Adrian Porch

List of Publications by Year
in descending order

135 papers	3,115 citations	186265 28 h-index	197818 49 g-index
135 all docs	135 docs citations	135 times ranked	2919 citing authors

#	Article	IF	Citations
1	The influence of solvent composition on the coordination environment of the Co/Mn/Br based para-xylene oxidation catalyst as revealed by EPR and ESEEM spectroscopy. Catalysis Science and Technology, 2022, 12, 5274-5280.	4.1	1
2	Multiâ€resonators, microwave microfluidic sensor for liquid characterization. Microwave and Optical Technology Letters, 2021, 63, 1042-1047.	1.4	13
3	Liftoff Dielectric Resonator for the Microwave Surface Resistance Measurement of Metal Plates. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	4.7	7
4	Microwaves in Chemistry. IEEE Journal of Microwaves, 2021, 1, 32-42.	6.5	5
5	Measurement Technique for Microwave Surface Resistance of Additive Manufactured Metals. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 189-197.	4.6	11
6	Effect of Build Orientation and Laser Power on Microwave Loss in Metal Additive Manufactured Components. IEEE Access, 2021, 9, 44514-44520.	4.2	4
7	Superalkaliâ€“Alkalide Interactions and Ion Pairing in Low-Polarity Solvents. Journal of the American Chemical Society, 2021, 143, 3934-3943.	13.7	17
8	Simultaneous neutron powder diffraction and microwave characterisation at elevated temperatures. Physical Chemistry Chemical Physics, 2021, 23, 23602-23609.	2.8	0
9	High Q Microwave Microfluidic Sensor Using a Central Gap Ring Resonator. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 1830-1838.	4.6	24
10	A novel dual mode X-band EPR resonator for rapid in situ microwave heating. Journal of Magnetic Resonance, 2020, 310, 106644.	2.1	7
11	Dry heat and microwave-generated steam protocols for the rapid decontamination of respiratory personal protective equipment in response to COVID-19-related shortages. Journal of Hospital Infection, 2020, 106, 10-19.	2.9	48
12	Dielectric Spectroscopy of Hydrogen-Treated Hexagonal Boron Nitride Ceramics. ACS Applied Electronic Materials, 2020, 2, 1193-1202.	4.3	5
13	The biological effect of 2.45â€‰GHz microwaves on the viability and permeability of bacterial and yeast cells. Journal of Applied Physics, 2020, 127, .	2.5	6
14	Evaluating the coefficient of thermal expansion of additive manufactured AlSi10Mg using microwave techniques. Additive Manufacturing, 2019, 30, 100841.	3.0	15
15	A Novel VHF Heating System to Aid Selective Laser Melting. , 2019, , .		0
16	Model of microwave effects on bacterial spores. Journal of Applied Physics, 2019, 125, .	2.5	7
17	Microwave cavity perturbation of nitrogen doped nano-crystalline diamond films. Carbon, 2019, 145, 740-750.	10.3	19
18	Temperature Correction Using Degenerate Modes for Cylindrical Cavity Perturbation Measurements. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 800-805.	4.6	5

