

Ben-Gurion University of the Negev Blaustein Institutes for Desert Research

The Swiss Institute for Dryland Environmental and Energy Research Alexandre Yersin Department of Solar Energy and Environmental Physics

A place where everyone matters – interfaces in functional nanostructures

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Abstract:

Although nanostructures contain tenths of thousands of atoms, the atoms at the interfaces make most of the impact on the functionality, especially regarding the catalytic activity. It is therefore an important mission to control the formation of interfaces at the atomic scale, but that is easier said than done. First, it is hard to characterize and understand what was obtained in the synthesis. Then, relating the specific structures to the macroscopic properties requires overcoming issues of adequate sampling and statistics, reproducibility to the atomic scale features and abundance of similar structures within a synthetic batch. Last, there are confusing cases where we synthesize a certain structure to best of our knowledge and spontaneous rearrangements produce other active particles. Here, I will present a few such cases.

Date & Location:

Tuesday, December 1, 2020, 11:00

Zoom meeting