



Crystal Growth of III–V Semiconductors

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Message from the Guest Editors

Dear Colleagues,

III–V semiconductors are binary, ternary, quaternary, quinary (and so on) alloys, containing elements from groups III (Al, Ga, In, B, and Tl) and V (N, P, As, Sb, and Bi) in the periodic table. They are widely applied in high-performance optoelectronic and electronic devices due to their superior electronic and optical properties.

The epitaxial growth of III–V semiconductors is fundamental to these devices; high single-crystal quality, atomic-layer-scale controllability, and mass productive ability are provided by the utilization of metalorganic chemical vapor deposition, molecular beam epitaxy, liquid phase epitaxy, hydride vapor phase epitaxy, and others. Phosphides, arsenides, nitrides, and antimonides are making exciting breakthroughs. Coherent growth is the growth mode of compound semiconductor thin films, and the lattice mismatch between substrates and epitaxial layers fundamentally restrains the crystal quality.

This Special Issue entitled “Crystal Growth of III–V Semiconductors,” offers researchers in the field of III–V compound growth the opportunity to present new approaches.





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Message from the Editor-in-Chief

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