Mahmoud M El-Halwagi

List of Publications by Citations

494 papers	12,190 citations	57 h-index	87 g-index
517 ext. papers	13,451 ext. citations	4.5 avg, IF	7.02 L-index

#	Paper	IF	Citations
494	Synthesis of mass exchange networks. *AICHE Journal*, **1989**, 35, 1233-1244	3.6	546
493	Rigorous Graphical Targeting for Resource Conservation via Material Recycle/Reuse Networks. *Industrial & Engineering Chemistry Research*, **2003**, 42, 4319-4328	3.9	418
492	Optimal planning and site selection for distributed multiproduct biorefineries involving economic, environmental and social objectives. *Journal of Cleaner Production*, **2014**, 65, 270-294	10.3	203
491	Automatic synthesis of mass-exchange networks with single-component targets. *Chemical Engineering Science*, **1990**, 45, 2813-2831	4.4	187
490	Component-less design of recovery and allocation systems: a functionality-based clustering approach. *Computers and Chemical Engineering*, **2000**, 24, 2081-2091	4	156
489	A novel framework for simultaneous separation process and product design. *Chemical Engineering and Processing: Process Intensification*, **2004**, 43, 595-608	3.7	154
488	Facility Location and Supply Chain Optimization for a Biorefinery. *Industrial & Engineering Chemistry Research*, **2011**, 50, 6276-6286	3.9	137
487	Optimal Planning of a Biomass Conversion System Considering Economic and Environmental Aspects. *Industrial & Engineering Chemistry Research*, **2011**, 50, 8558-8570	3.9	134
486	Design and analysis of biodiesel production from algae grown through carbon sequestration. *Clean Technologies and Environmental Policy*, **2010**, 12, 239-254	4.3	132
485	Simulation, integration, and economic analysis of gas-to-liquid processes. *Fuel Processing Technology*, **2010**, 91, 703-713	7.2	130
484	Optimal planning for the sustainable utilization of municipal solid waste. *Waste Management*, **2013**, 33, 2607-22	8.6	126
483	Synthesis of reverse-osmosis networks for waste reduction. *AICHE Journal*, **1992**, 38, 1185-1198	3.6	126
482	A comparison of pretreatment methods for bioethanol production from lignocellulosic materials. *Chemical Engineering Research and Design*, **2012**, 90, 189-202	5.5	125
481	Surplus diagram and cascade analysis technique for targeting property-based material reuse network. *Chemical Engineering Science*, **2006**, 61, 2626-2642	4.4	125
480	Simultaneous synthesis of mass-exchange and regeneration networks. *AICHE Journal*, **1990**, 36, 1209-1219	3.6	125
479	Design and integration of eco-industrial parks for managing water resources. *Environmental Progress and Sustainable Energy*, **2009**, 28, 265-272	2.5	122
478	Techno-economic analysis for a sugarcane biorefinery: Colombian case. *Bioresource Technology*, **2013**, 135, 533-43	11	120

477	Process integration technology review: background and applications in the chemical process industry. *Journal of Chemical Technology and Biotechnology*, **2003**, 78, 1011-1021	3.5	118
476	Process synthesis and optimization of biorefinery configurations. *AICHE Journal*, **2012**, 58, 1212-1221	3.6	111
475	Process intensification: New understanding and systematic approach. *Chemical Engineering and Processing: Process Intensification*, **2012**, 53, 63-75	3.7	108
474	Process Design and Integration of Shale Gas to Methanol. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 30-37	8.3	103
473	Property integration: Componentless design techniques and visualization tools. *AICHE Journal*, **2004**, 50, 1854-1869	3.6	100
472	A shortcut method for the preliminary synthesis of process-technology pathways: An optimization approach and application for the conceptual design of integrated biorefineries. *Computers and Chemical Engineering*, **2011**, 35, 1374-1383	4	96
471	A multi-criteria approach to screening alternatives for converting sewage sludge to biodiesel. *Journal of Loss Prevention in the Process Industries*, **2010**, 23, 412-420	3.5	96
470	A review of biodiesel production from microalgae. *Clean Technologies and Environmental Policy*, **2017**, 19, 637-668	4.3	94
469	Techno-Economic Assessment and Environmental Impact of Shale Gas Alternatives to Methanol. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 2338-2344	8.3	91
468	Shale gas monetization □A review of downstream processing to chemicals and fuels. *Journal of Natural Gas Science and Engineering*, **2017**, 45, 436-455	4.6	89
467	Multiobjective optimization of biorefineries with economic and safety objectives. *AICHE Journal*, **2013**, 59, 2427-2434	3.6	89
466	An algebraic approach to targeting waste discharge and impure fresh usage via material recycle/reuse networks. *Clean Technologies and Environmental Policy*, **2005**, 7, 294-305	4.3	88
465	A return on investment metric for incorporating sustainability in process integration and improvement projects. *Clean Technologies and Environmental Policy*, **2017**, 19, 611-617	4.3	87
464	A property-based optimization of direct recycle networks and wastewater treatment processes. *AICHE Journal*, **2009**, 55, 2329-2344	3.6	86
463	Automated targeting technique for concentration- and property-based total resource conservation network. *Computers and Chemical Engineering*, **2010**, 34, 825-845	4	84
462	Synthesis of waste interception and allocation networks. *AICHE Journal*, **1996**, 42, 3087-3101	3.6	84
461	Technology review and data analysis for cost assessment of water treatment systems. *Science of the Total Environment*, **2019**, 651, 2749-2761	10.2	81
460	Global optimization for the synthesis of property-based recycle and reuse networks including environmental constraints. *Computers and Chemical Engineering*, **2010**, 34, 318-330	4	78

