

Special Issue

Self-Assembly of Atomically Precise Nanoclusters: From Irregular Assembly to Crystalline Assembly

Message from the Guest Editor

The persistent efforts toward achieving superior properties for assembled nanoscale particles have been held back due to the resulting polydispersity associated with colloidal routes of synthesis. A solution to this limitation seems to have emerged from the advent of ligand protected atomic clusters. In this case, the ligands stabilizing the clusters are highly reactive in nature and thus provide a facile avenue for the “ligand-mediated spatial organization of nanoclusters”. Thus, a dispersion of atomic clusters typically constitutes of structurally and chemically related species. Hence, the perusal of chemical reactions toward achieving complex nanostructures in a controllable manner could yield self-assembled nanoclusters with multiple functions and collective properties, widening their application potential.

The Special Issue “Self-Assembly of Atomically Precise Nanoclusters” is intended to provide a unique forum aimed at covering a broad description of the approaches developed for assembling atomically precise clusters into higher ordered structures in various dimensions.

Guest Editor

Dr. Rodolphe Antoine

Institut Lumière Matière UMR 5306, Université Claude Bernard Lyon 1,
CNRS, Univ Lyon, F-69100 Villeurbanne, France

Deadline for manuscript submissions

closed (30 June 2023)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
nanomaterials@mdpi.com

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano–alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science, University of
Birmingham, Birmingham B15 2TT, UK

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