Gabrielle G Gaustad

List of Publications by Year
in descending order

59	3,896	201674 27	182427 51
papers	citations	h-index	g-index

64	64	64	4212
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rare earth metals from secondary sources: Review of potential supply from waste and byproducts. Resources, Conservation and Recycling, 2021, 167, 105213.	10.8	79
2	Thematic exploration of sectoral and cross-cutting challenges to circular economy implementation. Clean Technologies and Environmental Policy, 2021, 23, 915-936.	4.1	31
3	The Potential for XRF & LIBS Handheld Analyzers to Perform Material Characterization in Scrap Yards. Journal of Sustainable Metallurgy, 2021, 7, 732-754.	2.3	5
4	Perspectives on Cobalt Supply through 2030 in the Face of Changing Demand. Environmental Science & Technology, 2020, 54, 2985-2993.	10.0	116
5	Estimating increasing diversity and dissipative loss of critical metals in the aluminum automotive sector. Resources, Conservation and Recycling, 2019, 150, 104382.	10.8	23
6	A framework for firm-level critical material supply management and mitigation. Resources Policy, 2019, 60, 262-276.	9.6	14
7	The effect of critical material prices on the competitiveness of clean energy technologies. Materials for Renewable and Sustainable Energy, 2019, 8, 1.	3.6	45
8	Ferrous and non-ferrous recycling: Challenges and potential technology solutions. Waste Management, 2019, 85, 519-528.	7.4	24
9	Characterizing Large-Scale, Electric-Vehicle Lithium Ion Transportation Batteries for Secondary Uses in Grid Applications. Batteries, 2019, 5, 8.	4.5	10
10	Positive Material Identification (PMI) Capabilities in the Metals Secondary Industry: An Analysis of XRF and LIBS Handheld Analyzers. Minerals, Metals and Materials Series, 2019, , 1375-1380.	0.4	7
11	Aluminum Alloys in Autobodies: Sources and Sinks. Minerals, Metals and Materials Series, 2019, , 1381-1383.	0.4	0
12	Critical Material Applications and Intensities in Clean Energy Technologies. Clean Technologies, 2019, 1, 164-184.	4.2	6
13	Comparing ecotoxicity risks for nanomaterial production and release under uncertainty. Clean Technologies and Environmental Policy, 2019, 21, 229-242.	4.1	12
14	Techno-economic analysis of supercritical extraction of rare earth elements from coal ash. Journal of Cleaner Production, 2018, 189, 539-551.	9.3	70
15	Portfolio Optimization of Nanomaterial Use in Clean Energy Technologies. Environmental Science & Technology, 2018, 52, 4440-4448.	10.0	14
16	Life Cycle Assessment of III-V Precursors for Photovoltaic and Semiconductor Applications. MRS Advances, 2018, 3, 1399-1404.	0.9	0
17	Ecological foraging models as inspiration for optimized recycling systems in the circular economy. Resources, Conservation and Recycling, 2018, 135, 48-57.	10.8	27
18	Tying product reuse into tying arrangements to achieve competitive advantage and environmental improvement. Resources, Conservation and Recycling, 2018, 135, 235-245.	10.8	10

#	Article	IF	Citations
19	Circular economy strategies for mitigating critical material supply issues. Resources, Conservation and Recycling, 2018, 135, 24-33.	10.8	191
20	Comparative Analysis of Supply Risk-Mitigation Strategies for Critical Byproduct Minerals: A Case Study of Tellurium. Environmental Science & Technology, 2018, 52, 11-21.	10.0	12
21	The Consequences of Electronic Waste Post-Disaster: A Case Study of Flooding in Bonn, Germany. Sustainability, 2018, 10, 4193.	3.2	8
22	Closing the loop on circular economy research: From theory to practice and back again. Resources, Conservation and Recycling, 2018, 135, 1-2.	10.8	68
23	Environmental trade-offs across cascading lithium-ion battery life cycles. International Journal of Life Cycle Assessment, 2017, 22, 66-81.	4.7	124
24	Ecoâ€Efficiency Analysis of a Lithiumâ€Ion Battery Waste Hierarchy Inspired by Circular Economy. Journal of Industrial Ecology, 2017, 21, 715-730.	5.5	154
25	Operational Strategies for Increasing Secondary Materials in Metals Production Under Uncertainty. Journal of Sustainable Metallurgy, 2017, 3, 350-361.	2.3	5
26	Lithium-Ion Battery Supply Chain Considerations: Analysis of Potential Bottlenecks in Critical Metals. Joule, 2017, 1, 229-243.	24.0	937
27	Creating the 2020 Tokyo Olympic Medals from Electronic Scrap: Sustainability Analysis. Jom, 2017, 69, 1539-1545.	1.9	6
28	Estimating direct human health impacts of end-of-life solar recovery. , 2016, , .		3
29	Life cycle assessment of jointly produced solar energy materials: Challenges and best practices. Solar Energy Materials and Solar Cells, 2016, 156, 11-26.	6.2	14
30	Estimating direct climate impacts of end-of-life solar photovoltaic recovery. Solar Energy Materials and Solar Cells, 2016, 156, 27-36.	6.2	26
31	Determining economically optimal household organic material management pathways. Resources, Conservation and Recycling, 2016, 108, 88-96.	10.8	5
32	Targeting high value metals in lithium-ion battery recycling via shredding and size-based separation. Waste Management, 2016, 51, 204-213.	7.4	152
33	Materials Research to Enable Clean Energy: Leverage Points for Risk Reduction in Critical Byproduct Material Supply Chains. , 2016, , 193-201.		1
34	Leveraging intellectual property rights to encourage green product design and remanufacturing for sustainable waste management. Resources, Conservation and Recycling, 2015, 97, 44-54.	10.8	42
35	Price volatility in PV-critical material markets: Perspectives for solar firms, consumers, and policy makers. , 2015, , .		1
36	System tradeoffs in siting a solar photovoltaic material recovery infrastructure. Journal of Environmental Management, 2015, 160, 154-166.	7.8	20

