

Erasmus Mancusi

List of Publications by Year in descending order

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papers

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516561

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times ranked

622
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical study of two-phase flow patterns in the gas channel of PEM fuel cells with tapered flow field design. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 2261-2273.	3.8	85
2	Study of the effects of flow channel with non-uniform cross-sectional area on PEMFC species and heat transfer. <i>International Journal of Heat and Mass Transfer</i> , 2011, 54, 4462-4472.	2.5	52
3	Techno-economic analysis of sorption-enhanced steam methane reforming in a fixed bed reactor network integrated with fuel cell. <i>Journal of Power Sources</i> , 2017, 364, 41-51.	4.0	49
4	Flow regimes for liquid water transport in a tapered flow channel of proton exchange membrane fuel cells (PEMFCs). <i>Journal of Power Sources</i> , 2013, 234, 260-271.	4.0	44
5	Life cycle assessment and feasibility analysis of a combined chemical looping combustion and power-to-methane system for CO ₂ capture and utilization. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 130, 109962.	8.2	39
6	Simulation of hydrogen production through chemical looping reforming process in a packed-bed reactor. <i>Chemical Engineering Research and Design</i> , 2016, 105, 137-151.	2.7	35
7	Modelling of a concentrated solar power “photovoltaics hybrid plant for carbon dioxide capture and utilization via calcium looping and methanation. <i>Energy Conversion and Management</i> , 2021, 230, 113792.	4.4	32
8	Symmetry properties and bifurcation analysis of a class of periodically forced chemical reactors. <i>Chemical Engineering Science</i> , 2002, 57, 5065-5082.	1.9	31
9	Multistability and hysteresis in an industrial ammonia reactor. <i>AIChE Journal</i> , 2000, 46, 824-828.	1.8	28
10	Complex dynamics and spatio-temporal patterns in a network of three distributed chemical reactors with periodical feed switching. <i>Chaos, Solitons and Fractals</i> , 2006, 28, 682-706.	2.5	26
11	Feasibility of CaO/CuO/NiO sorption-enhanced steam methane reforming integrated with solid-oxide fuel cell for near-zero-CO ₂ emissions cogeneration system. <i>Applied Energy</i> , 2018, 230, 241-256.	5.1	24
12	Nonlinear dynamics of a VOC combustion loop reactor. <i>AIChE Journal</i> , 2006, 52, 2812-2822.	1.8	22
13	Integration of biomasses gasification and renewable-energies-driven water electrolysis for methane production. <i>Energy</i> , 2021, 230, 120863.	4.5	22
14	Numerical assessment of the effects of carbon deposition and oxidation on chemical looping combustion in a packed-bed reactor. <i>Chemical Engineering Science</i> , 2017, 160, 85-95.	1.9	18
15	Modelling of an integrated process for atmospheric carbon dioxide capture and methanation. <i>Journal of Cleaner Production</i> , 2022, 356, 131827.	4.6	18
16	Multiplicities of temperature wave trains in periodically forced networks of catalytic reactors for reversible exothermic reactions. <i>Chemical Engineering Journal</i> , 2011, 171, 655-668.	6.6	17
17	Mathematical modeling and numerical simulation of heat and moisture transfer in a porous textile medium. <i>Journal of the Textile Institute</i> , 2016, 107, 672-682.	1.0	17
18	Novel quasi-autothermal hydrogen production process in a fixed-bed using a chemical looping approach: A numerical study. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 15010-15023.	3.8	16

