

Jurgen Van Erps

List of Publications by Year in descending order

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148
papers

1,862
citations

279487

23
h-index

301761

39
g-index

148
all docs

148
docs citations

148
times ranked

2036
citing authors

#	ARTICLE	IF	CITATIONS
1	Elastomeric inverse moulding and vacuum casting process characterization for the fabrication of arrays of concave refractive microlenses. <i>Journal of Micromechanics and Microengineering</i> , 2007, 17, 81-88.	1.5	210
2	(Photo-)crosslinkable gelatin derivatives for biofabrication applications. <i>Acta Biomaterialia</i> , 2019, 97, 46-73.	4.1	120
3	Cross-Linkable Gelatins with Superior Mechanical Properties Through Carboxylic Acid Modification: Increasing the Two-Photon Polymerization Potential. <i>Biomacromolecules</i> , 2017, 18, 3260-3272.	2.6	104
4	Highly Reactive Thiol-Norbornene Photo-Click Hydrogels: Toward Improved Processability. <i>Macromolecular Rapid Communications</i> , 2018, 39, e1800181.	2.0	77
5	Negative Kerr Nonlinearity of Graphene as seen via Chirped-Pulse-Pumped Self-Phase Modulation. <i>Physical Review Applied</i> , 2016, 6, .	1.5	68
6	Graphene's nonlinear-optical physics revealed through exponentially growing self-phase modulation. <i>Nature Communications</i> , 2018, 9, 2675.	5.8	67
7	Similarity analyses of chromatographic fingerprints as tools for identification and quality control of green tea. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2012, 910, 61-70.	1.2	63
8	Laser ablation of parallel optical interconnect waveguides. <i>IEEE Photonics Technology Letters</i> , 2006, 18, 1106-1108.	1.3	50
9	High-Resolution Optical Sampling of 640-Gb/s Data Using Four-Wave Mixing in Dispersion-Engineered Highly Nonlinear Asymmetric Planar Waveguides. <i>Journal of Lightwave Technology</i> , 2010, 28, 209-215.	2.7	47
10	Ultrathin Optoelectronic Device Packaging in Flexible Carriers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2011, 17, 617-628.	1.9	44
11	Deep proton writing: a rapid prototyping polymer micro-fabrication tool for micro-optical modules. <i>New Journal of Physics</i> , 2006, 8, 270-270.	1.2	41
12	Indirect Rapid Prototyping: Opening Up Unprecedented Opportunities in Scaffold Design and Applications. <i>Annals of Biomedical Engineering</i> , 2017, 45, 58-83.	1.3	40
13	Exploration and classification of chromatographic fingerprints as additional tool for identification and quality control of several Artemisia species. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2014, 95, 34-46.	1.4	39
14	Indirect additive manufacturing as an elegant tool for the production of self-supporting low density gelatin scaffolds. <i>Journal of Materials Science: Materials in Medicine</i> , 2015, 26, 247.	1.7	38
15	Thiol-norbornene gelatin hydrogels: influence of thiolated crosslinker on network properties and high definition 3D printing. <i>Biofabrication</i> , 2021, 13, 015017.	3.7	34
16	High-resolution optical sampling of 640-Gbit/s data using dispersion-engineered chalcogenide photonic wire. <i>Electronics Letters</i> , 2010, 46, 223.	0.5	31
17	Demonstration of a multichannel, multiresolution imaging system. <i>Applied Optics</i> , 2013, 52, 6081.	0.9	31
18	Discrete Out-of-Plane Coupling Components for Printed Circuit Board-Level Optical Interconnections. <i>IEEE Photonics Technology Letters</i> , 2007, 19, 1753-1755.	1.3	29

