

0.6V threshold voltage thin film transistors with solution processable indium oxide (In₂O₃) Channel and Anodized High-k Al₂O₃ Dielectric

Bhalerao, S. R., Lupo, D., Zangiabadi, A., Kymissis, I., Leppäniemi, J., Alastalo, A. & Berger, P. R., 1 Jul 2019, In : IEEE Electron Device Letters. 40, 7, p. 1112-1115 4 p.

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

10 kA Joints for HTS Roebel Cables

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

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

1180 nm GaInNAs quantum well based high power DBR laser diodes

Viherialä, J., Aho, A., Virtanen, H., Dumitrescu, M. & Guina, M., 2017.

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

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

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

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

Kosunen, M., Lemberg, J., Martelius, M., Roverato, E., Nieminen, T., Englund, M., Stadius, K., Anttila, L., Pallonen, J., Valkama, M. & Ryyänen, J., 2 Mar 2017, *2017 IEEE International Solid-State Circuits Conference, ISSCC 2017*. IEEE, p. 224-225 2 p.

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

1.3 μm InAs quantum dot semiconductor disk laser

Blokhin, S. A., Bobrov, M. A., Blokhin, A. A., Kuzmenkov, A. G., Vasil'Ev, A. P., Maleev, N. A., Dudelev, V. V., Soboleva, K. K., Sokolovskii, G. S., Rantamäki, A., Okhotnikov, O. & Ustinov, V. M., 23 Aug 2016, p. R317.

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

1.3μm 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

1.55-μm wavelength wafer-fused OP-VECSELs in flip-chip configuration

Mereuta, A., Nechay, K., Caliman, A., Suruceanu, G., Gallo, P., Guina, M. & Kapon, E., 2019, *Vertical External Cavity Surface Emitting Lasers (VECSELs) IX*. Keller, U. (ed.). SPIE, IEEE, 1090103. (Proceedings of SPIE - The International Society for Optical Engineering; vol. 10901).

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

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

Bhalerao, S. R., Lupo, D. & Berger, P. R., 1 Aug 2019, *2019 IEEE International Flexible Electronics Technology Conference, IFETC 2019*. IEEE, 3 p.

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

3-D mechanical modeling of 20 T HTS clover leaf end coils - Good practices and lessons learned

Murtomäki, J. S., Van Nugteren, J., Stenvall, A., Kirby, G. & Rossi, L., 1 Aug 2019, In : IEEE Transactions on Applied Superconductivity. 29, 5, 8642381.

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

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

Escamez, G., Sirois, F., Lahtinen, V., Stenvall, A., Badel, A., Tixador, P., Ramdane, B., Meunier, G., Perrin-Bit, R. & Bruzek, C. É., 1 Apr 2016, In : IEEE Transactions on Applied Superconductivity. 26, 3, 4701907.

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

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

Pyattaev, A., Hosek, J., Johnsson, K., Krkos, R., Gerasimenko, M., Masek, P., Ometov, A., Andreev, S., Sedy, J., Novotny, V. & Koucheryavy, Y., 1 Oct 2015, In : ETRI Journal. 37, 5, p. 877-887 11 p.

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

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

Yadav, A., Chichkov, N. B., Gumenyuk, R., Zherebtsov, E., Melkumov, M. A., Yashkov, M. V., Dianov, E. M. & Rafailov, E. U., 2019, *Optical Components and Materials XVI*. Digonnet, M. J. F. & Jiang, S. (eds.). SPIE, IEEE, 1091406.

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

73-fs SESAM mode-locked Tm,Ho:CNGG laser at 2061 nm

Wang, Y., Zhao, Y., Pan, Z., Suomalainen, S., Härkönen, A., Guina, M., Griebner, U., Wang, L., Loiko, P., Mateos, X., Chen, W. & Petrov, V., 2020, *Solid State Lasers XXIX: Technology and Devices*. Clarkson, W. A. & Shori, R. K. (eds.). SPIE, 1125929. (Proceedings of SPIE - The International Society for Optical Engineering; vol. 11259).

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

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

Beck, S., Jeong, S., Min, S., Hwang, M. W., Kim, S. T., Lim, K. & Tentzeris, E. M., Aug 2011, In : IEICE TRANSACTIONS ON ELECTRONICS. E94-C, 8, p. 1328-1331 4 p.

