

#### A5.4 (H. Kalt)

- [A5.4:1] ‡ S.-Y. Seo, R.-J. Zhang, W. Löffler, H. Kalt, K.J. Kim, and M. Zacharias, *Far-field observation of the radial profile of visible whispering-gallery modes in a single microdisk based on Si-nanocrystal/SiO<sub>2</sub> superlattices*, [J. Appl. Phys. \*\*106\*\*, 123102 \(2009\)](#)
- [A5.4:2] T. Grossmann, M. Hauser, T. Beck, C. Gohn-Kreuz, M. Karl, H. Kalt, C. Vannahme, and T. Mappes, *High-Q conical polymeric microcavities*, [Appl. Phys. Lett. \*\*96\*\*, 013303 \(2010\)](#)
- [A5.4:3] M. Hauser, T. Grossmann, S. Schleede, J. Fischer, T. Beck, C. Vannahme, T. Mappes, and H. Kalt, *Fabrication and characterization of high-Q conical polymeric microcavities*, Proc. of SPIE **7716**, 77161Z (2010)
- [A5.4:4] \* T. Mappes, C. Vannahme, S. Klinkhammer, U. Bog, M. Schelb, T. Grossmann, M. Hauser, H. Kalt, and Uli Lemmer, *Integrated photonic lab-on-chip systems for biomedical applications*, Proc. of SPIE **7716**, 77160R (2010)
- [A5.4:5] \* ‡ T. Grossmann, S. Schleede, M. Hauser, M.B. Christiansen, C. Vannahme, C. Eschenbaum, S. Klinkhammer, T. Beck, J. Fuchs, G.U. Nienhaus, U. Lemmer, A. Kristensen, T. Mappes, and H. Kalt, *Low-threshold conical microcavity dye lasers*, [Appl. Phys. Lett. \*\*97\*\*, 063304 \(2010\)](#)
- [A5.4:6] T. Beck, M. Hauser, T. Grossmann, D. Floess, S. Schleede, J. Fischer, C. Vannahme, T. Mappes and H. Kalt, *PMMA-Micro Goblet Resonators for Biosensing Applications*, Proc. of SPIE Vol. **7888** 78880A-1
- [A5.4:7] \* ‡ T. Grossmann, S. Schleede, M. Hauser, M.B. Christiansen, C. Vannahme, C. Eschenbaum, S. Klinkhammer, T. Beck, J. Fuchs, G.U. Nienhaus, U. Lemmer, A. Kristensen, T. Mappes, H. Kalt, *Lasing in dye-doped high-Q conical polymeric microcavities*, Proc. of SPIE Vol. **7913** 79130Y-1
- [A5.4:8] \* S. Klinkhammer, T. Grossmann, K. Lüll, M. Hauser, C. Vannahme, T. Mappes, H. Kalt, and U. Lemmer, *Diode-pumped organic semiconductor microcone laser*, [IEEE Photonics Technol. Lett. \*\*23\*\*, 489 \(2011\)](#)
- [A5.4:9] \* T. Grossmann, S. Klinkhammer, M. Hauser, D. Floess, T. Beck, C. Vannahme, T. Mappes, U. Lemmer, and H. Kalt, *Strongly confined, low-threshold laser modes in organic semiconductor microgoblets*, [Opt. Express \*\*19\*\*, 10009 \(2011\)](#)
- [A5.4:10] \* T. Grossmann, S. Schleede, M. Hauser, T. Beck, M. Thiel, G. v. Freymann, T. Mappes, and H. Kalt, *Direct laser writing for active and passive high-Q polymer microdisks on silicon*, [Opt. Express \*\*19\*\*, 11451 \(2011\)](#)
- [A5.4:11] \*‡ T. Grossmann, M.B. Christiansen, J. Peterson, H. Kalt, T. Mappes, and A. Kristensen, *Direct laser writing for nanoporous liquid core laser sensors*, Opt. Express **20**, 17467 (2012)
- [A5.4:12] T. Beck, S. Schloer, T. Grossmann, T. Mappes, and H. Kalt, *Flexible coupling of high-Q goblet resonators for formation of tunable photonic molecules*, Opt. Express **20**, 22012 (2012)
- [A5.4:13] \*‡ T. Mappes, T. Wienhold, U. Bog, Ch. Vannahme, M.B. Christiansen, A. Kristensen, X. Liu, S. Klinkhammer, U. Lemmer, T. Grossmann, T. Beck, and H. Kalt, *On-chip integrated lasers for biophotonic applications*, Proc. Optomechatronic Technologies (ISOT) 2012; DOI 10.1109/ISOT.2012.6403224
- [A5.4:14] T. Wienhold, M. Brammer, T. Grossmann, M. Schneider, H. Kalt, and T. Mappes, *Microoptical device for efficient read-out of active WGM resonators*, Proc. SPIE Photonics Europe, Brussels 2012, paper: 8428-37

