Davood Iranshahi

List of Publications by Year
in descending order

82	1,600	331259 21	360668 35
papers	citations	h-index	g-index

83	83	83	1138
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Increasing the propylene production in the MTP process through thermal coupling with naphtha reforming process. Chemical Engineering Science, 2022, 255, 117646.	1.9	1
2	Conceptual comparison of three novel configurations in the spherical radial flow reactor for ammonia production. Fuel, 2022, 321, 123945.	3.4	4
3	Development of PES-based hydrophilic membranes via corona air plasma for highly effective water purification. Journal of Environmental Chemical Engineering, 2022, 10, 107775.	3.3	10
4	Graft copolymerization of zwitterionic monomer on the polyethersulfone membrane surface by corona air plasma for separation of oily wastewater. Separation and Purification Technology, 2021, 258, 117939.	3.9	37
5	Morphological and structural insights into high aspect ratio lauric acid/TiO2 nanowires: A low-temperature synthesis. Ceramics International, 2021, 47, 9424-9436.	2.3	5
6	Simultaneous production of hydrogen and acrylonitrile in a new bifunctional micro-reactor, mathematical modeling and optimization study. Journal of Flow Chemistry, 2021, 11, 265.	1.2	3
7	Insights on the speed of sound in ionic liquid binary mixtures: Investigation of influential parameters and construction of predictive models. Journal of Molecular Liquids, 2021, 326, 115067.	2.3	2
8	Inherent CO₂ Capture and H₂ Production Enhancement in a New Glycerol Steam Reformer Coupled with Chemical Looping Combustion. Energy & Fuels, 2021, 35, 5049-5063.	2.5	16
9	A low temperature synthesis of Ti/TiO2/Fatty Acid/GOx/ZnO and its evaluation for amoxicillin bio-photo-catalytic degradation. Journal of Molecular Liquids, 2021, 343, 116979.	2.3	5
10	A conceptual evaluation of a new multifunctional reactor containing glycerol steam reforming and nitrobenzene hydrogenation. Chemical Engineering and Processing: Process Intensification, 2021, 164, 108405.	1.8	12
11	Analysis of integrated system for ammonia synthesis and methyl formate production in the thermally coupled reactor. Chemical Engineering and Processing: Process Intensification, 2021, 166, 108418.	1.8	6
12	Simulation and energy optimization of a reformate stabilizer unit in a petrochemical plant. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2020, 42, 104-112.	1.2	1
13	A review on the design and development of photocatalyst synthesis and application in microfluidic reactors: challenges and opportunities. Reviews in Chemical Engineering, 2020, 36, 687-722.	2.3	38
14	Analysis of combined heat and mass transfer in membrane-assisted thermally coupled reactors containing naphtha reforming and m-xylene hydrodealkylation. Chemical Engineering and Processing: Process Intensification, 2020, 148, 107724.	1.8	4
15	Modeling and optimization of thermally coupled reactors of naphtha reforming and propane ammoxidation with different feed distributions. Reaction Kinetics, Mechanisms and Catalysis, 2020, 129, 315-335.	0.8	5
16	An investigative study on replacing the conventional furnaces of naphtha reforming with chemical looping combustion for clean hydrogen production. International Journal of Hydrogen Energy, 2020, 45, 19405-19419.	3.8	15
17	A conceptual comparison between potential configurations in the thermal coupling of naphtha reforming with propane ammoxidation. International Communications in Heat and Mass Transfer, 2020, 112, 104432.	2.9	5
18	Optimization of a novel multifunctional reactor containing m-xylene hydrodealkylation and naphtha reforming. International Journal of Hydrogen Energy, 2019, 44, 21882-21895.	3.8	9

