

Raafat R Mansour

List of Publications by Year in descending order

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141
papers

2,899
citations

185998

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43
g-index

144
all docs

144
docs citations

144
times ranked

1796
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermally Actuated Latching RF MEMS Switch and Its Characteristics. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 3229-3238.	2.9	115
2	The IMS2012 Technical Program: Renewal, Innovation, and Globalization. IEEE Microwave Magazine, 2012, 13, 26-28.	0.7	92
3	Tunable Dielectric Resonator Bandpass Filter With Embedded MEMS Tuning Elements. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 154-160.	2.9	90
4	Quad-mode and dual-mode dielectric resonator filters. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 3418-3426.	2.9	79
5	High- Q Narrowband Tunable Compline Bandpass Filters Using MEMS Capacitor Banks and Piezomotors. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 393-402.	2.9	77
6	A Design Procedure for Wideband Micropower Generators. Journal of Microelectromechanical Systems, 2009, 18, 1288-1299.	1.7	74
7	Capacitive RF MEMS Switches Fabricated in Standard $0.35\text{-}\mu\text{m}$ CMOS Technology. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 478-486.	2.9	64
8	High- Q Tunable Dielectric Resonator Filters Using MEMS Technology. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 3401-3409.	2.9	64
9	Waveguide Antenna Feeders With Integrated Reconfigurable Dual Circular Polarization. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 3365-3374.	2.9	59
10	Dual-Band Dielectric-Resonator Filters. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 1760-1766.	2.9	58
11	Fully Automated RF/Microwave Filter Tuning by Extracting Human Experience Using Fuzzy Controllers. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 1357-1367.	3.5	55
12	High- Q Tunable Filters: Challenges and Potential. IEEE Microwave Magazine, 2014, 15, 70-82.	0.7	53
13	Triple-Conductor Compline Resonators for Dual-Band Filters With Enhanced Guard-Band Selectivity. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 3969-3979.	2.9	49
14	Compact Waveguide Dual-Band Filters and Diplexers. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 1525-1533.	2.9	47
15	Novel High- Q MEMS Curled-Plate Variable Capacitors Fabricated in $0.35\text{-}\mu\text{m}$ CMOS Technology. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 530-541.	2.9	45
16	Characterization, Optimization, and Fabrication of Phase Change Material Germanium Telluride Based Miniaturized DC-67 GHz RF Switches. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 3237-3250.	2.9	45
17	Microelectromechanical Systems Tunable Frequency-Selective Surfaces and Electromagnetic-Bandgap Structures on Rigid-Flex Substrates. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 1737-1746.	2.9	44
18	High Power Latching RF MEMS Switches. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 222-232.	2.9	42

#	ARTICLE	IF	CITATIONS
19	Miniaturized DCâ€“60 GHz RF PCM GeTe-Based Monolithically Integrated Redundancy Switch Matrix Using T-Type Switching Unit Cells. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 5181-5190.	2.9	40
20	Loss Compensated PCM GeTe-Based Latching Wideband 3-bit Switched True-Time-Delay Phase Shifters for mmWave Phased Arrays. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 3745-3755.	2.9	40
21	Scalable RF MEMS Switch Matrices: Methodology and Design. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 1612-1621.	2.9	39
22	Redundancy RF MEMS Multiport Switches and Switch Matrices. Journal of Microelectromechanical Systems, 2007, 16, 296-303.	1.7	38
23	Low-Cost Dielectric-Resonator Filters With Improved Spurious Performance. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 2168-2175.	2.9	38
24	RF MEMS Switchable Interdigital Bandpass Filter. IEEE Microwave and Wireless Components Letters, 2012, 22, 44-46.	2.0	38
25	Reconfigurable Doherty Power Amplifier for Multifrequency Wireless Radio Systems. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 1588-1598.	2.9	33
26	Electronically Tunable Doherty Power Amplifier for Multi-Mode Multi-Band Base Stations. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 1229-1240.	3.5	31
27	Design Methodology of a Tunable Waveguide Filter With a Constant Absolute Bandwidth Using a Single Tuning Element. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 5632-5639.	2.9	31
28	Triple-Band Cavity Bandpass Filters. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 4057-4069.	2.9	30
29	Thermally Actuated SOI RF MEMS-Based Fully Integrated Passive Reflective-Type Analog Phase Shifter for mmWave Applications. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 119-131.	2.9	28
30	Design Methodology and Optimization of Distributed MEMS Matching Networks for Low-Microwave-Frequency Applications. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 3030-3041.	2.9	27
31	Chalcogenide Phase Change Material GeTe Based Inline RF SPST Series and Shunt Switches. , 2018, , .		26
32	Distributed MEMS Tunable Impedance-Matching Network Based on Suspended Slow-Wave Structure Fabricated in a Standard CMOS Technology. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 1056-1064.	2.9	25
33	High-Capacitance-Ratio Warped-Beam Capacitive MEMS Switch Designs. Journal of Microelectromechanical Systems, 2010, 19, 538-547.	1.7	25
34	Low-Temperature Superconducting DC-Contact RF MEMS Switch for Cryogenic Reconfigurable RF Front-Ends. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 1437-1447.	2.9	24
35	Thermally Actuated Multiport RF MEMS Switches and Their Performance in a Vacuumed Environment. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 1229-1236.	2.9	23
36	Monolithically Integrated RF MEMS-Based Variable Attenuator for Millimeter-Wave Applications. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 3251-3259.	2.9	22

