Peter Gehring

List of Publications by Year
in descending order

126 papers	6,886 citations	46984 47 h-index	58549 82 g-index
134 all docs	134 docs citations	134 times ranked	4379 citing authors

#	Article	IF	Citations
1	and characterization of large <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:mi) Tj ETQq1 1 0.784314 rgBT /Ove and <mml:math		

#	Article	IF	Citations
19	Neutron inelastic scattering measurements of low-energy phonons in the multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml Physical Review B, 2015, 91, .	1.1	16
20	Phase diagram of the relaxor ferroelectric (1) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 Td (â^'x)Pb(Mg_{1/3}Nb<sub>2 a neutron powder diffraction study of the relaxor skin effect. Phase Transitions, 2015, 88, 283-305.	0.6	31
21	Fluctuating defects in the incipient relaxorK1â^'xLixTaO3(x=0.02). Physical Review B, 2014, 90, .	1.1	9
22	Role of random electric fields in relaxors. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1754-1759.	3.3	129
23	Lead-free and lead-based <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>A</mml:mi><mml:mi>B</mml:mi></mml:mrow></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>perovskite relaxors with mixed-valence<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"	1.1	62
24	X-ray diffraction study of the pressure-induced bcc-to-hcp phase transition in the highly magnetostrictive Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.81</mml:mn></mml:mrow></mml:msub></mml:math>Ga<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.19</mml:mn></mml:mrow></mml:msub></mml:math>alloy. Physical Review B,	1.1	3
25	The expansion of the NIST Center for Neutron Research. Neutron News, 2013, 24, 29-31.	0.1	3
26	Freezing of the local dynamics in the relaxor ferroelectric [Pb(Zn1/3Nb2/3)O3]0.955[PbTiO3]0.045. Physical Review B, 2012, 86, .	1.1	8
27	NEUTRON DIFFUSE SCATTERING IN LEAD-BASED RELAXOR FERROELECTRICS AND ITS RELATIONSHIP TO THE ULTRA-HIGH PIEZOELECTRICITY. Journal of Advanced Dielectrics, 2012, 02, 1241005.	1.5	24
28	Evidence for anisotropic polar nanoregions in relaxor Pb(Mg<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 402 Td (xmlns:mml="http	1.1	22
29	Thermal evolution of the full three-dimensional magnetic excitations in the multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2012, 86, .	1.1	20
30	Single Crystal Study of Competing Rhombohedral and Monoclinic Order in Lead Zirconate Titanate. Physical Review Letters, 2010, 105, 207601.	2.9	79
31	Two-component model of the neutron diffuse scattering in the relaxor ferroelectric PZN-4.5%PT. Physical Review B, 2010, 82, .	1.1	22
32	Interplay between static and dynamic polar correlations in relaxorPb(Mg1/3Nb2/3)O3. Physical Review B, 2010, 81, .	1.1	55
33	Dissimilarity of polar displacements in barium and lead based relaxors. Applied Physics Letters, 2010, 97, 072903.	1.5	1
34	First single-crystal neutron diffraction results on PZT structure. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s167-s167.	0.3	0
35	Reassessment of the Burns temperature and its relationship to the diffuse scattering, lattice dynamics, and thermal expansion in relaxor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

#	Article	IF	Citations
37	Role of Nanoscale Precipitates on the Enhanced Magnetostriction of Heat-Treated Galfenol (<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML") Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 742 Td (display="in Alloys. Physical Review Letters, 2009, 102, 127201.	2.9	101
38	Phase instability induced by polar nanoregions in a relaxor ferroelectric system. Nature Materials, 2008, 7, 562-566.	13.3	253
39	Structural studies of decomposition in Feâ€“xat.%Ga alloys. Journal of Alloys and Compounds, 2008, 465, 244-249.	2.8	35
40	Effect of local dipole moments on the structure and lattice dynamics of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mtext>K</mml:mtext><mml:mrow><mml:mn>0.98</mml:mn></mml:mrow></mml:ms Physical Review B, 2008, 78, .	1.1	9
41	Response of polar nanoregions in 68%Pb(Mg1âˆ•3Nb2âˆ•3)O3-32%PbTiO3 to a [001] electric field. Applied Physics Letters, 2008, 93, 082901.	1.5	19
42	Dynamic origin of the morphotropic phase boundary: Soft modes and phase instability in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