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19	Hot Embossing of Microoptical Components Prototyped by Deep Proton Writing. IEEE Photonics Technology Letters, 2008, 20, 1539-1541.	1.3	29
20	Paper coatings with multi-scale roughness evaluated at different sampling sizes. Applied Surface Science, 2011, 257, 5613-5625.	3.1	29
21	Designer Descemet Membranes Containing PDLLA and Functionalized Gelatins as Corneal Endothelial Scaffold. Advanced Healthcare Materials, 2020, 9, e2000760.	3.9	25
22	High-precision 2-D SM fiber connectors fabricated through deep proton writing. IEEE Photonics Technology Letters, 2006, 18, 1164-1166.	1.3	24
23	3D direct laser writing of microstructured optical fiber tapers on single-mode fibers for mode-field conversion. Optics Express, 2020, 28, 36147.	1.7	24
24	Laser ablation- and plasma etching-based patterning of graphene on silicon-on-insulator waveguides. Optics Express, 2015, 23, 26639.	1.7	23
25	Laser Ablated Micromirrors for Printed Circuit Board Integrated Optical Interconnections. IEEE Photonics Technology Letters, 2007, 19, 822-824.	1.3	20
26	Embedded Micromirror Inserts for Optical Printed Circuit Boards. IEEE Photonics Technology Letters, 2008, 20, 1727-1729.	1.3	20
27	Free-Form Optics Enhanced Confocal Raman Spectroscopy for Optofluidic Lab-on-Chips. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 79-86.	1.9	20
28	SPAD arrays and micro-optics: towards a real single photon spectrometer. Journal of Modern Optics, 2007, 54, 199-212.	0.6	19
29	Mode-field Matching Down-Tapers on Single-Mode Optical Fibers for Edge Coupling Towards Generic Photonic Integrated Circuit Platforms. Journal of Lightwave Technology, 2020, 38, 4834-4842.	2.7	19
30	Tolerance Analysis for Multilayer Optical Interconnections Integrated on a Printed Circuit Board. Journal of Lightwave Technology, 2007, 25, 2395-2401.	2.7	18
31	100 nm period grating by high-index phase-mask immersion lithography. Optics Express, 2010, 18, 10557.	1.7	18
32	Two-photon direct laser writing of beam expansion tapers on single-mode optical fibers. Optics and Laser Technology, 2019, 112, 292-298.	2.2	18
33	Mass-manufacturable polymer microfluidic device for dual fiber optical trapping. Optics Express, 2015, 23, 30991.	1.7	17
34	Design and tolerance analysis of a low bending loss hole-assisted fiber using statistical design methodology. Optics Express, 2008, 16, 5061.	1.7	16
35	Relation between optical non-contact profilometry and AFM roughness parameters on coated papers with oil-filled nanoparticles. Measurement: Journal of the International Measurement Confederation, 2016, 82, 75-93.	2.5	16
36	SERS using two-photon polymerized nanostructures for mycotoxin detection. RSC Advances, 2020, 10, 14274-14282.	1.7	16

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37	Low-Loss Millimeter-Length Waveguides and Grating Couplers in Single-Crystal Diamond. Journal of Lightwave Technology, 2016, 34, 5576-5582.	2.7	15
38	Technological advancements for the development of stem cell-based models for hepatotoxicity testing. Archives of Toxicology, 2019, 93, 1789-1805.	1.9	15
39	Miniaturized broadband spectrometer based on a three-segment diffraction grating for spectral tissue sensing. Optics and Lasers in Engineering, 2020, 134, 106157.	2.0	15
40	Automatic dispersion compensation for 128Tb/s OTDM signal transmission using photonic-chip-based dispersion monitoring. Optics Express, 2010, 18, 25415.	1.7	14
41	Design and two-photon direct laser writing of low-loss waveguides, tapers and S-bends. JPhys Photonics, 2021, 3, 045001.	2.2	14
42	A new generation of low-voltage single-photon micro-sensors with timing capability. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 567, 83-88.	0.7	12
43	Enhanced cross phase modulation instability in birefringent photonic crystal fibers in the anomalous dispersion regime. Optics Express, 2006, 14, 8290.	1.7	12
44	Energy-per-Bit Limits in Plasmonic Integrated Photodetectors. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 3800210-3800210.	1.9	12
45	Low-coherence interferometry with polynomial interpolation on Compute Unified Device Architecture-enabled graphics processing units. Optical Engineering, 2013, 52, 094105.	0.5	11
46	B-CALM: AN OPEN-SOURCE MULTI-GPU-BASED 3D-FDTD WITH MULTI-POLE DISPERSION FOR PLASMONICS. Progress in Electromagnetics Research, 2013, 138, 467-478.	1.6	10
47	Design of large scale plasmonic nanoslit arrays for arbitrary mode conversion and demultiplexing. Optics Express, 2014, 22, 646.	1.7	10
48	Mould insert fabrication of a single-mode fibre connector alignment structure optimized by justified partial metallization. Journal of Micromechanics and Microengineering, 2015, 25, 035008.	1.5	10
49	Mass Manufacturable 180° Bend Single-Mode Fiber Socket Using Hole-Assisted Low Bending Loss Fiber. IEEE Photonics Technology Letters, 2008, 20, 187-189.	1.3	9
50	OSNR Monitoring of a 1.28 Tbaud Signal by Interferometry Inside a Wavelength-Selective Switch. Journal of Lightwave Technology, 2011, 29, 1542-1546.	2.7	9
51	Single parameter optimization for simultaneous automatic compensation of multiple orders of dispersion for a 128 Tbaud signal. Optics Express, 2011, 19, 25512.	1.7	9
52	Two-channel multiresolution refocusing imaging system using a tunable liquid lens. Applied Optics, 2014, 53, 4002.	0.9	9
53	Directional Coupler Based on Single-Crystal Diamond Waveguides. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-9.	1.9	9
54	Measurement of the soliton number in guiding media through continuum generation. Optics Letters, 2020, 45, 4432.	1.7	9