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

Absorption profile and femtosecond intraband relaxation of the intense upper Davydov component in oligothiophenes

Petelenz, P. & Kulig, W., Feb 2011, In : Physica Status Solidi B: Basic Solid State Physics. 248, 2, p. 412-415 4 p.

Research output: Contribution to journal > Article > 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.

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

Action recognition using the 3D dense microblock difference

Voronin, V., Pismenskova, M., Zelensky, A., Cen, Y., Nadykto, A. & Egiazarian, K., 2018, *Counterterrorism, Crime Fighting, Forensics, and Surveillance Technologies II*. SPIE, 1080200. (Proceedings of SPIE; vol. 10802).

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

Adaptive multiresolution method for MAP reconstruction in electron tomography

Acar, E., Peltonen, S. & Ruotsalainen, U., 1 Nov 2016, In : Ultramicroscopy. 170, p. 24-34 11 p.

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

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

Salmi, T., Tarhasaari, T. & Izquierdo-Bermudez, S., 2020, In : IEEE Transactions on Applied Superconductivity. 30, 4, 5 p., 4703705.

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

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.

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

Advanced scheme of amplifier similariton laser

Korobko, D. A., Okhotnikov, O. G., Sysoliatin, A. A. & Zolotovskii, I. O., 23 Aug 2016, p. R858.

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

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

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

Moradi, E., Koski, K., Björninen, T., Muller, R., Ledochowitsch, P., Sydänheimo, L., Alon, E., Maharbiz, M. M., Rabaey, J. M., Ukkonen, L. & Rahmat-Samii, Y., 16 Oct 2014, *2014 United States National Committee of URSI National Radio Science Meeting, USNC-URSI NRSM 2014*. Institute of Electrical and Electronics Engineers Inc., 6928137

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

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 genetic algorithm for scheduling tasks onto dynamically reconfigurable hardware

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 hand-held immaterial volumetric display

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

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

All-fiber, high-power, picosecond Yb double clad tapered fiber amplifier

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

Alpha radiation induced luminescence in solar blind spectral region

Kerst, T. & Toivonen, J., 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

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

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

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

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An ab initio study of $\text{PuO}_{2+0.25}$, $\text{UO}_{2+0.25}$, and $\text{U}_0.5\text{Pu}_0.5\text{O}_{2+0.25}$

Ma, L. & Ray, A. K., May 2011, In : *European Physical Journal B*. 81, 1, p. 103-113 11 p.

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

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

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

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

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

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

A near-infrared optoelectronic approach to detection of road conditions

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

A new power-consumption optimization technique for two-stage operational amplifiers

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

An integrated "sense-and-communicate" broad-/narrow-band optically controlled reconfigurable antenna for cognitive radio systems

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

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

Belahcen, A., Singh, D., Rasilo, P., Martin, F., Ghalamestani, S. G. & Vandeveld, L., 1 Mar 2015, In : *IEEE Transactions on Magnetics*. 51, 3, 2001204.

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

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

A novel 3-D printed loop antenna using flexible NinjaFlex material for wearable and IoT applications

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

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

Antenna design considerations for far field and near field wireless body-centric systems

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

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

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

Architectures and codecs for real-time light field streaming

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

Are coarse-grained models apt to detect protein thermal stability? the case of OPEP force field

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

Artificial intelligence yesterday, today and tomorrow

Jaakkola, H., Henno, J., Mäkelä, J. & Thalheim, B., 1 May 2019, *2019 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2019 - Proceedings*. Skala, K., Car, Z., Pale, P., Huljenic, D., Janjic, M., Koracic, M., Sruk, V., Ribaric, S., Grbac, T. G., Butkovic, Z., Cicin-Sain, M., Skvorc, D., Mauher, M., Babic, S., Gros, S., Vrdoljak, B. & Tijan, E. (eds.). IEEE, p. 860-867 8 p.

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

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

Heiskanen, J. P., Manninen, V. M., Pankov, D., Omar, W. A. E., Kastinen, T., Hukka, T. I., Lemmetyinen, H. J. & Hormi, O. E. O., 1 Jan 2015, In : *Thin Solid Films*. 574, p. 196-206 11 p.

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

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

Sarcan, F., Mutlu, S., Cokduygular, E., Donmez, O., Erol, A., Puustinen, J. & Guina, M., 4 May 2018, In : Semiconductor Science and Technology. 33, 6, 064003.

