International conference on wafer bonding for MEMS technologies and wafer level integration

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WaferBond'15, the international conference on Wafer bonding for MEMS technologies and wafer level integration took place in Braunschweig, Germany organized by an international Organizing Committee and hosted by Fraunhofer IST, the Technical University of Braunschweig-Institute for Surface technologies (IOT) and INPLAS Network of competences 7th–9th December 2015. It was the seventh event in a row and attracted almost 100 researchers from science and industry. The attendees came from over 12 countries worldwide, e.g. USA, Japan, China, and European countries. From 43 contributions 29 oral presentations and 19 posters were shown. Every session was introduced by an excellent keynote presentation, held by experts on the field of wafer bonding. The presentations and posters covered the following issues: direct silicon bonding at low and high temperatures, metal to metal thermo-compressive bonding (with and without solder), glass frit bonding or adhesive bonding and issues like integration of wafer bonding into industrial fabrication processes for MEMS, reliability tests, 3D-Integration, wafer bonding equipment, markets and trends.

The conference series is focused on industrial components, integration of wafer bonding into MEMS fabrication, process developments of wafer bonding techniques and

addresses quality and reliability issues as well. Next to the state of the art in science presented by research organizations and universities also the industrial relevance was recognized by global players. Herewith it was shown that wafer bonding techniques are playing a key role for the manufacturing of microsystems or micro-electro-mechanical systems (MEMS) for automotive, communication, medical and life science applications as well as for the wide field of 3D-Integration.

This special issue is a collection extended versions of papers presented at the conference. These papers have been reviewed again, using the usual reviewing process at the Journal of Microsystem Technologies.

We would like to express our gratitude to the authors contributing to this compilation of recent research in the field of wafer bonding for MEMS fabrication. We hope the reader will enjoy the papers in this special issue and will be inspired to contribute to this exiting field.

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