

Toni Björnin

List of Publications by Year in descending order

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144
papers

3,103
citations

186265

28
h-index

197818

49
g-index

145
all docs

145
docs citations

145
times ranked

2659
citing authors

#	ARTICLE	IF	CITATIONS
1	A Minimally Invasive 64-Channel Wireless $\hat{1}/4$ ECoG Implant. IEEE Journal of Solid-State Circuits, 2015, 50, 344-359.	5.4	295
2	Inkjet-Printed Humidity Sensor for Passive UHF RFID Systems. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 2768-2777.	4.7	183
3	Screen-Printing Fabrication and Characterization of Stretchable Electronics. Scientific Reports, 2016, 6, 25784.	3.3	151
4	Miniature implantable and wearable on-body antennas: towards the new era of wireless body-centric systems [antenna applications corner]. IEEE Antennas and Propagation Magazine, 2014, 56, 271-291.	1.4	122
5	Small and Flexible Metal Mountable Passive UHF RFID Tag on High-Dielectric Polymer-Ceramic Composite Substrate. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 1319-1322.	4.0	105
6	Fabrication and Characterization of Graphene Antenna for Low-Cost and Environmentally Friendly RFID Tags. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1569-1572.	4.0	95
7	Analysis of electrically conductive silver ink on stretchable substrates under tensile load. Microelectronics Reliability, 2010, 50, 2001-2011.	1.7	80
8	Embedded wireless strain sensors based on printed RFID tag. Sensor Review, 2011, 31, 32-40.	1.8	73
9	Advances in antenna designs for UHF RFID tags mountable on conductive items. IEEE Antennas and Propagation Magazine, 2014, 56, 79-103.	1.4	65
10	The Effect of Conductive Ink Layer Thickness on the Functioning of Printed UHF RFID Antennas. Proceedings of the IEEE, 2010, 98, 1610-1619.	21.3	62
11	A Transparent Strain Sensor Based on PDMS-Embedded Conductive Fabric for Wearable Sensing Applications. IEEE Access, 2018, 6, 71020-71027.	4.2	61
12	Polydimethylsiloxane-Embedded Conductive Fabric: Characterization and Application for Realization of Robust Passive and Active Flexible Wearable Antennas. IEEE Access, 2018, 6, 48102-48112.	4.2	61
13	Passive UHF Inkjet-Printed Narrow-Line RFID Tags. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 440-443.	4.0	55
14	Effects of Sewing Pattern on the Performance of Embroidered Dipole-Type RFID Tag Antennas. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 1482-1485.	4.0	53
15	The effects of recurrent stretching on the performance of electro-textile and screen-printed ultra-high-frequency radio-frequency identification tags. Textile Research Journal, 2015, 85, 294-301.	2.2	53
16	Printed humidity sensor for UHF RFID systems. , 2010, , .		49
17	Impact of Moisture and Washing on the Performance of Embroidered UHF RFID Tags. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 1590-1593.	4.0	49
18	Backscattering Neural Tags for Wireless Brain-Machine Interface Systems. IEEE Transactions on Antennas and Propagation, 2015, 63, 719-726.	5.1	48

