

Wetting hysteresis induced by temperature changes: Supercooled water on hydrophobic surfaces

Heydari, G., Sedighi Moghaddam, M., Tuominen, M., Fielden, M., Haapanen, J., Mäkelä, J. M. & Claesson, P. M., 15 Apr 2016, In : *Journal of Colloid and Interface Science*. 468, p. 21-33 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Walking anisotropic spatial solitons and their steering in nematic liquid crystals

Peccianti, M., Alberucci, A., Assanto, G., De Luca, A., Coschignano, G. & Umetsu, C., 1 Jan 2005, *Nonlinear Guided Waves and Their Applications, NLGW 2005*. Optical Society of America OSA

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Vortex stabilization by means of spatial solitons in nonlocal media

Izdebskaya, Y., Krolikowski, W., Smyth, N. F. & Assanto, G., 1 May 2016, In : *Journal of Optics*. 18, 5, 054006.

Research output: Contribution to journal › Article › Scientific › peer-review

Very high dose electron irradiation effects on photoluminescence from GaInNAs/GaAs quantum wells grown by molecular beam epitaxy

Pavelescu, E. M., Bălăţeanu, N., Spănulescu, S. I. & Arola, E., 1 Feb 2017, In : *Optical Materials*. 64, p. 361-365 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Utilizing triangular mesh with MMEV to study hysteresis losses of round superconductors obeying critical state model

Ruuskanen, J., Stenvall, A. & Lahtinen, V., 1 Jun 2015, In : *IEEE Transactions on Applied Superconductivity*. 25, 3, 8200405.

Research output: Contribution to journal › Article › Scientific › peer-review

Unveiling and controlling the electronic structure of oxidized semiconductor surfaces: Crystalline oxidized InSb(100)(1 × 2)-O: Crystalline oxidized InSb(100)(1 × 2)-O

Lång, J. J. K., Punkkinen, M. P. J., Tuominen, M., Hedman, H. P., Vähä-Heikkilä, M., Polojärvi, V., Salmi, J., Korpijärvi, V. M., Schulte, K., Kuzmin, M., Punkkinen, R., Laukkanen, P., Guina, M. & Kokko, K., 29 Jul 2014, In : *Physical Review B*. 90, 4, p. 1-9 9 p., 045312.

Research output: Contribution to journal › Article › Scientific › peer-review

Ultra-large mode area single frequency anisotropic MOPA with double clad Yb-doped tapered fiber

Noronen, T., Fedotov, A., Rissanen, J., Gumenyuk, R., Butov, O., Chamorovskii, Y., Golant, K., Odnoblyudov, M. & Filippov, V., 1 Jan 2018, *Fiber Lasers XV: Technology and Systems*. SPIE, IEEE, 6 p. 105121T. (Proceedings of SPIE; vol. 10512).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Ultrahigh-pressure form of Si O₂ glass with dense pyrite-type crystalline homology

Murakami, M., Kohara, S., Kitamura, N., Akola, J., Inoue, H., Hirata, A., Hiraoka, Y., Onodera, Y., Obayashi, I., Kalikka, J., Hirao, N., Musso, T., Foster, A. S., Idemoto, Y., Sakata, O. & Ohishi, Y., 29 Jan 2019, In : *Physical Review B*. 99, 4, 045153.

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Two-time coherence of pulse trains and the integrated degree of temporal coherence

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Research output: Contribution to journal › Article › Scientific › peer-review

Two-part stretchable passive UHF RFID textile tags

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Two cations, two mechanisms: Interactions of sodium and calcium with zwitterionic lipid membranes

Javanainen, M., Melcrová, A., Magarkar, A., Jurkiewicz, P., Hof, M., Jungwirth, P. & Martinez-Seara, H., 2017, In : *Chemical Communications*. 53, 39, p. 5380-5383 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Tuning electronic properties of graphene heterostructures by amorphous-to-crystalline phase transitions

Kulju, S., Akola, J., Prendergast, D. & Jones, R. O., 31 May 2016, In : *Physical Review B*. 93, 19, 8 p., 195443.

Research output: Contribution to journal › Article › Scientific › peer-review

Tuneable topological domain wall states in engineered atomic chains

Huda, M. N., Kezilebieke, S., Ojanen, T., Drost, R. & Liljeroth, P., 2020, In : *npj Quantum Materials*. 5, 1, 5 p., 17.

Research output: Contribution to journal › Article › Scientific › peer-review

Tunable Reflection Type Plasmon Induced Transparency with Graphene

Habib, M., Ozbay, E. & Caglayan, H., 13 Nov 2018, *2018 12th International Congress on Artificial Materials for Novel Wave Phenomena, METAMATERIALS 2018*. IEEE, p. 170-172 3 p.

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Transverse structure optimization of laterally-coupled ridge waveguide DFB lasers

Uusitalo, T., Virtanen, H. & Dumitrescu, M., 17 Aug 2016, *16th International Conference on Numerical Simulation of Optoelectronic Devices, NUSOD 2016*. IEEE, p. 79-80 2 p. 7547038

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Transverse deformation of a lamellar TiAl alloy at high temperature by in situ microcompression

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Transparent Yb³⁺ doped phosphate glass-ceramics

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Transmission, refraction, and focusing properties of labyrinth based left-handed metamaterials

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Towards universal enrichment nanocoating for IR-ATR waveguides

Giammarco, J., Zdyrko, B., Petit, L., Musgraves, J. D., Hu, J., Agarwal, A., Kimerling, L., Richardson, K. & Luzinov, I., 28 Aug 2011, In : *Chemical Communications*. 47, 32, p. 9104-9106 3 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Towards REBCO 20T+ Dipoles for Accelerators

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Toward Graphene-Based Passive UHF RFID Textile Tags: A Reliability Study

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Research output: Contribution to journal › Article › Scientific › peer-review

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Thickness variation study of RFID-based folded patch antennas for strain sensing

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The sensitivity of random polymer brush-lamellar polystyrene-b-polymethylmethacrylate block copolymer systems to process conditions

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Research output: Contribution to journal › Article › Scientific › peer-review

Thermal, structural and optical properties of Er³⁺ doped phosphate glasses containing silver nanoparticles

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Thermal evaporation of Ge on Si for near infrared detectors: Material and device characterization

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Thermal effects on the Wigner localization and Friedel oscillations in many-electron nanowires

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

The red, purple and blue modifications of polymeric unsymmetrical hydroxyalkadiynyl-N-arylcarbamate derivatives in Langmuir-Schaefer films

Alekseev, A., Ihalainen, P., Ivanov, A., Domnin, I., Klechkovskaya, V., Orekhov, A., Lemmetyinen, H., Vuorimaa-Laukkanen, E., Peltonen, J. & Vyaz'min, S., 1 Aug 2016, In : Thin Solid Films. 612, p. 463-471 9 p.

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Theoretical studies of structural properties of the high-T_c superconductor Y₁Ba₂Cu₃O_{7-x}

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The magical world of metamaterials

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The Impact of Protection Heater Delays Distribution on the Hotspot Temperature in a High-Field Accelerator Magnet

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Research output: Contribution to journal › Article › Scientific › peer-review

The EuCARD2 Future Magnets Program for particle accelerator high field dipoles: review of results and next steps

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Research output: Contribution to journal › Article › Scientific › peer-review

The effects of laser patterning 10CeTZP-Al₂O₃ nanocomposite disc surfaces: Osseous differentiation and cellular arrangement in vitro

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Research output: Contribution to journal › Article › Scientific › peer-review

The 16 T Dipole Development Program for FCC

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Test Results of the LARP Nb₃Sn Quadrupole HQ03a

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Research output: Contribution to journal › Article › Scientific › peer-review

Test results of the LARP HQ02b magnet at 1.9 K

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Tailoring directional scattering of second-harmonic generation from (111)-GaAs nanoantennas

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System-level design for partially reconfigurable hardware

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Symmetry-broken electronic structure and uniaxial Fermi surface nesting of untwinned CaFe₂As₂

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Research output: Contribution to journal > Article > Scientific > peer-review

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Surface topography studied by off-axis digital holography

Achimova, E., Abaskin, V., Cazac, V., Meshalkin, A., Pedrini, G., Claus, D., Shevkunov, I. & Katkovnik, V., 2018, *Novel Optical Materials and Applications, NOMA 2018*. OSA - The Optical Society, Vol. Part F107-NOMA 2018.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Professional

Surface-relief gratings and stable birefringence inscribed using light of broad spectral range in supramolecular polymer-bisazobenzene complexes

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

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Suitability of Different Quench Protection Methods for a 16 T Block-Type Nb₃Sn Accelerator Dipole Magnet

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Suitability of bundle approximation in AC loss analysis of NbTi wires: Simulations and experiment

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Sub-parts-per-trillion sensitivity in trace gas detection by cantilever-enhanced photo-acoustic spectroscopy

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Research output: Contribution to journal › Article › Scientific › peer-review

Sub-100 fs pulse generation from a Tm,Ho: CALYO laser mode-locked by a GaSb-based SESAM at ~2043 nm

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Study of second-harmonic generation from CdS nanostructured thin film

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Research output: Contribution to journal › Article › Scientific › peer-review

Structure and in vitro dissolution of Mg and Sr containing borosilicate bioactive glasses for bone tissue engineering

Tainio, J. M., Salazar, D. A. A., Nommeots-Nomm, A., Roiland, C., Bureau, B., Neuville, D. R., Brauer, D. S. & Massera, J., 1 Apr 2020, In : Journal of Non-Crystalline Solids. 533, 10 p., 119893.

Research output: Contribution to journal › Article › Scientific › peer-review

Structural and Electrical Characterization of Solution-Processed Electrodes for Piezoelectric Polymer Film Sensors

Rajala, S., Mettänen, M. & Tuukkanen, S., 15 Mar 2016, In : IEEE Sensors Journal. 16, 6, p. 1692-1699 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Strong localization in unintentional disordered photonics crystal waveguides

Zang, X. & Lalanne, P., 2013, *2013 7th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, METAMATERIALS 2013*. IEEE COMPUTER SOCIETY PRESS, p. 322-324 3 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Strand and cable R&D for fast cycled magnets at CERN

Bottura, L., Bonasia, A., Borgnolutti, F., Gaertner, W., Le Naour, S., Oberli, L., Peiro, G., Richter, D., Salmi, T., Sikler, G. & Willering, G., Jun 2011, In : IEEE Transactions on Applied Superconductivity. 21, 3 PART 2, p. 2354-2358 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Stimuli-responsive photonic polymer coatings

Stumpel, J. E., Broer, D. J. & Schenning, A. P. H. J., 28 Dec 2014, In : Chemical Communications. 50, 100, p. 15839-15848 10 p.