459	Optimal design and scheduling of flexible reverse osmosis networks. *Journal of Membrane Science*, **1997**, 129, 161-174	9.6	78
458	Process analysis and optimization of biodiesel production from soybean oil. *Clean Technologies and Environmental Policy*, **2009**, 11, 263-276	4.3	76
457	Switchgrass as an alternate feedstock for power generation: an integrated environmental, energy and economic life-cycle assessment. *Clean Technologies and Environmental Policy*, **2006**, 8, 233-249	4.3	75
456	Computer-Aided Synthesis of Polymers and Blends with Target Properties. *Industrial & Engineering Chemistry Research*, **1996**, 35, 627-634	3.9	75
455	Global optimization of mass and property integration networks with in-plant property interceptors. *Chemical Engineering Science*, **2010**, 65, 4363-4377	4.4	73
454	A review of safety indices for process design. *Current Opinion in Chemical Engineering*, **2016**, 14, 42-48	5.4	68
453	Optimal Water Management under Uncertainty for Shale Gas Production. *Industrial & Engineering Chemistry Research*, **2016**, 55, 1322-1335	3.9	68
452	Optimization and Selection of Reforming Approaches for Syngas Generation from Natural/Shale Gas. *Industrial & Engineering Chemistry Research*, **2014**, 53, 1841-1855	3.9	68
451	Multi-objective optimization of process cogeneration systems with economic, environmental, and social tradeoffs. *Clean Technologies and Environmental Policy*, **2013**, 15, 185-197	4.3	67
450	Simultaneous process and molecular design—A property based approach. *AICHE Journal*, **2007**, 53, 1232-1239	3.9	67
449	Algebraic Techniques for Property Integration via Componentless Design. *Industrial & Engineering Chemistry Research*, **2004**, 43, 3792-3798	3.9	67
448	Sustainable Integration of Algal Biodiesel Production with Steam Electric Power Plants for Greenhouse Gas Mitigation. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 1388-1403	8.3	65
447	Techno-economic analysis of biomass to fuel conversion via the MixAlco process. *Journal of Industrial Microbiology and Biotechnology*, **2010**, 37, 1157-68	4.2	65
446	Simultaneous synthesis of waste interception and material reuse networks: Problem reformulation for global optimization. *Environmental Progress*, **2005**, 24, 171-180		65
445	Exergy analysis and process integration of bioethanol production from acid pre-treated biomass: Comparison of SHF, SSF and SSCF pathways. *Chemical Engineering Journal*, **2011**, 176-177, 195-201	14.7	64
444	Incorporation of Safety and Sustainability in Conceptual Design via a Return on Investment Metric. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 1411-1416	8.3	63
443	Water Integration of Eco-Industrial Parks Using a Global Optimization Approach. *Industrial & Engineering Chemistry Research*, **2010**, 49, 9945-9960	3.9	61
442	A combined thermo-kinetic analysis of various methane reforming technologies: Comparison with dry reforming. *Journal of CO2 Utilization*, **2017**, 17, 99-111	7.6	60

