

**Simulation**

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**Simulation models**

## Continuum Approach

- Hydrodynamics (CVD, ALD)
- Viscoelasticity (CMP, stress)
- Electrodynamics (Interconnect systems)

## Atomistic Approach

- Ballistic Transport (PVD, interconnect)
- Molecular dynamics (PVD, CVD)

## Quantum Mechanical Approach

- Tight-Binding
- Density functional theory
- Electronic transport
- Quantum chemistry

**Simulation tools**

- CFD-ACE+
- Sentaurus Process, T2, Mesa
- Ansys, T2
  
- T2, Sentaurus Process/Device, SRIM, Tridyn-FZR
- Kalypso, Materials Studio
  
- In-house software solutions
- DFTB, SIESTA, Materials Studio, Atomistix
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- Materials Studio