

Tree species classification using structural features derived from terrestrial laser scanning

Terryn, L., Calders, K., Disney, M., Origo, N., Malhi, Y., Newnham, G., Raunonen, P., Åkerblom, M. & Verbeeck, H., 1 Oct 2020, In : ISPRS Journal of Photogrammetry and Remote Sensing. 168, p. 170-181 12 p.

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

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

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

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

Fusionsense: Emotion classification using feature fusion of multimodal data and deep learning in a brain-inspired spiking neural network

Tan, C., Ceballos, G., Kasabov, N. & Subramaniam, N. P., 17 Sep 2020, In : Sensors (Switzerland). 20, 18, 27 p., 5328.

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

Optically induced crossover from weak to strong coupling regime between surface plasmon polaritons and photochromic molecules

Asamoah, B. O., Mohamed, S., Datta, S., Karvinen, P., Rekola, H., Priimagi, A. & Hakala, T. K., 31 Aug 2020, In : Optics Express. 28, 18, p. 26509-26518 10 p.

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ClothFace: A Batteryless RFID-Based Textile Platform for Handwriting Recognition

He, H., Chen, X., Mehmood, A., Raivio, L., Huttunen, H., Raunonen, P. & Virkki, J., 28 Aug 2020, In : Sensors (Basel, Switzerland). 20, 17, 12 p., 4878.

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

High-Power 760 nm VECSEL Based on Quantum Dot Gain Mirror

Nechay, K., Mereuta, A., Paranthoen, C., Brevalle, G., Levallois, C., Alouini, M., Chevalier, N., Perrin, M., Suruceanu, G., Caliman, A., Kapon, E. & Guina, M., 1 Aug 2020, In : IEEE journal of quantum electronics. 56, 4, 4 p.

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Edge-enhanced optical parametric generation in periodically poled LiNbO_3

Prytz, N. B., Qvarngård, D., Härkönen, A., Guina, M. & Gallo, K., 6 Jul 2020, In : Optics Express. 28, 14, p. 20879-20887 9 p.

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Selective hydrogen production at Pt(111) investigated by Quantum Monte Carlo methods for metal catalysis

Sharma, R. O., Rantala, T. T. & Hoggan, P. E., 5 Jun 2020, In : International Journal of Quantum Chemistry. 120, 11, e26198.

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

Zinc-indiffused MgO:PPLN waveguides for blue/UV generation via VECSEL pumping

Gray, A. C., Woods, J. R. C., Carpenter, L. G., Kahle, H., Berry, S. A., Tropper, A. C., Guina, M., Apostolopoulos, V., Smith, P. G. R. & Gawith, C. B. E., 1 Jun 2020, In : Applied Optics. 59, 16, p. 4921-4926 6 p.

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

Low-noise octave-spanning mid-infrared supercontinuum generation in a multimode chalcogenide fiber

Eslami, Z., Ryczkowski, P., Salmela, L. & Genty, G., 1 Jun 2020, In : Optics Letters. 45, 11, p. 3103-3106 4 p.

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Lensless hyperspectral phase imaging in a self-reference setup based on Fourier transform spectroscopy and noise suppression

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Hyperspectral phase imaging based on denoising in complex-valued eigensubspace

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Temporal ghost imaging with random fiber lasers

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Instabilities in a dissipative soliton-similariton laser using a scalar iterative map

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

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

Single exposure lensless subpixel phase imaging: Optical system design, modelling, and experimental study

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Precise length definition of active GaAs-based optoelectronic devices for low-loss silicon photonics integration

Tuorila, H., Viheriälä, J., Zia, N., Cherchi, M., Harjanne, M., Isoaho, R., Aalto, T. & Guina, M., 15 Feb 2020, In : Optics Letters. 45, 4, p. 943-946 4 p.

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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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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.

