

# Angel Belenguer

## List of Publications by Year in descending order

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84  
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430874

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all docs

86  
docs citations

86  
times ranked

728  
citing authors

#	ARTICLE	IF	CITATIONS
1	Novel Empty Substrate Integrated Waveguide for High-Performance Microwave Integrated Circuits. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 832-839.	4.6	157
2	Improved Low Reflection Transition From Microstrip Line to Empty Substrate-Integrated Waveguide. IEEE Microwave and Wireless Components Letters, 2017, 27, 685-687.	3.2	50
3	High-Performance Coplanar Waveguide to Empty Substrate Integrated Coaxial Line Transition. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 4027-4034.	4.6	48
4	Efficient Analysis of Substrate Integrated Waveguide Devices Using Hybrid Mode Matching Between Cylindrical and Guided Modes. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 232-243.	4.6	39
5	A Reconfigurable Passive UHF Reader Loop Antenna for Near-Field and Far-Field RFID Applications. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 580-583.	4.0	37
6	A Portable 3-D Imaging FMCW MIMO Radar Demonstrator With a $24 \times 24$ Antenna Array for Medium-Range Applications. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 298-312.	6.3	35
7	Empty SIW Technologies: A Major Step Toward Realizing Low-Cost and Low-Loss Microwave Circuits. IEEE Microwave Magazine, 2019, 20, 24-45.	0.8	30
8	Wideband Passband Transmission Line Based on Metamaterial-Inspired CPW Balanced Cells. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 1421-1424.	4.0	29
9	Integration of a Very High Quality Factor Filter in Empty Substrate-Integrated Waveguide at $Q$ -Band. IEEE Microwave and Wireless Components Letters, 2018, 28, 503-505.	3.2	29
10	Highly Efficient and Well-Matched Empty Substrate Integrated Waveguide H-Plane Horn Antenna. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1510-1513.	4.0	28
11	Compact Multilayer Filter in Empty Substrate Integrated Waveguide With Transmission Zeros. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 2993-3000.	4.6	27
12	Efficient Technique for the Cascade Connection of Multiple Two-Port Scattering Matrices. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 1880-1886.	4.6	26
13	Balanced Right/Left-Handed Coplanar Waveguide With Stub-Loaded Split-Ring Resonators. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 193-196.	4.0	25
14	Design and Performance of a High- $Q$ Narrow Bandwidth Bandpass Filter in Empty Substrate Integrated Coaxial Line at $K_u$ -Band. IEEE Microwave and Wireless Components Letters, 2017, 27, 977-979.	3.2	25
15	Through-line calibration for substrate integrated waveguide devices with tapered microstrip transitions. Electronics Letters, 2013, 49, 132-133.	1.0	24
16	Design of a Hybrid Directional Coupler in Empty Substrate Integrated Waveguide (ESIW). IEEE Microwave and Wireless Components Letters, 2015, 25, 796-798.	3.2	24
17	Compact Folded Bandpass Filter in Empty Substrate Integrated Coaxial Line at $S$ -Band. IEEE Microwave and Wireless Components Letters, 2019, 29, 315-317.	3.2	21
18	Hybrid Technique Plus Fast Frequency Sweep for the Efficient and Accurate Analysis of Substrate Integrated Waveguide Devices. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 552-560.	4.6	20

#	ARTICLE	IF	CITATIONS
19	Empty Substrate Integrated Waveguide Slot Antenna Array for 5G Applications. , 2018, , .		19
20	Compact Microstrip to Empty Substrate-Integrated Coaxial Line Transition. IEEE Microwave and Wireless Components Letters, 2018, 28, 1080-1082.	3.2	18
21	Microstrip to Ridge Empty Substrate-Integrated Waveguide Transition for Broadband Microwave Applications. IEEE Microwave and Wireless Components Letters, 2020, 30, 257-260.	3.2	16
22	Dual Composite Right-/Left-Handed Coplanar Waveguide Transmission Line Using Inductively Connected Split-Ring Resonators. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 3035-3042.	4.6	15
23	Programmable Multifunctional RF/Microwave Circuit for Antenna and Filter Operation. IEEE Transactions on Antennas and Propagation, 2018, 66, 3865-3876.	5.1	15
24	Thru-reflect-line calibration for empty substrate integrated waveguide with microstrip transitions. Electronics Letters, 2015, 51, 1274-1276.	1.0	14
25	Versatile, Error-Tolerant, and Easy to Manufacture Through-Wire Microstrip-to-ESIW Transition. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 2243-2250.	4.6	14
26	Balanced Dual Composite Right/Left-Handed Microstrip Line With Modified Complementary Split-Ring Resonators. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 880-883.	4.0	13
27	Multilevel transition in empty substrate integrated waveguide. Electronics Letters, 2016, 52, 1543-1544.	1.0	13
28	Low Loss Ferrite Y-Junction Circulator Based on Empty Substrate Integrated Coaxial Line at Ku-Band. IEEE Access, 2019, 7, 104789-104796.	4.2	13
29	Hybrid Mode Matching and Method of Moments Method for the Full-Wave Analysis of Arbitrarily Shaped Structures Fed Through Canonical Waveguides Using Only Electric Currents. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 537-544.	4.6	12
30	Miniaturization of Power Divider and 90° Hybrid Directional Coupler for C-Band Applications Using Empty Substrate-Integrated Coaxial Lines. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 3055-3062.	4.6	12
31	Empty Substrate-Integrated Waveguide-Fed Patch Antenna Array for 5G Millimeter-Wave Communication Systems. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 776-780.	4.0	12
32	Improvement for the design equations for tapered Microstrip-to-Substrate Integrated Waveguide transitions. , 2011, , .		11
33	A novel transition from microstrip to a substrate integrated waveguide with higher characteristic impedance. , 2013, , .		11
34	Cross-guide Moreno directional coupler in empty substrate integrated waveguide. Radio Science, 2017, 52, 597-603.	1.6	11
35	Hybrid Mode Matching Method for the Efficient Analysis of Metal and Dielectric Rods in H Plane Rectangular Waveguide Devices. IEEE Transactions on Microwave Theory and Techniques, 2010, , .	4.6	10
36	Efficient CAD tool of direct-coupled-cavities filters with dielectric resonators. , 2005, , .		9

