



## Epitaxial Thin Films: Properties and Applications

Guest Editor:

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### Message from the Guest Editor

Epitaxial growth of thin films of materials has played a crucial role in a wide range of applications in electronics, optoelectronics, and magneto-optics. Among the various epitaxial growth techniques, liquid-phase epitaxy (LPE), metal organic chemical vapor deposition (MOCVD) and molecular beam epitaxy (MBE), and most recently low temperature atomic layer epitaxy (ALEp) have been developed to deposit epitaxial films. These epitaxial films find a variety of applications in electronic, magneto-optic, optoelectronic, superconducting, ferroelectric, and pyroelectric and numerous other devices. These epitaxial growth techniques are also used to produce multilayer structures or superlattices with atomic-layer control, which is fundamental to nanoscale engineering. Suitable combinations are needed in microelectronics, optoelectronics, solar cells, thermophotovoltaics, thermo-electric, semiconductor electrochemical devices, magnetic/magneto-optical devices, and microelectromechanical systems. This Special Topic on Epitaxial Growth of Thin Films and Applications highlights the forefront of research in this interdisciplinary area spanning physics and material science.





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