

Jahres- und Geschäftsbericht 2012

Fachbereich Maschinenwesen

Vorträge

Prof. Es-Souni:

- “Applications of PMN-PT based single crystals for high-detectivity pyroelectric detectors”, 8th Asian Meeting on Electroceramics (AMEC-8), Penang, Malaysia, 1-5 Juli 2012.
- “Nanostructured vanadium oxide films made by solution phase deposition: morphology, structure and optical property control”, CIMTEC 2012, Montecatini Terme, 10-14 Juni 2012.
- “Nanocomposites for tailored Surface Functionality”, National institute for Interdisciplinary Science and Technology, Council of Scientific and Industrial Research, Trivandrum, Indien, Feb. 2012.
- “Template Synthesis of Nanomaterials for Energy & Sensing Applications”, Nanyang Technological University, MSE-School of Materials Science and Engineering, Singapore, 07.11.2012.

Till Köder:

- „Structural Performance of Anchor Towing Winches“, DVS-Arbeitskreis A6.2, Germanischer Lloyd, Hamburg, 24.9.12.
- „FastLabNet“, IHK Flensburg, 28.9.12.

Prof. Schaffarczyk:

- “Kiel's Aerodynamic Glove Experiment”, IEA Wind Annex 29 (MexNext II) Meeting, NREL, Golden, CO, USA, 5./6. Nov 2012 (A.P. Schaffarczyk and D. Schwab).
- “Highly spatial resolved CFD Computation for the Mexico Rotor“, IEA Wind Annex 29 (MexNext II) Meeting, NREL, Golden, CO, USA, 5./6. Nov 2012 (A. Jeromin and A.P. Schaffarczyk).
- “Incompressible Navier-Stokes against RANS Turbulent Model via Actuator Disk Theory”, The Science of Making Torque from Wind, 2012, Oldenburg, Germany 09.- 1 October 2012 (A.P. Schaffarczyk and E. Mahmoodi).
- “Highly resolved measurements of atmospheric turbulence with the new 2D-atmospheric Laser Cantilever Anemometer”, The Science of Making Torque from Wind,

2012, Oldenburg, Germany 09.- 1 October 2012 (A. Jeromin, A.P. Schaffarczyk, J. Puczyłowski, J. Peinke and M. Hoelling).

- “Pressure and hot film measurements on a wind turbine blade operating in the atmosphere”, The Science of Making Torque from Wind, 2012, Oldenburg, Germany 09.- 1 October 2012 (D. Schwab, S. Ingwersen, A.P. Schaffarczyk and M. Breuer).
- “Aerodynamic boundary layer investigation on a wind turbine blade under real conditions”, Euromech Colloquium 528, Wind Energy and the impact of turbulence on the energy conversion process, Oldenburg, Germany 22.- 24 February 2012 (D. Schwab, S. Ingwersen, A.P. Schaffarczyk and M. Breuer).
- “Advanced Statistical Analysis of High-Frequency turbulent pressure fluctuations of On- and Offshore Wind”, Euromech Colloquium 528, Wind Energy and the impact of turbulence on the energy conversion process, Oldenburg, Germany 22.- 24 February 2012 (A. Jeromin and A.P. Schaffarczyk).
- “Actuator Disc Modeling of the Mexico Rotor”, Euromech Colloquium 528, Wind Energy and the impact of turbulence on the energy conversion process, Oldenburg, Germany 22.- 24 February 2012 (E. Mahmoodi and A.P. Schaffarczyk).

Stefan Eghbalian

- „Status Quo der Elektromobilität im globalen Testmarkt London – Kritische Erfolgsparameter bei der Einführung von Technologieinnovationen“, Innovationsnetzwerk Future-Car, Chancen für die Zulieferindustrie auf dem Weg zur elektro-mobilen Gesellschaft. 22. Februar 2013, Fraunhofer-Institut für Arbeitswirtschaft und Organisation IAO, Stuttgart; Institut für Arbeitswissenschaft und Technologiemanagement IAT, Universität Stuttgart.
- „The Challenges and Opportunities of Marketing an Indian Electric Car in Europe – A Case Study“, Copenhagen Business School, Februar 2012 (S. Eghbalian, S. Schwarzkopf).

