Francois Marechal

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#	Paper	IF	Citations
340	Thermo-economic process model for thermochemical production of Synthetic Natural Gas (SNG) from lignocellulosic biomass. <i>Biomass and Bioenergy</i> , 2009 , 33, 1587-1604	5.3	193
339	Thermochemical production of liquid fuels from biomass: Thermo-economic modeling, process design and process integration analysis. <i>Biomass and Bioenergy</i> , 2010 , 34, 1838-1854	5.3	174
338	LCA tool for the environmental evaluation of potable water production. <i>Desalination</i> , 2008 , 220, 37-56	10.3	162
337	Multi-objective optimization of RO desalination plants. <i>Desalination</i> , 2008 , 222, 96-118	10.3	150
336	City Energy Analyst (CEA): Integrated framework for analysis and optimization of building energy systems in neighborhoods and city districts. <i>Energy and Buildings</i> , 2016 , 113, 202-226	7	134
335	EnerGis: A geographical information based system for the evaluation of integrated energy conversion systems in urban areas. <i>Energy</i> , 2010 , 35, 830-840	7.9	128
334	Methods for multi-objective investment and operating optimization of complex energy systems. <i>Energy</i> , 2012 , 45, 12-22	7.9	120
333	Multi-objective optimization and exergoeconomic analysis of a combined cooling, heating and power based compressed air energy storage system. <i>Energy Conversion and Management</i> , 2017 , 138, 199-209	10.6	117
332	Methodology for the optimal thermo-economic, multi-objective design of thermochemical fuel production from biomass. <i>Computers and Chemical Engineering</i> , 2009 , 33, 769-781	4	116
331	Process integration: Selection of the optimal utility system. <i>Computers and Chemical Engineering</i> , 1998 , 22, S149-S156	4	116
330	Comprehensive exergy-based evaluation and parametric study of a coal-fired ultra-supercritical power plant. <i>Applied Energy</i> , 2013 , 112, 1087-1099	10.7	112
329	Thermo-economic optimization of a combined cooling, heating and power system based on small-scale compressed air energy storage. <i>Energy Conversion and Management</i> , 2016 , 118, 377-386	10.6	110
328	Systematic integration of LCA in process systems design: Application to combined fuel and electricity production from lignocellulosic biomass. <i>Computers and Chemical Engineering</i> , 2011 , 35, 1265	5- 1 280	105
327	Thermo-economic optimisation of the polygeneration of synthetic natural gas (SNG), power and heat from lignocellulosic biomass by gasification and methanation. <i>Energy and Environmental Science</i> , 2012 , 5, 5768	35.4	101
326	Process design of Synthetic Natural Gas (SNG) production using wood gasification. <i>Journal of Cleaner Production</i> , 2005 , 13, 1434-1446	10.3	100
325	Process flow model of solid oxide fuel cell system supplied with sewage biogas. <i>Journal of Power Sources</i> , 2004 , 131, 127-141	8.9	98
324	Multi-objectives, multi-period optimization of district energy systems: I. Selection of typical operating periods. <i>Computers and Chemical Engineering</i> , 2014 , 65, 54-66	4	97

323	Multi-objective optimization of coal-fired power plants using differential evolution. <i>Applied Energy</i> , 2014 , 115, 254-264	10.7	85
322	Energy balance model of a SOFC cogenerator operated with biogas. <i>Journal of Power Sources</i> , 2003 , 118, 375-383	8.9	83
321	Multi-objective, multi-period optimization of biomass conversion technologies using evolutionary algorithms and mixed integer linear programming (MILP). <i>Applied Thermal Engineering</i> , 2013 , 50, 1504-1	513	82
320	Thermo-economic analysis for the optimal conceptual design of biomass gasification energy conversion systems. <i>Applied Thermal Engineering</i> , 2009 , 29, 2137-2152	5.8	80
319	Optimization of an SOFC-based decentralized polygeneration system for providing energy services in an office-building in Tky[] Applied Thermal Engineering, 2006, 26, 1409-1419	5.8	80
