

Robert Kruk

List of Publications by Year in descending order

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papers

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citations

147726

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81
all docs

81
docs citations

81
times ranked

3853
citing authors

#	ARTICLE	IF	CITATIONS
1	Determining role of individual cations in high entropy oxides: Structure and reversible tuning of optical properties. Scripta Materialia, 2022, 207, 114273.	2.6	15
2	Creating a Ferromagnetic Ground State with T_c Above Room Temperature in a Paramagnetic Alloy through Non-Equilibrium Nanostructuring. Advanced Materials, 2022, 34, e2108793.	11.1	3
3	Comprehensive investigation of crystallographic, spin-electronic and magnetic structure of		

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19	Role of intermediate f states in tuning the band structure of high entropy oxides. APL Materials, 2020, 8, .	2.2	47
20	Ceramic synthesis of disordered lithium rich oxyfluoride materials. Journal of Power Sources, 2020, 467, 228230.	4.0	7
21	$\text{Ni}_{60}\text{Nb}_{40}$ Nanoglass for Tunable Magnetism and Methanol Oxidation. ACS Applied Nano Materials, 2020, 3, 7252-7259.	2.4	11
22	Fully Printed Inverters using Metal-Oxide Semiconductor and Graphene Passives on Flexible Substrates. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000252.	1.2	11
23	Magnetic $\text{Tb}_{75}\text{Fe}_{25}$ Nanoglass for Cryogenic Permanent Magnet Undulator. ACS Applied Nano Materials, 2020, 3, 7281-7290.	2.4	9
24	Configurable Resistive Response in BaTiO_3 Ferroelectric Memristors via Electron Beam Radiation. Advanced Materials, 2020, 32, e1907541.	11.1	25
25	Printing Technologies for Integration of Electronic Devices and Sensors. NATO Science for Peace and Security Series C: Environmental Security, 2020, , 1-34.	0.1	4
26	Development of Fully Printed Electrolyte-Gated Oxide Transistors Using Graphene Passive Structures. ACS Applied Electronic Materials, 2019, 1, 1538-1544.	2.0	19
27	Reversible control of magnetism: on the conversion of hydrated FeF_3 with Li to Fe and LiF . Journal of Materials Chemistry A, 2019, 7, 24005-24011.	5.2	6
28	Controlling the structure and magnetic properties of cluster-assembled metallic glasses. Materials Horizons, 2019, 6, 727-732.	6.4	8
29	Observation of electrochemically active $\text{Fe}^{3+}/\text{Fe}^{4+}$ in $\text{LiCo}_{0.8}\text{Fe}_{0.2}\text{MnO}_4$ by <i>in situ</i> Mössbauer spectroscopy and X-ray absorption spectroscopy. Physical Chemistry Chemical Physics, 2019, 21, 89-95.	1.3	11
30	Epitaxial strain adaptation in chemically disordered FeRh thin films. Physical Review B, 2019, 99, .	1.1	5
31	Voltage-Control of Magnetism in All-Solid-State and Solid/Liquid Magnetoelectric Composites. Advanced Materials, 2019, 31, e1806662.	11.1	82
32	Combination of pulsed laser ablation and inert gas condensation for the synthesis of nanostructured nanocrystalline, amorphous and composite materials. Nanoscale Advances, 2019, 1, 4513-4521.	2.2	18
33	Cluster-Assembled Nanocomposites: Functional Properties by Design. Advanced Materials, 2019, 31, e1806634.	11.1	16
34	Robust Macroscopic Polarization of Block Copolymer-Templated Mesoporous Perovskite-Type Thin-Film Ferroelectrics. Advanced Electronic Materials, 2019, 5, 1800287.	2.6	3
35	High-entropy oxides: An emerging prospect for magnetic rare-earth transition metal perovskites. Physical Review Materials, 2019, 3, .	0.9	107
36	Electrochemical Tuning of Magnetism in Ordered Mesoporous Transition-Metal Ferrite Films for Micromagnetic Actuation. ACS Applied Nano Materials, 2018, 1, 65-72.	2.4	24

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37	Voltage-Controlled On/Off Switching of Ferromagnetism in Manganite Supercapacitors. <i>Advanced Materials</i> , 2018, 30, 1703908.	11.1	43
38	Printed Electronics Based on Inorganic Semiconductors: From Processes and Materials to Devices. <i>Advanced Materials</i> , 2018, 30, e1707600.	11.1	148
39	Anion Doping of Ferromagnetic Thin Films of $\text{La}_{0.74}\text{Sr}_{0.26}\text{MnO}_3$ via Topochemical Fluorination. <i>Materials</i> , 2018, 11, 1204.	1.3	15
40	Proton Conduction in Grain-Boundary-Free Oxygen-Deficient $\text{BaFeO}_{2.5+x}$ Thin Films. <i>Materials</i> , 2018, 11, 52.	1.3	17
41	In situ Lorentz Transmission Electron Microscopy of FeRh Thin Films. <i>Microscopy and Microanalysis</i> , 2018, 24, 934-935.	0.2	2
42	High-Performance All-Printed Amorphous Oxide FETs and Logics with Electronically Compatible Electrode/Channel Interface. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 22408-22418.	4.0	39
43	Structure and conductivity of epitaxial thin films of barium ferrite and its hydrated form $\text{BaFeO}_{2.5+x}(\text{OH})_{2x}$. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 115302.	1.3	6
44	Hybrid supercapacitors for reversible control of magnetism. <i>Nature Communications</i> , 2017, 8, 15339.	5.8	51
45	Epitaxial strain-engineered self-assembly of magnetic nanostructures in FeRh thin films. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 025007.	1.3	6
46	Facile fabrication of electrolyte-gated single-crystalline cuprous oxide nanowire field-effect transistors. <i>Nanotechnology</i> , 2016, 27, 415205.	1.3	9
47	Toward On and Off Magnetism: Reversible Electrochemistry to Control Magnetic Phase Transitions in Spinel Ferrites. <i>Advanced Functional Materials</i> , 2016, 26, 7507-7515.	7.8	69
48	Anion ordering, magnetic structure and properties of the vacancy ordered perovskite $\text{Ba}_3\text{Fe}_3\text{O}_7\text{F}$. <i>Journal of Solid State Chemistry</i> , 2016, 243, 31-37.	1.4	11
49	Temperature-Dependent Performance of Printed Field-Effect Transistors with Solid Polymer Electrolyte Gating. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 31757-31763.	4.0	31
50	Tailoring magnetic frustration in strained epitaxial FeRh films. <i>Physical Review B</i> , 2016, 93, .	1.1	22
51	Ink-Jet Printed CMOS Electronics from Oxide Semiconductors. <i>Small</i> , 2015, 11, 3591-3596.	5.2	70
52	Magnetic properties of iron cluster/chromium matrix nanocomposites. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 1158-1163.	1.5	8
53	A General Route toward Complete Room Temperature Processing of Printed and High Performance Oxide Electronics. <i>ACS Nano</i> , 2015, 9, 3075-3083.	7.3	78
54	A nanoglass alloying immiscible Fe and Cu at the nanoscale. <i>Nanoscale</i> , 2015, 7, 6607-6611.	2.8	33

