

## MIKHAIL Y. SHALAGINOV

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Postdoctoral Associate, JJ Hu research group, Department of Materials Science & Engineering, MIT

### EDUCATION

**Ph.D.**, School of Electrical & Computer Engineering, 07/2017  
Purdue University, West Lafayette, IN, USA  
Thesis: Novel Plasmonic Materials and Nanodevices for Integrated Quantum Photonics  
Advisor: Dr. Vladimir M. Shalaev

**PUBLICATION SUMMARY:** h-index 18, in total 1406 citations (according to Google Scholar):  
4 invited co-authored book chapters, 35 research journal publications, numerous presentations at international conferences, including delivery of several invited talks.

### HIGHEST AWARDS

2020 Finalist of the Activate Fellowship Program 2020 (28 teams out of 400+ applicants) 12/2020  
2019 MRS Fall Meeting, Best poster award (given to 5 out of 700 international presenters)  
2017 College of Engineering Outstanding Graduate Student Research Award 04/2017  
(awarded to 2 graduate students out of 700+ from the School of ECE at Purdue University)

### SELECTED PUBLICATIONS

J[29] **M. Y. Shalaginov**, S. An, Y. Zhang, F. Yang, P. Su, V. Liberman, J. B. Chou, C. M. Roberts, M. Kang, C. Rios, Q. Du, C. Fowler, A. Agarwal, K. Richardson, C. Rivero-Baleine, H. Zhang, J. Hu, T. Gu, "Reconfigurable all-dielectric metalens with diffraction limited performance", *Nature Communications* 12 (1225), 1-8, 2021.

**\*spotlighted in MIT News, Photonics Media**

J[27] **M. Y. Shalaginov**, S. An, P. Su, H. Zhang, J. Hu, T. Gu, "Single-element diffraction-limited fisheye metalens", *Nano Lett.*, 20 (10), 2020.

**\*spotlighted in MIT News; MIT front page; Top 10 MIT research stories of 2020**

J[23] **M. Y. Shalaginov**, S. An, Y. Zhang, S. D. Campbell, F. Yang, C. Ríos<sup>1</sup>, L. Kang, D. H. Werner, H. Zhang, J. Hu, T. Gu, "Design for quality: reconfigurable flat optics based on active metasurfaces", *Nanophotonics*, 9, 3505–3534, 2020. **[invited review]**

J[22] **M. Y. Shalaginov**, S. Bogdanov, A. S. Lagutchev, A. V. Kildishev, A. Boltasseva, V. M. Shalaev, "On-chip single-layer integration of diamond spins with microwave and plasmonic channels", *ACS Photonics*, 7 (8), 2018-2026, 2020.

J[16] S. Bogdanov, **M. Y. Shalaginov**, A. Lagutchev, C.-C. Chiang, D. Shah, A. S. Baburin, I. A. Ryzhikov, I. A. Rodionov, A. Boltasseva, V. M. Shalaev, "Ultrabright room-temperature single-photon emission from nanodiamond nitrogen-vacancy centers with sub-nanosecond excited-state lifetime", *Nano Letters*, 18 (8), 4837-4844, 2018.

**\*spotlighted in Purdue News Release; featured in the OPN special issue "Optics in 2018"**

J[6] **M. Y. Shalaginov**, V. V. Vorobyov, J. Liu, M. Ferrera, A. V. Akimov, A. Lagutchev, A. N. Smolyaninov, V. V. Klimov, J. Irudayaraj, A. V. Kildishev, A. Boltasseva, & V. M. Shalaev, "Enhancement of single-photon emission from nitrogen-vacancy centers with TiN/(Al,Sc)N hyperbolic metamaterial", *Laser Photonics Rev.*, 9 (1), 120-127, 2015 (88 citations)

**\*cover picture, spotlighted in Purdue News Release and other internet news portals**