441	Synthesis of combined heat and reactive mass-exchange networks. *Chemical Engineering Science*, **1994**, 49, 2059-2074	4.4	60
440	Synthesis of reactive mass-exchange networks. *Chemical Engineering Science*, **1992**, 47, 2113-2119	4.4	60
439	Optimal integration of organic Rankine cycles with industrial processes. *Energy Conversion and Management*, **2013**, 73, 285-302	10.6	59
438	Green hydrogen as an alternative fuel for the shipping industry. *Current Opinion in Chemical Engineering*, **2021**, 31, 100668	5.4	59
437	Targeting cogeneration and waste utilization through process integration. *Applied Energy*, **2009**, 86, 880-887	10.6	57
436	A Disjunctive Programming Formulation for the Optimal Design of Biorefinery Configurations. *Industrial & Engineering Chemistry Research*, **2012**, 51, 3381-3400	3.9	55
435	Synthesis of cooling water systems with multiple cooling towers. *Applied Thermal Engineering*, **2013** , 50, 957-974	5.8	55
434	A Process Integration Approach to the Assessment of CO2 Fixation through Dry Reforming. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 625-636	8.3	54
433	Incorporation of process integration into life cycle analysis for the production of biofuels. *Clean Technologies and Environmental Policy*, **2011**, 13, 673-685	4.3	54
432	A Techno-Economic Comparison between Two Methanol-to-Propylene Processes. *Processes*, **2015**, 3, 684-698	2.9	53
431	An algebraic targeting approach for effective utilization of biomass in combined heat and power systems through process integration. *Clean Technologies and Environmental Policy*, **2007**, 9, 13-25	4.3	52
430	Simultaneous Process and Molecular Design through Property Clustering Techniques:A Visualization Tool. *Industrial & Engineering Chemistry Research*, **2007**, 46, 3400-3409	3.9	52
429	Optimal reconfiguration of multi-plant water networks into an eco-industrial park. *Computers and Chemical Engineering*, **2012**, 44, 58-83	4	51
428	Optimal design of pervaporation systems for waste reduction. *Computers and Chemical Engineering*, **1993**, 17, 957-970	4	50
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426	Convex Hull Discretization Approach to the Global Optimization of Pooling Problems. *Industrial & Engineering Chemistry Research*, **2009**, 48, 1973-1979	3.9	49
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424	Optimization of the production of syngas from shale gas with economic and safety considerations. *Applied Thermal Engineering*, **2017**, 110, 678-685	5.8	47

423	Optimal design of integrated CHP systems for housing complexes. *Energy Conversion and Management*, **2015**, 99, 252-263	10.6	47
422	Simultaneous synthesis of property-based water reuse/recycle and interception networks for batch processes. *AICHE Journal*, **2008**, 54, 2624-2632	3.6	47
421	Synthesis of C-H-O Symbiosis Networks. *AICHE Journal*, **2015**, 61, 1242-1262	3.6	46
420	Optimization of Pathways for Biorefineries Involving the Selection of Feedstocks, Products, and Processing Steps. *Industrial & Engineering Chemistry Research*, **2013**, 52, 5177-5190	3.9	46
419	A global optimal formulation for the water integration in eco-industrial parks considering multiple pollutants. *Computers and Chemical Engineering*, **2011**, 35, 1558-1574	4	46
418	A synthesis approach for industrial city water reuse networks considering central and distributed treatment systems. *Journal of Cleaner Production*, **2015**, 89, 231-250	10.3	44
417	Optimal design of rainwater collecting systems for domestic use into a residential development. *Resources, Conservation and Recycling*, **2014**, 84, 44-56	11.9	44
416	The integration of Dow's fire and explosion index (F&EI) into process design and optimization to achieve inherently safer design. *Journal of Loss Prevention in the Process Industries*, **2007**, 20, 79-90	3.5	44
415	An algebraic targeting approach to resource conservation via material recycle/reuse. *International Journal of Environment and Pollution*, **2007**, 29, 4	0.7	44
414	Optimal design of inter-plant waste energy integration. *Applied Thermal Engineering*, **2014**, 62, 633-652	5.8	43
413	Global optimization in property-based interplant water integration. *AICHE Journal*, **2013**, 59, 813-833	3.6	43
412	Optimization of multi-effect distillation with brine treatment via membrane distillation and process heat integration. *Desalination*, **2017**, 408, 110-118	10.3	42
411	Environmental and economic analysis for the optimal reuse of water in a residential complex. *Journal of Cleaner Production*, **2016**, 130, 82-91	10.3	42
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408	Safety and techno-economic analysis of ethylene technologies. *Journal of Loss Prevention in the Process Industries*, **2016**, 39, 74-84	3.5	41
407	Synthesis of reactive mass-exchange networks with general nonlinear equilibrium functions. *AICHE Journal*, **1994**, 40, 463-472	3.6	41
406	Industrial waste heat recovery and cogeneration involving organic Rankine cycles. *Clean Technologies and Environmental Policy*, **2015**, 17, 767-779	4.3	40

