

AGENDA

Thursday, October 20, 2016

SAW
Symposium
2016

Surface
Acoustic
Wave
Sensor &
Actuator
Symposium

October 20 - 21 | Dresden, Germany

09:00 REGISTRATION

10:00 Introduction Hagen Schmidt | SAWLab Saxony
Welcoming speech Robert Franke | City of Dresden

Design, concepts and materials for SAW-based sensors and actuators | Chair: R. Fachberger

10:15 High-temperature stability of langasite-type piezoelectric crystals Holger Fritze | TU Clausthal

10:30 Packageless WLAW devices based on Al₂O₃/Pt/GaN/Sapphire structure for high temperature applications Florian Bartoli | Laboratoire LMOPS, CentraleSupélec - Université de Lorraine

10:45 A new approach for SAW sensor design on high permittivity materials: application to high temperature sensors Sebastien Alzuaga | Sensor

11:00 High temperature stability of Ir-Rh thin films for SAW sensors Amine Taguett | Laboratory SYMME University of Savoie

11:15 Tungsten/molybdenum metallization thin film materials for SAW-based temperature sensor devices Gayatri Rane | IFW Dresden

11:30 Langasite family crystals: material properties at extreme temperatures Andrei Sotnikov | IFW Dresden

11:45 High temperature, high frequency, passive wireless sensing using a multimode strontium titanate resonator Taimur Aftab | University of Freiburg, IMTEK

12:00 LUNCH

SAW-based actuators, atomizers and microfluidics (I) | Chair: A. Neild

KEYNOTE

13:30 Flexible and transparent surface acoustic wave based sensors and microfluidics Jack Luo | University of Bolton

14:00 Highly focused acoustic fields for single particle level manipulation David Collins | Singapore University of Technology and Design

14:15 Pattern Deposition on an Ultrasonic Actuator Ofer Manor | Technion – Israel Institute of Technology

14:30 Simulation of high-frequency pressure produced by SAWs in microchannels Alexander Darinskii | Institute of Crystallography, RAS

14:45 Compact SAW-based aerosol generator Andreas Winkler | IFW Dresden

15:00 COFFEE BREAK | Group photo

SAW-based actuators, atomizers and microfluidics (II) | Chair: J. Luo

KEYNOTE

15:45 Controlling the behaviour of droplet based microfluidic systems using surface acoustic waves Adrian Neild | Monash University

16:15 Haptic interactions with solid surfaces mediated by surface acoustic waves Gerhard Lindner | ISAT Coburg

16:30 A new kind of SAW-driven piezoelectric stator-free motors Sergey Biryukov | IFW Dresden

18:00 SOCIAL EVENT & NETWORKING DINNER

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08:00 REGISTRATION

Industrial applications and deployments of SAW (I) | Chair: J. Hines

09:00	KEYNOTE Industrial applications of SAW sensors	Rene Fachberger sensideon GmbH
09:30	LWave® - A Laser-Acoustic Device for Characterizing Thin Films and Material Surfaces by Surface Acoustic Waves	Dieter Schneider Fraunhofer IWS
09:45	Fatigue and Aging Testing of SAW Strain Sensors	Victor Kalinin Transense Technologies plc

10:00 POSTER SESSION

Industrial applications and deployments of SAW (II) | Chair: V. Kalinin

11:00	KEYNOTE Practical Factors for SAW Sensor and Tag Deployment	Jacqueline Hines SenSanna Incorporated
11:30	Application of the Continuous Temperature Monitoring (CTM) Algorithm in Metal Rolling	Mykhaylo Yudytskiy sensideon GmbH
11:45	A passive and non-contact temperature measurement system for fast spinning rotors	Daniel Kreuzer TU Berlin
12:00	Wireless interrogation of implantable SAW sensors	Reza Bahmanyar Imperial College London

12:15 LUNCH

SAW sensors for physical, chemical, biological applications and gases | Chair: T. Ostertag

14:00	KEYNOTE Problems and solutions for implanted SAW sensors	Christopher McLeod Imperial College London
14:30	One-Step Rapid Immunosensor using SH-SAW	Hiroshi Yatsuda Japan Radio Co.
14:45	Continuous measurements of methanol concentration of direct methanol fuel cell using a shear horizontal surface acoustic wave sensor	Jun Kondoh Shizuoka University, Graduate School of Science and Technology
15:00	Detection of Durene Content in Biofuels Using a Surface Acoustic Wave (SAW) Sensor Array	Michael Rapp Karlsruhe Institute of Technology (KIT)
15:15	SAW based microfluidic phononic crystal sensor	Aleksandr Oseev IMOS, Otto-von- Guericke University Magdeburg
15:30	GHz operating GaN based SAW resonators for pressure and temperature sensing	Alexandru Müller IMT - Bucharest
15:45	High Temperature Gas Sensing with LGS SAW Devices	Gudrun Bruckner CTR AG

16:00 CLOSING OF SYMPOSIUM

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POSTER SESSION

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DESIGN, CONCEPTS AND MATERIALS FOR SAW-BASED SENSORS AND ACTUATORS

P 1	Temperature Compensated Structure for Surface Acoustic Wave Biosensors	Hong-lang LI Institute of Acoustics, CAS
P 2	Chemical etching of Tungsten thin films for high-temperature surface acoustic wave-based sensor devices	Mario Spindler IFW Dresden
P 3	Multiband SAW Tag for RFID Systems with Unlimited Anticollision	Viktor Nikolaevtsev Saratov State University
P 4	Investigation of a SAW temperature sensor with low longitudinal strain sensitivity	Hugo Chambon CTR AG
P 5	RuAl as a high temperature stable metallization for Surface Acoustic Wave devices	Marietta Seifert IFW Dresden
P 6	Platinum Wire Bonding for High-Temperature Sensor Applications	Daniel Ernst TU Dresden
P 7	Local Temperature Determination on SAW Structures using Raman Spectroscopy	Siegfried Menzel IFW Dresden

SAW SENSORS FOR PHYSICAL, CHEMICAL, BIOLOGICAL APPLICATIONS AND GASES

P 8	Surface Acoustic Wave Sensors based on a SnO ₂ nanoporous film deposited by pulsed laser deposition method for H ₂ S detection	Cristian Viespe National Institute of Laser, Plasma and Radiation Physics
P 9	Acceleration of electrochemical processes by acoustic waves	Sabrina Tietze ISAT Coburg

SAW-BASED ACTUATORS, ATOMIZERS AND MICROFLUIDICS

P10	Energy efficient operation of SAW based microfluidic actuators	Robert Weser IFW Dresden
P11	Measurement of the particle velocity and temperature distributions in a SAW-driven fluid flow	Jörg König IFW Dresden

INDUSTRIAL APPLICATIONS AND DEPLOYMENTS OF SAW

P12	Measuring and Visualizing Surface Wave Propagation on SAW Devices by Laser-Doppler Vibrometry	Heinrich Steger Polytec GmbH
P13	SAW Wireless Temperature Sensors for Electric Cable Joints	Chenrui Zhang Shanghai Jiao Tong University
P14	Contact-Less Laser-Based Ultrasound Measurement of Surface Acoustic Waves	Ferdinand Singer ISAT Coburg

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EXHIBITORS

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BelektroniG
Brünig & Guhr Elektronik

creavac

 **Fraunhofer**
IWS

 MEYER BURGER

 **Polytec**

 **scia systems**

 **SAW**
components

NGK | **NTK**
SPARK PLUGS | TECHNICAL CERAMICS
NGK SPARK PLUG EUROPE GmbH

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