

Ivar E Reimanis

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1149605/publications.pdf>

Version: 2024-02-01

64
papers

1,488
citations

430442

18
h-index

329751

37
g-index

65
all docs

65
docs citations

65
times ranked

1275
citing authors

#	ARTICLE	IF	CITATIONS
1	Fifty Years of Research and Development Coming to Fruition; Unraveling the Complex Interactions during Processing of Transparent Magnesium Aluminate (MgAl_2O_4) Spinel. Journal of the American Ceramic Society, 2013, 96, 3341-3365.	1.9	224
2	A Review on the Sintering and Microstructure Development of Transparent Spinel (MgAl_2O_4). Journal of the American Ceramic Society, 2009, 92, 1472-1480.	1.9	191
3	Sintering Kinetics of a MgAl_2O_4 Spinel Doped with LiF. Journal of the American Ceramic Society, 2008, 91, 444-450.	1.9	74
4	Chemical Interaction Between LiF and MgAl_2O_4 Spinel During Sintering. Journal of the American Ceramic Society, 2007, 90, 2038-2042.	1.9	72
5	The Compelling Case for Indentation as a Functional Exploratory and Characterization Tool. Journal of the American Ceramic Society, 2015, 98, 2671-2680.	1.9	67
6	Stresses Occurring during Joining of Ceramics Using Pre-ceramic Polymers. Journal of the American Ceramic Society, 2001, 84, 2240-2244.	1.9	63
7	Effect of Impurities and LiF Additive in Hot-Pressed Transparent Magnesium Aluminate Spinel. International Journal of Applied Ceramic Technology, 2013, 10, E33.	1.1	62
8	A reactive force field for lithium-aluminum silicates with applications to eucryptite phases. Modelling and Simulation in Materials Science and Engineering, 2012, 20, 015002.	0.8	51
9	Mechanical Behavior of MoSi_2 Reinforced Si_3N_4 Matrix Composites. Journal of the American Ceramic Society, 1997, 80, 3070-3076.	1.9	44
10	A review on the joining of SiC for high-temperature applications. Journal of the Korean Ceramic Society, 2020, 57, 246-270.	1.1	44
11	Fabrication of Graded Nickel-Alumina Composites with a Thermal Behavior-Matching Process. Journal of the American Ceramic Society, 2000, 83, 2147-2154.	1.9	43
12	Role of Oxygen in Microstructure Development at Solid-State Diffusion-Bonded Cu/ α - Al_2O_3 Interfaces. Journal of the American Ceramic Society, 1994, 77, 2036-2042.	1.9	39
13	Influence of Cu_2O and CuAlO_2 Interphases on Crack Propagation at $\text{Cu}/\alpha\text{-Al}_2\text{O}_3$ Interfaces. Journal of the American Ceramic Society, 1997, 80, 424-432.	1.9	35
14	Reactions in the sintering of MgAl_2O_4 spinel doped with LiF. International Journal of Materials Research, 2007, 98, 1273-1278.	0.1	33
15	Mechanical Properties of Single-Crystal α - Si_3N_4 . Journal of the American Ceramic Society, 1996, 79, 2065-2073.	1.9	29
16	A new powder production route for transparent spinel windows: powder synthesis and window properties. , 2005, 5786, 41.		28
17	Electrochemical Impedance Spectroscopy of Transparent Polycrystalline Magnesium Aluminate (MgAl_2O_4) Spinel. Journal of the American Ceramic Society, 2015, 98, 2130-2138.	1.9	23
18	Electrophoretic deposition applied to thick metal-ceramic coatings. Surface and Coatings Technology, 2002, 157, 267-273.	2.2	20