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19	Bioluminescence of Vibrio fischeri: bacteria respond quickly and sensitively to pulsed microwave electric (but not magnetic) fields. Journal of Biomedical Optics, 2019, 24, 1.	2.6	9
20	Microwave Permittivity of Trace sp² Carbon Impurities in Sub-Micron Diamond Powders. ACS Omega, 2018, 3, 2183-2192.	3.5	7
21	Split ring resonator with optimised sensitivity for microfluidic sensing. Sensors and Actuators A: Physical, 2018, 276, 1-10.	4.1	40
22	Simultaneous neutron powder diffraction and microwave dielectric studies of ammonia absorption in metalâ€“organic framework systems. Physical Chemistry Chemical Physics, 2018, 20, 10460-10469.	2.8	7
23	Particle size characterisation of metals powders for Additive Manufacturing using a microwave sensor. Powder Technology, 2018, 327, 536-543.	4.2	11
24	Novel Variable Coupling Technique for Microwave Liquid Heating and Sensing. , 2018, , .		1
25	Rapid, non-invasive characterization of the dispersity of emulsionsviamicrowaves. Chemical Science, 2018, 9, 6975-6980.	7.4	4
26	A Compact Microwave Microfluidic Sensor Using a Re-Entrant Cavity. Sensors, 2018, 18, 910.	3.8	35
27	Double Microstrip Microfluidic Sensor for Temperature Correction of Liquid Characterization. IEEE Microwave and Wireless Components Letters, 2018, 28, 735-737.	3.2	17
28	Microwave Noninvasive Blood Glucose Monitoring Sensor: Penetration Depth and Sensitivity Analysis. , 2018, , .		5
29	Microwave Cavity Perturbation Studies on H-form and Cu Ion-Exchanged SCR Catalyst Materials: Correlation of Ammonia Storage and Dielectric Properties. Topics in Catalysis, 2017, 60, 243-249.	2.8	19
30	Dual Mode Microwave Microfluidic Sensor for Temperature Variant Liquid Characterization. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 2572-2582.	4.6	41
31	Temperature Correction for Cylindrical Cavity Perturbation Measurements. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 2153-2161.	4.6	15
32	Measurement of average particle size in metal powders by microwave cavity perturbation in the magnetic field. Sensors and Actuators A: Physical, 2017, 259, 137-143.	4.1	7
33	Dual feeding cavity resonator for efficiency enhancement in liquid heating applications. Electronics Letters, 2017, 53, 1262-1264.	1.0	2
34	Continuous and scalable polymer capsule processing for inertial fusion energy target shell fabrication using droplet microfluidics. Scientific Reports, 2017, 7, 6302.	3.3	15
35	Effect of Surface Stresses on Microwave Surface Resistance and Its Impact for Cavity Perturbation Measurements. IEEE Microwave and Wireless Components Letters, 2017, 27, 939-941.	3.2	4
36	Corrections to â€œTemperature Correction for Cylindrical Cavity Perturbation Measurementsâ€•[Jun 17 2153-2161]. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 5078-5078.	4.6	1

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37	Effect of build orientation and surface finish on surface resistance in microwave components produced by Selective Laser Melting. , 2017, , .		8
38	Monitoring changes in microwave absorption of Ti64 powder during microwave sintering. , 2017, , .		1
39	Microwave noninvasive blood glucose monitoring sensor: Human clinical trial results. , 2017, , .		35
40	What the deep sea can tell us about microwaves. , 2016, , .		2
41	The separated electric and magnetic field responses of luminescent bacteria exposed to pulsed microwave irradiation. Applied Physics Letters, 2016, 109, .	3.3	7
42	Simultaneous neutron diffraction and microwave dielectric characterisation of ammine materials â€“ a non-destructive, non-contact characterisation tool for determining ammonia content in solids. Physical Chemistry Chemical Physics, 2016, 18, 23340-23347.	2.8	4
43	Dielectric properties of aqueous glucose solutions using microwave cavity and coaxial probe. , 2016, , .		5
44	Study of the magnetite to maghemite transition using microwave permittivity and permeability measurements. Journal of Physics Condensed Matter, 2016, 28, 106002.	1.8	73
45	Investigating the Broadband Microwave Absorption of Nanodiamond Impurities. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 4110-4118.	4.6	22
46	Modelling and Measurements of the Microwave Dielectric Properties of Microspheres. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 4492-4500.	4.6	23
47	Adaptive Coupling of Resonators for Efficient Microwave Heating of Microfluidic Systems. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 3681-3690.	4.6	16
48	A non-invasive microwave method for assessing solid-state ammonia storage. Sensors and Actuators B: Chemical, 2015, 210, 726-730.	7.8	10
49	Design and In Vitro Interference Test of Microwave Noninvasive Blood Glucose Monitoring Sensor. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 3016-3025.	4.6	204
50	Microstrip split ring resonator for microsphere detection and characterization. , 2015, , .		8
51	Microwave determination of sp2 carbon fraction in nanodiamond powders. Carbon, 2015, 81, 174-178.	10.3	32
52	Ammonia storage studies on H-ZSM-5 zeolites by microwave cavity perturbation: correlation of dielectric properties with ammonia storage. Journal of Sensors and Sensor Systems, 2015, 4, 263-269.	0.9	39
53	Real-time measurements of size, speed, and dielectric property of liquid segments using a microwave microfluidic sensor. , 2014, , .		17
54	Design of continuous non-invasive blood glucose monitoring sensor based on a microwave split ring resonator. , 2014, , .		15

