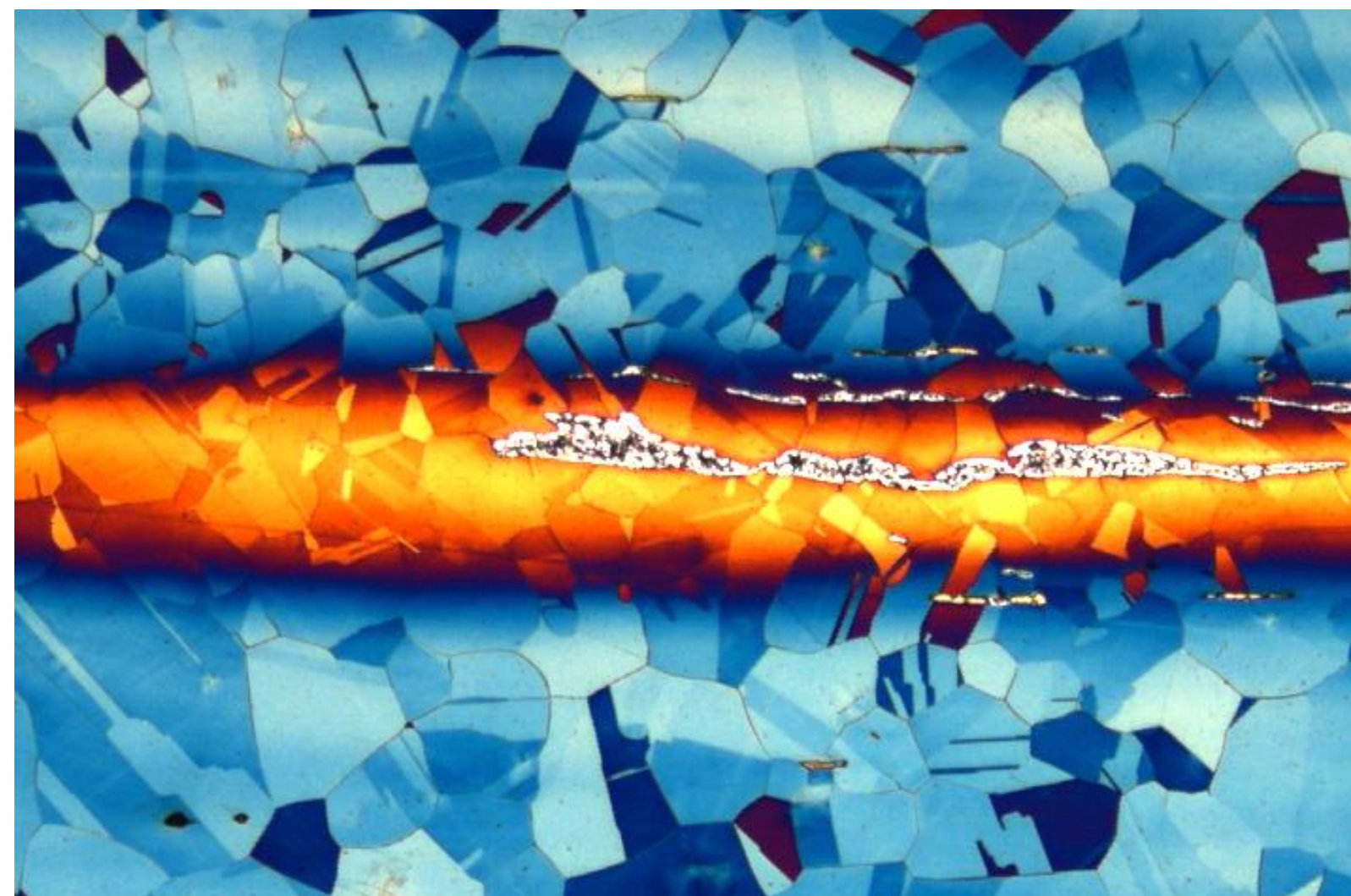


Fields of Competence

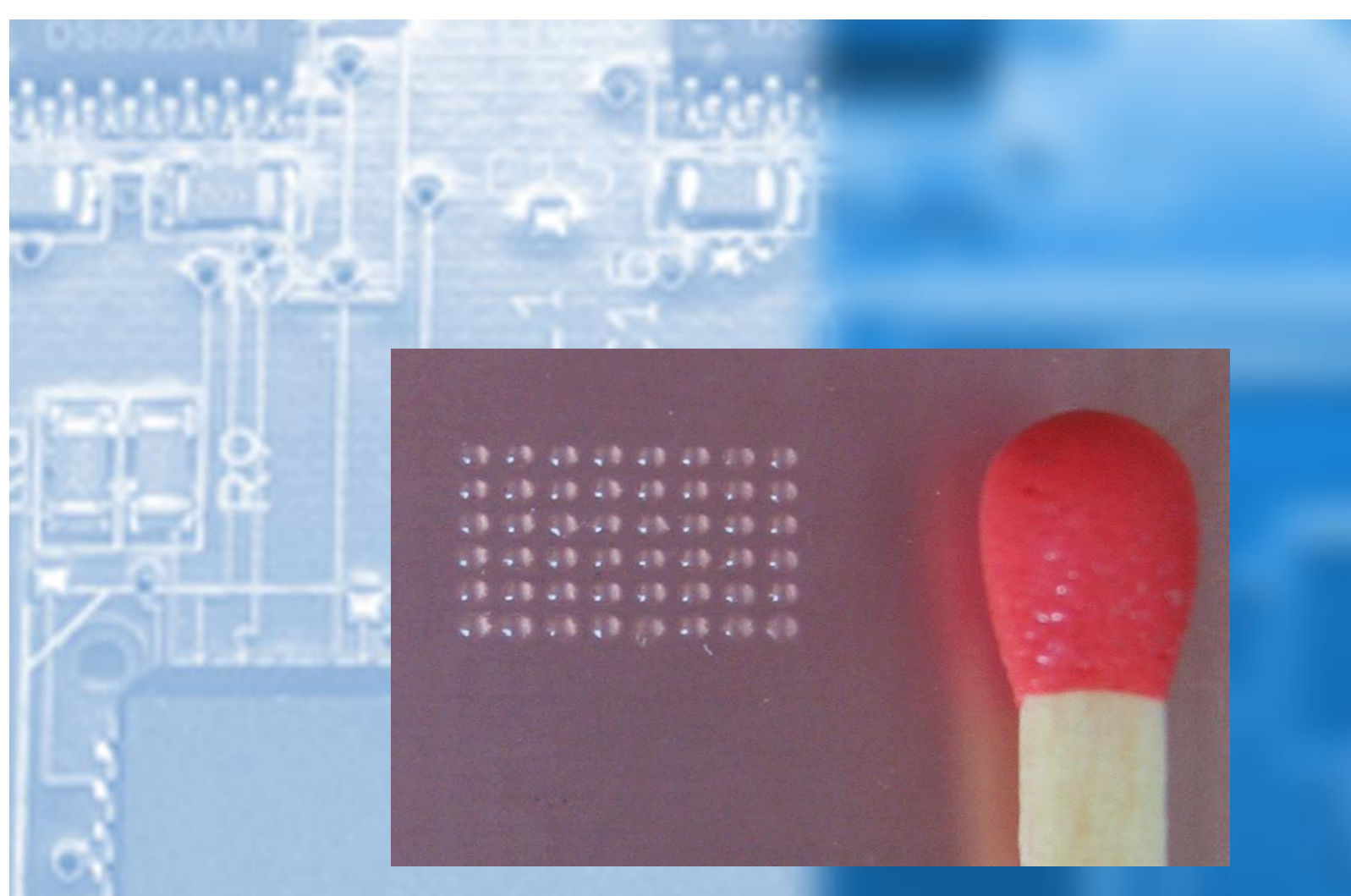
Adhesive Bonding and Mechanical Joining