318	Obstacles in energy planning at the urban scale. Sustainable Cities and Society, 2017, 30, 223-236	10.1	79
317	Conceptual design of a thermo-electrical energy storage system based on heat integration of thermodynamic cycles [Part A: Methodology and base case. <i>Energy</i> , 2012 , 45, 375-385	7.9	79
316	Optimal design of solid-oxide electrolyzer based power-to-methane systems: A comprehensive comparison between steam electrolysis and co-electrolysis. <i>Applied Energy</i> , 2018 , 211, 1060-1079	10.7	77
315	A methodology for thermo-economic modeling and optimization of solid oxide fuel cell systems. <i>Applied Thermal Engineering</i> , 2007 , 27, 2703-2712	5.8	76
314	Targeting the integration of multi-period utility systems for site scale process integration. <i>Applied Thermal Engineering</i> , 2003 , 23, 1763-1784	5.8	73
313	Review, modeling, Heat Integration, and improved schemes of Rectisol -based processes for CO2 capture. <i>Applied Thermal Engineering</i> , 2014 , 70, 1123-1140	5.8	69
312	Advanced Thermodynamic Analysis and Evaluation of a Supercritical Power Plant. <i>Energies</i> , 2012 , 5, 185	0 ₅ .1863	3 69
311	Thermo-economic optimisation of the integration of electrolysis in synthetic natural gas production from wood. <i>Energy,</i> 2008 , 33, 189-198	7.9	67
310	Hydrothermal gasification of waste biomass: process design and life cycle asessment. <i>Environmental Science & Environmental Sc</i>	10.3	66
309	Energy in the perspective of the sustainable development: The 2000 W society challenge. <i>Resources, Conservation and Recycling</i> , 2005 , 44, 245-262	11.9	63
308	Techno-economic comparison of green ammonia production processes. <i>Applied Energy</i> , 2020 , 259, 1141	3 55.7	63
307	Environomic optimal configurations of geothermal energy conversion systems: Application to the future construction of Enhanced Geothermal Systems in Switzerland. <i>Energy</i> , 2012 , 45, 908-923	7.9	62
306	Spatial clustering for district heating integration in urban energy systems: Application to geothermal energy. <i>Applied Energy</i> , 2017 , 190, 749-763	10.7	60

305	Optimal process design for the polygeneration of SNG, power and heat by hydrothermal gasification of waste biomass: Thermo-economic process modelling and integration. <i>Energy and Environmental Science</i> , 2011 , 4, 1726	35.4	60
304	Thermo-Economic Modelling and Optimisation of Fuel Cell Systems. Fuel Cells, 2005, 5, 5-24	2.9	59
303	Characterization of input uncertainties in strategic energy planning models. <i>Applied Energy</i> , 2017 , 202, 597-617	10.7	57
302	Thermoeconomic design optimization of a thermo-electric energy storage system based on transcritical CO2 cycles. <i>Energy</i> , 2013 , 58, 571-587	7.9	57
301	Synthesis and parameter optimization of a combined sugar and ethanol production process integrated with a CHP system. <i>Energy</i> , 2011 , 36, 3675-3690	7.9	56
300	Predictive optimal management method for the control of polygeneration systems. <i>Computers and Chemical Engineering</i> , 2009 , 33, 1584-1592	4	55
299	Multi-objective, multi-period optimization of district energy systems: IV 🛱 case study. <i>Energy</i> , 2015 , 84, 365-381	7.9	54
298	Generic superstructure synthesis of organic Rankine cycles for waste heat recovery in industrial processes. <i>Applied Energy</i> , 2018 , 212, 1203-1225	10.7	54
297	Power-to-fuels via solid-oxide electrolyzer: Operating window and techno-economics. <i>Renewable and Sustainable Energy Reviews</i> , 2019 , 110, 174-187	16.2	53
296	Torrefaction modelling for lignocellulosic biomass conversion processes. <i>Energy</i> , 2014 , 70, 58-67	7.9	53
295	Co-production of hydrogen and electricity from lignocellulosic biomass: Process design and thermo-economic optimization. <i>Energy</i> , 2012 , 45, 339-349	7.9	53
294	Process Modeling and Integration of Fuel Ethanol Production from Lignocellulosic Biomass Based on Double Acid Hydrolysis. <i>Energy & Energy & 2009</i> , 23, 1759-1765	4.1	53
