

# Peter K Davies

## List of Publications by Year in descending order

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63  
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docs citations

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times ranked

3939  
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#	ARTICLE	IF	CITATIONS
1	Polarization-Modulated Photovoltaic Effect at the Morphotropic Phase Boundary in Ferroelectric Ceramics. <i>Advanced Electronic Materials</i> , 2021, 7, 2100144.	2.6	8
2	Ferroelectric, Optical, and Photovoltaic Properties of Morphotropic Phase Boundary Compositions in the $\text{PbTiO}_3\text{-BiFeO}_3\text{-Bi}(\text{Ni}_{1/2}\text{Ti}_{1/2})\text{O}_3$ System. <i>Chemistry of Materials</i> , 2019, 31, 4184-4194.	3.2	34
3	Infrared-to-ultraviolet light-absorbing $\text{BaTiO}_3$ -based ferroelectric photovoltaic materials. <i>Journal of the American Ceramic Society</i> , 2019, 102, 4188-4199.	1.9	23
4	Resonant domain-wall-enhanced tunable microwave ferroelectrics. <i>Nature</i> , 2018, 560, 622-627.	13.7	82
5	Structural and ferroelectric phase evolution in $\text{Ba}(\text{Zn}_{1/2}\text{Ti}_{1/2})\text{O}_3$ . <i>Physical Review B</i> , 2017, 96, .	1.1	23
6	Materials Design of Visible-Light Ferroelectric Photovoltaics from First Principles. <i>Ferroelectrics</i> , 2015, 483, 1-12.	0.3	27
7	Reply to 'Nanoscale phase separation in perovskites revisited'. <i>Nature Materials</i> , 2014, 13, 217-218.	13.3	4
8	Semiconducting ferroelectric perovskites with intermediate bands via $\text{BiB}_2\text{-site}$ . <i>Physical Review B</i> , 2014, 90, .	1.1	23
9	Perovskite oxides for visible-light-absorbing ferroelectric and photovoltaic materials. <i>Nature</i> , 2013, 503, 509-512.	13.7	1,110
10	Nanoscale modulations in $(\text{KLa})(\text{CaW})\text{O}_6$ and $(\text{NaLa})(\text{CaW})\text{O}_6$ . <i>Journal of Solid State Chemistry</i> , 2012, 191, 220-224.	1.4	5
11	Pb-free ferroelectrics investigated with density functional theory: $\text{SnAl}_2\text{O}_7$ . <i>Physical Review B</i> , 2011, 84, 040401.	1.1	23
12	Tunable high Q perovskite dielectrics in the $\text{BaO-NiO-Ta}_2\text{O}_5$ system. <i>Journal of Materials Science</i> , 2011, 46, 4715-4718.	1.7	9
13	Multiple dielectric transitions in the $\text{PbTiO}_3\text{-Bi}(\text{Zn}_{1/2}\text{Ti}_{1/2})\text{O}_3\text{-Bi}(\text{Mg}_{1/2}\text{Ti}_{1/2})\text{O}_3$ system. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	10
14	High-Temperature Decomposition of $\text{Ba}(\text{Zn}_{1/2}\text{Ti}_{1/2})\text{O}_3$ -Ordered Perovskite. <i>Journal of the American Ceramic Society</i> , 2010, 93, 758-764.	1.9	9
15	Nanocheckerboard modulations in $(\text{NaNd})(\text{MgW})\text{O}_6$ . <i>Applied Physics Letters</i> , 2010, 97, 123101.	1.5	11
16	Pb-free semiconductor ferroelectrics: A theoretical study of Pd-substituted $\text{Ba}(\text{Zn}_{1/2}\text{Ti}_{1/2})\text{O}_3$ . <i>Physical Review B</i> , 2010, 82, .	1.1	48
17	Spontaneous Compositional Nanopatterning in Li-Containing Perovskite Oxides. <i>Journal of the American Chemical Society</i> , 2008, 130, 17168-17173.	6.6	24
18	Neutron Powder Diffraction of $(\text{Nd}_{7/12}\text{Li}_{1/4})\text{TiO}_3$ Nano-Checkerboard Superlattices. <i>Chemistry of Materials</i> , 2008, 20, 2860-2862.	3.2	26