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

ATM switch for 2.488 Gbit/s CATV network on FPGA with a high-throughput buffering architecture

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

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

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

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

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

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

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

Benchmarking of several disparity estimation algorithms for light field processing

Zakeri, F. S., Bätz, M., Jaschke, T., Keinert, J. & Chuchvara, A., 2019, *Fourteenth International Conference on Quality Control by Artificial Vision*. Bazeille, S., Verrier, N. & Cudel, C. (eds.). SPIE, IEEE, 111721C. (Proceedings of SPIE - The International Society for Optical Engineering; vol. 11172).

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

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

Bistable optical propagation in nematic liquid crystals

Piccardi, A., Alberucci, A., Kravets, N., Buchnev, O., Kaczmarek, M. & Assanto, G., 21 Jul 2014, *Nonlinear Photonics, NP 2014*. Optical Society of America OSA

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

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

Rasappa, S., Borah, D., Sentharamaiah, R., Faulkner, C. C., Shaw, M. T., Gleeson, P., Holmes, J. D. & Morris, M. A., 1 Nov 2012, In : *Thin Solid Films*. 522, p. 318-323 6 p.

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

Ramesh, A., Growden, T. A., Berger, P. R., Loo, R., Vandervorst, W., Douhard, B. & Caymax, M., Mar 2012, In : *IEEE Transactions on Electron Devices*. 59, 3, p. 602-609 8 p.

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

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

Giannoulis, G., Korpjärvi, V.-M., Iliadis, N., Mäkelä, J., Viheriälä, J., Apostolopoulos, D., Guina, M. & Avramopoulos, H., 15 Aug 2015, In : *IEEE Photonics Technology Letters*. 27, 16, p. 1691-1694 4 p., 7113825.

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

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

Jung, K. Y., Yoon, W. J., Park, Y. B., Berger, P. R. & Teixeira, F. L., 2014, In : ETRI Journal. 36, 4, p. 654-661 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Bursty magnetic friction between polycrystalline thin films with domain walls

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

Calculated electronic density of states and structural properties of tetrahedral amorphous carbon

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

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

Capability assessment of inkjet printing for reliable RFID applications

Putaalaa, J., Niittynen, J., Hannu, J., Myllymäki, S., Kunnari, E., Mäntysalo, M., Hagberg, J. & Jantunen, H., 1 Jun 2017, In : IEEE Transactions on Device and Materials Reliability. 17, 2, p. 281-290 10 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Cascaded crystalline raman lasers for extended wavelength coverage: Continuous-wave, third-stokes operation

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

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

Ma, L., Laasonen, K. & Akola, J., 25 May 2017, In : Journal of Physical Chemistry C. 121, 20, p. 10876-10886 11 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Cavity formation in split ring resonators

Caglayan, H., Bulu, I., Loncar, M. & Ozbay, E., Dec 2008, In : Photonics and Nanostructures - Fundamentals and Applications. 6, 3-4, p. 200-204 5 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Chip-by-chip configurable interconnection using digital printing techniques

Mashayekhi, M., Winchester, L., Laurila, M-M., Mäntysalo, M., Ogier, S., Terés, L. & Carrabina, J., 6 Mar 2017, In : Journal of Micromechanics and Microengineering. 27, 4, 045009.
Research output: Contribution to journal > Article > Scientific > peer-review

Coherence of Supercontinuum Light

Genty, G., Friberg, A. T. & Turunen, J., 2016, *Progress in Optics*. Elsevier, Vol. 61. (Progress in Optics).
Research output: Chapter in Book/Report/Conference proceeding > Chapter > Scientific > peer-review

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

Bajas, H., Ambrosio, G., Anerella, M., Bajko, M., Bossert, R., Caspi, S., Chiuchiolo, A., Chlachidze, G., Dietderich, D., Dunkel, O., Felice, H., Ferracin, P., Feuvrier, J., Fiscarelli, L., Ghosh, A., Giloux, C., Godeke, A., Hafalia, A. R., Marchevsky, M., Russenschuck, S., Sabbi, G. L., Salmi, T., Schmalzle, J., Todesco, E., Wanderer, P., Wang, X. & Yu, M., 2013, In : IEEE Transactions on Applied Superconductivity. 23, 3, 4002606.
Research output: Contribution to journal > Article > Scientific > peer-review

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

Laurila, M-M., Khorramdel, B. & Mäntysalo, M., 1 Mar 2017, In : IEEE Transactions on Electron Devices. 64, 3, p. 1217-1224 8 p.