293	Conceptual design of a thermo-electrical energy storage system based on heat integration of thermodynamic cycles [Part B: Alternative system configurations. <i>Energy</i> , 2012 , 45, 386-396	7.9	52
292	An assessment of different solvent-based capture technologies within an IGCCICS power plant. <i>Energy</i> , 2014 , 64, 268-276	7.9	51
291	Multi-objectives, multi-period optimization of district energy systems: IIDaily thermal storage. <i>Computers and Chemical Engineering</i> , 2014 , 71, 648-662	4	51
290	Multi-objective design optimization of a natural gas-combined cycle with carbon dioxide capture in a life cycle perspective. <i>Energy</i> , 2010 , 35, 1121-1128	7.9	51
289	An energy management method for the food industry. <i>Applied Thermal Engineering</i> , 2007 , 27, 2677-268	6 5.8	51
288	Optimal heat pump integration in industrial processes. <i>Applied Energy</i> , 2018 , 219, 68-92	10.7	50

287	Defining Waste Heat[for industrial processes. Applied Thermal Engineering, 2013, 61, 134-142	5.8	50
286	Targeting the minimum cost of energy requirements: A new graphical technique for evaluating the integration of utility systems. <i>Computers and Chemical Engineering</i> , 1996 , 20, S225-S230	4	49
285	A systematic methodology for the environomic design and synthesis of energy systems combining process integration, Life Cycle Assessment and industrial ecology. <i>Computers and Chemical Engineering</i> , 2013 , 59, 2-16	4	48
284	Optimization of a fuel cell system using process integration techniques. <i>Journal of Power Sources</i> , 2003 , 118, 411-423	8.9	48
283	Thermo-economic optimization of a Solid Oxide Fuel Cell Las turbine system fuelled with gasified lignocellulosic biomass. <i>Energy Conversion and Management</i> , 2014 , 85, 764-773	10.6	47
282	Thermo-Economic Optimization of a Solid Oxide Fuel Cell, Gas Turbine Hybrid System. <i>Journal of Fuel Cell Science and Technology</i> , 2007 , 4, 123-129		47
281	Generalized model of planar SOFC repeat element for design optimization. <i>Journal of Power Sources</i> , 2004 , 131, 304-312	8.9	47
2 80	The role of solid oxide fuel cells in future ship energy systems. <i>Energy</i> , 2020 , 194, 116811	7.9	45
279	Large size biogas-fed Solid Oxide Fuel Cell power plants with carbon dioxide management: Technical and economic optimization. <i>Journal of Power Sources</i> , 2015 , 294, 669-690	8.9	44
278	Characterisation of domestic hot water end-uses for integrated urban thermal energy assessment and optimisation. <i>Applied Energy</i> , 2017 , 186, 152-166	10.7	43
277	MINLP model and two-stage algorithm for the simultaneous synthesis of heat exchanger networks, utility systems and heat recovery cycles. <i>Computers and Chemical Engineering</i> , 2017 , 106, 663-689	4	43
276	Identification of the optimal pressure levels in steam networks using integrated combined heat and power method. <i>Chemical Engineering Science</i> , 1997 , 52, 2977-2989	4.4	43
275	Energy integration of industrial sites: tools, methodology and application. <i>Applied Thermal Engineering</i> , 1998 , 18, 921-933	5.8	43
274	Targeting the optimal integration of steam networks: Mathematical tools and methodology. <i>Computers and Chemical Engineering</i> , 1999 , 23, S133-S136	4	43
273	Multi-objectives, multi-period optimization of district energy systems: III. Distribution networks. <i>Computers and Chemical Engineering</i> , 2014 , 66, 82-97	4	42
272	Parametric optimization of supercritical coal-fired power plants by MINLP and differential evolution. <i>Energy Conversion and Management</i> , 2014 , 85, 828-838	10.6	41
271	The challenge of introducing an exergy indicator in a local law on energy. <i>Energy</i> , 2008 , 33, 130-136	7.9	41
2 70	In-building waste water heat recovery: An urban-scale method for the characterisation of water streams and the assessment of energy savings and costs. <i>Applied Energy</i> , 2017 , 192, 110-125	10.7	40