Research output: Contribution to journal › Review Article › Scientific › peer-review

Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels

Stumpel, J. E., Gil, E. R., Spoelstra, A. B., Bastiaansen, C. W. M., Broer, D. J. & Schenning, A. P. H. J., 2015, In : Advanced Functional Materials. 25, 22, p. 3314-3320

Research output: Contribution to journal › Article › Scientific › peer-review

Status of the Demonstrator Magnets for the EuCARD-2 Future Magnets Project

Kirby, G., Rossi, L., Badel, A., Bajko, M., Ballarino, A., Bottura, L., Dhalle, M., Durante, M., Fazilleau, P., Fleiter, J., Goldacker, W., Härö, E., Himbele, J., Kario, A., Langeslag, S., Lorin, C., Murtzomaki, J., Van Nugteren, J., De Rijk, G., Salmi, T., Senatore, C., Stenvall, A., Tixador, P., Usoskin, A., Volpini, G., Yang, Y. & Zangenberg, N., 1 Apr 2016, In : IEEE Transactions on Applied Superconductivity. 26, 3, 4003307.

Research output: Contribution to journal › Article › Scientific › peer-review

Statistical analysis of E-jet print parameter effects on Ag-nanoparticle ink droplet size

Laurila, M. M., Khorramdel, B., Dastpak, A. & Mäntysalo, M., 2 Aug 2017, In : Journal of Micromechanics and Microengineering. 27, 9, 095005.

Research output: Contribution to journal › Article › Scientific › peer-review

State of polarization in anisotropic tapered fiber with extremely large core diameter

Ustimchik, V. E., Vyatkin, M. Y., Popov, S. M., Chamorovskii, Y. K., Filippov, V. N. & Nikitov, S. A., 23 Aug 2016, p. S123.

Research output: Other conference contribution › Paper, poster or abstract › Scientific

Stable blue phase polymeric Langmuir-Schaefer films based on unsymmetrical hydroxyalkadiynyl N-arylcarbamate derivatives

Alekseev, A., Ihalainen, P., Ivanov, A., Domnin, I., Rosqvist, E., Lemmetyinen, H., Vuorimaa-Laukkanen, E., Peltonen, J. & Vyaz'min, S., 2018, In : Thin Solid Films. 645, p. 108-118 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Special Issue: Novel Optical and Photonic Devices based on 2D Materials

Luo, Z. (ed.), Bao, Q. (ed.), Caglayan, H. (ed.), Jia, B. (ed.) & Zhang, H. (ed.), 2020, In : *Optical Materials Express*. 10, 6
Research output: Contribution to journal › Special issue › Scientific › peer-review

Special Issue: Mid-infrared optical materials and their device applications

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Research output: Contribution to journal › Special issue › Scientific › peer-review

Soliton enhancement of spontaneous symmetry breaking

Alberucci, A., Piccardi, A., Kravets, N., Buchnev, O. & Assanto, G., 2015, In : *Optica*. 2, 9, p. 783-789 7 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Solar Irradiation Independent Expression for Photovoltaic Generator Maximum Power Line

Kolesnik, S., Sitbon, M., Lineykin, S., Batzelis, E., Papathanassiou, S., Suntio, T. & Kuperman, A., 2017, In : *IEEE Journal of Photovoltaics*. 7, 5, p. 1416-1420

Research output: Contribution to journal › Article › Scientific › peer-review

Soft graphoepitaxy for large area directed self-assembly of polystyrene-block-poly(dimethylsiloxane) block copolymer on nanopatterned poss substrates fabricated by nanoimprint lithography

Borah, D., Rasappa, S., Salaun, M., Zellsman, M., Lorret, O., Liontos, G., Ntetsikas, K., Avgeropoulos, A. & Morris, M. A., 1 Jun 2015, In : *Advanced Functional Materials*. 25, 22, p. 3425-3432 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Site-controlled InAs Quantum Dots for Plasmonics

Hakkarainen, T., Tommila, J., Schramm, A., Simonen, J., Niemi, T., Strelow, C., Kipp, T., Kontio, J. & Guina, M., 2016, *Conference on Lasers and Electro-Optics 2016: QELS_Fundamental Science*. OSA - The Optical Society, FM1B.3

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Single-source multibattery solar charger: Case study and implementation issues

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Research output: Contribution to journal › Article › Scientific › peer-review

Single KTiOPO4 nanocrystals for nonlinear probing of local optical fields and interaction with a metallic nanostructure

Slablab, A., Le Xuan, L., Zhou, C., Chauvat, D., De Wilde, Y., Perruchas, S., Tard, C., Gacoin, T., Villeval, P. & Roch, J. F., 2009, *CLEO/Europe - EQEC 2009 - European Conference on Lasers and Electro-Optics and the European Quantum Electronics Conference*. 5192089

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Sensitivity Analysis of Inverse Thermal Modeling to Determine Power Losses in Electrical Machines

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Real-time measurements of ultrafast instabilities in nonlinear fiber optics: Recent advances

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Research output: Contribution to journal > Article > Scientific > peer-review

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Protection Heater Design Validation for the LARP Magnets Using Thermal Imaging

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Processing and Characterization of Bioactive Borosilicate Glasses and Scaffolds with Persistent Luminescence

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Printable and flexible macroporous organosilica film with high protein adsorption capacity

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Preserving natural scene lighting by strobe-lit video

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Preparation of water-based carbon nanotube inks and application in the inkjet printing of carbon nanotube gas sensors

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Power loss mechanisms in n-type modulation-doped AlGaAs/GaAsBi quantum well heterostructures

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Research output: Contribution to journal > Article > Scientific > peer-review

Power and wavelength scaling using semiconductor disk laser - bismuth fiber MOPA systems

Heikkinen, J., Gumenyuk, R., Rantamäki, A., Lyytikäinen, J., Leinonen, T., Zolotovskii, I., Melkumov, M., Dianov, E. M. & Okhotnikov, O. G., 2015, *Vertical External Cavity Surface Emitting Lasers (VECSELs) V*. Guina, M. (ed.). BELLINGHAM: SPIE, 7 p. 93490E. (Proceedings of SPIE; vol. 9349).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Polymer stabilization enhances the orientational optical nonlinearity of oligothiophene-doped nematic liquid crystals

Aihara, Y., Kinoshita, M., Wang, J., Mamiya, J. I., Priimagi, A. & Shishido, A., Nov 2013, In : *Advanced Optical Materials*. 1, 11, p. 787-791 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Plasmon lifetime enhancement in a bright-dark mode coupled system

Yildiz, B. C., Bek, A. & Tasgin, M. E., 16 Jan 2020, In : *Physical Review B*. 101, 3, 8 p., 035416.

Research output: Contribution to journal > Article > Scientific > peer-review

Plasma etch technologies for the development of ultra-small feature size transistor devices

Borah, D., Shaw, M. T., Rasappa, S., Farrell, R. A., O'Mahony, C., Faulkner, C. M., Bosea, M., Gleeson, P., Holmes, J. D. & Morris, M. A., 4 May 2011, In : *Journal of Physics D: Applied Physics*. 44, 17, 174012.

Research output: Contribution to journal > Article > Scientific > peer-review

Pipeline for effective denoising of digital mammography and digital breast tomosynthesis

Borges, L. R., Bakic, P. R., Foi, A., Maidment, A. D. A. & Vieira, M. A. C., 2017, *Medical Imaging 2017: Physics of Medical Imaging*. SPIE, 1013206. (Progress in biomedical optics and imaging).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Piezoresistive natural rubber-multiwall carbon nanotube nanocomposite for sensor applications

Selvan, N. T., Eshwaran, S. B., Das, A., Stöckelhuber, K. W., Wießner, S., Pötschke, P., Nando, G. B., Chervanyov, A. I. & Heinrich, G., 1 Mar 2016, In : *Sensors and Actuators, A: Physical*. 239, p. 102-113 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Picosecond MOPA with ytterbium doped tapered double clad fiber

Filippov, V., Vorotynskii, A., Noronen, T., Gumenyuk, R., Chamorovskii, Y. & Golant, K., 2017, *Fiber Lasers XIV: Technology and Systems*. SPIE, Vol. 10083. 6 p. 100831H. (Proceedings of SPIE; no. 10083).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Physisorption of benzene on a tin dioxide surface: Van der Waals interaction

Viitala, M., Kuisma, M. & Rantala, T. T., 8 Feb 2012, In : *Physical Review B*. 85, 8, p. 1-5 5 p., 085412.

Research output: Contribution to journal > Article > Scientific > peer-review

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Ozbay, E., Bulu, I., Aydin, K., Caglayan, H. & Guven, K., Oct 2004, In : *Photonics and Nanostructures - Fundamentals and Applications*. 2, 2, p. 87-95 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Photovoltaic properties of low-bandgap (0.7–0.9eV) lattice-matched GaInNAsSb solar junctions grown by molecular beam epitaxy on GaAs

Isoaho, R., Aho, A., Tukiainen, A., Aho, T., Raappana, M., Salminen, T., Reuna, J. & Guina, M., 15 Jun 2019, In : *Solar Energy Materials and Solar Cells*. 195, p. 198-203 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Photophysical properties of porphyrin dimer-single-walled carbon nanotube linked systems

Baek, J., Umeyama, T., Mizuno, S., Tkachenko, N. V. & Imahori, H., 2017, In : *Journal of Physical Chemistry C*. 121, 39

Research output: Contribution to journal > Article > Scientific > peer-review

Photoinduced surface patterning of azobenzene-containing supramolecular dendrons, dendrimers and dendronized polymers

Vapaavuori, J., Priimagi, A., Soininen, A. J., Canilho, N., Kasëmi, E., Ruokolainen, J., Kaivola, M. & Ikkala, O., 2013, In : *Optical Materials Express*. 3, 6, p. 711-722 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Photoinduced Electron Transfer in CdSe/ZnS Quantum Dot-Fullerene Hybrids

Virkki, K., Demir, S., Lemmetyinen, H. & Tkachenko, N. V., 23 Jul 2015, In : *Journal of Physical Chemistry C*. 119, 31, p. 17561-17572 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Photoinduced Electron Injection from Zinc Phthalocyanines into Zinc Oxide Nanorods: Aggregation Effects

Virkki, K., Hakola, H., Urbani, M., Tejerina, L., Ince, M., Martínez-Díaz, M. V., Torres, T., Golovanova, V., Golovanov, V. & Tkachenko, N. V., 4 May 2017, In : *Journal of Physical Chemistry C*. 121, 17, p. 9594-9605 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Photoinduced bending upon pulsed irradiation in azobenzene-containing crosslinked liquid-crystalline polymers

