John Budai

List of Publications by Citations

266 papers	11,989 citations	54 h-index	101 g-index
275 ext. papers	12,579 ext. citations	5.8 avg, IF	5.59 L-index

#	Paper	IF	Citations
266	High critical current density superconducting tapes by epitaxial deposition of YBa2Cu3Ox thick films on biaxially textured metals. *Applied Physics Letters*, **1996**, 69, 1795-1797	3.4	885
265	Epitaxial YBa2Cu3O7 on Biaxially Textured Nickel (001): An Approach to Superconducting Tapes with High Critical Current Density. *Science*, **1996**, 274, 755-757	33.3	639
264	Three-dimensional X-ray structural microscopy with submicrometre resolution. *Nature*, **2002**, 415, 887-90	50.4	597
263	Advances in wide bandgap materials for semiconductor spintronics. *Materials Science and Engineering Reports*, **2003**, 40, 137-168	30.9	375
262	New yellow Ba0.93Eu0.07Al2O4 phosphor for warm-white light-emitting diodes through single-emitting-center conversion. *Light: Science and Applications*, **2013**, 2, e50-e50	16.7	334
261	Superconductivity in nonsymmetric epitaxial YBa2Cu3O7-x/PrBa2Cu3O7-x superlattices: The superconducting behavior of Cu-O bilayers. *Physical Review Letters*, **1990**, 65, 1160-1163	7.4	269
260	Effect of oxygen pressure on the synthesis of YBa2Cu3O7□ thin films by post-deposition annealing. *Journal of Applied Physics*, **1991**, 69, 6569-6585	2.5	248
259	Ferromagnetism in cobalt-implanted ZnO. *Applied Physics Letters*, **2003**, 83, 5488-5490	3.4	241
258	The race to x-ray microbeam and nanobeam science. *Science*, **2011**, 334, 1234-9	33.3	231
257	Spectroscopic ellipsometry of thin film and bulk anatase (TiO2). *Journal of Applied Physics*, **2003**, 93, 9537-9541	2.5	223
256	Domain formation and strain relaxation in epitaxial ferroelectric heterostructures. *Physical Review B*, **1994**, 49, 14865-14879	3.3	214
255	Optical and structural properties of ZnO films deposited on GaAs by pulsed laser deposition. *Journal of Applied Physics*, **2000**, 88, 201-204	2.5	210
254	Metallization of vanadium dioxide driven by large phonon entropy. *Nature*, **2014**, 515, 535-9	50.4	192
253	Growth of biaxially textured buffer layers on rolled-Ni substrates by electron beam evaporation. *Physica C: Superconductivity and Its Applications*, **1997**, 275, 266-272	1.3	169
252	Growth of Ge, Si, and SiGe nanocrystals in SiO2 matrices. *Journal of Applied Physics*, **1995**, 78, 4386-4389	2.5	164
251	Conductors with controlled grain boundaries: An approach to the next generation, high temperature superconducting wire. *Journal of Materials Research*, **1997**, 12, 2924-2940	2.5	150
250	Structure and magnetism of cobalt-doped ZnO thin films. *New Journal of Physics*, **2008**, 10, 065002	2.9	150

249	Superconductivity and hole doping in Pr0.5Ca0.5Ba2Cu3O7- delta thin films. *Physical Review Letters* , **1991**, 66, 1537-1540	7.4	145
248	Strain relaxation by domain formation in epitaxial ferroelectric thin films. *Physical Review Letters*, **1992**, 68, 3733-3736	7.4	144
247	Elastically driven anisotropic percolation in electronic phase-separated manganites. *Nature Physics*, **2009**, 5, 885-888	16.2	143
246	Symmetry relationship and strain-induced transitions between insulating M1 and M2 and metallic R phases of vanadium dioxide. *Nano Letters*, **2010**, 10, 4409-16	11.5	125
245	Doping-based stabilization of the M2 phase in free-standing VO nanostructures at room temperature. *Nano Letters*, **2012**, 12, 6198-205	11.5	120
244	Epitaxial superconductors on rolling-assisted biaxially-textured substrates (RABiTS): a route towards high critical current density wire. *Applied Superconductivity*, **1996**, 4, 403-427		120
243	Effects of hydrogen in the annealing environment on photoluminescence from Si nanoparticles in SiO2. *Journal of Applied Physics*, **1999**, 86, 396-401	2.5	111
242	Deposition of biaxially-oriented metal and oxide buffer-layer films on textured Ni tapes: new substrates for high-current, high-temperature superconductors. *Physica C: Superconductivity and Its Applications*, **1997**, 275, 155-161	1.3	110
241	X-ray microdiffraction study of growth modes and crystallographic tilts in oxide films on metal substrates. *Nature Materials*, **2003**, 2, 487-92	27	108
240	Early stages of YBa2Cu3O7- delta epitaxial growth on MgO and SrTiO3. *Physical Review B*, **1992**, 45, 7584-7587	3.3	97
239	Controlling the size, structure and orientation of semiconductor nanocrystals using metastable phase recrystallization. *Nature*, **1997**, 390, 384-386	50.4	95
238	Superconductivity in SrCuO2-BaCuO2 Superlattices: Formation of Artificially Layered Superconducting Materials. *Science*, **1994**, 265, 2074-7	33.3	94
237	Interplay between ferroelastic and metal-insulator phase transitions in strained quasi-two-dimensional VO2 nanoplatelets. *Nano Letters*, **2010**, 10, 2003-11	11.5	91
236	Correlations between the Hall coefficient and the superconducting transport properties of oxygen-deficient YBa2Cu3O7- delta epitaxial thin films. *Physical Review B*, **1993**, 47, 8986-8995	3.3	87
235	Ferromagnetism in Co- and Mn-doped ZnO. *Solid-State Electronics*, **2003**, 47, 2231-2235	1.7	86
234	The growth and properties of epitaxial KNbO3 thin films and KNbO3/KTaO3 superlattices. *Applied Physics Letters*, **1996**, 68, 1488-1490	3.4	84
233	Phonon localization drives polar nanoregions in a relaxor ferroelectric. *Nature Communications*, **2014**, 5, 3683	17.4	80
232	In-plane epitaxial alignment of YBa2Cu3O7 films grown on silver crystals and buffer layers. *Applied Physics Letters*, **1993**, 62, 1836-1838	3.4	79