405	A Superstructure Optimization Approach for Membrane Separation-Based Water Regeneration Network Synthesis with Detailed Nonlinear Mechanistic Reverse Osmosis Model. *Industrial & Engineering Chemistry Research*, **2011**, 50, 13444-13456	3.9	40
404	A hierarchical approach for the synthesis of batch water network. *Computers and Chemical Engineering*, **2008**, 32, 530-539	4	40
403	Computer-Aided Design of High Performance Polymers. *Journal of Elastomers and Plastics*, **1994**, 26, 277-293	1.6	40
402	Integration of Thermal Membrane Distillation Networks with Processing Facilities. *Industrial & Engineering Chemistry Research*, **2014**, 53, 5284-5298	3.9	39
401	Optimization Approach to the Reduction of CO2 Emissions for Syngas Production Involving Dry Reforming. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 7532-7544	8.3	38
400	Sustainable water management for macroscopic systems. *Journal of Cleaner Production*, **2013**, 47, 102-117	10.3	38
399	Optimization across the Water−Energy Nexus for Integrating Heat, Power, and Water for Industrial Processes, Coupled with Hybrid Thermal-Membrane Desalination. *Industrial & Engineering Chemistry Research*, **2016**, 55, 3442-3466	3.9	37
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397	Optimal reuse of flowback wastewater in hydraulic fracturing including seasonal and environmental constraints. *AICHE Journal*, **2016**, 62, 1634-1645	3.6	37
396	Synthesis of Distributed Biorefining Networks for the Value-Added Processing of Water Hyacinth. *ACS Sustainable Chemistry and Engineering*, **2013**, 1, 284-305	8.3	36
395	Optimization of Direct Recycle Networks with the Simultaneous Consideration of Property, Mass, and Thermal Effects. *Industrial & Engineering Chemistry Research*, **2011**, 50, 3754-3762	3.9	36
394	Optimal retrofit of water conservation networks. *Journal of Cleaner Production*, **2011**, 19, 1560-1581	10.3	36
393	Optimal design of multicomponent VOC condensation systems. *Journal of Hazardous Materials*, **1994**, 38, 187-206	12.8	36
392	Synthesis of optimal heat-induced separation networks. *Chemical Engineering Science*, **1995**, 50, 81-97	4.4	35
391	Sustainable Process Design Approach for On-Purpose Propylene Production and Intensification. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 2407-2421	8.3	34
390	Water integration in industrial zones: a spatial representation with direct recycle applications. *Clean Technologies and Environmental Policy*, **2014**, 16, 1637-1659	4.3	34
389	Design, simulation and techno-economic analysis of two processes for the conversion of shale gas to ethylene. *Computers and Chemical Engineering*, **2017**, 107, 237-246	4	33
388	Optimal interplant water networks for industrial zones: Addressing interconnectivity options through pipeline merging. *AICHE Journal*, **2014**, 60, 2853-2874	3.6	33