Shimamura, A., Priimagi, A., Mamiya, J. I., Kinoshita, M., Ikeda, T. & Shishido, A., Sep 2011, In : *Journal of Nonlinear Optical Physics and Materials*. 20, 4, p. 405-413 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Photocatalytic and antibacterial properties of ZnO films with different surface topographies on stainless steel substrate
Heinonen, S., Kannisto, M., Nikkanen, J-P., Huttunen-Saarivirta, E., Karp, M. & Levänen, E., 1 Oct 2016, In : *Thin Solid Films*. 616, p. 842-849 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Phosphate glasses with blue persistent luminescence prepared using the direct doping method
Ojha, N., Tuomisto, M., Lastusaari, M. & Petit, L., Jan 2019, In : *Optical Materials*. 87, p. 151-156

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Performance of Solar Cell Grids based on Ag, Au, and Al for Cost-Effective Manufacturing

Raappana, M., Aho, A., Aho, T., Isoaho, R., Anttola, E., Kajas, N., Polojärvi, V., Tukiainen, A. & Guina, M., Oct 2019, *2019 European Space Power Conference (ESPC)*. IEEE

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Performance enhancement of the RFID EPC Gen2 protocol by exploiting collision re-recovery

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Research output: Contribution to journal › Article › Scientific › peer-review

Perfect magnetic mirror and simple perfect absorber in the visible spectrum

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Mehmood, A., Vianto, V., He, H., Chen, X., Buruk, O. O., Ukkonen, L. & Virkki, J., 1 Dec 2019, *2019 Photonics and Electromagnetics Research Symposium - Fall, PIERS - Fall 2019 - Proceedings*. IEEE, p. 1760-1763 4 p. 9021441

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Passive resonance sensor based method for monitoring particle suspensions

Salpavaara, T., Järveläinen, M., Seppälä, S., Yli-Hallila, T., Verho, J., Viikko, M., Lekkala, J. & Levänen, E., 8 Jun 2015, In : *Sensors and Actuators B: Chemical*. 219, p. 324-330 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Parametric conversion in micrometer and submicrometer structured ferroelectric crystals by surface poling

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Research output: Contribution to journal › Article › Scientific › peer-review

Optimization of an E3SPreSSO Energy-Extraction System for High-Field Superconducting Magnets

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Research output: Contribution to journal › Article › Scientific › peer-review

Optical properties of GaAs_{1-x}Bi_x/GaAs quantum well structures grown by molecular beam epitaxy on (100) and (311)B GaAs substrates

Gunes, M., Ukelge, M. O., Donmez, O., Erol, A., Gumus, C., Alghamdi, H., Galeti, H. V. A., Henini, M., Schmidbauer, M., Hilska, J., Puustinen, J. & Guina, M., 13 Nov 2018, In : *Semiconductor Science and Technology*. 33, 12, 124015.

Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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On the limit of superhydrophobicity: Defining the minimum amount of TiO₂ nanoparticle coating

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Research output: Contribution to journal › Article › Scientific › peer-review

Observation of unusual metal-semiconductor interaction and metal-induced gap states at an oxide-semiconductor interface: The case of epitaxial BaO/Ge(100) junction

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Observation of local electroluminescent cooling and identifying the remaining challenges

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Editorial › Scientific

Novel highly-efficient and misalignment insensitive wireless power transfer systems utilizing Strongly Coupled Magnetic Resonance principles

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Novel Er³⁺ doped phosphate glass-ceramics for photonics

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Novel enhancement techniques for ultra-high-performance conformal wireless sensors and 'smart skins' utilizing inkjet-printed graphene

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Novel borosilicate bioactive scaffolds with persistent luminescence

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Research output: Contribution to journal › Article › Scientific › peer-review

No-reference visual quality assessment for image inpainting

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Research output: Contribution to journal › Article › Scientific › peer-review

Nonlinear optics applications: In memory of George I. Stegeman

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Research output: Contribution to journal › Editorial › Scientific

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Research output: Contribution to journal > Article > Scientific

Non-destructive and wireless monitoring of biodegradable polymers

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Research output: Contribution to journal > Article > Scientific > peer-review

Noise measurements from reconstructed digital breast tomosynthesis

Vimieiro, R. B., Borges, L. R., Caron, R. F., Barufaldi, B., Bakic, P. R., Maidment, A. D. A. & Vieira, M. A. C., 1 Mar 2019, *Medical Imaging 2019: Physics of Medical Imaging*. Schmidt, T. G., Chen, G-H. & Bosmans, H. (eds.). SPIE, IEEE, 109480C. (Progress in Biomedical Optics and Imaging - Proceedings of SPIE; vol. 10948).

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Noise characterization of Ge/Si photodetectors

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

New multisoliton complex in Bi-doped fiber laser operated at 1450 nm

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Near-threshold high spin amplification in a 1300 nm GaInNAs spin laser

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Research output: Contribution to journal > Article > Scientific > peer-review

Near-surface defect profiling with slow positrons: Argon-sputtered Al(110)

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Research output: Contribution to journal > Article > Scientific > peer-review

Near-infrared photodetectors in evaporated ge: Characterization and TCAD simulations

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Research output: Contribution to journal > Article > Scientific > peer-review

Narrow-linewidth operation of folded VECSEL cavity with twist-mode configuration

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Research output: Other conference contribution > Paper, poster or abstract > Scientific

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Research output: Contribution to journal > Article > Scientific > peer-review

Narrow Bandgap Dilute Nitride Materials for 6-junction Space Solar Cells

Isoaho, R., Aho, A., Tukiainen, A., Aho, T., Raappana, M., Salminen, T., Reuna, J. & Guina, M., 2019, *2019 European Space Power Conference (ESPC)*. IEEE, 3 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Nanoparticles in optical waveguides: A toolbox to promote lasers, amplifiers and sensors

Blanc, W., Vermillac, M., Petit, L., Lukowiak, A., Lu, Z., Mady, F., Benabdesselam, M., Chaussedent, S., Mehdi, A. & Ferrari, M., 1 Jul 2019, *21st International Conference on Transparent Optical Networks, ICTON 2019*. IEEE, (International Conference on Transparent Optical Networks).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Multicolor nonlinear pulse compression by consecutive optical parametric amplification in quasi-phase matched structures

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Morphology evolution of PS-b-PDMS block copolymer and its hierarchical directed self-assembly on block copolymer templates

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Research output: Contribution to journal > Article > Scientific > peer-review

Monolithic GaInNAsSb/GaAs VECSEL emitting at 1550 nm

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Modification of Surface States of Hematite-Based Photoanodes by Submonolayer of TiO₂ for Enhanced Solar Water Splitting

Palmolahti, L., Ali-Löytty, H., Khan, R., Saari, J., Tkachenko, N. V. & Valden, M., 2020, In : *Journal of Physical Chemistry C*. 124, 24, p. 13094-13101 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Mode coupling in few-mode large-mode-area fibers

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Mining tailings as raw materials for reaction-sintered aluminosilicate ceramics: Effect of mineralogical composition on microstructure and properties

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Research output: Contribution to journal › Article › Scientific › peer-review

Micro-Raman characterization of Germanium thin films evaporated on various substrates

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Research output: Contribution to journal › Article › Scientific › peer-review

Membrane bound COMT isoform is an interfacial enzyme: General mechanism and new drug design paradigm

Magarkar, A., Parkkila, P., Viitala, T., Lajunen, T., Mobarak, E., Licari, G., Cramariuc, O., Vauthey, E., Róg, T. & Bunker, A., 11 Apr 2018, In : *Chemical Communications*. 54, 28, p. 3440-3443 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

MECSELs with direct emission in the 760 nm to 810 nm spectral range: A single- and double-side pumping comparison and high-power continuous-wave operation

Kahle, H., Penttinen, J. P., Phung, H. M., Rajala, P., Tukiainen, A., Ranta, S. & Guina, M., 2019, *Vertical External Cavity Surface Emitting Lasers (VECSELs) IX*. Keller, U. (ed.). SPIE, IEEE, 109010D. (Proceedings of SPIE - The International Society for Optical Engineering; vol. 10901).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Mechanical stress analysis during a quench in CLIQ protected 16 T dipole magnets designed for the future circular collider

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Research output: Contribution to journal › Article › Scientific › peer-review

Mechanical Effects of the Nonuniform Current Distribution on HTS Coils for Accelerators Wound With REBCO Roebel Cable

Murtomaki, J. S., Van Nugteren, J., Kirby, G., Rossi, L., Ruuskanen, J. & Stenvall, A., 1 Jun 2017, In : *IEEE Transactions on Applied Superconductivity*. 27, 4, 4100405.

Research output: Contribution to journal › Article › Scientific › peer-review

Mechanical characterization of pore-graded bioactive glass scaffolds produced by robocasting

Barberi, J., Nommeots-Nomm, A., Fiume, E., Verné, E., Massera, J. & Baino, F., 2019, In : *Biomedical Glasses*. 5, 1, p. 140-147 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Mechanical behavior of a 16 T FCC dipole magnet during a quench

Zhao, J., Stenvall, A., Salmi, T., Gao, Y. & Lorin, C., 2017, In : *IEEE Transactions on Applied Superconductivity*. 27, 6, 4004407.

Research output: Contribution to journal › Article › Scientific › peer-review

Measuring optical anisotropy in poly(3,4-ethylene dioxythiophene): poly(styrene sulfonate) films with added graphene

Isoniemi, T., Tuukkanen, S., Cameron, D. C., Simonen, J. & Toppari, J. J., 9 Jul 2015, In : *Organic Electronics*. 25, p. 317-323 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Measuring bend losses in large-mode-area fibers

Ye, C., Koponen, J., Aallos, V., Kokki, T., Petit, L. & Kimmelma, O., 2015, *Fiber Lasers XII: Technology, Systems, and Applications*. SPIE, Vol. 9344. 934425

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Maintenance-free moisture sensor on dishcloth substrate

Chen, X., He, H., Yang, Y., Gou, M., Sydanheimo, L., Ukkonen, L. & Virkki, J., 1 Dec 2019, *2019 Photonics and Electromagnetics Research Symposium - Fall, PIERS - Fall 2019 - Proceedings*. IEEE, p. 2418-2421 4 p. 9021487

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Magnetic non-contact friction from domain wall dynamics actuated by oscillatory mechanical motion

Rissanen, I. & Laurson, L., 13 Aug 2019, In : Journal of Physics D: Applied Physics. 52, 44, 445002.

Research output: Contribution to journal › Article › Scientific › peer-review

Magnetic and mechanical design of a 16 T common coil dipole for FCC

Toral, F., Munilla, J. & Salmi, T., 2018, In : IEEE Transactions on Applied Superconductivity. 28, 3, 4004305.

