

Elsa A Olivetti

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9578641/publications.pdf>

Version: 2024-02-01

103
papers

5,670
citations

87843

38
h-index

82499

72
g-index

110
all docs

110
docs citations

110
times ranked

6389
citing authors

#	ARTICLE	IF	CITATIONS
1	Innovations to decarbonize materials industries. <i>Nature Reviews Materials</i> , 2022, 7, 275-294.	23.3	57
2	Factors to Consider When Designing Aluminium Alloys for Increased Scrap Usage. <i>Minerals, Metals and Materials Series</i> , 2022, , 465-473.	0.3	2
3	Assessing recycling, displacement, and environmental impacts using an economics-informed material system model. <i>Journal of Industrial Ecology</i> , 2022, 26, 1010-1024.	2.8	13
4	Aluminum alloy compositions and properties extracted from a corpus of scientific manuscripts and US patents. <i>Scientific Data</i> , 2022, 9, 128.	2.4	12
5	Charging sustainable batteries. <i>Nature Sustainability</i> , 2022, 5, 176-178.	11.5	70
6	Development of structural descriptors to predict dissolution rate of volcanic glasses: Molecular dynamic simulations. <i>Journal of the American Ceramic Society</i> , 2022, 105, 2575-2594.	1.9	4
7	Learning the crystal structure genome for property classification. <i>Physical Review Research</i> , 2022, 4, .	1.3	2
8	Sustainability through alloy design: Challenges and opportunities. <i>Progress in Materials Science</i> , 2021, 117, 100722.	16.0	58
9	Literature mining for alternative cementitious precursors and dissolution rate modeling of glassy phases. <i>Journal of the American Ceramic Society</i> , 2021, 104, 3042-3057.	1.9	5
10	Opportunities and challenges of text mining in materials research. <i>IScience</i> , 2021, 24, 102155.	1.9	81
11	Manufacturing scalability implications of materials choice in inorganic solid-state batteries. <i>Joule</i> , 2021, 5, 564-580.	11.7	33
12	Discovering Relationships between OSDAs and Zeolites through Data Mining and Generative Neural Networks. <i>ACS Central Science</i> , 2021, 7, 858-867.	5.3	57
13	Environmental and economic implications of U.S. postconsumer plastic waste management. <i>Resources, Conservation and Recycling</i> , 2021, 167, 105391.	5.3	24
14	REWAS 2022: Developing Tomorrow's Technical Cycles. <i>Journal of Sustainable Metallurgy</i> , 2021, 7, 406-411.	1.1	2
15	Emission impacts of China's solid waste import ban and COVID-19 in the copper supply chain. <i>Nature Communications</i> , 2021, 12, 3753.	5.8	21
16	Database, Features, and Machine Learning Model to Identify Thermally Driven Metal-Insulator Transition Compounds. <i>Chemistry of Materials</i> , 2021, 33, 5591-5605.	3.2	20
17	A priori control of zeolite phase competition and intergrowth with high-throughput simulations. <i>Science</i> , 2021, 374, 308-315.	6.0	90
18	Autonomous experimentation systems for materials development: A community perspective. <i>Matter</i> , 2021, 4, 2702-2726.	5.0	143