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19	Analysis of the Combined Ammonia Production and Cyclohexane Dehydrogenation by a Novel Bifunctional Reactor. Energy & Fuels, 2019, 33, 6717-6726.	2.5	4
20	A novel reactor concept for thermal integration of naphtha reforming with propane ammoxidation. Chemical Engineering and Processing: Process Intensification, 2019, 146, 107659.	1.8	7
21	Conceptual comparison of four configurations in the thermal coupling of ammonia synthesis and 2-butanol dehydrogenation. Applied Thermal Engineering, 2019, 154, 238-250.	3.0	7
22	Simultaneous Synthesis and Oxidation of Methanol to Formaldehyde, Thermally Coupled with Cyclohexane Dehydrogenation in a Trifunctional Reactor. Energy & Fuels, 2019, 33, 4487-4498.	2.5	6
23	A conceptual investigation for the simultaneous production of gasoline and ammonia in thermally coupled reactors. Chemical Engineering and Processing: Process Intensification, 2019, 138, 15-26.	1.8	11
24	The effect of flow direction in a novel bifunctional reactor producing formaldehyde, benzene, and hydrogen simultaneously. International Journal of Hydrogen Energy, 2019, 44, 11887-11900.	3.8	3
25	Comparison of co-current and counter-current flow in a bifunctional reactor containing ammonia synthesis and 2-butanol dehydrogenation to MEK. International Journal of Hydrogen Energy, 2019, 44, 2905-2917.	3.8	8
26	A new reactor concept for the combined production of ammonia and methyl ethyl ketone. Journal of Flow Chemistry, 2019, 9, 43-57.	1.2	3
27	Multi-objective optimisation of steam methane reforming considering stoichiometric ratio indicator for methanol production. Journal of Cleaner Production, 2018, 180, 655-665.	4.6	34
28	Thermal Integration of Sulfuric Acid and Continuous Catalyst Regeneration of Naphtha Reforming Plants. Chemical Engineering and Technology, 2018, 41, 637-655.	0.9	15
29	Enhanced BTX Production in Refineries withÂSulfur Dioxide Oxidation by Thermal Integrated Model. Chemical Engineering and Technology, 2018, 41, 1746-1758.	0.9	12
30	Progress in spherical packed-bed reactors: Opportunities for refineries and chemical industries. Chemical Engineering and Processing: Process Intensification, 2018, 132, 16-24.	1.8	19
31	Maximization of dimethyl ether production from synthesis gas by obtaining optimum temperature profile and water removal. Fuel, 2017, 190, 386-395.	3.4	12
32	Hydrogen and aromatic production by means ofÂaÂnovel membrane integrated cross flow CCRÂnaphtha reforming process. International Journal of Hydrogen Energy, 2017, 42, 7957-7973.	3.8	7
33	Novel Chemical Looping Combustion Assisted Residue Fluid Catalytic Cracking Process in Order To Reduce CO2 Emission and Gasoline Production Enhancement. Energy & Fuels, 2017, 31, 5662-5672.	2.5	8
34	Hydrogen production: Perspectives, separation with special emphasis on kinetics of WGS reaction: A state-of-the-art review. Journal of Industrial and Engineering Chemistry, 2017, 49, 1-25.	2.9	92
35	Utilising a radial flow, spherical packed-bed reactor for auto thermal steam reforming of methane to achieve a high capacity of H2 production. Chemical Engineering and Processing: Process Intensification, 2017, 120, 258-267.	1.8	15
36	Multi-objective optimization of thermally coupled reactor of CCR naphtha reforming in presence of SO2 oxidation to boost the gasoline octane number and hydrogen. Fuel, 2017, 206, 580-592.	3.4	16

