

Francesco Delogu

List of Publications by Year in descending order

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111
papers

4,096
citations

126708

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133063

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111
all docs

111
docs citations

111
times ranked

3679
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanochemistry Can Reduce Life Cycle Environmental Impacts of Manufacturing Active Pharmaceutical Ingredients. ACS Sustainable Chemistry and Engineering, 2022, 10, 1430-1439.	3.2	54
2	Mechanochemical Fischer indolisation: an eco-friendly design for a timeless reaction. Green Chemistry, 2022, 24, 4859-4869.	4.6	13
3	Estimation of Nanoporous Au Young's Modulus from Serial Block Face-SEM 3D-Characterisation. Materials, 2022, 15, 3644.	1.3	0
4	Chemical effects induced by the mechanical processing of granite powder. Scientific Reports, 2022, 12, .	1.6	4
5	Kinetics of MgH ₂ formation by ball milling. International Journal of Hydrogen Energy, 2021, 46, 967-973.	3.8	13
6	Coupling of mechanical deformation and reaction in mechanochemical transformations. Physical Chemistry Chemical Physics, 2021, 23, 229-245.	1.3	15
7	From solution-based nonconventional activation methods to mechanochemical procedures: The hydantoin case. , 2021, , 421-452.		0
8	The Mechanochemical Beckmann Rearrangement: An Eco-efficient "Cut-and-Paste" Strategy to Design the "Good Old Amide Bond". ACS Sustainable Chemistry and Engineering, 2021, 9, 2100-2114.	3.2	35
9	Mechanochemical Ignition of Self-propagating Reactions in Zn-S Powder Mixtures. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2021, 52, 830-839.	1.0	1
10	Mechanochemical Rearrangements. Journal of Organic Chemistry, 2021, 86, 13885-13894.	1.7	57
11	Fabrication of Nanoporous Al by Vapor-Phase Dealloying: Morphology Features, Mechanical Properties and Model Predictions. Applied Sciences (Switzerland), 2021, 11, 6639.	1.3	10
12	Advances in Mechanochemistry. ACS Sustainable Chemistry and Engineering, 2021, 9, 10662-10663.	3.2	17
13	Mechanochemical N-Chlorination Reaction of Hydantoin: In Situ Real-Time Kinetic Study by Powder X-ray Diffraction and Raman Spectroscopy. ACS Sustainable Chemistry and Engineering, 2021, 9, 12591-12601.	3.2	17
14	Porosity effects on nanoporous Au Young's modulus. Materials Letters, 2021, 304, 130703.	1.3	1
15	A phenomenological kinetic equation for mechanochemical reactions involving highly deformable molecular solids. Physical Chemistry Chemical Physics, 2021, 23, 14178-14194.	1.3	9
16	Investigation on the Thermodynamic Stability of Nanocrystalline W-Based Alloys: A Combined Theoretical and Experimental Approach. Materials, 2021, 14, 7179.	1.3	1
17	Milling Dynamics and Propagation of Mechanically Activated Self-Sustaining Reactions. Advances in Materials Science and Engineering, 2020, 2020, 1-10.	1.0	1
18	Solvent-Free, Continuous Synthesis of Hydrazone-Based Active Pharmaceutical Ingredients by Twin-Screw Extrusion. ACS Sustainable Chemistry and Engineering, 2020, 8, 12230-12238.	3.2	71

