Biographical Sketch

**Holger Schmidt**

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1. Professional Preparation

University of Stuttgart, Germany Physics Diploma 1994

University of California, Santa Barbara Electrical Engineering MSc 1995

University of California, Santa Barbara Electrical Engineering PhD 1999

# Massachusetts Institute of Technology Semiconductor optics Postdoc 08/99 - 07/01

1. Appointments

10/16 – current Associate Dean for Research, School of Engineering UC Santa Cruz

07/13 – current Narinder Singh Kapany Chair for Optoelectronics

01/09 – current Director, W.M. Keck Center for Nanoscale Optofluidics

07/09 - current Professor of Electrical Engineering UC Santa Cruz

07/05 – 06/09 Associate Professor of Electrical Engineering UC Santa Cruz

07/01 - 06/05 Assistant Professor of Electrical Engineering UC Santa Cruz

08/99 - 06/01 Postdoctoral Fellow M.I.T.

1. Relevant Publications

1. J.W. Parks and H. Schmidt, "Flexible optofluidic waveguide platform with multi-dimensional reconfigurability", *Scientific Reports* **6**, 33008 (2016).

2. H. Cai, J. W. Parks, T. A. Wall, M. A. Stott, A. Stambaugh, K. Alfson, A. Griffiths, R. A. Mathies, R. Carrion, J. L. Patterson, A. R. Hawkins & H. Schmidt, "Optofluidic analysis system for amplification-free, direct detection of Ebola infection", *Scientific Reports* **5**, 14494 (2015).

3. D. Ozcelik, J.W. Parks, T.A. Wall, M.A. Stott, H. Cai, J.W. Parks, A.R. Hawkins, and H. Schmidt, "Optofluidic wavelength division multiplexing for single-virus detection", *PNAS* **112**, 12933 (2015).

4. J.W. Parks, M.A. Olson, J. Kim, D. Ozcelik, H. Cai, R. Carrion Jr., J.L. Patterson, R.A. Mathies, A. R. Hawkins, and H. Schmidt, "Integration of programmable microfluidics and on-chip fluorescence detection for biosensing applications", *Biomicrofluidics* **8**, 054111 (2014).

5. H. Schmidt and A.R. Hawkins, “The photonic integration of non-solid media using optofluidics”, *Nature Photonics* **5**, 598-604 (2011).

Other Significant Publications

6. S. Liu, Y. Zhao, J.W. Parks, D.W. Deamer, A.R. Hawkins, and H. Schmidt, "Correlated Electrical and Optical Analysis of Single Nanoparticles and Biomolecules on a Nanopore-Gated Optofluidic Chip", *Nano Letters* **14**, 4816-4820 (2014).

7. D. Ozcelik, M.A. Stott, J.W. Parks, J.A. Black, T.A. Wall, A.R. Hawkins, and H. Schmidt, "Signal-to-noise enhancement in optical detection of single viruses with multi-spot excitation*", IEEE J. Sel. Top. Quant. Elec*. **22**, 4403106 (2016).

8. J.W. Parks, H. Cai, L. Zempoaltecatl, T.D. Yuzvinsky, K. Leake, A.R. Hawkins, and H. Schmidt, "Hybrid optofluidic integration", *Lab on a Chip* **13**, 4118-4123 (2013).

9. D. Yin, E.J. Lunt, M.I. Rudenko, D.W. Deamer, A.R. Hawkins, and H. Schmidt, "Planar optofluidic chip for single particle detection, manipulation, and analysis", *Lab on Chip* **7**, 1171 (2007).

10. B. Wu, J.F. Hulbert, E.J. Lunt, K. Hurd, A.R. Hawkins, and H. Schmidt, "Slow light on a chip via atomic quantum state control," *Nature Photonics* **4**, 776-779, (2010).

1. Selected synergistic activities
* Member of Editorial Board, Nature Scientific Reports, since 2017
* Member, IEEE Photonics Conference Program Committee, Biophotonics Committee, since 2016
* Associate Editor, IEEE Journal of Quantum Electronics, 2015-2017
* Co-Chair, Symposium “Materials for Biomedical Devices”, MRS Fall Meeting, 2014
* Mentor for undergraduate student in UC LEADS program for underprivileged students, 2003-2017