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55	Improved Split-Ring Resonator for Microfluidic Sensing. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 689-699.	4.6	93
56	A Laboratory Test Setup for in Situ Measurements of the Dielectric Properties of Catalyst Powder Samples under Reaction Conditions by Microwave Cavity Perturbation: Set up and Initial Tests. Sensors, 2014, 14, 16856-16868.	3.8	47
57	A novel concentration detection method of hydrogen peroxide using microwave cavity perturbation technique. , 2014, , .		2
58	Microwave complex permeability of magnetite using non-demagnetising and demagnetising cavity modes. , 2014, , .		5
59	Unusual microwave response and bulk conductivity of very thin FeSe0.3Te0.7 films as a function of temperature. Low Temperature Physics, 2014, 40, 492-499.	0.6	12
60	Muon studies of Li⁺ diffusion in LiFePO₄ nanoparticles of different polymorphs. Journal of Materials Chemistry A, 2014, 2, 6238-6245.	10.3	50
61	Novel Microwave Microfluidic Sensor Using a Microstrip Split-Ring Resonator. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 679-688.	4.6	185
62	Microwave absorption in powders of small conducting particles for heating applications. Physical Chemistry Chemical Physics, 2013, 15, 2757.	2.8	42
63	Microfluidic Microwave Sensor for Simultaneous Dielectric and Magnetic Characterization. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 234-243.	4.6	19
64	Efficient microwave heating of microfluidic systems. Sensors and Actuators B: Chemical, 2013, 181, 904-909.	7.8	26
65	Microwave properties of nanodiamond particles. Applied Physics Letters, 2013, 102, .	3.3	54
66	Microwave treatment in oil refining. Applied Petrochemical Research, 2012, 2, 37-44.	1.3	38
67	Microfluidic device for compositional analysis of solvent systems at microwave frequencies. Sensors and Actuators B: Chemical, 2012, 169, 213-221.	7.8	36
68	Microwave characterisation of carbon nanotube powders. Nanoscale Research Letters, 2012, 7, 429.	5.7	8
69	The Mott transition and optimal performance of transparent conducting oxides in thin-film solar cells. Energy and Environmental Science, 2012, 5, 5387-5391.	30.8	18
70	Novel Coupling Structure for the Resonant Coaxial Probe. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 1699-1708.	4.6	15
71	An active, non-intrusive, high resolution microwave field probe with applications in high power RF device and circuit design. , 2010, , .		11
72	Lumped Element Kinetic Inductance Detectors. Journal of Low Temperature Physics, 2008, 151, 530-536.	1.4	207

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73	Microwave properties of platinum nanoparticle films. , 2008, , .		3
74	Lumped element kinetic inductance detectors for far-infrared astronomy. , 2008, , .		16
75	FIELD AND THERMIONIC FIELD TRANSPORT IN ALUMINIUM GALLIUM ARSENIDE HETEROJUNCTION BARRIERS. International Journal of High Speed Electronics and Systems, 2007, 17, 39-42.	0.7	0
76	A Lumped Element Kinetic Inductance device for detection of THz radiation. , 2007, , .		6
77	Monte Carlo simulation of indium tin oxide current spreading layers in light emitting diodes. Thin Solid Films, 2007, 515, 8660-8663.	1.8	3
78	Field and thermionic-field transport in GaAs/AlGaAs/GaAs heterojunction barriers. Physica Status Solidi (B): Basic Research, 2007, 244, 685-698.	1.5	1
79	Kinetic inductance detectors for 200Î¼m astronomy. , 2006, , .		3
80	Microwave properties of Ba0.5Sr0.5TiO3 thin film coplanar phase shifters. Journal of Applied Physics, 2006, 99, 104101.	2.5	50
81	Correlation of structural and linear electromagnetic properties of high-Tcthin films with their nonlinear microwave performance. Superconductor Science and Technology, 2005, 18, 1478-1482.	3.5	2
82	Calculation of the Characteristics of Coplanar Resonators for Kinetic Inductance Detectors. IEEE Transactions on Applied Superconductivity, 2005, 15, 552-555.	1.7	13
83	Effects of Residual Surface Resistance on the Microwave Properties of YBCO Thin Films. IEEE Transactions on Applied Superconductivity, 2005, 15, 3706-3709.	1.7	5
84	Nonlinear microwave properties of highTcthin films. Superconductor Science and Technology, 2005, 18, R24-R49.	3.5	31
85	Compact, narrow bandwidth, lumped element bandstop resonators. IEEE Microwave and Wireless Components Letters, 2005, 15, 524-526.	3.2	10
86	Electromagnetic absorption in transparent conducting films. Journal of Applied Physics, 2004, 95, 4734-4737.	2.5	71
87	Transparent current spreading layers for optoelectronic devices. Journal of Applied Physics, 2004, 96, 4211-4218.	2.5	30
88	Meissnerâ€“Ochsenfeld superconducting anomalies in the Beâ€“Agâ€“F system. Solid State Communications, 2004, 130, 137-142.	1.9	19
89	Rubidium doped zeolite rho: structure and microwave conductivity of a metallic zeolite. Dalton Transactions, 2004, , 3122.	3.3	11
90	Microwave and modulated optical reflectance studies of YBCO thin films. IEEE Transactions on Applied Superconductivity, 2003, 13, 3638-3642.	1.7	3