387	Simulation study on biodiesel production by reactive distillation with methanol at high pressure and temperature: Impact on costs and pollutant emissions. *Computers and Chemical Engineering*, **2013**, 52, 204-215	4	33
386	A property-based approach to the synthesis of material conservation networks with economic and environmental objectives. *AICHE Journal*, **2011**, 57, 2369-2387	3.6	33
385	Synthesis of integrated absorption refrigeration systems involving economic and environmental objectives and quantifying social benefits. *Applied Thermal Engineering*, **2013**, 52, 402-419	5.8	32
384	A systems-integration approach to the optimization of macroscopic water desalination and distribution networks: a general framework applied to Qatar water resources. *Clean Technologies and Environmental Policy*, **2012**, 14, 161-171	4.3	32
383	Integrated conceptual design of solar-assisted trigeneration systems. *Computers and Chemical Engineering*, **2011**, 35, 1807-1814	4	32
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381	Managing abnormal operation through process integration and cogeneration systems. *Clean Technologies and Environmental Policy*, **2015**, 17, 119-128	4.3	31
380	Fuzzy mixed integer non-linear programming model for the design of an algae-based eco-industrial park with prospective selection of support tenants under product price variability. *Journal of Cleaner Production*, **2016**, 136, 183-196	10.3	31
379	Multiperiod Planning of Optimal Industrial City Direct Water Reuse Networks. *Industrial & Engineering Chemistry Research*, **2014**, 53, 8844-8865	3.9	31
378	Disjunctive fuzzy optimisation for planning and synthesis of bioenergy-based industrial symbiosis system. *Journal of Environmental Chemical Engineering*, **2014**, 2, 652-664	6.8	31
377	Including Inherent Safety in the Design of Chemical Processes. *Industrial & Engineering Chemistry Research*, **2017**, 56, 14507-14517	3.9	31
376	Conceptual Synthesis of Gasification-Based Biorefineries Using Thermodynamic Equilibrium Optimization Models. *Industrial & Engineering Chemistry Research*, **2011**, 50, 10681-10695	3.9	31
375	Application of Computer-Aided Process Engineering and Exergy Analysis to Evaluate Different Routes of Biofuels Production from Lignocellulosic Biomass. *Industrial & Engineering Chemistry Research*, **2011**, 50, 2768-2772	3.9	31
374	Targeting optimum resource allocation using reverse problem formulations and property clustering techniques. *Computers and Chemical Engineering*, **2005**, 29, 2304-2317	4	31
373	Incorporating inherent safety during the conceptual process design stage: A literature review. *Journal of Loss Prevention in the Process Industries*, **2020**, 63, 104040	3.5	31
372	Renewable ammonia as an alternative fuel for the shipping industry. *Current Opinion in Chemical Engineering*, **2021**, 31, 100670	5.4	31
371	Simultaneous synthesis of utility system and heat exchanger network incorporating steam condensate and boiler feedwater. *Energy*, **2016**, 113, 875-893	7.9	31
370	Optimal location of biorefineries considering sustainable integration with the environment. *Renewable Energy*, **2017**, 100, 65-77	8.1	30

369	Optimization of biofuels production via a water□energy□food nexus framework. *Clean Technologies and Environmental Policy*, **2018**, 20, 1443-1466	4.3	30
368	An MINLP model for the simultaneous integration of energy, mass and properties in water networks. *Computers and Chemical Engineering*, **2014**, 71, 52-66	4	30
367	Targeting of the Water-Energy Nexus in Gas-to-Liquid Processes: A Comparison of Syngas Technologies. *Industrial & Engineering Chemistry Research*, **2014**, 53, 7087-7102	3.9	30
366	Multi-objective optimization of steam power plants for sustainable generation of electricity. *Clean Technologies and Environmental Policy*, **2013**, 15, 551-566	4.3	30
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363	Optimal design of macroscopic water networks under parametric uncertainty. *Journal of Cleaner Production*, **2015**, 88, 172-184	10.3	29
362	Multiobjective design of interplant trigeneration systems. *AICHE Journal*, **2014**, 60, 213-236	3.6	29
361	Assessment of Combinations between Pretreatment and Conversion Configurations for Bioethanol Production. *ACS Sustainable Chemistry and Engineering*, **2013**, 1, 956-965	8.3	29
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359	Synthesis of Eco-Industrial Parks Interacting with a Surrounding Watershed. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 1564-1578	8.3	29
358	Integration of Renewable Energy with Industrial Absorption Refrigeration Systems: Systematic Design and Operation with Technical, Economic, and Environmental Objectives. *Industrial & Engineering Chemistry Research*, **2011**, 50, 9667-9684	3.9	29
357	Viscosity Measurements and Data Correlation for Two Synthetic Natural Gas Mixtures. *Journal of Chemical & Engineering Data*, **2010**, 55, 2498-2504	2.8	28
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355	Synthesis of industrial park water reuse networks considering treatment systems and merged connectivity options. *Computers and Chemical Engineering*, **2016**, 91, 289-306	4	27
354	Synthesis of Water Networks Involving Temperature-Based Property Operators and Thermal Effects. *Industrial & Engineering Chemistry Research*, **2013**, 52, 442-461	3.9	27
353	An MINLP Model for the Optimal Location of a New Industrial Plant with Simultaneous Consideration of Economic and Environmental Criteria. *Industrial & Engineering Chemistry Research*, **2011**, 50, 953-964	3.9	27
352	Optimum mass integration strategies for condensation and allocation of multicomponent VOCs. *Chemical Engineering Science*, **2000**, 55, 881-895	4.4	27