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19	Solid Particle Erosion of a Limestone Target Surface under Controlled Conditions. <i>Advances in Materials Science and Engineering</i> , 2020, 2020, 1-8.	1.0	2
20	Kabachnik's Fields Reaction by Mechanochemistry: New Horizons from Old Methods. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 18889-18902.	3.2	18
21	Mechanochemical Preparation of Active Pharmaceutical Ingredients Monitored by <i>In Situ</i> Raman Spectroscopy. <i>ACS Omega</i> , 2020, 5, 28663-28672.	1.6	38
22	Metal-Mediated and Metal-Catalyzed Reactions Under Mechanochemical Conditions. <i>ACS Catalysis</i> , 2020, 10, 8344-8394.	5.5	188
23	Insect Rearing: Potential, Challenges, and Circularity. <i>Sustainability</i> , 2020, 12, 4567.	1.6	58
24	Kinetics of mechanochemical transformations. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 14489-14502.	1.3	39
25	A mapping approach to pattern formation in the early stages of mechanical alloying. <i>Philosophical Magazine Letters</i> , 2019, 99, 192-198.	0.5	2
26	Metal-free mechanochemical oxidations in Ertalyte jars. <i>Beilstein Journal of Organic Chemistry</i> , 2019, 15, 1786-1794.	1.3	16
27	Phenomenological Inferences on the Kinetics of a Mechanically Activated Knoevenagel Condensation: Understanding the "Snowball" Kinetic Effect in Ball Milling. <i>Molecules</i> , 2019, 24, 3600.	1.7	15
28	Combined treatment with cisplatin and the tankyrase inhibitor XAV-939 increases cytotoxicity, abrogates cancer-stem-like cell phenotype and increases chemosensitivity of head-and-neck squamous-cell carcinoma cells. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2019, 846, 503084.	0.9	17
29	Electronic and optical properties of chromophores from hexeneuronic acids. <i>Cellulose</i> , 2019, 26, 1489-1501.	2.4	13
30	From enabling technologies to medicinal mechanochemistry: an eco-friendly access to hydantoin-based active pharmaceutical ingredients. <i>Reaction Chemistry and Engineering</i> , 2019, 4, 1179-1188.	1.9	81
31	Synthesis, molecular docking and cholinesterase inhibitory activity of hydroxylated 2-phenylbenzofuran derivatives. <i>Bioorganic Chemistry</i> , 2019, 84, 302-308.	2.0	10
32	Stiffening of nanoporous Au induced by water physisorption. <i>Materials Letters</i> , 2018, 220, 116-118.	1.3	0
33	Information on the mechanism of mechanochemical reaction from detailed studies of the reaction kinetics. <i>Journal of Materials Science</i> , 2018, 53, 13331-13342.	1.7	47
34	Ball Milling of Silica-Based Pyroclastic Scoriae: Measurement of Mechanochemical Reactivity by Radical Scavenging. <i>Journal of Physical Chemistry C</i> , 2018, 122, 2773-2782.	1.5	11
35	Novel 2-phenylbenzofuran derivatives as selective butyrylcholinesterase inhibitors for Alzheimer's disease. <i>Scientific Reports</i> , 2018, 8, 4424.	1.6	71
36	Non-monotonic variation of the grain size in Cu nanopowders subjected to ball milling. <i>Materials Letters</i> , 2018, 212, 171-173.	1.3	6

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37	Nanoporous Au foams: Variation of effective Young's modulus with ligament size. <i>Scripta Materialia</i> , 2018, 144, 22-26.	2.6	20
38	Ball-milling and cheap reagents breathe green life into the one hundred-year-old Hofmann reaction. <i>Organic Chemistry Frontiers</i> , 2018, 5, 531-538.	2.3	17
39	High throughput mechanochemistry: application to parallel synthesis of benzoxazines. <i>Chemical Communications</i> , 2018, 54, 551-554.	2.2	30
40	Ag surface segregation in nanoporous Au catalysts during CO oxidation. <i>Scientific Reports</i> , 2018, 8, 15208.	1.6	16
41	Processing and Investigation Methods in Mechanochemical Kinetics. <i>ACS Omega</i> , 2018, 3, 9196-9209.	1.6	70
42	Coumarin derivatives as promising xanthine oxidase inhibitors. <i>International Journal of Biological Macromolecules</i> , 2018, 120, 1286-1293.	3.6	46
43	Fabrication of Cu-graphite metal matrix composites by ball milling and spark plasma sintering. <i>Materials Letters</i> , 2018, 230, 199-202.	1.3	9
44	Indentation strain rate sensitivity of ball-milled spark-plasma sintered Cu-C metal matrix composite. <i>Journal of Alloys and Compounds</i> , 2018, 767, 838-847.	2.8	3
45	Binders alternative to Portland cement and waste management for sustainable construction – part 1. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2018, 16, 186-202.	0.7	57
46	Binders alternative to Portland cement and waste management for sustainable construction – Part 2. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2018, 16, 207-221.	0.7	45
47	Grain size reduction in Cu powders subjected to ball milling and ball drop experiments. <i>Materials Letters</i> , 2018, 232, 33-35.	1.3	4
48	Mechanochemistry for –no solvent, no base– preparation of hydantoin-based active pharmaceutical ingredients: nitrofurantoin and dantrolene. <i>Green Chemistry</i> , 2018, 20, 2973-2977.	4.6	78
49	p38 MAPK pathway and its interaction with TRF2 in cisplatin induced chemotherapeutic response in head and neck cancer. <i>Oncogenesis</i> , 2018, 7, 53.	2.1	18
50	Fabrication of polymer nanocomposites via ball milling: Present status and future perspectives. <i>Progress in Materials Science</i> , 2017, 86, 75-126.	16.0	166
51	Dynamical footprint of cross-reactivity in a human autoimmune T-cell receptor. <i>Scientific Reports</i> , 2017, 7, 42496.	1.6	20
52	Hardening of nanoporous Au foams induced by surface chemistry. <i>Materials Letters</i> , 2017, 196, 332-334.	1.3	4
53	Mechanically activated metathesis reaction in NaNH ₂ –MgH ₂ powder mixtures. <i>Journal of Materials Science</i> , 2017, 52, 11891-11899.	1.7	8
54	Gyroidal structures as approximants to nanoporous metal foams: clues from mechanical properties. <i>Journal of Materials Science</i> , 2017, 52, 1106-1122.	1.7	22

