

Stanford



Diego A. Huyke

Ph.D. Student in Mechanical Engineering, admitted Spring 2018

 Curriculum Vitae available Online

Bio

BIO

Diego Huyke received his BS and MS in Mechanical Engineering, respectively, from the Massachusetts Institute of Technology (2017) and Stanford University (2019). His research includes the development of devices to study physics at the micro-scale. His current projects are fast microfluidic mixers and red blood cell shear modulus measurements in a microfluidic device. He is a recipient of the National Science Foundation Graduate Research Fellowship (NSF GRFP) and a Stanford University Mechanical Engineering Fellowship.

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- Organizer, Bay Area Microfluidics Network (2021 - present)

EDUCATION AND CERTIFICATIONS

- MS, Stanford University , Mechanical Engineering (2019)
- BS, Massachusetts Institute of Technology (MIT) , Mechanical Engineering (2017)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Microfluidics

Publications

PUBLICATIONS

- **Millisecond timescale reactions observed via X-ray spectroscopy in a 3D microfabricated fused silica mixer.** *Journal of synchrotron radiation*
Huyke, D. A., Ramachandran, A., Ramirez-Neri, O., Guerrero-Cruz, J. A., Gee, L. B., Braun, A., Sokaras, D., Garcia-Estrada, B., Solomon, E. I., Hedman, B., Delgado-Jaime, M. U., DePonte, D. P., Kroll, et al
2021; 28 (Pt 4): 1100-1113
- **Electric field-driven microfluidics for rapid CRISPR-based diagnostics and its application to detection of SARS-CoV-2.** *Proceedings of the National Academy of Sciences of the United States of America*
Ramachandran, A., Huyke, D. A., Sharma, E., Sahoo, M. K., Huang, C., Banaei, N., Pinsky, B. A., Santiago, J. G.
2020
- **On the competition between mixing rate and uniformity in a coaxial hydrodynamic focusing mixer.** *Analytica chimica acta*
Huyke, D. A., Ramachandran, A., Oyarzun, D. I., Kroll, T., DePonte, D. P., Santiago, J. G.
2020; 1103: 1–10
- **A system for the high-throughput measurement of the shear modulus distribution of human red blood cells.** *Lab on a chip*
Saadat, A. n., Huyke, D. A., Oyarzun, D. I., Escobar, P. V., Øvreide, I. H., Shaqfeh, E. S., Santiago, J. G.

2020