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55	On the potential use of two-photon polymerization to 3D print chromatographic packed bed supports. Journal of Chromatography A, 2022, 1663, 462763.	1.8	9
56	Deep Proton Writing for the rapid prototyping of polymer micro-components for optical interconnects and optofluidics. Nuclear Instruments & Methods in Physics Research B, 2013, 307, 243-247.	0.6	8
57	Replication of deep micro-optical components prototyped by Deep Proton Writing. , 2008, , .		7
58	In Situ Interferometric Monitoring of Fiber Insertion in Fiber Connector Components. IEEE Photonics Technology Letters, 2010, 22, 60-62.	1.3	7
59	Total internal reflectionâ€‘based module for fluorescence and absorbance detection. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2014, 13, 033001.	1.0	7
60	Design and prototyping of self-centering optical single-mode fiber alignment structures. Journal of Micromechanics and Microengineering, 2016, 26, 065007.	1.5	7
61	Laser-ablated coupling structures for stacked optical interconnections on printed circuit boards. , 2006, , .		6
62	Prototyping micro-optical components with integrated out-of-plane coupling structures using deep lithography with protons. , 2006, 6185, 33.		6
63	Hot-embossing replication of self-centering optical fiber alignment structures prototyped by deep proton writing. Optical Engineering, 2016, 55, 076112.	0.5	6
64	Increasing the Microfabrication Performance of Synthetic Hydrogel Precursors through Molecular Design. Biomacromolecules, 2021, 22, 4919-4932.	2.6	6
65	A single photon spectrometer for biomedical applications. , 2005, , .		5
66	Replication of micro-optical components and nano-structures for mass production. , 2008, , .		5
67	Design and Tolerance Analysis of Out-of-Plane Coupling Components for Printed-Circuit-Board-Level Optical Interconnections. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1347-1354.	1.9	5
68	Optical Time-Domain Reflectometry Simulations of Passive Optical Networks: A Linear Time-Invariant System Approach for Arbitrary Pulses. Journal of Lightwave Technology, 2014, 32, 3008-3019.	2.7	4
69	Down-scaling grating couplers and waveguides in single-crystal diamond for VIS-UV operation. JPhys Photonics, 2019, 1, 015003.	2.2	4
70	Sensing with photonic crystal fibres. , 2007, , .		3
71	Enhanced pluggable out-of-plane coupling components for printed circuit board-level optical interconnections. Proceedings of SPIE, 2008, , .	0.8	3
72	High density optical pressure sensor foil based on arrays of crossing flexible waveguides. Proceedings of SPIE, 2010, , .	0.8	3