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19	Nano-chessboard superlattices formed by spontaneous phase separation in oxides. Nature Materials, 2007, 6, 586-591.	13.3	109
20	Influence of Non-Stoichiometry on the Structure and Properties of Ba(Zn <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> Microwave Dielectrics: I. Substitution of Ba <sub>3</sub> W <sub>2</sub> O <sub>9</sub> . Journal of the American Ceramic Society, 2006, 89, 060428035142030-???.	1.9	26
21	Influence of Non-Stoichiometry on the Structure and Properties of Ba(Zn <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> Microwave Dielectrics: II. Compositional Variations in Pure BZN. Journal of the American Ceramic Society, 2006, 89, 060428035142025-???.	1.9	31
22	Influence of Non-Stoichiometry on the Structure and Properties of Ba(Zn <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> Microwave Dielectrics: III. Effect of the Muffling Environment. Journal of the American Ceramic Society, 2006, 89, 060428035142002-???.	1.9	4
23	Influence of Non-Stoichiometry on the Structure and Properties of Ba(Zn <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> Microwave Dielectrics. IV. Tuning tau and the Part Size Dependence of Qxf. Journal of the American Ceramic Society, 2006, 89, 060428035142007-???.	1.9	4
24	Enhanced tetragonality in (x)PbTiO <sub>3</sub> -(1-x)Bi(Ba <sub>2</sub> Ba <sub>3</sub> )O <sub>3</sub> systems: Bi(Zn <sub>3</sub> W <sub>4</sub> )O <sub>3</sub> . Applied Physics Letters, 2006, 89, 132907.	1.5	58
25	Enhanced tetragonality in (x)PbTiO <sub>3</sub> -(1-x)Bi(Zn <sub>1</sub> Ti <sub>2</sub> )O <sub>3</sub> and related solid solution systems. Applied Physics Letters, 2005, 86, 262905.	1.5	242
26	Predicting morphotropic phase boundary locations and transition temperatures in Pb- and Bi-based perovskite solid solutions from crystal chemical data and first-principles calculations. Journal of Applied Physics, 2005, 98, 094111.	1.1	199
27	1:2 Cation order in A(Li <sub>1/3</sub> (Nb,Ta) <sub>2/3</sub> )O <sub>3</sub> microwave perovskites. Applied Physics Letters, 2004, 84, 1347-1349.	1.5	8
28	A <sub>A</sub> Site and B <sub>B</sub> Site Order in (Na <sub>1/2</sub> La <sub>1/2</sub> )(Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> Perovskite. Journal of the American Ceramic Society, 2004, 87, 859-863.	1.9	15
29	Effect of V <sub>2</sub> O <sub>5</sub> Doping on the Sintering and Dielectric Properties of Li <sub>1+x</sub> Nb <sub>1-x</sub> Ti <sub>3+y</sub> O <sub>3</sub> M-Phase Ceramics. Journal of the American Ceramic Society, 2004, 87, 1047-1052.	1.9	70
30	Ordered perovskites in the A <sub>2</sub> +(Li <sub>1/4</sub> Nb <sub>3/4</sub> )O <sub>3</sub> -(A <sub>2</sub> +Sr, Ca) systems. Journal of Solid State Chemistry, 2004, 177, 4305-4315.	1.4	10
31	Non-stoichiometric 1:2 ordered perovskites in the Ba(Li <sub>1/4</sub> Nb <sub>3/4</sub> )O <sub>3</sub> -(Ba(Li <sub>2/5</sub> W <sub>3/5</sub> )O <sub>3</sub> ) system. Journal of Solid State Chemistry, 2004, 177, 3469-3478.	1.4	13
32	Structure and Dielectric Properties of Pb(Sc <sub>2/3</sub> W <sub>1/3</sub> )O <sub>3</sub> -(Pb(Zr/Ti)O <sub>3</sub> ) Relaxors. Journal of the American Ceramic Society, 2004, 87, 2086-2092.	1.9	18
33	Influence of Cation Order on the Dielectric Properties of Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> -Pb(Sc <sub>1/2</sub> Nb <sub>1/2</sub> )O <sub>3</sub> (PMN-PSN) Relaxor Ferroelectrics. Journal of the American Ceramic Society, 2003, 86, 1861-1866.	1.9	45
34	Correlations between the Structure and Dielectric Properties of Pb(Sc <sub>2/3</sub> W <sub>1/3</sub> )O <sub>3</sub> - Pb(Ti/Zr)O <sub>3</sub> Relaxors. AIP Conference Proceedings, 2003, , .	0.3	0
35	Cation Ordering in Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> ?Pb(Sc <sub>1/2</sub> Nb <sub>1/2</sub> )O <sub>3</sub> (PMN?PSN) Solid Solutions. Journal of the American Ceramic Society, 2002, 85, 2319-2324.	1.9	38
36	Synthesis and Dielectric Properties of Li <sub>1-x+y</sub> Ta <sub>1-x-3y</sub> Ti <sub>x+4y</sub> O <sub>3</sub> M-Phase Solid Solutions. Journal of the American Ceramic Society, 2002, 85, 2487-2491.	1.9	33

