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Synthesis and Characterization of Thin Films for Optoelectronic Applications

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Message from the Guest Editor

Plasma treatment of the nanostructured surface of thin films has increasingly attracted the attention of scientists and technologists due to the high surface-to-volume ratio and related size effects. The surface and size effects impose challenges for energy conversion or sensing applications, i.e., in solar cells, optoelectronic devices, gas sensors, or electrochemical energy storage. The plasma modification of surfaces by plasma processing provides further adjustment of properties for applications, for example, in bio-sensing. The hybrid metal/semiconductor or hybrid inorganic/organic nanoparticles, including core-shell, Janus, dumbbells, and others, offer new multi-functionality due to the synergy between the involved components. In this Special Issue, modern trends of plasma-assisted surface treatment, including the processing fundamentals and optimization of final product properties, are highlighted and discussed.



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Special Issue



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Message from the Editor-in-Chief

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