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19	Effect of the Switch Strategy on the Stability of Reactor Networks. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 6510-6521.	1.8	15
20	Techno-Economic Evaluation of a Small-Scale Power Generation Unit Based on a Chemical Looping Combustion Process in Fixed Bed Reactor Network. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 11299-11311.	1.8	15
21	Feasibility of an integrated biomass-based CLC combustion and a renewable-energy-based methanol production systems. <i>Renewable Energy</i> , 2021, 179, 29-36.	4.3	14
22	Hybrid modeling and dynamics of a controlled reverse flow reactor. <i>AIChE Journal</i> , 2007, 53, 2084-2096.	1.8	13
23	Temperature and conversion patterns in a network of catalytic reactors for methanol synthesis with different switch strategies. <i>Chemical Engineering Science</i> , 2010, 65, 4579-4590.	1.9	13
24	NONLINEAR ANALYSIS OF A NETWORK OF THREE CONTINUOUS STIRRED TANK REACTORS WITH PERIODIC FEED SWITCHING: SYMMETRY AND SYMMETRY-BREAKING. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2004, 14, 1325-1341.	0.7	12
25	Numerical simulation of hydrogen production by chemical looping reforming in a dual fluidized bed reactor. <i>Powder Technology</i> , 2017, 316, 614-627.	2.1	12
26	Biogas purification on Na-X Zeolite: Experimental and numerical results. <i>Chemical Engineering Science</i> , 2020, 223, 115744.	1.9	12
27	Biopolymer-hydrophobic drug fibers and the delivery mechanisms for sustained release applications. <i>European Polymer Journal</i> , 2019, 112, 400-410.	2.6	11
28	Computation of frequency locking regions for a discontinuous periodically forced reactor. <i>Computers and Chemical Engineering</i> , 2004, 28, 187-194.	2.0	9
29	Nonlinear behavior analysis of a rotor on two-lobe wave journal bearings. <i>Tribology International</i> , 2011, 44, 42-54.	3.0	9
30	Temperature wave trains of periodically forced networks of catalytic reactors. <i>AIChE Journal</i> , 2012, 58, 899-913.	1.8	9
31	Hysteresis in autothermal methane reforming over Rh catalysts: Bifurcation analysis. <i>Chemical Engineering Journal</i> , 2015, 262, 1052-1064.	6.6	8
32	Modelling of a combined biomass CLC combustion and renewable-energy-based methane production system for CO ₂ utilization. <i>Powder Technology</i> , 2020, 373, 421-432.	2.1	8
33	Control of temperature wave trains in periodically forced networks of catalytic reactors for methanol synthesis. <i>Chemical Engineering and Processing: Process Intensification</i> , 2013, 63, 25-36.	1.8	7
34	Stability analysis of stratified Rayleigh-Bénard-Poiseuille convection: Influence of the shear flow. <i>Chemical Engineering Science</i> , 2015, 126, 67-79.	1.9	7
35	Formation of Thermal Wave Trains in Loop Reactors: Stability Limits and Spatiotemporal Structure for Reversible Reactions. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 9609-9619.	1.8	6
36	Nonlinear Analysis of Substrate-Inhibited Continuous Cultures Operated with Feedback Control on Dissolved Oxygen. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 13422-13431.	1.8	5