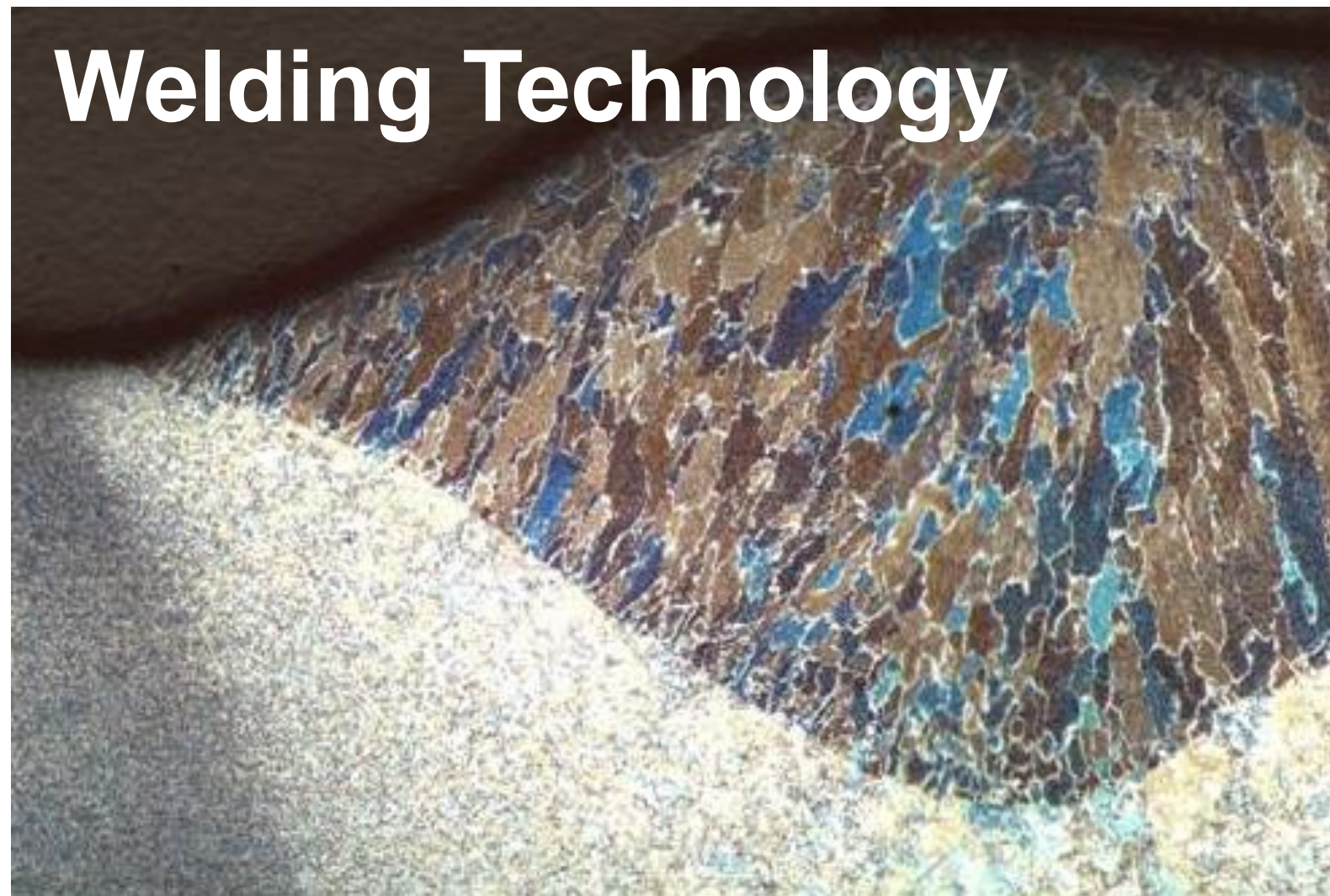
Materials and Material Analysis



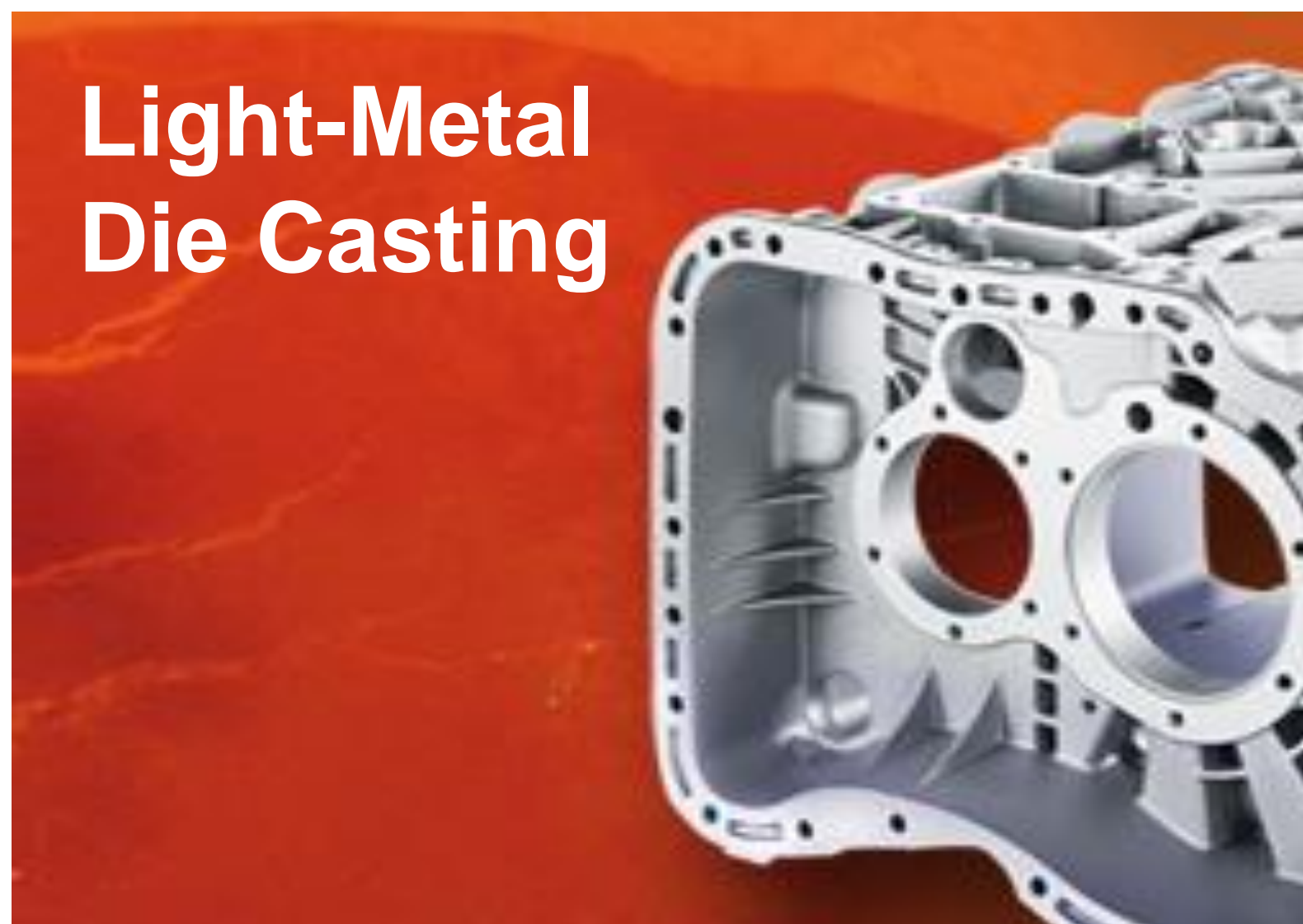
Micro Joining and Electro-Mobility



