

Jesus Gonzalez-Julian

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4415271/publications.pdf>

Version: 2024-02-01

92
papers

3,612
citations

159358

30
h-index

143772

57
g-index

92
all docs

92
docs citations

92
times ranked

3238
citing authors

#	ARTICLE	IF	CITATIONS
1	Field-Assisted Sintering Technology/Spark Plasma Sintering: Mechanisms, Materials, and Technology Developments. <i>Advanced Engineering Materials</i> , 2014, 16, 830-849.	1.6	923
2	Processing of MAX phases: From synthesis to applications. <i>Journal of the American Ceramic Society</i> , 2021, 104, 659-690.	1.9	213
3	The beneficial effect of graphene nanofillers on the tribological performance of ceramics. <i>Carbon</i> , 2013, 61, 431-435.	5.4	146
4	Molten salt shielded synthesis of oxidation prone materials in air. <i>Nature Materials</i> , 2019, 18, 465-470.	13.3	134
5	Flash Sintering of Nanocrystalline Zinc Oxide and its Influence on Microstructure and Defect Formation. <i>Journal of the American Ceramic Society</i> , 2014, 97, 1728-1735.	1.9	131
6	Unveiling the mechanisms of cold sintering of ZnO at 250°C by varying applied stress and characterizing grain boundaries by Kelvin Probe Force Microscopy. <i>Acta Materialia</i> , 2018, 144, 116-128.	3.8	117
7	Spark plasma sintering: A powerful tool to develop new silicon nitride-based materials. <i>Journal of the European Ceramic Society</i> , 2010, 30, 2937-2946.	2.8	115
8	Anisotropic thermal conductivity of silicon nitride ceramics containing carbon nanostructures. <i>Journal of the European Ceramic Society</i> , 2012, 32, 1847-1854.	2.8	76
9	Carbon nanofillers for machining insulating ceramics. <i>Materials Today</i> , 2011, 14, 496-501.	8.3	65
10	Interaction of single- and double-stranded DNA with multilayer MXene by fluorescence spectroscopy and molecular dynamics simulations. <i>Chemical Science</i> , 2019, 10, 10010-10017.	3.7	59
11	FAST/SPS sintering of nanocrystalline zinc oxide—Part I: Enhanced densification and formation of hydrogen-related defects in presence of adsorbed water. <i>Journal of the European Ceramic Society</i> , 2016, 36, 1207-1220.	2.8	56
12	FAST/SPS sintering of nanocrystalline zinc oxide—Part II: Abnormal grain growth, texture and grain anisotropy. <i>Journal of the European Ceramic Society</i> , 2016, 36, 1221-1232.	2.8	54
13	Continuous in situ functionally graded silicon nitride materials. <i>Acta Materialia</i> , 2009, 57, 2607-2612.	3.8	50
14	Mechanical and oxidation behavior of textured Ti ₂ AlC and Ti ₃ AlC ₂ MAX phase materials. <i>Journal of the European Ceramic Society</i> , 2020, 40, 5258-5271.	2.8	49
15	Application of Electric Current-Assisted Sintering Techniques for the Processing of Advanced Materials. <i>Advanced Engineering Materials</i> , 2020, 22, 2000051.	1.6	49
16	MAX and MAB Phases: Two-Dimensional Layered Carbide and Boride Nanomaterials for Electrochemical Applications. <i>ACS Applied Nano Materials</i> , 2019, 2, 6010-6021.	2.4	47
17	Synthesis of Ti ₃ SiC ₂ MAX phase powder by a molten salt shielded synthesis (MS3) method in air. <i>Journal of the European Ceramic Society</i> , 2019, 39, 3651-3659.	2.8	46
18	Enhanced particle rearrangement during liquid phase spark plasma sintering of silicon nitride-based ceramics. <i>Ceramics International</i> , 2011, 37, 159-166.	2.3	41

