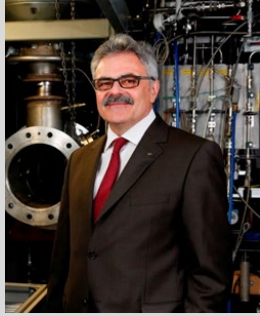


Subtopic 4: Technical Fuel Assessment

Prof. Dr.-Ing. Manfred Aigner



Current positions

Director at the DLR-Institute of Combustion Technology (since 1998) and Professor of Combustion Technology for Aerospace at Stuttgart University, HGF Program Spokesperson for Energy Efficiency since 2002

Previous positions (two selected)

Vice President for Gas Turbine Development, ABB Power Plants, Switzerland (1993-1998),
RR-Power & Propulsion Board, Chair Combustion Working Group (2001-2018)

Scientific degrees

PhD in Mechanical Engineering, University Karlsruhe (1986)
Degree in Mechanical Engineering (Dipl.-Ing.), University Karlsruhe (1980)

Recent research topics

Gas Turbines, Combustion Technology, Emissions, Alternative Fuels

Awards, honors, memberships

ABB Technology Awards 1993 and 1995
EC External Advisory Board for non-nuclear energy (1998 – 2002)
CO₂-Reduction Technology (COORETEC) Advisory Board BMWi (2003-2017)
DLR Senate (2006-2014)
President for Research and Science, aviation initiative for renewable fuels, Germany (aireg, since 2014)
European Turbine Network – Board member since 2018

Publications/Patents (5 most important)

- **M. Hohloch, A. Huber, M. Aigner**, Analysis of Operational Strategies of a SOFC/MGT Hybrid Power Plant, J. Eng. Gas Turbines Power 140, 081703 (2018), [doi:10.1115/1.4038605](https://doi.org/10.1115/1.4038605)
- **M. Aigner**, Development of a FLOX® gas turbine combustor for a wide range of fuels from concept to commercial operation, NexTurbine® 2017, 6th Annual Summit, 17.-18.05.2017, Crowne Plaza Wuxi Taihu, Wuxi, China
- **Eberle, C., Gerlinger, P., Aigner, M.** A sectional PAH model with reversible PAH chemistry for CFD soot simulations, Combust. Flame 179, 63-73 (2017) [doi:10.1016/j.combustflame.2017.01.019](https://doi.org/10.1016/j.combustflame.2017.01.019)
- T. Kolb, **M. Aigner**, R. Kneer, M. Mueller, R. Weber, N. Djordjevic, Tackling the challenges in modelling entrained-flow gasification of low-grade feedstock, J. of the Energy Institute 89, 485-503 (2016) [doi:10.1016/j.joei.2015.07.007](https://doi.org/10.1016/j.joei.2015.07.007)
- **Gebel, G. C., Mosbach, T., Meier, W., Aigner, M.** Optical and spectroscopic diagnostics of laser-induced air breakdown and kerosene spray ignition, Combust. Flame 162, 1599-1613 (2015) [doi:10.1016/j.combustflame.2014.11.024](https://doi.org/10.1016/j.combustflame.2014.11.024)