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55	Mechanically induced oxidation of alcohols to aldehydes and ketones in ambient air: Revisiting TEMPO-assisted oxidations. <i>Beilstein Journal of Organic Chemistry</i> , 2017, 13, 2049-2055.	1.3	24
56	Influence of the milling parameters on the nucleophilic substitution reaction of activated β -cyclodextrins. <i>Beilstein Journal of Organic Chemistry</i> , 2017, 13, 1893-1899.	1.3	11
57	An Environmentally Sustainable Mechanochemical Route to Hydroxamic Acid Derivatives. <i>Advanced Synthesis and Catalysis</i> , 2016, 358, 3135-3144.	2.1	25
58	Melt-driven mechanochemical phase transformations in moderately exothermic powder mixtures. <i>Nature Materials</i> , 2016, 15, 1280-1286.	13.3	43
59	Thermally and catalytically induced coarsening of nanoporous Au. <i>Materials Letters</i> , 2016, 183, 114-116.	1.3	11
60	Thermal and mechanical activation of inelastic events in metallic glasses. <i>Scripta Materialia</i> , 2016, 113, 145-149.	2.6	5
61	Mechanical Properties of Nanoporous Au: From Empirical Evidence to Phenomenological Modeling. <i>Metals</i> , 2015, 5, 1665-1694.	1.0	10
62	Nanocrystalline yttria: Grain growth depression by thermal annealing in air. <i>Scripta Materialia</i> , 2015, 104, 33-36.	2.6	1
63	Coarsening of nanoporous Au: Relationship between structure and mechanical properties. <i>Acta Materialia</i> , 2015, 99, 29-38.	3.8	39
64	A phenomenological approach to yield strength in nanoporous metal foams. <i>Scripta Materialia</i> , 2015, 103, 26-29.	2.6	8
65	Influence of temperature on the mechanical alloying of Cu-Nb powder mixtures. <i>Chemical Physics Letters</i> , 2015, 639, 23-28.	1.2	4
66	Nanoporous Au: Statistical analysis of morphological features and evaluation of their influence on the elastic deformation behavior by phenomenological modeling. <i>Acta Materialia</i> , 2015, 85, 250-260.	3.8	37
67	Unsaturated coordination and surface stresses in metal nanoparticles. <i>Chemical Physics Letters</i> , 2014, 601, 87-91.	1.2	1
68	Kinetics of nanoporous Au formation by chemical dealloying. <i>Scripta Materialia</i> , 2014, 76, 57-60.	2.6	15
69	Mechanochemistry of Ti-C powder mixtures. <i>Acta Materialia</i> , 2014, 80, 435-444.	3.8	51
70	Reduction of grain size in metals and metal mixtures processed by ball milling. <i>Scripta Materialia</i> , 2014, 88, 9-12.	2.6	18
71	Surface stresses and Young's modulus in nanoporous Au foams. <i>Scripta Materialia</i> , 2014, 84-85, 55-58.	2.6	7
72	Mesostructural refinement in the early stages of mechanical alloying. <i>Scripta Materialia</i> , 2014, 83, 49-52.	2.6	12

