Sara Giarola

List of Publications by Year
in descending order

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45 papers	1,413 citations	331670 21 h-index	330143 37 g-index
46 all docs	46 docs citations	46 times ranked	1311 citing authors

#	Article	IF	Citations
1	Spatially explicit multi-objective optimisation for design and planning of hybrid first and second generation biorefineries. Computers and Chemical Engineering, 2011, 35, 1782-1797.	3.8	174
2	Strategic design and investment capacity planning of the ethanol supply chain under price uncertainty. Biomass and Bioenergy, 2011, 35, 2059-2071.	5.7	171
3	A comprehensive approach to the design of ethanol supply chains including carbon trading effects. Bioresource Technology, 2012, 107, 175-185.	9.6	121
4	A risk management approach to the economic and environmental strategic design of ethanol supply chains. Biomass and Bioenergy, 2013, 58, 31-51.	5.7	74
5	A multi-model analysis of long-term emissions and warming implications of current mitigation efforts. Nature Climate Change, 2021, 11, 1055-1062.	18.8	69
6	Techno-economic assessment of biogas-fed solid oxide fuel cell combined heat and power system at industrial scale. Applied Energy, 2018, 211, 689-704.	10.1	63
7	Spatially Explicit Multiobjective Optimization for the Strategic Design of First and Second Generation Biorefineries Including Carbon and Water Footprints. Industrial & Engineering Chemistry Research, 2013, 52, 7170-7180.	3.7	55
8	Integration of biomass into urban energy systems for heat and power. Part I: An MILP based spatial optimization methodology. Energy Conversion and Management, 2014, 83, 347-361.	9.2	52
9	A dynamic model of global natural gas supply. Applied Energy, 2018, 218, 452-469.	10.1	49
10	An agent-based model for energy investment decisions in the residential sector. Energy, 2019, 172, 752-768.	8.8	47
11	Environmentally conscious capacity planning and technology selection for bioethanol supply chains. Renewable Energy, 2012, 43, 61-72.	8.9	42
12	Optimizing the economics and the carbon and water footprints of bioethanol supply chains. Biofuels, Bioproducts and Biorefining, 2012, 6, 656-672.	3.7	41
13	Integration of biomass into urban energy systems for heat and power. Part II: Sensitivity assessment of main techno-economic factors. Energy Conversion and Management, 2014, 83, 362-376.	9.2	37
14	Long-term development of the industrial sector â€“ Case study about electrification, fuel switching, and CCS in the USA. Computers and Chemical Engineering, 2020, 133, 106602.	3.8	35
15	The role of energy storage in the uptake of renewable energy: A model comparison approach. Energy Policy, 2021, 151, 112159.	8.8	34
16	Clustered spatially and temporally resolved global heat and cooling energy demand in the residential sector. Applied Energy, 2019, 250, 48-62.	10.1	33
17	Challenges in the harmonisation of global integrated assessment models: A comprehensive methodology to reduce model response heterogeneity. Science of the Total Environment, 2021, 783, 146861.	8.0	32
18	Techno-economic assessment of the production of phthalic anhydride from corn stover. Chemical Engineering Research and Design, 2016, 107, 181-194.	5.6	29

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19	The impact of liquefied natural gas and storage on the EU natural gas infrastructure resilience. Energy, 2020, 209, 118367.	8.8	28
20	A novel energy systems model to explore the role of land use and reforestation in achieving carbon mitigation targets: A Brazil case study. Journal of Cleaner Production, 2019, 232, 796-821.	9.3	27
21	Where is the EU headed given its current climate policy? A stakeholder-driven model inter-comparison. Science of the Total Environment, 2021, 793, 148549.	8.0	26
22	Key findings from the core North American scenarios in the EMF34 intermodel comparison. Energy Policy, 2020, 144, 111599.	8.8	21
23	North American energy system responses to natural gas price shocks. Energy Policy, 2021, 149, 112046.	8.8	15
24	Modelling cost-effective pathways for natural gas infrastructure: A southern Brazil case study. Applied Energy, 2019, 255, 113799.	10.1	14
25	Agent-based scenarios comparison for assessing fuel-switching investment in long-term energy transitions of the Indiaâ€™s industry sector. Applied Energy, 2020, 274, 115295.	10.1	14
26	Modelling the technical potential of bioelectricity production under land use constraints: A multi-region Brazil case study. Renewable and Sustainable Energy Reviews, 2020, 123, 109765.	16.4	12
27	Strategic natural gas storage coordination among EU member states in response to disruption in the trans Austria gas pipeline: A stochastic approach to solidarity. Energy, 2021, 235, 121426.	8.8	12
28	Solidarity measures: Assessment of strategic gas storage on EU regional risk groups natural gas supply resilience. Applied Energy, 2022, 308, 118356.	10.1	12
29	An agent-based modelling approach to simulate the investment decision of industrial enterprises. Journal of Cleaner Production, 2020, 267, 121835.	9.3	11
30	Supply Chain Mixed Integer Linear Program Model Integrating a Biorefining Technology Superstructure. Industrial & Engineering Chemistry Research, 2018, 57, 9849-9865.	3.7	10
31	Low-cost emissions cuts in container shipping: Thinking inside the box. Transportation Research, Part D: Transport and Environment, 2021, 94, 102815.	6.8	10
32	An approach to optimize multi-enterprise biofuel supply chains including Nash equilibrium models. Computer Aided Chemical Engineering, 2015, 37, 2255-2260.	0.5	6
33	A bottom-up appraisal of the technically installable capacity of biogas-based solid oxide fuel cells for self power generation in wastewater treatment plants. Journal of Environmental Management, 2021, 279, 111753.	7.8	6
34	Carbon Sequestration Potential from Large-Scale Reforestation and Sugarcane Expansion on Abandoned Agricultural Lands in Brazil. Polytechnica, 2019, 2, 9-25.	2.1	5
35	Geospatial and temporal estimation of climatic, end-use demands, and socioeconomic drivers of energy consumption in the residential sector in Ecuador. Energy Conversion and Management, 2022, 261, 115629.	9.2	4
36	Biobased Supply Chain Optimisation Model under Uncertainties. Computer Aided Chemical Engineering, 2017, , 961-966.	0.5	3

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37	Lignocellulosic supply chain MILP model: a Hungarian case study. Computer Aided Chemical Engineering, 2016, , 253-258.	0.5	3
38	Modelling Future Agricultural Mechanisation of Major Crops in China: An Assessment of Energy Demand, Land Use and Emissions. Energies, 2020, 13, 6636.	3.1	2
39	A framework for water footprint optimisation in the bioethanol supply chain. Computer Aided Chemical Engineering, 2012, , 1372-1376.	0.5	2
40	Geospatial Big Data analytics to model the long-term sustainable transition of residential heating worldwide. , 2021, , .		2
41	A framework for modelling investment decisions in gas infrastructures. Computer Aided Chemical Engineering, 2016, 38, 259-264.	0.5	1
42	An optimization method to estimate the SOFC market in waste water treatment. Computer Aided Chemical Engineering, 2018, 43, 415-420.	0.5	1
43	Implications of Future Natural Gas Demand on Sugarcane Production, Land Use Change and Related Emissions in Brazil. Journal of Sustainable Development of Energy, Water and Environment Systems, 2020, 8, 304-327.	1.9	1
44	Bioethanol Supply Chain Design and Optimization. Computer Aided Chemical Engineering, 2015, 36, 555-581.	0.5	0
45	Strategic Biorefining Supply Chain Design for Novel Products in Immature Markets. Computer Aided Chemical Engineering, 2020, 48, 1579-1584.	0.5	0