Geert Van Steenberge

List of Publications by Year
in descending order

124 papers	1,169 citations	394421 19 h-index	477307 29 g-index
124 all docs	124 docs citations	124 times ranked	1342 citing authors

#	Article	IF	Citations
1	PIXAPP Photonics Packaging Pilot Line â€“ Development of a Silicon Photonic Optical Transceiver With Pluggable Fiber Connectivity. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-11.	2.9	9
2	Laser Written Glass Interposer for Fiber Coupling to Silicon Photonic Integrated Circuits. IEEE Photonics Journal, 2021, 13, 1-12.	2.0	12
3	Monolithic integration of microlenses on the backside of a silicon photonics chip for expanded beam coupling. Optics Express, 2021, 29, 7601.	3.4	12
4	Laser-fabricated ball lens optical interface for back side coupling to a silicon photonics sensor chip. , 2021, , .		0
5	Expanded-Beam Backside Coupling Interface for Alignment-Tolerant Packaging of Silicon Photonics. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-7.	2.9	8
6	Imprinted Polymer-Based Guided Mode Resonance Grating Strain Sensors. Sensors, 2020, 20, 3221.	3.8	10
7	Ball Lens Embedded Through-Package Via To Enable Backside Coupling Between Silicon Photonics Interposer and Board-Level Interconnects. Journal of Lightwave Technology, 2020, 38, 2360-2369.	4.6	5
8	Femtosecond Laser-inscribed Non-volatile Integrated Optical Switch in Fused Silica based on Microfluidics-controlled Total Internal Reflection. Journal of Lightwave Technology, 2020, , 1-1.	4.6	1
9	Design and fabrication of blazed gratings for a waveguide-type head mounted display. Optics Express, 2020, 28, 11175.	3.4	30
10	Nonlinearity Tolerant High-Speed DMT Transmission With 1.5-<italic>Î¼</italic>m Single-Mode VCSEL and Multi-Core Fibers for Optical Interconnects. Journal of Lightwave Technology, 2019, 37, 380-388.	4.6	14
11	Performance Evaluation of Backside Emitting O-Band Grating Couplers for 100-mum-Thick Silicon Photonics Interposers. IEEE Photonics Journal, 2019, 11, 1-11.	2.0	9
12	Non-Volatile Microfluidics Controlled Switch Fabricated in Fused Silica by Femtosecond Laser Inscription. , 2019, , .		0
13	Adaptive Patterning of Optical and Electrical Fan-Out for Photonic Chip Packaging. , 2019, , .		4
14	Comparison of different polymers and printing technologies for realizing flexible optical waveguide Bragg grating strain sensor foils. , 2019, , .		1
15	Through-substrate coupling elements for silicon-photonics-based short-reach optical interconnects. , 2019, , .		3
16	Alignment-tolerant interfacing of a photonic integrated circuit using back side etched silicon microlenses. , 2019, , .		4
17	Thin and Flexible Polymer Photonic Sensor Foils for Monitoring Composite Structures. Advanced Engineering Materials, 2018, 20, 1701127.	3.5	20
18	Planar polymer waveguides with a graded-index profile resulting from intermixing of methacrylates in closed microchannels. Optical Materials, 2018, 76, 210-215.	3.6	2