#	ARTICLE	IF	CITATIONS
37	Performance comparison of a four-pole folded filter realized with standard and empty substrate integrated waveguide technologies. , 2017, , .		9
38	Slotted ESIW Antenna With High Efficiency for a MIMO Radar Sensor. Radio Science, 2018, 53, 605-610.	1.6	9
39	Versatile Transition for Multilayer Compact Devices in Empty Substrate Integrated Waveguide. IEEE Microwave and Wireless Components Letters, 2018, 28, 482-484.	3.2	9
40	A 3â€ Printed PCB Integrated TEM Horn Antenna. Radio Science, 2019, 54, 158-165.	1.6	9
41	Teaching of advanced wave-propagation phenomena in open-space problems and waveguide devices using MATLAB GUIs. IEEE Antennas and Propagation Magazine, 2006, 48, 128-131.	1.4	8
42	Empty substrate integrated waveguide technology for <i>E</i> plane highâ€frequency and highâ€performance circuits. Radio Science, 2017, 52, 49-69.	1.6	8
43	Highly Reliable and Repeatable Soldering Technique for Assembling Empty Substrate Integrated Waveguide Devices. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 2276-2281.	2.5	8
44	Krylov's Solver Based Technique for the Cascade Connection of Multiple \$N\$-Port Multimodal Scattering Matrices. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 720-726.	4.6	7
45	Compact Bandpass Filter in Empty Substrate Integrated Coaxial Line. , 2018, , .		7
46	Broadband Equivalent Circuit Model for a Coplanar Waveguide Line Loaded with Split Ring Resonators. International Journal of Antennas and Propagation, 2012, 2012, 1-6.	1.2	6
47	Experimental study in Ku-band of the propagation inside Empty Substrate Integrated Waveguides. , 2016, , .		6
48	Highly Versatile Coplanar Waveguide Line With Electronically Reconfigurable Bandwidth and Propagation Characteristics. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 128-135.	4.6	6
49	Optimization techniques for the efficient design of low-cost satellite filters considering new light materials. International Journal of RF and Microwave Computer-Aided Engineering, 2008, 18, 168-175.	1.2	5
50	CAD technique for designing H-plane waveguide filters considering rounded corners. , 2013, , .		5
51	New decoupled empty substrate integrated waveguide realisation. Electronics Letters, 2017, 53, 1203-1205.	1.0	5
52	Thermal Stability Analysis of Filters in Substrate Integrated Technologies Under Atmospheric Pressure and Vacuum Conditions. IEEE Access, 2020, 8, 118072-118082.	4.2	5
53	Efficient and accurate spectral analysis of large scattering problems using wavelet and wavelet-like bases. Radio Science, 2004, 39, n/a-n/a.	1.6	4
54	Efficient design of substrate integrated waveguide filters using a hybrid mom/mm analysis method and efficient rectangular waveguide design tools. , 2011, , .		4