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Sequential Collinear Photofragmentation and Atomic Absorption Spectroscopy for Online Laser Monitoring of Triatomic Metal Species

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Multiphoton microscopy of the dermoepidermal junction and automated identification of dysplastic tissues with deep learning

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Neuromorphic Photonics with Coherent Linear Neurons Using Dual-IQ Modulation Cells

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

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

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Environmental monitoring with distributed mesh networks: An overview and practical implementation perspective for urban scenario

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Terahertz pulse time-domain holography with balance detection: Complex-domain sparse imaging

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Spectral object recognition in hyperspectral holography with complex-domain denoising

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Path-integral description of quantum nonlinear optics in arbitrary media

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Statistical evaluation of barkhausen noise testing (BNT) for ground samples

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Near-perfect measuring of full-field transverse-spatial modes of light

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High Power 1.5µm Pulsed Laser Diode with Asymmetric Waveguide and Active Layer Near p-cladding

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Realization of Free-Space Long-Distance Self-Healing Bessel Beams

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High power GaInNAs superluminescent diodes emitting over 400 mW in the 1.2 µm wavelength range

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Bayesian inversion of a forest reflectance model using Sentinel-2 and Landsat 8 satellite images

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

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Influence of pump coherence on the generation of position-momentum entanglement in optical parametric down-conversion

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Methods for simultaneous robot-world-hand-eye calibration: A comparative study

Ali, I., Suominen, O., Gotchev, A. & Morales, E. R., 2 Jun 2019, In : Sensors (Switzerland). 19, 12, 2837.

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Bioimpedance Sensor Array for Long-Term Monitoring of Wound Healing from Beneath the Primary Dressings and Controlled Formation of H₂O₂ Using Low-Intensity Direct Current

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

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Positioning information privacy in intelligent transportation systems: An overview and future perspective

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Experimental realization of wave-packet dynamics in cyclic quantum walks

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Comparison of single-side and double-side pumping of membrane external-cavity surface-emitting lasers

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Hyperspectral data denoising for terahertz pulse time-domain holography

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Flip-chip Wafer-fused OP-VECSELs emitting 3.65 W at the 1.55- μm waveband

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Spatiospectral features of a soliton-assisted random laser in liquid crystals

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Interferometric autocorrelation measurements of supercontinuum based on two-photon absorption

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Efficient nonlinear metasurfaces by using multiresonant high-Q plasmonic arrays

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Large-scale efficient water harvesting using bioinspired micro-patterned copper oxide nanoneedle surfaces and guided droplet transport

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Towards optical-frequency-comb generation in continuous-wave-pumped titanium-indiffused lithium-niobate waveguide resonators

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

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M2M Communication Assessment in Energy-Harvesting and Wake-Up Radio Assisted Scenarios Using Practical Components

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Super-resolution microscopy for biological specimens: Lensless phase retrieval in noisy conditions

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Demonstration of optical nonlinearity in InGaAsP/InP passive waveguides

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Accelerated optical solitons in reorientational media with transverse invariance and longitudinally modulated birefringence
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Temporal dynamics of light-written waveguides in unbiased liquid crystals

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1.34 μm VECSEL mode-locked with a GaSb-based SESAM

Härkönen, A., Suomalainen, S., Rantamäki, A., Nikkinen, J., Wang, Y., Griebner, U., Steinmeyer, G. & Guina, M., 15 Jul 2018, In : *Optics Letters*. 43, 14, p. 3353-3356 4 p.

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

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Segmentation of vessel structures from photoacoustic images with reliability assessment

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Acquiring respiration rate from photoplethysmographic signal by recursive bayesian tracking of intrinsic modes in time-frequency spectra

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Evaluation of dry electrodes in canine heart rate monitoring

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

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Thermo-optic soliton routing in nematic liquid crystals

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Sub-10 optical-cycle passively mode-locked Tm:(Lu₂/3Sc₁/3)2O₃ ceramic laser at 2 μm

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

Ho:KY(WO4)2 thin-disk laser passively Qswitched by a GaSb-based SESAM

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., 2 Apr 2018, In : Optics Express. 26, 7, p. 9011-9016 6 p.
Research output: Contribution to journal > Article > Scientific > peer-review

AlGaAs-based vertical-external-cavity surface-emitting laser exceeding 4 W of direct emission power in the 740–790 nm spectral range

Kahle, H., Nechay, K., Penttinen, J-P., Tukiainen, A., Ranta, S. & Guina, M., 1 Apr 2018, In : Optics Letters. 43, 7, p. 1578-1581 4 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Ultra-large core birefringent Yb-doped tapered double clad fiber for high power amplifiers