#	ARTICLE	IF	CITATIONS
19	Effect of Electric Field/Current on Liquid Phase Sintering. Journal of the American Ceramic Society, 2015, 98, 2018-2027.	1.9	41
20	Enhanced Tribological Performance of Silicon Nitride-Based Materials by Adding Carbon Nanotubes. Journal of the American Ceramic Society, 2011, 94, 2542-2548.	1.9	40
21	Effect of sintering method on the microstructure of pure Cr₂AlC MAX phase ceramics. Journal of the Ceramic Society of Japan, 2016, 124, 415-420.	0.5	40
22	Environmental resistance of Cr₂AlC MAX phase under thermal gradient loading using a burner rig. Journal of the American Ceramic Society, 2018, 101, 1841-1846.	1.9	39
23	2D Stacks of MXene Ti₃C₂ and 1Tâ€Phase WS₂ with Enhanced Capacitive Behavior. ChemElectroChem, 2019, 6, 3982-3986.	1.7	39
24	Sintering of a sodium-based NASICON electrolyte: A comparative study between cold, field assisted and conventional sintering methods. Journal of the European Ceramic Society, 2019, 39, 2697-2702.	2.8	39
25	Thermal cycling testing of TBCs on Cr₂AlC MAX phase substrates. Surface and Coatings Technology, 2018, 340, 17-24.	2.2	35
26	Cr₂AlC MAX phase as bond coat for thermal barrier coatings: Processing, testing under thermal gradient loading, and future challenges. Journal of the American Ceramic Society, 2020, 103, 2362-2375.	1.9	35
27	Solvent Co-intercalation into Few-layered Ti₃C₂Tx₁ MXenes in Lithium Ion Batteries Induced by Acidic or Basic Post-treatment. ACS Nano, 2021, 15, 3295-3308.	7.3	35
28	New oxidation-resistant tungsten alloys for use in the nuclear fusion reactors. Physica Scripta, 2017, T170, 014012.	1.2	34
29	Highâ€temperature oxidation and compressive strength of Cr₂AlC MAX phase foams with controlled porosity. Journal of the American Ceramic Society, 2018, 101, 542-552.	1.9	34
30	Novel Cr₂AlC MAX-phase/SiC fiber composites: Synthesis, processing and tribological response. Journal of the European Ceramic Society, 2017, 37, 467-475.	2.8	33
31	Cold spray deposition of Cr₂AlC MAX phase for coatings and bond-coat layers. Journal of the European Ceramic Society, 2019, 39, 860-867.	2.8	33
32	Multi-scale electrical response of silicon nitride/multi-walled carbon nanotubes composites. Composites Science and Technology, 2011, 71, 60-66.	3.8	32
33	Continuous functionally graded material to improve the thermoelectric properties of ZnO. Journal of the European Ceramic Society, 2017, 37, 4693-4700.	2.8	32
34	Scalable Synthesis of MAX Phase Precursors toward Titanium-Based MXenes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 26074-26083.	4.0	32
35	Oxidation resistance of bulk plasma-facing tungsten alloys. Nuclear Materials and Energy, 2018, 15, 226-231.	0.6	28
36	Advanced smart tungsten alloys for a future fusion power plant. Plasma Physics and Controlled Fusion, 2017, 59, 064003.	0.9	27

