

Guest editorial

The present volume of the Journal of Electroceramics includes the Proceedings of the conference, Piezoelectricity for End Users III. (PIEZO2007), which was organized by the Technical University of Liberec (TUL) on February 7–9, 2007 at the Grand Hotel Zlatý Lev in Liberec, Czech Republic. The meeting was accompanied by the tutorial course Fundamentals of Piezoelectricity held in lecture halls and laboratories of TUL on February 5–6, 2007.

PIEZO2007 conference was the last annual conference organized by the 5th Framework Program POLECER (“Competitive and Sustainable Growth”, contract No. G5RT-CT-2001-05024, EU thematic network entitled “Polar Electroceramics”). POLECER meetings include the previous six annual conferences and numerous work package meetings. For details see the conference Web-page at <http://www.mechatronika.cz/piezo2007/>. These conferences were not only the project’s annual meetings, but also an open European and International forum to present and discuss recent advances in the area of piezoelectric ceramic applications, i.e. basic research, device-oriented research and technology development.

PIEZO2007 attracted 121 participants from 21 countries from Europe, USA, Japan and Korea. About one quarter of the participants was affiliated to companies. Keynote lectures were presented by specialists, mostly in the field of practical piezoelectric ceramic applications like actuators, resonators and sensors. Participants presented 9 invited and 22 oral contributions in plenary session and about 60 posters in poster session. Despite many interesting contributions presented at the meeting, these Proceedings include only 10 accepted papers covering thin film technology and devices, processing, measurement methods, fundamental phenomena and modeling.

The most populated thematic sessions included: thin films, their processing technology, property characterization and applications; lead-free piezoelectric ceramic materials, their processing, structure and material properties characterization; energy conversion and vibration control; multifunctional phenomena (e.g. magnetoelectric effect); new phenomena (e.g. flexoelectric effect) and many types of piezoelectric sensors and actuators for various device applications – e.g. piezoelectric lock, print-head, ultrasensitive microcantilever mass sensor, transformer, miniaturized ultrasonic motor, piezoelectrically driven fan, ultrasound liquid atomizer for active agent deposition etc. Most contributions were presented within the scope of

practical applications and some of them are already available commercially on a customer-designed basis.

The conference attracted the attention of numerous companies – aixACCT Systems GmbH, Germany; APC International, Ltd., USA; Ferroperm Piezoceramics A/S, Denmark; Noliac A/S, Denmark; Piezoceram, s.r.o., CZ; PI ceramic, Germany; Siemens VDO, CZ; Robert Bosch GmbH, Germany; RESON A/S, Denmark; IXSEA, France; Tesla Stropkov, a.s., Slovakia; Aura, a.s., CZ; Xaar Technology Ltd., UK; Servocell, Ltd., UK; CEDRAT Technologies, France; Treibacher Industrie AG, Austria; SINTEF, Norway; Inostek Inc., Korea; LUSI-GIP Ultrasons, France; Medical Technologies CZ, a.s., CZ and many others.

Finally, we would like to acknowledge the support from all conference sponsors, especially from the EU Thematic Network program POLECER and namely from Wanda Wolny – POLECER network coordinator. The organizers would like to thank the invited speakers and the authors of oral as well as poster contributions and all attendees for their active participation. Our thanks for help with organization of the meeting go also to all members of the local organizing committee.

Jiří Erhart, Jan Petzelt
Guest editors
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