MAJOR APPLICATIONS

Electronics and microsystem technologies:
- Si-based semiconductor IC technologies (CMOS, BICMOS, HV CMOS)
- Optoelectronics and HF electronics
- Power electronics
- Organic electronics
- Microelectronics packaging
- Advanced 3D System Integration
- Interconnecting materials for photovoltaics (cooperation with Fraunhofer CSP)
- MEMS and actuators
- Sensor materials

Nanotechnologies:
- Pigments and nanoparticles
- Optical coatings
- Nanostructured glasses, ceramics and glass ceramics
- Selected health care materials

CONTACT US

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Within semiconductor packaging and system integration, semiconductor chips are electrically interconnected to their environment, encapsulated for protection and assembled onto substrates forming either electronic components, modules, board assemblies or even complex 3D integrated microsystems and subsystems. The designs, process steps and materials used in packaging significantly affect the reliability properties of the complete system.

CAM provides a comprehensive workflow of physical failure analysis and material diagnostics ranging from non-destructive testing, high-precision and efficient target preparation to cutting edge electron microscopy, surface and trace analysis, optical and IR spectroscopy as well as mechanical and thermophysical material characterization.

With these activities we assist our partners in detecting, analyzing and consequently preventing potential root causes of defects and failures. In close cooperation with equipment manufacturers we develop new failure analysis-, target preparation- and reliability testing routines and tools.