Fachbereich Maschinenwesen

Veröffentlichungen

Prof. Es-Souni:

- M. Es-Souni, Ma. Es-Souni, and M. Dietze: A universal, template-free approach to Porous oxide and Polymer film processing. RSC Adv., 2011, 1, 579-583.
- P. Yu, Y. Ji, N. Neumann, S.-G. Lee, H. Luo, and M. Es-Souni: Application of Single-Crystalline PMN-PT and PIN-PMN-PT in High-Performance Pyroelectric Detectors. IEEE TUFFC, 2012, 59 (9), 1983-1989.
- L. Luo, M. Dietze, Cl.-H. Solterbeck, M. Es-Souni, and H. Luo: Orientation and phase transition dependence of the electrocaloric effect in 0.71PbMg_{1/3}Nb_{2/3}O₃-0.29PbTiO₃ single crystal. Appl. Phys. Lett., 2012, 101 (6), 062907, Doi: 10.1063/1.4745185.
- M. Dietze, H. Katzke, M. Es-Souni, N. Neumann, and H.-S. Luo: Single domain vs. poly-domain [111] 0.72Pb(Mg_{1/3}Nb_{2/3})O₃-0.28PbTiO₃ single crystal. Polarization switching, dielectric and pyroelectric properties. Appl. Phys. Lett., 2012, 100 (24), 242905, Doi: 10.1063/1.4729749.
- A. Omri, M. Bejar, E. Dhahri, M. Es-Souni, M.A. Valente, M.P.F. Graça, L.C. Costa: Electrical conductivity and dielectric analysis of La_{0.75}(Ca, Sr)_{0.25}Mn_{0.85}Ga_{0.15}O₃ perovskite compound. Journal of Alloys and Compounds, 2012, 536, 173-178.
- M. Zannen, A. Lahmar, M. Dietze, H. Khemakhem, A. Kabadou, and M. Es-Souni: Structural, optical, and electrical properties of Nd-doped Na_{0.5}Bi_{0.5}TiO₃. Materials Chemistry Physics, 2012, 134 (2-3), 829-833.
- K. R. Moonosawmy, H. Katzke, Ma. Es-Souni, M. Dietze, and M. Es-Souni: Mesoporous and Macroporous Brookite Thin Films Having a Large Thermal Stability Range. Langmuir, 2012, 28(16), 6706-6713.
- A. Omri, M. Bejar, M. Sajjeddine, E. Dhahri, E.K. Hlil, and M. Es-Souni: Structural, magnetic and magnetocaloric properties of AMn_{1-x}GaxO₃ compounds with 0 ≤ x ≤ 0.2. Physica B: Condensed Matter, 2012, 407 (13), 2566-2572.
- F. I. Dar, S. Habouti, R. Minch, M. Dietze, and M. Es-Souni: Morphology control of 1D noble metal nano/heterostructures towards multi- functionality. J. Mater. Chem., 2012, 22 (17), 8671-8679.
- J. Mani, H. Katzke, S. Habouti, K. R. Moonosawmy, M. Dietze, and M. Es-Souni: A template-free synthesis and structural characterization of hierarchically nano-structured lithium-titanium-oxide films. J. Mater. Chem., 2012, 22 (14), 6632-6638.
- J. Mani, H. Sakeek, S. Habouti, M. Dietze, and M. Es-Souni: Macro-meso-porous TiO₂, ZnO and ZnO-TiO₂- composite thick films. Properties and application to photocatalysis. Catal. Sci. Technol., 2012, 2, 379 – 385.

- K. R. Moonosawmy, Ma. Es-Souni, R. Minch, M. Dietze, and M. Es-Souni: Template-Assisted Generation Of Three-Dimensionally Branched Titania Nanotubes On A Substrate. CrystEngComm, 2012, 14, 474-479.

Prof. Graf:

- K. Graf: „Flow Analysis and Flow Engineering of Sailing Yachts“. Intl. Yacht Racing Forum Hamburg, März 2012.

Prof. Schaffarczyk:

- CEwind eG/A.P. Schaffarczyk (Hrsg.): „Einführung in die Windenergietechnik“, Lehrbuch, 496 S., Carl Hanser Verlag, 2012. ISBN: 978-3-446-43032-7.
- J.G. schepers, L. Boorsma, T.Cho, S. Gomez-Iradi, A.P. Schaffarczyk, A. Jeromin, W.Z. Shen, T. Lutz, K. Meister, B. Stoevesandt, S. Schreck, D. Micallef, R. Pereira, T. Sant, H.A. Madsen, N. Soerensen: “Analysis of Mexico wind tunnel measurements”, Final Report of IEAwind Task 29, Mexnext (Phase 1), ECN –W -12-004, Petten, Niederlande, February 2012.