#	ARTICLE	IF	CITATIONS
37	Influence of powder characteristics on cold sintering of nano-sized ZnO with density above 99 %. Journal of the European Ceramic Society, 2021, 41, 2648-2662.	2.8	27
38	Anomalous coarsening of nanocrystalline zinc oxide particles in humid air. Journal of Crystal Growth, 2015, 419, 69-78.	0.7	25
39	Robust and wear resistant in-situ carbon nanotube/Si ₃ N ₄ nanocomposites with a high loading of nanotubes. Carbon, 2014, 72, 338-347.	5.4	23
40	Development and characterization of powder metallurgically produced discontinuous tungsten fiber reinforced tungsten composites. Physica Scripta, 2017, T170, 014005.	1.2	23
41	Synthesis, sintering, and effect of surface roughness on oxidation of submicron Ti ₂ AlC ceramics. Journal of the American Ceramic Society, 2021, 104, 1669-1688.	1.9	23
42	WCrY smart alloys as advanced plasma-facing materials " Exposure to steady-state pure deuterium plasmas in PSI-2. Nuclear Materials and Energy, 2018, 15, 220-225.	0.6	21
43	Fabrication and mechanical performance of Ti ₂ AlN prepared by FAST/SPS. Journal of the European Ceramic Society, 2020, 40, 4445-4453.	2.8	21
44	Mechanism for breakaway oxidation of the Ti ₂ AlC MAX phase. Acta Materialia, 2021, 215, 117025.	3.8	21
45	Improved compaction of ZnO nano-powder triggered by the presence of acetate and its effect on sintering. Science and Technology of Advanced Materials, 2015, 16, 025008.	2.8	20
46	Enhancing efficiency of field assisted sintering by advanced thermal insulation. Journal of Materials Processing Technology, 2018, 262, 326-339.	3.1	19
47	Bulk and grain boundary Li-diffusion in dense LiMn ₂ O ₄ pellets by means of isotope exchange and ToF-SIMS analysis. Physical Chemistry Chemical Physics, 2019, 21, 26066-26076.	1.3	19
48	Enhanced oxidation resistance of ZrB ₂ /SiC composite through in situ reaction of gadolinium oxide in patterned surface cavities. Journal of the European Ceramic Society, 2014, 34, 4157-4166.	2.8	16
49	Near Net Shaping of Monolithic and Composite <sc>MAX</sc> Phases by Injection Molding. Journal of the American Ceramic Society, 2016, 99, 3210-3213.	1.9	16
50	Electric current activated sintering (ECAS) of undoped and titanium-doped BiFeO ₃ bulk ceramics with homogeneous microstructure. Journal of the European Ceramic Society, 2019, 39, 2042-2049.	2.8	15
51	Effect of Carbon Nanotubes on Thermoelectric Properties in Zn _{0.98} Al _{0.02} O. Journal of Electronic Materials, 2016, 45, 1459-1463.	1.0	14
52	Cr ₂ AlC MAX phase foams by replica method. Materials Letters, 2019, 240, 271-274.	1.3	14
53	Towards a better understanding of the high-temperature oxidation of MAX phase Cr ₂ AlC. Journal of the European Ceramic Society, 2022, 42, 2089-2096.	2.8	14
54	Carbon nanotubes functionalization process for developing ceramic matrix nanocomposites. Journal of Materials Chemistry, 2011, 21, 6063.	6.7	13

#	ARTICLE	IF	CITATIONS
55	Smart Tungsten-based Alloys for a First Wall of DEMO. Fusion Engineering and Design, 2020, 159, 111742.	1.0	13
56	Field-assisted/spark plasma sintering behavior of CNT-reinforced zirconia composites: A comparative study between model and experiments. Journal of the European Ceramic Society, 2015, 35, 4241-4249.	2.8	12
57	Effect of Internal Current Flow During the Sintering of Zirconium Diboride by Field Assisted Sintering Technology. Journal of the American Ceramic Society, 2016, 99, 35-42.	1.9	12
58	Smart first wall materials for intrinsic safety of a fusion power plant. Fusion Engineering and Design, 2018, 136, 878-882.	1.0	12
59	High temperature compressive creep of dense and porous Cr ₂ AlC in air. Journal of the European Ceramic Society, 2019, 39, 3660-3667.	2.8	12
60	Sublimation of advanced tungsten alloys under DEMO relevant accidental conditions. Fusion Engineering and Design, 2019, 146, 1198-1202.	1.0	12
61	Advanced Self-Passivating Alloys for an Application under Extreme Conditions. Metals, 2021, 11, 1255.	1.0	12
62	Exploring processing, reactivity and performance of novel MAX phase/ultra-high temperature ceramic composites: The case study of Ti ₃ SiC ₂ . Journal of the European Ceramic Society, 2021, 41, 6064-6069.	2.8	12
63	Solvent Co-Intercalation-Induced Activation and Capacity Fade Mechanism of Few-Layered MXenes in Lithium Ion Batteries. Small, 2021, 17, e2104130.	5.2	12
64	Tungsten-chromium-yttrium alloys as first wall armor material: Yttrium concentration, oxygen content and transmutation elements. Fusion Engineering and Design, 2020, 158, 111667.	1.0	11
65	Short SiC fiber/Ti ₃ SiC ₂ MAX phase composites: Fabrication and creep evaluation. Journal of the American Ceramic Society, 2020, 103, 7072-7081.	1.9	11
66	A combined experimental and modeling study revealing the anisotropic mechanical response of Ti ₂ AlN MAX phase. Journal of the European Ceramic Society, 2021, 41, 5872-5881.	2.8	11
67	Multifunctional 3D-Printed Cellular MAX Phase Architectures. Advanced Materials Technologies, 2019, 4, 1900375.	3.0	10
68	Compressive creep of SiC whisker/Ti ₃ SiC ₂ composites at high temperature in air. Journal of the American Ceramic Society, 2020, 103, 5952-5965.	1.9	10
69	Oxidation and creep behavior of textured Ti ₂ AlC and Ti ₃ AlC ₂ . Journal of the European Ceramic Society, 2022, 42, 364-375.	2.8	10
70	Mechanical characterisation of the protective Al ₂ O ₃ scale in Cr ₂ AlC MAX phases. Journal of the European Ceramic Society, 2019, 39, 5149-5155.	2.8	9
71	Novel high entropy alloys as binder in cermets: From design to sintering. International Journal of Refractory Metals and Hard Materials, 2021, 99, 105592.	1.7	8
72	Carbon nanotubes growth on silicon nitride substrates. Materials Letters, 2011, 65, 1479-1481.	1.3	7