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37	Stability analysis of stratified Rayleigh-Bénard-Poiseuille convection. Part II: Influence of thermocapillary forces. <i>Chemical Engineering Science</i> , 2016, 155, 99-110.	1.9	5
38	Bifurcation analysis of periodically forced systems via continuation of a discrete map. <i>Computer Aided Chemical Engineering</i> , 2001, 9, 135-140.	0.3	4
39	Temperature wave trains of the loop reactor: The effect of thermal dispersion. <i>Chemical Engineering Science</i> , 2012, 76, 108-119.	1.9	4
40	LINEAR STABILITY ANALYSIS AND CFD SIMULATION OF DOUBLE-LAYER RAYLEIGH-BÉNARD CONVECTION. <i>Brazilian Journal of Chemical Engineering</i> , 2016, 33, 607-616.	0.7	4
41	Stability analysis of stratified Rayleigh-Bénard-Poiseuille convection. Part III: Interface deformation. <i>Chemical Engineering Science</i> , 2019, 203, 333-345.	1.9	4
42	Optimal Reference Trajectory Shaping and Robust Gain-Scheduling for Transition Control of Nonlinear Processes. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 9128-9140.	1.8	3
43	TAILORING THE BIFURCATION DIAGRAM OF NONLINEAR DYNAMICAL SYSTEMS: AN OPTIMIZATION BASED APPROACH. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2010, 20, 1027-1040.	0.7	3
44	Numerical Analysis of a Periodically Forced Dyeing Process. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 8568-8574.	1.8	3
45	Control of Rotating Wave Trains in a Loop Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 12134-12145.	1.8	3
46	Chemical Looping Reforming: Impact on the Performances Due to Carbon Fouling on Catalyst. <i>Computer Aided Chemical Engineering</i> , 2016, 38, 229-234.	0.3	3
47	A two carriers reactor configuration for chemical-looping combustion in a packed-bed. <i>International Journal of Greenhouse Gas Control</i> , 2020, 99, 103099.	2.3	3
48	Technoeconomic Analysis of a Fixed Bed System for Single/Two-Stage Chemical Looping Combustion. <i>Energy Technology</i> , 2021, 9, 2100538.	1.8	3
49	Nonlinear analysis of an industrial ammonia reactor with heterogeneous model. <i>Computer Aided Chemical Engineering</i> , 2001, 9, 225-230.	0.3	2
50	Bifurcation analysis of a periodically forced pair of tubular catalytic combustors. <i>Combustion Theory and Modelling</i> , 2006, 10, 1023-1035.	1.0	2
51	Parallel tools for the bifurcation analysis of large-scale chemically reactive dynamical systems. <i>Computers and Chemical Engineering</i> , 2012, 38, 94-105.	2.0	2
52	Feasibility analysis of a combined chemical looping combustion and renewable-energy-based methane production system for CO ₂ capture and utilization. <i>Thermal Science</i> , 2020, 24, 3613-3624.	0.5	2
53	Network of three catalytic reactors with periodical feed switching for methanol synthesis: bifurcation analysis. <i>Computer Aided Chemical Engineering</i> , 2006, 21, 197-202.	0.3	1
54	Optimal bifurcation tailoring based transition control of reactor separation recycle systems. <i>Computer Aided Chemical Engineering</i> , 2009, 26, 285-290.	0.3	1

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55	A nonlinear approach to the design of gain-scheduled controllers. Computer Aided Chemical Engineering, 2010, 28, 595-600.	0.3	1
56	COMPLEX DYNAMICS AND CHAOS IN A HYBRID SYSTEM MODELING A CONTROLLED REVERSE FLOW REACTOR. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 2097-2108.	0.7	1
57	CFD Simulation of Two-Phase Flow Patterns in the Gas Channel of a Proton Exchange Membrane Fuel Cell. Chemical Engineering and Technology, 2015, 38, 1229-1234.	0.9	1
58	Packed bed sorption enhanced methane reforming on CaO/CuO/Al ₂ O ₃ (NiO) catalyst. Computer Aided Chemical Engineering, 2018, 43, 1389-1394.	0.3	1
59	CO ₂ methanation: Reactor modelling and parametric analysis. Computer Aided Chemical Engineering, 2021, , 585-590.	0.3	1
60	Frequency locking in a discontinuous periodically forced reactor. Computer Aided Chemical Engineering, 2002, , 403-408.	0.3	0
61	Non linear dynamics of a network of reactors with periodical feed switching. Computer Aided Chemical Engineering, 2002, 10, 535-540.	0.3	0
62	NONLINEAR DYNAMICS OF A CONTROLLED REVERSE FLOW REACTOR. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 501-506.	0.4	0
63	Control of thermal runaway via optimal bifurcation tailoring aided gain-scheduling feedback. Computer Aided Chemical Engineering, 2006, 21, 1311-1316.	0.3	0
64	Effect of the switch strategy on the performance and stability of reactor networks for methanol synthesis. Computer Aided Chemical Engineering, 2010, , 13-18.	0.3	0
65	Devil's staircases in loop networks with symmetry locking. , 2013, , .		0
66	Mapping resonance regions in loop networks with spatio-temporal symmetry. AIP Conference Proceedings, 2015, , .	0.3	0
67	A Two Carriers Reactor Configuration for Packed Bed Chemical-Looping for Power Generation. Computer Aided Chemical Engineering, 2020, , 37-42.	0.3	0
68	LINEAR STABILITY ANALYSIS AND DIRECT NUMERICAL SIMULATION OF DOUBLE-LAYER RAYLEIGH-BÉNARD CONVECTION. , 0, , .		0