomas, Amitava Das. *Dalton Transactions*, 2009, pp. 9312-9321.

20) A colorimetric chemosensor for both fluoride and transitional metal ions based on dipyrrolyl derivative. **Tamal Ghosh**, Bhaskar G. Maiya, Anunay Samanta. *Dalton Transactions*, 2006, pp. 795-801.

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22) Fluoride ion receptors based on dipyrrolyl derivatives bearing electron-withdrawing groups: synthesis, optical and electrochemical sensing, and computational studies. **Tamal Ghosh**, Bhaskar G. Maiya, Ming Wah Wong. *Journal of Physical Chemistry A*, 2004, Vol. 108, pp. 11249-11259.

23) Visual sensing of fluoride ions by dipyrrolyl derivatives bearing electron-withdrawing groups. **Tamal Ghosh**, Bhaskar G. Maiya. *Journal of Chemical Science*, 2004, Vol. 116, pp. 17-20.

24) Structure-property correlations in DNA binding and photocleavage characteristics of metallointercallators. C. V. Sastri, M. Mariappan, **Tamal Ghosh**, Bhaskar G. Maiya. *Proceedings of Indian National Science Academy A*, 2004, Vol. 70, pp. 355-365.

25) Kinetics of dissociation of M(II)-aza-oxa cryptates (M = Ni, Cu) in weakly acidic aqueous-acetonitrile media. **Tamal Ghosh**, Prasun Bandyopadhyay, Parimal K. Bharadwaj, Rupendranath Banerjee. *Polyhedron*, 2001, Vol. 20, pp. 477-482.

26) Formation and dissociation kinetics of mono- and diazidobis(pentane-2,4-dionato)chromium(III): an example of unusually strong catalysis. **Tamal Ghosh**, Sanjoy Kumar Bhattacharyya, Rupendranath Banerjee. *Journal of Indian Chemical Society*, 1998, Vol. 75, pp 389-391.

List of papers presented in Conference/seminar/workshop:

(i) Naphthoic Acid Hydrazide Derivative As Selective Colorimetric Chemodosimeter For Cyanide Ion. Tamal Ghosh, Komal Kumar Yadav. "International Conference on Frontier Areas of Science and Technology-2025" (ICFAST-2025) at NIT Calicut, Kerala during 10-11 October 2025.

(ii) Colorimetric and fluorescent probe for cyanide in solution, test strips and live cell imaging. Yadvendra Singh, Tamal Ghosh. "14th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry" (TSRP-2018) at Bhabha Atomic Research Centre, Mumbai, India during January 3-7, 2018.

(iii) Selective colorimetric and fluorometric detection of cyanide on silica gel and DMSO/H_2O (7:3 v/v) mixed solvent and its imaging in living cells. Yadvendra Singh, Tamal Ghosh. "Recent Advances in Molecular Spectroscopy: Fundamentals and Applications in Materials and Biology" (RAMS-2016) at School of Chemistry, University of Hyderabad, India during March 2-4, 2016.

(iv) Indolyl hydrazone derivatives as chemosensor for anions. Tamal Ghosh, Israr Ahmad, Yadvendra Singh. "15th CRSI National Symposium in Chemistry and 7th CRSI-RSC Symposium in Chemistry" at Banaras Hindu University, Varanasi during January 31-February 3, 2013.

(v) Isatin derivatives as chemosensor for anions. Israr Ahmad, Tamal Ghosh. "Trombay Symposium on Radiation & Photochemistry" (TSRP-2012) at Bhabha Atomic Research Centre, Mumbai, India during January 4-7, 2012.

(vi) Selective colorimetric and fluorescent chemosensors for fluoride ion based on bisindole derivative. Israr Ahmad, Tamal Ghosh. "National Symposium on Radiation & Photochemistry" (NSRP-2011) at JNV University, Jodhpur, Rajasthan during March 10-12, 2011.

(vii) 5-(1*H*-Indol-3-yl)-pyrazolyl derivatives as chemosensor for anions. Israr Ahmad, Tamal Ghosh. "13th CRSI National Symposium in Chemistry" at NISER, Bhubaneswar during February 4-6, 2011.

(viii) Colorimetric anions sensor based on dihydropyrazol-3-ol derivative. Israr Ahmad, Tamal Ghosh. "National Conferences on Frontiers in Chemical Sciences" (FICS– 2010) at IIT, Guwahati during December 3-4, 2010.