231	Enhanced photoluminescence in epitaxial ZnGa2O4:Mn thin-film phosphors using pulsed-laser deposition. *Applied Physics Letters*, **1999**, 74, 3155-3157	3.4	78
230	Direct evidence of mesoscopic dynamic heterogeneities at the surfaces of ergodic ferroelectric relaxors. *Physical Review B*, **2010**, 81,	3.3	71
229	Conductivity in transparent anatase TiO2 films epitaxially grown by reactive sputtering deposition. *Solid-State Electronics*, **2003**, 47, 2275-2278	1.7	71
228	The projected atomic structure of a large angle [001]□ 5 (□ 36.9□) twist boundary in gold: Diffraction analysis and theoretical predictions. *Acta Metallurgica*, **1983**, 31, 699-712		70
227	Long-Range Antiferromagnetic Order in a Rocksalt High Entropy Oxide. *Chemistry of Materials*, **2019**, 31, 3705-3711	9.6	66
226	Polychromatic X-ray microdiffraction studies of mesoscale structure and dynamics. *Journal of Synchrotron Radiation*, **2005**, 12, 155-62	2.4	66
225	Strain Doping: Reversible Single-Axis Control of a Complex Oxide Lattice via Helium Implantation. *Physical Review Letters*, **2015**, 114, 256801	7.4	64
224	Properties of Mn-doped Cu2O semiconducting thin films grown by pulsed-laser deposition. *Solid-State Electronics*, **2003**, 47, 2215-2220	1.7	63
223	Giant electromechanical coupling of relaxor ferroelectrics controlled by polar nanoregion vibrations. *Science Advances*, **2016**, 2, e1501814	14.3	61
222	X-ray study of in-plane epitaxy of YBa2Cu3Ox thin films. *Physical Review B*, **1989**, 39, 12355-12358	3.3	61
221	Magnetic properties of Co- and Mn-implanted BaTiO3, SrTiO3 and KTaO3. *Solid-State Electronics*, **2003**, 47, 2225-2230	1.7	60
220	Depression and broadening of the superconducting transition in superlattices based on YBa2Cu3O7- delta : Influence of the barrier layers. *Physical Review Letters*, **1991**, 67, 1358-1361	7.4	60
219	Spatial distribution and electronic state of Co in epitaxial anatase CoxTi1□O2 thin films grown by reactive sputtering. *Applied Physics Letters*, **2004**, 84, 2608-2610	3.4	59
218	Strong, asymmetric flux pinning by miscut-growth-initiated columnar defects in epitaxial YBa2Cu3O7-x films. *Physical Review Letters*, **1995**, 74, 2355-2358	7.4	59
217	Suppression of the spiral-growth mechanism in epitaxial YBa2Cu3O7□ films grown on miscut substrates. *Applied Physics Letters*, **1992**, 61, 852-854	3.4	59
216	Formation of icosahedral Al-Mn by ion implantation into oriented crystalline films. *Physical Review B*, **1986**, 33, 2876-2878	3.3	59
215	Nonpolar ZnO film growth and mechanism for anisotropic in-plane strain relaxation. *Acta Materialia* , **2010**, 58, 1097-1103	8.4	58
214	GaAs nanocrystals formed by sequential ion implantation. *Journal of Applied Physics*, **1996**, 79, 1876-1880	.5	57

213	Role of oxygen vacancies in the flux-pinning mechanism, and hole-doping lattice disorder in high-current-density YBa2Cu3O7-x films. *Physical Review B*, **1992**, 45, 7555-7558	3.3	56
212	Epitaxial growth of single-crystal Ca1−SrxCuO2 thin films by pulsed-laser deposition. *Applied Physics Letters*, **1993**, 62, 1679-1681	3.4	53
211	Optical characterization of CdS nanocrystals in Al2O3 matrices fabricated by ion-beam synthesis. *Applied Physics Letters*, **2000**, 77, 2289-2291	3.4	52
210	Bend strain tolerance of critical currents for YBa2Cu3O7 films deposited on rolled-textured (001)Ni. *Applied Physics Letters*, **1998**, 73, 1904-1906	3.4	49
209	Interplay between evolving surface morphology, atomic-scale growth modes, and ordering during SixGe1-x epitaxy. *Physical Review Letters*, **1993**, 70, 2293-2296	7.4	49
208	Differential-aperture X-ray structural microscopy: a submicron-resolution three-dimensional probe of local microstructure and strain. *Micron*, **2004**, 35, 431-9	2.3	48
207	Electromechanical actuation and current-induced metastable states in suspended single-crystalline VO nanoplatelets. *Nano Letters*, **2011**, 11, 3065-73	11.5	47
206	Epitaxial superconducting thin films of YBa2Cu3O7 on KTaO3 single crystals. *Applied Physics Letters*, **1989**, 54, 1063-1065	3.4	47
205	High critical current densities in YBa2Cu3O7 films on polycrystalline zirconia. *Applied Physics Letters*, **1990**, 57, 1164-1166	3.4	47
204	High quality optoelectronic grade epitaxial AlN films on Al2O3, Si and 6H-SiC by pulsed laser deposition. *Thin Solid Films*, **1997**, 299, 94-103	2.2	46
203	The three-dimensional X-ray crystal microscope: A new tool for materials characterization. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 1963-1967	2.3	46
202	Oriented ferromagnetic Fe-Pt alloy nanoparticles produced in Al2O3 by ion-beam synthesis. *Journal of Applied Physics*, **2003**, 93, 5656-5669	2.5	45
201	Cathodoluminescence from Thin Film Zn[sub 2]GeO[sub 4]:Mn Phosphor Grown by Pulsed Laser Deposition. *Journal of the Electrochemical Society*, **2004**, 151, H188	3.9	43
200	Compositional disorder, polar nanoregions and dipole dynamics in Pb(Mg1/3Nb2/3)O3-based relaxor ferroelectrics. *Zeitschrift F Kristallographie*, **2011**, 226, 99-107		42
199	Spatially resolved Poisson strain and anticlastic curvature measurements in Si under large deflection bending. *Applied Physics Letters*, **2003**, 82, 3856-3858	3.4	41
198	In-plane aligned CeO2 films grown on amorphous SiO2 substrates by ion-beam assisted pulsed laser deposition. *Applied Physics Letters*, **1994**, 65, 2012-2014	3.4	41
197	Epitaxial YBa2Cu3O7 films on rolled-textured metals for high-temperature superconducting applications. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **1998**, 56, 86-94	3.1	40
196	Hydrogen-assisted pulsed-laser deposition of (001)CeO2 on (001) Ge. *Applied Physics Letters*, **2000**, 76, 1677-1679	3.4	40