269	Model-based optimization of distributed and renewable energy systems in buildings. <i>Energy and Buildings</i> , 2016 , 120, 103-113	7	40
268	Thermo-economic evaluation and optimization of the thermo-chemical conversion of biomass into methanol. <i>Energy</i> , 2013 , 58, 9-16	7.9	40
267	Integration of deep geothermal energy and woody biomass conversion pathways in urban systems. <i>Energy Conversion and Management</i> , 2016 , 129, 305-318	10.6	39
266	Reversible solid oxide systems for energy and chemical applications Review & perspectives. Journal of Energy Storage, 2019 , 24, 100782	7.8	39
265	H2 processes with CO2 mitigation: Thermo-economic modeling and process integration. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 11785-11795	6.7	39
264	Study of optimal design of polygeneration systems in optimal control strategies. <i>Energy</i> , 2013 , 55, 134-	1 4 .1)	39
263	Techno-economic optimization of biomass-to-methanol with solid-oxide electrolyzer. <i>Applied Energy</i> , 2020 , 258, 114071	10.7	38
262	Fuel cell-battery hybrid systems for mobility and off-grid applications: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2021 , 135, 110119	16.2	38
261	Process integration and optimization of a solid oxide fuel cell Gas turbine hybrid cycle fueled with hydrothermally gasified waste biomass. <i>Energy</i> , 2012 , 41, 408-419	7.9	37
260	Exergoeconomic Evaluation of a Modern Ultra-Supercritical Power Plant. <i>Energies</i> , 2012 , 5, 3381-3397	3.1	37
259	Decision support for strategic energy planning: A robust optimization framework. <i>European Journal of Operational Research</i> , 2020 , 280, 539-554	5.6	37
258	Design and optimization of district energy systems. Computer Aided Chemical Engineering, 2007, 24, 117	275.1613	236
257	Biomass modelling: Estimating thermodynamic properties from the elemental composition. <i>Fuel</i> , 2016 , 181, 207-217	7.1	36
256	Multi-objective optimization of a sugarcane biorefinery for integrated ethanol and methanol production. <i>Energy</i> , 2017 , 138, 1281-1290	7.9	35
255	Superstructure-free synthesis and optimization of thermal power plants. <i>Energy</i> , 2015 , 91, 700-711	7.9	35
254	Techno-economic design of hybrid electric vehicles using multi objective optimization techniques. <i>Energy</i> , 2015 , 91, 630-644	7.9	35
253	A dual representation for targeting process retrofit, application to a pulp and paper process. <i>Applied Thermal Engineering</i> , 2005 , 25, 1067-1082	5.8	35
252	Environomic design for electric vehicles with an integrated solid oxide fuel cell (SOFC) unit as a range extender. <i>Renewable Energy</i> , 2017 , 112, 124-142	8.1	34

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251	Strategic energy planning for large-scale energy systems: A modelling framework to aid decision-making. <i>Energy</i> , 2015 , 90, 173-186	7.9	34
250	Framework for the Multiperiod Sequential Synthesis of Heat Exchanger Networks with Selection, Design, and Scheduling of Multiple Utilities. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 168-186	3.9	34
249	In Situ Control of the Adsorption Species in CO2 Hydrogenation: Determination of Intermediates and Byproducts. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 20888-20893	3.8	34
248	Heat pump integration in a cheese factory. <i>Applied Thermal Engineering</i> , 2012 , 43, 118-127	5.8	34
247	Integrated design of a gas separation system for the upgrade of crude SNG with membranes. <i>Chemical Engineering and Processing: Process Intensification</i> , 2009 , 48, 1391-1404	3.7	34
246	Thermo-environomic evaluation of the ammonia production. <i>Canadian Journal of Chemical Engineering</i> , 2015 , 93, 356-362	2.3	33
245	Energy integration of industrial sites with heat exchange restrictions. <i>Computers and Chemical Engineering</i> , 2012 , 37, 104-118	4	33
244	Thermodynamic comparison of the FICFB and Viking gasification concepts. <i>Energy</i> , 2009 , 34, 1744-1753	7.9	33