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

Combining full-reference image visual quality metrics by neural network

Lukin, V. V., Ponomarenko, N. N., Ieremeiev, O., Egiazarian, K. & Astola, J., 2015, *Proceedings of SPIE - The International Society for Optical Engineering*. SPIE, Vol. 9394. 93940K

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

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

Moiseev, E. I., Maximov, M. V., Kryzhanovskaya, N. V., Simchuk, O. I., Kulagina, M. M., Kadinskaya, S. A., Guina, M. & Zhukov, A. E., 1 Feb 2020, In : *Semiconductors*. 54, 2, p. 263-267 5 p.

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

Vignon-Dewalle, A. S., Betrouni, N., Tylcz, J. B., Vermandel, M., Mortier, L. & Mordon, S., 1 May 2015, In : *JOURNAL OF BIOMEDICAL OPTICS*. 20, 5, 058001.

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

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

Bansod, N. D., Kapgade, B. P., Das, C., Das, A., Basu, D. & Debnath, S. C., 2016, In : *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*. 80, 2, p. 548-559 12 p.

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

Kulya, M. S., Katkovnik, V., Egiazarian, K. & Petrov, N. V., 2020, *Terahertz, RF, Millimeter, and Submillimeter-Wave Technology and Applications XIII*. Sadwick, L. P. & Yang, T. (eds.). SPIE, 1127921. (Proceedings of SPIE; vol. 11279).

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

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

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

Compressive strain measurement using RFID patch antenna sensors

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

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

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

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

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

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

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

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

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Effect of Epoxy Flux Underfill on Thermal Cycling Reliability of Sn-8Zn-3Bi Lead-Free Solder in a Sensor Application

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

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

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

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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

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

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

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

Engineering of Chern insulators and circuits of topological edge states

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

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

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

Le, T., Lin, Z., Wong, C. P. & Tentzeris, M. M., 11 Sep 2014, *Proceedings - Electronic Components and Technology Conference*. Institute of Electrical and Electronics Engineers Inc., p. 769-774 6 p. 6897372

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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

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

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

Farooq, A., Evreinov, G., Raisamo, R. & Takahata, D., 31 Dec 2015, *2015 IEEE SENSORS - Proceedings*. Institute of Electrical and Electronics Engineers Inc., 7370186

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

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

Mashayekhi, M., Winchester, L., Evans, L., Pease, T., Laurila, M-M., Mäntysalo, M., Ogier, S., Teres, L. & Carrabina, J., 1 Mar 2016, In : *IEEE Transactions on Electron Devices*. 63, 3, p. 1246-1253 8 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.

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

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

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

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

Lorin, C., Fleiter, J., Salmi, T. & Schoerling, D., 1 Aug 2019, In : *IEEE Transactions on Applied Superconductivity*. 29, 5, 4001005.

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

Fabrication and performance evaluation of 3D-printed graphene passive UHF RFID tags on cardboard

He, H., Akbari, M., Chen, X., Nommeots-Nomm, A., Chen, L., Ukkonen, L. & Virkki, J., 22 May 2017, *2017 Progress in Electromagnetics Research Symposium - Spring, PIERS 2017*. IEEE, p. 3322-3325 4 p.

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

Fabrication and reliability evaluation of passive UHF RFID T-shirts

Chen, X., He, H., Ukkonen, L., Virkki, J., Lu, Y. & Lam, H., 8 Jun 2018, *2018 IEEE International Workshop on Antenna Technology, iWAT2018 - Proceedings*. IEEE, p. 1-4 4 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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 of ssDNA/Oligo(ethylene glycol) monolayers and patterns by exchange reaction promoted by ultraviolet light irradiation

Khan, M. N. & Zharnikov, M., 27 Nov 2013, In : *Journal of Physical Chemistry C*. 117, 47, p. 24883-24893 11 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

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

FEM for directly coupled magneto-mechanical phenomena in electrical machines

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

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

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., Chiuchiolo, 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

First principles prediction of the solar cell efficiency of chalcopyrite materials AgMX_2 (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

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

Fluorescence bandwidth of 280nm from broadband Ce^{3+} -doped silica fiber pumped with blue laser diode

Yadav, A., Chichkov, N. B., Gumenyuk, R., Zhrebtsov, 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

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

Välimäki, H., Verho, J., Kreutzer, 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

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

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

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

Frequency modulation of semiconductor disk laser pulses

Zolotovskii, I. O., Korobko, D. A. & Okhotnikov, O. G., 2015, In : Quantum Electronics. 45, 7, p. 628-634 7 p.

