

# Geert Van Steenberge

## List of Publications by Year in descending order

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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	Stretchable optical waveguides. Optics Express, 2014, 22, 4168.	3.4	91
2	MT-Compatible Laser-Ablated Interconnections for Optical Printed Circuit Boards. Journal of Lightwave Technology, 2004, 22, 2083-2090.	4.6	77
3	Laser ablation of parallel optical interconnect waveguides. IEEE Photonics Technology Letters, 2006, 18, 1106-1108.	2.5	50
4	Highly Reliable Flexible Active Optical Links. IEEE Photonics Technology Letters, 2010, 22, 287-289.	2.5	45
5	Flexible Shear Sensor Based on Embedded Optoelectronic Components. IEEE Photonics Technology Letters, 2011, 23, 771-773.	2.5	45
6	Ultrathin Optoelectronic Device Packaging in Flexible Carriers. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 617-628.	2.9	44
7	Flip-chip assembly of VCSELs to silicon grating couplers via laser fabricated SU8 prisms. Optics Express, 2015, 23, 28264.	3.4	42
8	Comparison of epoxy- and siloxane-based single-mode optical waveguides defined by direct-write lithography. Optical Materials, 2016, 52, 26-31.	3.6	37
9	Ultra Small Integrated Optical Fiber Sensing System. Sensors, 2012, 12, 12052-12069.	3.8	31
10	Design and fabrication of blazed gratings for a waveguide-type head mounted display. Optics Express, 2020, 28, 11175.	3.4	30
11	Electrochemical study of gelatin as a matrix for the immobilization of horse heart cytochrome c. Talanta, 2010, 82, 1980-1985.	5.5	28
12	Laser ablation- and plasma etching-based patterning of graphene on silicon-on-insulator waveguides. Optics Express, 2015, 23, 26639.	3.4	23
13	Highly Sensitive Waveguide Bragg Grating Temperature Sensor Using Hybrid Polymers. IEEE Photonics Technology Letters, 2016, 28, 1150-1153.	2.5	23
14	Microfabricated devices for single objective single plane illumination microscopy (SoSPIM). Optics Express, 2017, 25, 1732.	3.4	23
15	Laser Ablated Micromirrors for Printed Circuit Board Integrated Optical Interconnections. IEEE Photonics Technology Letters, 2007, 19, 822-824.	2.5	20
16	Alcohol Vapor Sensor Based on Fluorescent Dye-Doped Optical Waveguides. IEEE Sensors Journal, 2015, 15, 76-81.	4.7	20
17	Thin and Flexible Polymer Photonic Sensor Foils for Monitoring Composite Structures. Advanced Engineering Materials, 2018, 20, 1701127.	3.5	20
18	Patterning of Flexible Organic Light Emitting Diode (FOLED) stack using an ultrafast laser. Optics Express, 2010, 18, 7575.	3.4	19