243	Dynamic Modeling of the Microalgae Cultivation Phase for Energy Production in Open Raceway Ponds and Flat Panel Photobioreactors. <i>Frontiers in Energy Research</i> , 2015 , 3,	3.8	32
242	Power and cogeneration technology environomic performance typification in the context of CO2 abatement part II: Combined heat and power cogeneration. <i>Energy</i> , 2010 , 35, 3517-3523	7.9	32
241	Thermal modeling of a small anode supported solid oxide fuel cell. <i>Journal of Power Sources</i> , 2003 , 118, 367-374	8.9	32
240	A novel MILP approach for simultaneous optimization of water and energy: Application to a Canadian softwood Kraft pulping mill. <i>Computers and Chemical Engineering</i> , 2017 , 102, 238-257	4	31
239	Multi-objective optimization of an advanced combined cycle power plant including CO2 separation options. <i>Energy</i> , 2006 , 31, 3117-3134	7.9	31
238	A Cogeneration System Based on Solid Oxide and Proton Exchange Membrane Fuel Cells With Hybrid Storage for Off-Grid Applications. <i>Frontiers in Energy Research</i> , 2019 , 6,	3.8	30
237	Energy efficiency in waste water treatments plants: Optimization of activated sludge process coupled with anaerobic digestion. <i>Energy</i> , 2012 , 41, 153-164	7.9	30
236	Optimal process design for the polygeneration of SNG, power and heat by hydrothermal gasification of waste biomass: Process optimisation for selected substrates. <i>Energy and Environmental Science</i> , 2011 , 4, 1742	35.4	30
235	Optimal use of biomass in large-scale energy systems: Insights for energy policy. <i>Energy</i> , 2017 , 137, 789	-77997	29
234	Power-to-methane via co-electrolysis of H2O and CO2: The effects of pressurized operation and internal methanation. <i>Applied Energy</i> , 2019 , 250, 1432-1445	10.7	29

233	Performance and economic optimization of an organic rankine cycle for a gasoline hybrid pneumatic powertrain. <i>Energy</i> , 2015 , 86, 574-588	7.9	29
232	Gasoline hybrid pneumatic engine for efficient vehicle powertrain hybridization. <i>Applied Energy</i> , 2015 , 151, 168-177	10.7	29
231	CO2-mitigation options for the offshore oil and gas sector. <i>Applied Energy</i> , 2016 , 161, 673-694	10.7	29
230	A data-driven model for the air-cooling condenser of thermal power plants based on data reconciliation and support vector regression. <i>Applied Thermal Engineering</i> , 2018 , 129, 1496-1507	5.8	28
229	EnergyScope TD: A novel open-source model for regional energy systems. <i>Applied Energy</i> , 2019 , 255, 113729	10.7	28
228	Design and Optimization of an Innovative Solid Oxide Fuel Cella Sturbine Hybrid Cycle for Small Scale Distributed Generation. <i>Fuel Cells</i> , 2014 , 14, 595-606	2.9	28
227	Synthesis and thermo-economic design optimization of wood-gasifier-SOFC systems for small scale applications. <i>Biomass and Bioenergy</i> , 2013 , 49, 299-314	5.3	28
226	Multi-objective optimization of sorption enhanced steam biomass gasification with solid oxide fuel cell. <i>Energy Conversion and Management</i> , 2019 , 182, 412-429	10.6	28
225	Performance degradation diagnosis of thermal power plants: A method based on advanced exergy analysis. <i>Energy Conversion and Management</i> , 2016 , 130, 219-229	10.6	27
224	Balancing wind-power fluctuation via onsite storage under uncertainty: Power-to-hydrogen-to-power versus lithium battery. <i>Renewable and Sustainable Energy Reviews</i> , 2019 , 116, 109465	16.2	27
223	Analysis of energy requirements versus comfort levels for the integration of phase change materials in buildings. <i>Journal of Building Engineering</i> , 2015 , 1, 53-62	5.2	26
222	Multi-objective superstructure-free synthesis and optimization of thermal power plants. <i>Energy</i> , 2016 , 116, 1104-1116	7.9	26
221	Technoliconomic design of hybrid electric vehicles and possibilities of the multi-objective optimization structure. <i>Applied Energy</i> , 2016 , 161, 746-759	10.7	26
