NAME: Prof. Dr. Egbert Oesterschulze

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ADDRESS

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PROFESSIONAL CARRER:

1983 – 1989	Course in Experimental Physics, Westfälische Wilhelms Universität Münster, Germany
1989 – 1990	Industrial Cooperation on Laser Lithography, Märzhäuser GmbH (Wetzlar), Germany
1990 – 1994	PhD, University of Kassel, Germany
June 1994	PhD defense
1995	PostDoc at IBM Almaden Research Center (Prof. Dr. H. Coufal), USA
1995	Research Assitant (C1) University of Kassel
2000	Habilitation at University of Kassel
2002	Assistant Professor (C2) at University of Kassel
2004	Chair for Physics and Technology of Nanostructures, (C3) University of Kaiserslautern, Germany
Since 2005	Chair of the regional union Hessen-Mittelrhein-Saar as part of the German Physical Society (Deutsche Physikalische Gesellschaft (DPG))
2005	Chair for Physics and Technology of Nanostructures, (W2) University of Kaiserslautern

RESEARCH:

- Development of microsystems on base of microelectromechanical system (MEMS) technologies
- Development of:
    - apertures / antenna probes for scanning near-field optical microscopy
    - active emitting near-field probes
    - ultrafast sampling probes with integrated Austin switch
    - superhard diamond probes for engraving ultrasmall electronic devices
    - Schottky diode based probes for thermal imaging etc.
- Development of high frequency mechanical microresonators for fluid operation with high Q values

THE TEN MOST IMPORTANT PUBLICATIONS:

EC-Bauelemente

1. T. Deutschmann, C. Kortz, L. Walder, E. Oesterschulze, High Contrast Electrochromic Iris, Optics Express, 23(24), 31544, 2015.
2. T. Deutschmann, E. Oesterschulze, Integrated electrochromic iris device for low power and space-limited applications, J. Opt., 16, 075301, 2014.
3. D. Pätz, T. Deutschmann, E. Oesterschulze, St. Sinzinger, Depth of focus analysis of optical systems using tunable aperture stops with a moderate level of absorption, Appl. Opt., 53 (28) 6508, 2014.

Mikroresonatoren

1. S. Klingel, E. Oesterschulze, Investigating the wetting behavior of a surface with periodic reentrant structures using integrated microresonators, Appl. Phys. Lett., 111, 061604, 2017.
2. C. Kortz, E. Oesterschulze, Spatial and directional control of self-assembled wrinkle patterns by UV light absorption, Appl. Phys. Lett., 111, 231904, 2017.
3. J. Menges, P. Kleinschmidt, H.-J. Bart, E. Oesterschulze, A precision structured smart hydrogel for sensing applications, Appl. Phys. Lett., 122, 134501, 2017.
4. P. Peiker, E. Oesterschulze, Virtual mass effect in dynamic micromechanical mass sensing in liquids, Appl. Phys. Lett., 108, 241904, 2016.
5. P. Peiker, S. Klingel, J. Menges, H.-J. Bart, E. Oesterschulze, A partially wettable micromechanical resonator for chemical- and biosensing in solution, Procedia Engineering, 168, 606-609, 2016.
6. P. Peiker, E. Oesterschulze, Geometrically tuned wettability of dynamic micromechanical sensors for an improved in-liquid operation, Appl. Phys. Lett. 107, 101903, 2016.
7. P. Peiker, E. Oesterschulze, Geometrically tuned wettability of dynamic micromechanical sensors for an improved in-liquid operation, Appl. Phys. Lett., 107, 101903, 2015.