

Seminarium NOMATEN

SEPTEMBER 14th 2021, 13:00-14:30

<https://gotomeet.me/ncbjmeetings/nomaten-seminar>

Tomasz Dudziak PhD DSc Eng. (ŁUKASIEWICZ Kraków Institute of
Technology)

High temperature corrosion and materials coatings

Dr hab. inż. Tomasz Dudziak

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Involved in high temperature corrosion scientific research since 2006. In 2010 graduated University of Northumbria, Computer Engineering and Information Sciences (CEIS), Advanced Materials Research Institute (AMRI), Newcastle upon Tyne, PhD Thesis entitled: *High Temperature Corrosion Behaviour and Interdiffusion Modelling of Coated TiAl Intermetallic in Oxidising and Sulphidising Environments*. The project was related to TiAl based materials protected by different type of coatings developed by PVD - HIPIMS system in order to expose the materials at higher temperatures and more aggressive atmospheres. The work during PhD involved as well modelling studies of the elements that contributes in oxide scale formation at high temperatures. Since 2009 to 2012 he was employed as a Research Fellow in School of Applied Science at Cranfield University, department Centre for Energy and Resource Technologies. Further between 2012 - 2013 he was employed in Surface Engineering and Precision Institute in School of Applied Science. Since 2013 he started employment in Foundry Research Institute at Centre for High Temperature Studies, at 2014 EDF funded project was carried out as a principal investigator. Between 2015 – 2018 he was a principal investigator of the project related to steam oxidation of advanced steels and Ni based alloys at high temperatures for new generation of coal fired power plants.

He is an author and co-author of around 60 papers including conference proceedings, chapter in a book and the monograph entitled Fundamental aspects of high temperature corrosion of steels for coal fired power plants. The studies cover steam oxidation, air oxidation, sulphidation, chlorination, fireside corrosion, pack cementation coating development. In 2016, he became Head of Department in Design and Prototyping Centre at Foundry Research Institute. Finally, since 2018 up to 2020 he was General Director of the Łukasiewicz Research Network – Foundry Research Institute (formerly known as Foundry Research Institute. Currently Łukasiewicz Research Network - Institute – Krakow Institute of Technology. In 2019 he has been awarded Hab. Degree (DSc) from Faculty of Materials Science and Engineering of Warsaw University of Technology.

At the moment, Tomasz Dudziak is a principal investigator in several projects financed by National Research Centre and Development, National Agency for Scientific Exchange and Horizon 2020.