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37	Criticality Research in the Materials Community. Jom, 2014, 66, 2340-2342.	1.9	8
38	Strengthening the case for recycling photovoltaics: An energy payback analysis. Applied Energy, 2014, 120, 41-48.	10.1	75
39	When consumer behavior dictates life cycle performance beyond the use phase: case study of inkjet cartridge end-of-life management. International Journal of Life Cycle Assessment, 2014, 19, 1129-1145.	4.7	18
40	Cathode refunctionalization as a lithium ion battery recycling alternative. Journal of Power Sources, 2014, 256, 274-280.	7.8	83
41	A future perspective on lithium-ion battery waste flows from electric vehicles. Resources, Conservation and Recycling, 2014, 83, 63-76.	10.8	315
42	Identifying critical materials for photovoltaics in the US: A multi-metric approach. Applied Energy, 2014, 123, 387-396.	10.1	72
43	Economic and environmental characterization of an evolving Li-ion battery waste stream. Journal of Environmental Management, 2014, 135, 126-134.	7.8	122
44	Economies of scale for future lithium-ion battery recycling infrastructure. Resources, Conservation and Recycling, 2014, 83, 53-62.	10.8	189
45	Challenges in assessment of clean energy supply-chains based on byproduct minerals: A case study of tellurium use in thin film photovoltaics. Applied Energy, 2014, 123, 397-414.	10.1	74
46	REWAS 2013: Enabling Materials Resource Sustainability Plenary Session. Jom, 2013, 65, 984-985.	1.9	0
47	Profit and policy implications of producing biodieselâ€“ethanolâ€“diesel fuel blends to specification. Applied Energy, 2013, 104, 936-944.	10.1	54
48	Electrochemical Performance and Safety of Lithium Ion Battery Anodes Incorporating Single Wall Carbon Nanotubes. Materials Research Society Symposia Proceedings, 2012, 1439, 157-162.	0.1	2
49	Prioritizing material recovery for end-of-life printed circuit boards. Waste Management, 2012, 32, 1903-1913.	7.4	83
50	Recycling single-wall carbon nanotube anodes from lithium ion batteries. Journal of Materials Chemistry, 2012, 22, 12008.	6.7	70
51	Improving aluminum recycling: A survey of sorting and impurity removal technologies. Resources, Conservation and Recycling, 2012, 58, 79-87.	10.8	256
52	Exploring Property Based Aluminum Specifications. , 2012, , 1303-1308.		0
53	Tracking the material, energy, and value flow for end-of-life lithium ion batteries in the US. , 2011, , .		1
54	Increasing Secondary and Renewable Material Use: A Chance Constrained Modeling Approach To Manage Feedstock Quality Variation. Environmental Science & Technology, 2011, 45, 4118-4126.	10.0	21

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55	Toward Sustainable Material Usage: Evaluating the Importance of Market Motivated Agency in Modeling Material Flows. Environmental Science & Technology, 2011, 45, 4110-4117.	10.0	40
56	Design for Recycling. Journal of Industrial Ecology, 2010, 14, 286-308.	5.5	78
57	Curriculum development for the sustainability PhD program at RIT. , 2010, , .		1
58	Modeling methods for managing raw material compositional uncertainty in alloy production. Resources, Conservation and Recycling, 2007, 52, 180-207.	10.8	35
59	Strength and Microscopic Investigation of Unsaturated Polyester BMC Reinforced with SMC-Recyclate. Journal of Thermoplastic Composite Materials, 2005, 18, 333-349.	4.2	31