#	ARTICLE	IF	CITATIONS
19	Inorganic Materials Synthesis Planning with Literature-Trained Neural Networks. <i>Journal of Chemical Information and Modeling</i> , 2020, 60, 1194-1201.	2.5	85
20	Text mining for processing conditions of solid-state battery electrolytes. <i>Electrochemistry Communications</i> , 2020, 121, 106860.	2.3	43
21	Data-driven materials research enabled by natural language processing and information extraction. <i>Applied Physics Reviews</i> , 2020, 7, .	5.5	117
22	Methodology for pH measurement in high alkali cementitious systems. <i>Cement and Concrete Research</i> , 2020, 135, 106122.	4.6	38
23	Dissolution of olivines from steel and copper slags in basic solution. <i>Cement and Concrete Research</i> , 2020, 133, 106065.	4.6	13
24	Manufacturing variability drives significant environmental and economic impact: The case of carbon fiber reinforced polymer composites in the aerospace industry. <i>Journal of Cleaner Production</i> , 2020, 261, 121087.	4.6	52
25	Perspectives on Cobalt Supply through 2030 in the Face of Changing Demand. <i>Environmental Science & Technology</i> , 2020, 54, 2985-2993.	4.6	116
26	Integrated planning for design and production in two-stage recycling operations. <i>European Journal of Operational Research</i> , 2019, 273, 535-547.	3.5	9
27	Design parameters and environmental impact of printed wiring board manufacture. <i>Journal of Cleaner Production</i> , 2019, 238, 117807.	4.6	6
28	Strategies for improving the sustainability of structural metals. <i>Nature</i> , 2019, 575, 64-74.	13.7	301
29	Consequential effects of increased use of recycled fiber in the United States pulp and paper industry. <i>Journal of Cleaner Production</i> , 2019, 241, 118133.	4.6	12
30	Planning strategies to address operational and price uncertainty in biodiesel production. <i>Applied Energy</i> , 2019, 238, 1573-1581.	5.1	11
31	Distilling a Materials Synthesis Ontology. <i>Matter</i> , 2019, 1, 8-12.	5.0	31
32	Reactivity of industrial wastes as measured through ICP-OES: A case study on siliceous Indian biomass ash. <i>Journal of the American Ceramic Society</i> , 2019, 102, 7678-7688.	1.9	7
33	A Machine Learning Approach to Zeolite Synthesis Enabled by Automatic Literature Data Extraction. <i>ACS Central Science</i> , 2019, 5, 892-899.	5.3	176
34	Material efficiency strategies to reducing greenhouse gas emissions associated with buildings, vehicles, and electronics—a review. <i>Environmental Research Letters</i> , 2019, 14, 043004.	2.2	225
35	Leaching characteristics of biomass ash-based binder in neutral and acidic media. <i>Cement and Concrete Composites</i> , 2019, 100, 92-98.	4.6	6
36	Cobalt Criticality and Availability in the Wake of Increased Electric Vehicle Demand: A Short-Term Scenario Analysis. <i>Minerals, Metals and Materials Series</i> , 2019, , 355-357.	0.3	2

#	ARTICLE	IF	CITATIONS
37	Economics of materials in mobile phone preprocessing, focus on non-printed circuit board materials. <i>Waste Management</i> , 2019, 87, 78-85.	3.7	14
38	Graph similarity drives zeolite diffusionless transformations and intergrowth. <i>Nature Materials</i> , 2019, 18, 1177-1181.	13.3	54
39	Analysis of cost-environmental trade-offs in biodiesel production incorporating waste feedstocks: A multi-objective programming approach. <i>Journal of Cleaner Production</i> , 2019, 216, 64-73.	4.6	11
40	High-Resolution Insight into Materials Criticality: Quantifying Risk for By-Product Metals from Primary Production. <i>Journal of Industrial Ecology</i> , 2019, 23, 452-465.	2.8	21
41	Streamlining the Life Cycle Assessment of Buildings by Structured Under-Specification and Probabilistic Triage. <i>Journal of Industrial Ecology</i> , 2019, 23, 268-279.	2.8	15
42	The Materials Science Procedural Text Corpus: Annotating Materials Synthesis Procedures with Shallow Semantic Structures. , 2019, , .		33
43	The Role of Manufacturing Variability on Environmental Impact. <i>Minerals, Metals and Materials Series</i> , 2019, , 19-32.	0.3	0
44	Reactivity of Crystalline Slags in Alkaline Solution. <i>Minerals, Metals and Materials Series</i> , 2019, , 177-187.	0.3	1
45	Mineralogical and microstructural characterization of biomass ash binder. <i>Cement and Concrete Composites</i> , 2018, 89, 41-51.	4.6	26
46	Beneficial use of boiler ash in alkali-activated bricks. <i>Resources, Conservation and Recycling</i> , 2018, 128, 1-10.	5.3	42
47	Designing for Manufacturing Scalability in Clean Energy Research. <i>Joule</i> , 2018, 2, 1642-1647.	11.7	12
48	Value of information analysis for life cycle assessment: Uncertain emissions in the green manufacturing of electronic tablets. <i>Journal of Cleaner Production</i> , 2018, 197, 1540-1545.	4.6	6
49	Toward a sustainable materials system. <i>Science</i> , 2018, 360, 1396-1398.	6.0	143
50	Streamlined life cycle assessment: A case study on tablets and integrated circuits. <i>Journal of Cleaner Production</i> , 2018, 200, 819-826.	4.6	8
51	Comparing Life Cycle Energy and Global Warming Potential of Carbon Fiber Composite Recycling Technologies and Waste Management Options. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 9854-9865.	3.2	155
52	Fatty acid based prediction models for biodiesel properties incorporating compositional uncertainty. <i>Fuel</i> , 2017, 196, 13-20.	3.4	39
53	Econometric modeling of recycled copper supply. <i>Resources, Conservation and Recycling</i> , 2017, 122, 219-226.	5.3	33
54	Taking the Circularity to the Next Level: A Special Issue on the Circular Economy. <i>Journal of Industrial Ecology</i> , 2017, 21, 476-482.	2.8	223