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37	Crystalline Structure and Dielectric Properties of $\text{Li}_{1+x}\text{Nb}_2\text{O}_7\text{Ti}_{1-x}\text{O}_3$ $\text{MgO}$ Phase Solid Solutions. Journal of the American Ceramic Society, 2002, 85, 573-578.		
38	Potential and Impedance Imaging of Polycrystalline $\text{BiFeO}_3$ Ceramics. Journal of the American Ceramic Society, 2002, 85, 3011-3017.	1.9	83
39	Analysis of phase distributions in the $\text{Li}_2\text{O}-\text{Nb}_2\text{O}_5-\text{TiO}_2$ system by piezoresponse imaging. Journal of Materials Research, 2001, 16, 329-332.	1.2	8
40	Thermally Induced Coarsening of the Chemically Ordered Domains in $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ (PMN)-Based Relaxor Ferroelectrics. Journal of the American Ceramic Society, 2000, 83, 119-23.	1.9	44
41	Crystal Chemistry and Dielectric Properties of Chemically Substituted $(\text{Bi}_{1.5}\text{Zn}_{1.0}\text{Nb}_{1.5})\text{O}_7$ and $(\text{Bi}_2(\text{Zn}_{2/3}\text{Nb}_{4/3}))\text{O}_7$ Pyrochlores. Journal of the American Ceramic Society, 2000, 83, 147-53.	1.9	158
42	Growth of the chemically ordered domains in PMN-type relaxor ferroelectrics. Ferroelectrics, 1999, 221, 27-36.	0.3	17
43	1:1 Ordered Domain Growth in $\text{Pb}(\text{Mg}_{1/3}\text{Ta}_{2/3})\text{O}_3-\text{La}(\text{Mg}_{2/3}\text{Ta}_{1/3})\text{O}_3$ Relaxor Ferroelectric Perovskites. Journal of the American Ceramic Society, 1999, 82, 3481-3484.	1.9	19
44	Ordering-Induced Microstructures and Microwave Dielectric Properties of the $\text{Ba}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3-\text{BaZrO}_3$ System. Journal of the American Ceramic Society, 1998, 81, 670-676.	1.9	158
45	Structure and Dielectric Properties of the $\text{Ba}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3-\text{La}(\text{Mg}_{2/3}\text{Nb}_{1/3})\text{O}_3$ System. Journal of the American Ceramic Society, 1998, 81, 2205-2208.		42
46	Cation Ordering Transformations in the $\text{Ba}(\text{Zn}_{1/3}\text{Nb}_{2/3})\text{O}_3-\text{La}(\text{Zn}_{2/3}\text{Nb}_{1/3})\text{O}_3$ System. Journal of the American Ceramic Society, 1998, 81, 1061-1064.		43
47	Processing and characterization of lead magnesium tantalate ceramics. Journal of Materials Research, 1997, 12, 2617-2622.	1.2	51
48	Domain Growth in $\text{Pb}(\text{Mg}_{1/3}\text{Ta}_{2/3})\text{O}_3$ Perovskite Relaxor Ferroelectric Oxides. Journal of the American Ceramic Society, 1997, 80, 2933-2936.	1.9	161
49	Effect of Ordering-Induced Domain Boundaries on Low Loss $\text{Ba}(\text{Zn}_{1/3}\text{Ta}_{2/3})\text{O}_3-\text{BaZrO}_3$ Perovskite Microwave Dielectrics. Journal of the American Ceramic Society, 1997, 80, 1727-1740.	1.9	282
50	Formation and Structural Characterization of 1:1 Ordered Perovskites in the $\text{Ba}(\text{Zn}_{1/3}\text{Ta}_{2/3})\text{O}_3-\text{BaZrO}_3$ System. Journal of the American Ceramic Society, 1997, 80, 3193-3198.	1.9	64
51	Nonequilibrium Phase Formation in Oxides Prepared at Low Temperature: Fergusonite-Related Phases. Journal of the American Ceramic Society, 1995, 78, 2737-2745.	1.9	67
52	Low-Temperature Phase Equilibria in the Y-Ba-Cu-O System. Journal of the American Ceramic Society, 1995, 78, 1745-1752.	1.9	24
53	Stabilization of Ordered Zirconium Titanates through the Chemical Substitution of $\text{Ti}^{4+}$ by $\text{Al}^{3+}/\text{Ta}^{5+}$ . Journal of the American Ceramic Society, 1994, 77, 743-748.	1.9	13
54	Low-Temperature Synthesis and Phase Equilibria in the Y-Cu-O Binary System. Journal of the American Ceramic Society, 1994, 77, 1139-1142.	1.9	4