#	ARTICLE	IF	CITATIONS
55	Mapping smooth profile $H$ -plane rectangular waveguide structures to substrate integrated waveguide technology. Electronics Letters, 2014, 50, 1072-1074.	1.0	4
56	Wideband Transition for Increased-Height Empty Substrate Integrated Waveguide. IEEE Access, 2019, 7, 149406-149413.	4.2	4
57	Experimental Investigation of Empty Substrate Integrated Waveguide-Fed MMW Patch Antenna for 5G Applications. , 2019, , .		4
58	Transition from Microstrip Line to Ridge Empty Substrate Integrated Waveguide Based on the Equations of the Superellipse. Applied Sciences (Switzerland), 2020, 10, 8101.	2.5	4
59	Design Procedure of Continuous Profile Stopband Filters Implemented With Empty Substrate Integrated Coaxial Lines. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 1520-1528.	4.6	4
60	Easy-to-assemble and high quality-factor ESIW filter with post-based soldered inverters in X-band. AEU - International Journal of Electronics and Communications, 2021, 142, 153987.	2.9	4
61	Microstrip to Double Ridge Empty Substrate Integrated Waveguide Transitions Based on Exponential and Superelliptical Dielectric Taper. IEEE Access, 2021, 9, 165745-165753.	4.2	4
62	Extending the Cascading by Pairs of Multiport Generalized Scattering Matrices for Characterizing the Connected Ports. IEEE Microwave and Wireless Components Letters, 2014, 24, 733-735.	3.2	3
63	Analysis and design of passive microwave components in substrate integrated waveguide technology. , 2015, , .		3
64	Segmentation strategy for the efficient analysis and design of substrate integrated waveguide directly coupled cavity filters. IET Microwaves, Antennas and Propagation, 2016, 10, 283-287.	1.4	3
65	Stop Band Continuous Profile Filter in Empty Substrate Integrated Coaxial Line. Applied Sciences (Switzerland), 2018, 8, 2176.	2.5	3
66	Empty Substrate Integrated Waveguide-Fed MMW Aperture-Coupled Patch Antenna for 5G Applications. , 2018, , .		3
67	Efficient modal analysis of arbitrarily shaped H-plane two-port waveguide devices using the 2D parallel-plate Green's function. IET Microwaves, Antennas and Propagation, 2009, 3, 62.	1.4	2
68	Highly efficient heterogeneous modal superposition method for the full-wave analysis of arbitrarily shaped H-plane structures fed through rectangular waveguides. IET Microwaves, Antennas and Propagation, 2011, 5, 747.	1.4	2
69	Fast Frequency Sweep Technique Based on Segmentation for the Acceleration of the Electromagnetic Analysis of Microwave Devices. Applied Sciences (Switzerland), 2019, 9, 1118.	2.5	2
70	Widebandwidth through-reflect-line calibration for empty substrate-integrated coaxial line with grounded coplanar transitions. Microwave and Optical Technology Letters, 2019, 61, 292-296.	1.4	2
71	Highly Compact Through-Wire Microstrip to Empty Substrate Integrated Coaxial Line Transition. Applied Sciences (Switzerland), 2021, 11, 6885.	2.5	2
72	Study of Vibration Effects on Communication Filters in Substrate Integrated Technologies. IEEE Access, 2022, 10, 50418-50426.	4.2	2

#	ARTICLE	IF	CITATIONS
73	Improved Microstrip-to-ESIW Transition With Elliptical Dielectric Taper in Ku- and Ka-Bands. IEEE Access, 2022, 10, 51412-51418.	4.2	2
74	Online application for representation of the radiation pattern of antenna arrays. IEEE Antennas and Propagation Magazine, 2008, 50, 198-201.	1.4	1
75	Accurate and efficient design of double post substrate integrated waveguide filters using simulators based on open space modal expansions. , 2012, , .		1
76	On the analysis of radiation losses in substrate integrated waveguide using mode-matching and method of moments. , 2014, , .		1
77	Folded Empty Substrate Integrated Waveguide With a Robust Transition to Grounded Coplanar Waveguide in the Ku Band. IEEE Access, 2021, 9, 76112-76118.	4.2	1
78	Highly efficient MoM analysis of conducting 2-D scatterers using wavelet basis functions. , 0, , .		0
79	Computation of the scattering of electrically large 2-D objects using FMM with $TE_{z}^{sup}$ incidence. , 0, , .		0
80	Highly Efficient Grouping Strategy for the Analysis of Two-Port Arbitrarily Shaped $HH$ -Plane Waveguide Devices. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 352-360.	4.6	0
81	Simulation-Driven Design of Microwave Filters for Space Applications. , 2013, , 337-370.		0
82	Wideband High Pass Complementary Split Ring Resonator Based Microstrip Transmission Line with Augmented Electric Coupling. International Journal of Sensors, Wireless Communications and Control, 2015, 4, 32-34.	0.7	0
83	Viability of using additive manufacturing for horn antennas fed with empty substrate integrated waveguide. , 2019, , .		0
84	Systematic procedure to avoid unintended polarity mismatch in the cascade connection of multiport devices with symmetric feeding lines. IET Microwaves, Antennas and Propagation, 2015, 9, 1128-1135.	1.4	0