

# Martin Becker

## List of Publications by Year in descending order

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120  
papers

1,655  
citations

257450

24  
h-index

302126

39  
g-index

120  
all docs

120  
docs citations

120  
times ranked

1500  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fiber Bragg grating inscription combining DUV sub-picosecond laser pulses and two-beam interferometry. Optics Express, 2008, 16, 19169.	3.4	123
2	Multicore fiber with integrated fiber Bragg gratings for background-free Raman sensing. Optics Express, 2012, 20, 20156.	3.4	104
3	Simultaneous measurement of temperature and refractive index using focused ion beam milled Fabry-Perot cavities in optical fiber micro-tips. Optics Express, 2016, 24, 14053.	3.4	86
4	Transversal Load Sensing With Fiber Bragg Gratings in Microstructured Optical Fibers. IEEE Photonics Technology Letters, 2009, 21, 6-8.	2.5	83
5	Thermal regeneration of fiber Bragg gratings in photosensitive fibers. Optics Express, 2009, 17, 12523.	3.4	80
6	Microstructured Optical Fiber Sensors Embedded in a Laminate Composite for Smart Material Applications. Sensors, 2011, 11, 2566-2579.	3.8	70
7	Chirped Phase Mask Interferometer for Fiber Bragg Grating Array Inscription. Journal of Lightwave Technology, 2015, 33, 2093-2098.	4.6	70
8	Fiber Bragg Gratings in the Visible Spectral Range With Ultraviolet Femtosecond Laser Inscription. IEEE Photonics Technology Letters, 2014, 26, 1653-1656.	2.5	67
9	High-Capacity Directly Modulated Optical Transmitter for 2-1/4m Spectral Region. Journal of Lightwave Technology, 2015, 33, 1373-1379.	4.6	65
10	Multimode Fabry-Perot Interferometer Probe Based on Vernier Effect for Enhanced Temperature Sensing. Sensors, 2019, 19, 453.	3.8	55
11	Fiber Bragg Gratings in Germanium-Doped Highly Birefringent Microstructured Optical Fibers. IEEE Photonics Technology Letters, 2008, 20, 554-556.	2.5	52
12	Thermal regenerated type IIa fiber Bragg gratings for ultra-high temperature operation. Optics Communications, 2011, 284, 183-185.	2.1	43
13	Focused ion beam post-processing of optical fiber Fabry-Perot cavities for sensing applications. Optics Express, 2014, 22, 13102.	3.4	42
14	Bragg Grating Inscription in GeO <sub>2</sub> -Doped Microstructured Optical Fibers. Journal of Lightwave Technology, 2010, 28, 1459-1467.	4.6	41
15	Post-hydrogen-loaded draw tower fiber Bragg gratings and their thermal regeneration. Applied Optics, 2011, 50, 2519.	2.1	40
16	Response of FBGs in Microstructured and Bow Tie Fibers Embedded in Laminated Composite. IEEE Photonics Technology Letters, 2009, 21, 1290-1292.	2.5	37
17	Enhanced pump absorption efficiency in coiled and twisted double-clad thulium-doped fibers. Optics Express, 2016, 24, 102.	3.4	35
18	Fiber Bragg grating inscription in pure-silica and Ge-doped photonic crystal fibers. Applied Optics, 2009, 48, 1963.	2.1	34