#	ARTICLE	IF	CITATIONS
55	Operational Strategies for Increasing Secondary Materials in Metals Production Under Uncertainty. Journal of Sustainable Metallurgy, 2017, 3, 350-361.	1.1	5
56	Materials selection considerations for high entropy alloys. Scripta Materialia, 2017, 138, 145-150.	2.6	76
57	Lithium-Ion Battery Supply Chain Considerations: Analysis of Potential Bottlenecks in Critical Metals. Joule, 2017, 1, 229-243.	11.7	937
58	Materials Synthesis Insights from Scientific Literature via Text Extraction and Machine Learning. Chemistry of Materials, 2017, 29, 9436-9444.	3.2	319
59	Machine-learned and codified synthesis parameters of oxide materials. Scientific Data, 2017, 4, 170127.	2.4	115
60	Environmental impact of high density interconnect printed boards as a function of design parameters. , 2017, , .		0
61	Virtual screening of inorganic materials synthesis parameters with deep learning. Npj Computational Materials, 2017, 3, .	3.5	131
62	Environmental life-cycle assessment. Nature Materials, 2017, 16, 693-697.	13.3	85
63	Advancing Alternative Analysis: Integration of Decision Science. Environmental Health Perspectives, 2017, 125, 066001.	2.8	27
64	Economics of End-of-Life Materials Recovery: A Study of Small Appliances and Computer Devices in Portugal. Environmental Science & Technology, 2016, 50, 4854-4862.	4.6	22
65	An overview of the Photonics Systems Manufacturing Consortium - A participant in the americal institute for manufacturing-integrated photonics institute. , 2016, , .		0
66	A Methodology for Robust Comparative Life Cycle Assessments Incorporating Uncertainty. Environmental Science & Technology, 2016, 50, 6397-6405.	4.6	58
67	Utilizing Economic Value, Resource Availability, and Environmental Impact Metrics to Improve the WEEE and Battery Directives and Promote Alignment with the European Commission Circular Economy Strategy. , 2016, , 289-295.		0
68	The Value of Integrated Production Planning for Two-Stage Aluminum Recycling Operations. , 2016, , 231-233.		0
69	Industrial Symbiosis Among Small and Medium Scale Enterprises: Case of Muzaffarnagar, India. , 2016, , 173-177.		2
70	Understanding dynamic availability risk of critical materials: The role and evolution of market analysis and modeling. MRS Energy & Sustainability, 2015, 2, 1.	1.3	9
71	Conflict Minerals in the Compute Sector: Estimating Extent of Tin, Tantalum, Tungsten, and Gold Use in ICT Products. Environmental Science & Technology, 2015, 49, 974-981.	4.6	40
72	Data Mining Toward Increased Use of Aluminum Dross. Journal of Sustainable Metallurgy, 2015, 1, 53-64.	1.1	3