#	Article	IF	Citations
55	Neutron elastic diffuse scattering study ofPb(Mg1/3Nb2/3)O3. Physical Review B, 2004, 69, .	1.1	232
56	The non-rhombohedral low-temperature structure of PMNâ€“10% PT. Journal of Physics Condensed Matter, 2004, 16, 7113-7121.	0.7	61
57	Interplay of structural and electronic phase separation in single-crystallineLa2CuO4.05studied by neutron and Raman scattering. Physical Review B, 2004, 69, .	1.1	4
58	High-q-resolution neutron scattering technique using triple-axis spectrometers. Acta Crystallographica Section A: Foundations and Advances, 2004, 60, 598-603.	0.3	8
59	Neutron Scattering Study of Soft Phonons and Diffuse Scattering in Insulating La1.95Sr0.05CuO4. Journal of the Physical Society of Japan, 2004, 73, 3413-3417.	0.7	14
60	The high-flux backscattering spectrometer at the NIST Center for Neutron Research. Review of Scientific Instruments, 2003, 74, 2759-2777.	0.6	259
61	Summer school on methods and applications of neutron spectroscopy held at NIST. Neutron News, 2003, 14, 9-10.	0.1	0
62	Evidence of decoupled lattice distortion and ferroelectric polarization in the relaxor systemPMNâ^'xPT. Physical Review B, 2003, 68, .	1.1	112
63	Phase diagram of the relaxor ferroelectric(1â^'x)Pb(Zn1/3Nb2/3)O3â^'xPbTiO3. Physical Review B, 2002, 65, .	1.1	303
64	Anomalous transverse acoustic phonon broadening in the relaxor ferroelectricPb(Mg1/3Nb2/3)0.8Ti0.2O3. Physical Review B, 2002, 65, .	1.1	58
65	Static magnetic correlations near the insulating-superconducting phase boundary in La2-xSrxCuO4. Physical Review B, 2002, 65, .	1.1	214
66	Quantum Impurities in the Two-Dimensional Spin One-Half Heisenberg Antiferromagnet. Science, 2002, 295, 1691-1695.	6.0	129
67	Ferroelectric Dynamics in the Perovskite Relaxor PMN. AIP Conference Proceedings, 2002, , .	0.3	1
68	Ferroelectric ordering in the relaxorPb(Mg1/3Nb2/3)O3as evidenced by low-temperature phonon anomalies. Physical Review B, 2002, 65, .	1.1	148
69	Neutron diffuse scattering from polar nanoregions in the relaxorPb(Mg1/3Nb2/3)O3. Physical Review B, 2002, 65, .	1.1	169
70	Mode coupling and polar nanoregions in the relaxor ferroelectricPb(Mg1/3Nb2/3)O3. Physical Review B, 2002, 66, .	1.1	71
71	The NIST high-flux backscattering spectrometer. Applied Physics A: Materials Science and Processing, 2002, 74, s311-s313.	1.1	7
72	Neutron scattering study of antiferromagnetic order in CaCu3Ti4O12. Solid State Communications, 2002, 121, 625-629.	0.9	73