Research output: Contribution to journal › Article › Scientific › peer-review

Machine learning for adaptive bilateral filtering

Frosio, I., Egiazarian, K. & Pulli, K., 2015, *Image Processing: Algorithms and Systems XIII*. SPIE, Vol. 9399. 939908. (Proceedings of SPIE - The International Society for Optical Engineering).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Luminescent (Er,Ho)₂O₃ thin films by ALD to enhance the performance of silicon solar cells

Ghazy, A., Safdar, M., Lastusaari, M., Aho, A., Tukiainen, A., Savin, H., Guina, M. & Karppinen, M., 2020, In : Solar Energy Materials and Solar Cells. 219, 5 p., 110787.

Research output: Contribution to journal › Article › Scientific › peer-review

Low-temperature germanium thin films on silicon

Sorianello, V., Colace, L., Armani, N., Rossi, F., Ferrari, C., Lazzarini, L. & Assanto, G., 1 Sep 2011, In : Optical Materials Express. 1, 5, p. 856-865 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Long-Range Observation of Exciplex Formation and Decay Mediated by One-Dimensional Bridges

Baek, J., Umeyama, T., Stranius, K., Yamada, H., Tkachenko, N. V. & Imahori, H., 29 Jun 2017, In : Journal of Physical Chemistry C. 121, 25, p. 13952-13961 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Local Mechanical Properties at the Dendrite Scale of Ni-Based Superalloys Studied by Advanced High Temperature Indentation Creep and Micropillar Compression Tests

Haußmann, L., Neumeier, S., Kolb, M., Ast, J., Mohanty, G., Michler, J. & Göken, M., 2020, *Superalloys 2020: Proceedings of the 14th International Symposium on Superalloys*. Tin, S., Hardy, M., Clews, J., Cormier, J., Feng, Q., Marcin, J., O'Brien, C. & Suzuki, A. (eds.). Springer, p. 273-281 9 p. (The Minerals, Metals and Materials Series).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Localized surface plasmon resonance in silver nanoparticles: Atomistic first-principles time-dependent density-functional theory calculations

Kuisma, M., Sakko, A., Rossi, T. P., Larsen, A. H., Enkovaara, J., Lehtovaara, L. & Rantala, T. T., 24 Mar 2015, In : Physical Review B. 91, 11, 8 p., 115431.

Research output: Contribution to journal › Article › Scientific › peer-review

Localization of light at vanishingly small disorder-levels with heavy photons

Baron, A., Faggiani, R., Zang, X., Lalouat, L., Schulz, S. A., Vynck, K., O'Regan, B., Cluzel, B., De Fornel, F., Krauss, T. F. & Lalanne, P., 10 Aug 2015, *2015 Conference on Lasers and Electro-Optics, CLEO 2015*. Optical Society of America OSA, Vol. 2015-August. 7183319

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Liquid crystal light valves: A versatile platform for nematicons

Assanto, G., Piccardi, A., Alberucci, A., Residori, S. & Bertolozzo, U., 2009, In : Photonics Letters of Poland. 1, 4, p. 151-153 3 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Linear and nonlinear light beam propagation in chiral nematic liquid crystal waveguides

Laudyn, U. A., Kwaśny, M., Jung, P. S., Trippenbach, M., Assanto, G. & Karpierz, M. A., 2016, In : Photonics Letters of Poland. 8, 1, p. 11-13 3 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Light-trapping enhanced thin-film III-V quantum dot solar cells fabricated by epitaxial lift-off

Cappelluti, F., Kim, D., van Eerden, M., Cédola, A. P., Aho, T., Bissels, G., Elsehrawy, F., Wu, J., Liu, H., Mulder, P., Bauhuis, G., Schermer, J., Niemi, T. & Guina, M., 2018, In : *Solar Energy Materials and Solar Cells*. 181, p. 83-92

Research output: Contribution to journal › Article › Scientific › peer-review

Light propagation analysis in nervous tissue for wireless optogenetic nanonetworks

Wirdatmadja, S., Johari, P., Balasubramaniam, S., Bae, Y., Stachowiak, M. K. & Jornet, J. M., 2018, *Optogenetics and Optical Manipulation 2018*. SPIE, 104820R

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Laser angle-resolved photoemission as a probe of initial state kz dispersion, final-state band gaps, and spin texture of Dirac states in the Bi₂Te₃ topological insulator

Ärrälä, M., Hafiz, H., Mou, D., Wu, Y., Jiang, R., Riedemann, T., Lograsso, T. A., Barbiellini, B., Kaminski, A., Bansil, A. & Lindroos, M., 27 Oct 2016, In : *Physical Review B*. 94, 15, 7 p., 155144.

Research output: Contribution to journal › Article › Scientific › peer-review

Labyrinth based left-handed metamaterials and sub-wavelength focusing of electromagnetic waves

Ozbay, E., Bulu, I. & Caglayan, H., 2006, *Photonic Crystal Materials and Devices IV*. Vol. 6128. 612813. (Proceedings of SPIE; vol. 6128).

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Irradiation promoted exchange reaction with disulfide substituents

Khan, M. N. & Zharnikov, M., 18 Jul 2013, In : *Journal of Physical Chemistry C*. 117, 28, p. 14534-14543 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Iron losses, magnetoelasticity and magnetostriction in ferromagnetic steel laminations

Rasilo, P., Singh, D., Belahcen, A. & Arkkio, A., 2013, In : *IEEE Transactions on Magnetics*. 49, 5, p. 2041-2044 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Investigation of REBCO Roebel Cable Irreversible Critical Current Degradation Under Transverse Pressure

Murtomäki, J. S., Kouhia, R., Stenvall, A., Bottura, L., Kirby, G., van Nugteren, J., DeRijk, G. & Rossi, L., Jun 2018, In : *IEEE Transactions on Applied Superconductivity*. 28, 4, 4802506.

Research output: Contribution to journal › Article › Scientific › peer-review

Investigation of long-term chemical stability of structured ZnO films in aqueous solutions of varying conditions

Heinonen, S., Nikkanen, J-P., Huttunen-Saarivirta, E. & Levänen, E., 30 Sep 2017, In : *Thin Solid Films*. 638, p. 410-419 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Investigating the metallic behavior of Na clusters using site-specific polarizabilities

Ma, L., Jackson, K. A., Wang, J., Horoi, M. & Jellinek, J., 24 Jan 2014, In : *Physical Review B*. 89, 3, 035429.

Research output: Contribution to journal › Article › Scientific › peer-review

Investigating solvent effects on aggregation behaviour, linear and nonlinear optical properties of silver nanoclusters

Bhaviatha, K. B., Nair, A. K., Perumbilavil, S., Joseph, S., Kala, M. S., Saha, A., Narayanan, R. A., Hameed, N., Thomas, S., Oluwafemi, O. S. & Kalarikkal, N., 1 Nov 2017, In : *Optical Materials*. 73, p. 695-705 11 p.

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Investigating human skin using deep learning enhanced multiphoton microscopy

Huttunen, M. J., Hristu, R., Dumitru, A., Costache, M. & Stanciu, S. G., 1 Jul 2019, *21st International Conference on Transparent Optical Networks, ICTON 2019*. IEEE, (International Conference on Transparent Optical Networks).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Interstitial photodynamic therapy and glioblastoma: Light fractionation study on a preclinical model: Preliminary results

Leroy, H. A., Vermandel, M., Tétard, M. C., Lejeune, J. P., Mordon, S. & Reyns, N., 2015, *Optical Techniques in Neurosurgery, Neurophotonics, and Optogenetics II*. SPIE, Vol. 9305. 93050D

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Interfacial design and structure of protein/polymer films on oxidized AlGaN surfaces

Gupta, S. K., Wu, H. H., Kwak, K. J., Casal, P., Nicholson, T. R., Wen, X., Anisha, R., Bhushan, B., Berger, P. R., Lu, W., Brillson, L. J. & Lee, S. C., 26 Jan 2011, In : *Journal of Physics D: Applied Physics*. 44, 3, 34010.

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Intelligent data service for farmers

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Integrating III-V, Si, and polymer waveguides for optical interconnects: RAPIDO

Aalto, T., Harjanne, M., Offrein, B. J., Caër, C., Neumeyr, C., Malacarne, A., Guina, M., Sheehan, R. N., Peters, F. H. & Melanen, P., 2016, *Optical Interconnects XVI*. SPIE, 97530D. (Proceedings of SPIE; vol. 9753).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Integrated multi-wavelength mid-IR light source for gas sensing

Karioja, P., Alajoki, T., Cherchi, M., Ollila, J., Harjanne, M., Heinilehto, N., Suomalainen, S., Zia, N., Tuorila, H., Viheriälä, J., Guina, M., Buczynski, R., Kasztelanic, R., Salo, T., Virtanen, S., Kluczynski, P., Borgen, L., Ratajczyk, M. & Kalinowski, P., 2018, *Next-Generation Spectroscopic Technologies XI*. SPIE, IEEE, 106570A. (SPIE Conference Proceedings; vol. 10657).

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Instability of cuboctahedral copper clusters

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Research output: Contribution to journal > Article > Scientific > peer-review

Inkjet printing of radio frequency electronics: Design methodologies and application of novel nanotechnologies

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Inkjet catalyst printing and electroless copper deposition for low-cost patterned microwave passive devices on paper

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Research output: Contribution to journal > Article > Scientific > peer-review

Influence of the phosphate glass melt on the corrosion of functional particles occurring during the preparation of glass-ceramics

Ojha, N., Laihinen, T., Salminen, T., Lastusaari, M. & Petit, L., Jun 2018, In : *Ceramics International*. 44, 10, p. 11807-11811

Research output: Contribution to journal > Article > Scientific > peer-review

Influence of the P2O5/Al2O3 co-doping on the local environment of erbium ions and on the 1.5 μm quantum efficiency of Er³⁺-borosilicate glasses

Bourhis, K., Boetti, N. G., Koponen, J., Milanese, D. & Petit, L., Mar 2014, In : *Optical Materials*. 36, 5, p. 926-931 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Influence of temperature-induced copper diffusion on degradation of selective chromium oxy-nitride solar absorber coatings

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Research output: Contribution to journal > Article > Scientific > peer-review

Influence of environmental conditions on EMF levels in a span of overhead transmission lines

Okun, O., Kravchenko, Y. & Korpinen, L., 2016, In : *Progress in Electromagnetics Research C*. 63, p. 163-171 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Influence of As/group-III flux ratio on defects formation and photovoltaic performance of GaInNAs solar cells

Polojärvi, V., Aho, A., Tukiainen, A., Raappana, M., Aho, T., Schramm, A. & Guina, M., 1 May 2016, In : *Solar Energy Materials and Solar Cells*. 149, p. 213-220 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Improvements in the electromechanical properties of stretchable interconnects by locally tuning the stiffness

Mosallaei, M., Di Vito, D., Khorramdel, B. & Mäntysalo, M., 2020, In : *Flexible and Printed Electronics*. 5, 1, 015004.