#	ARTICLE	IF	CITATIONS
19	Simultaneous Measurement of Temperature and Refractive Index Using an Exposed Core Microstructured Optical Fiber. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-7.	2.9	34
20	Raman-on-chip device and detection fibres with fibre Bragg grating for analysis of solutions and particles. Lab on A Chip, 2013, 13, 1109.	6.0	32
21	Inscription of Fiber Bragg Grating Arrays in Pure Silica Suspended Core Fibers. IEEE Photonics Technology Letters, 2009, 21, 1453-1455.	2.5	28
22	Laser-drilled free-form silica fiber preforms for microstructured optical fibers. Optical Fiber Technology, 2013, 19, 482-485.	2.7	28
23	Towards a monolithic fiber laser with deep UV femtosecond-induced fiber Bragg gratings. Optics Communications, 2011, 284, 5770-5773.	2.1	27
24	Sensing with ultra-short Fabry-Perot cavities written into optical micro-fibers. Sensors and Actuators B: Chemical, 2017, 244, 1016-1021.	7.8	27
25	Arrays of Regenerated Fiber Bragg Gratings in Non-Hydrogen-Loaded Photosensitive Fibers for High-Temperature Sensor Networks. Sensors, 2009, 9, 8377-8381.	3.8	23
26	Influence of Fiber Orientation on Femtosecond Bragg Grating Inscription in Pure Silica Microstructured Optical Fibers. IEEE Photonics Technology Letters, 2011, 23, 1832-1834.	2.5	22
27	Temperature and Strain Sensing With Femtosecond Laser Written Bragg Gratings in Defect and Nondefect Suspended-Silica-Core Fibers. IEEE Photonics Technology Letters, 2012, 24, 554-556.	2.5	18
28	Acousto-optic modulation of a fiber Bragg grating in suspended core fiber for mode-locked all-fiber lasers. Laser Physics Letters, 2015, 12, 045101.	1.4	16
29	Ultra-High Sensitive Strain Sensor Based on Post-Processed Optical Fiber Bragg Grating. Fibers, 2014, 2, 142-149.	4.0	15
30	Optical Inclinometer Based on a Phase-Shifted Bragg Grating in a Taper Configuration. IEEE Photonics Technology Letters, 2014, 26, 405-407.	2.5	15
31	Temperature independent refractive index measurement using a fiber Bragg grating on abrupt tapered tip. Optics and Laser Technology, 2018, 101, 227-231.	4.6	15
32	Monolithic Tm-Doped Fiber Laser at 1951 nm With Deep-UV Femtosecond-Induced FBG Pair. IEEE Photonics Technology Letters, 2013, 25, 1623-1625.	2.5	13
33	UV-transparent fluoropolymer fiber coating for the inscription of chirped Bragg gratings arrays. Optics and Laser Technology, 2017, 89, 173-178.	4.6	13
34	Discrete tuning concept for fiber-integrated lasers based on tailored FBG arrays and a theta cavity layout. Optics Letters, 2017, 42, 1125.	3.3	13
35	All-fiber 10 MHz acousto-optic modulator of a fiber Bragg grating at 1060 nm wavelength. Optics Express, 2015, 23, 25972.	3.4	12
36	Single-Mode Multicore Fibers With Integrated Bragg Filters. Journal of Lightwave Technology, 2016, 34, 4572-4578.	4.6	12

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37	Towards micro-structured optical fiber sensors for transverse strain sensing in smart composite materials. , 2011, , .		11
38	Fiber Bragg grating inscription in few-mode highly birefringent microstructured fiber. Optics Letters, 2013, 38, 2224.	3.3	10
39	Electrically Tunable Multiwavelength Bragg Grating Filter Acoustically Induced in a Highly Birefringent Suspended Core Fiber. IEEE Photonics Journal, 2017, 9, 1-9.	2.0	10
40	Independently tunable dual-wavelength fiber oscillator with synchronized pulsed emission based on a theta ring cavity and a fiber Bragg grating array. Optics Express, 2017, 25, 26393.	3.4	10
41	Spectral characteristics of draw-tower step-chirped fiber Bragg gratings. Optics and Laser Technology, 2016, 80, 112-115.	4.6	9
42	Homogeneous catheter for esophagus high-resolution manometry using fiber Bragg gratings. , 2010, , .		8
43	Growth characterization of fiber Bragg gratings inscribed in different rare-earth-doped fibers by UV and VIS femtosecond laser pulses. Optics Communications, 2012, 285, 5157-5162.	2.1	8
44	Discretely tunable thulium-doped fiber-based polarization-maintaining master oscillator power amplifier using fiber Bragg grating arrays as spectral filters. Optical Engineering, 2016, 55, 064106.	1.0	8
45	Characterization of fiber Bragg grating-based sensor array for high resolution manometry. Proceedings of SPIE, 2012, , .	0.8	7
46	Strain sensitivity enhancement in suspended core fiber tapers. Photonic Sensors, 2013, 3, 118-123.	5.0	7
47	An all-fiber Raman laser for cylindrical vector beam generation. Laser Physics Letters, 2013, 10, 125108.	1.4	7
48	An Electron Beam Profile Instrument Based on FBGs. Sensors, 2014, 14, 15786-15801.	3.8	5
49	Reflectivity and Bandwidth Modulation of Fiber Bragg Gratings in a Suspended Core Fiber by Tunable Acoustic Waves. IEEE Photonics Journal, 2014, 6, 1-8.	2.0	5
50	Tailored draw tower fiber Bragg gratings for various sensing applications. Proceedings of SPIE, 2012, , .	0.8	4
51	Acousto-Optic Double Side-Band Amplitude Modulation of a Fiber Bragg Grating in a Four-Holes Suspended-Core Fiber. Journal of Lightwave Technology, 2018, 36, 4146-4152.	4.6	4
52	High Performance Fiber-Fabry-Perot Resonator Targeting Quantum Optics Applications. IEEE Photonics Technology Letters, 2020, 32, 879-882.	2.5	4
53	First-order fiber Bragg grating inscription in indium fluoride fiber using a UV/Vis femtosecond laser and two-beam interferometry. Optics Letters, 2021, 46, 1816.	3.3	4
54	Thermal tuning of a fiber-integrated Fabry-PÃ©rot cavity. Optics Express, 2021, 29, 28778.	3.4	4