#	ARTICLE	IF	CITATIONS
19	Embroidered Antenna-Microchip Interconnections and Contour Antennas in Passive UHF RFID Textile Tags. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 1205-1208.	4.0	47
20	SAR reduction and link optimization for mm-size remotely powered wireless implants using segmented loop antennas. , 2011, , .		45
21	Inkjet-Printed Wideband Planar Monopole Antenna on Cardboard for RF Energy-Harvesting Applications. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 325-328.	4.0	44
22	Experimental Study on the Washing Durability of Electro-Textile UHF RFID Tags. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 466-469.	4.0	43
23	Passive E-Textile UHF RFID-Based Wireless Strain Sensors With Integrated References. IEEE Sensors Journal, 2016, 16, 7835-7836.	4.7	38
24	Low-Profile Conformal UHF RFID Tag Antenna for Integration With Water Bottles. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 1147-1150.	4.0	37
25	Inkjet-printed passive UHF RFID tags: review and performance evaluation. International Journal of Advanced Manufacturing Technology, 2012, 62, 167-182.	3.0	34
26	Reliability of washable wearable screen printed UHF RFID tags. Microelectronics Reliability, 2014, 54, 840-846.	1.7	34
27	Wearable Passive E-Textile UHF RFID Tag Based on a Slotted Patch Antenna with Sewn Ground and Microchip Interconnections. International Journal of Antennas and Propagation, 2017, 2017, 1-8.	1.2	34
28	Temperature sensor tag for passive UHF RFID systems. , 2011, , .		33
29	Design of Wireless Links to Implanted Brain-Machine Interface Microelectronic Systems. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 1663-1666.	4.0	33
30	Washing Durability of PDMS-Conductive Fabric Composite: Realizing Washable UHF RFID Tags. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 2572-2576.	4.0	30
31	Characterization of UHF RFID tags fabricated directly on convex surfaces by pad printing. International Journal of Advanced Manufacturing Technology, 2011, 53, 577-591.	3.0	29
32	Remotely Powered Piezoresistive Pressure Sensor: Toward Wireless Monitoring of Intracranial Pressure. IEEE Microwave and Wireless Components Letters, 2016, 26, 549-551.	3.2	29
33	Characterization of embroidered dipole-type RFID tag antennas. , 2012, , .		27
34	The Effect of Fabrication Method on Passive UHF RFID Tag Performance. International Journal of Antennas and Propagation, 2009, 2009, 1-8.	1.2	26
35	Analysis of wireless powering of mm-size neural recording tags in RFID-inspired wireless brain-machine interface systems. , 2013, , .		26
36	Printed passive UHF RFID tags as wearable strain sensors. , 2010, , .		25

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37	Next-Generation Healthcare: Enabling Technologies for Emerging Bioelectromagnetics Applications. IEEE Open Journal of Antennas and Propagation, 2022, 3, 363-390.	3.7	24
38	Inductively Powered Pressure Sensing System Integrating a Far-Field Data Transmitter for Monitoring of Intracranial Pressure. IEEE Sensors Journal, 2017, 17, 2191-2197.	4.7	23
39	Wireless Measurement of RFID IC Impedance. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3194-3206.	4.7	22
40	Towards Washable Electrotexile UHF RFID Tags: Reliability Study of Epoxy-Coated Copper Fabric Antennas. International Journal of Antennas and Propagation, 2015, 2015, 1-8.	1.2	22
41	Split-Ring Resonator Antenna System With Cortical Implant and Head-Worn Parts for Effective Far-Field Implant Communications. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 710-713.	4.0	22
42	Optically Transparent Flexible Robust Circularly Polarized Antenna for UHF RFID Tags. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 2334-2338.	4.0	22
43	Double Split Rings as Extremely Small and Tuneable Antennas for Brain Implantable Wireless Medical Microsystems. IEEE Transactions on Antennas and Propagation, 2021, 69, 760-768.	5.1	22
44	Compact Microstrip Antennas With Enhanced Bandwidth for the Implanted and External Subsystems of a Wireless Retinal Prosthesis. IEEE Transactions on Antennas and Propagation, 2021, 69, 2969-2974.	5.1	22
45	Wireless channel characterization for mm-size neural implants. , 2010, 2010, 1565-8.		21
46	Characterization of Two-Turns External Loop Antenna With Magnetic Core for Efficient Wireless Powering of Cortical Implants. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1410-1413.	4.0	21
47	Biotelemetric Wireless Intracranial Pressure Monitoring: An In Vitro Study. International Journal of Antennas and Propagation, 2015, 2015, 1-10.	1.2	20
48	The effect of conductor thickness in passive inkjet printed RFID tags. , 2010, , .		19
49	Low-Profile Head-Worn Antenna With a Monopole-Like Radiation Pattern. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 794-797.	4.0	19
50	Performance comparison of silver ink and copper conductors for microwave applications. IET Microwaves, Antennas and Propagation, 2010, 4, 1224.	1.4	18
51	Long range metal mountable tag antenna for passive UHF RFID systems. , 2011, , .		18
52	Measurement of Wireless Link for Brain-Machine Interface Systems Using Human-Head Equivalent Liquid. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 1307-1310.	4.0	18
53	Comparison of Wearable E-Textile Split Ring Resonator and Slotted Patch RFID Reader Antennas Embedded in Work Gloves. IEEE Journal of Radio Frequency Identification, 2019, 3, 259-264.	2.3	18
54	A Small All-Corners-Truncated Circularly Polarized Microstrip Patch Antenna on Textile Substrate for Wearable Passive UHF RFID Tags. IEEE Journal of Radio Frequency Identification, 2021, 5, 106-112.	2.3	16

