



Dr. Volker Brüser

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Dr. Volker Brüser received his PhD in physical chemistry at the University of Greifswald in Germany in 1997. He has been working at the Leibniz Institute for Plasma Science and Technology (INP) in Greifswald since 2002 and became 2006 the head of the department “Plasma Process Technology”.

He is an expert in the development of plasma processes for synthesis and modification of catalysts with a special focus on composites (binary systems) for electrochemical H₂ evolution/conversion, cyclic carbonate synthesis and dry reforming. Electro catalysts as copper-, iron- and cobalt-polypyrrole composites as well as high porous platinum and iridium coatings could successfully be produced with dual PECVD/PVD or co-sputtering processes for fuel cell and electrolyser applications.

His recent activities are dedicated to the microscopic understanding of micro-discharges in plasmas, which requires high time and spatial resolution. A current focus of his research is the development of a plasma catalytical processes for CO₂ reduction, plasma electrochemical N₂ reduction and treatment of biomass.