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73	Photonic-Chip-Based Ultrafast Waveform Analysis and Optical Performance Monitoring. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 834-846.	1.9	3
74	Self-centering fiber alignment structures for high-precision field installable single-mode fiber connectors. Proceedings of SPIE, 2014, , .	0.8	3
75	Deep proton writing with 12ÂMeV protons for rapid prototyping of microstructures in polymethylmethacrylate. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2016, 15, 044501.	1.0	3
76	Miniature freeform flow-line lightguide for sensing: from design to fabrication. Optics Express, 2021, 29, 38001.	1.7	3
77	Deep lithography with protons to prototype pluggable micro-optical out-of-plane coupling structures for multimode waveguides. , 2005, , .		2
78	Low-cost micro-optics for PCB-level photonic interconnects. , 2007, 6476, 162.		2
79	Sensing properties of Bragg grating in highly birefringent and single mode photonic crystal fiber. , 2007, , .		2
80	High-resolution optical sampling by means of dispersionshifted highly nonlinear chalcogenide waveguides. , 2009, , .		2
81	MT-compatible interface between peripheral fiber ribbons and printed circuit board-integrated optical waveguides. Proceedings of SPIE, 2009, , .	0.8	2
82	Gloss, hydrophobicity and surface texture of papers with organic nanoparticle coatings. Nordic Pulp and Paper Research Journal, 2013, 28, 28-41.	0.3	2
83	Optomechanical design of a buckling cavity in a low-cost high-performance ferruleless field-installable single-mode fiber connector. Optical Engineering, 2014, 53, 106102.	0.5	2
84	Proof-of-concept demonstration of a total internal reflection based module for fluorescence and absorbance detection using a 3D-printed syringe pump. Proceedings of SPIE, 2014, , .	0.8	2
85	Specular gloss versus surface topography for oilâ€filled nanoparticle coatings on paper. Color Research and Application, 2016, 41, 596-610.	0.8	2
86	Deep proton writing of high aspect ratio SU-8 micro-pillars on glass. Nuclear Instruments & Methods in Physics Research B, 2016, 389-390, 5-12.	0.6	2
87	Optofluidic Chip for Single-Beam Optical Trapping of Particles Enabling Confocal Raman Measurements. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 176-184.	1.9	2
88	Localized optical-quality doping of graphene on silicon waveguides through a TFSA-containing polymer matrix. Journal of Materials Chemistry C, 2018, 6, 10739-10750.	2.7	2
89	Design and demonstration of a six-channel multiresolution imaging system. Applied Optics, 2022, 61, 2683.	0.9	2
90	Development of a fabrication technology for integrating low cost optical interconnects on a printed circuit board. , 2006, 6126, 25.		1

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91	<title>Sensing applications of photonic crystal fibres</title>. , 2007, , .		1
92	Interferometric method for in-situ monitoring of fiber insertion in 2D fiber connectors fabricated through Deep Proton Writing. , 2008, , .		1
93	Characterization of the optical parameters of high aspect ratio polymer micro-optical components. , 2008, , .		1
94	Fabrication method to create high-aspect ratio pillars for photonic coupling of board level interconnects. Proceedings of SPIE, 2008, , .	0.8	1
95	Design and fabrication of embedded micro-mirror inserts for out-of-plane coupling in PCB-level optical interconnections. , 2010, , .		1
96	Optical interconnects for satellite payloads: overview of the state-of-the-art. , 2010, , .		1
97	Deep proton writing: a powerful rapid prototyping technology for various micro-optical components. , 2010, , .		1
98	Proof-of-concept demonstration of a miniaturized three-channel multiresolution imaging system. Proceedings of SPIE, 2014, , .	0.8	1
99	Replicating micro-optical structures using soft embossing technique. , 2014, , .		1
100	Replication of self-centering optical fiber alignment structures using hot embossing. Proceedings of SPIE, 2016, , .	0.8	1
101	Optofluidic multi-measurement system for the online monitoring of lubricant oil. Measurement Science and Technology, 2016, 27, 015004.	1.4	1
102	Prototyping and Replication of Polymer Freeform Optical Components. , 2017, , .		1
103	Two-Photon Polymerization-based Direct Laser Writing and Characterization of Micro-Lenses for Optical Interconnect Applications. , 2021, , .		1
104	Two-Photon Polymerization-based Laser Direct Writing of Mode Conversion Down-tapers for Physical Contact Fiber-to-Chip Coupling. , 2021, , .		1
105	Design and implementation of an on-campus free-space laser datalink: a photonics case study for electrical and photonic engineering students. , 2004, 5578, 756.		0
106	AFM benchmark for the profile characterisation of subwavelength diffractive elements within the EC Network of Excellence on Micro-Optics (NEMO). , 2006, , .		0
107	Roughness measurements on coupling structures for optical interconnections integrated on a printed circuit board. , 2006, , .		0
108	Embedded laser ablated micro-mirrors for intra- and out-of-plane coupling in multilayer optical interconnects. , 2006, , .		0