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37	Design Methodology of a High-Q Tunable Coaxial Filter and Diplexer. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 5005-5015.	2.9	22
38	Compact Ridge Waveguide Gysel Combiners for High-Power Applications. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 968-977.	2.9	22
39	A high-tuning-range MEMS variable capacitor using carrier beams. Canadian Journal of Electrical and Computer Engineering, 2006, 31, 89-95.	1.5	21
40	Experimental Investigation of Performance, Reliability, and Cycle Endurance of Nonvolatile DC 67 GHz Phase-Change RF Switches. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 4697-4710.	2.9	20
41	Generalized Multiport Waveguide Switches Based on Multiple Short-Circuit Loads in Power-Divider Junctions. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 3347-3355.	2.9	19
42	Characterization of Phase Change Material Germanium Telluride for RF Switches. , 2018, , .		19
43	Monolithic PCM Based Miniaturized T-type RF Switch for Millimeter Wave Redundancy Switch Matrix Applications. , 2019, , .		19
44	Scalable mmWave Non-Volatile Phase Change GeTe-Based Compact Monolithically Integrated Wideband Digital Switched Attenuator. IEEE Transactions on Electron Devices, 2021, 68, 2306-2312.	1.6	19
45	Thermally-actuated latching RF MEMS switch. , 2009, , .		18
46	Monolithically Integrated Reconfigurable RF MEMS Based Impedance Tuner on SOI Substrate. , 2019, , .		18
47	Miniaturized Reconfigurable 28 GHz PCM-Based 4-bit Latching Variable Attenuator for 5G mmWave Applications. , 2020, , .		18
48	Giant Magneto-Impedance Thin Film Magnetic Sensor. IEEE Transactions on Magnetics, 2013, 49, 3874-3877.	1.2	17
49	Novel Beam Design for Compact RF MEMS Series Switches. , 2007, , .		16
50	A High-Q Quadruple-Mode Rectangular Waveguide Resonator. IEEE Microwave and Wireless Components Letters, 2019, 29, 324-326.	2.0	16
51	A Miniaturized Monolithic PCM Based Scalable Four-Port RF Switch Unit-Cell. , 2019, , .		16
52	Doherty Power Amplifier With Enhanced Efficiency at Extended Operating Average Power Levels. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 4179-4187.	2.9	15
53	Investigation Into Self Actuation Limitation and Current Carrying Capacity of Chalcogenide Phase Change GeTe-Based RF Switches. IEEE Transactions on Electron Devices, 2020, 67, 5717-5722.	1.6	15
54	Miniature Gas Sensor and Sensor Array With Single- and Dual-Mode RF Dielectric Resonators. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 3697-3704.	2.9	14

