

4.2 Collaborative Research Center No. 379 : (Sonderforschungsbereich SFB Nr. 379) 01. 01. 1995 – 31. 12. 2006

„Arrays of micromechanical sensors and actuators“

The MEMS research field covers several provinces using different microtechnology methods for the fabrication.

The subject of the SFB deals with the well-defined part of the microsystems research:

“The realization of sensor and actuator arrays consisting of a number of single components”.

Thus, results concerning the behavior and new application fields of the devices would be expected. As a vision of the future it is aimed toward a system which combines the arrays with the electronics by microtechnology integration.

Within the focus of interest are the following topics:

- Micromechanical scanning devices (actuators fabricated in bulk and surface micromachining)
- Use of micromechanical basic components, e.g. for ultrasonic arrays and positioning systems, including the application of new materials
- Optimization of the AIM process flow

The following institutions are working together

Faculty of Electrical Engineering and Information Technology

Chair Microsystems and Precision Engineering, Prof. Dr. Wolfram Dötzel

Chair Electronic Devices, Prof. Dr. Gunter Ebest

Group Material Science, Prof. Dr. Joachim Frühauf

Chair Microtechnology, Prof. Dr. Thomas Gessner

Chair Measurement and Sensor Technology, Prof. Dr. Wolfgang Manthey

Chair Circuit and System Design, Prof. Dr. Dietmar Müller

Chair Opto- & Solid-State Electronics, Prof. Dr. Christian Radehaus

Faculty of Natural Science

Chair Semiconductor Physics, Prof. Dr. Dietrich R. T. Zahn

Chair Solid Surfaces Analysis, Prof. Dr. Michael Hietschold

Faculty of Mechanical Engineering

Institute for Print and Media Technology, Prof. Dr. Arved C. Hübler

Fraunhofer Institute „Reliability and Microintegration“, Branchlab Chemnitz

Head of the Institute: Prof. Dr. Bernd Michel

Institut für Mechatronik e.V. Chemnitz, Prof. Dr. Peter Maißer