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55	Fabrication of embroidered UHF RFID tags. , 2012, , .		15
56	A novel inkjet-printed wireless chipless strain and crack sensor on flexible laminates. , 2014, , .		15
57	Miniature Coplanar Implantable Antenna on Thin and Flexible Platform for Fully Wireless Intracranial Pressure Monitoring System. International Journal of Antennas and Propagation, 2017, 2017, 1-9.	1.2	15
58	A novel carbon nanotube loaded passive UHF RFID sensor tag with built-in reference for wireless gas sensing. , 2016, , .		14
59	Design and optimization of mm-size implantable and wearable on-body antennas for biomedical systems. , 2014, , .		13
60	Reliability Analysis of RFID Tags in Changing Humid Environment. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 77-85.	2.5	13
61	Wearable passive UHF RFID tag based on a split ring antenna. , 2017, , .		13
62	Characterization of 3-D Loop Antenna to Overcome the Impact of Small Lateral Misalignment in Wirelessly Powered Intracranial Pressure Monitoring System. IEEE Transactions on Antennas and Propagation, 2017, 65, 7405-7410.	5.1	12
63	Embroidered RFID tags in body-centric communication. , 2013, , .		11
64	Antenna design for implanted tags in wireless brain machine interface system. , 2013, , .		11
65	Glove-Integrated Slotted Patch Antenna for Wearable UHF RFID Reader. , 2018, , .		11
66	Analysis of biotelemetric interrogation of chronically implantable intracranial capacitive pressure sensor. , 2014, , .		10
67	Possibilities of 3D direct write dispensing for textile UHF RFID tag manufacturing. , 2015, , .		10
68	Signal strength readout and miniaturised antenna for metal-mountable UHF RFID threshold temperature sensor tag. Electronics Letters, 2015, 51, 1734-1736.	1.0	10
69	A Dual-ID RFID Tag for Headgear Based on Quasi-Yagi and Dipole Antennas. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 1321-1325.	4.0	10
70	Wearable Metasurface-Enabled Quasi-Yagi Antenna for UHF RFID Reader With End-Fire Radiation Along the Forearm. IEEE Access, 2021, 9, 77229-77238.	4.2	10
71	Radiation Efficiency Measurement Method for Passive UHF RFID Dipole Tag Antennas. IEEE Transactions on Antennas and Propagation, 2013, 61, 4026-4035.	5.1	9
72	A New Approach and Analysis of Modeling the Human Body in RFID-Enabled Body-Centric Wireless Systems. International Journal of Antennas and Propagation, 2014, 2014, 1-12.	1.2	9