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37	A novel integrated thermally coupled moving bed reactors for naphtha reforming process with hydrodealkylation of toluene. Applied Thermal Engineering, 2017, 112, 1040-1056.	3.0	14
38	A comparative study between Modified Data Envelopment Analysis and Response Surface Methodology for optimisation of heterogeneous biodiesel production from waste cooking palm oil. Journal of Cleaner Production, 2016, 136, 23-30.	4.6	24
39	Improving thermal efficiency and increasing production rate in the double moving beds thermally coupled reactors by using differential evolution (DE) technique. Applied Thermal Engineering, 2016, 94, 543-558.	3.0	34
40	A Novel Chemical Looping Combustion (CLC)-Assisted Catalytic Naphtha Reforming Process for Simultaneous Carbon Dioxide Capture and Hydrogen Production Enhancement. Energy & Fuels, 2015, 29, 2022-2033.	2.5	12
41	A Novel Radial-Flow, Spherical Packed Bed Reactor for the Hydrocracking Process. Industrial & Engineering Chemistry Research, 2015, 54, 1748-1754.	1.8	6
42	Experimental investigation and development of a SVM model for hydrogenation reaction of carbon monoxide in presence of Coâ€“Mo/Al2O3 catalyst. Chemical Engineering Journal, 2015, 276, 213-221.	6.6	14
43	Development of a detailed reaction network for industrial upgrading of heavy reformates to xylenes using differential evolution technique. Journal of the Taiwan Institute of Chemical Engineers, 2015, 48, 56-72.	2.7	16
44	Conversion enhancement of heavy reformates into xylenes by optimal design of a novel radial flow packed bed reactor, applying a detailed kinetic model. Chemical Engineering Research and Design, 2015, 95, 317-336.	2.7	10
45	Modeling of naphtha reforming unit applying detailed description of kinetic in continuous catalytic regeneration process. Chemical Engineering Research and Design, 2014, 92, 1704-1727.	2.7	45
46	Reducing environmental problems and increasing saving energy by proposing new configuration for moving bed thermally coupled reactors. Journal of Natural Gas Science and Engineering, 2014, 17, 136-150.	2.1	23
47	Optimal design of a thermally coupled fluidised bed heat exchanger reactor for hydrogen production and octane improvement in the catalytic naphtha reformers. Canadian Journal of Chemical Engineering, 2013, 91, 54-65.	0.9	8
48	Applying new kinetic and deactivation models in simulation of a novel thermally coupled reactor in continuous catalytic regenerative naphtha process. Chemical Engineering Journal, 2013, 229, 153-176.	6.6	19
49	Combining continuous catalytic regenerative naphtha reformer with thermally coupled concept for improving the process yield. International Journal of Hydrogen Energy, 2013, 38, 10327-10344.	3.8	16
50	Modeling and Simulation of a Novel Membrane Reactor in a Continuous Catalytic Regenerative Naphtha Reformer Accompanied with a Detailed Description of Kinetics. Energy & Fuels, 2013, 27, 4048-4070.	2.5	17
51	Differential Evolution Strategy for Optimization of Hydrogen Production via Coupling of Methylcyclohexane Dehydrogenation Reaction and Methanol Synthesis Process in a Thermally Coupled Double Membrane Reactor. Industrial & Engineering Chemistry Research, 2013, 52, 1508-1522.	1.8	20
52	Optimal design of a radial-flow membrane reactor as a novel configuration for continuous catalytic regenerative naphtha reforming process considering a detailed kinetic model. International Journal of Hydrogen Energy, 2013, 38, 8384-8399.	3.8	21
53	Utilizing DE optimization approach to boost hydrogen and octane number, through a combination of radial-flow spherical and tubular membrane reactors in catalytic naphtha reformers. Fuel, 2013, 111, 1-11.	3.4	13
54	Progress in catalytic naphtha reforming process: A review. Applied Energy, 2013, 109, 79-93.	5.1	191

