Institute of Engineering Thermodynamics / Electrochemical Energy Technology



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The German Aerospace Center (DLR) cooperates with the Department of Electrochemistry, Corrosion and Materials Engineering in the field of fuel cells research.

As part of our collaboration, a research and development project entitled Control algorithm and controller for increasing the efficiency of hybrid PEMFC systems in different application (COALA) under the Polish-German sustainability research program STAIR funded by NCBR and BMBF was successfully realized. The Department of Electrochemistry, Corrosion and Materials Science took an important part in the project by implementing novel Dynamic Electrochemical Impedance Spectroscopy the main tool for monitoring and diagnostic module of the controller. Developed controller was implemented for a fuel cell system at DLR. The developed methodology is very promising for further development of the fuel cell testing area. Within the project it was proven that efficiency and lifetime of fuel cells can be extended with the proposed hybrid system controller.

We assess the importance of cooperation with Department of Electrochemistry, Corrosion and Materials Engineering very highly, and we are seeking opportunities to continue our collaboration in future projects.

Sincerely

Dr. Jens Mitzel