#	Article	IF	Citations
73	Soft modes and ferroelectric order in relaxor ferroelectrics. Acta Crystallographica Section A: Foundations and Advances, 2002, 58, c206-c206.	0.3	0
74	<title>Multiwafer focusing neutron monochromators and applications</title>. , 2001, 4509, 21.		11
75	The dynamics of solid cubane. Neutron News, 2001, 12, 34-37.	0.1	0
76	Dynamical effects of the nanometer-sized polarized domains inPb(Zn1/3Nb2/3)O3. Physical Review B, 2001, 63, .	1.1	71
77	Soft Mode Dynamics above and below the Burns Temperature in the RelaxorPb(Mg1/3Nb2/3)O3. Physical Review Letters, 2001, 87, 277601.	2.9	164
78	Neutron Diffraction Study of the Irreversible Râ€“MAâ€“MCPhase Transition in Single Crystal Pb[(Zn1/3Nb2/3)1-xTix]O3. Journal of the Physical Society of Japan, 2001, 70, 2778-2783.	0.7	68
79	Diagonal static spin correlation in the low-temperature orthorhombicPccnphase ofLa1.55Nd0.4Sr0.05CuO4. Physical Review B, 2001, 64, .	1.1	27
80	Cold Neutron Inelastic Scattering Measurements of the Spin-Peierls and Antiferromagnetic Excitations in Si-doped CuGeO3Single Crystals. Journal of the Physical Society of Japan, 2000, 69, 592-597.	0.7	3
81	Soft Phonon Anomalies in the Relaxor FerroelectricPb(Zn1/3Nb2/3)0.92Ti0.08O3. Physical Review Letters, 2000, 84, 5216-5219.	2.9	137
82	Direct observation of a one-dimensional static spin modulation in insulatingLa1.95Sr0.05CuO4. Physical Review B, 2000, 61, 3699-3706.	1.1	165
83	Local Magnetic Order vs Superconductivity in a Layered Cuprate. Physical Review Letters, 2000, 85, 1738-1741.	2.9	210
84	Observation of incommensurate magnetic correlations at the lower critical concentration for superconductivity inLa2â^'xSrxCuO4(x=0.05). Physical Review B, 1999, 60, R769-R772.	1.1	201
85	Neutron scattering study of elastic magnetic signals in superconducting La1.94Sr0.06CuO4. Journal of Physics and Chemistry of Solids, 1999, 60, 1079-1081.	1.9	7
86	Vibrations of the cubane molecule: inelastic neutron scattering study and theory. Chemical Physics Letters, 1999, 309, 234-240.	1.2	15
87	Neutron-scattering investigation of molecular reorientations in solid cubane. Physical Review B, 1999, 60, 314-321.	1.1	31
88	Solid cubane: A brief review. Carbon, 1998, 36, 809-815.	5.4	47
89	The magnetic phase transition of a lattice-matched holmium thin film. Journal of Physics Condensed Matter, 1998, 10, 6803-6812.	0.7	5
90	Dependence of the interlayer coupling on anneal temperature in Niâ€“Fe/Cu evaporated multilayers. Journal of Applied Physics, 1997, 81, 3771-3773.	1.1	5

#	Article	IF	Citations
91	Unusual Structure, Phase Transition, and Dynamics of Solid Cubane. Physical Review Letters, 1997, 78, 4938-4941.	2.9	50
92	Observation of two length scales above TN in a holmium thin film. Physica B: Condensed Matter, 1996, 221, 398-404.	1.3	14
93	Nature of the interlayer coupling in annealed Ni80Fe20/Ag multilayers. Journal of Applied Physics, 1996, 79, 4762.	1.1	12
94	Antiferromagnetic interlayer correlations in annealedNi80Fe20/Ag multilayers. Physical Review B, 1996, 54, 9870-9882.	1.1	30
95	High-energy phonon dispersion in La1.85Sr0.15CuO4. Physica B: Condensed Matter, 1995, 213-214, 72-74.	1.3	0
96	Low-frequency excitations of oriented DNA. Physica B: Condensed Matter, 1995, 213-214, 780-782.	1.3	6
97	Absence of the anomalous second length scale in the bulk of a terbium single crystal. Physical Review B, 1995, 51, 3234-3237.	1.1	16
98	Neutron scattering study of the lattice modes of solid cubane. The Journal of Physical Chemistry, 1995, 99, 4429-4434.	2.9	17
99	Spin-glass behaviour in dilute weak random-anisotropy magnets DyxY1-xAl2. Journal of Physics Condensed Matter, 1994, 6, 4779-4794.	0.7	4
100	Neutron-scattering studies of the two magnetic correlation lengths in terbium. Physical Review B, 1994, 49, 11967-11978.	1.1	50
101	Magnetic properties of cubicRxY1â^'xAl2(R=Dy, Tb) intermetallic random anisotropy magnets (invited). Journal of Applied Physics, 1994, 76, 6180-6185.	1.1	13
102	Magnetic penetration depth in V3Si and LiTi2O4 measured by Î¼SR. Hyperfine Interactions, 1994, 86, 615-621.	0.2	9
103	Magnetic Structure Determination for Annealed Ni80Fe20/Ag Multilayers Using Polarized-Neutron Reflectivity. Materials Research Society Symposia Proceedings, 1994, 376, 577.	0.1	1
104	Design of a High-Flux Backscattering Spectrometer for Ultra-High Resolution Inelastic Neutron Measurements. Materials Research Society Symposia Proceedings, 1994, 376, 113.	0.1	4
105	Stoichiometry, percolation, and Verwey ordering in magnetite. Physical Review Letters, 1993, 70, 1635-1638.	2.9	62
106	Anomalous dispersion and thermal expansion in lightly-doped KTa1 - xNbxO3. Ferroelectrics, 1993, 150, 47-58.	0.3	8
107	Origin of the second length scale above the magnetic-spiral phase of Tb. Physical Review Letters, 1993, 71, 1087-1090.	2.9	70
108	Magnetic first-order phase transition and crossover associated with random anisotropy in crystallineDyxY1â^'xAl2. Physical Review B, 1993, 47, 7892-7896.	1.1	11

