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## **Growth and Properties of Epitaxial Films**

- Electronic and optical properties of impurity semiconductors, dilute bismides and nitrides
- Surface morphology: continuum growth models using rate equations, kinetic Monte Carlo simulation and experiments on epitaxial films
- Oxide epitaxy ( $\text{Y}_2\text{O}_3$ )
- MBE growth technology, including surfactant growth, in-situ monitoring, plasma source design
- Light sources for medical imaging and biophotonics
- Coherent soft x-ray scattering, speckle