

## Jahres- und Geschäftsbericht 2009

### Fachbereich Maschinenwesen

#### Vorträge

- Prof. Dr.-Ing. Berend Bohlmann, N. R. Dabagh: „Deformation of anchor towing winches of offshore vessels“. Schiffbautechnische Gesellschaft, Vortrag Hauptversammlung, Jahrbuch STG 2009, Berlin 20.11.2009.
- Prof. Dr. Mohammed Es-Souni: “Multifunctional materials, properties and challenges to their applications“. Invited lecture, Shanghai Institute of Ceramics, Chinese Academy of Sciences, November 2009.
- Prof. Dr. Mohammed Es-Souni: “Processing, properties and Applications of nanocomposite thin films“. Invited lecture, University of Vienna, Chemistry DPT, Nov. 19, 2009.
- Prof. Dr. Mohammed Es-Souni: “Nanocomposite Films for various applications“. Invited lecture, PacRim 09-Conference, Vancouver June 02-06, 2009.
- Prof. Dr. Mohammed Es-Souni: “Applications of PZT thin films“. Invited lecture, 2nd International Meeting on Materials for Electronics Applications. Hammamet, Tunisia. May 08-11, 2009.
- Prof. Dr.-Ing. Kai Graf, O. Müller: “Photogrammetric Investigation of the Flying Shape of Spinnakers in a Twisted Flow Wind Tunnel“. 19th Chesapeake Sailing Yacht Symposium, Annapolis, 2009.
- Prof. Dr.-Ing. Kai Graf, C. Böhm, H. Renzsch: “CFD- and VPP-Challenges in the Design of the New AC90 Americas Cup Yacht“. 19th Chesapeake Sailing Yacht Symposium, Annapolis, 2009.
- Prof. Dr. Alois Schaffarczyk: “Offshore Wind Energy in Germany: Chances and Challenges“. Symposium of the European Physical Society, invited talk. Greifswald, 13.10.2009.
- Prof. Dr. Alois Schaffarczyk: “Offshore Windenergie in Deutschland: Chancen und Herausforderungen“. Hauptvortrag des Arbeitskreises Energie der Deutschen Physikalischen Gesellschaft, invited talk. Hamburg, 03.02.2009.
- Prof. Dr. Alois Schaffarczyk, D. Schwab: “Comparing on- and offshore aerodynamic turbulence by measurement“. European off shore wind energy conference. Stockholm, September 2009.

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### Veröffentlichungen

- Bohlmann, B., N. R. Dabagh: „Simulation der lastinduzierten Verformung großer Ankerziehwinden“. Ingenieurspiegel, Public Verlagsgesellschaft, Mai 2009.
- Es-Souni, M., Ma. Es-Souni, S. Habouti, N. Pfeiffer, A. Lahmar, M. Dietze, C-H. Solterbeck: „Brookite Formation in TiO<sub>2</sub> - Ag Nanocomposites and Visible-light-Induced Templated Growth of Ag Nanostructures in TiO<sub>2</sub>“. Advanced Functional Materials 2009, 20, pp. 377-385.
- Es-Souni, M., S. Ma, C.-H. Solterbeck, M. Odgaard, E. Skou: “Microscopy studies on proton exchange membrane fuel cell electrodes with different ionomer contents“. Applied Physics A, 2009, Vol. 96, Issue 3, pp. 581-589.
- Es-Souni, M., M. Madsen, G. Kartopu, N.L. Andersen, H.-G. Rubahn: “Para-hexaphenyl nanofiber growth on Au-coated porous alumina templates“. Applied Physics A, 2009, Vol. 96, Issue 3, pp. 591-594.
- Es-Souni, M., S. Habouti, A. Lahmar, M. Dietze, C. Solterbeck, V. Zaporojtchenko: “Substrate heterostructure effects on interface composition, microstructure development and functional properties of PZT thin films“. Acta Materialia, 2009, Vol. 57, Issue 7, pp. 2328-2338.
- Es-Souni, M., A. Lahmar, S. Habouti, C-H. Solterbeck, B. Elouadi: “Correlation between structure, dielectric, and ferroelectric properties in BiFeO<sub>3</sub>–LaMnO<sub>3</sub> solid solution thin films“. Journal of Applied Physics, 2009, Vol. 105, 014111.
- Es-Souni, M., A. Lahmar, S. Habouti, M. Dietze, C.-H. Solterbeck: “Effects of rare earth manganites on structural, ferroelectric, and magnetic properties of BiFeO<sub>3</sub> thin films“. Applied Physics Letters, 2009, Vol. 94, 012903.
- Fischer, M.: „Studenten überwinden Medienbrüche: Einsatz der CIDEON SAP PLM Integration für SolidWorks in Lehre und Forschung“, CIDEON ONSITE 2009.