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### **Leveraging Femtosecond Laser Ablation for Tunable Near-Infrared Optical Properties in MoS<sub>2</sub>-Gold Nanocomposites**

Aleksey V. Arsenin, Alexey D. Bolshakov, Ilya A. Zavidovskiy, Ilya V. Martynov, Daniil I. Tselikov,

Alexander V. Syuy, Anton A. Popov, Sergey M. Novikov, Andrei V. Kabashin, Gleb I. Tselikov,

Valentyn S. Volkov

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### **Elastic Gallium Phosphide Nanowire Optical Waveguides—Versatile Subwavelength Platform for Integrated Photonics**

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Valeriy M. Kondratev, Ivan I. Shishkin, Konstantin P. Kotlyar, Demid A. Kirilenko, Vladimir V. Fedorov,

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Vasily Kravtsov, Alexey D. Bolshakov

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MA Anikina, A Kuznetsov, AN Toksumakov, VV Dremov, DA Ghazaryan, VV Fedorov, AV Arsenin,  
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**Si Nanowire-Based Schottky Sensors for Selective Sensing of NH<sub>3</sub> and HCl via Impedance Spectroscopy**

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Alexey Kuznetsov, Svetlana A. Kadinskaya, Zamir V. Shomakhov, Artem I. Baranov,  
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Alexey D. Bolshakov, Vladimir V. Fedorov, Yury Berdnikov, Nickolay V. Sibirev, Sergey V. Fedina,

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**Gallium Phosphide Nanowires in a Free-Standing, Flexible, and Semitransparent Membrane for Large-Scale Infrared-to-Visible Light Conversion**

Alexey Bolshakov, Vladimir V. Fedorov, Sergey V. Makarov, Olga Sergaeva, Vladimir Neplokh,

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**Perovskite-Gallium Phosphide Platform for Reconfigurable Visible-Light Nanophotonic Chip**

Alexey Bolshakov, Pavel Trofimov, Anatoly P. Pushkarev, Ivan S. Sinev, Vladimir V. Fedorov,

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