

## Foreword

Christoph Hartnig

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The slow kinetics of the electrochemical reduction of oxygen still are one of the major causes of losses in low temperature fuel cells. In order to systematically study options for overcoming this problem, the research network 'Efficient oxygen reduction for electrochemical energy conversion—O2RedNet' funded by the German Ministry of Education and Research (BMBF) was started in March 2004 merging the expertise of ten German, two Russian and one Polish research groups.

Groups experienced in understanding mechanistic and preparative aspects of electrocatalysis joined forces to

achieve the main objective of the network, the identification of improved catalysts for fuel cell purposes in terms of cost efficiency and long term stability compared to state-of-the-art solutions. The network activities covered the whole research chain from synthesis of new compounds, characterization in model systems, up to performance tests in fuel cell systems.

The network activities were completed in July 2006; these papers represent the results of the last stage.

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C. Hartnig (✉)  
Solar Energy and Hydrogen Research Centre (ZSW),  
Helmholtzstrasse 8, 89081 Ulm, Germany  
e-mail: christoph.hartnig@zsw-bw.de