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55	A Tunable Quarter-Wavelength Coaxial Filter With Constant Absolute Bandwidth Using a Single Tuning Element. IEEE Microwave and Wireless Components Letters, 2021, 31, 658-661.	2.0	14
56	Non-Volatile Multiport DC-30 GHz Monolithically Integrated Phase-Change Transfer Switches. IEEE Electron Device Letters, 2021, 42, 867-870.	2.2	14
57	Experimental Investigation of Thermal Actuation Crosstalk in Phase-Change RF Switches Using Transient Thermoreflectance Imaging. IEEE Transactions on Electron Devices, 2021, 68, 3537-3544.	1.6	14
58	Compact Ridge Waveguide Filters With Arbitrarily Placed Transmission Zeros Using Nonresonating Nodes. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 3354-3361.	2.9	13
59	Diplexer Design Implementing Highly Miniaturized Multilayer Superconducting Hybrids and Filters. IEEE Transactions on Applied Superconductivity, 2009, 19, 47-54.	1.1	13
60	Novel Miniaturized RF MEMS Staircase Switch Matrix. IEEE Microwave and Wireless Components Letters, 2012, 22, 117-119.	2.0	13
61	Monolithic crossbar MEMS switch matrix. , 2008, , .		12
62	Compact reconfigurable waveguide circular polarizer. , 2011, , .		12
63	Design and Evaluation of Flash ADC. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	12
64	Ultra-Compact Phase-Change GeTe-Based Scalable mmWave Latching Crossbar Switch Matrices. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 938-949.	2.9	12
65	Doped poly (2,5-dimethyl aniline) for the detection of ethanol. Journal of Applied Polymer Science, 2015, 132, .	1.3	11
66	Wearable RF Sensor Array Implementing Coupling-Matrix Readout Extraction Technique. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 4157-4168.	2.9	11
67	RF MEMS Based 60 GHz Variable Attenuator. , 2018, , .		11
68	Monolithic MEMS T-type Switch for Redundancy Switch Matrix Applications. , 2008, , .		10
69	Development and Characterization of Multisite Three-Dimensional Microprobes for Deep Brain Stimulation and Recording. Journal of Microelectromechanical Systems, 2011, 20, 1109-1118.	1.7	10
70	A novel varactor tuned dielectric resonator filter. , 2013, , .		10
71	A novel coaxial resonator for high power applications. , 2014, , .		10
72	60 GHz to E-Band Switchable Bandpass Filter. IEEE Microwave and Wireless Components Letters, 2014, 24, 545-547.	2.0	10

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73	Monolithic MEMS T-type Switch for Redundancy Switch Matrix Applications. , 2008, , .		9
74	Monolithically Integrated Multiport RF MEMS Switch Matrices. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 3434-3441.	2.9	9
75	Reconfigurable MEMS-Based BPF for Manifold-Coupled-Superconducting Triplexers. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-8.	1.1	9
76	Contra-Directional Ridge Waveguide Couplers: Design and Applications. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 4966-4975.	2.9	9
77	Harmonic Characterizations of Loaded Resonators for Waveguide Filters. IEEE Transactions on Industrial Electronics, 2021, 68, 5448-5459.	5.2	9
78	A CMOS-MEMS scanning probe microscope with integrated position sensors. , 2008, , .		7
79	Compact ridge waveguide filters using non-resonating nodes. , 2009, , .		7
80	Scalar Measurement-Based Algorithm for Automated Filter Tuning of Integrated Chebyshev Tunable Filters. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 3749-3759.	2.9	7
81	Impedance tuner using BST varactors in alumina-based IPD technology. , 2016, , .		7
82	An Efficient Technique for Tuning and Design of Filters and Diplexers. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 2610-2624.	2.9	7
83	Scalable Non-Volatile Chalcogenide Phase Change GeTe-Based Monolithically Integrated mmWave Crossbar Switch Matrix. , 2021, , .		7
84	Switched Dual-Band SAW Filter Using Vanadium Oxide Switches. , 2021, , .		7
85	Ultra-Wide Suppression Band of Surface Waves Using Periodic Microstrip-Based Structures. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 671-683.	2.9	6
86	Improved distributed mems matching network for low frequency applications using a slow-wave structure. , 2008, , .		6
87	A reconfigurable impedance matching network using dual-beam MEMS switches for an extended operating frequency range. , 2010, , .		6
88	A Dual-Mode Frequency Reconfigurable Waveguide Filter with a Constant Frequency Spacing between Transmission Zeros. , 2020, , .		6
89	Design of Ridge Waveguide Radial Combiners. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 895-906.	2.9	6
90	Switched Dual-Band SAW Filters Using Hybrid and Monolithically Integrated Vanadium Oxide Switches. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 876-885.	2.9	6

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91	Dual-resonance combine resonator for dual-band filters. , 2012, , .		5
92	Multilayer Giant Magneto-Impedance sensor for low field sensing. , 2013, , .		5
93	Multi-layer low temperature superconducting K-band filter and diplexer design. , 2013, , .		5
94	MEMS-based switched-capacitor banks for impedance matching networks. , 2015, , .		5
95	Development of MEMS Reed Magnetic Sensors. IEEE Transactions on Magnetics, 2016, 52, 1-7.	1.2	5
96	Transversal Coupled Triple-Mode Spherical Resonator-Based Bandpass Filters. IEEE Microwave and Wireless Components Letters, 2021, 31, 369-372.	2.0	5
97	Josephson Junctions-Based Low-Temperature Superconducting Phase Shifter for X - and K -Bands Using MIT-LL SFQ5ee Process. IEEE Microwave and Wireless Components Letters, 2022, 32, 692-695.	2.0	5
98	Microwave Tunable Bandpass Filter with MEMS Thermal Actuators. , 2008, , .		4
99	A Novel Via-less Vertical Integration Method for MEMS Scanned Phased Array Modules. , 2008, , .		4
100	Microwave Tunable Bandpass Filter with MEMS Thermal Actuators. , 2008, , .		4
101	Distributed Phase Shifter with Enhanced Variability and Impedance Matching. , 2008, , .		4
102	Reconfigurable amplifier with tunable impedance matching networks based on CMOS-MEMS capacitors in 0.18- μ m CMOS technology. , 2009, , .		4
103	Flexible neural microelectrode arrays reinforced with embedded metallic micro-needles. , 2010, , .		4
104	Piezoresistive Position Sensing for the Detection of Hysteresis and Dielectric Charging in CMOS-MEMS Variable Capacitors. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 3961-3970.	2.9	4
105	Modeling of Frequency Shift in RF-MEMS Switches Under Residual Stress Gradient. , 2018, , .		4
106	An Efficient Technique for Tuning and Design of Wideband Filters. , 2018, , .		4
107	Contra-Directional 3dB 90° Hybrid Coupler in Ridge Waveguides Using Even and Odd TE Modes. , 2019, , .		4
108	Millimeter-Wave Ultra Wideband Multilayer Superconducting Filter. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	4

