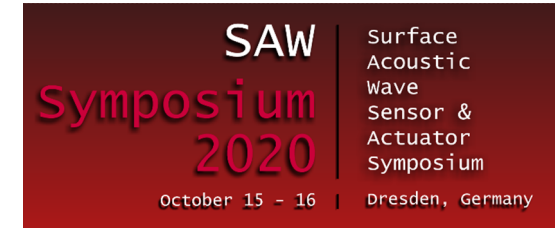


SAW Sensor & Actuator Symposium 2020. Live in Dresden. Followed from all over the world.

October 15+16, 2020 in Dresden, Germany - organized by SAWLab Saxony, Silicon Saxony, SAW Components

SAW Symposium 2020 topic areas:	
I:	Design, concepts and materials for SAW-based sensors and actuators
II:	SAW sensors for physical, chemical, biological applications and gases
III:	SAW-based actuators, atomizers and microfluidics
IV:	Industrial applications and deployments of SAW



SAW Symposium 2020 Program

Thursday, October 15, 2020

08:30 Registration (with coffee)

10:00 **Opening** Hagen Schmidt SAWLab Saxony

10:10 *Session 1: Design, concepts and materials for SAW-based sensors and actuators*

10:10	Metallization Systems for High Temperature Surface Acoustic Wave Sensor Devices	Marietta Seifert	IFW Dresden	I
10:30	Temperature measurement and position with wireless SAW sensors on Piezoelectric-On-Insulator substrates	Gabrielle Aspar	Frec n sys	I
10:50	Advanced ferroelectric Li(Nb,Ta)O ₃ crystals: growth, structure, and acoustic properties	Dmitry Roshchupkin	Inst. of Microelectr. Techn. and High-Purity Materials; RAS	I
11:10	Surface Acoustic Wave resonators for Wireless Sensor Network applications in the 433.92 MHz ISM band	Evangelos Moutoulas	University of Southampton	I
11:30	Development of a ceramic based packaging concept for sensors up to 600 °C	Lars Rebenklau	FhG IKTS	I

12:00 Lunch

13:00	Session 2: Design, concepts and materials for SAW-based sensors and actuators			
13:00	Simulation of AlScxN Thin film SAW devices	Sergio Gutierrez	IMTEK- University of Freiburg	I
13:20	SAW Tags with the Layered Structure of SiO ₂ /Al/LiNbO ₃ for High Temperature Application	Ruchuan Shi	Shanghai Jiao Tong University	I
13:40	Optimization of LiNbO ₃ based SAW sensors for high temperature applications	Jordan Maufay	Université de Lorraine	I

14:00	Session 3: SAW-based actuators, atomizers and microfluidics (part I)			
14:00	Numerical and experimental consideration of acoustic wave propagation in liquid/glass/liquid/piezoelectric structure for digital microfluidic systems	Jun Kondoh	Shizuoka University	III
14:20	Volumetric velocity and temperature measurements in SAW-based microfluidic devices	Jörg König	TU Ilmenau	III
14:40	Standing surface acoustic wave (sSAW) nebulization at controlled air humidity	Mehrzad Roudini	IFW Dresden	III

15:00 Coffee break

15:20	Session 3: SAW-based actuators, atomizers and microfluidics (part II)			
15:20	KEYNOTE: A fourth type of acoustic streaming mechanism supports the dynamic wetting of nanochannels in the presence of surface acoustic waves	Ofer Manor	Technion - Israel Institute of Technology	III
16:00	Surface Acoustic Wave (SAW) based Acoustofluidic Blood Cell Sorting	Melanie Colditz	IFW Dresden	III
16:20	In vitro Rayleigh-SAW stimulation of osteoblasts	Denis Beyssen	Institut Jean Lamour , Université de Lorraine	III
16:40	Role of Diffraction in Surface Acoustic Waves Driven Microfluidic systems	Armaghan Fakhfour	IFW Dresden	III

17:00	Session 4: Industrial applications and deployments of SAW			
17:00	KEYNOTE: Harsh Environment Applications of Passive SAW Sensing	Joseph Iannotti	GE Global Research Center	IV

19:00 Social event & Networking dinner (details t.b.a.)

Friday, October 16, 2020

08:00 Registration

09:00

Session 5: Industrial applications and deployments of SAW

09:00

Investigation of wireless propagation for industrial application of SAW sensors near metallic structures

Niels Neumann

TU Dresden

IV

09:20

Automotive Test Bench Measurements with SAW Sensor Systems

René Fachberger

sensideon GmbH

IV

09:40

KEYNOTE: SAW Temperature Measurement in Laboratory Applications

Daryl Williams

Surface Measurement Systems Limited

IV

10:20 Session 6: Poster presentation & Industrial Exhibition with coffee

11:20

Session 7: SAW sensors for physical, chemical, biological applications and gases

11:20

KEYNOTE: Magnetic sensors at SAW: state of the art, trends and potential applications

Omar Elmazria

Université de Lorraine

II

12:00

High temperature sensor exploiting hybrid BAW/SAW thin piezoelectric film transducer

Vladimir Pashchenko

Silicon Austria Labs

II

12:20

Sensing Small Magnetic Fields with Surface Acoustic Waves

Viktor Schell

Kiel University

II

12:40 Lunch

14:00

Session 8: SAW sensors for physical, chemical, biological applications and gases (part I)

14:00

SAW sensors for extreme operating conditions

Sergey Sakharov

Ltd Company «BUTIS»; JSC «FOMOS-MATERIALS»

II

14:20

Strain-Engineered K_{0.7}Na_{0.3}NbO₃ Thin Film SAW Sensors for Gas-Phase Deposition Processes and Bio Applications

Roger Wördenweber

Forschungszentrum Jülich

II

14:40 Coffee break

15:00

Session 8: SAW sensors for physical, chemical, biological applications and gases (part II)

15:00

New geometry of SAW stress sensor for differential measurements

Alexandre Clairet

Frec|n|sys

II

15:20

Influence of parasitic modes in SAW resonators on the measurement accuracy of wireless time domain sampling readers

Fabian Lurz

Technische Universität Hamburg

II

16:00 Closing session

10:00

Contributions to Poster Presentation (Session 6, all topics)

A highly controllable of localized surface plasmon resonance using SH-SAW device

Teguh Firmansyah

Shizuoka University

I

Scanning Electron Microscopy and X-Ray Diffraction Study of Surface Acoustic Wave Propagation in LiNbO₃ and LiTaO₃ Crystals

Dmitry Roshchupkin

Inst. of Microelectr. Techn. and High-Purity Materials; RAS

I

Advantages of RFID systems on BAW tags

Viktor Nikolaevcev

Saratov State University

I

SAW-PnC-Sensor

Ralf Lucklum

TU Magdeburg

I

Temperature Measurement Ranges Evaluation of Wireless SAW Resonant Sensors Using Equivalent Circuit Model

Yang Yang

Shanghai Jiao Tong University

I

Acoustic loss in CTGS piezoelectric single crystals

Andrei Sotnikov

IFW Dresden

I

High-temperature stability of electrical and electromechanical properties of LiNb_{0.88}Ta_{0.12}O₃

Yuriy Suhak

Clausthal University of Technology

I

SAW-based 2D single cell patterning: Measurement of position and temperature of trapped particles

Zhichao Deng

TU Ilmenau

III