351	Water and Energy Issues in Gas-to-Liquid Processes: Assessment and Integration of Different Gas-Reforming Alternatives. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 216-225	8.3	26
350	Optimal planning for the reuse of municipal solid waste considering economic, environmental, and safety objectives. *AICHE Journal*, **2015**, 61, 1881-1899	3.6	26
349	Correct identification of limiting water data for water network synthesis. *Clean Technologies and Environmental Policy*, **2006**, 8, 96-104	4.3	26
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343	Optimization of multi-effect distillation process using a linear enthalpy model. *Desalination*, **2015**, 365, 261-276	10.3	24
342	Investigating the effect of inherent safety principles on system reliability in process design. *Chemical Engineering Research and Design*, **2018**, 117, 100-110	5.5	24
341	Accounting for central and distributed zero liquid discharge options in interplant water network design. *Journal of Cleaner Production*, **2018**, 171, 644-661	10.3	24
340	An Integrated Approach to Water-Energy Nexus in Shale-Gas Production. *Processes*, **2018**, 6, 52	2.9	24
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338	Incorporating Property-Based Water Networks and Surrounding Watersheds in Site Selection of Industrial Facilities. *Industrial & Engineering Chemistry Research*, **2013**, 52, 91-107	3.9	24
337	A systematic approach for synthesizing combined mass and heat exchange networks. *Computers and Chemical Engineering*, **2013**, 53, 1-13	4	24
336	Optimal Design of Membrane-Hybrid Systems for Waste Reduction. *Separation Science and Technology*, **1993**, 28, 283-307	2.5	24
335	Optimal design of thermal membrane distillation systems with heat integration with process plants. *Applied Thermal Engineering*, **2015**, 75, 154-166	5.8	23
334	Framework for margins-based planning: Forest biorefinery case study. *Computers and Chemical Engineering*, **2014**, 63, 34-50	4	23

333	Optimal design of process energy systems integrating sustainable considerations. *Energy*, **2014**, 76, 139-160	7.9	23
332	Floating pinch method for utility targeting in heat exchanger network (HEN). *Chemical Engineering Research and Design*, **2014**, 92, 119-126	5.5	23
331	Strategic Planning for Managing Municipal Solid Wastes with Consideration of Multiple Stakeholders. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 10744-10762	8.3	22
330	Optimal reconfiguration of a sugar cane industry to yield an integrated biorefinery. *Clean Technologies and Environmental Policy*, **2016**, 18, 553-562	4.3	22
329	Gas-to-liquid (GTL) technology: Targets for process design and water-energy nexus. *Current Opinion in Chemical Engineering*, **2014**, 5, 49-54	5.4	22
328	Optimal design of distributed treatment systems for the effluents discharged to the rivers. *Clean Technologies and Environmental Policy*, **2012**, 14, 925-942	4.3	22
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326	Optimal design and integration of solar systems and fossil fuels for sustainable and stable power outlet. *Clean Technologies and Environmental Policy*, **2009**, 11, 401-407	4.3	22
325	Synthesis and Scheduling of Optimal Batch Water-recycle Networks . *Chinese Journal of Chemical Engineering*, **2008**, 16, 474-479	3.2	22
324	An economic study for the co-generation of liquid fuel and hydrogen from coal and municipal solid waste. *Fuel Processing Technology*, **1996**, 49, 157-166	7.2	22
323	Green hydrogen for industrial sector decarbonization: Costs and impacts on hydrogen economy in qatar. *Computers and Chemical Engineering*, **2021**, 145, 107144	4	22
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321	Simultaneous design of water reusing and rainwater harvesting systems in a residential complex. *Computers and Chemical Engineering*, **2015**, 76, 104-116	4	21
320	Application of stochastic analytic hierarchy process for evaluating algal cultivation systems for sustainable biofuel production. *Clean Technologies and Environmental Policy*, **2016**, 18, 1281-1294	4.3	21
319	Integration of Solar Energy into Absorption Refrigerators and Industrial Processes. *Chemical Engineering and Technology*, **2010**, 33, 1495-1505	2	21
318	Simultaneous Synthesis of Mass Separating Agents and Interception Networks. *Chemical Engineering Research and Design*, **1998**, 76, 376-388	5.5	21
317	Mathematical modeling of catalytic fluidized-bed reactors The multistage three-phase model. *Chemical Engineering Science*, **1988**, 43, 2477-2486	4.4	21
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312	Optimal Design of Water Desalination Systems Involving Waste Heat Recovery. *Industrial & Engineering Chemistry Research*, **2017**, 56, 1834-1847	3.9	19
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