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19	PAMâ€4 VCSEL driver with selective fallingâ€edge preâ€emphasis. Electronics Letters, 2018, 54, 155-157.	1.0	2
20	Aerosol-Jet Printed Interconnects for 60-Gb/s CMOS Driver and Microring Modulator Transmitter Assembly. IEEE Photonics Technology Letters, 2018, 30, 1944-1947.	2.5	3
21	Bragg-Grating-Based Photonic Strain and Temperature Sensor Foils Realized Using Imprinting and Operating at Very Near Infrared Wavelengths. Sensors, 2018, 18, 2717.	3.8	18
22	All-organic switching polarizer based on polymer waveguides and liquid crystals. Optics Express, 2018, 26, 9584.	3.4	8
23	Aerosol-Jet Printed Interconnects for 2.5 D Electronic and Photonic Integration. Journal of Lightwave Technology, 2018, 36, 3528-3533.	4.6	9
24	Integration of Ball Lens in Through-Package Via to Enable Photonic Chip-to-Board Coupling. , 2018, , .		4
25	Expanded-Beam Through-Substrate Coupling Interface for Alignment Tolerant Packaging of Silicon Photonics. , 2018, , .		4
26	Laser printed glass planar lightwave circuits with integrated fiber alignment structures. , 2018, , .		0
27	An imprinted polymer-based guided mode resonance grating sensor. , 2018, , .		1
28	Flexible thin polymer waveguide Bragg grating sensor foils for strain sensing. , 2017, , .		3
29	Integrated polymer polarization rotator based on tilted laser ablation. , 2017, , .		0
30	Low-Loss Connection of Embedded Optical Fiber Sensors Using a Self-Written Waveguide. IEEE Photonics Technology Letters, 2017, 29, 1731-1734.	2.5	2
31	High-Speed Interrogation of Multiplexed Fiber Bragg Gratings With Spectral Distortion. IEEE Sensors Journal, 2017, 17, 6941-6947.	4.7	4
32	Towards efficient 100 Gb/s serial rate optical interconnects: A duobinary way. , 2017, , .		3
33	Packaging silicon photonics with polymer waveguides for 3D electro-optical integration. , 2017, , .		4
34	Microfabricated devices for single objective single plane illumination microscopy (SoSPIM). Optics Express, 2017, 25, 1732.	3.4	23
35	Tunable light beam steering device using polymer stabilized blue phase liquid crystals. Photonics Letters of Poland, 2017, 9, 11.	0.4	6
36	Patterning of graphene on silicon-on-insulator waveguides through laser ablation and plasma etching. , 2016, , .		0

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37	Planar waveguide Bragg grating sensors for composite monitoring. , 2016, , .		0
38	Scalable electro-photonic integration concept based on polymer waveguides. Proceedings of SPIE, 2016, , .	0.8	1
39	Highly Sensitive Waveguide Bragg Grating Temperature Sensor Using Hybrid Polymers. IEEE Photonics Technology Letters, 2016, 28, 1150-1153.	2.5	23
40	Comparison of epoxy- and siloxane-based single-mode optical waveguides defined by direct-write lithography. Optical Materials, 2016, 52, 26-31.	3.6	37
41	Evanescent Field Biosensor Using Polymer Slab Waveguide-Based Cartridges for the Optical Detection of Nanoparticles. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 319-326.	2.9	3
42	Laser ablation- and plasma etching-based patterning of graphene on silicon-on-insulator waveguides. Optics Express, 2015, 23, 26639.	3.4	23
43	Bragg Grating Sensors in Laser-written Single Mode Polymer Waveguides. Procedia Engineering, 2015, 120, 878-881.	1.2	3
44	Flip-chip bonding of VCSELs to silicon grating couplers via SU8 prisms fabricated using laser ablation. , 2015, , .		1
45	Flip-chip assembly of VCSELs to silicon grating couplers via laser fabricated SU8 prisms. Optics Express, 2015, 23, 28264.	3.4	42
46	Laser-induced Forward Transfer for Flip-chip Packaging of Single Dies. Journal of Visualized Experiments, 2015, , .	0.3	1
47	Miniature Multiaxial Optoelectronic Shear Stress Sensing System Based on a Segmented Photodiode. IEEE Sensors Journal, 2015, 15, 4286-4291.	4.7	3
48	Correction factors for cross-correlation processing of FBG sensor network data. Proceedings of SPIE, 2015, , .	0.8	1
49	Spectral profile tracking of multiplexed fiber Bragg grating sensors. Optics Communications, 2015, 357, 113-119.	2.1	9
50	Laser ablation of micro-photonic structures for efficient light collection and distribution. Journal Physics D: Applied Physics, 2015, 48, 245101.	2.8	3
51	Instrumentation of integrally stiffened composite panel with fiber Bragg grating sensors for vibration measurements. Smart Materials and Structures, 2015, 24, 085031.	3.5	13
52	On the effect of alignment layers on blue phase liquid crystals. Applied Physics Letters, 2015, 106, 101105.	3.3	12
53	Optical coupling structure made by imprinting between single-mode polymer waveguide and embedded VCSEL. Proceedings of SPIE, 2015, , .	0.8	1
54	Long Term Stability of Polymer Stabilized Blue Phase Liquid Crystals. Journal of Display Technology, 2015, 11, 703-708.	1.2	2