- [A5.4:15] T. Grossmann, T. Wienhold, U. Bog, T. Beck, C. Friedmann, H. Kalt, and T. Mappes, *Polymeric photonic molecule super-mode lasers on silicon*, Light: Science & Applications (2013), **2**, e82 (2013)
- [A5.4:16] T. Beck, M. Mai, T. Grossmann, M. Hauser, T. Mappes, and H. Kalt, *High-Q Polymer Resonators with Spatially Controlled Photo-Functionalization for Biosensing Applications*, Appl. Phys. Lett. **102**, 121108 (2013)
- [A5.4:17] U. Bog, T. Laue, T. Grossmann, T. Beck, T. Wienhold, B. Richter, M. Hirtz, H. Fuchs, H. Kalt, and T. Mappes, *On-chip microlasers for bimolecular detection via highly localized deposition of a multifunctional phospholipid ink*, Lab on a Chip **13**, 2701 (2013)
- [A5.4:18] A. Flatae, T. Grossmann, T. Beck, S. Wiegele, and H. Kalt, *Strongly confining bare core CdTe quantum dots in polymeric microdisk resonators*, APL Materials **2**, 012107 (2014)

#### Invited Talks at International Conferences:

- H. Kalt, T. Grossmann, M. Hauser, S. Schleede, J. Fischer, T. Beck, C. Vannahme, and T. Mappes, *WGM-Resonators for Optical Sensing*, OSA Optics Photonics Congress - Advanced Photonics and Renewable Energy, June 2010 Karlsruhe
- T. Grossmann, M. Hauser, T. Beck, J. Fischer, S. Schleede, H. Kalt, C. Vannahme, T. Mappes, *High-Q Polymeric Microcavities for Parallel Molecule Detection*, Matheon-Workshop *Photonic Devices*, Freie Universität Berlin, Feb. 2010
- T. Mappes, C. Vannahme, S. Klinkhammer, U. Bog, M. Schelb, T. Grossmann, J. Mohr, H. Kalt, and U. Lemmer, *Fully integrated photonic lab-on-chip systems for biomedical applications*, SPIE Photonics Europe 2010, Brussels
- H. Kalt, T. Grossmann, M. Hauser, T. Beck, J. Fischer, S. Schleede, C. Vannahme, T. Mappes, *WGM-Resonators for Optical Sensing*, Advanced Photonics: OSA Optics and Photonics Congress, Karlsruhe June 2010
- T. Beck, M. Hauser, T. Grossmann, D. Floess, S. Schleede, J. Fischer, C. Vannahme, T. Mappes and H. Kalt, *PMMA-Micro Goblet Resonators for Biosensing Applications*, SPIE Photonics West, San Francisco, Jan. 2011
- D. Floess, T. Grossmann, M. Hauser, T. Beck, T. Mappes, H. Kalt, *Numerical Analysis and Optimization of Microresonators*, Matheon-Workshop: 4th Annual Meeting Photonic Devices, Freie Universität Berlin, Feb. 2011
- T. Mappes, C. Vannahme, T. Grossmann, S. Klinkhammer, M. Hauser, T. Wienhold, M.B. Christiansen, A. Kristensen, H. Kalt, U. Lemmer, *Optofluidic lab-on-a-chip systems with integrated lasers*, EOS Optofluidics, Munich May 2011
- T. Mappes, C. Vannahme, T. Grossmann, S. Klinkhammer, M. Hauser, T. Beck, U. Bog, T. Wienhold, M.B. Christiansen, A. Kristensen, U. Lemmer, H. Kalt, *On-Chip Lasers for Biophotonic Lab-on-a-Chip Applications*, III. International Symposium TOPICAL PROBLEMS OF BIOPHOTONICS - 2011, 16-22 July 2011, St.-Petersburg - Nizhny Novgorod, Russia
- T. Mappes, Ch. Vannahme, T. Grossmann, S. Klinkhammer, M. Hauser, T. Beck, T. Wienhold, M.B. Christiansen, A. Kristensen, H. Kalt, U. Lemmer, *Integrated Lasers for Biophotonic Lab-on-Chip Systems in Polymer*, plenary talk at 17th Microoptics Conference (MOC'11), Sendai, Japan, Oct. 30 - Nov.2, 2011
- Heinz Kalt, *Powders, Needles and Goblets: The Multifaceted World of Micro-Lasers*, Karlsruhe Days of Optics and Photonics, KIT, June 29-30, 2011

T. Mappes, Ch. Vannahme, T. Grossmann, T. Beck, T. Wienhold, U. Bog, F. Breithaupt, M. Brammer, X. Liu, S. Klinkhammer, M. Hirtz, T. Laue, M.B. Christiansen, A. Kristensen, U. Lemmer, H. Kalt, *Integrated Lasers for Polymer Lab-on-Chip Systems*, CLEO 2012, San Jose (USA), invited paper: CTu1L.7

T. Mappes, T. Wienhold, U. Bog, Ch. Vannahme, M.B. Christiansen, A. Kristensen, X. Liu, S. Klinkhammer, U. Lemmer, T. Grossmann, T. Beck, H. Kalt, *On-chip integrated lasers for biophotonic applications*, ISOT Internatl. Symposium on OptoMechatronic Technologies, Paris, France, Oct. 29-31, 2012

Heinz Kalt, *Polymeric Whispering-Gallery-Mode Resonators*, WE Heraeus-Seminar "Taking Detection to the Limit: Biosensing with Optical Microcavities, Bad Honnef (Germany), April 2014

Heinz Kalt, *Polymeric Microresonators: From Whispering Galleries to Random Cavities*, Springschool Erasmus Mundus Europhotonics, Porquerolles (France), April 2014