Nikita Hanikel

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Education

University of California, Berkeley — Berkeley, CA, USA
Doctoral Studies in Chemistry — *since Aug. 2017*

TU Braunschweig — Braunschweig, Germany
*Master of Science in Chemistry; GPA: 1.0** — *Apr. 2015 – Jul. 2017*

Harvard University — Cambridge, MA, USA
Visiting Student; GPA: 4.0/4.0 — *Sep. 2015 – May 2016*

TU Braunschweig — Braunschweig, Germany
*Bachelor of Science in Chemistry; GPA: 1.0** — *Oct. 2012 – Apr. 2015*

**with 1.0 being the best possible grade*

Experience

University of California, Berkeley — Berkeley, CA, USA
Ph.D. Student in the Laboratory of Prof. Omar M. Yaghi — *since Oct. 2017*

- Exploring the realm of sequence-dependent materials

Cavendish Laboratory at Cambridge University — Cambridge, UK
Visiting Research Student in the Laboratory of Prof. Ulrich F. Keyser — *Jan. 2017 – Jun. 2017*

- Used solid-state glass nanocapillaries for single-molecule DNA sensing
- Applied DNA nanotechnology to manipulate DNA translocation through solid-state nanopores
- Developed a method to significantly reduce folding behavior of translocating DNA molecules

Wyss Institute for Biologically Inspired Engineering at Harvard University — Boston, MA, USA
Visiting Research Student in the Laboratory of Prof. Peng Yin — *Sep. 2015 – Jun. 2016*

- Demonstrated a complex DNA-based self-assembled system containing more than 33,000 unique components ($100\times$ larger than previous standard)
- Developed a next-generation sequencing-based method for evaluation of DNA nanostructures
- Worked on a DNA nanostructure-based framework for facilitation of cryo-electron microscopy measurements of proteins

Volkswagen Group — Wolfsburg, Germany
Research Intern — *May 2015 – Aug. 2015*

- Investigated aging mechanisms at graphite anodes in lithium-ion batteries
- Developed a method for analysis and mapping of the local state of charge
- Evaluated and quantified lithium metal plating occurrence

Institute of Physical and Theoretical Chemistry at TU Braunschweig — Braunschweig, Germany
Research Intern in the Laboratory of Prof. Philip Tinnefeld — *Jun. 2014 – Apr. 2015*

- Worked on single-molecule redox sensing of enzyme activity on spatially addressable DNA nanostructures
- Investigated reagents for minimization of photobleaching and blinking of fluorescent dyes
- Participated in the BIOMOD contest at Harvard's Wyss Institute

Selected Awards and Scholarships

ERP Fellowship	*since Aug. 2017*
Scholarship from the German National Academic Foundation ("Studienstiftung des deutschen Volkes")	*since Apr. 2013*
Participation in the 67th Lindau Nobel Laureate Meeting (Chemistry)	*Jun. 2017*
Erasmus Scholarship	*Jan. 2017 – Jun. 2017*
Scholarship from the German Academic Exchange Service ("DAAD")	*Sep. 2015 – May 2016*
Citizens' Prize of Braunschweig ("Braunschweiger Bürgerpreis")	*Dec. 2015*
Award from the FIOC e. V.	*Dec. 2015*
Golden Award in the BIOMOD contest at Harvard's Wyss Institute	*Nov. 2014*
Germany Scholarship ("Deutschlandstipendium")	*Oct. 2012 – Mar. 2013*

Publications

1. L. L. Ong, N. Hanikel, O. K. Yaghi, C. Grun, M. T. Strauss, P. Bron, J. Lai-Kee-Him, F. Schueder, B. Wang, P. Wang, J. Y. Kishi, C. A. Myhrvold, A. Zhu, R. Jungmann, G. Bellot*, Y. Ke*, P. Yin*, Programmable self-assembly of three-dimensional nanostructures from 10^4 unique components, *Nature*, accepted.

2. C. A. Myhrvold, M. Baym, N. Hanikel, L. L. Ong, J. S. Gootenberg, P. Yin, Barcode Extension for Analysis and Reconstruction of Structures, *Nature Communications* **2017**, *8*, 14698.

Academic Presentations

1. 648th WE-Heraeus-Seminar on Transport Mechanisms in Biological and Synthetic Nanopores and -channels, Jacobs University, Bremen, Jul. 2017 (poster).

2. 22nd International Conference on DNA Computing and Molecular Programming (DNA22), Ludwig-Maximilian University, Munich, Sept. 2016 (poster).

3. 13th Annual Conference on Foundations of Nanoscience: Self-Assembled Architectures and Devices (FNANO16), Snowbird, Utah, Apr. 2016 (poster).

4. 6th Conference of the Young Chemists' Forum Braunschweig, TU Braunschweig, Apr. 2015 (1st poster prize).

Languages

- German and Russian (bilingual), English (fluent) and French (basics)

- MATLAB, Python