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109	Low-Cost Micro-Optical Modules for Datacommunication to Optical Interconnections from the LAN-to the PCB-Level. , 2007, , .		0
110	Coupling structures for out-of-plane coupling in optical PCBs. , 2008, , .		0
111	A low loss 180 degrees coupling fiber socket making use of low bending loss hole-assisted fiber. Proceedings of SPIE, 2008, , .	0.8	0
112	High-resolution optical sampling of 640-Gb/s signals using highly nonlinear chalcogenide waveguides. , 2009, , .		0
113	Automatic higher-order dispersion measurement and compensation of a 1.28 Tbaud signal. , 2010, , .		0
114	Populating multi-fiber fiberoptic connectors using an interferometric measurement of fiber tip position and facet quality. Proceedings of SPIE, 2010, , .	0.8	0
115	Optical sampling of ultrahigh bitrate signals using highly nonlinear chalcogenide planar waveguides or tapered fibers. Proceedings of SPIE, 2010, , .	0.8	0
116	Automatic higher-order dispersion measurement and compensation of a 1.28 Tbaud signal. , 2011, , .		0
117	Satellite payloads with optical interconnects: Solving the bandwidth bottleneck in space. , 2011, , .		0
118	Multi-order, automatic dispersion compensation for 1.28 Terabaud signals. , 2012, , .		0
119	Rapid prototyping of interfacing microcomponents for printed circuit board-level optical interconnects. Proceedings of SPIE, 2012, , .	0.8	0
120	Design and fabrication of advanced fiber alignment structures for field-installable fiber connectors. Proceedings of SPIE, 2012, , .	0.8	0
121	Energy-per-bit and noise limits in plasmonic intergrated photodetectors. Proceedings of SPIE, 2013, , .	0.8	0
122	Proof-of-concept demonstration of a miniaturized multi-resolution refocusing imaging system using an electrically tunable lens. Proceedings of SPIE, 2014, , .	0.8	0
123	Opto-mechanical design of a buckling cavity in a novel high-performance outside-plant robust field installable single-mode fibre connector. Proceedings of SPIE, 2014, , .	0.8	0
124	Advanced simulation tool for optical time-domain reflectometry (OTDR) with arbitrary pulse shapes. , 2014, , .		0
125	Design of large scale plasmonic nanoslit arrays for arbitrary mode conversion and demultiplexing. Proceedings of SPIE, 2014, , .	0.8	0
126	Prototyping and replication of polymer freeform micro-optical components. , 2015, , .		0

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127	Modeling and design of a multichannel chromatic aberration compensated imaging system. , 2015, , .		0
128	Flow-cytometric identification of vinegars using a multi-parameter analysis optical detection module. , 2015, , .		0
129	Patterning of graphene on silicon-on-insulator waveguides through laser ablation and plasma etching. , 2016, , .		0
130	Proof-of-concept demonstration of free-form optics enhanced confocal Raman spectroscopy in combination with optofluidic lab-on-chip. Proceedings of SPIE, 2016, , .	0.8	0
131	Plasma treatment of fiber facets for increased (de)mating endurance in physical contact fiber connectors. , 2016, , .		0
132	Dual fiber optical trapping in a polymer-based microfluidic chip. , 2016, , .		0
133	Evaluation of 3D-culture methods for the hepatic differentiation of human skin-derived stem cells. Toxicology Letters, 2018, 295, S111.	0.4	0
134	3D nanoprinting of mode-field conversion tapers for low-loss optical interfacing of single-mode fibers and photonic integrated circuits. , 2021, , .		0
135	General measurement technique of the ratio between chromatic dispersion and the nonlinear coefficient. , 2021, , .		0
136	Design and Fabrication of Straight Waveguides, Tapers and S-Bends with Two-Photon Direct Laser Writing. , 2021, , .		0
137	OSNR monitoring of a 1.28 Tbit/s signal using a reconfigurable Wavelength Selective Switch. , 2011, , .		0
138	Micro-Optics Technology Supply Chain as Key-enabler for Applied Research and Industrial Innovation. , 2014, , .		0
139	Novel microfluidic devices for Raman spectroscopy and optical trapping. , 2016, , .		0
140	Optical trapping of particles combined with confocal Raman spectroscopy in an optofluidic chip. , 2017, , .		0
141	Fabrication of High-Precision Micro-Opto-Mechanical Components through Deep Proton Writing. , 2017, , .		0
142	Modeling, Fabrication and Testing of Hybrid Lenses in a Multichannel, Multiresolution Imaging System. , 2017, , .		0
143	Optofluidic Chips for Raman Spectroscopy and Optical Trapping. , 2017, , .		0
144	Relaxing alignment tolerance in single-mode fiber connections using 3D nanoprinted beam expanders. , 2018, , .		0

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145	Mode-field matching design, 3D fabrication and characterization of down-tapers on single-mode optical fiber tips for coupling to photonic integrated circuits. , 2020, , .		0
146	Design and replication of a six-channel foveated imaging system. , 2021, , .		0
147	Ultraprecision Diamond Milling of a Freeform Micromirror Array Master for Nanoimprint Lithography. , 2021, , .		0
148	Laser direct writing of short-range interconnect interfacing structures. , 2022, , .		0