



Invité par l'Assemblée du Collège de France,
sur proposition du professeur Louis Fensterbank

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PROFESSEUR AU TOKYO COLLEGE

Coordination Self-Assembly: From Origins to the Latest Advances

CONFÉRENCES EN ANGLAIS

Amphithéâtre Mireille Delmas-Marty — de 11h à 12h

Molecular self-assembly based on coordination chemistry has undergone explosive development in recent years. Since 1990, our research has demonstrated that the simple combination of the geometry of transition metals (typically, the 90-degree coordination angle of a Pd(II) center) with organic bridging ligands enables the quantitative self-assembly of nano-sized, discrete organic frameworks. Representative examples include square molecules (1990), linked-ring molecules (1994), cages (1995), capsules (1999), and tubes (2004), all of which are self-assembled from simple and small components. Building upon these earlier works, the lectures at the Collège de France will focus on the two topics disclosed below.

Vendredi 12 septembre 2025

Part 1: Molecular Confinement Effects
in Coordination Cages

Jeudi 18 septembre 2025

Part 2: Crystalline Sponge Method

Illustration : X-ray structure of M48L96 complex.