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109	Low temperature superconductive tunable bandstop resonators and filters. , 2010, , .		3
110	A novel MEMS-based tunable dielectric resonator filter. , 2011, , .		3
111	MEMS multiport switches and switch matrices for satellite applications. , 2012, , .		3
112	Single-pole multiple-throw waveguide switch for twelve output ports (SP12T)., 2014, , .		3
113	Dual-band ridge waveguide filters for high-selectivity wireless base station applications. International Journal of RF and Microwave Computer-Aided Engineering, 2016, 26, 703-712.	0.8	3
114	Post-Processed Thin-Film GMI Magnetic Sensors. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	3
115	A 3-D Finite-Element Analysis of Giant Magnetoimpedance Thin-Film Magnetic Sensors. IEEE Transactions on Magnetics, 2016, 52, 1-8.	1.2	3
116	Characterization of a Wafer-Level Packaged Au~Ru/AlCu Contact for Micro-Switches. Journal of Microelectromechanical Systems, 2022, 31, 700-711.	1.7	3
117	A parallel-plate MEMS variable capacitor with vertical thin-film comb actuators. , 2007, , .		2
118	A parallel-plate MEMS variable capacitor with vertical thin-film comb actuators. , 2007, , .		2
119	Compact wide-band ridge waveguide dual-band filters. , 2010, , .		2
120	Integration of ridge waveguide filter in printed circuit board. , 2010, , .		2
121	Single-pole six-throw waveguide switch embedded in a seven port loaded junction. , 2013, , .		2
122	Miniaturized Superconducting K-Band Bandpass Filter. IEEE Transactions on Applied Superconductivity, 2013, 23, 1500404-1500404.	1.1	2
123	A novel latching RF MEMS phase shifter. , 2014, , .		2
124	A novel latching RF MEMS phase shifter. , 2014, , .		2
125	A high power latching RF MEMS capacitors bank. , 2015, , .		2
126	An Efficient EM-Based Synthesis Technique for Single-Band and Dual-Band Waveguide Filters. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 1687-1692.	1.9	2

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127	Modeling and Design of Resistor Ladder Network for High Frequency Superconductor Flash ADC. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-4.	1.1	2
128	Millimeter-Wave Ultra-Wide Band Superconductor Contiguous Triplexer. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-6.	1.1	2
129	Tunable filters with a constant bandwidth. , 2004, , .		1
130	Compact four-port rectangular waveguide switches based on simple short circuit loads. , 2011, , .		1
131	A novel micro-fabrication process for integration of Superconductor niobium-based RF circuits with gold-based RF MEMS devices. , 2014, , .		1
132	Compact Ridge Waveguide Gysel Combiner. , 2018, , .		1
133	Analysis of Aluminum Nitride Resonators and Filters Over Temperature and Under High Power. , 2019, , .		1
134	VO ₂ -based Transmit/Receive Switch. , 2021, , .		1
135	Extremely Wide-Band Ridge Waveguide Radial Combiners. , 2021, , .		1
136	Modeling, design and analysis of the two movable plate nitride loaded MEMS variable capacitor. , 2004, , .		0
137	Pattern diversity using a single dielectric resonator antenna. , 2008, , .		0
138	A Fully Coupled Finite Element Formulation for Multi-Physics Micro Domains. , 2008, , .		0
139	Nanometer-length characterization with CMOS-MEMS scanning microwave microscopes. , 2017, , .		0
140	Realizing reconfigurable stub impedance matching networks using MEMS switches. , 2017, , .		0
141	Reconfigurable and Scalable Monolithic Band Reject Circuit Utilizing Phase-Change Switch Matrices. , 2022, , .		0