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

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

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

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

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

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

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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

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

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., Sorianello, 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

Ghost imaging in the time domain

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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

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

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

>8W GaInNAs VECSEL emitting at 615 nm

Leinonen, T., Penttinen, J. P., Korpijärvi, V. M., Kantola, E. & Guina, M., 2015, *Proceedings of SPIE: Vertical External Cavity Surface Emitting Lasers (VECSELs)* V. SPIE, Vol. 9349. 934909

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

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

Saccone, M., Siiskonen, A., Fernandez-Palacio, F., Priimägi, A., Terraneo, G., Resnati, G. & Metrangolo, P., 1 Apr 2017, In : *ACTA CRYSTALLOGRAPHICA SECTION B : STRUCTURAL SCIENCE, CRYSTAL ENGINEERING AND MATERIALS*. 73, 2, p. 227-233 7 p.

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

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

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

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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

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

Brandt, F., Hiekkämäki, M., Bouchard, F., Huber, M. & Fickler, R., 20 Feb 2020, In : *Optica*. 7, 2, p. 98-107 10 p.

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

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

Hannula, M., Ali-Löyty, 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

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

Mateos, X., Loiko, P., Lamrini, S., Scholle, K., Fuhrberg, P., Suomalainen, S., Härkönen, A., Guina, M., Vatnik, S., Vedin, I., Aguiló, M., Díaz, F., Wang, Y., Griebner, U. & Petrov, V., 2018, *Pacific-Rim Laser Damage 2018: Optical Materials for High-Power Lasers*. SPIE, IEEE, 107130J. (Proceedings of SPIE; vol. 10713).

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

Pajukoski, H., Näkki, J., Thieme, S., Tuominen, J., Nowotny, S. & Vuoristo, P., 2016, In : *Journal of Laser Applications*. 28, 1, 012011.

Research output: Contribution to journal > Article > 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-power 1550 nm tapered DBR lasers fabricated using soft UV-nanoimprint lithography

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

Mojica, E., Pertuz, S. & Arguello, H., 2017, In : *Optics Communications*. 404, p. 103-109

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

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

Härö, E., Stenvall, A., Van Nugteren, J. & Kirby, G., 1 Apr 2015, In : *IEEE Transactions on Applied Superconductivity*. 25, 2

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

Hyperspectral phase imaging based on denoising in complex-valued eigensubspace

Shevkunov, I., Katkovnik, V., Claus, D., Pedrini, G., Petrov, N. V. & Egiazarian, K., 1 Apr 2020, In : *Optics and Lasers in Engineering*. 127, 10 p., 105973.

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

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

Rasilo, P., Abdallah, A. A. E., Belahcen, A., Arkkio, A. & Dupré, L., 1 Mar 2015, In : *IEEE Transactions on Magnetics*. 51, 3, 2001304.

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

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

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

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

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

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

Cook, B. S., Fang, Y., Kim, S., Le, T., Goodwin, W. B., Sandhage, K. H. & Tentzeris, M. M., Sep 2013, In : *Electronic Materials Letters*. 9, 5, p. 669-676 8 p.

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

Inkjet-printed dual microfluidic-based sensor integrated system

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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

Inkjet printed single layer high-density circuitry for a MEMS device

Laurila, M-M., Soltani, A. & Mäntysalo, M., 15 Jul 2015, *2015 IEEE 65th Electronic Components and Technology Conference (ECTC)*. IEEE, p. 968-972 5 p.

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

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

Le, T., Lin, Z., Vyas, R., Lakafosis, V., Yang, L., Traille, A., Tentzeris, M. M. & Wong, C. P., 2013, In : *Journal of Electronic Packaging*. 135, 1, 011007.

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

Instability of cuboctahedral copper clusters

Valkealahti, S. & Manninen, M., 1 Jan 1992, In : *Physical Review B*. 45, 16, p. 9459-9462 4 p.

Research output: Contribution to journal > Article > 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).

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

Intelligent data service for farmers

Linna, P., Narra, N. & Grönman, J., 1 May 2019, *2019 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2019 - Proceedings*. Skala, K., Car, Z., Pale, P., Huljenic, D., Janjic, M., Koracic, M., Sruk, V., Ribaric, S., Grbac, T. G., Butkovic, Z., Cicin-Sain, M., Skvorc, D., Mauher, M., Babic, S., Gros, S., Vrdoljak, B. & Tijan, E. (eds.). IEEE, p. 1072-1075 4 p.