#	Article	IF	Citations
109	Magnetic x-ray-scattering study of Tb. Physical Review B, 1992, 45, 243-248.	1.1	26
110	Low-energy incommensurate spin excitations in superconductingLa1.85Sr0.15CuO4. Physical Review B, 1992, 46, 9128-9131.	1.1	144
111	Dipole-glass behavior of lightly dopedKTa1â^'xNbxO3. Physical Review B, 1992, 46, 5116-5121.	1.1	20
112	Neutron-scattering study of the dynamical spin susceptibility inYBa2Cu3O6.6. Physical Review B, 1992, 46, 5561-5575.	1.1	278
113	Incommensurate Magnetic Phases in NdIn3nearTN. Journal of the Physical Society of Japan, 1992, 61, 1469-1472.	0.7	10
114	Temperature scaling of the integrated dynamical susceptibility in YBa2Cu3O6.5(T c =50 K). European Physical Journal B, 1992, 87, 15-19.	0.6	47
115	Ferro-, quasiferro- and antiferromagnetic spin-glass orders in random anisotropy crystalline DyxY1â^'xAl2 compounds. Journal of Magnetism and Magnetic Materials, 1992, 104-107, 243-245.	1.0	2
116	Neutron diffraction study of the magnetic ordering of the Cu++ spins in Nd1.5Ba1.5Cu3O6+x. Physica C: Superconductivity and Its Applications, 1991, 185-189, 1167-1168.	0.6	6
117	Spectral shift of the magnetic cross section in superconductingYBa2Cu3O6+x. Physical Review B, 1991, 43, 8690-8693.	1.1	47
118	Magnetic correlations and energy gap in superconductingYBa2Cu3O6.6withTc=53 K. Physical Review B, 1991, 44, 2811-2814.	1.1	33
119	Three-dimensional magnetic structures and rare-earth magnetic ordering inNd2CuO4andPr2CuO4. Physical Review B, 1990, 42, 10098-10107.	1.1	217
120	Muon-spin-relaxation and neutron-scattering studies of magnetism in single-crystalLa1.94Sr0.06CuO4. Physical Review B, 1990, 41, 8866-8871.	1.1	73
121	Magnetic static and scaling properties of the weak random-axis magnet (DyxY1â^'x)Al2. Physical Review B, 1990, 41, 9134-9147.	1.1	66
122	Antiferromagnetic spin correlations in (Nd,Pr)2â^'xCexCuO4. Physical Review Letters, 1990, 65, 263-266.	2.9	92
123	Temperature dependence of the magnetic excitations inLa1.85Sr0.15CuO4(Tc=33 K). Physical Review Letters, 1989, 63, 330-333.	2.9	236
124	Temperature-induced magnetism inLaCoO3. Physical Review B, 1989, 40, 10982-10985.	1.1	188
125	Low field hysteresis and loss in sintered samples of YBa2Cu3O7-x. Solid State Communications, 1988, 67, 253-256.	0.9	12
126	Detection of a metastable magnetic phase in the La1.85Ba0.15CuO4?y system. Journal of Low Temperature Physics, 1987, 68, 419-425.	0.6	0