

Special Issue

Single Atom Catalysts on Carbon-Based Materials

Message from the Guest Editor

Most catalytic processes are heterogeneous in nature, and often rely on the use of transition metal particles dispersed on high surface area supports. Faced with the rarefaction of noble metals and, more generally, with the toxicity of certain metals, one approach consists in limiting their use to the strict minimum by using single metal atom catalysts. Such an approach can also induce new reactivity's in comparison with that of metal particles. A second is to eliminate their use by developing a catalysis without metals. Carbonaceous materials lend themselves perfectly because of their rich surface chemistry to both approaches. They can on the one hand serve as support for isolated metal atoms, but also be doped with a number of heteroatoms, which gives them a catalytic activity. Submissions to this Special Issue on "Single Atom Catalysts on Carbon-Based Materials" are welcome in the form of original research papers that reflect the state of research in the field on the following topics:

Preparation, characterization, modeling studies and reactivity studies of single metal atom catalysts and doped carbon (nano)materials.

Guest Editor

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