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19	Enzyme-Gelatin Electrochemical Biosensors: Scaling Down. <i>Biosensors</i> , 2012, 2, 101-113.	4.7	19
20	Tolerance Analysis for Multilayer Optical Interconnections Integrated on a Printed Circuit Board. <i>Journal of Lightwave Technology</i> , 2007, 25, 2395-2401.	4.6	18
21	Flip-chip bonding of vertical-cavity surface-emitting lasers using laser-induced forward transfer. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	18
22	Bragg-Grating-Based Photonic Strain and Temperature Sensor Foils Realized Using Imprinting and Operating at Very Near Infrared Wavelengths. <i>Sensors</i> , 2018, 18, 2717.	3.8	18
23	Laser cleaving of glass fibers and glass fiber arrays. <i>Journal of Lightwave Technology</i> , 2005, 23, 609-614.	4.6	17
24	Two axis optoelectronic tactile shear stress sensor. <i>Sensors and Actuators A: Physical</i> , 2012, 186, 63-68.	4.1	16
25	Curing kinetics of step-index and graded-index single mode polymer self-written waveguides. <i>Optical Materials Express</i> , 2014, 4, 1324.	3.0	16
26	Nonlinearity Tolerant High-Speed DMT Transmission With 1.5- $\mu\text{m}$ Single-Mode VCSEL and Multi-Core Fibers for Optical Interconnects. <i>Journal of Lightwave Technology</i> , 2019, 37, 380-388.	4.6	14
27	Instrumentation of integrally stiffened composite panel with fiber Bragg grating sensors for vibration measurements. <i>Smart Materials and Structures</i> , 2015, 24, 085031.	3.5	13
28	On the effect of alignment layers on blue phase liquid crystals. <i>Applied Physics Letters</i> , 2015, 106, 101105.	3.3	12
29	Laser Written Glass Interposer for Fiber Coupling to Silicon Photonic Integrated Circuits. <i>IEEE Photonics Journal</i> , 2021, 13, 1-12.	2.0	12
30	Monolithic integration of microlenses on the backside of a silicon photonics chip for expanded beam coupling. <i>Optics Express</i> , 2021, 29, 7601.	3.4	12
31	Embedded flexible optical shear sensor. , 2010, , .		11
32	Imprinted Polymer-Based Guided Mode Resonance Grating Strain Sensors. <i>Sensors</i> , 2020, 20, 3221.	3.8	10
33	Laser ablation as an enabling technology for opto-boards. , 0, , .		9
34	An array waveguide sensor for artificial optical skins. <i>Proceedings of SPIE</i> , 2009, , .	0.8	9
35	Spectral profile tracking of multiplexed fiber Bragg grating sensors. <i>Optics Communications</i> , 2015, 357, 113-119.	2.1	9
36	Aerosol-Jet Printed Interconnects for 2.5 D Electronic and Photonic Integration. <i>Journal of Lightwave Technology</i> , 2018, 36, 3528-3533.	4.6	9

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37	Performance Evaluation of Backside Emitting O-Band Grating Couplers for 100- $\mu\text{m}$ -Thick Silicon Photonics Interposers. IEEE Photonics Journal, 2019, 11, 1-11.	2.0	9
38	PIXAPP Photonics Packaging Pilot Line – 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
39	Laser Ablation as Enabling Technology for the Structuring of Optical Multilayer Structures. Journal of Physics: Conference Series, 2007, 59, 118-121.	0.4	8
40	Ultra Thin Optical Tactile Shear Sensor. Procedia Engineering, 2011, 25, 1393-1396.	1.2	8
41	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
42	All-organic switching polarizer based on polymer waveguides and liquid crystals. Optics Express, 2018, 26, 9584.	3.4	8
43	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
44	Photonic skin for pressure and strain sensing. Proceedings of SPIE, 2010, , .	0.8	7
45	Laser-ablated coupling structures for stacked optical interconnections on printed circuit boards. , 2006, , .		6
46	Fully Flexible Optoelectronic Foil. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1355-1362.	2.9	6
47	Optical fiber sensors embedded in flexible polymer foils. Proceedings of SPIE, 2010, , .	0.8	6
48	Novel coupling and packaging approaches for optical interconnects. Proceedings of SPIE, 2012, , .	0.8	6
49	Analysis of a transparent organic photoconductive sensor. Organic Electronics, 2012, 13, 2250-2256.	2.6	6
50	Fabrication of a laser patterned flexible organic light-emitting diode on an optimized multilayered barrier. Applied Optics, 2014, 53, 2638.	1.8	6
51	Tunable light beam steering device using polymer stabilized blue phase liquid crystals. Photonics Letters of Poland, 2017, 9, 11.	0.4	6
52	Demonstration of an MT-compatible connectorisation of a laser-ablated optical interconnection on a printed circuit board. , 0, , .		5
53	Optical connections on flexible substrates. , 2006, 6185, 60.		5
54	Embedding of Optical Interconnections in Flexible Electronics. , 2007, , .		5