Fedotov, A., Noronen, T., Gumenyuk, R., Ustimchik, V., Chamorovskii, Y., Golant, K., Odnoblyudov, M., Rissanen, J., Niemi, T. & Filippov, V., 19 Mar 2018, In : Optics Express. 26, 6, p. 6581-6592 12 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Guided-mode resonance gratings for enhanced mid-infrared absorption in quantum dot intermediate-band solar cells

Elsehrawy, F., Niemi, T. & Cappelluti, F., 19 Mar 2018, In : Optics Express. 26, 6, p. A352-A359
Research output: Contribution to journal > Article > Scientific > peer-review

Comparison of metal/polymer back reflectors with half-sphere, blazed, and pyramid gratings for light trapping in III-V solar cells

Aho, T., Guina, M., Elsehrawy, F., Cappelluti, F., Raappana, M., Tukiainen, A., Khairul Alam, A. B. M., Vartiainen, I., Kuittinen, M. & Niemi, T., 19 Mar 2018, In : Optics Express. 26, 6, p. A331-A340
Research output: Contribution to journal > Article > Scientific > peer-review

Speckle reduction method for image-based coherent stereogram generation

Kinen, J. M., Sahin, E. & Gotchev, A., 5 Mar 2018, In : Optics Express. 26, 5, p. 5381-5394 14 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Noise minimized high resolution digital holographic microscopy applied to surface topography

Achimova, E., Abashkin, V., Claus, D., Pedrini, G., Shevkunov, I. & Katkovnik, V., 1 Mar 2018, In : Computer Optics. 42, 2, p. 267-272 6 p.
Research output: Contribution to journal > Article > Scientific > peer-review

An activity recognition framework deploying the random forest classifier and a single optical heart rate monitoring and triaxial accelerometer wrist-band

Mehrang, S., Pietilä, J. & Korhonen, I., 22 Feb 2018, In : Sensors. 18, 2, 613.
Research output: Contribution to journal > Article > Scientific > peer-review

87 fs mode-locked Tm:Ho:CaYAlO4 laser at ~2043 nm

Zhao, Y., Wang, Y., Zhang, X., Mateos, X., Pan, Z., Loiko, P., Zhou, W., Xu, X., Xu, J., Shen, D., Suomalainen, S., Härkönen, A., Guina, M., Griebner, U. & Petrov, V., 1 Feb 2018, In : Optics Letters. 43, 4, p. 915-918 4 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Surface relief and refractive index gratings patterned in chalcogenide glasses and studied by off-axis digital holography

Cazac, V., Meshalkin, A., Achimova, E., Abashkin, V., Katkovnik, V., Shevkunov, I., Claus, D. & Pedrini, G., 20 Jan 2018, In : Applied Optics. 57, 3, p. 507-513 7 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Narrow-linewidth 780 nm DFB lasers fabricated using nanoimprint lithography

Virtanen, H., Uusitalo, T., Karjalainen, M., Ranta, S., Viheriala, J. & Dumitrescu, M., 2018, In : IEEE Photonics Technology Letters. 30, 1, p. 51-54
Research output: Contribution to journal > Article > Scientific > peer-review

Programming Photoresponse in Liquid Crystal Polymer Actuators with Laser Projector

Wani, O. M., Zeng, H., Wasylczyk, P. & Priimagi, A., 2018, In : *Advanced Optical Materials*. 6, 1, 1700949.

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

Standoff alpha radiation detection for hot cell imaging and crime scene investigation

Kerst, T., Sand, J., Ihtola, S., Peräjärvi, K., Nicholl, A., Hrncek, E., Toivonen, H. & Toivonen, J., 2018, In : *Optical Review*. 25, 3, p. 429–436

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

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

Nikkinen, J., Savitski, V., Reilly, S., Dziechciarzyk, L., Härkönen, A., Kemp, A. & Guina, M., 2018, In : *IEEE Photonics Technology Letters*. 30, 11, p. 981-984

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

Real-time full-field characterization of transient dissipative soliton dynamics in a mode-locked laser

Ryczkowski, P., Närhi, M., Billet, C., Merolla, J. M., Genty, G. & Dudley, J. M., 2018, In : *Nature Photonics*. 12, p. 221–227
7 p.

