



**Showcasing research from Professor Dillip K. Chand and group - IoE Center of Molecular Architecture, IIT Madras, India.**

A pair of conjoined trinuclear sub-frameworks in a pentanuclear double-cavity discrete coordination cage

In line with our “Tryst with MCDCC” (Multi-cavity Discrete Coordination Cages), we reveal here an architectural adventure undertaken at molecular level *via* integrative self-sorting of Pd(II) and designer organic ligands. Ever since we introduced a pair of conjoined dinuclear sub-frameworks in the form of a Pd<sub>3</sub>L<sub>4</sub> type trinuclear double-cavity Pd(II)-based cage, we had a dream of conjoining a pair of trinuclear sub-frameworks too. A decade past the Pd<sub>3</sub>L<sub>4</sub>, enters the awaited Pd<sub>5</sub>L<sub>4</sub>L'<sub>4</sub> type pentanuclear double-cavity Pd(II)-based cage; also, the lower symmetry version of the mixed ligated cage.

Two Lotus Flowers by Pixabay, Lunar eclipse by Julia Barthold, both *via* Pexels.com.

**As featured in:**



See Dillip Kumar Chand *et al.*,  
*Chem. Sci.*, 2024, **15**, 11287.