195	The measurement of grain boundary thickness using X□ay diffraction techniques. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1979**, 40, 757-767		40
194	Correlation between structure and semiconductor-to-metal transition characteristics of VO2/TiO2/sapphire thin film heterostructures. *Acta Materialia*, **2013**, 61, 7805-7815	8.4	39
193	Spectroscopic dielectric tensor of monoclinic crystals: CdWO4. *Physical Review B*, **2011**, 84,	3.3	39
192	High Critical Current Density YBa2Cu3O x Tapes Using the RABiTs Approach. *Journal of Superconductivity and Novel Magnetism*, **1998**, 11, 481-487		39
191	Transport and structural properties of Pr1-xCaxBa2Cu3O7- delta thin films grown by pulsed-laser deposition. *Physical Review B*, **1994**, 49, 4182-4188	3.3	39
190	Preferred alignment of twin boundaries in YBa2Cu3Ox thin films and YBa2Cu3Ox/PrBa2Cu3Ox superlattices on SrTiO3. *Applied Physics Letters*, **1991**, 58, 2174-2176	3.4	39
189	Growth of ZnO thin films on c-plane Al2O3 by molecular beam epitaxy using ozone as an oxygen source. *Applied Surface Science*, **2006**, 252, 7442-7448	6.7	38
188	Deformation microstructure under microindents in single-crystal Cu using three-dimensional x-ray structural microscopy. *Journal of Materials Research*, **2004**, 19, 66-72	2.5	38
187	Photo- and cathodoluminescence characteristics of blue-light-emitting epitaxial Sr2CeO4 thin-film phosphors. *Applied Physics Letters*, **2000**, 77, 678-680	3.4	37
186	Epitaxial stabilization of single crystal anatase films via reactive sputter deposition. *Thin Solid Films*, **2002**, 422, 166-169	2.2	36
185	A transmission electron microscopy investigation of sulfide nanocrystals formed by ion implantation. *Journal of Materials Research*, **1999**, 14, 4489-4502	2.5	36
184	Optical functions of ion-implanted, laser-annealed heavily doped silicon. *Physical Review B*, **1995**, 52, 14607-14614	3.3	36
183	Heteroepitaxial structures of SrTiO3/TiN on Si(100) by in situ pulsed laser deposition. *Journal of Applied Physics*, **1996**, 80, 6720-6724	2.5	36
182	Through-thickness superconducting and normal-state transport properties revealed by thinning of thick film ex situ YBa2Cu3O7□ coated conductors. *Applied Physics Letters*, **2003**, 83, 3951-3953	3.4	35
181	Characterization of zinc implanted silica: Effects of thermal annealing and picosecond laser radiation. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1998**, 16, 1409-1413	2.9	35
180	Growth of highly doped p-type ZnTe films by pulsed laser ablation in molecular nitrogen. *Applied Physics Letters*, **1995**, 67, 2545-2547	3.4	35
179	X-ray diffraction study of phason strain field in oriented icosahedral Al-Mn. *Physical Review Letters*, **1987**, 58, 2304-2307	7.4	35
178	Intrinsic anharmonic localization in thermoelectric PbSe. *Nature Communications*, **2019**, 10, 1928	17.4	34

177	Thin film epitaxy and structure property correlations for non-polar ZnO films. *Acta Materialia*, **2009**, 57, 4426-4431	8.4	34
176	KirkpatrickBaez microfocusing optics for thermal neutrons. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2005**, 539, 312-320	1.2	34
175	Critical current density of YBa2Cu3O7low-angle grain boundaries in self-field. *Applied Physics Letters*, **2001**, 78, 2031-2033	3.4	34
174	Epitaxial lead zirconate-titanate thin films on sapphire. *Applied Physics Letters*, **1993**, 63, 467-469	3.4	34
173	Nucleation of epitaxial yttria-stabilized zirconia on biaxially textured (001) Ni for deposited conductors. *Applied Physics Letters*, **2000**, 76, 2427-2429	3.4	33
172	MeV, self-ion implantation in Si at liquid nitrogen temperature; a study of damage morphology and its anomalous annealing behavior. *Journal of Applied Physics*, **1990**, 68, 2081-2086	2.5	33
171	Epitaxial growth of transparent tin oxide films on (0001) sapphire by pulsed laser deposition. *Materials Research Bulletin*, **2009**, 44, 6-10	5.1	32
170	Zinc Oxide Microtowers by Vapor Phase Homoepitaxial Regrowth. *Advanced Materials*, **2009**, 21, 890-896	8.4	32
169	Ferromagnetism in pseudocubic BaFeO3 epitaxial films. *Applied Physics Letters*, **2008**, 92, 012514	3.4	32
168	Weak coupling and anisotropy in the magnetic penetration depth of the high-temperature superconductor Tl2Ca2Ba2Cu3O10+ delta. *Physical Review B*, **1990**, 41, 7293-7296	3.3	32
167	Micron-resolution 3-D measurement of local orientations near a grain-boundary in plane-strained aluminum using X-ray microbeams. *International Journal of Plasticity*, **2004**, 20, 543-560	7.6	31
166	Enhanced ultraviolet photoconductivity in semiconducting ZnGa2O4 thin films. *Journal of Applied Physics*, **2001**, 90, 3863-3866	2.5	31
165	Alternating current losses in biaxially textured YBa2Cu3O7films deposited on Ni tapes. *Applied Physics Letters*, **1997**, 71, 2029-2031	3.4	30
164	Properties of Mn-Implanted BaTiO[sub 3], SrTiO[sub 3], and KTaO[sub 3]. *Electrochemical and Solid-State Letters*, **2003**, 6, G19		30
163	In situ growth of epitaxial Bi2Sr2CaCu2O8and Bi2Sr2CuO6films by pulsed laser ablation. *Applied Physics Letters*, **1993**, 63, 409-411	3.4	30
162	Magneto-optical effects from nanophase Fe and Fe3O4 precipitates formed in yttrium-stabilized ZrO2 by ion implantation and annealing. *Applied Physics Letters*, **2000**, 77, 711-713	3.4	29
161	Ion-beam synthesis and stability of GaAs nanocrystals in silicon. *Applied Physics Letters*, **1996**, 68, 2389-2391	3.4	29
160	Oxide ferroelectric materials grown by metalorganic chemical vapor deposition. *Journal of Crystal Growth*, **1992**, 124, 684-689	1.6	29

