

## SELECTED ARTICLES (last five years)

### Sensing and Sequestration

#### Sensing of Nitroaromatics

- Chanda, A.; **Mandal, S. K.** Selective and ultrafast sensing of 2,4,6-trinitrophenol - A nitro-explosive and mutagenic pollutant - In aqueous media by highly stable and recyclable metal-organic probes: Design principles and mechanistic studies. *Dyes and Pigments*, **2023**, *210*, 111025.
- Gogia, A.; **Mandal, S. K.** Subtle Ligand Spacer Change in 2D Metal-Organic Framework Sheets for Dual Turn-On/Turn-Off Sensing of Acetylacetone and Turn-On Sensing of Water in Organic Solvents. *ACS Appl. Mater. Interfaces*, **2022**, *14*, 16357-16368.
- Chanda, A.; **Mandal, S. K.** Naphthalene-tagged highly stable and reusable luminescent metal-organic probes for selective and fast detection of 4-nitroaniline in water. *New J. Chem.*, **2022**, *46*, 6068-6077.
- Chanda, A.; Khullar, S. K.; **Mandal, S. K.** Luminescent, Helical and Highly Stable Zn(II) and Cd(II) Coordination Polymers: Structural Diversity and Selective Sensing of 4-Nitroaniline in Water. *Euro. J. Inorg. Chem.*, **2021**, 2595-2605.
- Chakraborty, G.; Das, P.; **Mandal, S. K.** Quinoline-tagged fluorescent organic probes for sensing of nitro-phenolic compounds and Zn<sup>2+</sup> ions at the ppb level. *Materials Advances*, **2021**, *2*, 2334-2346.
- Khan, S.; Das, P.; **Mandal, S. K.** Design and Construction of a Luminescent and Highly Stable 3D Metal-Organic Framework with a [Zn<sub>4</sub>(μ<sub>3</sub>-OH)<sub>2</sub>]<sup>6+</sup> Core. *Inorg. Chem.*, **2020**, *59*, 4588-4600.
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#### Sensing of VOCs, Temperature and pH

- Das, P.; **Mandal, S. K.** Flexible and Semi-flexible Amide-Hydrazide Decorated Fluorescent Covalent Organic Frameworks as On-Off pH Responsive Proton Scavengers. *ACS Appl. Mater. Interfaces*, **2021**, *13*, 14160-14168.
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- Das, P.; **Mandal, S. K.** Nanoporous Zn-Based Metal-Organic Framework Nanoparticles for Fluorescent pH Sensing and Thermochromism. *ACS Appl. Nano Materials*, **2020**, *3*, 9480-9486.

## Sensing of Ketones

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## Sensing of Cations and Anions

- Khan, S.; **Mandal, S. K.** Luminescent 2D Pillared-Bilayer Metal–Organic Coordination Networks for Selective Sensing of ReO<sub>4</sub><sup>−</sup> in Water. *ACS Appl. Mater. Interfaces*, **2021**, *13*, 45465–45474.
- Kumar, N.; **Mandal, S. K.** Design and application of a fluorogenic receptor for selective sensing of cations, small neutral molecules, and anions. *New J. Chem.*, **2018**, *42*, 18278.

## Iodine Capture

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## CO<sub>2</sub> Capture and Conversion

- Gupta, V.; **Mandal, S. K.** Effect of Unsaturated Metal Site Modulation in Highly Stable Microporous Materials on CO<sub>2</sub> Capture and Fixation. *Inorg. Chem.*, **2022**, *61*, 3086–3096.
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- Thakur, S.; **Mandal, S. K.** Morphology engineering of ZnO nanorod arrays to hierarchical nanoflowers for enhanced photocatalytic activity and antibacterial action against Escherichia coli. *New J. Chem.*, **2020**, *44*, 11796-11807.
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## Heterogeneous Catalysis

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## Crystal Engineering

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## REVIEWS AND MONOGRAPHS

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