Research output: Contribution to journal > Article > Scientific > peer-review

Importance of iron-loss modeling in simulation of wound-field synchronous machines

Rasilo, P., Belahcen, A. & Arkkio, A., 2012, In : *IEEE Transactions on Magnetics*. 48, 9, p. 2495-2504 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Identification of synchronous machine magnetization characteristics from calorimetric core-loss and no-load curve measurements

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Research output: Contribution to journal > Article > Scientific > peer-review

ICED - Inductively Coupled Energy Dissipater for Future High Field Accelerator Magnets

Murtomäki, J. S., van Nugteren, J., Kirby, G., DeRijk, G., Rossi, L. & Stenvall, A., Dec 2018, In : *IEEE Transactions on Applied Superconductivity*. 28, 8, 4009015.

Research output: Contribution to journal > Article > Scientific > peer-review

Hyperspectral phase imaging based on denoising in complex-valued eigensubspace

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Research output: Contribution to journal > Article > Scientific > peer-review

How well can we predict cluster fragmentation inside a mass spectrometer?

Passananti, M., Zapadinsky, E., Zanca, T., Kangasluoma, J., Myllys, N., Rissanen, M. P., Kurtén, T., Ehn, M., Attoui, M. & Vehkamäki, H., 2019, In : *Chemical Communications*. 55, 42, p. 5946-5949 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Hot spot temperature in an HTS Coil: Simulations with MITs and finite element method

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Research output: Contribution to journal › Article › Scientific › peer-review

Hot pen and laser writable photonic polymer films

Moirangthem, M., Stumpel, J. E., Alp, B., Teunissen, P., Bastiaansen, C. W. M. & Schenning, A. P. H. J., 2016, *Emerging Liquid Crystal Technologies XI*. SPIE, Vol. 9769. 97690Y

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

High-resolution coded-aperture design for compressive X-ray tomography using low resolution detectors

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Research output: Contribution to journal › Article › Scientific › peer-review

High-Q resonance train in a plasmonic metasurface

Saad-Bin-Alam, M., Reshef, O., Huttunen, M. J., Carlow, G., Sullivan, B., Menard, J. M., Dolgaleva, K. & Boyd, R. W., 1 May 2019, *2019 Conference on Lasers and Electro-Optics, CLEO 2019 - Proceedings*. IEEE

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

High-Power 1.5 μm Tapered Distributed Bragg Reflector Laser Diodes for Eye-Safe LIDAR

Aho, A. T., Viheriälä, J., Koskinen, M., Uusitalo, T., Reuna, J. & Guina, M., 1 Oct 2020, In : IEEE Photonics Technology Letters. 32, 19, p. 1249-1252 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

High-power 1550 nm tapered DBR lasers fabricated using soft UV-nanoimprint lithography

Viheriälä, J., Aho, A. T., Mäkelä, J., Salmi, J., Virtanen, H., Leinonen, T., Dumitrescu, M. & Guina, M., 2016, *High-Power Diode Laser Technology and Applications XIV*. SPIE, 7 p. 97330Q. (SPIE Conference Proceedings; vol. 9733).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

High performance GaSb superluminescent diodes for tunable light source at 2 μm and 2.55 μm

Zia, N., Viheriälä, J., Koivusalo, E., Aho, A., Suomalainen, S. & Guina, M., 2018, *CLEO: Applications and Technology, CLEO_AT 2018*. OSA - The Optical Society

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

High performance corrosion resistant coatings by novel coaxial cold- and hot-wire laser cladding methods

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Research output: Contribution to journal › Article › Scientific › peer-review

Highly-efficient Ho:KY(WO₄)₂ thin-disk lasers at 2.06 μm

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Highly efficient charge separation in model Z-scheme TiO₂/TiSi₂/Si photoanode by micropatterned titanium silicide interlayer

Hannula, M., Ali-Löytty, H., Lahtonen, K., Saari, J., Tukiainen, A. & Valden, M., 1 Aug 2019, In : Acta Materialia. 174, p. 237-245 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

High-dimensional quantum gates using full-field spatial modes of photons

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Research output: Contribution to journal › Article › Scientific › peer-review

Hematite Surface Modification toward Efficient Sunlight-Driven Water Splitting Activity: The Role of Gold Nanoparticle Addition

Tofanello, A., Freitas, A. L. M., Carvalho, W. M., Salminen, T., Niemi, T. & Souza, F. L., 2020, In : Journal of Physical Chemistry C.

Research output: Contribution to journal > Article > Scientific > peer-review

Harmonic mode-locking fiber ring laser with a pulse repetition rate up to 12 GHz

Korobko, D. A., Stoliarov, D. A., Itrin, P. A., Odnoblyudov, M. A., Petrov, A. B. & Gumenyuk, R. V., 2020, In : Optics and laser technology. 133, 6 p., 106526.

Research output: Contribution to journal > Article > Scientific > peer-review

Halogen bonding versus hydrogen bonding in driving self-assembly and performance of light-responsive supramolecular polymers

Priimagi, A., Cavallo, G., Forni, A., Gorynsztejn-Leben, M., Kaivola, M., Metrangolo, P., Milani, R., Shishido, A., Pilati, T., Resnati, G. & Terraneo, G., 20 Jun 2012, In : Advanced Functional Materials. 22, 12, p. 2572-2579 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Halogen bonding stabilizes a cis-azobenzene derivative in the solid state: A crystallographic study

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Research output: Contribution to journal > Article > Scientific > peer-review

Hafnium oxide thin films as a barrier against copper diffusion in solar absorbers

Kotilainen, M., Krumpolec, R., Franta, D., Souček, P., Homola, T., Cameron, D. C. & Vuoristo, P., 1 Jul 2017, In : Solar Energy Materials and Solar Cells. 166, p. 140-146 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

>8W GaInNAs VECSEL emitting at 615 nm

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Green (In,Ga,Al)P-GaP light-emitting diodes grown on high-index GaAs surfaces

Ledentsov, N. N., Shchukin, V. A., Lyytikäinen, J., Okhotnikov, O., Cherkashin, N. A., Shernyakov, Y. M., Payusov, A. S., Gordeev, N. Y., Maximov, M. V., Schlichting, S., Nippert, F. & Hoffmann, A., 2015, *Proceedings of SPIE: Light-Emitting Diodes: Materials, Devices, and Applications for Solid State Lighting XIX*. SPIE, Vol. 9383. 93830E

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Graphene-based tunable plasmon induced transparency in gold strips

Habib, M., Rashed, A. R., Ozbay, E. & Caglayan, H., 1 Apr 2018, In : Optical Materials Express. 8, 4, p. 1069-1074 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Goos-Hänchen and Imbert-Fedorov shifts for epsilon-near-zero materials

Nieminen, A., Marini, A. & Ornigotti, M., 28 Jan 2020, In : Journal of Optics. 22, 3, 035601.

Research output: Contribution to journal > Article > Scientific > peer-review

Ghost imaging in the time domain

Ryczkowski, P., Barbier, M., Friberg, A. T., Dudley, J. M. & Genty, G., 1 Feb 2016, In : Nature Photonics. 10, p. 167-170 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Germanium-on-glass solar cells: Fabrication and characterization

Sorianello, V., Colace, L., Maragliano, C., Fulgoni, D., Nash, L. & Assanto, G., 2013, In : Optical Materials Express. 3, 2, p. 216-228 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Germanium-on-glass solar cells

Colace, L., Soriano, V., Maragliano, C., Assanto, G., Fulgoni, D., Nash, L. & Palmer, M., 2011, *8th IEEE International Conference on Group IV Photonics, GFP 2011*. p. 255-257 3 p. 6053781

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Geometry Analysis in Screen-Printed Stretchable Interconnects

Mosallaei, M., Jokinen, J., Honkanen, M., Iso-Ketola, P., Vippola, M., Vanhala, J., Kanerva, M. & Mantysalo, M., Aug 2018, In : *IEEE Transactions on Components, Packaging and Manufacturing Technology*. 8, 8, p. 1344-1352

Research output: Contribution to journal › Article › Scientific › peer-review

Geometric Structure and Chemical Ordering of Large AuCu Clusters: A Computational Study

Goh, J.-Q., Akola, J. & Ferrando, R., 25 May 2017, In : *Journal of Physical Chemistry C*. 121, 20, p. 10809-10816 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Generation of Sub-100 ps Pulses at 532, 355, and 266 nm Using a SESAM Q-Switched Microchip Laser

Nikkinen, J., Härkönen, A., Leino, I. & Guina, M., 1 Nov 2017, In : *IEEE Photonics Technology Letters*. 29, 21, p. 1816-1819 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Generation of bound states of pulses in a soliton laser with complex relaxation of a saturable absorber

Zolotovskii, I. O., Korobko, D. A., Gumenyuk, R. V. & Okhotnikov, O. G., 2015, In : *Quantum Electronics*. 45, 1, p. 26-34 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Generation of a broad IR spectrum and N-soliton compression in a longitudinally inhomogeneous dispersion-shifted fibre

Zolotovskii, I. O., Korobko, D. A., Okhotnikov, O. G., Stolyarov, D. A. & Sysolyatin, A. A., 2015, In : *Quantum Electronics*. 45, 9, p. 844-852 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Generalized slip transformations and air-gap harmonics in field models of electrical machines

Räsänen, V., Suuriniemi, S. & Kettunen, L., 1 Sep 2016, In : *IEEE Transactions on Magnetics*. 52, 9, 8107708.

Research output: Contribution to journal › Article › Scientific › peer-review

GaInAsSb/AlGa(In)AsSb type I quantum wells emitting in 3µm range for application in superluminescent diodes

Kurka, M., Dyksik, M., Suomalainen, S., Koivusalo, E., Guina, M. & Motyka, M., 1 May 2019, In : *Optical Materials*. 91, p. 274-278 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Fundamental gaps of quantum dots on the cheap

Guandalini, A., Rozzi, C. A., Räsänen, E. & Pittalis, S., 25 Mar 2019, In : *Physical Review B*. 99, 12, 125140.

Research output: Contribution to journal › Article › Scientific › peer-review

Full-field mode sorter using two optimized phase transformations for high-dimensional quantum cryptography

Fickler, R., Bouchard, F., Giese, E., Grillo, V., Leuchs, G. & Karimi, E., 2020, In : *Journal of Optics (United Kingdom)*. 22, 2, 7 p., 024001.

Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Frequency-doubled wafer-fused 638 nm VECSEL with an output power of 5.6 W

Kantola, E., Leinonen, T., Rantamäki, A., Guina, M., Sirbu, A. & Iakovlev, V., 2018, *CLEO: Applications and Technology, CLEO_AT 2018*. OSA - The Optical Society

Frequency-doubled VECSEL employing a Volume Bragg Grating for linewidth narrowing

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Frequency Comb Generation in a Continuous-Wave Pumped Second-Order Nonlinear Waveguide Resonator

Abdallah, Z., Stefszky, M., Ulvila, V., Silberhorn, C. & Vainio, M., 1 May 2019, *2019 Conference on Lasers and Electro-Optics, CLEO 2019 - Proceedings*. IEEE

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Fluorimetric oxygen sensor with an efficient optical read-out for in vitro cell models

Välimäki, H., Verho, J., Kreuzer, J., Kattiparambil Rajan, D., Ryyänen, T., Pekkanen-Mattila, M., Ahola, A., Tappura, K., Kallio, P. & Lekkala, J., 1 Oct 2017, In : *Sensors and Actuators B: Chemical*. 249, p. 738-746 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Fluorescence bandwidth of 280nm from broadband Ce³⁺-doped silica fiber pumped with blue laser diode

Yadav, A., Chichkov, N. B., Gumenyuk, R., Zherebtsov, E., Melkumov, M. A., Yashkov, M. V., Dianov, E. M. & Rafailov, E. U., 13 Aug 2018, *2018 International Conference Laser Optics (ICLO)*. IEEE, p. 133-133 1 p. 8435861

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Fluid flow simulations meet high-speed video: Computer vision comparison of droplet dynamics

Kulju, S., Riegger, L., Koltay, P., Mattila, K. & Hyväluoma, J., 15 Jul 2018, In : *Journal of Colloid and Interface Science*. 522, p. 48-56 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

First principles prediction of the solar cell efficiency of chalcopyrite materials AgMX₂(M=In, Al; X=S, Se, Te)

Dongho-Nguimdo, G. M., Igumbor, E., Zambou, S. & Joubert, D. P., 1 Dec 2019, In : *Computational Condensed Matter*. 21, e00391.

Research output: Contribution to journal › Article › Scientific › peer-review

First Cold Powering Test of REBCO Roebel Wound Coil for the EuCARD2 Future Magnet Development Project

Kirby, G. A., Van Nugteren, J., Bajas, H., Benda, V., Ballarino, A., Bajko, M., Bottura, L., Broekens, K., Canale, M., Chiuchiolio, A., Gentini, L., Peray, N., Perez, J. C., De Rijk, G., Rijllart, A., Rossi, L., Murtomaeki, J., Mazet, J., Pincot, F. O., Volpini, G., Durante, M., Fazilleau, P., Lorin, C., Stenvall, A., Goldacker, W., Kario, A. & Usoskin, A., 1 Jun 2017, In : *IEEE Transactions on Applied Superconductivity*. 27, 4, 4003307.

Research output: Contribution to journal › Article › Scientific › peer-review

Finite element method incorporating coupled magneto-elastic model for magneto-mechanical energy harvester

Ahmed, U., Harju, J., Poutala, J., Ruuskanen, P., Rasilo, P. & Kouhia, R., 19 Jun 2017. 2 p.

Research output: Other conference contribution › Paper, poster or abstract › Scientific

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Fonteyn, K., Belahcen, A., Kouhia, R., Rasilo, P. & Arkkio, A., Aug 2010, In : *IEEE Transactions on Magnetics*. 46, 8, p. 2923-2926 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Features of correlation measurements of the parameters of pulsed hyperspectral optical fields using an asymmetric interferometer

Kulya, M. S., Katkovnik, V. Y., Egiazarian, K. & Petrov, N. V., 2020, In : *Quantum Electronics*. 50, 7, p. 679-682 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Fabrication of ssDNA/oligo(ethylene glycol) monolayers by promoted exchange reaction with thiol and disulfide substituents

Khan, M. N. & Zharnikov, M., 13 Feb 2014, In : *Journal of Physical Chemistry C*. 118, 6, p. 3093-3101 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Fabrication of ssDNA/Oligo(ethylene glycol) monolayers and patterns by exchange reaction promoted by ultraviolet light irradiation

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Research output: Contribution to journal › Article › Scientific › peer-review

Fabrication Challenges in Embedding of Components and Embroidered Conductors into 3D-printed Textile Electronics Structures

Khan, Z., He, H., Chen, X., Ukkonen, L. & Virkki, J., 1 Jun 2019, *2019 Photonics and Electromagnetics Research Symposium - Spring, PIERS-Spring 2019 - Proceedings*. IEEE, p. 1372-1377 6 p. 9017223. (Progress in Electromagnetics Research Symposium; vol. 2019-June).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Fabrication and reliability evaluation of passive UHF RFID T-shirts

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Fabrication and characterization of broadband superluminescent diodes for 2 μm wavelength

Zia, N., Viheriälä, J., Koskinen, R., Koskinen, M., Suomalainen, S. & Guina, M., 2016, *Light-Emitting Diodes: Materials, Devices, and Applications for Solid State Lighting XX*. SPIE, 97680Q. (Proceedings of SPIE; vol. 9768).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Exploration of Two Layer Nb₃Sn Designs of the Future Circular Collider Main Quadrupoles

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Experimental realization of wave-packet dynamics in cyclic quantum walks

Nejadsattari, F., Zhang, Y., Bouchard, F., Larocque, H., Sit, A., Cohen, E., Fickler, R. & Karimi, E., 20 Feb 2019, In : *Optica*. 6, 2, p. 174-180 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Exciton localization and structural disorder of GaAs_{1-x}Bi_x/GaAs quantum wells grown by molecular beam epitaxy on (311)B GaAs substrates

Prando, G. A., Orsi Gordo, V., Puustinen, J., Hilska, J., Alghamdi, H. M., Som, G., Gunes, M., Akyol, M., Souto, S., Rodrigues, A. D., Galeti, H. V. A., Henini, M., Gobato, Y. G. & Guina, M., 17 Jul 2018, In : *Semiconductor Science and Technology*. 33, 8, 084002.

Research output: Contribution to journal › Article › Scientific › peer-review

Evaluation of screen printed silver trace performance and long-term reliability against environmental stress on a low surface energy substrate

Mikkonen, R. & Mäntysalo, M., 1 Jul 2018, In : *Microelectronics Reliability*. 86, p. 54-65 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Evaluation of crushing strength of spray-dried MgAl₂O₄ granule beds

Kanerva, U., Suhonen, T., Lagerbom, J. & Levänen, E., 1 Aug 2015, In : *Ceramics International*. 41, 7, p. 8494-8500 7 p.

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Evaluation of Aerosol, Superfine Inkjet, and Photolithography Printing Techniques for Metallization of Application Specific Printed Electronic Circuits

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Research output: Contribution to journal › Article › Scientific › peer-review

Evaluating transparent liquid screen overlay as a haptic conductor: Method of enhancing touchscreen based user interaction by a transparent deformable liquid screen overlay

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Essential Measurements for Finite Element Simulations of Magnetostrictive Materials

Poutala, A., Kovanen, T. & Kettunen, L., 2018, In : IEEE Transactions on Magnetics. 54, 1, 7200107.

Research output: Contribution to journal › Article › Scientific › peer-review

ESD qualification data used as the basis for building electrostatic discharge protected areas

Tamminen, P., Viheriäköski, T., Sydänheimo, L. & Ukkonen, L., 1 Oct 2015, In : Journal of Electrostatics. 77, p. 174-181 8 p., 3024.

Research output: Contribution to journal › Article › Scientific › peer-review

Enhanced-performance wireless conformal "smart skins" utilizing inkjet-printed carbon-nanostructures

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Engineering of Chern insulators and circuits of topological edge states

Minarelli, E. L., Poyhönen, K., Van Dalum, G. A. R., Ojanen, T. & Fritz, L., 10 Apr 2019, In : Physical Review B. 99, 16, 165413.

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Energy density-method: An approach for a quick estimation of quench temperatures in high-field accelerator magnets

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Embroidered and e-textile conductors embedded inside 3D-printed structures

Khan, Z., He, H., Chen, X., Ukkonen, L. & Virkki, J., 1 Dec 2019, *2019 Photonics and Electromagnetics Research Symposium - Fall, PIERS - Fall 2019 - Proceedings*. IEEE, p. 1675-1680 6 p. 9021681

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Electrospun Black Titania Nanofibers: Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance

Lepcha, A., Maccato, C., Mettenbörger, A., Andreu, T., Mayrhofer, L., Walter, M., Olthof, S., Ruoko, T. P., Klein, A., Moseler, M., Meerholz, K., Morante, J. R., Barreca, D. & Mathur, S., 20 Aug 2015, In : Journal of Physical Chemistry C. 119, 33, p. 18835-18842 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Electro-optic steering of random laser emission in liquid crystals

Assanto, G., Perumbilavil, S., Piccardi, A. & Kauranen, M., 2018, In : Photonics Letters of Poland. 10, 4, p. 103-105 3 p.

Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Electronic transport in n-type modulation-doped AlGaAs/GaAsBi quantum well structures: Influence of Bi and thermal annealing on electron effective mass and electron mobility

Donmez, O., Aydin, M., Ardali, Yildirim, S., Tiraş, E., Nutku, F., Cetinkaya, C., okduygulular, E., Puustinen, J., Hilska, J., Guina, M. & Erol, A., 2020, In : Semiconductor Science and Technology. 35, 2, 025009.