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73	Embroidered passive UHF RFID tag on flexible 3D printed substrate. , 2017, , .		9
74	Microstrip transmission line model-fitting approach for characterization of textile materials as dielectrics and conductors for wearable electronics. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2019, 32, e2582.	1.9	9
75	Modified Wilkinson power divider with harmonics suppression and compact size for GSM applications. International Journal of RF and Microwave Computer-Aided Engineering, 2020, 30, e22209.	1.2	9
76	Small Triple-Band Meandered PIFA for Brain-Implantable Biotelemetric Systems: Development and Testing in a Liquid Phantom. International Journal of Antennas and Propagation, 2021, 2021, 1-13.	1.2	9
77	Design and RFID signal analysis of a meander line UHF RFID tag antenna. , 2008, , .		8
78	Practical read range evaluation of wearable embroidered UHF RFID tag. , 2012, , .		8
79	Brush-painting and photonic sintering of copper and silver inks on cotton fabric to form antennas for wearable ultra-high-frequency radio-frequency identification tags. Textile Reseach Journal, 2016, 86, 1616-1624.	2.2	8
80	Glove-Integrated Textile Antenna with Reduced SAR for Wearable UHF RFID Reader. , 2019, , .		8
81	Impact of recurrent washing on the performance of electro-textile UHF RFID tags. , 2014, , .		7
82	RF Energy Harvesting System with RFID-Enabled Charge Storage Monitoring. , 2018, , .		7
83	Development of a low profile conformal UHF RFID tag antenna for identification of water bottles. , 2011, , .		6
84	Small slot antenna for metal mountable UHF RFID tags. , 2012, , .		6
85	Cost- and time-effective sewing patterns for embroidered passive UHF RFID tags. , 2017, , .		6
86	Referenced Backscattering Compression Level Indicator based on Passive UHF RFID Tags. , 2018, , .		6
87	Compact Dual-Band PIFA Based on a Slotted Radiator for Wireless Biomedical Implants. , 2019, , .		6
88	Design and comparison between two general purpose dipole type UHF RFID tag antennas. , 2008, , .		5
89	Effects of laboratory-scale IC attachment methods on passive UHF RFID tag performance. , 2011, , .		5
90	Antenna design for wireless electrocorticography. , 2012, , .		5

#	ARTICLE	IF	CITATIONS
91	Electromagnetic modelling and measurement of antennas for wireless brain-machine interface systems. , 2013, , .		5
92	Impact of recurrent stretching on the performance of electro-textile UHF RFID tags. , 2014, , .		5
93	Two-turns antenna and magnetic materials for effective powering of mm-size implant in wireless brain-machine interface system. , 2015, , .		5
94	2.4 GHz inkjet-printed RF energy harvester on bulk cardboard substrate. , 2015, , .		5
95	A Batteryless Semi-Passive RFID Sensor Platform. , 2019, , .		5
96	Performance of a passive UHF RFID tag in reflective environment. , 2008, , .		4
97	Design and non-invasive design verification of a slot-type passive UHF RFID tag. , 2010, , .		4
98	Inkjet-printed monopole antenna and voltage doubler on cardboard for RF energy harvesting. , 2015, , .		4
99	Piezoresistive pressure sensor for ICP monitoring: Remote powering through wearable textile antenna and sensor readout experiment. , 2016, , .		4
100	Antennas and antenna-electronics interfaces made of conductive yarn and paint for cost-effective wearable RFIDs and sensors. , 2017, , .		4
101	RF Energy Harvesting System Integrating a Passive UHF RFID Tag as a Charge Storage Indicator. , 2018, , .		4
102	Comparison of Human Head Phantoms with Different Complexities for Implantable Antenna Development. , 2018, , .		4
103	Electrically Small UHF RFID Tag Antenna Based on Inductively Coupled Resonant LC Tank. , 2019, , .		4
104	Circularly Polarized Corner-Truncated and Slotted Microstrip Patch Antenna on Textile Substrate for Wearable Passive UHF RFID Tags. , 2020, , .		4
105	Evaluation of an implantable passive sensor for wireless intracranial pressure monitoring. , 2015, , .		3
106	Design and Technical Evaluation of an Implantable Passive Sensor for Minimally Invasive Wireless Intracranial Pressure Monitoring. IFMBE Proceedings, 2015, , 1301-1304.	0.3	3
107	Additive manufacturing of antennas from copper oxide nanoparticle ink: Toward low-cost RFID tags on paper- and textile-based platforms. , 2016, , .		3
108	Performance of silver-based textile UHF passive RFID tags after recurrent washing. , 2016, , .		3