#	ARTICLE	IF	CITATIONS
19	Elastic constants of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \hat{1}^2 \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle \text{-eucryptite}$ studied by density functional theory. Physical Review B, 2010, 81, .	1.1	19
20	Spontaneous Ejecta from $\hat{1}^2$ -Eucryptite Composites. Journal of the American Ceramic Society, 2007, 90, 2497-2501.	1.9	18
21	Plasma-deposited fluorocarbon films on silicon studied by ellipsometry. Thin Solid Films, 1986, 143, 269-278.	0.8	17
22	Multiple cracking in CrN and Cr ₂ N films on brass. Surface and Coatings Technology, 2005, 192, 291-298.	2.2	16
23	Functionally Graded Materials. , 0, , 465-486.		14
24	<i>In Situ</i> Raman Indentation of $\hat{1}^2$ -Eucryptite: Characterization of the Pressure-Induced Phase Transformation. Journal of the American Ceramic Society, 2009, 92, 857-863.	1.9	13
25	Atomic-scale mechanism for pressure-induced amorphization of $\hat{1}^2$ -eucryptite. Journal of Applied Physics, 2013, 114, 083520.	1.1	13
26	Determining Activation Volume for the Pressure-Induced Phase Transformation in $\hat{1}^2$ -Eucryptite Through Nanoindentation. Journal of the American Ceramic Society, 2012, 95, 2051-2058.	1.9	12
27	Thermal regimes of Li-ion conductivity in $\hat{1}^2$ -eucryptite. Journal of the American Ceramic Society, 2018, 101, 347-355.	1.9	12
28	Microstructural Evolution of Titanium Carbide-Chromium Carbide (TiC-Cr ₃ C ₂) Composites Produced via Combustion Synthesis. Journal of the American Ceramic Society, 2002, 85, 1285-1290.	1.9	11
29	Effect of Doping on the Thermal Expansion of $\hat{1}^2$ -Eucryptite Prepared by Sol-Gel Methods. Journal of the American Ceramic Society, 2012, 95, 2939-2943.	1.9	11
30	Fracture Toughness Measurement of Chromium Nitride Films on Brass. Journal of the American Ceramic Society, 2004, 87, 1306-1313.	1.9	10
31	Reactions in Eucryptite-Based Lithium Aluminum Silicates. Journal of the American Ceramic Society, 2010, 93, 1591-1596.	1.9	10
32	Internal Reduction of Ni ²⁺ in ZrO ₂ Stabilized with 10 mol% Y ₂ O ₃ Examined with VSM and SQUID Magnetometry. Journal of the American Ceramic Society, 2012, 95, 4008-4014.	1.9	10
33	Pressure-induced phase transformation in $\hat{1}^2$ -eucryptite: An X-ray diffraction and density functional theory study. Scripta Materialia, 2016, 122, 64-67.	2.6	10
34	Fabrication of transparent spinel: the role of impurities. , 2005, , .		9
35	Slow Crack Growth Behavior of Zirconia-Toughened Alumina and Alumina Using the Dynamic Fatigue Indentation Technique. Journal of the American Ceramic Society, 2011, 94, 576-583.	1.9	9
36	The Enhanced Stabilization of the Cubic Phase in Ytria-Stabilized Zirconia with the Addition of Nickel Oxide. Journal of the American Ceramic Society, 2011, 94, 2030-2036.	1.9	9