159	Ion beam synthesis of magnetic CoPt alloys in Al2O3. *Journal of Magnetism and Magnetic Materials*, **2003**, 260, 319-329	2.8	28
158	Plume-induced stress in pulsed-laser deposited CeO2 films. *Applied Physics Letters*, **1999**, 74, 2134-2136	3.4	28
157	Epitaxial ZnS films grown on GaAs (001) and (111) by pulsed-laser ablation. *Journal of Applied Physics*, **1993**, 73, 7818-7822	2.5	28
156	Semiconducting epitaxial films of metastable SrRu0.5Sn0.5O3 grown by pulsed laser deposition. *Applied Physics Letters*, **1997**, 70, 2147-2149	3.4	27
155	Long length fabrication of YBCO on rolling assisted biaxially textured substrates (RABiTS) using pulsed laser deposition. *IEEE Transactions on Applied Superconductivity*, **1999**, 9, 2276-2279	1.8	27
154	In situ X-ray microdiffraction studies inside individual VO2 microcrystals. *Acta Materialia*, **2013**, 61, 2751-2762	4.4	26
153	Epitaxial growth of anatase by reactive sputter deposition using water vapor as the oxidant. *Thin Solid Films*, **2004**, 446, 18-22	2.2	26
152	Hydrostatic pressure dependence of the photoluminescence of Si nanocrystals in SiO2. *Applied Physics Letters*, **1996**, 68, 87-89	3.4	26
151	Strain relief mechanism for damage growth during high-dose, O+ implantation of Si. *Applied Physics Letters*, **1993**, 63, 3580-3582	3.4	26
150	Fabrication of high J/sub c/YBa/sub 2/Cu/sub 3/O/sub 7-/spl delta// tapes using the newly developed lanthanum manganate single buffer layers. *IEEE Transactions on Applied Superconductivity*, **2003**, 13, 2481-2483	1.8	25
149	Ordered structures in SixGe1-x alloy thin films. *Physical Review B*, **1995**, 51, 10947-10955	3.3	25
148	Strain and Texture in Al-Interconnect Wires Weasured by X-Xay Microbeam Diffraction. *Materials Research Society Symposia Proceedings*, **1999**, 563, 175		24
147	Large, orientation-dependent enhancements of critical currents in Y1Ba2Cu3O7□ epitaxial thin films: Evidence for intrinsic flux pinning?. *Physica B: Condensed Matter*, **1990**, 165-166, 1415-1416	2.8	24
146	Ferroelectric Self-Poling, Switching, and Monoclinic Domain Configuration in BiFeO3 Thin Films. *Advanced Functional Materials*, **2016**, 26, 5166-5173	15.6	24
145	Polychromatic X-ray micro- and nanodiffraction for spatially-resolved structural studies. *Thin Solid Films*, **2008**, 516, 8013-8021	2.2	23
144	SrCuO2/(Sr,Ca)CuO2 superlattice growth by pulsed-laser deposition. *Applied Physics Letters*, **1994**, 65, 2869-2871	3.4	23
143	Y-Ba-Cu-O thin films grown on rigid and flexible polycrystalline yttria-stabilized zirconia by pulsed laser ablation. *Journal of Applied Physics*, **1990**, 68, 223-227	2.5	23
142	Multiple scattering and the 200 reflection in silicon and germanium. *Acta Crystallographica Section A: Foundations and Advances*, **1988**, 44, 22-25		23