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

Lensless broadband diffractive imaging with improved depth of focus: wavefront modulation by multilevel phase masks

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

1.4 μm continuous-wave diamond Raman laser

Casula, R., Penttinen, J-P., Kemp, A. J., Guina, M. & Hastie, J. E., 11 Dec 2017, In : *Optics Express*. 25, 25, p. 31377-31383 7 p.

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

Bright off-axis directional emission with plasmonic corrugations

Sattari, H., Rashed, A. R., Ozbay, E. & Caglayan, H., 11 Dec 2017, In : *Optics Express*. 25, 25, p. 30827-30842 16 p.

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

High-Power 1180-nm GaInNAs DBR Laser Diodes

Aho, A. T., Viheriälä, J., Korpjärvi, V-M., Koskinen, M., Virtanen, H., Christensen, M., Uusitalo, T., Lahtonen, K., Valden, M. & Guina, M., 1 Dec 2017, In : *IEEE Photonics Technology Letters*. 29, 23, p. 2023-2026 4 p.

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

Bending reorientational solitons with modulated alignment

Sala, F. A., Smyth, N. F., Laudyn, U. A., Karpierz, M. A., Minzoni, A. A. & Assanto, G., 1 Dec 2017, In : *Journal of the Optical Society of America B: Optical Physics*. 34, 12, p. 2459-2466 8 p.

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

Sub-50 ps pulses at 620 nm obtained from frequency doubled 1240 nm diamond Raman laser

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Research output: Contribution to journal > Article > 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

Paraxial light beams in structured anisotropic media

Jisha, C. P. & Alberucci, A., 1 Nov 2017, In : *Journal of the Optical Society of America A: Optics and Image Science, and Vision*. 34, 11, p. 2019-2024 6 p.

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

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

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

Diode-pumped Tm: KY(WO₄)₂ laser passively modelocked with a GaSb-SESAM

Gaponenko, M., Wittwer, V. J., Härkönen, A., Suomalainen, S., Kuleshov, N., Guina, M. & Südmeyer, T., 16 Oct 2017, In : Optics Express. 25, 21, p. 25760-25766 7 p.

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Sparse superresolution phase retrieval from phase-coded noisy intensity patterns

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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

Chiral near-field manipulation in Au-GaAs hybrid hexagonal nanowires

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Dynamic speckle analysis with smoothed intensity-based activity maps

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Enhanced self-mixing interferometry based on volume Bragg gratings and laser diodes emitting at 405-nm wavelengths

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

Reply to "comment on 'Spatial optical solitons in highly nonlocal media'"

Alberucci, A., Jisha, C. P., Smyth, N. F. & Assanto, G., 25 May 2017, In : Physical Review A. 95, 5, 057802.

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Nonlinear imaging of nanostructures using beams with binary phase modulation

Turquet, L., Kakko, J. P., Jiang, H., Isotalo, T. J., Huhtio, T., Niemi, T., Kauppinen, E., Lipsanen, H., Kauranen, M. & Bautista, G., 1 May 2017, In : Optics Express. 25, 9, p. 10441-10448 8 p.

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Anisotropic tapered polarization-maintaining large mode area optical fibers

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Universal scaling relations for the energies of many-electron Hooke atoms

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

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Simulation studies of DFB laser longitudinal structures for narrow linewidth emission

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33 W continuous output power semiconductor disk laser emitting at 1275 nm

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

Diode-pumped mode-locked Tm: LuAG laser at 2 μm based on GaSb-SESAM

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Spin-orbit interactions in optically active materials

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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

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Polarization resolved photoluminescence in GaAs_{1-x}Bi_x/GaAs quantum wells

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Architectures and codecs for real-time light field streaming

Kovács, P. T., Zare, A., Balogh, T., Bregovic, R. & Gotchev, A., 1 Jan 2017, In : *Journal of Imaging Science and Technology*. 61, 1, 010403.

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All-optical guided-wave random laser in nematic liquid crystals

Perumbilavil, S., Piccardi, A., Buchnev, O., Kauranen, M., Strangi, G. & Assanto, G., 2017, In : *Optics Express*. 25, 5, p. 4672-4679 8 p.