#	ARTICLE	IF	CITATIONS
37	Solubility of NiO in Pechini-derived ZrO ₂ examined with SQUID magnetometry. <i>Journal of Materials Science</i> , 2012, 47, 1690-1696.	1.7	9
38	Microstructure evolution during internal reduction of polycrystalline nickel-doped yttria-stabilized zirconia. <i>Acta Materialia</i> , 2016, 105, 84-93.	3.8	9
39	Measurement and Characterization of a High-Temperature, Coke-Resistant Bi-functional Ni/BZY15 Water-Gas-Shift Catalyst Under Steam-Reforming Conditions. <i>Catalysis Letters</i> , 2018, 148, 3592-3607.	1.4	9
40	The influence of carbon on the microstructure and wear resistance of alumina. <i>Journal of the American Ceramic Society</i> , 2021, 104, 4214-4225.	1.9	8
41	Fracture strength and principal stress fields during crush testing of the SiC layer in TRISO-coated fuel particles. <i>Journal of Nuclear Materials</i> , 2016, 477, 263-272.	1.3	7
42	Effects of exsolution on the stability and morphology of Ni nanoparticles on BZY thin films. <i>Acta Materialia</i> , 2022, 228, 117752.	3.8	7
43	A Crystalline Si ₃ N ₄ /Amorphous Si ₃ N ₄ Composite. <i>Journal of the American Ceramic Society</i> , 1996, 79, 395-400.	1.9	6
44	Finite-Element Simulations of Cracks Near Interfaces: Effects of Thermal, Elastic, and Plastic Mismatch. <i>Journal of the American Ceramic Society</i> , 2005, 88, 2833-2838.	1.9	6
45	Characterization of Nickel Ions in Nickel-Doped Yttria-Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , 2014, 97, 1041-1047.	1.9	6
46	Recrystallization Kinetics of ³ C Silicon Carbide Implanted with 400 keV Cesium Ions. <i>Journal of the American Ceramic Society</i> , 2013, 96, 3290-3295.	1.9	5
47	Radiation effects and tolerance mechanism in ¹² -eucryptite. <i>Journal of Applied Physics</i> , 2013, 113, 033504.	1.1	5
48	Mechanical and optical properties in precipitated regions of alumina-rich magnesium aluminate spinel. <i>International Journal of Applied Ceramic Technology</i> , 2017, 14, 236-244.	1.1	5
49	Fracture at interfaces. <i>Scripta Metallurgica Et Materialia</i> , 1992, 27, 1729-1734.	1.0	4
50	Influence of the Processing Route in the Microstructure and Mechanical Properties of NiAl/TiB ₂ Composites Produced by Combustion Synthesis. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2009, 40, 187-195.	1.0	4
51	Tailored metal-ceramic nanocomposites prepared by redox cycling of polycrystalline Ni-doped yttria stabilized zirconia. <i>Scripta Materialia</i> , 2016, 112, 109-113.	2.6	4
52	The effect of Ni and Fe on the decomposition of yttrium doped barium zirconate thin films. <i>Scripta Materialia</i> , 2021, 201, 113948.	2.6	4
53	Estimating Ni valence with magnetometry in solid-state reactive sintered yttrium-doped barium zirconate. <i>Journal of the American Ceramic Society</i> , 2022, 105, 159-168.	1.9	4
54	Fracture Characteristics of Czochralski-Grown Y ₃ Al ₅ O ₁₂ . <i>Journal of the American Ceramic Society</i> , 1995, 78, 2282-2286.	1.9	3

#	ARTICLE	IF	CITATIONS
55	Elastic constants of layers in isotropic laminates. Journal of the Acoustical Society of America, 2003, 114, 2618.	0.5	3
56	Zero stress aging in notched multi-component glass fibers. Journal of the American Ceramic Society, 2019, 102, 6552-6563.	1.9	3
57	Analysis of moiré data for near-interface cracks. International Journal of Fracture, 2007, 143, 207-217.	1.1	2
58	<i>In situ</i> Diamond Anvil Cell Raman Spectroscopy and Nanoindentation Study of the Pressure-Induced Phase Transformation in Pure and Zinc-Doped β -Eucryptite. Journal of the American Ceramic Society, 2013, 96, 1909-1915.	1.9	2
59	Hertzian Testing to Obtain Flaw Distributions in High Strength Glasses and Glass-Ceramics. Journal of the American Ceramic Society, 2016, 99, 3712-3718.	1.9	2
60	Diffusion limited precipitation of alumina in magnesium aluminate spinel. Journal of the American Ceramic Society, 2017, 100, 894-900.	1.9	2
61	Enhanced fracture toughness in nonstoichiometric magnesium aluminate spinel through controlled dissolution of second phase alumina. Journal of the American Ceramic Society, 2018, 101, 812-820.	1.9	2
62	Sharp indentation stress fields in fused silica: Finite element analysis and Yoffe analytic model. Journal of the American Ceramic Society, 2020, 103, 7135-7146.	1.9	2
63	Preface to the Special Issue on Mechanics of Interfaces. Journal of Materials Science, 2003, 11, 275-275.	1.2	0
64	Superparamagnetic nickel particles in yttria-stabilized zirconia prepared by reduction of Pechini-derived solution. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	0