141	Pulsed laser deposition of thin superconducting films of Ho1Ba2Cu3O7 □x and Y1Ba2Cu3O7 □x. *Journal of Materials Research*, **1988**, 3, 1169-1179	2.5	23
140	At the limit of polychromatic microdiffraction. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 524, 3-9	5.3	22
139	Influence of oxygen background pressure on crystalline quality of SrTiO3 films grown on MgO by pulsed laser deposition. *Applied Physics Letters*, **1997**, 71, 1709-1711	3.4	22
138	Etching-enhanced Ablation and the Formation of a Microstructure in Silicon by Laser Irradiation in an SF6 Atmosphere. *Journal of Materials Research*, **2002**, 17, 1002-1013	2.5	22
137	Study of epitaxial platinum thin films grown by metalorganic chemical vapor deposition. *Journal of Applied Physics*, **1992**, 72, 3735-3740	2.5	22
136	Structural characterization of two-step growth of epitaxial ZnO films on sapphire substrates at low temperatures. *Journal Physics D: Applied Physics*, **2009**, 42, 105409	3	21
135	Epitaxial structure and transport in LaTiO3+x films on (001) SrTiO3. *Physica Status Solidi A*, **2003**, 200, 346-351		21
134	Semiconductor Nanocrystals formed in SiO2 by Ion Implantation. *Materials Research Society Symposia Proceedings*, **1994**, 358, 175		21
133	Magnetic force microscopy of ferromagnetic nanoparticles formed in Al2O3 and SiO2 by ion implantation. *Journal of Applied Physics*, **2002**, 92, 6200-6204	2.5	20
132	Strontium silicide termination and silicate epitaxy on (001) Si. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2002**, 20, 257		20
131	Synthesis, Optical Properties, and Microstructure of Semiconductor Nanocrystals Formed by Ion Implantation. *Materials Research Society Symposia Proceedings*, **1996**, 452, 89		20
130	Electron-doped and hole-doped infinite layer Sr1□CuO2□ films grown by laser molecular beam epitaxy. *Physica C: Superconductivity and Its Applications*, **1994**, 224, 300-316	1.3	20
129	Phase-specific elastic/plastic interface interactions in layered NiAl□r(Mo) structures. *Acta Materialia*, **2012**, 60, 3279-3286	8.4	19
128	High-performance Kirkpatrick-Baez supermirrors for neutron milli- and micro-beams. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 437, 120-125	5.3	19
127	Transport critical currents in epitaxial Y 1 Ba 2 Cu 3 O 7□ thin films. *Physica C: Superconductivity and Its Applications*, **1989**, 162-164, 653-654	1.3	19
126	The role of defect excesses in damage formation in Si during ion implantation at elevated temperature. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1998**, 253, 240-248	5.3	18
125	Ferromagnetic FePt nanoparticles formed in Al2O3 by ion implantation. *Nuclear Instruments & Methods in Physics Research B*, **2002**, 191, 437-441	1.2	18
124	Epitaxial Film Growth of Tl0.78Bi0.22Sr1.6Ba0.4Ca2Cu3O9 on Rolling Assisted Biaxially Textured Nickel Substrates with YSZ And CeO2 Buffer Layers. *Journal of Superconductivity and Novel Magnetism*, **1998**, 11, 159-161		17

123	Spatially resolved distribution of dislocations and crystallographic tilts in GaN layers grown on Si(111) substrates by maskless cantilever epitaxy. *Journal of Applied Physics*, **2006**, 100, 053103	2.5	17
122	FePt nanoparticles formed in Al2O3 by ion beam synthesis: Annealing environment effects. *Journal of Applied Physics*, **2004**, 95, 8160-8166	2.5	17
121	Epitaxial (La,Sr)TiO3 as a conductive buffer for high temperature superconducting coated conductors. *Solid-State Electronics*, **2003**, 47, 2177-2181	1.7	17
120	Nanocrystals and Quantum Dots Formed by High-Dose Ion Implantation. *Materials Research Society Symposia Proceedings*, **1995**, 396, 377		17
119	Surface characterization of amorphous and crystallized Fe80B20. *Applied Surface Science*, **1986**, 27, 180-198	6.7	17
118	Boundary migration in a 3D deformed microstructure inside an opaque sample. *Scientific Reports*, **2017**, 7, 4423	4.9	16
117	Buried superconducting layers comprised of magnesium diboride nanocrystals formed by ion implantation. *Applied Physics Letters*, **2002**, 80, 4786-4788	3.4	16
116	Formation and phase transition of VO2 precipitates embedded in sapphire. *Journal of Materials Research*, **1999**, 14, 2602-2610	2.5	16
115	Investigation of TiN seed Layers for RABiTS architectures with a single-Crystal-like out-of-plane texture. *IEEE Transactions on Applied Superconductivity*, **2005**, 15, 2981-2984	1.8	15
114	Photo- and low-voltage cathodoluminescence in lithium zinc gallate blue and green thin-film phosphors. *Journal of Applied Physics*, **2002**, 91, 2974-2977	2.5	15
113	. *IEEE Transactions on Magnetics*, **2001**, 37, 2197-2199	2	15
112	Oriented Si and Ge Nanocrystals Formed in Al2O3 by Ion Implantation and Annealing. *Materials Research Society Symposia Proceedings*, **1993**, 316, 487		15
111	Flux creep in the Josephson mixed state of granular-oriented YBa2Cu3O7□ thin thin films. *Applied Physics Letters*, **1991**, 59, 3183-3185	3.4	15
110	Focused-ion-beam induced damage in thin films of complex oxide BiFeO3. *APL Materials*, **2014**, 2, 022109	5.7	14
109	Epitaxial superconducting thin films Tl0.78Bi0.22Sr1.6Ba0.4Ca2O9□on (001) YSZ synthesized by laser ablation and post-annealing in pure argon. *Physica C: Superconductivity and Its Applications*, **1997**, 277, 13-18	1.3	14
108	Alternating transport-current flow in superconductive films: The role of a geometrical barrier to vortex motion. *Physical Review B*, **1999**, 60, 6878-6883	3.3	14
107	X-Ray Microbeam Measurement of Local Texture and Strain in Metals. *Materials Research Society Symposia Proceedings*, **1999**, 563, 169		14
106	3-D Measurement of Deformation Microstructure in Al(0.2%)Mg Using Submicron Resolution White X-ray Microbeams. *Materials Research Society Symposia Proceedings*, **1999**, 590, 247		14