220	Robust multi-objective optimization of gasifier and solid oxide fuel cell plant for electricity production using wood. <i>Energy</i> , 2017 , 137, 811-822	7.9	25
219	Defining optimal configurations of geothermal systems using process design and process integration techniques. <i>Applied Thermal Engineering</i> , 2012 , 43, 29-41	5.8	25
218	Comparative exergy and economic assessment of fossil and biomass-based routes for ammonia production. <i>Energy Conversion and Management</i> , 2019 , 194, 22-36	10.6	24
217	A machine learning and distributionally robust optimization framework for strategic energy planning under uncertainty. <i>Applied Energy</i> , 2020 , 271, 115005	10.7	24
216	A Review of Evaluation, Optimization and Synthesis of Energy Systems: Methodology and Application to Thermal Power Plants. <i>Energies</i> , 2019 , 12, 73	3.1	24

215	Energy Planning in the Urban Context: Challenges and Perspectives. <i>Energy Procedia</i> , 2015 , 78, 3366-33	3 72 1.3	24
214	Unified methodology for thermal energy efficiency improvement: Application to Kraft process. <i>Chemical Engineering Science</i> , 2011 , 66, 135-151	4.4	24
213	New proposal for production of bioactive compounds by supercritical technology integrated to a sugarcane biorefinery. <i>Clean Technologies and Environmental Policy</i> , 2014 , 16, 1455-1468	4.3	23
212	Multi-objective optimization of SNG production from microalgae through hydrothermal gasification. <i>Computers and Chemical Engineering</i> , 2015 , 76, 170-183	4	23
211	Combined mass and energy integration in process design at the example of membrane-based gas separation systems. <i>Computers and Chemical Engineering</i> , 2010 , 34, 2033-2042	4	23
210	Life cycle assessment integration into energy system models: An application for Power-to-Methane in the EU. <i>Applied Energy</i> , 2020 , 259, 114160	10.7	23
209	Energy integration of CO2 networks and power to gas for emerging energy autonomous cities in Europe. <i>Energy</i> , 2018 , 157, 830-842	7.9	22
208	Systematic Optimization of the Design of Steam Cycles Using MINLP and Differential Evolution. Journal of Energy Resources Technology, Transactions of the ASME, 2014 , 136,	2.6	22
207	Clustering Urban Areas for Optimizing the Design and the Operation of District Energy Systems. <i>Computer Aided Chemical Engineering</i> , 2014 , 1291-1296	0.6	22
206	Optimum Biorefinery Pathways Selection Using the Integer-Cuts Constraint Method Applied to a MILP Problem. <i>Industrial & Discounty Chemistry Research</i> , 2015 , 54, 7038-7046	3.9	21
205	Multi-period analysis of heat integration measures in industrial clusters. <i>Energy</i> , 2015 , 93, 220-234	7.9	21
204	Review of design works for the conversion of sugarcane to first and second-generation ethanol and electricity. <i>Renewable and Sustainable Energy Reviews</i> , 2018 , 91, 152-164	16.2	21
203	Process design optimization strategy to develop energy and cost correlations of CO2 capture processes. <i>Computers and Chemical Engineering</i> , 2014 , 61, 51-58	4	21
202	Oil and gas platforms with steam bottoming cycles: System integration and thermoenvironomic evaluation. <i>Applied Energy</i> , 2014 , 131, 222-237	10.7	21
201	Solid fuel decomposition modelling for the design of biomass gasification systems. <i>Computer Aided Chemical Engineering</i> , 2006 , 1661-1666	0.6	21
200	Trade-off designs and comparative exergy evaluation of solid-oxide electrolyzer based power-to-methane plants. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 9529-9543	6.7	21
199	Identification of optimal operating strategy of direct air-cooling condenser for Rankine cycle based power plants. <i>Applied Energy</i> , 2018 , 209, 153-166	10.7	21
198	Thermo-economic analysis and multi-objective optimisation of lignocellulosic biomass conversion to Fischer Tropsch fuels. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 1069-1084	5.8	20