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Optimal control of photoelectron emission by realistic waveforms

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

Optimization of convectively cooled heat sinks

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

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Design of a 25 MWe Solar Thermal Power Plant in Iran with Using Parabolic Trough Collectors and a Two-Tank Molten Salt Storage System

Kordmahaleh, A. A., Naghashzadegan, M., Javaherdeh, K. & Khoshgoftar, M., 2017, In : *International Journal of Photoenergy*. 2017, 4210184.

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Fabrication of Ion-Shaped Anisotropic Nanoparticles and their Orientational Imaging by Second-Harmonic Generation Microscopy

Slablab, A., Isotalo, T. J., Mäkitalo, J., Turquet, L., COULON, P-E., Niemi, T., Ulysse, C., Kociak, M., Maily, D., Rizza, G. & Kauranen, M., 24 Nov 2016, In : Scientific Reports. 6, 37469, 10 p., 37469 .

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Frequency-doubled passively Q-switched microchip laser producing 225 ps pulses at 671 nm

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VECSEL systems for the generation and manipulation of trapped magnesium ions

Burd, S. C., Allcock, D. T. C., Leinonen, T., Penttinen, J. P., Slichter, D. H., Srinivas, R., Wilson, A. C., Jördens, R., Guina, M., Leibfried, D. & Wineland, D. J., 8 Nov 2016, In : Optica. 3, 12, p. 1294-1299 6 p., 268119.

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UPS and DFT investigation of the electronic structure of gas-phase trimesic acid

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RF measurements to pinpoint defects in inkjet-printed, thermally and mechanically stressed coplanar waveguides

Myllymäki, S., Putaala, J., Hannu, J., Kunnari, E. & Mäntysalo, M., 1 Oct 2016, In : Microelectronics Reliability. 65, p. 142-150 9 p.

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

General polarizability and hyperpolarizability estimators for the path-integral Monte Carlo method applied to small atoms, ions, and molecules at finite temperatures

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Semiclassical two-step model for strong-field ionization

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Electronically tunable thulium-holmium modelocked fiber laser for the 1700-1800 nm wavelength band

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Robust statistical approaches for RSS-based floor detection in indoor localization

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Roadmap on optical rogue waves and extreme events

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Vortex stabilization by means of spatial solitons in nonlocal media

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Detection of single microparticles in airflows by edge-filter enhanced self-mixing interferometry

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Microwave assisted laser-induced breakdown spectroscopy at ambient conditions

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Validity of power functionals for a homogeneous electron gas in reduced-density-matrix-functional theory

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Super-resolution in a defocused plenoptic camera: a wave-optics-based approach

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Machine-to-machine communications over FiWi enhanced LTE networks: A power-saving framework and end-to-end performance

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High-power temperature-stable GaInNAs distributed Bragg reflector laser emitting at 1180 nm

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Optimization of light field display-camera configuration based on display properties in spectral domain

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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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Ghost imaging in the time domain

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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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Analysis of single mass-regulated particles in precisely controlled trap using laser-induced breakdown spectroscopy

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

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

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Rapid and facile synthesis of graphene oxide quantum dots with good linear and nonlinear optical properties

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Nonlinear negative refraction in reorientational soft matter

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Measuring synthesis yield in graphene oxide synthesis by modified hummers method

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Highly Nonlinear Dispersion Increasing Fiber for Femtosecond Pulse Generation

Korobko, D. A., Okhotnikov, O. G., Stoliarov, D. A., Sysoliatin, A. A. & Zolotovskii, I. O., 1 Sep 2015, In : *Journal of Lightwave Technology*. 33, 17, p. 3643-3648 6 p., 7134708.

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

Effects of thinning and heating for TiO₂/AlInP junctions

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

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

Bringing High-Performance GaInNASb/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

Influence of relative humidity and physical load during storage on dustiness of inorganic nanomaterials: implications for testing and risk assessment

Levin, M., Rojas, E., Vanhala, E., Vippola, M., Liguori, B., Kling, K. I., Koponen, I. K., Mølhave, K., Tuomi, T., Gregurec, D., Moya, S. & Jensen, K. A., 14 Aug 2015, In : Journal of Nanoparticle Research. 17, 8, 337.

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

Optimal emission enhancement in orthogonal double-pulse laser-induced breakdown spectroscopy

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

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Tiihonen, J., Kylänpää, I. & Rantala, T. T., 12 Jun 2015, In : Physical Review A. 91, 6, 062503.

