# Special Issue

# Electronic Structure, Properties and Application of Novel Materials

### Message from the Guest Editor

Over the past two decades, novel nanosized materials have been proposed at an increasing rate. Ultrathin films, heterostructures, and nanostructured heterojunctions are continuously investigated as the building blocks for future devices; notable examples are 2D electron gas at insulator interfaces, applied to all-oxide electronics, carbon nanotubes/silicon hybrid junctions and organic perovskites applied to photovoltaics, as well as nanostructured oxides for gas sensing.

In the long run, a good theoretical framework is required to make solid progress. In particular, the functionality of these devices is dependent on their electronic structure, which can be simulated with many theoretical frameworks and can be investigated through a number of experimental methods. The most direct probe is photoelectron spectroscopy, since its spectra can be directly related to the structure of occupied electronic states; several other techniques can be applied as well, ranging from synchrotron techniques to local probes such as scanning tunneling spectroscopy. Hopefully, a good combination of experimental data and theoretical modeling will strengthen our understanding of nanosized systems.

### Guest Editor

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### Deadline for manuscript submissions

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## Message from the Editor-in-Chief

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