Oxygen sensor for harsh environments

Murat Bektas defended his doctoral thesis

Congratulations!

Under special restrictions due to corona pandemic, Murat Bektas defended his doctoral thesis about "$BaFe_{(1-x)-0.01}Al_{0.01}Ta_xO_{3-\delta}$: A material for temperature independent resistive and thermoelectric oxygen sensors" on Friday, May 8th, 2020.

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The research work for his dissertation was granted by the German Research Foundation (DFG) and was conducted at the Department of Functional Materials, a member of the Bayreuth Engine Research Center (BERC).

Dr. Bektas already published parts of his thesis in peer-reviewed journals. Examples out of many are:

M. Bektas, T. Stöcker, A. Mergner, G. Hagen, R. Moos, Combined resistive and thermoelectric oxygen sensor with almost temperature-independent characteristics, *Journal of Sensors and Sensor Systems*, **7**, 289-297 (2018), doi: 10.5194/jsss-7-289-2018

M. Bektas, T. Stöcker, G. Hagen, R. Moos, On the defect chemistry of $BaFe_{0.89}Al_{0.01}Ta_{0.1}O_{3-\delta}$, a material for temperature independent resistive and thermoelectric oxygen sensors, *Solid State Ionics*, **316**, 1-8 (2018), doi: 10.1016/j.ssi.2017.12.017

M. Bektas, D. Hanft, D. Schönauer-Kamin, T. Stöcker, G. Hagen, R. Moos, Aerosol-deposited $BaFe_{0.7}Ta_{0.3}O_{3-\delta}$ for nitrogen monoxide and temperature-independent oxygen sensing, *Journal of Sensors and Sensor Systems*, **3**, 223-229 (2014), doi: 10.5194/jsss-3-223-2014

M. Bektas, D. Schönauer-Kamin, G. Hagen, A. Mergner, C. Bojer, S. Lippert, W. Milius, J. Breu, R. Moos, $BaFe_{1-x}Ta_xO_{3-\delta}$ - A material for temperature independent resistive oxygen sensors , *Sensors and Actuators B: Chemical*, **190**, 208-213 (2014), doi: 10.1016/j.snb.2013.07.106

The evaluation board and the candidate in corona-correct distance.
From left to right: Prof. Moos, Prof. Fritze, Prof. Roth, Dr. Bektas, and Prof. Jess