

# Neil McN Alford

## List of Publications by Year in descending order

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80  
papers

4,256  
citations

136950

32  
h-index

110387

64  
g-index

80  
all docs

80  
docs citations

80  
times ranked

4225  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tunable double epsilon-near-zero behavior in niobium oxynitride thin films. Applied Surface Science, 2021, 569, 150912.	6.1	1
2	Perspective on room-temperature solid-state masers. Applied Physics Letters, 2021, 119, .	3.3	7
3	Plasmon-Enhanced Electron Harvesting in Robust Titanium Nitride Nanostructures. Journal of Physical Chemistry C, 2019, 123, 18521-18527.	3.1	23
4	Quantifying Figures of Merit for Localized Surface Plasmon Resonance Applications: A Materials Survey. ACS Photonics, 2019, 6, 240-259.	6.6	93
5	Direct measurement of electrocaloric effect in lead-free (Na <sub>0.5</sub> Bi <sub>0.5</sub> )TiO <sub>3</sub> -based multilayer ceramic capacitors. Journal of the European Ceramic Society, 2019, 39, 3315-3319.	5.7	21
6	Continuous-wave room-temperature diamond maser. Nature, 2018, 555, 493-496.	27.8	117
7	Temperature stability of thin film refractory plasmonic materials. Optics Express, 2018, 26, 15726.	3.4	34
8	Multiphase strontium molybdate thin films for plasmonic local heating applications. Optical Materials Express, 2018, 8, 1806.	3.0	7
9	Optimisation of SrBi <sub>2</sub> (Nb,Ta)O <sub>9</sub> Aurivillius phase for lead-free electrocaloric cooling. Journal of the European Ceramic Society, 2018, 38, 5354-5358.	5.7	14
10	Room-temperature cavity quantum electrodynamics with strongly coupled Dicke states. Npj Quantum Information, 2017, 3, .	6.7	26
11	Titanium Oxynitride Thin Films with Tunable Double Epsilon-Near-Zero Behavior for Nanophotonic Applications. ACS Applied Materials & Interfaces, 2017, 9, 29857-29862.	8.0	91
12	Tunable, Low Optical Loss Strontium Molybdate Thin Films for Plasmonic Applications. Advanced Optical Materials, 2017, 5, 1700622.	7.3	24
13	Nanosecond time-resolved characterization of a pentacene-based room-temperature MASER. Scientific Reports, 2017, 7, 41836.	3.3	22
14	Electrocaloric effect in lead-free Aurivillius relaxor ferroelectric ceramics. Acta Materialia, 2017, 124, 120-126.	7.9	63
15	Solid-state source of intense yellow light based on a Ce:YAG luminescent concentrator. Optics Express, 2017, 25, 13714.	3.4	33
16	Formation of V-grooves in SrRuO <sub>3</sub> epitaxial film. Journal of Crystal Growth, 2016, 455, 13-18.	1.5	0
17	Electrocaloric enhancement near the morphotropic phase boundary in lead-free NBT-KBT ceramics. Applied Physics Letters, 2015, 107, .	3.3	102
18	Enhanced magnetic Purcell effect in room-temperature masers. Nature Communications, 2015, 6, 6215.	12.8	45

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19	STO/BTO Modulated Superlattice Multilayer Structures with Atomically Sharp Interfaces. <i>Advanced Materials Interfaces</i> , 2014, 1, 1300116.	3.7	6
20	Selective normal mode excitation in multilayer thin film bulk acoustic wave resonators. <i>Applied Physics Letters</i> , 2014, 105, 162910.	3.3	3
21	Effect of Ce doping on the electrocaloric effect of $Sr_xBa_{1-x}Nb_2O_6$ single crystals. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	26
22	A reversible water electrolyser with porous PTFE based OH <sup>-</sup> conductive membrane as energy storage cells. <i>Journal of Power Sources</i> , 2014, 246, 225-231.	7.8	36
23	Anisotropy of the Electrocaloric Effect in Lead-Free Relaxor Ferroelectrics. <i>Advanced Energy Materials</i> , 2014, 4, 1301688.	19.5	63
24	High-temperature conductivity evaluation of Nb doped SrTiO <sub>3</sub> thin films: Influence of strain and growth mechanism. <i>Thin Solid Films</i> , 2013, 539, 384-390.	1.8	8
25	Growth mechanism and magnetism of CoFe <sub>2</sub> O <sub>4</sub> thin films; Role of the substrate. <i>Journal of Alloys and Compounds</i> , 2013, 578, 286-291.	5.5	14
26	SrRuO <sub>3</sub> thin films grown on MgO substrates at different oxygen partial pressures. <i>Journal of Materials Research</i> , 2013, 28, 702-707.	2.6	6
27	Optical characteristics of silicon nanowires grown from tin catalyst layers on silicon coated glass. <i>Optics Express</i> , 2012, 20, 20266.	3.4	5
28	Anomalous resistive switching phenomenon. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	16
29	Electrocaloric temperature change constrained by the dielectric strength. <i>Materials Chemistry and Physics</i> , 2012, 136, 277-280.	4.0	48
30	Direct and indirect electrocaloric measurements on $\text{PbMg}_{1/3}\text{Nb}_{2/3}\text{O}_3\text{-}30\text{PbTiO}_3$ single crystals. <i>Journal of Applied Physics</i> , 2012, 111, .	2.5	165
31	MEASUREMENT OF ZIGBEE WIRELESS COMMUNICATIONS IN MODE-STIRRED AND MODE-TUNED REVERBERATION CHAMBER. <i>Progress in Electromagnetics Research M</i> , 2011, 18, 171-178.	0.9	9
32	Dissociation of misfit and threading dislocations in Ba <sub>0.75</sub> Sr <sub>0.25</sub> TiO <sub>3</sub> epitaxial film. <i>Materials Characterization</i> , 2011, 62, 294-297.	4.4	11
33	Quantitative strain analysis and growth mode of pulsed laser deposited epitaxial CoFe <sub>2</sub> O <sub>4</sub> thin films. <i>Acta Materialia</i> , 2011, 59, 514-520.	7.9	22
34	Better than Bragg: Optimizing the quality factor of resonators with aperiodic dielectric reflectors. <i>Applied Physics Letters</i> , 2011, 99, 113515.	3.3	4
35	Statistical mechanical lattice model of the dual-peak electrocaloric effect in ferroelectric relaxors and the role of pressure. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 375404.	2.8	40
36	Temperature and frequency dependence of dielectric loss of Ba(Mg <sub>1/3</sub> Ta <sub>2/3</sub> )O <sub>3</sub> microwave ceramics. <i>Journal of the European Ceramic Society</i> , 2010, 30, 331-334.	5.7	14