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.

Research output: Contribution to journal > Article > 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

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

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

Bhavitha, 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.

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

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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

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

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

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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

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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

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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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

Light propagation analysis in nervous tissue for wireless optogenetic nanonetworks

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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

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

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

Liquid crystal light valves: A versatile platform for nematicons

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

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

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

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

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Low-temperature germanium thin films on silicon

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

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

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Machine learning for adaptive bilateral filtering

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

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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

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

Measuring bend losses in large-mode-area fibers

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

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

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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

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

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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

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Research output: Contribution to journal › Article › 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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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

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

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Research output: Contribution to journal > Article > 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

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

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

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

Molecular dynamics simulations for Xe absorbed in zeolites

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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

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

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

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

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

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

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

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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

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

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Research output: Contribution to journal › Article › 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

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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

Nonlinear guided waves: Preface

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Nonlinear optical activity effects in complex anisotropic three-dimensional media

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

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Research output: Contribution to journal > Editorial > Scientific

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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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Novel borosilicate bioactive scaffolds with persistent luminescence

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

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

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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

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Research output: Contribution to journal > Editorial > Scientific

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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

Observation of off-axis directional beaming via subwavelength asymmetric metallic gratings

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

Observation of PT-symmetric quantum interference

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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

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

Haapanen, J., Aromaa, M., Teisala, H., Juuti, P., Tuominen, M., Sillanpää, M., Stepien, M., Saarinen, J. J., Toivakka, M., Kuusipalo, J. & Mäkelä, J. M., 2019, In : *Materials Research Express*. 6, 3, 035004.
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Research output: Contribution to journal › Article › Scientific › peer-review

Screen-Printed Stretchable Interconnects

Suikkola, J., Kankkunen, T., Iso-Ketola, P., Vanhala, J. & Mäntysalo, M., 16 Aug 2016, *Proceedings - ECTC 2016: 66th Electronic Components and Technology Conference*. IEEE, p. 1650-1655 6 p.

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

Screen printed temporary tattoos for skin-mounted electronics

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

Segregation of iron losses from rotational field measurements and application to electrical machine

Belahcen, A., Rasilo, P. & Arkkio, A., Feb 2014, In : *IEEE Transactions on Magnetics*. 50, 2, 7022104.

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

Self-alignment in the stacking of microchips with mist-induced water droplets

Chang, B., Sariola, V., Jääskeläinen, M. & Zhou, Q., Jan 2011, In : *Journal of Micromechanics and Microengineering*. 21, 1, 015016.

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

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Chang, B., Routa, I., Sariola, V. & Zhou, Q., Sep 2011, In : *Journal of Micromechanics and Microengineering*. 21, 9, 095024.

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

Self-orienting liquid crystal doped with polymer-azo-dye complex

Ouskova, E., Vapaavuori, J. & Kaivola, M., 1 Dec 2011, In : *Optical Materials Express*. 1, 8, p. 1463-1470 8 p.

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

Semantics of HTS AC Loss Modeling: Theories, Models, and Experiments

Lahtinen, V. & Stenvall, A., 1 Aug 2020, In : *IEEE Transactions on Applied Superconductivity*. 30, 5, 5900809.

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

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

Nair, D. G., Rasilo, P. & Arkkio, A., Nov 2018, In : *IEEE Transactions on Magnetics*. 54, 11, 8109405.

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

SESAM mode-locked Tm: CALGO laser at 2 μm

Wang, Y., Xie, G., Xu, X., Di, J., Qin, Z., Suomalainen, S., Guina, M., Härkönen, A., Agnesi, A., Griebner, U., Mateos, X., Loiko, P. & Petrov, V., 2015, *Advanced Solid State Lasers, ASSL 2015*. Optical Society of America OSA, AW1A.2

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

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Valkealahti, S. & Manninen, M., 1 Jan 1994, In : *Physical Review B*. 50, 23, p. 17564-17574 11 p.

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

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Dumitrescu, M., Uusitalo, T., Virtanen, H., Laakso, A., Bardella, P. & Montrosset, I., 17 Aug 2016, *16th International Conference on Numerical Simulation of Optoelectronic Devices, NUSOD 2016*. IEEE, p. 147-148 2 p.

