Robert Schwartz

List of Publications by Citations

76 papers	3,468 citations	29 h-index	58 g-index
78 ext. papers	3,635 ext. citations	3 avg, IF	5.04 L-index

#	Paper	IF	Citations
76	Chemical Solution Deposition of Perovskite Thin Films. *Chemistry of Materials*, **1997**, 9, 2325-2340	9.6	441
75	Chemical solution deposition of electronic oxide films. *Comptes Rendus Chimie*, **2004**, 7, 433-461	2.7	385
74	Photoinduced hysteresis changes and optical storage in (Pb,La)(Zr,Ti)O3 thin films and ceramics. *Journal of Applied Physics*, **1994**, 76, 4305-4315	2.5	242
73	Polarization suppression in Pb(Zr,Ti)O3 thin films. *Journal of Applied Physics*, **1995**, 77, 6695-6702	2.5	204
72	Control of Microstructure and Orientation in Solution-Deposited BaTiO3 and SrTiO3 Thin Films. *Journal of the American Ceramic Society*, **1999**, 82, 2359-2367	3.8	126
71	ac conductivity relaxation processes in CaCu3Ti4O12 ceramics: Grain boundary and domain boundary effects. *Applied Physics Letters*, **2006**, 89, 242906	3.4	122
70	Comments on the effects of solution precursor characteristics and thermal processing conditions on the crystallization behavior of sol-gel derived lead zirconate titanate thin films. *Journal of Materials Research*, **1997**, 12, 444-456	2.5	117
69	Catalytic Dehydrogenation of Propane in Hydrogen Permselective Membrane Reactors. *Industrial & Engineering Chemistry Research*, **1996**, 35, 4398-4405	3.9	116
68	Effect of Liquid-Phase Sintering on the Breakdown Strength of Barium Titanate. *Journal of the American Ceramic Society*, **2007**, 90, 1504-1510	3.8	111
67	Maxwell-Wagner relaxations and their contributions to the high permittivity of calcium copper titanate ceramics. *Physical Review B*, **2007**, 75,	3.3	108
66	Microstructural evolution of Pb(Zr, Ti)O3 thin films prepared by hybrid metallo-organic decomposition. *Journal of Materials Research*, **1992**, 7, 1876-1882	2.5	108
65	Proton and carbon-13 NMR investigations of lead zirconate titanate (Pb(Zr,Ti)O3) thin-film precursor solutions. *Chemistry of Materials*, **1993**, 5, 511-517	9.6	106
64	Mechanical vs. electrical failure mechanisms in high voltage, high energy density multilayer ceramic capacitors. *Journal of Materials Science*, **2007**, 42, 5613-5619	4.3	91
63	Microstructural development in sol-gel derived lead zirconate titanate thin films: The role of precursor stoichiometry and processing environment. *Journal of Materials Research*, **1996**, 11, 2076-2084	2.5	87
62	Sol-gel processing of PZT thin films: A review of the state-of-the-art and process optimization strategies. *Integrated Ferroelectrics*, **1995**, 7, 259-277	0.8	82
61	Solution Deposition of Ferroelectric Thin Films. *MRS Bulletin*, **1996**, 21, 49-54	3.2	77
60	Synthesis and Structure of Novel Group IV Tridentate Alkoxide Complexes and Ceramic Thin Films Derived Therefrom. X-ray Structures of (H3CC(CH2-.mu.3-O)(CH2-.mu.-O)2)2Ti4(OCH(CH3)2)10, (H3CCH2C(CH2-.mu.3-O)(CH2-.mu.-O)2)2Ti4(OCH(CH3)2)10, and (H3CC(CH2-.mu.-O)3)2Ti4(.mu.-OCH(CH3)2)2(OCH(CH3)2)8. *Inorganic Chemistry*, **1995**, 34, 1118-1120	5.1	61