105	Uniaxial lattice expansion of self-ion-implanted Si. *Applied Physics Letters*, **1990**, 57, 243-245	3.4	14
104	New localized/delocalized emitting state of Eu2+ in orange-emitting hexagonal EuAl2O4. *Scientific Reports*, **2014**, 4, 7101	4.9	13
103	Properties of anatase CoxTi1−xO2 thin films epitaxially grown by reactive sputtering. *Thin Solid Films*, **2005**, 488, 194-199	2.2	13
102	Formation of oriented particles in an amorphous host: ZnS nanocrystals in silicon. *Applied Physics Letters*, **1999**, 74, 697-699	3.4	13
101	Comparison between LaGaO 3 , LaAlO 3 , KTaO 3 , and SrTiO 3 substrates for the epitaxial growth of YBa 2 Cu 3 O 7-x thin films by a BaF 2 process *Physica C: Superconductivity and Its Applications*, **1989**, 162-164, 655-656	1.3	13
100	Phonon scattering rates and atomic ordering in Ag1−xSb1+xTe2+x(x=0,0.1,0.2) investigated with inelastic neutron scattering and synchrotron diffraction. *Physical Review B*, **2014**, 90,	3.3	12
99	Epitaxial yttria-stabilized zirconia on biaxially-textured (001) Ni for YBCO coated conductor. *Physica C: Superconductivity and Its Applications*, **2000**, 341-348, 2481-2482	1.3	12
98	Ion-Implantation/Annealing-Induced Precipitation of Nanophase Ferromagnetic Particles in Yttrium-Stabilized ZrO2. *Materials Research Society Symposia Proceedings*, **1998**, 540, 225		12
97	Epitaxial growth of Ba1−xKxBiO3 thin films by pulsed-laser deposition. *Applied Physics Letters*, **1993** , 62, 414-416	3.4	12
96	Comparison of the structures of the large angle Σ= 13 [001] twist grain boundary in gold and silver. *Scripta Metallurgica*, **1982**, 16, 393-398		12
95	New Ternary Europium Aluminate Luminescent Nanoribbons for Advanced Photonics. *Advanced Functional Materials*, **2013**, 23, 1998-2006	15.6	11
94	The Effect of Size, Strain, and Long-Range Interactions on Ferroelectric Phase Transitions in KNbO3KTaO3KNbO3 Superlattices Studied by X-ray, EXAFS, and Dielectric Measurements **2000**, 4, 279-287		11
93	Optical Properties of Si Nanocrystals Formed in SiO2 by Ion Implantation. *Materials Research Society Symposia Proceedings*, **1998**, 507, 249		11
92	Superconductivity in epitaxial films of the oxycarbonate Sr2CuO2(CO3) converted from infinite layer SrCuO2 by thermal processing. *Applied Physics Letters*, **1995**, 67, 1310-1312	3.4	11
91	Compound Semiconductor Nanocrystals formed by Sequential Ion Implantation. *Materials Research Society Symposia Proceedings*, **1994**, 358, 169		11
90	Photoluminescence Dynamics of CdS Nanocrystals Fabricated by Sequential Ion Implantation. *Japanese Journal of Applied Physics*, **2001**, 40, 2092-2094	1.4	10
89	In Situ Growth of High Quality Epitaxial Yba2cu3O7-X Thin Films at Moderate Temperatures by Pulsed Laser Ablation. *Materials Research Society Symposia Proceedings*, **1989**, 169, 431		10
88	Unit cell orientation of tetragonal-like BiFeO3 thin films grown on highly miscut LaAlO3 substrates. *Applied Physics Letters*, **2013**, 102, 221910	3.4	9

87	Annealing-environment effects on the properties of CoPt nanoparticles formed in single-crystal Al2O3 by ion implantation. *Journal of Applied Physics*, **2005**, 98, 114311	2.5	9
86	Superconductivity in Srn+1CunO2n+1+δ infinite layer films induced by postgrowth annealing. *Applied Physics Letters*, **1995**, 66, 2283-2285	3.4	9
85	Inhomogeneous deformation behavior in intercrystalline regions in polycrystalline Ni. *Acta Materialia*, **2014**, 65, 393-399	8.4	8
84	Synthesis and characterization of porous TiO2 with wormhole-like framework structure. *Journal of Porous Materials*, **2008**, 15, 21-27	2.4	8
83	Reactive sputter deposition of epitaxial (001) CeO2 on (001) Ge. *Thin Solid Films*, **2004**, 468, 1-3	2.2	8
82	Phase stability and orientation of SrCu2O2 films grown by pulsed laser deposition. *Thin Solid Films*, **2005**, 488, 173-177	2.2	8
81	Formation of artificially-layered high-temperature superconductors using pulsed-laser deposition. *Applied Surface Science*, **1996**, 96-98, 672-678	6.7	8
80	Existence and nature of a smectic-A-hexatic-B-smectic-I point. *Physical Review A*, **1986**, 34, 2422-2426	2.6	8
79	Supersonic propagation of lattice energy by phasons in fresnoite. *Nature Communications*, **2018**, 9, 1823	17.4	7
78	Role of substrate crystallographic characteristics on structure and properties of rutile TiO2 epilayers. *Journal of Applied Physics*, **2013**, 114, 044314	2.5	7
77	Selenium nanoparticles formed by ion implantation into fused silica. *Nuclear Instruments & Methods in Physics Research B*, **1998**, 141, 284-288	1.2	7
76	The Formation of High-Coercivity, Oriented, Nanophase Cobalt Precipitates in Al2O3 Single Crystals by Ion Implantation. *Materials Research Society Symposia Proceedings*, **1999**, 581, 71		7
75	YBa2Cu3O7-x films on off-axis Y-ZrO2 substrates using Y-ZrO2 or Y2O3 barrier layers. *Journal of Materials Research*, **1995**, 10, 810-816	2.5	7
74	Electrical Transport Dissipation Effects in Epitaxial Y1ba2cu3o7.X Thin Films. *Materials Research Society Symposia Proceedings*, **1989**, 169, 883		7
73	X-ray Microbeam Investigation of Deformation Microstructure in Microindented Cu. *Materials Research Society Symposia Proceedings*, **2003**, 779, 5341		7
72	Ion Beam Synthesis Of Cds, ZnS, And PbS Compound Semiconductor Nanocrystals. *Materials Research Society Symposia Proceedings*, **1997**, 504, 399		6
71	Characterization of growth defects in thin GaN layers with X-ray microbeam. *Physica Status Solidi (B): Basic Research*, **2007**, 244, 1735-1742	1.3	6
70	Hydrogen-assisted pulsed-laser deposition of epitaxial CeO2 films on (001)InP. *Applied Physics Letters*, **2002**, 80, 106-108	3.4	6