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55	Nanofiber-based high-Q microresonator for cryogenic applications. Optics Express, 2020, 28, 3249.	3.4	4
56	High birefringence triangular optical nanowire in suspended-core fiber for temperature sensing. Journal of Nanophotonics, 2013, 7, 073088.	1.0	3
57	Fabrication and applications of Draw Tower Gratings. , 2016, , .		3
58	Highly Efficient Side-Coupled Acousto-Optic Modulation of a Suspended Core Fiber Bragg Grating. IEEE Photonics Technology Letters, 2021, 33, 1379-1382.	2.5	3
59	Laser processed preforms for microstructured optical fibers. Proceedings of SPIE, 2013, , .	0.8	2
60	Fiber Bragg grating inscription in optical multicore fibers. , 2015, , .		2
61	Acousto-Optic Notch Filter Dynamically Induced in a Chirped Fiber Bragg Grating. IEEE Photonics Technology Letters, 2016, 28, 1081-1083.	2.5	2
62	Optimisation of fibre Bragg gratings inscription in multicore fibres. , 2018, , .		2
63	Dual-Wavelength fiber laser based on a theta ring cavity and an FBG array with tailored tuning range for THz generation. , 2017, , .		2
64	The fabrication and characterization of fiber Bragg gratings in highly birefringent photonic crystal fibers for sensing applications. Proceedings of SPIE, 2008, , .	0.8	1
65	Fiber Bragg grating inscription with DUV femtosecond exposure and two beam interference. , 2009, , .		1
66	Fiber Bragg grating arrays for high resolution manometry. , 2009, , .		1
67	UV Bragg grating inscription in germanium-doped photonic crystal fibers. Proceedings of SPIE, 2010, , .	0.8	1
68	Fiber Bragg grating inscription with UV femtosecond exposure and two beam interference for fiber laser applications. Proceedings of SPIE, 2010, , .	0.8	1
69	MAMMUT: mirror vibration metrology for VLTI. , 2010, , .		1
70	Regenerated draw tower grating (DTG) temperature sensors. Proceedings of SPIE, 2011, , .	0.8	1
71	Regeneration of gratings by post-H <sup>2</sup> loading. , 2011, , .		1
72	Multi-core fiber with integrated fiber Bragg grating for background free Raman sensing. , 2013, , .		1

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73	Internal strain monitoring in composite materials with embedded photonic crystal fiber Bragg gratings. Proceedings of SPIE, 2014, , .	0.8	1
74	Bragg grating fabrication on tapered fiber tips based on focused ion beam milling. Proceedings of SPIE, 2015, , .	0.8	1
75	Tapered optical fiber tip probes based on focused ion beam-milled Fabry-Perot microcavities. , 2016, , .		1
76	Combined microfiber knot resonator and focused ion beam-milled Mach-Zehnder interferometer for refractive index measurement. Proceedings of SPIE, 2017, , .	0.8	1
77	Physical properties of fiber Bragg gratings in single crystalline sapphire fibers. , 2018, , .		1
78	Bunimovich Stadium-Like Resonator for Randomized Fiber Laser Operation. Photonics, 2018, 5, 17.	2.0	1
79	Short Broadband Fiber Gratings With Low Group Delay. Journal of Lightwave Technology, 2021, 39, 2956-2960.	4.6	1
80	Enhanced temperature sensing with Vernier effect on fiber probe based on multimode Fabry-Perot interferometer. , 2019, , .		1
81	Prospects of high energy ultrashort pulse generation with frequency shifted feedback fiber oscillators. , 2009, , .		0
82	Temperature and strain characterization of Bragg gratings impressed with femtosecond laser radiation in suspended-silica-core fibers. Proceedings of SPIE, 2009, , .	0.8	0
83	Fiber Bragg gratings in microstructured optical fibers for stress monitoring. Proceedings of SPIE, 2009, , .	0.8	0
84	Regeneration of fiber Bragg gratings in photosensitive fibers without hydrogen loading. , 2009, , .		0
85	Growth and stability of UV and VIS femtosecond written fiber Bragg gratings in different rare earth doped fibers. Proceedings of SPIE, 2011, , .	0.8	0
86	Towards flexible photonic sensing skins with optical fiber sensors. , 2012, , .		0
87	Regenerated single pulse fiber Bragg gratings for high temperature sensing. Proceedings of SPIE, 2012, , .	0.8	0
88	Strain characterization of suspended-core fiber tapers. , 2012, , .		0
89	Radial and azimuthal polarized all-fiber Raman oscillator. , 2013, , .		0
90	Material modified microstructured fibers for nonlinear and sensor applications. , 2013, , .		0