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55	Intercalation-Driven Reversible Control of Magnetism in Bulk Ferromagnets. <i>Advanced Materials</i> , 2014, 26, 4639-4644.	11.1	85
56	Introducing a Large Polar Tetragonal Distortion into Ba-Doped BiFeO ₃ by Low-Temperature Fluorination. <i>Inorganic Chemistry</i> , 2014, 53, 12572-12583.	1.9	29
57	Crystallographic and Magnetic Structure of the Perovskite-Type Compound BaFeO _{2.5} : Unraveled Complexity in Oxygen Vacancy Ordering. <i>Inorganic Chemistry</i> , 2014, 53, 5911-5921.	1.9	44
58	The power of <i>in situ</i> pulsed laser deposition synchrotron characterization for the detection of domain formation during growth of Ba _{0.5} Sr _{0.5} TiO ₃ on MgO. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 386-394.	1.0	19
59	Electrolyte-Gated, High Mobility Inorganic Oxide Transistors from Printed Metal Halides. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 11498-11502.	4.0	67
60	Temperature tolerance study of high performance electrochemically gated SnO ₂ nanowire field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2013, 1, 2534.	2.7	16
61	<i>In situ</i> magnetometry studies of magnetoelectric LSMO/PZT heterostructures. <i>Physical Review B</i> , 2013, 87, .	1.1	63
62	High-Speed, Low-Voltage, and Environmentally Stable Operation of Electrochemically Gated Zinc Oxide Nanowire Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2013, 23, 1750-1758.	7.8	86
63	Thermal and Photoinduced Spin Crossover in a Mononuclear Iron(II) Complex with a Bis(pyrazolyl)pyridine Type of Ligand. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 1049-1057.	1.0	24
64	Room temperature reversible tuning of magnetism of electrolyte-gated La _{0.75} Sr _{0.25} MnO ₃ nanoparticles. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	16
65	The interplay of iron(ii) spin transition and polymorphism. <i>Dalton Transactions</i> , 2012, 41, 5163.	1.6	43
66	Ferroelectric vs. structural properties of large-distance sputtered epitaxial LSMO/PZT heterostructures. <i>AIP Advances</i> , 2012, 2, .	0.6	15
67	Printed and Electrochemically Gated, High-Mobility, Inorganic Oxide Nanoparticle FETs and Their Suitability for High-Frequency Applications. <i>Advanced Functional Materials</i> , 2012, 22, 4909-4919.	7.8	75
68	Large-distance rf- and dc-sputtering of epitaxial La _{1-x} Sr _x MnO ₃ thin films. <i>Thin Solid Films</i> , 2012, 520, 5521-5527.	0.8	25
69	Inkjet Printed, High Mobility Inorganic-Oxide Field Effect Transistors Processed at Room Temperature. <i>ACS Nano</i> , 2011, 5, 9628-9638.	7.3	118
70	Local Structural Disorder and Relaxation in SnO ₂ Nanostructures Studied by ¹¹⁹ Sn MAS NMR and ¹¹⁹ Sn Mössbauer Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2011, 115, 6433-6437.	1.5	40
71	Bulk Nanostructured Materials: Non-Mechanical Synthesis. <i>Advanced Engineering Materials</i> , 2010, 12, 666-676.	1.6	6
72	External electric field driven 3D ordering architecture of silver (I) oxide meso-superstructures. <i>Nano Today</i> , 2010, 5, 175-182.	6.2	61

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73	Gold Mesostructures with Tailored Surface Topography and Their Self-Assembly Arrays for Surface-Enhanced Raman Spectroscopy. Nano Letters, 2010, 10, 5006-5013.	4.5	295
74	Lattice-solvent controlled spin transitions in iron(ii) complexes. Dalton Transactions, 2007, , 3531.	1.6	49
75	Above room temperature spin transition in a metallo-supramolecular coordination oligomer/polymer. Chemical Communications, 2007, , 2636.	2.2	81
76	Spin Transition in a Chainlike Supramolecular Iron(II) Complex. Inorganic Chemistry, 2006, 45, 10019-10021.	1.9	71
77	Structure, magnetic properties and Mössbauer spectroscopy of GdRhSn. Journal of Solid State Chemistry, 2005, 178, 2077-2090.	1.4	26