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37	Influence of point defects in KTaO <sub>3</sub> on low-temperature dielectric relaxation. Journal of the European Ceramic Society, 2010, 30, 941-946.	5.7	7
38	Chemistry, Processing, and Microwave Dielectric Properties of Mn <sup>2+</sup> -Substituted KTaO <sub>3</sub> Ceramics. Journal of the American Ceramic Society, 2010, 93, 800-805.	3.8	9
39	Scattering of light into silicon by spherical and hemispherical silver nanoparticles. Optics Letters, 2010, 35, 76.	3.3	48
40	Dielectric measurements on a novel Ba <sub>1-x</sub> Ca <sub>x</sub> TiO <sub>3</sub> (BCT) bulk ceramic combinatorial library. Journal of Electroceramics, 2009, 22, 245-251.	2.0	51
41	Do Grain Boundaries Affect Microwave Dielectric Loss in Oxides?. Journal of the American Ceramic Society, 2009, 92, 671-674.	3.8	130
42	Synthesis, Sintering, and Microwave Dielectric Properties of KTaO <sub>3</sub> Ceramics. Journal of the American Ceramic Society, 2009, 92, 1773-1778.	3.8	30
43	Chemistry of post-annealing of epitaxial CoFe <sub>2</sub> O <sub>4</sub> thin films. Thin Solid Films, 2009, 517, 3742-3747.	1.8	21
44	Dielectric loss caused by oxygen vacancies in titania ceramics. Journal of the European Ceramic Society, 2009, 29, 419-424.	5.7	155
45	Influence of octahedral tilting on the microwave dielectric properties of A <sub>3</sub> LaNb <sub>3</sub> O <sub>12</sub> hexagonal perovskites (A=Ba, Sr). Applied Physics Letters, 2009, 94, .	3.3	21
46	DIELECTRIC CONSTANT AND LOSS TANGENT OF THIN FERROELECTRIC FILMS AT MICROWAVE FREQUENCIES—HOW ACCURATELY CAN WE EVALUATE THEM?. Integrated Ferroelectrics, 2008, 97, 27-37.	0.7	2
47	Microscopic theory of the electrocaloric effect in the paraelectric phase of potassium dihydrogen phosphate. Applied Physics Letters, 2008, 93, .	3.3	20
48	Enhanced quality factors in aperiodic reflector resonators. Applied Physics Letters, 2007, 91, .	3.3	10
49	Oxygen transport during formation and decomposition of AgNbO <sub>3</sub> and AgTaO <sub>3</sub> . Journal of Materials Research, 2007, 22, 1650-1655.	2.6	22
50	Dielectric properties characterization of La- and Dy-doped BiFeO <sub>3</sub> thin films. Journal of Materials Research, 2007, 22, 2179-2184.	2.6	15
51	Peculiarities of a Solid-State Synthesis of Multiferroic Polycrystalline BiFeO <sub>3</sub> . Chemistry of Materials, 2007, 19, 5431-5436.	6.7	318
52	Review of Ag(Nb, Ta)O <sub>3</sub> as a functional material. Journal of the European Ceramic Society, 2007, 27, 2549-2560.	5.7	99
53	Microwave dielectric properties of CeO <sub>2</sub> -0.5AO-0.5TiO <sub>2</sub> (A=Ca, Mg, Zn, Mn, Co, Ni, W) ceramics. Journal of the European Ceramic Society, 2007, 27, 3445-3452.	5.7	26
54	Manufacture and measurement of combinatorial libraries of dielectric ceramics. Journal of the European Ceramic Society, 2007, 27, 3861-3865.	5.7	17