197	Optimal design of solar-assisted industrial processes considering heat pumping: Case study of a dairy. <i>Renewable Energy</i> , 2018 , 128, 565-585	8.1	20
196	Reversible solid-oxide cell stack based power-to-x-to-power systems: Comparison of thermodynamic performance. <i>Applied Energy</i> , 2020 , 275, 115330	10.7	20
195	Biomass logistics and environmental impact modelling for sugar-ethanol production. <i>Journal of Cleaner Production</i> , 2019 , 210, 317-324	10.3	20
194	Increasing Efficiency of Fuel Ethanol Production from Lignocellulosic Biomass by Process Integration. <i>Energy & Documents</i> 2013, 27, 2107-2115	4.1	19
193	Base case process development for energy efficiency improvement, application to a Kraft pulping mill. Part II: Benchmarking analysis. <i>Chemical Engineering Research and Design</i> , 2011 , 89, 729-741	5.5	19
192	Effect modelling and optimization, a new methodology for combined energy and environment synthesis of industrial processes. <i>Applied Thermal Engineering</i> , 1997 , 17, 981-992	5.8	19
191	Techno-economic evaluation of biomass-to-fuels with solid-oxide electrolyzer. <i>Applied Energy</i> , 2020 , 270, 115113	10.7	19
190	Techno-Economic Optimization of CO2-to-Methanol with Solid-Oxide Electrolyzer. <i>Energies</i> , 2019 , 12, 3742	3.1	19
189	Trade-off designs of power-to-methane systems via solid-oxide electrolyzer and the application to biogas upgrading. <i>Applied Energy</i> , 2019 , 247, 572-581	10.7	18
188	Multicriteria Decisions in Urban Energy System Planning: A Review. <i>Frontiers in Energy Research</i> , 2017 , 5,	3.8	18
187	Contribution of Model Predictive Control in the Integration of Renewable Energy Sources within the Built Environment. <i>Frontiers in Energy Research</i> , 2018 , 6,	3.8	17
186	Comparison of extraction techniques for product diversification in a supercritical water gasification-based sugarcane-wet microalgae biorefinery: Thermoeconomic and environmental analysis. <i>Journal of Cleaner Production</i> , 2018 , 201, 697-705	10.3	17
185	Environomic design of vehicle energy systems for optimal mobility Bervice. <i>Energy</i> , 2014 , 76, 1019-1028	7.9	17
184	Malfunction diagnosis of thermal power plants based on advanced exergy analysis: The case with multiple malfunctions occurring simultaneously. <i>Energy Conversion and Management</i> , 2017 , 148, 1453-1	467 ⁶	17
183	Product diversification in the sugarcane biorefinery through algae growth and supercritical CO 2 extraction: Thermal and economic analysis. <i>Renewable Energy</i> , 2018 , 129, 776-785	8.1	17
182	Early-stage decision making approach for the selection of optimally integrated biorefinery processes. <i>Energy</i> , 2017 , 137, 908-916	7.9	16
181	Decision support for ranking Pareto optimal process designs under uncertain market conditions. <i>Computers and Chemical Engineering</i> , 2015 , 83, 165-175	4	16
180	A Mixed-Integer Linear Programming Formulation for Optimizing Multi-Scale Material and Energy Integration. <i>Frontiers in Energy Research</i> , 2020 , 8,	3.8	16

179	Innovative Hybrid Cycle Solid Oxide Fuel Cell-Inverted Gas Turbine with CO2 Separation. <i>Fuel Cells</i> , 2011 , 11, 565-572	2.9	16	
178	Green heating system: characteristics and illustration with multi-criteria optimization of an integrated energy system. <i>Energy</i> , 2004 , 29, 225-244	7.9	16	
177	Fuel Cell Modeling and Simulations. <i>Chimia</i> , 2004 , 58, 857-868	1.3	16	
176	Process Integration and Opportunities for Heat Pumps in Industrial Processes 2011 , 14,		16	
175	Synthesis of single and interplant non-isothermal water networks. <i>Journal of Environmental Management</i> , 2017 , 203, 1095-1117	7.9	15	
174	The Application of Cyber Physical System for Thermal Power Plants: Data-Driven Modeling. <i>Energies</i> , 2018 , 11, 690	3.1	15	
173	Simultaneous synthesis of non-isothermal water networks integrated with process streams. <i>Energy</i> , 2017 , 141, 2587-2612	7.9	15	
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