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55	Alcohol Vapor Sensor Based on Fluorescent Dye-Doped Optical Waveguides. IEEE Sensors Journal, 2015, 15, 76-81.	4.7	20
56	Adaptive coupling approach for single mode VCSELs with polymer waveguides. , 2014, , .		0
57	High-speed interrogation of multiplexed Fiber Bragg gratings enabling real-time visualization of dynamic events such as impact loading. , 2014, , .		3
58	Stretchable optical waveguides. Optics Express, 2014, 22, 4168.	3.4	91
59	Fabrication of a laser patterned flexible organic light-emitting diode on an optimized multilayered barrier. Applied Optics, 2014, 53, 2638.	1.8	6
60	Curing kinetics of step-index and graded-index single mode polymer self-written waveguides. Optical Materials Express, 2014, 4, 1324.	3.0	16
61	Flip-chip bonding of vertical-cavity surface-emitting lasers using laser-induced forward transfer. Applied Physics Letters, 2014, 104, .	3.3	18
62	Polymer slab waveguides for the optical detection of nanoparticles in evanescent field based biosensors. Proceedings of SPIE, 2014, , .	0.8	1
63	Mid-infrared resonant ablation for selective patterning of thin organic films. Proceedings of SPIE, 2014, , .	0.8	0
64	Polymer integration of optoelectronic devices in on-board and board-to-board optical communication systems. , 2014, , .		0
65	Ultra-thin multi-axial shear stress sensor based on a segmented photodiode. , 2013, , .		2
66	Assembly of optoelectronics for efficient chip-to-waveguide coupling. , 2013, , .		2
67	Polymer-based optical interconnects using nanoimprint lithography. , 2013, , .		4
68	Excimer laser patterning of PEDOT:PSS thin-films on flexible barrier foils: A surface analysis study. Applied Surface Science, 2013, 280, 504-511.	6.1	8
69	Laser-Induced Forward Transfer-assisted flip-chip bonding of optoelectronic components. , 2013, , .		1
70	A compact, portable and low cost generic interrogation strain sensor system using an embedded VCSEL, detector and fibre Bragg grating. , 2012, , .		4
71	Ultra Small Integrated Optical Fiber Sensing System. Sensors, 2012, 12, 12052-12069.	3.8	31
72	Towards flexible photonic sensing skins with optical fiber sensors. , 2012, , .		0

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73	Influence of barrier absorption properties on laser patterning thin organic films. , 2012, , .		2
74	Low-cost fully integrated fiber Bragg grating interrogation system. , 2012, , .		0
75	Foil-based optical technology platform for optochemical sensors. Proceedings of SPIE, 2012, , .	0.8	1
76	Fluorescence-based optochemical sensor on flexible foils. Proceedings of SPIE, 2012, , .	0.8	0
77	Photonic Incremental Pressure Sensor Based on Optical Feedback in a Polymer Embedded VCSEL. IEEE Photonics Technology Letters, 2012, 24, 1151-1153.	2.5	4
78	Novel coupling and packaging approaches for optical interconnects. Proceedings of SPIE, 2012, , .	0.8	6
79	Analysis of a transparent organic photoconductive sensor. Organic Electronics, 2012, 13, 2250-2256.	2.6	6
80	Two axis optoelectronic tactile shear stress sensor. Sensors and Actuators A: Physical, 2012, 186, 63-68.	4.1	16
81	Enzyme-Gelatin Electrochemical Biosensors: Scaling Down. Biosensors, 2012, 2, 101-113.	4.7	19
82	Flexible Optical Chemical Sensor Platform for BTX. Procedia Engineering, 2012, 47, 607-610.	1.2	4
83	Flexible Shear Sensor Based on Embedded Optoelectronic Components. IEEE Photonics Technology Letters, 2011, 23, 771-773.	2.5	45
84	Ultra Thin Optical Tactile Shear Sensor. Procedia Engineering, 2011, 25, 1393-1396.	1.2	8
85	Packaging technology enabling flexible optical interconnections. , 2011, , .		0
86	Ultrathin Optoelectronic Device Packaging in Flexible Carriers. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 617-628.	2.9	44
87	Embedded multiplexed polymer optical fiber sensor for esophageal manometry. , 2011, , .		1
88	Photonic crystal fiber Bragg grating based sensors: opportunities for applications in healthcare. Proceedings of SPIE, 2011, , .	0.8	5
89	Photonic crystal fiber Bragg grating based sensors â€“ opportunities for applications in healthcare. , 2011, , .		1
90	High density optical pressure sensor foil based on arrays of crossing flexible waveguides. Proceedings of SPIE, 2010, , .	0.8	3