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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

Simultaneous binary hash and features learning for image retrieval

Frantc, V. A., Makov, S. V., Voronin, V. V., Marchuk, V. I., Semenishchev, E. A., Egiazarian, K. O. & Agaian, S., 2016, *Mobile Multimedia/Image Processing, Security, and Applications 2016*. SPIE, 986902. (SPIE Conference Proceedings; vol. 9869).

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Single exposure lensless subpixel phase imaging

Kocsis, P., Shevkunov, I., Katkovnik, V. & Egiazarian, K., 2019, *Digital Optical Technologies 2019*. Kress, B. C. & Schelkens, P. (eds.). SPIE, IEEE, 9 p. (Proceedings of SPIE - The International Society for Optical Engineering; vol. 11062).

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

Single KTIPO4 nanocrystals for nonlinear probing of local optical fields and interaction with a metallic nanostructure

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Gadelovits, S., Sitbon, M., Suntio, T. & Kuperman, A., 25 Nov 2015, In : *Progress in Photovoltaics: Research and Applications*. 23, 12, p. 1916-1928 13 p.

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

Site-controlled InAs Quantum Dots for Plasmonics

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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., Lontos, 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

Solar Irradiation Independent Expression for Photovoltaic Generator Maximum Power Line

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

Soliton enhancement of spontaneous symmetry breaking

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Research output: Contribution to journal › Article › 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

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

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

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

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

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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

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

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Research output: Contribution to journal › 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

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

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

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

Strong localization in unintentional disordered photonics crystal waveguides

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

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Study of quench protection for the Nb₃Sn low-β quadrupole for the LHC luminosity upgrade (HiLumi-LHC)

Marinozzi, V., Ambrosio, G., Bellomo, G., Chlachidze, G., Felice, H., Marchevsky, M., Salmi, T., Sorbi, M. & Todesco, E., 1 Jun 2015, In : IEEE Transactions on Applied Superconductivity. 25, 3, 4002905.

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

Study of second-harmonic generation from CdS nanostructured thin film

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

Sub-100 ps monolithic diamond Raman laser emitting at 573 nm

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

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Wang, Y., Jing, W., Loiko, P., Zhao, Y., Huang, H., Suomalainen, S., Härkönen, A., Guina, M., Mateos, X., Griebner, U. & Petrov, V., 2017, *Advanced Solid State Lasers 2017: Nagoya, Aichi Japan 1–5 October 2017*. The Optical Society; OSA, 3 p. ATu6A.4

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

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

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

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

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

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

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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 > Article > Scientific > peer-review

Superfluid weight and Berezinskii-Kosterlitz-Thouless transition temperature of twisted bilayer graphene

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

Surface-induced charge state conversion of nitrogen-vacancy defects in nanodiamonds

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

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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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

Switchable unidirectional second-harmonic emission through GaAs nanoantennas

Xu, L., Saerens, G., Timofeeva, M., Miroshnichenko, A. E., Camacho-Morales, R., Volkovskaya, I., Smirnova, D. A., Lysevych, M., Huang, L., Cai, M., Karouta, F., Hoe Tan, H., Kauranen, M., Jagadish, C., Grange, R., Neshev, D. N. & Rahmani, M., 2019, *AOS Australian Conference on Optical Fibre Technology, ACOFT 2019 and Australian Conference on Optics, Lasers, and Spectroscopy, ACOFT 2019*. Mitchell, A. & Rubinsztein-Dunlop, H. (eds.). SPIE, 112000J. (Proceedings of SPIE - The International Society for Optical Engineering; vol. 11200).

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

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

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

Temporal ghost imaging using wavelength conversion and two-color detection

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

The 16 T Dipole Development Program for FCC

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

The effect of carbon and nickel additions on the precursor synthesis of Cr₃C₂-Ni nanopowder

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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

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 EuCARD-2 future magnets European collaboration for accelerator-quality HTS magnets

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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 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 magical world of metamaterials

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

Theoretical studies of structural properties of the high- T_c superconductor $Y_1Ba_2Cu_3O_{7-x}$

Valkealahti, S. & Welch, D. O., 1 Jan 1989, In : Physica C: Superconductivity and its Applications. 162-164, PART 1, p. 540-541 2 p.

Research output: Contribution to journal > Article > 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.

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

Thermal effects on a passive wireless antenna sensor for strain and crack sensing

Yi, X., Vyas, R., Cho, C., Fang, C. H., Cooper, J., Wang, Y., Leon, R. T. & Tentzeris, M. M., 2012, *Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems 2012*. Vol. 8345. 83450F

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

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

Kylänpää, I., Cavaliere, F., Ziani, N. T., Sassetti, M. & Räsänen, E., 13 Sep 2016, In : Physical Review B. 94, 11, 115417.