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109	Comparison of wearable passive UHF RFID tags based on electro-textile dipole and patch antennas in body-worn configurations. , 2017, , .		3
110	Effect of temperature variation on remote pressure readout in wirelessly powered intracranial pressure monitoring system. , 2017, 2017, 1728-1731.		3
111	Split ring resonator antenna system with implantable and wearable parts for far field readable backscattering implants. , 2017, , .		3
112	Embroidered antennas and antenna-electronics interfaces for wearable RFID tags. , 2017, , .		3
113	Circularly Polarized Textile Tag Antenna for Wearable Passive UHF RFID Systems. , 2018, , .		3
114	Implantable Sensors and Antennas for Wireless Brain Care. , 2018, , .		3
115	Wireless Power Transfer to Intra-Abdominal Implants Using an Around-the-Body Loop Antenna. , 2019, , .		3
116	Small Multi-Resonant Meandered PIFA for Brain Implant Communications. , 2019, , .		3
117	Performance of inkjet-printed narrow-line passive UHF RFID tags on different objects. , 2011, , .		2
118	Strain reliability and substrate specific features of passive UHF RFID textile tag antennas. , 2016, , .		2
119	Wirelessly powered implantable system for wireless long-term monitoring of intracranial pressure. , 2017, , .		2
120	Impact of Anatomical Variability on the Wireless Power Transfer to Intra-Abdominal Implants. , 2019, , .		2
121	Dual-ID Headgear UHF RFID Tag with Broadside and End-Fire Patterns based on Quasi-Yagi Antenna. , 2019, , .		2
122	Backscattering-based wireless communication and power transfer to small biomedical implants. , 2020, , .		2
123	Inductively Coupled Split Ring Resonator as Small RFID Pressure Sensor for Biomedical Applications. , 2020, , .		2
124	On-body antennas: Towards wearable intelligence. , 2014, , .		1
125	Comparison of inkjet-printed and microfabricated loop antennas for implants in wireless brain-machine interface systems. , 2014, , .		1
126	Impact of antenna-fiber alignment and recurrent stretching on the performance of passive UHF RFID tags based on textile antennas. , 2014, , .		1

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127	Wireless testing of ink-jet printed mm-size gold implant antennas for Brain-Machine Interfaces. , 2014, , .		1
128	Experimental study on antenna â€” IC interconnections for electro-textile RFID tags. , 2016, , .		1
129	Electro-textile slotted patch antenna for wearable passive UHF RFID tags. , 2017, , .		1
130	Effect of implant coating on wireless powering for intracranial pressure monitoring system. , 2017, , .		1
131	Equivalent Circuit Approximation to the Connector-Line Transition at High Frequencies using Two Microstrip Lines and Data Fitting. Applied Computational Electromagnetics Society Journal, 0, , .	0.4	1
132	Small Triple-Band Meandered PIFA for Brain-Implantable Bio-telemetric Systems: Optimization of Substrate/Superstrate Effectiveness. , 2021, , .		1
133	Conformal Antenna with Reconfigurability of Monopole-like and Broadside Patterns Realized with Polymer-Conductive Textile Composite. , 2022, , .		1
134	Antennas and Wireless Power Transfer to Small Biomedical Brain Implants. , 2022, , .		1
135	Embedding passive RFID tags into wooden doors for identification and tracking. International Journal of Radio Frequency Identification Technology and Applications, 2013, 4, 181.	0.5	0
136	Testing and modeling the performance of stretchable screen printed UHF RFID tag under strain. , 2016, , .		0
137	Minimum of two-port voltage and power gain under varying terminations: Semi-analytical method and application to biotelemetry systems. , 2016, , .		0
138	Charge Storage Level Indicator for RF Energy Harvester based on Dual-ID Passive UHF RFID Tag. , 2018, , .		0
139	Corrigendum to â€œWearable Passive E-Textile UHF RFID Tag Based on a Slotted Patch Antenna with Sewn Ground and Microchip Interconnectionsâ€. International Journal of Antennas and Propagation, 2020, 2020, 1-1.	1.2	0
140	Split Ring Resonator Inspired Passive UHF RFID Antenna System For Wireless Intra-Abdominal Pressure Sensor. IFMBE Proceedings, 2018, , 948-951.	0.3	0
141	Quasi-Yagi Antenna on a Periodic Surface for Low-Profile Headgear RFID Tag with Endfire Radiation. , 2019, , .		0
142	Spatially Distributed Semi-Passive Backscattering Platform for Biomedical Application. , 2019, , .		0
143	Headband Antenna for Wireless Power Transfer to Millimeter-Sized Neural Implants with Minimal Misalignment Effects. , 2020, , .		0
144	Performance Evaluation of a Metasurface-enabled Wearable Quasi-Yagi Antenna with End-fire Radiation Pattern on Textile Substrate. , 2021, , .		0