Research output: Contribution to journal › Article › Scientific › peer-review

Electrical Contacts in SOI MEMS Using Aerosol Jet Printing

Khorrandel, B., Torkkeli, A. & Mäntysalo, M., 2017, In : IEEE Journal of the Electron Devices Society. 6, p. 34-40

Research output: Contribution to journal › Article › Scientific › peer-review

Efficient photon upconversion at remarkably low annihilator concentrations in a liquid polymer matrix: when less is more

Durandin, N. A., Isokuorrtti, J., Efimov, A., Vuorimaa-Laukkanen, E., Tkachenko, N. V. & Laaksonen, T., 2018, In : Chemical Communications. 54, 99, p. 14029-14032 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Effects of thinning and heating for TiO₂/AlInP junctions

Mäkelä, J., Tuominen, M., Yasir, M., Polojärvi, V., Aho, A., Tukiainen, A., Kuzmin, M., Punkkinen, M. P. J., Laukkanen, P., Kokko, K. & Guina, M., 24 Aug 2015, In : Journal of Electron Spectroscopy and Related Phenomena. 205, p. 6-9 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Effects of insertion of strain-engineering Ga(In)NAs layers on optical properties of InAs/GaAs quantum dots for high-efficiency solar cells

Pavelescu, E-M., Polojärvi, V., Schramm, A., Tukiainen, A., Aho, A., Zhang, W., Puustinen, J., Salmi, J. & Guina, M., 1 Feb 2016, In : Optical Materials. 52, p. 177-180 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Effect of the glass melting condition on the processing of phosphate-based glass-ceramics with persistent luminescence properties

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Effect of sol-gel derived in situ silica on the morphology and mechanical behavior of natural rubber and acrylonitrile butadiene rubber blends

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Research output: Contribution to journal › Article › Scientific › peer-review

Effect of incorporation of CdS NPs on performance of PTB7: PCBM organic solar cells

Sharma, R., Bhalerao, S. & Gupta, D., 1 Jun 2016, In : Organic Electronics: physics, materials, applications. 33, p. 274-280 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Effect of Hole Transporting Material on Charge Transfer Processes in Zinc Phthalocyanine Sensitized ZnO Nanorods

Hakola, H., Sariola-Leikas, E., Efimov, A. & Tkachenko, N. V., 21 Apr 2016, In : Journal of Physical Chemistry C. 120, 13, p. 7044-7051 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Effect of heat-treatment on the upconversion of NaYF₄:Yb³⁺, Er³⁺ nanocrystals containing silver phosphate glass

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Research output: Contribution to journal › Article › Scientific › peer-review

Effect of Epoxy Flux Underfill on Thermal Cycling Reliability of Sn-8Zn-3Bi Lead-Free Solder in a Sensor Application
Mostofizadeh, M., Najari, M., Das, D., Pecht, M. & Frisk, L., 16 Aug 2016, *Proceedings - ECTC 2016: 66th Electronic Components and Technology Conference*. IEEE, p. 2169-2175 7 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Eco-friendly flexible wireless platforms by 3D printing pen

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Dynamic speckle analysis with smoothed intensity-based activity maps

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Research output: Contribution to journal › Article › Scientific › peer-review

Dynamics of photovoltaic-generator-interfacing voltage-controlled buck power stage

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Research output: Contribution to journal › Article › Scientific › peer-review

Dynamic laser speckle metrology with binarization of speckle patterns

Stoykova, E., Nazarova, D., Berberova, N., Gotchev, A., Ivanov, B. & Mateev, G., 2017, *19th International Conference and School on Quantum Electronics: Laser Physics and Applications*. SPIE, 102260R. (Proceedings of SPIE; vol. 10226).

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Double-side pumped membrane external-cavity surface-emitting laser (MECSEL) with increased efficiency emitting > 3 W in the 780 nm region

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Double-asymmetric-structure 1.5 μ m high power laser diodes

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Dots-on-the-fly electron beam lithography

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Dissolution behavior of the bioactive glass S53P4 when sodium is replaced by potassium, and calcium with magnesium or strontium

Hupa, L., Fagerlund, S., Massera, J. & Björkvik, L., 2016, In : *Journal of Non-Crystalline Solids*. p. 41-46 6 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Direct measurement of vapour-metal shifts in photo- and Auger electron spectra of Zn and Cd

Kumpula, R., Vayrynen, J., Rantala, T. & Aksela, S., 1979, In : *Journal of physics c-Solid state physics*. 12, 21, 001.

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Directional random laser by combining cavity-less lasing and spatial solitons in liquid crystals

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Dilute nitride triple junction solar cells for space applications: Progress towards highest AMO efficiency

Aho, A., Isoaho, R., Tukiainen, A., Gori, G., Campesato, R. & Guina, M., Sep 2018, In : *Progress in Photovoltaics: Research and Applications*. 26, 19, p. 740-744 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Dilute nitride SOAs for high-speed data processing in variable temperature conditions

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Diffusion on aluminum-cluster surfaces and the cluster growth

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Research output: Contribution to journal > Article > Scientific > peer-review

Development of MQXF: The Nb₃Sn Low-β Quadrupole for the HiLumi LHC

Ferracin, P., Ambrosio, G., Anerella, M., Ballarino, A., Bajas, H., Bajko, M., Bordini, B., Bossert, R., Cheng, D. W., Dietderich, D. R., Chlachidze, G., Cooley, L., Felice, H., Ghosh, A., Hafalia, R., Holik, E., Izquierdo Bermudez, S., Fessia, P., Grosclaude, P., Guinhard, M., Juchno, M., Krave, S., Lackner, F., Marchevsky, M., Marinozzi, V., Nobrega, F., Oberli, L., Pan, H., Perez, J. C., Prin, H., Rysti, J., Rochepault, E., Sabbi, G., Salmi, T., Schmalzle, J., Sorbi, M., Sequeira Tavares, S., Todesco, E., Wanderer, P., Wang, X. & Yu, M., 1 Jun 2016, In : *IEEE Transactions on Applied Superconductivity*. 26, 4, 4000207.

Research output: Contribution to journal > Article > Scientific > peer-review

Development of efficient electrically pumped nanolasers based on InAlGaAs tunnel junction

Fang, C. Y., Vallini, F., Amili, A. E., Tukiainen, A., Lyytikäinen, J., Guina, M. & Fainman, Y., 2018, *CLEO: Science and Innovations, CLEO_SI 2018*. OSA - The Optical Society

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Development of a new illumination procedure for photodynamic therapy of the abdominal cavity

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Research output: Contribution to journal > Article > Scientific > peer-review

Determination of beam incidence conditions based on the analysis of laser interference patterns

Wang, D., Wang, Z., Yue, Y., Yu, J., Tan, C., Li, D., Qiu, R. & Maple, C., 1 Nov 2015, In : *Optik*. 126, 21, p. 2902-2907 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Detection of 3,4-methylenedioxymethamphetamine (MDMA, ecstasy) by displacement of antibodies

Vikholm-Lundin, I., Auer, S. & Hellgren, A. C., 10 Aug 2011, In : *Sensors and Actuators B: Chemical*. 156, 1, p. 28-34 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Design of a Nb₃Sn 400 T/m quadrupole for the Future Circular Collider

Lorin, C., Simon, D., Felice, H., Rifflet, J. M., Salmi, T. & Schoerling, D., 2018, In : *IEEE Transactions on Applied Superconductivity*. 28, 3, 4004905.

Research output: Contribution to journal > Article > Scientific > peer-review

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Bulu, I., Caglayan, H. & Ozbay, E., Dec 2006, In : *Microwave and Optical Technology Letters*. 48, 12, p. 2611-2615 5 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Design, Fabrication, and Wireless Evaluation of a Passive 3D-printed Moisture Sensor on a Textile Substrate

Chen, X., He, H., Khan, Z., Sydänheimo, L., Ukkonen, L. & Virkki, J., 1 Jun 2019, *2019 Photonics and Electromagnetics Research Symposium - Spring, PIERS-Spring 2019 - Proceedings*. IEEE, p. 1027-1030 4 p. 9017301. (Progress in Electromagnetics Research Symposium; vol. 2019-June).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Design, fabrication, and testing of a low AC-loss conduction-cooled cryostat for magnetization loss measurement apparatus

Järvelä, J., Lyly, M., Stenvall, A., Juntunen, R., Souc, J. & Mikkonen, R., 1 Feb 2015, In : *IEEE Transactions on Applied Superconductivity*. 25, 1
Research output: Contribution to journal › Article › Scientific › peer-review

Design and simulation of a slotted patch antenna sensor for wireless strain sensing

Yi, X., Cho, C., Cook, B., Wang, Y., Tentzeris, M. M. & Leon, R. T., 2013, *Nondestructive Characterization for Composite Materials, Aerospace Engineering, Civil Infrastructure, and Homeland Security 2013*. Vol. 8694. 86941J
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Depth map occlusion filling and scene reconstruction using modified exemplar-based inpainting

Voronin, V. V., Marchuk, V. I., Fisunov, A. V., Tokareva, S. V. & Egiazarian, K. O., 2015, *Image Processing: Algorithms and Systems XIII*. SPIE, 93990S. (SPIE Conference Proceedings; vol. 9399).
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Demonstration of optical nonlinearity in InGaAsP/InP passive waveguides

Saeidi, S., Rasekh, P., Awan, K. M., Tüngen, A., Huttunen, M. J. & Dolgaleva, K., 1 Oct 2018, In : *Optical Materials*. 84, p. 524-530 7 p.
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Deformation of lamellar γ -TiAl below the general yield stress

Edwards, T. E. J., Di Gioacchino, F., Goodfellow, A. J., Mohanty, G., Wehrs, J., Michler, J. & Clegg, W. J., 15 Jan 2019, In : *Acta Materialia*. 163, p. 122-139 18 p.
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Decreasing the extremely low-frequency electric field exposure with a Faraday cage during work tasks from a man hoist at a 400 kV substation

Pirkkalainen, H., Elovaara, J. & Korpinen, L., 2016, In : *Progress In Electromagnetics Research M*. 48, p. 55-66 12 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Cysteine-tagged chimeric avidin forms high binding capacity layers directly on gold

Vikholm-Lundin, I., Auer, S., Paakkunainen, M., Määttä, J. A. E., Munter, T., Leppiniemi, J., Hytönen, V. P. & Tappura, K., Aug 2012, In : *Sensors and Actuators B: Chemical*. 171-172, p. 440-448 9 p.
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Cyclic quantum walks: Photonic realization and decoherence analysis

Nejadsattari, F., Zhang, Y., Jayakody, M. N., Bouchard, F., Larocque, H., Sit, A., Fickler, R., Cohen, E. & Karimi, E., 2020, *Advanced Optical Techniques for Quantum Information, Sensing, and Metrology*. Hemmer, P. R., Migdall, A. L. & Hasan, Z. U. (eds.). SPIE, 1129503. (Proceedings of SPIE - The International Society for Optical Engineering; vol. 11295).
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Crystallization processes in the phase change material Ge₂Sb₂Te₅: Unbiased density functional/molecular dynamics simulations

Kalikka, J., Akola, J. & Jones, R. O., 17 Oct 2016, In : *Physical Review B*. 94, 13, 134105.

Research output: Contribution to journal › Article › Scientific › peer-review

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Controlling the plasmon resonance via epsilon-near-zero multilayer metamaterials

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Continuous-wave, cascaded raman laser at 1.3, 1.5, and 1.7 μm

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Construction of an Interconnected Nanostructured Carbon Black Network: Development of Highly Stretchable and Robust Elastomeric Conductors

Bhagavatheswaran, E. S., Parsekar, M., Das, A., Le, H. H., Wiessner, S., Stöckelhuber, K. W., Schmaucks, G. & Heinrich, G., 17 Sep 2015, In : *Journal of Physical Chemistry C*. 119, 37, p. 21723-21731 9 p.