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55	Photonic crystal fiber Bragg grating based sensors: opportunities for applications in healthcare. Proceedings of SPIE, 2011, , .	0.8	5
56	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
57	High-efficiency diffraction grating coupler for multimode optical interconnect. , 2006, 6185, 435.		4
58	Active optical links embedded in flexible substrates. , 2008, , .		4
59	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
60	A compact, portable and low cost generic interrogation strain sensor system using an embedded VCSEL, detector and fibre Bragg grating. , 2012, , .		4
61	Photonic Incremental Pressure Sensor Based on Optical Feedback in a Polymer Embedded VCSEL. IEEE Photonics Technology Letters, 2012, 24, 1151-1153.	2.5	4
62	Flexible Optical Chemical Sensor Platform for BTX. Procedia Engineering, 2012, 47, 607-610.	1.2	4
63	Polymer-based optical interconnects using nanoimprint lithography. , 2013, , .		4
64	High-Speed Interrogation of Multiplexed Fiber Bragg Gratings With Spectral Distortion. IEEE Sensors Journal, 2017, 17, 6941-6947.	4.7	4
65	Packaging silicon photonics with polymer waveguides for 3D electro-optical integration. , 2017, , .		4
66	Integration of Ball Lens in Through-Package Via to Enable Photonic Chip-to-Board Coupling. , 2018, , .		4
67	Adaptive Patterning of Optical and Electrical Fan-Out for Photonic Chip Packaging. , 2019, , .		4
68	Expanded-Beam Through-Substrate Coupling Interface for Alignment Tolerant Packaging of Silicon Photonics. , 2018, , .		4
69	Alignment-tolerant interfacing of a photonic integrated circuit using back side etched silicon microlenses. , 2019, , .		4
70	Integration of multimode waveguides and micromirror couplers in printed circuit boards using laser ablation. , 2004, 5454, 75.		3
71	High density optical pressure sensor foil based on arrays of crossing flexible waveguides. Proceedings of SPIE, 2010, , .	0.8	3
72	High-speed interrogation of multiplexed Fiber Bragg gratings enabling real-time visualization of dynamic events such as impact loading. , 2014, , .		3

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73	Bragg Grating Sensors in Laser-written Single Mode Polymer Waveguides. <i>Procedia Engineering</i> , 2015, 120, 878-881.	1.2	3
74	Miniature Multiaxial Optoelectronic Shear Stress Sensing System Based on a Segmented Photodiode. <i>IEEE Sensors Journal</i> , 2015, 15, 4286-4291.	4.7	3
75	Laser ablation of micro-photonic structures for efficient light collection and distribution. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 245101.	2.8	3
76	Evanescent Field Biosensor Using Polymer Slab Waveguide-Based Cartridges for the Optical Detection of Nanoparticles. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016, 22, 319-326.	2.9	3
77	Flexible thin polymer waveguide Bragg grating sensor foils for strain sensing. , 2017, , .		3
78	Towards efficient 100 Gb/s serial rate optical interconnects: A duobinary way. , 2017, , .		3
79	Aerosol-Jet Printed Interconnects for 60-Gb/s CMOS Driver and Microring Modulator Transmitter Assembly. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 1944-1947.	2.5	3
80	Through-substrate coupling elements for silicon-photonics-based short-reach optical interconnects. , 2019, , .		3
81	Optical interconnections on PCBs: a killer application for VCSELs. , 2003, 4942, 269.		2
82	Development of a technology for fabricating low-cost parallel optical interconnects. , 2006, , .		2
83	Low-cost micro-optics for PCB-level photonic interconnects. , 2007, 6476, 162.		2
84	MT-compatible interface between peripheral fiber ribbons and printed circuit board-integrated optical waveguides. <i>Proceedings of SPIE</i> , 2009, , .	0.8	2
85	Embedded high resolution sensor based on optical feedback in a vertical cavity surface emitting laser. , 2010, , .		2
86	Influence of barrier absorption properties on laser patterning thin organic films. , 2012, , .		2
87	Ultra-thin multi-axial shear stress sensor based on a segmented photodiode. , 2013, , .		2
88	Assembly of optoelectronics for efficient chip-to-waveguide coupling. , 2013, , .		2
89	Long Term Stability of Polymer Stabilized Blue Phase Liquid Crystals. <i>Journal of Display Technology</i> , 2015, 11, 703-708.	1.2	2
90	Low-Loss Connection of Embedded Optical Fiber Sensors Using a Self-Written Waveguide. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 1731-1734.	2.5	2