#	ARTICLE	IF	CITATIONS
73	Impact of Policy on Greenhouse Gas Emissions and Economics of Biodiesel Production. Environmental Science & Technology, 2014, 48, 7642-7650.	4.6	9
74	Impact of feedstock diversification on the cost-effectiveness of biodiesel. Applied Energy, 2014, 126, 281-296.	5.1	36
75	A Multiobjective Model for Biodiesel Blends Minimizing Cost and Greenhouse Gas Emissions. Lecture Notes in Computer Science, 2014, , 653-666.	1.0	2
76	Manufacturing-focused emissions reductions in footwear production. Journal of Cleaner Production, 2013, 44, 18-29.	4.6	45
77	Exploring the Viability of Probabilistic Under-Specification To Streamline Life Cycle Assessment. Environmental Science & Technology, 2013, 47, 5208-5216.	4.6	36
78	What's your number?: Navigating the shifting landscape of ICT carbon footprint labels and standards. , 2012, , .		0
79	Improving aluminum recycling: A survey of sorting and impurity removal technologies. Resources, Conservation and Recycling, 2012, 58, 79-87.	5.3	256
80	Environmental assessment of information technology products using a triage approach. , 2011, , .		0
81	Increasing Secondary and Renewable Material Use: A Chance Constrained Modeling Approach To Manage Feedstock Quality Variation. Environmental Science & Technology, 2011, 45, 4118-4126.	4.6	21
82	Toward Sustainable Material Usage: Evaluating the Importance of Market Motivated Agency in Modeling Material Flows. Environmental Science & Technology, 2011, 45, 4110-4117.	4.6	40
83	The Sustainability Consortium update: Type III product declaration development for laptops. , 2011, , .		1
84	Concurrent Development of RIM Parts. Advanced Concurrent Engineering, 2011, , 345-352.	0.2	0
85	Design for Recycling. Journal of Industrial Ecology, 2010, 14, 286-308.	2.8	78
86	The use of feedback in lab energy conservation: fume hoods at MIT. International Journal of Sustainability in Higher Education, 2010, 11, 217-235.	1.6	6
87	Life cycle analysis of plastics for packaging: PVC and PET. , 2010, , .		1
88	Data and methodological needs to assess uncertainty in the carbon footprint of ICT products. , 2010, , .		2
89	Improving aluminum recycling through investigations of thermodynamic effects in remelting. , 2010, , .		0
90	Energy concerns in information and communication technology and the potential for photonics integration. , 2010, , .		2

#	ARTICLE	IF	CITATIONS
91	Modeling the impact of product portfolio on the economic and environmental performance of recycling systems. , 2009, , .		2
92	Fouling resistant, high flux nanofiltration membranes from polyacrylonitrile-graft-poly(ethylene Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 70	4.1	98
93	End-of-life LCA allocation methods: Open loop recycling impacts on robustness of material selection decisions. , 2009, , .		51
94	Modeling the economic and environmental performance of recycling systems. , 2008, , .		6
95	Original equipment manufacturer end-of-life equipment collection metrics. , 2008, , .		0
96	Electrochemical Characterization of Vanadium Oxide Nanostructured Electrode. Journal of the Electrochemical Society, 2008, 155, A488.	1.3	10
97	Doping level and work function control in oxidative chemical vapor deposited poly (3,4-ethylenedioxythiophene). Applied Physics Letters, 2007, 90, 152112.	1.5	67
98	Anisotropic Structure and Transport in Self-Assembled Layered Polymerâˆ™Clay Nanocomposites. Langmuir, 2007, 23, 8515-8521.	1.6	70
99	Systematic control of the electrical conductivity of poly (3,4-ethylenedioxythiophene) via oxidative chemical vapor deposition (oCVD). Surface and Coatings Technology, 2007, 201, 9406-9412.	2.2	45
100	Solâˆ™Gel Synthesis of Vanadium Oxide within a Block Copolymer Matrix. Chemistry of Materials, 2006, 18, 2828-2833.	3.2	51
101	Chain Conformations at the Surface of a Polydisperse Amphiphilic Comb Copolymer Film. Macromolecules, 2006, 39, 5122-5126.	2.2	21
102	Rubbery Graft Copolymer Electrolytes for Solid-State, Thin-Film Lithium Batteries. Journal of the Electrochemical Society, 2005, 152, A1.	1.3	89
103	Life cycle assessment of CO ₂ conversion and storage in metalâˆ™CO ₂ electrochemical cells. Journal of Industrial Ecology, 0, , .	2.8	3