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55	Enhancement in Research Octane Number and Hydrogen Production via Dynamic Optimization of a Novel Spherical Axial-Flow Membrane Naphtha Reformer. Industrial & Engineering Chemistry Research, 2012, 51, 398-409.	1.8	13
56	Evaluation of maximum gasoline production of Fischerâ€“Tropsch synthesis reactions in GTL technology: A discretized approach. Journal of Natural Gas Science and Engineering, 2012, 9, 209-219.	2.1	13
57	Decalin Loop in an Optimized Thermally Coupled Dual Methanol Reactor Using Differential Evolution (DE) Strategy. Energy & Fuels, 2012, 26, 5858-5871.	2.5	7
58	Simultaneous production and utilization of methanol for methyl formate synthesis in a looped heat exchanger reactor configuration. Journal of Natural Gas Chemistry, 2012, 21, 661-672.	1.8	11
59	Assessment and comparison of different catalytic coupling exothermic and endothermic reactions: A review. Applied Energy, 2012, 99, 496-512.	5.1	108
60	Utilization of cyclohexanol dehydrogenation in a novel thermally coupled reactor for Fischerâ€“Tropsch synthesis in gas to liquid technology. Journal of Natural Gas Science and Engineering, 2012, 9, 138-148.	2.1	4
61	A novel dynamic membrane reactor concept with radialâ€flow pattern for reacting material and axialâ€flow pattern for sweeping gas in catalytic naphtha reformers. AICHE Journal, 2012, 58, 1230-1247.	1.8	19
62	A comparative study on optimised and nonâ€optimised axial flow, spherical reactors in naphtha reforming process. Canadian Journal of Chemical Engineering, 2012, 90, 1102-1111.	0.9	2
63	Incorporating multi-membrane tubes for simultaneous management of H2/HC and hydrogenation of nitrobenzene to aniline in naphtha heat exchanger reactor. Chemical Engineering Journal, 2012, 184, 286-297.	6.6	9
64	Utilizing DE optimization approach to boost hydrogen and octane number in a novel radial-flow assisted membrane naphtha reactor. Chemical Engineering Science, 2012, 68, 236-249.	1.9	22
65	Boosting the gasoline octane number in thermally coupled naphtha reforming heat exchanger reactor using de optimization technique. Fuel, 2012, 97, 109-118.	3.4	12
66	Evaluation of Optimum Design Parameters and Operating Conditions of Axial- and Radial-Flow Tubular Naphtha Reforming Reactors, Using the Differential Evolution Method, Considering Catalyst Deactivation. Energy & Fuels, 2011, 25, 762-772.	2.5	16
67	A dynamic membrane reactor concept for naphtha reforming, considering radial-flow patterns for both sweeping gas and reacting materials. Chemical Engineering Journal, 2011, 178, 264-275.	6.6	24
68	Theoretical investigation of aromatics production enhancement in thermal coupling of naphtha reforming and hydrodealkylation of toluene. Chemical Engineering and Processing: Process Intensification, 2011, 50, 893-903.	1.8	20
69	Methanol synthesis in a novel axial-flow, spherical packed bed reactor in the presence of catalyst deactivation. Chemical Engineering Research and Design, 2011, 89, 2457-2469.	2.7	18
70	Simultaneous hydrogen and aromatics enhancement by obtaining optimum temperature profile and hydrogen removal in naphtha reforming process; a novel theoretical study. International Journal of Hydrogen Energy, 2011, 36, 8316-8326.	3.8	13
71	The aromatic enhancement in the axialâ€flow spherical packedâ€bed membrane naphtha reformers in the presence of catalyst deactivation. AICHE Journal, 2011, 57, 3182-3198.	1.8	28
72	Utilizing differential evolution (DE) technique to optimize operating conditions of an integrated thermally coupled direct DME synthesis reactor. Chemical Engineering Journal, 2011, 168, 321-332.	6.6	35

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73	A comparative study on a novel combination of spherical and membrane tubular reactors of the catalytic naphtha reforming process. International Journal of Hydrogen Energy, 2011, 36, 505-517.	3.8	22
74	Enhancement of aromatic production in naphtha reforming process by simultaneous operation of isothermal and adiabatic reactors. International Journal of Hydrogen Energy, 2011, 36, 2076-2085.	3.8	11
75	A novel integrated, thermally coupled fluidized bed configuration for catalytic naphtha reforming to enhance aromatic and hydrogen productions in refineries. International Journal of Hydrogen Energy, 2011, 36, 2979-2991.	3.8	24
76	A comparison of two different flow types on performance of a thermally coupled recuperative reactor containing naphtha reforming process and hydrogenation of nitrobenzene. International Journal of Hydrogen Energy, 2011, 36, 3483-3495.	3.8	27
77	Enhancement of hydrogen production via coupling of MCH dehydrogenation reaction and methanol synthesis process by using thermally coupled heat exchanger reactor. International Journal of Hydrogen Energy, 2011, 36, 3371-3383.	3.8	27
78	A novel dynamic radial-flow, spherical-bed reactor concept for naphtha reforming in the presence of catalyst deactivation. International Journal of Hydrogen Energy, 2010, 35, 6261-6275.	3.8	41
79	Dynamic optimization of a multi-stage spherical, radial flow reactor for the naphtha reforming process in the presence of catalyst deactivation using differential evolution (DE) method. International Journal of Hydrogen Energy, 2010, 35, 7498-7511.	3.8	40
80	Mathematical modeling of a multi-stage naphtha reforming process using novel thermally coupled recuperative reactors to enhance aromatic production. International Journal of Hydrogen Energy, 2010, 35, 10984-10993.	3.8	40
81	Modeling of an axial flow, spherical packed-bed reactor for naphtha reforming process in the presence of the catalyst deactivation. International Journal of Hydrogen Energy, 2010, 35, 12784-12799.	3.8	34
82	The flow direction effect on doubleâ€duty microâ€reactor for coproduction of aniline and hydrogen. Chemical Engineering and Technology, 0, , .	0.9	0