

## ESI Hot Papers in May 2024

- 1. Transport of intensity diffraction tomography with non-interferometric synthetic aperture for three-dimensional label-free microscopy**  
Jiaji Li, Ning Zhou, Jiasong Sun, Shun Zhou, Zhidong Bai, Linpeng Lu, Qian Chen & Chao Zuo  
*Light Sci Appl* **11**, 154 (2022). DOI: 10.1038/s41377-022-00815-7
- 2. Towards higher-dimensional structured light**  
Chao He, Yijie Shen & Andrew Forbes  
*Light Sci Appl* **11**, 205 (2022). DOI: 10.1038/s41377-022-00897-3
- 3. Fundamentals and comprehensive insights on pulsed laser synthesis of advanced materials for diverse photo-and electrocatalytic applications**  
Jayaraman Theerthagiri, K. Karuppasamy, Seung Jun Lee, R. Shwetharani, Hyun-Seok Kim, S. K. Khadheer Pasha, Muthupandian Ashokkumar & Myong Yong Choi  
*Light Sci Appl* **11**, 250 (2022). DOI: 10.1038/s41377-022-00904-7
- 4. Entangled photons enabled time-frequency-resolved coherent Raman spectroscopy and applications to electronic coherences at femtosecond scale**  
Zhedong Zhang, Tao Peng, Xiaoyu Nie, Girish S. Agarwal & Marlan O. Scully  
*Light Sci Appl* **11**, 274 (2022). DOI: 10.1038/s41377-022-00953-y
- 5. Upconversion time-stretch infrared spectroscopy**  
Kazuki Hashimoto, Takuma Nakamura, Takahiro Kageyama, Venkata Ramaiah Badarla, Hiroyuki Shimada, Ryoich Horisaki & Takuro Ideguchi  
*Light Sci Appl* **12**, 48 (2023). DOI: 10.1038/s41377-023-01096-4
- 6. One-step printable platform for high-efficiency metasurfaces down to the deep-ultraviolet region**  
Joohoon Kim, Wonjoong Kim, Dong Kyo Oh, Hyunjung Kang, Hongyoon Kim, Trevon Badloe, Seokwoo Kim, Chanwoong Park, Hojung Choi, Heon Lee & Junsuk Rho  
*Light Sci Appl* **12**, 68 (2023). DOI: 10.1038/s41377-023-01086-6
- 7. Recent progress in quantum photonic chips for quantum communication and internet**  
Wei Luo, Lin Cao, Yuzhi Shi, Lingxiao Wan, Hui Zhang, Shuyi Li, Guanyu Chen, Yuan Li, Sijin Li, Yunxiang Wang, Shihai Sun, Muhammad Faeyz Karim, Hong Cai, Leong Chuan Kwek & Ai Qun Liu  
*Light Sci Appl* **12**, 175 (2023). DOI: 10.1038/s41377-023-01173-8