59	Control of Leakage Resistance in Pb(Zr,Ti)O3 Thin Films by Donor Doping. *Journal of the American Ceramic Society*, **1994**, 77, 3000-3005	3.8	60
58	Solution chemistry effects in Pb(Zr, Ti)O3 thin film processing. *Integrated Ferroelectrics*, **1992**, 2, 243-254	0.8	60
57	Optical limiting in SrBi2Ta2O9 and PbZrxTi1−xO3 ferroelectric thin films. *Applied Physics Letters*, **2002**, 80, 3394-3396	3.4	45
56	Spectroscopic and Microstructural Characterization of Solution Chemistry Effects in Pzt Thin Film Processing. *Materials Research Society Symposia Proceedings*, **1991**, 243, 245		43
55	Electrical properties of SrBi2Ta2O9 ferroelectric thin films at low temperature. *Applied Physics Letters*, **2002**, 81, 4583-4585	3.4	38
54	Prediction of effective permittivity of diphasic dielectrics using an equivalent capacitance model. *Journal of Applied Physics*, **2008**, 104, 074108	2.5	36
53	Dielectric response of Sr doped CaCu3Ti4O12 ceramics. *Applied Physics Letters*, **2007**, 90, 112901	3.4	35
52	Development of high performance stress-biased actuators through the incorporation of mechanical pre-loads. *Sensors and Actuators A: Physical*, **2002**, 101, 322-331	3.9	35
51	Short residence time graphitization of mesophase pitch-based carbon fibers. *Carbon*, **2002**, 40, 1217-1226	0.4	32
50	Phonon sideband spectroscopy and 1550 nm luminescence from Eu3+ and Er3+-doped ferroelectric PLZT for active electro-optic applications. *Journal of Luminescence*, **2000**, 86, 101-105	3.8	30
49	Aging characteristics of a hybrid sol-gel Pb(Zr, Ti)O3 precursor solution. *Journal of Materials Research*, **1997**, 12, 1022-1030	2.5	29
48	Preparation and characterization of chemically derived (Pb,La)TiO (3) thin films. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **1991**, 38, 677-83	3.2	29
47	Estimation of the Effective d31 Coefficients of the Piezoelectric Layer in Rainbow Actuators. *Journal of the American Ceramic Society*, **2001**, 84, 2563-2569	3.8	28
46	MODELING OF DIELECTRIC MIXTURES CONTAINING CONDUCTING INCLUSIONS WITH STATISTICALLY DISTRIBUTED ASPECT RATIO. *Progress in Electromagnetics Research*, **2006**, 66, 213-228	3.8	27
45	MAXWELL GARNETT RULE FOR DIELECTRIC MIXTURES WITH STATISTICALLY DISTRIBUTED ORIENTATIONS OF INCLUSIONS. *Progress in Electromagnetics Research*, **2009**, 99, 131-148	3.8	24
44	Metal-organic chemical vapor deposition of SrCoFeO films on porous substrates. *Journal of Materials Research*, **1998**, 13, 173-179	2.5	23
43	Growth and optical properties of SrBi2Nb2O9 ferroelectric thin films using pulsed laser deposition. *Journal of Applied Physics*, **2003**, 93, 9226-9230	2.5	22
42	An Investigation of Group (IV) Alkoxides as Property Controlling Reagents in the Synthesis of Ceramic Materials. *Comments on Inorganic Chemistry*, **1994**, 16, 243-278	3.9	22

41	Grain oriented crystallization, piezoelectric, and pyroelectric properties of (BaxSr2−x)TiSi2O8 glass ceramics. *Journal of Applied Physics*, **1999**, 85, 8343-8348	2.5	21
40	Effects of Acetylacetone Additions on PZT Thin Film Processing. *Materials Research Society Symposia Proceedings*, **1994**, 361, 377		18
39	A comparison of diol and methanol-based chemical solution deposition routes for PZT thin film fabrication. *Integrated Ferroelectrics*, **1997**, 18, 275-286	0.8	17
38	Prediction of Effective Permittivity of Diphasic Dielectrics as a Function of Frequency. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2009**, 16, 793-808	2.3	16
37	Thermal properties of La0.5Sr0.5Co1−xNixO3−δ ceramics using photopyroelectric technique. *Journal of Applied Physics*, **2003**, 94, 3206-3211	2.5	16
36	Electro-optical and optical evaluation of Pb(Zr, Ti)O3 thin films using waveguide refractometry. *Journal of Non-Crystalline Solids*, **1994**, 178, 69-76	3.9	14
35	Preparation and properties of sol-gel derived PZT thin films for decoupling capacitor applications. *Integrated Ferroelectrics*, **1994**, 4, 165-174	0.8	12
34	Control of Thin Film Processing Behavior Through Precursor Structural Modifications. *Ceramic Engineering and Science Proceedings*,1045-1056	0.1	12
33	Derivation and Application of an Empirical Formula to Describe Interfacial Relaxation Effects in Inhomogeneous Materials. *Journal of the American Ceramic Society*, **2007**, 90, 3536-3540	3.8	11
32	Sol–gel derived ceramic films – fundamentals and applications **1996**, 112-151		11
31	CVD of CeO2-Doped Y2O3-Stabilized Zirconia onto Dense and Porous Substrates. *Chemical Vapor Deposition*, **1997**, 3, 311-317		10
30	Ferroelectric thin film microstructure development and related property enhancement. *Ferroelectrics*, **1994**, 151, 11-20	0.6	10
29	The Effects of Hydrolysis Conditions, and Acid and Base Additions, on the Gel-To-Ceramic Conversion in Sol-gel Derived PbTio3. *Materials Research Society Symposia Proceedings*, **1990**, 180, 335		10
28	Solution Chemistry Optimization of Sol-Gel Processed PZT Thin Films. *Materials Research Society Symposia Proceedings*, **1993**, 310, 275		9
27	Design, fabrication and finite element modeling of a new wagon wheel flextensional transducer. *Journal of Electroceramics*, **2010**, 24, 205-213	1.5	8
26	Angularly and Spectrally Resolved Light Scattering from Lead Zirconate Titanate Thin Films. *Journal of the American Ceramic Society*, **1995**, 78, 2027-2032	3.8	8
25	Integrated Decoupling Capacitors Using Pb(Zr,Ti)O3 Thin Films. *Materials Research Society Symposia Proceedings*, **1996**, 433, 305		6
24	Rare-Earth Doping by Ion Implantation and Related Techniques. *Materials Research Society Symposia Proceedings*, **1993**, 310, 59		5