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91	Planar polymer waveguides with a graded-index profile resulting from intermixing of methacrylates in closed microchannels. <i>Optical Materials</i> , 2018, 76, 210-215.	3.6	2
92	PAM-VCSEL driver with selective falling-edge pre-emphasis. <i>Electronics Letters</i> , 2018, 54, 155-157.	1.0	2
93	Development of a fabrication technology for integrating low cost optical interconnects on a printed circuit board. , 2006, 6126, 25.		1
94	Flexible embedded active optical link. <i>Proceedings of SPIE</i> , 2008, , .	0.8	1
95	Towards flexible routing schemes for polymer optical interconnections on printed circuit boards. , 2008, , .		1
96	Polymer photonic sensing skin. <i>Proceedings of SPIE</i> , 2010, , .	0.8	1
97	Packaging of opto-electronic devices for flexible applications. , 2010, , .		1
98	Embedded multiplexed polymer optical fiber sensor for esophageal manometry. , 2011, , .		1
99	Foil-based optical technology platform for optochemical sensors. <i>Proceedings of SPIE</i> , 2012, , .	0.8	1
100	Laser-Induced Forward Transfer-assisted flip-chip bonding of optoelectronic components. , 2013, , .		1
101	Polymer slab waveguides for the optical detection of nanoparticles in evanescent field based biosensors. <i>Proceedings of SPIE</i> , 2014, , .	0.8	1
102	Flip-chip bonding of VCSELs to silicon grating couplers via SU8 prisms fabricated using laser ablation. , 2015, , .		1
103	Laser-induced Forward Transfer for Flip-chip Packaging of Single Dies. <i>Journal of Visualized Experiments</i> , 2015, , .	0.3	1
104	Correction factors for cross-correlation processing of FBG sensor network data. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1
105	Optical coupling structure made by imprinting between single-mode polymer waveguide and embedded VCSEL. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1
106	Scalable electro-photonic integration concept based on polymer waveguides. <i>Proceedings of SPIE</i> , 2016, , .	0.8	1
107	Femtosecond Laser-inscribed Non-volatile Integrated Optical Switch in Fused Silica based on Microfluidics-controlled Total Internal Reflection. <i>Journal of Lightwave Technology</i> , 2020, , 1-1.	4.6	1
108	Photonic crystal fiber Bragg grating based sensors – opportunities for applications in healthcare. , 2011, , .		1

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109	An imprinted polymer-based guided mode resonance grating sensor. , 2018, , .		1
110	Comparison of different polymers and printing technologies for realizing flexible optical waveguide Bragg grating strain sensor foils. , 2019, , .		1
111	Characterization of flexible fully embedded optical links. , 2010, , .		0
112	Packaging technology enabling flexible optical interconnections. , 2011, , .		0
113	Towards flexible photonic sensing skins with optical fiber sensors. , 2012, , .		0
114	Low-cost fully integrated fiber Bragg grating interrogation system. , 2012, , .		0
115	Fluorescence-based optochemical sensor on flexible foils. Proceedings of SPIE, 2012, , .	0.8	0
116	Adaptive coupling approach for single mode VCSELs with polymer waveguides. , 2014, , .		0
117	Mid-infrared resonant ablation for selective patterning of thin organic films. Proceedings of SPIE, 2014, , .	0.8	0
118	Polymer integration of optoelectronic devices in on-board and board-to-board optical communication systems. , 2014, , .		0
119	Patterning of graphene on silicon-on-insulator waveguides through laser ablation and plasma etching. , 2016, , .		0
120	Planar waveguide Bragg grating sensors for composite monitoring. , 2016, , .		0
121	Integrated polymer polarization rotator based on tilted laser ablation. , 2017, , .		0
122	Non-Volatile Microfluidics Controlled Switch Fabricated in Fused Silica by Femtosecond Laser Inscription. , 2019, , .		0
123	Laser printed glass planar lightwave circuits with integrated fiber alignment structures. , 2018, , .		0
124	Laser-fabricated ball lens optical interface for back side coupling to a silicon photonics sensor chip. , 2021, , .		0