69	Epitaxial Growth and Luminescent Properties of Mn2+-Activated ZnGa2O4 Films **2000**, 4, 293-297		6
68	. *IEEE Transactions on Magnetics*, **1989**, 25, 2324-2327	2	6
67	Variation of Superlattice Structure of the Bi2Sr2□CuO6-y Superconductor with Composition and Thermal History. *Materials Research Society Symposia Proceedings*, **1989**, 156, 329		6
66	Crystal structures and optical properties of new quaternary strontium europium aluminate luminescent nanoribbons. *Journal of Materials Chemistry C*, **2015**, 3, 778-788	7.1	5
65	Low cost, single crystal-like substrates for practical, high efficiency solar cells **1997**,		5
64	Effects of Co Implantation in BaTiO[sub 3], SrTiO[sub 3], and KTaO[sub 3]. *Electrochemical and Solid-State Letters*, **2003**, 6, J1		5
63	Formation of ZnAl2O4 and MgAl2O4 Spinel in Al2O3 by Ion Implantation. *Materials Research Society Symposia Proceedings*, **1998**, 540, 219		5
62	Precipitation of Icosahedral Al□Mn during pulsed laser melting. *Journal of Materials Research*, **1986**, 1, 401-404	2.5	5
61	Nanostructured GaN nucleation layer for light-emitting diodes. *Journal of Nanoscience and Nanotechnology*, **2007**, 7, 2719-25	1.3	4
60	Epitaxial growth of CeO2 on (100) InP using reactive r.f. magnetron sputtering. *Applied Physics A: Materials Science and Processing*, **2002**, 75, 699-702	2.6	4
59	(La,Sr)TiO3 as a conductive buffer for RABiTS coated conductors. *Physica C: Superconductivity and Its Applications*, **2002**, 372-376, 818-820	1.3	4
58	Deformation Microstructure Under Nanoindentations in Cu Using 3D X-Ray Structural Microscopy. *Materials Research Society Symposia Proceedings*, **2002**, 750, 1		4
57	Jesson et al. reply. *Physical Review Letters*, **1993**, 71, 3737	7.4	4
56	Three-mode coupling interference patterns in the dynamic structure factor of a relaxor ferroelectric. *Physical Review B*, **2016**, 94,	3.3	4
55	A New Approach to the Fabrication of □Smart□Near-Surface Nanostructure Composites. *Materials Research Society Symposia Proceedings*, **1997**, 501, 137		3
54	Formation of oxidation-resistant Cu-Mg coatings on (001) Cu for oxide superconducting tapes. *Surface and Coatings Technology*, **2008**, 202, 5136-5139	4.4	3
53	Optical and Structural Characterization of Zinc Implanted Silica Under Various Thermal Treatments. *Materials Research Society Symposia Proceedings*, **1996**, 438, 441		3
52	Biaxially oriented metallic tape substrates for high-temperature superconductors. *European Physical Journal D*, **1996**, 46, 1531-1532		3

51	Pulsed Laser Ablation Growth and Doping of Epitaxial Compound Semiconductor Films. *Materials Research Society Symposia Proceedings*, **1995**, 397, 107		3
50	Epitaxial ZnS, ZnSe and ZnS-ZnSe Superlattices Grown on (001)GaAs By Pulsed-Laser Ablation. *Materials Research Society Symposia Proceedings*, **1992**, 285, 471		3
49	High quality epitaxial YBCO(F) films directly deposited on sapphire. *Physica C: Superconductivity and Its Applications*, **1992**, 200, 437-441	1.3	3
48	Nanoscale Structure in AgSbTe2 Determined by Diffuse Elastic Neutron Scattering. *Journal of Electronic Materials*, **2015**, 44, 1536-1539	1.9	2
47	Correspondence: Reply to 'Phantom phonon localization in relaxors'. *Nature Communications*, **2017**, 8, 1936	17.4	2
46	Epitaxial Growth of Oxide Thin Films on (001) Metal Surfaces Using Pulsed-Laser Deposition. *Materials Research Society Symposia Proceedings*, **1997**, 474, 401		2
45	Synthesis and Physical Properties of Semiconductor Nanocrystals Formed by Ion Implantation. *ACS Symposium Series*, **1997**, 198-212	0.4	2
44	Orientation and growth behavior of CaHfO3 thin films on non-oxide substrates. *Materials Letters*, **2007**, 61, 3500-3503	3.3	2
43	Formation and properties of artificially-layered SrCuO2/BaCuO2 superconducting superlattices. *Journal of Superconductivity and Novel Magnetism*, **1995**, 8, 519-522		2
42	Addendum:□bn beam synthesis and stability of GaAs nanocrystals in silicon□[Appl. Phys. Lett. 68, 2389 (1996)]. *Applied Physics Letters*, **1996**, 69, 2297-2297	3.4	2
41	Formation and properties of novel artificially layered cuprate superconductors using pulsed-laser deposition **1996**,		2
40	Morphology and Microstructure of (111) Crystalline CeO2 Films Grown on Amorphous SiO2 Substrates by Pulsed-Laser Ablation. *Materials Research Society Symposia Proceedings*, **1994**, 354, 603		2
39	Growth and transport properties of Y-Ba-Cu-O/Pr-Ba-Cu-O superlattices **1991**,		2
38	Growth of Epitaxial ZnS Films by Pulsed-Laser Ablation. *Materials Research Society Symposia Proceedings*, **1992**, 242, 243		2
37	Nanostructured Arrays Formed by Finely Focused Ion Beams. *Materials Research Society Symposia Proceedings*, **1998**, 536, 251		2
36	National School on Neutron and X-ray Scattering. *Synchrotron Radiation News*, **2013**, 26, 9-12	0.6	1
35	High-resolution x-ray and light beam induced current (LBIC) measurements of multcrystalline silicon solar cells **2010**,		1
34	Lattice-Symmetry-Driven Phase Competition in Vanadium Dioxide. *Materials Research Society Symposia Proceedings*, **2011**, 1292, 67		1

