



Vacuum Nanoelectronics: Components and Devices

Guest Editor:

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Message from the Guest Editor

Dear colleagues,

A few decades ago, vacuum electronics were synonymous with tube amplifiers but with the advent of nanoelectronics, it has entered many diverse fields related directly or indirectly to the phenomenon of tunneling and field electron emission. Nowadays, electron nanoemitters are routinely used in many forms of microscopy, especially Field Emission Microscopy, while nanoemitters form integral parts of present-day lithography equipment. Furthermore, in our energy-saving clean world, thermoelectric energy converters which rely on field electron emission have acquired a significant role in vacuum nanoelectronics. On the other hand, X-ray and display technologies continue to rely on vacuum nanoelectronic sources, whereas the latter have found new applications in, for example, THz technology, the vacuum transistor, and even the propulsion of future spacecraft. This issue invites researchers to submit original articles and review papers on (but not limited to) the fabrication, characterization, theory and use of the above devices, including the theory of the newly developed and highly relevant attosecond spectroscopy.





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Message from the Editor-in-Chief

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