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91	Anomalies in nonlinear microwave surface impedance of YBCO thin films on MgO: superconductor versus substrate effects. IEEE Transactions on Applied Superconductivity, 2003, 13, 3598-3601.	1.7	4
92	Microwave enhanced reaction of carbohydrates with amino-derivatised labels and glass surfaces. Journal of Materials Chemistry, 2003, 13, 2061.	6.7	41
93	Temperature and magnetic field effects on microwave intermodulation in YBCO films. IEEE Transactions on Applied Superconductivity, 2003, 13, 3581-3584.	1.7	8
94	Can Alkali Metal Doped Zeolites be Metallic? â€“ Microwave Conductivity of Rubidium Doped Zeolite Rho. Zeitschrift Fur Physikalische Chemie, 2003, 217, 939-956.	2.8	5
95	Anomalous features in surface impedance of Y-Ba-Cu-O thin films: dependence on frequency, RF and DC fields. IEEE Transactions on Applied Superconductivity, 2001, 11, 3497-3500.	1.7	7
96	The Low Temperature Microwave Properties of GdBa2Cu3O7â^'Î´ and Sr2RuO4. Journal of Superconductivity and Novel Magnetism, 2001, 14, 73-79.	0.5	6
97	Phenomenological model of the nonlinear microwave response of a superconductor containing weak links. Physical Review B, 2001, 63, .	3.2	13
98	Rapid synthesis of colossal magnetoresistance manganites by microwave dielectric heating. Chemical Communications, 2000, , 159-160.	4.1	34
99	Modulated optical reflectance characterization of high temperature superconducting thin film microwave devices. Journal of Applied Physics, 2000, 87, 8628-8635.	2.5	14
100	Microstructure and RF property correlation in HTS films. IEEE Transactions on Applied Superconductivity, 1999, 9, 2175-2178.	1.7	3
101	The nonlinear surface impedance of YBa2Cu3O7â^'Î´ thin films in zero and large applied fields. Journal of Applied Physics, 1999, 86, 2137-2145.	2.5	28
102	Measurements and modeling of HTS shielded dielectric resonators. IEEE Transactions on Applied Superconductivity, 1999, 9, 1928-1931.	1.7	10
103	Non-linear microwave surface impedance of epitaxial HTS thin films in low DC magnetic fields. IEEE Transactions on Applied Superconductivity, 1999, 9, 2121-2124.	1.7	12
104	The synthesis, solid state conductivity and X-ray crystal structure of 558, 147-153.	1.8	9
105	Thin-film ferroelectric microwave devices. Superconductor Science and Technology, 1998, 11, 1323-1334.	3.5	216
106	Unusual features in the nonlinear microwave surface impedance of Y-Ba-Cu-O thin films. Physical Review B, 1998, 58, 11189-11192.	3.2	23
107	Field, temperature, and frequency dependence of the surface impedance ofYBa2Cu3O7thin films. Physical Review B, 1998, 57, 5474-5484.	3.2	28
108	Two-fluid interpretation of the microwave conductivity ofYBa2Cu3O7â^'Î´. Physical Review B, 1997, 55, 3222-3229.	3.2	23