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91	HiBi triangular optical nanowire in suspended-core fiber for sensing applications. , 2013, , .		0
92	Tapered single-mode Yb-fiber laser at 976 nm. , 2014, , .		0
93	First order fiber Bragg grating inscription with femtosecond laser and reflection wavelengths from visible to infrared. , 2014, , .		0
94	Investigation of a large core 976nm Yb fiber laser for high brightness fiber-based pump sources. , 2014, , .		0
95	Optical fiber Fabry-Pérot sensor fabrication based on focused ion beam post-processing. , 2014, , .		0
96	All-fiber laser mode-locked by the acousto-optic modulation of a fiber Bragg grating in suspended core fiber. Proceedings of SPIE, 2015, , .	0.8	0
97	Wideband notch filter acoustically induced in a chirped fiber Bragg grating. , 2015, , .		0
98	Characterization of double-clad thulium-doped fiber with increased quantum conversion efficiency. , 2015, , .		0
99	Fiber probe microcavities for refractive index and temperature discrimination. Proceedings of SPIE, 2016, , .	0.8	0
100	Fiber Bragg filters For laser- and multicore fibers. , 2017, , .		0
101	Multi-wavelength reflection spectra from an acousto-optic modulated fiber Bragg grating in a highly birefringent suspended core fiber. , 2017, , .		0
102	Fiber Bragg Grating Inscription in Multicore and Speciality Optical Fibers. , 2018, , .		0
103	Tunable all-fiber PM lasers with single-and dual-wavelength emission and extended tuning range at $1\frac{1}{4}\mu\text{m}$ and $2\frac{1}{4}\mu\text{m}$ . , 2018, , .		0
104	Intra-cavity measurement concept of dispersion properties with a tunable fiber-integrated laser. Laser Physics Letters, 2019, 16, 025101.	1.4	0
105	First Order FBGs in InF3 Fibre Inscribed by Interferometry Technique and UV-fs-Laser. , 2021, , .		0
106	Generation and Characterization of Fiber Bragg Gratings with Bragg Wavelengths in VIS and their Application in Sensor Technology. , 2007, , .		0
107	Fiber Bragg Grating Inscription With Ultraviolet Femtosecond Radiation and Two Beam Interference in Germanium-Free Fibers.. , 2010, , .		0
108	160W single-mode single-frequency Yb-doped fiber laser with fiber Bragg grating inscribed by UV femtosecond exposure and two beam interference. Proceedings of SPIE, 2011, , .	0.8	0

#	ARTICLE	IF	CITATIONS
109	Fiber Bragg Grating Inscription With Ultraviolet Radiation and Two Beam Interference in Microstructured Optical Fibers. , 2012, , .		0
110	Microstructured fibers optimized for transverse load and pressure sensing. , 2014, , .		0
111	Acoustically Induced Increase of Bragg Grating Bandwidth in Four Holes Suspended Core Fiber. , 2014, , .		0
112	Grating Inscription with Two-Beam Interferometry and Non-Homogeneous Beam-Splitter. , 2014, , .		0
113	Discretely tunable Tm-doped fiber laser using FBG arrays as spectral filters. , 2015, , .		0
114	Analysis of pulse synchronicity of an independently tunable dual-wavelength theta cavity fiber laser with an FBG array. , 2017, , .		0
115	Pulsed Optical Reflection Filter Dynamically-Tuned by the Amplitude Modulation of a Fiber Bragg Grating in a Suspended-Core Fiber. , 2018, , .		0
116	Dynamic Multiwavelength Optical Reflection Filter Induced in a Suspended-Core Fiber Bragg Grating by Amplitude Modulated Acoustic Waves. , 2018, , .		0
117	Multi-path interferometer structures with cleaved silica microspheres. , 2018, , .		0
118	Two-step-model of photosensitivity in cerium-doped fibers. Optical Materials Express, 2019, 9, 1654.	3.0	0
119	Flexible tuning concept for fiber-integrated lasers featuring multi-wavelength emission with fast switching speeds for DIAL. , 2019, , .		0
120	Tunable fiber laser concepts in the 2 $\mu$ m spectral range for tunable dual wavelength emission. , 2020, , .		0