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

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

Sorianello, V., Colace, L., Assanto, G., Notargiacomo, A., Armani, N., Rossi, F. & Ferrari, C., Apr 2011, In : Microelectronic Engineering. 88, 4, p. 526-529 4 p.

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

Thermally evaporated single-crystal Germanium on Silicon

Sorianello, V., Colace, L., Nardone, M. & Assanto, G., 1 Sep 2011, In : Thin Solid Films. 519, 22, p. 8037-8040 4 p.

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

Thermal, structural and optical properties of Er^{3+} doped phosphate glasses containing silver nanoparticles

Soltani, I., Hraiech, S., Horchani-Naifer, K., Massera, J., Petit, L. & Férid, M., 15 Apr 2016, In : Journal of Non-Crystalline Solids. 438, p. 67-73 7 p.

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

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

Borah, D., Rasappa, S., Senthamarikannan, R., Shaw, M. T., Holmes, J. D. & Morris, M. A., 1 Mar 2013, In : Journal of Colloid and Interface Science. 393, 1, p. 192-202 11 p.

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

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

Yi, X., Wu, T., Lantz, G., Wang, Y., Leon, R. T. & Tentzeris, M. M., 2011, *Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems 2011*. Vol. 7981. 79811H

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

Third order nonlinear optical response of TTF-based molecular corners

Iliopoulos, K., Czaplicki, R., Ouazzani, H. E., Balandier, J-Y., Chas, M., Goeb, S., Sallé, M., Gindre, D. & Sahraoui, B., 2012, In : Nonlinear Optics, Quantum Optics. 43, 1-4, p. 205-212 8 p.

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

Three-color vector nematicon

Laudyn, U. A., Kwaśny, M., Karpierz, M. A. & Assanto, G., 2017, In : Photonics Letters of Poland. 9, 2, p. 36-38 3 p.

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

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

Akbari, M., Virkki, J., Sydänheimo, L. & Ukkonen, L., 1 Sep 2016, In : IEEE Transactions on Device and Materials Reliability. 16, 3, p. 429-431 3 p.

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

Towards efficient nonlinear plasmonic metasurfaces

Huttunen, M. J., Stolt, T., Reshef, O., Kiviniemi, A., Czaplicki, R., Zang, X., Vartiainen, I., Butet, J., Kuittinen, M., Martin, O. J. F., Dolgaleva, K., Boyd, R. W. & Kauranen, 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

Towards REBCO 20T+ Dipoles for Accelerators

van Nugteren, J., Kirby, G., Murtomaki, J., DeRijk, G., Rossi, L. & Stenvall, A., Jun 2018, In : IEEE Transactions on Applied Superconductivity. 28, 4, 4008509.

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

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

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

Özbay, E., Bulu, I. & Caglayan, H., Apr 2007, In : Physica Status Solidi (B) Basic Research. 244, 4, p. 1202-1210 9 p.

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

Transparent Yb³⁺ doped phosphate glass-ceramics

Hongisto, M., Veber, A., Boetti, N. G., Danto, S., Jubera, V. & Petit, L., 1 Jan 2020, In : Ceramics International.

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

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

Edwards, T. E. J., Di Gioacchino, F., Goodfellow, A. J., Mohanty, G., Wehrs, J., Michler, J. & Clegg, W. J., 1 Mar 2019, In : Acta Materialia. 166, p. 85-99 15 p.

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

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

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.

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

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

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.

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Two-part stretchable passive UHF RFID textile tags

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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

Dutta, R., Friberg, A. T., Genty, G. & Turunen, J., 2015, In : *Journal of the Optical Society of America A: Optics Image Science and Vision*. 32, 9, p. 1631-1637 7 p.

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

Ultrafast picosecond MOPA with Yb-doped tapered double clad fiber

Noronen, T., Gumenyuk, R., Chamorovskii, Y., Golant, K., Odnoblyudov, M. & Filippov, V., 2017, *The European Conference on Lasers and Electro-Optics 2017: Munich Germany 25-29 June 2017*. The Optical Society; OSA, Vol. Part F82-CLEO_Europe 2017. CJ_9_4

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.

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

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

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > 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., Korpjärvi, 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

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

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

Pavelescu, E. M., Bălățeanu, N., Spânulescu, 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

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.

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

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