33	2D and 3D X-Ray Structural Microscopy Using Submicron-Resolution Laue Microdiffraction. *Materials Research Society Symposia Proceedings*, **2004**, 840, Q7.1.1		1
32	Deformation Microstructure Under Nanoindentations in Cu Using 3D X-Ray Structural Microscopy. *Materials Research Society Symposia Proceedings*, **2002**, 750, 1		1
31	Epitaxial Oxide Thin-Film Phosphors for Low Voltage FED Applications. *Materials Research Society Symposia Proceedings*, **2000**, 621, 241		1
30	Formation of Ferromagnetic FePt Nanoparticles by Ion Implantation. *Materials Research Society Symposia Proceedings*, **2001**, 704, 771		1
29	Artificially-layered and metastable thin-film materials development utilizing pulsed-laser deposition. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **1996** , 41, 374-378	3.1	1
28	New Insight into Damage-Related Phenomena in Si Implanted Under Extreme Conditions. *Materials Research Society Symposia Proceedings*, **1995**, 396, 15		1
27	Optical Switching of Coherent VO2 Precipitates Embedded in Sapphire. *Materials Research Society Symposia Proceedings*, **1995**, 396, 215		1
26	Synthesis and Properties of GaAs Nanocrystals in Sio2 Formed by Ion Implantation. *Materials Research Society Symposia Proceedings*, **1995**, 396, 447		1
25	Tc-Relations in YB2Cu3O7-Thin Films: st]Effects of Oxygen Pressure During Growth. *Materials Research Society Symposia Proceedings*, **1992**, 275, 101		1
24	uperconductivity in Nonsymmetric Epitaxial YBa2Cu3O7- PrBa2Cu3O7-Superlattices Grown by Pulsed Laser Ablation. *Materials Research Society Symposia Proceedings*, **1990**, 191, 153		1
23	Development of Biaxially Textured Buffer Layers on Rolled-Ni Substrates for High Current YBa2Cu3O7-y Coated Conductors **1997**, 669-672		1
22	Formation of artificially-Layered Thin-Film Compounds Using Pulsed-Laser Deposition. *Materials Research Society Symposia Proceedings*, **1995**, 388, 57		0
21	X-ray microscopy: Beyond ensemble averages. *Nature Materials*, **2015**, 14, 657-8	27	
20	Luminescent Nanoribbons: New Ternary Europium Aluminate Luminescent Nanoribbons for Advanced Photonics (Adv. Funct. Mater. 16/2013). *Advanced Functional Materials*, **2013**, 23, 1978-1978	15.6	
19	Temperature Dependence and Annealing Effects of Absorption Edges for Selenium Quantum Dots Formed By Ion Implantation in Silica Glass. *Materials Research Society Symposia Proceedings*, **1997**, 481, 501		
18	Spatially Resolved Characterization of Microstructure, Defects and Tilts in GaN Layers Grown on Si(111) Substrates by Maskless Cantilever Epitaxy. *Materials Research Society Symposia Proceedings*, **2006**, 934, 1		
17	Evidence for pseudo-gap behavior in defect-doped infinite layer (Ca, Sr)CuO2 thin films. *Physica Status Solidi (B): Basic Research*, **2003**, 236, 143-150	1.3	
16	Pulsed-laser deposition of electronic oxides: superconductor and semiconductor applications **2000**, 3933, 124		

15	Epitaxial Electronic Oxides on Semiconductors Using Pulsed-Laser Deposition. *Materials Research Society Symposia Proceedings*, **1999**, 587, O3.7.1	
14	The Formation Al2O3/V2O3 Multilayer Structures by High-Dose Ion Implantation. *Materials Research Society Symposia Proceedings*, **1995**, 382, 107	
13	Growth of Highly Doped P-Type Znte Films by Pulsed Laser ablation in Molecular Nitrogen. *Materials Research Society Symposia Proceedings*, **1995**, 388, 85	
12	Epitaxial Growth of Metal Fluoride Thin Films by Pulsed-Laser Deposition. *Materials Research Society Symposia Proceedings*, **1995**, 397, 259	
11	Stark Effects on Band Gap and Surface Phonons of Semiconductor Quantum Dots in Dielectric Hosts. *Materials Research Society Symposia Proceedings*, **1995**, 405, 127	
10	Anisotropic Electrical Resistivity of YBCO/PBCO Superlattice Films Grown on Miscut Substrates. *Materials Research Society Symposia Proceedings*, **1992**, 275, 353	
9	Textured Coatings from Colloidal Suspensions of Faceted Oxide Microcrystals. *Materials Research Society Symposia Proceedings*, **1992**, 286, 33	
8	Epitaxial YBCO(F) films directly deposited on sapphire and its microwave properties. *Cryogenics*, **1992**, 32, 587-591	1.8
7	Superconducting transport properties and surface microstructure for YBa2Cu3O7-□based superlattices grown by pulsed laser deposition. *Lecture Notes in Physics*, **1991**, 311-319	0.8
6	TEM study of CdS nanocrystals formed in SiO2 by ion implantation. *Proceedings Annual Meeting Electron Microscopy Society of America*, **1996**, 54, 236-237	
5	Microstructure of GaAs nanocrystals formed inside single crystalline silicon. *Proceedings Annual Meeting Electron Microscopy Society of America*, **1996**, 54, 968-969	
4	Fabrication of High Critical Current Density Superconducting Tapes by Epitaxial Deposition of YBCO Thick Films on Biaxially Textured Metal Substrates **1997**, 685-688	
3	S186 Invited□X-ray Microdiffraction Techniques for Measuring Local Microstructure and Strain Distributions. *Powder Diffraction*, **2008**, 23, 189-189	1.8
2	The 3D X-Ray Crystal Microscope: An Unprecedented Tool for ICME **2013**, 183-188	
1	The 3D X-Ray Crystal Microscope: An Unprecedented Tool for ICME183-188	