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Директор

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Optics Express 2019 17474-17481

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#### Efficient broadband infrared absorbers based on core-shell nanostructures

Khachatur V. Nerkararyan, Sergey I. Bozhevolnyi, Henrik A. Parsamyan

Journal of the Optical Society of America B: Optical Physics 2019 2643-2649

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Khachatur V. Nerkararyan, Torgom S. Yezekyan, Sergey I. Bozhevolny

Physical Review B 2018 045401(1-6)

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Applied Optics 2018 6309-6313

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Journal of Contemporary Physics (Armenian Academy of Sciences) 2018 332-337

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# Numerical Analysis of Light Non-Resonant Transmission Through a Sub- Wavelength Slit at Angular Incidence

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Armenian Journal of Physics 2017 30-35

http://ajp.asj-oa.am/

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### Waveguide resonator with high quality factor excited through the subwavelength slit Khachik Sahakyan, Hovhannes Haroyan, Kh. Nerkararyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2017 45-52

http://www.springer.com/physics/particle+and+nuclear+physics/journal/11958

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Journal of Luminescence 2017 595-598

http://www.sciencedirect.com/science/journal/00222313

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Shant Arakelyan, Tigran Abrahamyan, Arsen Babajanyan, Khachatur Nerkararyan

Applied Optics 2016 3854-3857

https://www.osapublishing.org/ao/home.cfm

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### Enhanced nonresonant light transmission through subwavelength slits in metal ANDERS PORS, KHACHATUR V. NERKARARYAN, KHACHIK SAHAKYAN, SERGEY I. BOZHEVOLNYI

Optics Letters 2016 242-245

https://www.osapublishing.org/ol/home.cfm

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International Journal of Mechanical, Aerospace, Industrial and Mechatronics Engineering 2015 651-654 https://www.waset.org/journal/Mechanical

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Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2012 433-441

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