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91	Polymer photonic sensing skin. Proceedings of SPIE, 2010, , .	0.8	1
92	Packaging of opto-electronic devices for flexible applications. , 2010, , .		1
93	Characterization of flexible fully embedded optical links. , 2010, , .		0
94	Fully Flexible Optoelectronic Foil. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1355-1362.	2.9	6
95	Optical fiber sensors embedded in flexible polymer foils. Proceedings of SPIE, 2010, , .	0.8	6
96	Embedded high resolution sensor based on optical feedback in a vertical cavity surface emitting laser. , 2010, , .		2
97	Photonic skin for pressure and strain sensing. Proceedings of SPIE, 2010, , .	0.8	7
98	Highly Reliable Flexible Active Optical Links. IEEE Photonics Technology Letters, 2010, 22, 287-289.	2.5	45
99	Patterning of Flexible Organic Light Emitting Diode (FOLED) stack using an ultrafast laser. Optics Express, 2010, 18, 7575.	3.4	19
100	Electrochemical study of gelatin as a matrix for the immobilization of horse heart cytochrome c. Talanta, 2010, 82, 1980-1985.	5.5	28
101	Embedded flexible optical shear sensor. , 2010, , .		11
102	An array waveguide sensor for artificial optical skins. Proceedings of SPIE, 2009, , .	0.8	9
103	A comparative study of via drilling and scribing on PEN and PET substrates for flexible electronic applications using excimer and Nd:YAG laser sources. , 2009, , .		4
104	MT-compatible interface between peripheral fiber ribbons and printed circuit board-integrated optical waveguides. Proceedings of SPIE, 2009, , .	0.8	2
105	Active optical links embedded in flexible substrates. , 2008, , .		4
106	Flexible embedded active optical link. Proceedings of SPIE, 2008, , .	0.8	1
107	Towards flexible routing schemes for polymer optical interconnections on printed circuit boards. , 2008, , .		1
108	Low-cost micro-optics for PCB-level photonic interconnects. , 2007, 6476, 162.		2

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109	Laser Ablation as Enabling Technology for the Structuring of Optical Multilayer Structures. Journal of Physics: Conference Series, 2007, 59, 118-121.	0.4	8
110	Tolerance Analysis for Multilayer Optical Interconnections Integrated on a Printed Circuit Board. Journal of Lightwave Technology, 2007, 25, 2395-2401.	4.6	18
111	Embedding of Optical Interconnections in Flexible Electronics. , 2007, , .		5
112	Laser Ablated Micromirrors for Printed Circuit Board Integrated Optical Interconnections. IEEE Photonics Technology Letters, 2007, 19, 822-824.	2.5	20
113	Laser ablation of parallel optical interconnect waveguides. IEEE Photonics Technology Letters, 2006, 18, 1106-1108.	2.5	50
114	Development of a technology for fabricating low-cost parallel optical interconnects. , 2006, , .		2
115	Development of a fabrication technology for integrating low cost optical interconnects on a printed circuit board. , 2006, 6126, 25.		1
116	High-efficiency diffraction grating coupler for multimode optical interconnect. , 2006, 6185, 435.		4
117	Laser-ablated coupling structures for stacked optical interconnections on printed circuit boards. , 2006, , .		6
118	Optical connections on flexible substrates. , 2006, 6185, 60.		5
119	Laser cleaving of glass fibers and glass fiber arrays. Journal of Lightwave Technology, 2005, 23, 609-614.	4.6	17
120	MT-Compatible Laser-Ablated Interconnections for Optical Printed Circuit Boards. Journal of Lightwave Technology, 2004, 22, 2083-2090.	4.6	77
121	Integration of multimode waveguides and micromirror couplers in printed circuit boards using laser ablation. , 2004, 5454, 75.		3
122	Optical interconnections on PCBs: a killer application for VCSELs. , 2003, 4942, 269.		2
123	Laser ablation as an enabling technology for opto-boards. , 0, , .		9
124	Demonstration of an MT-compatible connectorisation of a laser-ablated optical interconnection on a printed circuit board. , 0, , .		5