#	ARTICLE	IF	CITATIONS
73	Comparison between sinter forging and X-ray microtomography methods for determining sintering stress and bulk viscosity. Journal of the European Ceramic Society, 2018, 38, 2053-2058.	2.8	7
74	Argon-seeded plasma exposure and oxidation performance of tungsten-chromium-yttrium smart alloys. Tungsten, 2019, 1, 159-168.	2.0	7
75	Preferential sputtering induced Cr-Diffusion during plasma exposure of WCrY smart alloys. Journal of Nuclear Materials, 2019, 526, 151767.	1.3	6
76	The influence of the catalyst on the CO formation during catalytic wet peroxide oxidation process. Catalysis Today, 2021, 361, 30-36.	2.2	6
77	Self-passivating smart tungsten alloys for DEMO: a progress in joining and upscale for a first wall mockup. Tungsten, 2021, 3, 101-115.	2.0	6
78	Smart alloys as armor material for DEMO: Overview of properties and joining to structural materials. Fusion Engineering and Design, 2021, 166, 112272.	1.0	6
79	Processing and oxidation response of Cr ₂ AlC MAX-phase composites containing ceramic fibers. Open Ceramics, 2021, 6, 100090.	1.0	6
80	Towards In-Situ Electron Microscopy Studies of Flash Sintering. Ceramics, 2019, 2, 472-487.	1.0	5
81	Processing and Characterization of Porous Ti ₂ AlC Using Space Holder Technique. Key Engineering Materials, 0, 704, 197-203.	0.4	4
82	On the plasma suitability of WCrY smart alloys—the effect of mixed D+Ar/He plasmas. Physica Scripta, 2020, T171, 014002.	1.2	4
83	Understanding the Links between the Composition-Processing-Properties in New Formulations of HEAs Sintered by SPS. Metals, 2021, 11, 888.	1.0	3
84	Multifunctional performance of Ti ₂ AlC MAX phase/2D braided alumina fiber laminates. Journal of the American Ceramic Society, 2022, 105, 120-130.	1.9	3
85	Determination of sintering stress and bulk viscosity from sinter-forging and X-ray microtomography methods: a Review. Materials Today: Proceedings, 2019, 16, 42-48.	0.9	2
86	Lifetime estimation of Cr ₂ AlC MAX phase foam based on long-term oxidation and fracture mechanisms. Materialia, 2020, 12, 100718.	1.3	2
87	Examination of the binary system Al ₂ O ₃ –ZrO ₂ by aero acoustic levitation melting. International Journal of Ceramic Engineering & Science, 2022, 4, 10-15.	0.5	2
88	Abrasive behavior of M ₂ AlX MAX phase materials and its relation to the brittleness index. Ceramics International, 2022, 48, 19501-19506.	2.3	2
89	Salt-templated strategy for well dispersed multi-component composites with morphologies ranging from millimeter to nano-scale. Composites Communications, 2021, 27, 100862.	3.3	1
90	Effect of texture and grain size on the compressive creep of Ti ₃ SiC ₂ MAX phase ceramics. Materialia, 2022, 21, 101295.	1.3	1

#	ARTICLE	IF	CITATIONS
91	Effect of electric field and atmosphere on the processing of nanocrystalline ZnO. Proceedings of SPIE, 2014, , .	0.8	0
92	Injection Molding and Near-Complete Densification of Monolithic and Al ₂ O ₃ Fiber-Reinforced Ti ₂ AlC MAX Phase Composites. Materials, 2021, 14, 3632.	1.3	0