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55	Manufacture and measurement of combinatorial libraries of dielectric ceramics. Journal of the European Ceramic Society, 2007, 27, 4437-4443.	5.7	35
56	Quasi-classical fluctuation-dissipation description of dielectric loss in oxides with implications for quantum information processing. International Journal of Quantum Chemistry, 2006, 106, 986-993.	2.0	3
57	Dielectric Properties of the "Twinned" 8H-Hexagonal Perovskite Ba <sub>8</sub> Nb <sub>4</sub> Ti <sub>3</sub> O <sub>24</sub> . Journal of the American Ceramic Society, 2006, 89, 336-339.	3.8	26
58	A mechanism for low-temperature sintering. Journal of the European Ceramic Society, 2006, 26, 2777-2783.	5.7	161
59	Characterization and Microwave Dielectric Properties of M <sub>2</sub> +Nb <sub>2</sub> O <sub>6</sub> Ceramics. Journal of the American Ceramic Society, 2005, 88, 2466-2471.	3.8	153
60	Improved SrTiO <sub>3</sub> thin films using oxygen relaxation technique. Applied Physics Letters, 2005, 87, 222902.	3.3	17
61	Enhanced electrical properties of ferroelectric thin films by ultraviolet radiation. Applied Physics Letters, 2005, 87, 222904.	3.3	14
62	Microwave dielectric loss in oxides: Theory and experiment. Journal of Applied Physics, 2004, 95, 2639-2645.	2.5	33
63	Structure-Property Relations in BaTiO <sub>3</sub> (1-x)La(Mg <sub>1/2</sub> Ti <sub>1/2</sub> )O <sub>3</sub> Solid Solutions. Journal of the American Ceramic Society, 2004, 87, 584-590.	3.8	25
64	Sintering Behaviour of Ba <sub>x</sub> Sr <sub>1-x</sub> TiO <sub>3</sub> . Integrated Ferroelectrics, 2004, 62, 249-252.	0.7	7
65	Microwave dielectric properties of (1-x)CeO <sub>2</sub> -xCaTiO <sub>3</sub> and (1-x)CeO <sub>2</sub> -xSm <sub>2</sub> O <sub>3</sub> ceramics. Journal of the European Ceramic Society, 2004, 24, 2583-2589.	5.7	56
66	Electrical Properties of 6H-BaTi <sub>0.95</sub> M <sub>0.05</sub> O <sub>3</sub> Ceramics where M = Mn, Fe, Co and Ni. Journal of Electroceramics, 2004, 13, 305-309.	2.0	20
67	Evaluation of Residual Stress in Thin Ferroelectric Films Using Grazing Incident X-Ray Diffraction. Integrated Ferroelectrics, 2004, 63, 183-189.	0.7	11
68	Synthesis, Crystal Structure, and Characterization of Ba(Ti <sub>1/2</sub> Mn <sub>1/2</sub> )O <sub>3</sub> : A High Permittivity 12R-Type Hexagonal Perovskite. Chemistry of Materials, 2004, 16, 2007-2015.	6.7	80
69	Relationship between microwave and lattice vibration properties in Ba(Zn <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> -based microwave dielectric ceramics. Journal Physics D: Applied Physics, 2004, 37, 1980-1986.	2.8	61
70	Microwave Dielectric Properties of Gallium-Doped Hexagonal Barium Titanate Ceramics. Journal of the American Ceramic Society, 2003, 86, 511-513.	3.8	50
71	Ultralow loss polycrystalline alumina. Applied Physics Letters, 2002, 81, 5021-5023.	3.3	37
72	Effect of Porosity and Grain Size on the Microwave Dielectric Properties of Sintered Alumina. Journal of the American Ceramic Society, 1997, 80, 1885-1888.	3.8	819

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73	Sintered alumina with low dielectric loss. Journal of Applied Physics, 1996, 80, 5895-5898.	2.5	252
74	Integrated high- $T_c$ multiloop magnetometer. Applied Physics Letters, 1995, 66, 1418-1420.	3.3	58
75	Addendum: Low noise YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> /SrTiO <sub>3</sub> /YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> multilayers for improved superconducting magnetometers [Appl. Phys. Lett. 66, 373 (1995)]. Applied Physics Letters, 1995, 67, 725-726.	3.3	49
76	Low-frequency excess noise in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> dc superconducting quantum interference devices cooled in static magnetic fields. Applied Physics Letters, 1994, 64, 3494-3496.	3.3	52
77	Processing protocols give ceramics the edge. Physics World, 1991, 4, 26-30.	0.0	3
78	Surface resistance of thick film YBa <sub>2</sub> Cu <sub>3</sub> O <sub>x</sub> . Advanced Materials, 1991, 3, 318-320.	21.0	5
79	Contrasting critical currents. Nature, 1990, 345, 292-293.	27.8	1
80	Improved Process for Making Dense Vitreous Silica from Submicrometer Particles by Sintering Near 1000°C. Journal of the American Ceramic Society, 1989, 72, 432-436.	3.8	8