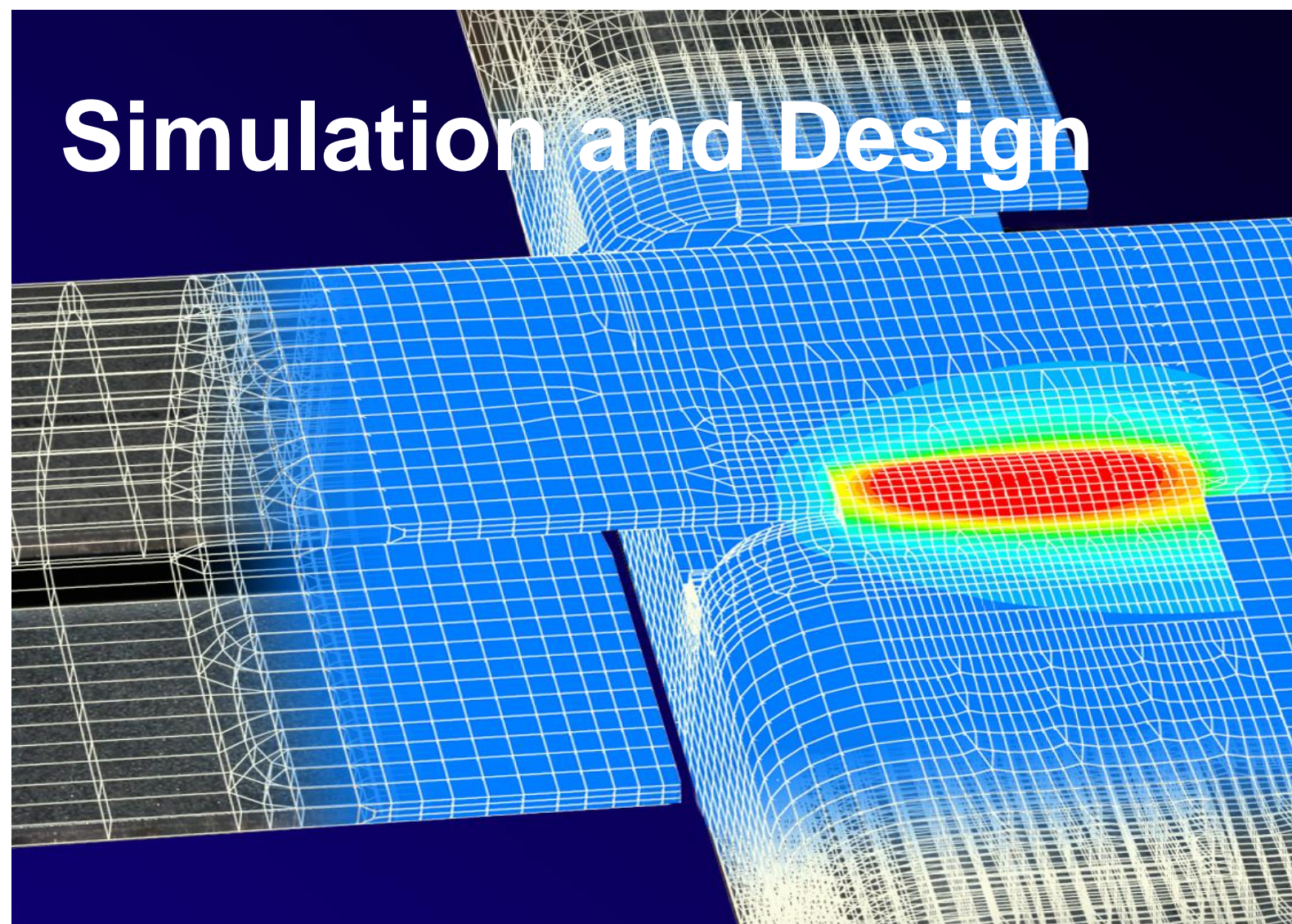
Welding Technology



Light-Metal Die Casting



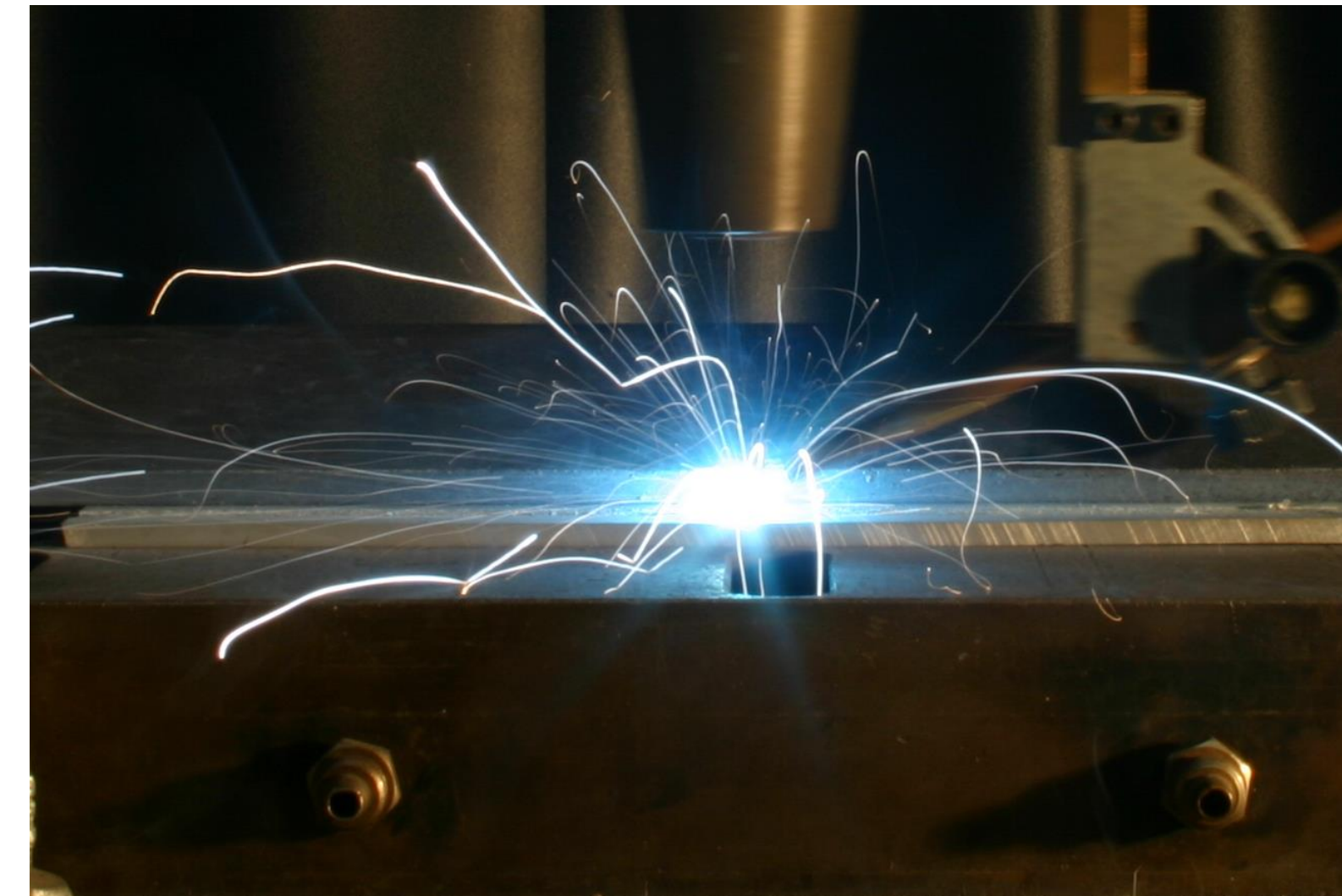
Simulation and Design



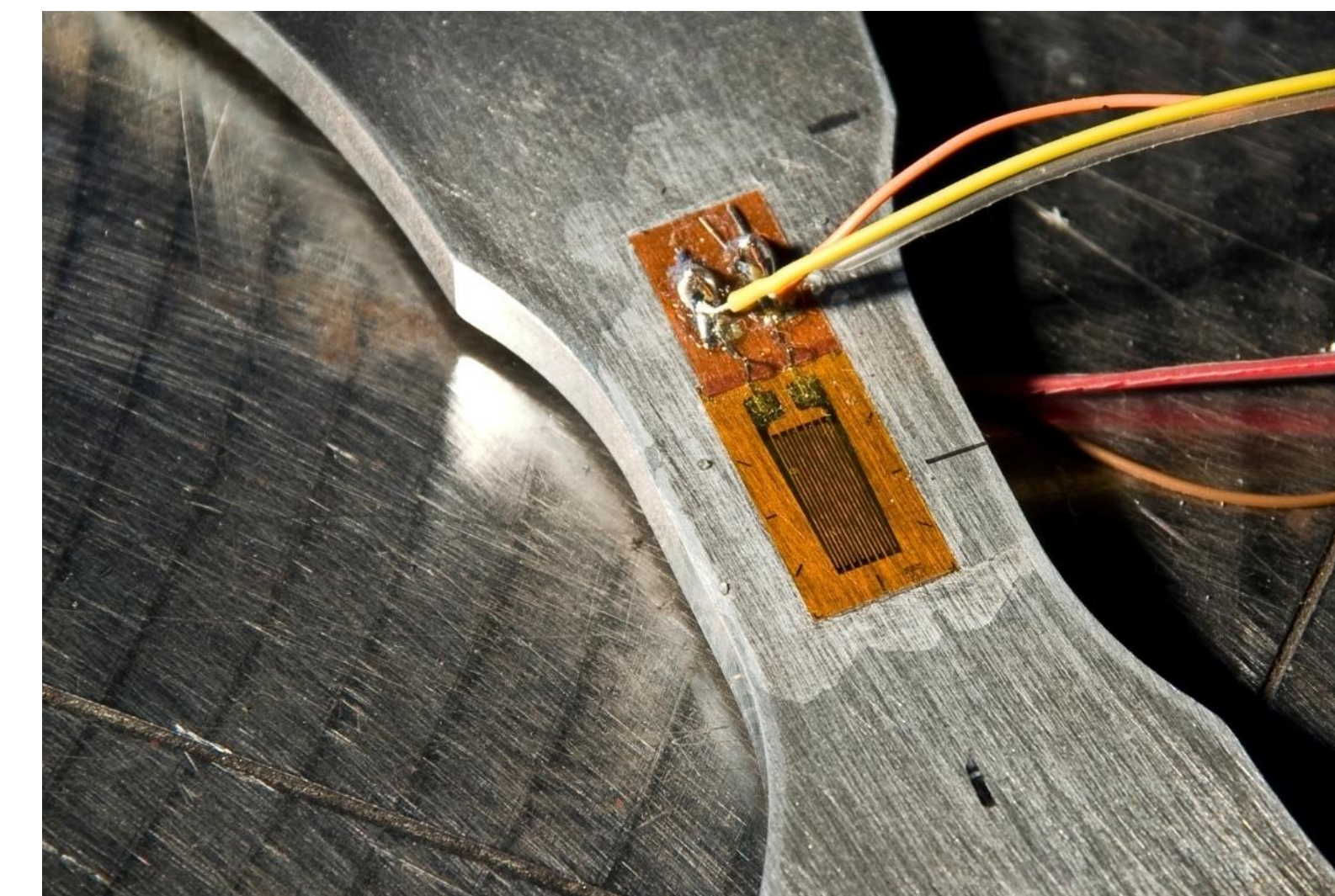