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109	Synthesis, structure, and properties of the high-temperature superconductorHgBa2CuO4+Î´. Physical Review B, 1997, 55, 12776-12776.	3.2	10
110	Sensitive measurement of the surface impedance of superconducting single crystals using a sapphire dielectric resonator. IEEE Transactions on Applied Superconductivity, 1997, 7, 2009-2012.	1.7	16
111	Structure and Electronic Properties of Potassium-Loaded Zeolite L. Journal of Physical Chemistry B, 1997, 101, 9892-9900.	2.6	29
112	Microwave applications of high-temperature superconductors. Current Opinion in Solid State and Materials Science, 1997, 2, 11-17.	11.5	1
113	Matrix-Bound Nanochemical Possibilities. Chemistry of Materials, 1996, 8, 2114-2120.	6.7	16
114	Dielectric resonator measurements of Zs on HTS crystals in high dc magnetic fields. European Physical Journal D, 1996, 46, 1087-1088.	0.4	0
115	Microwave surface impedance of YBCO thin films in DC applied fields. European Physical Journal D, 1996, 46, 1089-1090.	0.4	3
116	Can we synthesise a dense bundle of quasi one-dimensional metallic wires?. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 217-218, 198-202.	5.6	16
117	Miniature superconducting filters. IEEE Transactions on Microwave Theory and Techniques, 1996, 44, 1339-1346.	4.6	55
118	The coplanar resonator technique for determining the surface impedance of YBa/sub 2/Cu/sub 3/O/sub 7-Î´/ thin films. IEEE Transactions on Microwave Theory and Techniques, 1995, 43, 306-314.	4.6	84
119	Microwave properties of YBCO thin films. IEEE Transactions on Applied Superconductivity, 1995, 5, 1737-1740.	1.7	22
120	Microwave conductivity of patterned YBa/sub 2/Cu/sub 3/O/sub 7/ thin films. IEEE Transactions on Applied Superconductivity, 1995, 5, 1987-1990.	1.7	8
121	Switched YBa2Cu3O7 lumped element bandstop filter. Electronics Letters, 1995, 31, 985-986.	1.0	15
122	Magnetic susceptibilities, critical fields, and critical currents of Co- and Zn-dopedYBa2Cu3O7. Physical Review B, 1994, 49, 1417-1426.	3.2	49
123	Microwave surface impedance of patterned YBa2Cu3O7 thin films. Physica B: Condensed Matter, 1994, 194-196, 1605-1606.	2.7	5
124	Possible coherence peak in the microwave conductivity of YBa2Cu3O7. Physica B: Condensed Matter, 1994, 194-196, 1607-1608.	2.7	1
125	Measurement of the microwave conductivities of high-Tc superconducting powders. Physica C: Superconductivity and Its Applications, 1994, 232, 189-198.	1.2	15
126	Temperature dependent magnetic penetration depth of Co and Zn doped YBa2Cu3O7 obtained from the AC susceptibility of magnetically aligned powders. Physica C: Superconductivity and Its Applications, 1993, 214, 350-358.	1.2	74

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127	Non-linear microwave surface impedance of patterned YBa2Cu3O7 thin films. Journal of Alloys and Compounds, 1993, 195, 563-566.	5.5	18
128	Microwave surface impedance of a Bi/sub 2/Sr/sub 2/CaCu/sub 2/O/sub 8/ single crystal and derivation of rho /sub c/(T,B). IEEE Transactions on Applied Superconductivity, 1993, 3, 1442-1445.	1.7	6
129	Surface impedance measurements of YBa/sub 2/Cu/sub 3/O/sub 7/ thin films using coplanar resonators. IEEE Transactions on Applied Superconductivity, 1993, 3, 1719-1722.	1.7	16
130	High temperature superconductor lumped element resonator. Electronics Letters, 1993, 29, 1728.	1.0	9
131	Microwave resonators incorporating ceramic YBaCuO helices. IEEE Transactions on Magnetics, 1991, 27, 2948-2951.	2.1	5
132	A study of the structural series in the Tlî—¸Caî—¸Baî—¸Cuî—¸O superconducting system. Journal of Solid State Chemistry, 1990, 88, 193-200.	2.9	7
133	Microwave measurements of powdered YBa2Cu3O7-Î´. Journal of Physics F: Metal Physics, 1988, 18, 1547-1562.	1.6	20
134	Surface impedance measurements of superconducting YBa2Cu3O6+x. Journal of Physics F: Metal Physics, 1987, 17, L179-L183.	1.6	29
135	Design Considerations of a Dual Mode X-Band EPR Resonator for Rapid In-Situ Microwave Heating. Applied Magnetic Resonance, 0, , 1.	1.2	2