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Considerations on a Cost Model for High-Field Dipole Arc Magnets for FCC

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Computation of torque of an electrical machine with different types of finite element mesh in the air gap

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Computational wavelength resolution for in-line lensless holography: Phase-coded diffraction patterns and wavefront group-sparsity

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Computational super-resolution phase retrieval from multiple phase-coded diffraction patterns: Simulation study and experiments

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Compressive strain measurement using RFID patch antenna sensors

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Composition dependent growth dynamics in molecular beam epitaxy of GaInNAs solar cells

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Complex-domain sparse imaging in terahertz pulse time-domain holography with balance detection

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Compatibilization of natural rubber/nitrile rubber blends by sol-gel nano-silica generated by in situ method

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Comparison of three light doses in the photodynamic treatment of actinic keratosis using mathematical modeling

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Comparison of the optical, thermal and structural properties of Ge-Sb-S thin films deposited using thermal evaporation and pulsed laser deposition techniques

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Research output: Contribution to journal › Article › Scientific › peer-review

Comparative Analysis of Injection Microdisk Lasers Based on InGaAsN Quantum Wells and InAs/InGaAs Quantum Dots

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Combination of E-jet and inkjet printing for additive fabrication of multilayer high-density RDL of silicon interposer

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Cold test results of the LARP HQ Nb₃Sn quadrupole magnet at 1.9 K

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Coherence of Supercontinuum Light

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Chip-by-chip configurable interconnection using digital printing techniques

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Catalytic Activity of AuCu Clusters on MgO(100): Effect of Alloy Composition for CO Oxidation

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Capability assessment of inkjet printing for reliable RFID applications

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Calculation of the scalar diffraction field from curved surfaces by decomposing the three-dimensional field into a sum of Gaussian beams

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Broadband finite-Difference Time-Domain modeling of plasmonic organic photovoltaics

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Research output: Contribution to journal › Article › Scientific › peer-review

Bringing High-Performance GaInNAsSb/GaAs SOAs to True Data Applications

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Research output: Contribution to journal › Article › Scientific › peer-review

Boron delta-doping dependence on Si/SiGe resonant interband tunneling diodes grown by chemical vapor deposition

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Block copolymer lithography: Feature size control and extension by an over-etch technique

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Bistable optical propagation in nematic liquid crystals

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Better understanding of the role of SiO₂, P₂O₅ and Al₂O₃ on the spectroscopic properties of Yb³⁺ doped silica sol-gel glasses

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Backscattering-based wireless communication and power transfer to small biomedical implants

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Back Reflector with Diffractive Gratings for Light-Trapping in Thin-Film III-V Solar Cells

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A Two-Stage LNA Design for 28GHz Band of 5G on 45nm CMOS

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A study of electric transport in n- and p-type modulation-doped GaInNAs/GaAs quantum well structures under a high electric field

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Research output: Contribution to journal › Article › Scientific › peer-review

Aryl end-capped quaterthiophenes applied as anode interfacial layers in inverted organic solar cells

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Artificial intelligence yesterday, today and tomorrow

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Architectures and codecs for real-time light field streaming

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A perceptual quality metric for high-definition stereoscopic 3D video

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A novel strain sensor based on 3D printing technology and 3D antenna design

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A Novel Enhanced-Performance Flexible RFID-Enabled Embroidered Wireless Integrated Module for Sensing Applications

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An Optical Sensor for Volatile Amines Based on an Inkjet-Printed, Hydrogen-Bonded, Cholesteric Liquid Crystalline Film

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Research output: Contribution to journal > Article > Scientific > peer-review

Anisotropic ultra-large mode area Yb-doped tapered double clad fiber for ultrafast amplifiers

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Anisotropic and strain-dependent model of magnetostriction in electrical steel sheets

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A near-infrared optoelectronic approach to detection of road conditions

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Analytical computation of the demagnetizing energy of thin-film domain walls

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Analytical and Numerical Methods to Estimate the Effective Mechanical Properties of Rutherford Cables

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Analysis of uncertainties in protection heater delay time measurements and simulations in Nb3Sn high-field accelerator magnets

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An ab initio study of PuO_{2+0.25}, UO_{2+0.25}, and U0.5Pu0.5O_{2+0.25}

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Research output: Contribution to journal > Article > Scientific > peer-review

A multi-band WCDMA SAW-less receivers with frequency selective feedback loop

Beck, S., Kim, S. T., Lim, K., Tentzeris, M. M. & Laskar, J., 2011, *54th IEEE International Midwest Symposium on Circuits and Systems, MWSCAS 2011*. 6026387

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A method for predicting DCT-based denoising efficiency for grayscale images corrupted by AWGN and additive spatially correlated noise

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A membrane external-cavity surface-emitting laser (MECSEL) with emission around 825 nm

Phung, H. M., Kahle, H., Penttinen, J-P., Rajala, P., Ranta, S. & Guina, M., 2020, *Vertical External Cavity Surface Emitting Lasers (VECSELs)* X. Hastie, J. E. (ed.). SPIE, 112630H. (Proceedings of SPIE - The International Society for Optical Engineering; vol. 11263).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Ambient-Pressure XPS Study of a Ni-Fe Electrocatalyst for the Oxygen Evolution Reaction

Ali-Löytty, H., Louie, M. W., Singh, M. R., Li, L., Sanchez Casalongue, H. G., Ogasawara, H., Crumlin, E. J., Liu, Z., Bell, A. T., Nilsson, A. & Friebel, D., 4 Feb 2016, In : *Journal of Physical Chemistry C*. 120, 4, p. 2247-2253 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

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AlGaAs/AlGaInP VECSELs with Direct Emission at 740-770 nm

Nechay, K., Kahle, H., Penttinen, J-P., Rajala, P., Tukiainen, A., Ranta, S. & Guina, M., 1 Aug 2019, In : *IEEE Photonics Technology Letters*. 31, 15, p. 1245-1248 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

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Sand, A. & Rakkolainen, I., 2014, *Proceedings of SPIE-IS and T Electronic Imaging - Stereoscopic Displays and Applications XXV*. SPIE, Vol. 9011. 90110Q

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Qu, Y., Soininen, J. P. & Nurmi, J., 2007, *2007 IEEE International Symposium on Circuits and Systems*. p. 161-164 4 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

A Finite Element Simulation Tool for Predicting Hysteresis Losses in Superconductors Using an H-Oriented Formulation with Cohomology Basis Functions

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Research output: Contribution to journal › Article › Scientific › peer-review

A Fast Quench Protection System for High-Temperature Superconducting Magnets

van Nugteren, J., Murtomäki, J., Ruuskanen, J., Kirby, G., Hagen, P., DeRijk, G., Ten Kate, H., Bottura, L. & Rossi, L., Jan 2019, In : *IEEE Transactions on Applied Superconductivity*. 29, 1, 4700108.

Research output: Contribution to journal › Article › Scientific › peer-review

Advances in implantable and wearable antennas for wireless brain-machine interface systems

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Advancements in Solution Processable Devices using Metal Oxides For Printed Internet-of-Things Objects

Berger, P. R., Li, M., Mattei, R. M., Niang, M. A., Talisa, N., Tripepi, M., Harris, B., Bhalerao, S. R., Chowdhury, E. A., Winter, C. H. & Lupo, D., 1 Mar 2019, *2019 Electron Devices Technology and Manufacturing Conference, EDTM 2019*. IEEE, p. 160-162 3 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Other conference contribution › Paper, poster or abstract › Scientific

Adsorption and dissociation of molecular oxygen on α -Pu (0 2 0) surface: A density functional study

Wang, J. & Ray, A. K., 1 Sep 2011, In : *Physica B: Condensed Matter*. 406, 17, p. 3285-3294 10 p.

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A Database for Storing Magnet Parameters and Analysis of Quench Test Results in HL-LHC Nb₃Sn Short Model Magnets

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Accelerator-quality HTS dipole magnet demonstrator designs for the EuCARD-2 5-T 40-mm clear aperture magnet

Kirby, G. A., Van Nugteren, J., Ballarino, A., Bottura, L., Chouika, N., Clement, S., Datskov, V., Fajardo, L., Fleiter, J., Gauthier, R., Gentini, L., Lambert, L., Lopes, M., Perez, J. C., De Rijk, G., Rijllart, A., Rossi, L., Ten Kate, H., Durante, M., Fazilleau, P., Lorin, C., Härö, E., Stenvall, A., Caspi, S., Marchevsky, M., Goldacker, W. & Kario, A., 1 Jun 2015, In : IEEE Transactions on Applied Superconductivity. 25, 3, 4000805.

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Research output: Contribution to journal > Article > Scientific > peer-review

A 0.5-6MHz Active-RC LPF with Fine Gain Steps Using Binary Interpolated Resistor Banks

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

405-nm pumped Ce³⁺-doped silica fiber for broadband fluorescence from cyan to red

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

3GPP LTE-assisted Wi-Fi-direct: Trial implementation of live D2D technology

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Research output: Contribution to journal > Article > Scientific > peer-review

3-D Numerical Modeling of AC Losses in Multifilamentary MgB₂ Wires

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

2-volt Solution-Processed, Indium Oxide (In₂O₃) Thin Film Transistors on flexible Kapton

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

1.55- μ m wavelength wafer-fused OP-VECSELs in flip-chip configuration

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

1.3 μ m U-bend traveling wave SOA devices for high efficiency coupling to silicon photonics

Viherialä, J., Tuorila, H., Zia, N., Cherchi, M., Aalto, T. & Guina, M., 2019, *Silicon Photonics XIV*. Reed, G. T. & Knights, A. P. (eds.). SPIE, IEEE, 109230E. (Proceedings of SPIE - The International Society for Optical Engineering; vol. 10923).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Other conference contribution › Paper, poster or abstract › Scientific

13.5 A 0.35-to-2.6GHz multilevel outphasing transmitter with a digital interpolating phase modulator enabling up to 400MHz instantaneous bandwidth

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

1180nm VECSEL with 50 W output power

Kantola, E., Leinonen, T., Ranta, S., Tavast, M., Penttinen, J-P. & Guina, M., 2015, *Proceedings of SPIE - The International Society for Optical Engineering*. SPIE, Vol. 9349. 93490U

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Research output: Other conference contribution › Paper, poster or abstract › Scientific

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Murtomaeki, J. S., Kirby, G., van Nugteren, J., Contat, P. A., Fleiter, J., De Frutos, O. S., Pincot, F. O., DeRijk, G., Rossi, L., Ruuskanen, J., Stenvall, A. & Wolf, F., 2018, In : *IEEE Transactions on Applied Superconductivity*. 28, 3

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0.6V threshold voltage thin film transistors with solution processable indium oxide (In_2O_3) Channel and Anodized High- κ Al_2O_3 Dielectric

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Research output: Contribution to journal › Article › Scientific › peer-review