23	Formation, Structure, and Material Properties From the Reaction Product of M(OCHMe2)4 (M=Ti, Zr) and HOAc. *Materials Research Society Symposia Proceedings*, **1994**, 346, 35		5
22	Thermodynamics and Heating Processes **2013**, 343-382		5
21	Domain configuration and switching contributions to the enhanced performance of rainbow actuators **2001**,		4
20	Compositional profiling of solution-deposited lead zirconate titanate thin films by radio-frequency glow discharge atomic emission spectroscopy (rf-GD-AES). *Chemical Physics Letters*, **2000**, 318, 481-487	2.5	4
19	Aerosol-assisted chemical vapor deposition of CeO2-doped Y2O3-stabilized ZrO2 films on porous ceramic supports for membrane applications. *Chemical Vapor Deposition*, **1996**, 2, 48-51		4
18	Crystallization Behavior of Chemically Prepared and Rapidly Solidified PbTiO3. *Materials Research Society Symposia Proceedings*, **1988**, 121, 199		4
17	Finite Element Modeling of a Donut Flextensional Transducer. *Journal of the American Ceramic Society*, **2007**, 90, 850-857	3.8	3
16	STRESSED-BIASED ACTUATORS: FATIGUE AND LIFETIME. *Integrated Ferroelectrics*, **2005**, 71, 249-255	0.8	3
15	Light scattering from sol-gel Pb(Zr,Ti)O3 thin films: Surface versus volume scattering. *Integrated Ferroelectrics*, **1995**, 11, 25-34	0.8	3
14	Formation of perovskite phase mixed metal oxides via thermal decomposition of metal-organic complexes with bifunctional ligands. *Journal of Sol-Gel Science and Technology*, **1994**, 2, 305-309	2.3	3
13	Thin-Film Capacitor Technology for Improving Broadband Power Integrity. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2019**, 9, 1319-1327	1.7	2
12	Chemical Solution Deposition Basic Principles33-76		2
11	Evaluation of LSCO Electrodes for Sensor Protection Devices. *Materials Research Society Symposia Proceedings*, **2000**, 623, 365		2
10	Light scattering from Sol-gel processed lead zirconate titanate thin films. *Integrated Ferroelectrics*, **1995**, 7, 225-236	0.8	2
9	Microstructural Evolution of Pb(Zr,Ti)O3 Ceramics Using Electron Paramagnetic Resonance. *Materials Research Society Symposia Proceedings*, **1993**, 310, 3		2
8	STRESSED-BIASED ACTUATORS: LATERAL STRESS AND LOADING EFFECTS. *Integrated Ferroelectrics* , **2005**, 71, 207-219	0.8	1
7	Microscopical Study of the Structural Evolution of Sol-Gel Derived Buffer Layers for the Integration of YBCO on Biaxially Textured Nickel. *Materials Research Society Symposia Proceedings*, **2000**, 619, 209		1
6	Development Of Transparent Lsco and Lscno Conductors for Optical Shutter Systems. *Materials Research Society Symposia Proceedings*, **2001**, 666, 1171		1

5	Stress-Biased Cymbals Using Shape Memory Alloys. *Journal of the American Ceramic Society*, **2007**, 90, 1122-1129	3.8
4	UV Radiation Effects on the Sol-Gel Processing of Ferroelectric PZT Thin Films. *Materials Research Society Symposia Proceedings*, **2000**, 623, 149	
3	Depth Profiling of Solution-Deposited Lead Zirconate Titanate Thin Films by Radio Frequency Glow Discharge Atomic Emission Spectroscopy (RF-GDAES). *Materials Research Society Symposia Proceedings*, **1999**, 596, 399	
2	Raman analysis of microcircuits with lead zirconate titanate (PZT) films. *Proceedings Annual Meeting Electron Microscopy Society of America*, **1992**, 50, 1688-1689	
1	Impact of Solution Chemistry on Successfully Depositing SOL-GEL PZT Films Directly on Copper Surfaces. *Ceramic Transactions*,359-369	0.1