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55	Effect of Sn Substitution on Cation Ordering in $(Zr_{1-x}Sn_x)TiO_4$ Microwave Dielectric Ceramics. Journal of the American Ceramic Society, 1994, 77, 1441-1450.	1.9	106
56	Influence of Internal Interfaces on the Dielectric Properties of Ceramic Microwave Resonators. Materials Research Society Symposia Proceedings, 1994, 357, 351.	0.1	4
57	Structure of Commensurate and Incommensurate Ordered Phases in the System $ZrTiO_4$ - $Zr_5Ti_7O_{24}$ . Journal of the American Ceramic Society, 1992, 75, 563-569.	1.9	79
58	Formation and Stabilization of Extended Defects in Zirconia Titanate Microwave Ceramics. Materials Research Society Symposia Proceedings, 1991, 249, 337.	0.1	0
59	New Phases in the $CaO$ - $M_2O_3$ - $CuO$ ( $M = Nd, Gd, Y$ ) Systems at 1000°C. Journal of the American Ceramic Society, 1991, 74, 569-573.	1.9	26
60	Thermodynamic Study of Reduced Phases in the $BaLa_4Cu_5O_{13.1-x}$ System. Journal of the American Ceramic Society, 1991, 74, 1011-1014.	1.9	4
61	High $T_c$ ceramic superconductors: Introduction, background, and challenges to the electron microscopist. Journal of Electron Microscopy Technique, 1988, 8, 247-250.	1.1	5
62	Thermodynamic Mixing Properties of Sodium-Potassium $\beta''$ -Aluminas. Journal of the American Ceramic Society, 1986, 69, C-62-C-64.	1.9	1
63	Oxide Reduction in NiO-Containing Solid-Solution Systems During Transmission Electron Microscopy. Journal of the American Ceramic Society, 1986, 69, C-124-C-125.	1.9	3