

## Selective gas sensing with YSZ using dynamic techniques Anastasiya Ruchets defended her doctoral thesis

### Congratulations!

Anastasiya Ruchets defended her doctoral thesis about “Application of solid electrolyte gas sensors based on YSZ for dynamic electrochemical measurements” on Monday, July 18<sup>th</sup>, 2022.

Special thanks to Prof. Dr. Ulrich Guth from the Technical University of Dresden for his support as the second examiner!

The research work for his dissertation was conducted at the Kurt-Schwabe-Institut für Mess- und Sensortechnik e.V. Meinsberg (KSI) in the framework of a joint publicly funded DFG project with the Department of Functional Materials in Bayreuth.

Dr. Ruchets already published several parts of her thesis in peer-reviewed journals.

A. Ruchets, N. Donker, J. Zosel, D. Schönauer-Kamin, R. Moos, U. Guth, M. Mertig:  
CO Gas Detection on Pt|YSZ|Pt Solid Electrolyte Sensors by Methods Based on Dynamic Voltage Variations  
*Journal of The Electrochemical Society*, **168**, 117506 (2021), doi: 10.1149/1945-7111/ac2fc5

A. Ruchets, N. Donker, J. Zosel, D. Schönauer-Kamin, R. Moos, U. Guth, M. Mertig:  
Cyclic and square-wave voltammetry for selective simultaneous NO and O<sub>2</sub> gas detection by means of solid electrolyte sensors  
*Journal of Sensors and Sensor Systems*, **9**, 355-362 (2020), doi: 10.5194/jsss-9-355-2020

A. Ruchets, N. Donker, D. Schönauer-Kamin, R. Moos, J. Zosel, U. Guth, M. Mertig:  
Selectivity improvement towards hydrogen and oxygen of solid electrolyte sensors by dynamic electrochemical methods  
*Sensors and Actuators B: Chemical*, **290**, 53-58 (2019), doi: 10.1016/j.snb.2019.03.063



The evaluation board and the candidate.  
From left to right: Prof. Guth, Prof. Moos, Dr. Ruchets, Prof. Roth, and Prof. Ionov