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

Tolman-Oppenheimer-Volkoff equations in nonlocal f(R) gravity

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

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

Vignion-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

Workplace performance of a loose-fitting powered air purifying respirator during nanoparticle synthesis

Koivisto, A. J., Aromaa, M., Koponen, I. K., Fransman, W., Jensen, K. A., Mäkelä, J. M. & Hämeri, K. J., 9 Apr 2015, In : Journal of Nanoparticle Research. 17, 4

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

Broadband infrared continuum generation in dispersion shifted tapered fiber

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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

Mode-locked Tm,Ho:KLu(WO₄)₂ laser at 2060 nm using InGaSb-based SESAMs

Aleksandrov, V., Gluth, A., Petrov, V., Buchvarov, I., Steinmeyer, G., Paajaste, J., Suomalainen, S., Härkönen, A., Guina, M., Mateos, X., Díaz, F. & Griebner, U., 23 Feb 2015, In : Optics Express. 23, 4, p. 4614-4619 6 p.

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

High speed, high strength microwelding of Si/glass using ps-laser pulses

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

Microfluidic tunable inkjet-printed metamaterial absorber on paper

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

Compact intracavity singly-resonant optical parametric oscillator pumped by GaSb-based vertical external cavity surface-emitting laser: Concept and the main operational characteristics

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

High-gain 1.3 μm GaInNAs semiconductor optical amplifier with enhanced temperature stability for all-optical signal processing at 10 Gb/s

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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

π -Expanded α,β -unsaturated ketones: Synthesis, optical properties, and two-photon-induced polymerization

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

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Enhanced nonlinearity by H-bonded polymer-dye complex in liquid crystal for holographic gratings

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

A 1.33 μm picosecond pulse generator based on semiconductor disk mode-locked laser and bismuth fiber amplifier

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Inequivalence of single CH_a and CH_b methylene bonds in the interior of a diunsaturated lipid bilayer from a molecular dynamics simulation

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Research output: Contribution to journal › Article › Scientific

Dynamics of rogue wave and soliton emergence in spontaneous modulation instability

Toenger, S., Godin, T., Billet, C., Dias, F., Erkintalo, M., Genty, G. & Dudley, J. M., 4 May 2015, *CLEO: QELS - Fundamental Science, CLEO_QELS 2015*. Optical Society of America (OSA), 2 p.

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

Vedyn Stark-ilmion ja polarisoituvuuksien mallintaminen polkuintegraali-Monte Carlo-menetelmällä

Translated title of the contribution: : Stark Effect and polarizabilities of hydrogen with path integral Monte Carlo method
Tiihonen, J., 3 Sep 2014, Tampere University of Technology. 50 p.

Research output: Book/Report › Master's Thesis › Scientific

Diffusion processes and growth on aluminum cluster surfaces

Valkealahti, S. & Manninen, M., 1 Jan 1997, In : *Zeitschrift fur Physik D-Atoms Molecules and Clusters*. 40, 1-4, p. 496-502 7 p.

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

Structural transitions and melting of copper clusters

Valkealahti, S. & Manninen, M., 1 Mar 1993, In : Zeitschrift für Physik D Atoms, Molecules and Clusters. 26, 1, p. 255-257 3 p.

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

Simulation of cluster impact fusion

Valkealahti, S., Manninen, M. & Hammarén, E., 1 Jun 1992, In : Zeitschrift für Physik D Atoms, Molecules and Clusters. 22, 2, p. 547-551 5 p.

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

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

Tunable narrow-linewidth VECSELS for atomic and molecular physics

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

VECSEL: a versatile laser tool for ion trappers

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

Broadband Anti-reflective Coatings for Multi-junction Solar Cells

Reuna, J., Polojärvi, V. (ed.), Aho, T. (ed.), Aho, A. (ed.), Isoaho, R. (ed.), Tukiainen, A. (ed.) & Guina, M. (ed.), 29 May 2017, p. 1. 1 p.

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

Thermal Modification of ALD Grown Titanium Oxide Ultra Thin Film for Photoanode Applications

Hannula, M. K., Lahtonen, K. T., Isotalo, T. J., Saari, J. S. & Valden, M. O., 15 Dec 2016.

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

1.3 μm InAs quantum dot semiconductor disk laser

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

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