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73	Kinetics of the mechanochemical synthesis of alkaline-earth metal amides. <i>Chemical Physics Letters</i> , 2014, 608, 80-83.	1.2	13
74	Activation of self-sustaining high-temperature reactions by mechanical processing of Tiâ€C powder mixtures. <i>Scripta Materialia</i> , 2013, 69, 223-226.	2.6	20
75	On the elastic deformation behavior of nanoporous metal foams. <i>Scripta Materialia</i> , 2013, 69, 781-784.	2.6	31
76	Hallmarks of mechanochemistry: from nanoparticles to technology. <i>Chemical Society Reviews</i> , 2013, 42, 7571.	18.7	952
77	Heterogeneity of properties in Ar nanoparticles. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	0.8	3
78	A possible alloying mechanism in idealized collisions between Cu and Sn crystals. <i>Chemical Physics Letters</i> , 2012, 521, 125-129.	1.2	18
79	Formation of a Al50Fe50 solid solution by mechanical alloying. <i>Materials Chemistry and Physics</i> , 2012, 133, 500-506.	2.0	2
80	On the role of mechanical properties in the early stages of the mechanical alloying of Ag50Cu50 powder mixtures. <i>Scripta Materialia</i> , 2012, 67, 104-107.	2.6	7
81	Are processing conditions similar in ball milling and high-pressure torsion? The case of the tetragonal-to-monoclinic phase transition in ZrO ₂ powders. <i>Scripta Materialia</i> , 2012, 67, 340-343.	2.6	29
82	Mechanical processing of Fe powders. <i>Journal of Materials Science</i> , 2012, 47, 4757-4762.	1.7	7
83	Mechanochemical Behavior of Surface Radicals in Ground Quartz. <i>Journal of Physical Chemistry C</i> , 2011, 115, 21230-21235.	1.5	45
84	Kinetics of mechanically induced anatase-to-rutile phase transformations under inelastic impact conditions. <i>Acta Materialia</i> , 2010, 58, 3798-3804.	3.8	21
85	Molecular dynamics of collisions between rough surfaces. <i>Physical Review B</i> , 2010, 82, .	1.1	34
86	Mechanochemical effects in the formation of Ag50Cu50 solid solutions by mechanical alloying. <i>Materials Chemistry and Physics</i> , 2009, 115, 641-644.	2.0	4
87	A mechanistic study of TiO ₂ anatase-to-rutile phase transformation under mechanical processing conditions. <i>Journal of Alloys and Compounds</i> , 2009, 468, 22-27.	2.8	24
88	A combined experimental and numerical approach to the kinetics of mechanically induced phase transformations. <i>Acta Materialia</i> , 2008, 56, 905-912.	3.8	32
89	A mechanistic study of Ag50Cu50 solid solution formation by mechanical alloying. <i>Acta Materialia</i> , 2008, 56, 2344-2352.	3.8	42
90	Kinetics of allotropic phase transformation in cobalt powders undergoing mechanical processing. <i>Scripta Materialia</i> , 2008, 58, 126-129.	2.6	29

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91	Identification and Characterization of Potential Shear Transformation Zones in Metallic Glasses. <i>Physical Review Letters</i> , 2008, 100, 255901.	2.9	67
92	Forced chemical mixing in model immiscible systems under plastic deformation. <i>Journal of Applied Physics</i> , 2008, 104, .	1.1	48
93	Kinetics of amorphization processes by mechanical alloying: A modeling approach. <i>Journal of Alloys and Compounds</i> , 2007, 436, 233-240.	2.8	41
94	The size refinement of Cu crystallites under mechanical processing conditions: a phenomenological modeling approach. <i>Journal of Materials Science</i> , 2007, 42, 4356-4363.	1.7	14
95	Crystallite size refinement in elemental species under mechanical processing conditions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 422, 198-204.	2.6	28
96	Numerical simulations of atomic-scale disordering processes at impact between two rough crystalline surfaces. <i>Physical Review B</i> , 2006, 74, .	1.1	47
97	Structural and energetic properties of unsupported Cu nanoparticles from room temperature to the melting point: Molecular dynamics simulations. <i>Physical Review B</i> , 2005, 72, .	1.1	95
98	Thermodynamics on the Nanoscale. <i>Journal of Physical Chemistry B</i> , 2005, 109, 21938-21941.	1.2	49
99	Changes in the Ta₅₀C₅₀ Mechanochemical Reactivity under Different Milling Conditions. <i>Journal of Metastable and Nanocrystalline Materials</i> , 2004, 20-21, 337-342.	0.1	6
100	A quantitative approach to mechanochemical processes. <i>Journal of Materials Science</i> , 2004, 39, 5121-5124.	1.7	73
101	Mechanically induced self-propagating combustions: Experimental findings and numerical simulation results. <i>Journal of Materials Science</i> , 2004, 39, 5319-5324.	1.7	32
102	Mechanical work and conversion degree in mechanically induced processes. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 382, 280-287.	2.6	90
103	Mechanical processing and self-sustaining high-temperature synthesis of TiC powders. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 375-377, 800-803.	2.6	31
104	Impact-induced disordering of intermetallic phases during mechanical processing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 343, 314-317.	2.6	19
105	The role of volume expansion in the formation of metallic glasses. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 354, 229-233.	2.6	8
106	Onset of chaotic dynamics in a ball mill: Attractors merging and crisis induced intermittency. <i>Chaos</i> , 2002, 12, 601-609.	1.0	28
107	The invariant laws of the amorphization processes by mechanical alloying. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2001, 81, 1917-1937.	0.8	89
108	Toward a Quantitative Understanding of the Mechanical Alloying Process. <i>Journal of Materials Synthesis and Processing</i> , 2000, 8, 167-180.	0.3	39

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109	Relating Single-Impact Events to Macrokinetic Features in Mechanical Alloying Processes. Journal of Materials Synthesis and Processing, 2000, 8, 271-277.	0.3	34
110	Hyperchaotic qualities of the ball motion in a ball milling device. Chaos, 1999, 9, 219-226.	1.0	27
111	From Lossen Transposition to Solventless "Medicinal Mechanochemistry". ACS Sustainable Chemistry and Engineering, 0, , .	3.2	12