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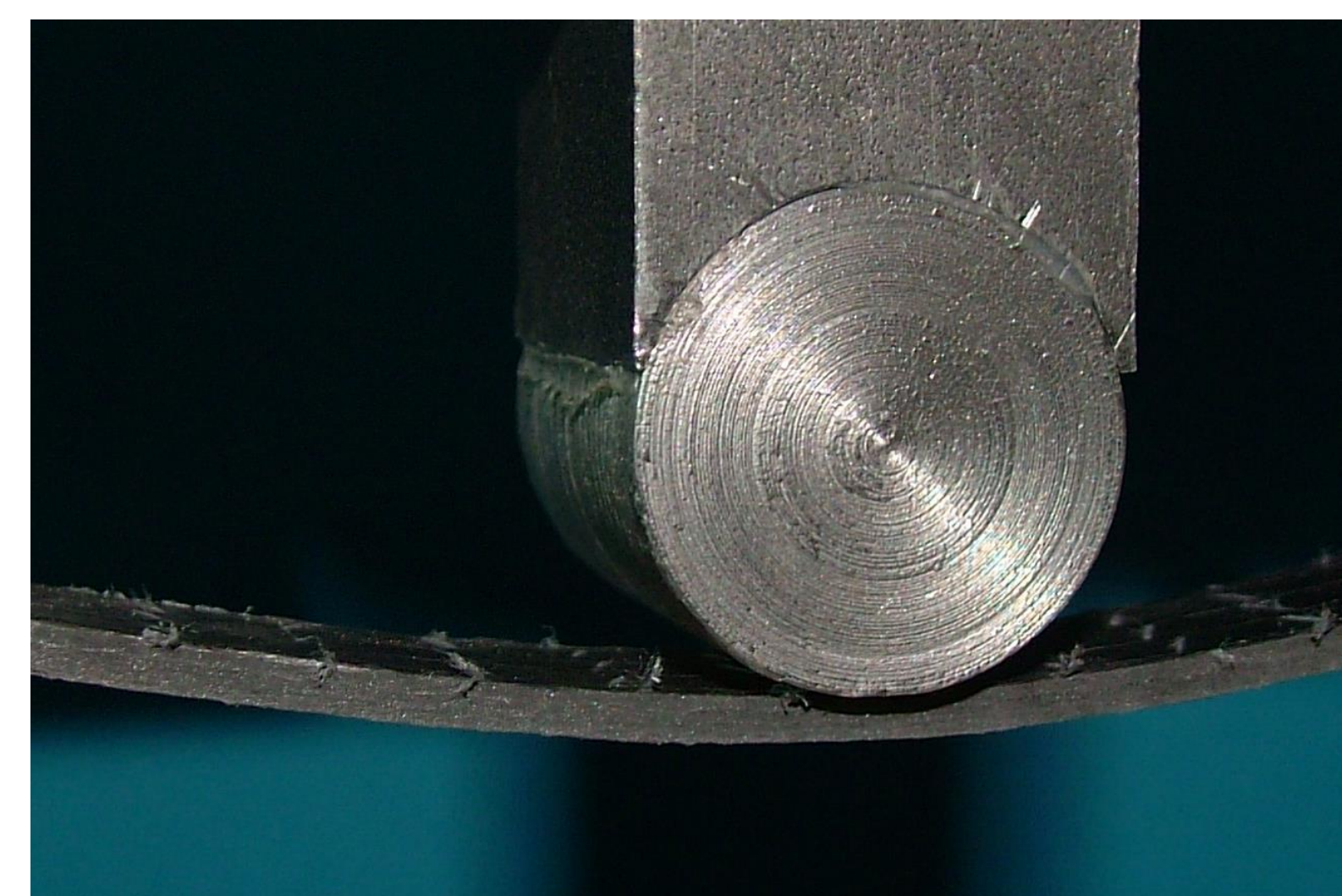
Laser and Electron Beam Welding



Strength and Component Behavior



Composite Technologies



Core Research Areas

Range of Activities

- Structural or semi-structural bonding
- Hybrid joining
- Material analysis
- Damage analysis
- Micro adhesion
- Micro-electron- and micro-laser welding
- Metal-Inert-Gas (MIG)
- Wolfram-Inert-Gas (WIG)
- Testing of weldability of aluminum die-casted parts
- Research into lifetime optimization
- Energy balance
- Structural simulation
- Material strength concepts
- Electron beam and laser welding
- Laser hybrid welding
- Residual stress analysis
- Fatigue testing
- Impact behavior of joints
- CFRP process chain
- Process and production planning