

David Edouard

List of Publications by Year in descending order

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50
papers

2,020
citations

218677

26
h-index

233421

45
g-index

50
all docs

50
docs citations

50
times ranked

1900
citing authors

#	ARTICLE	IF	CITATIONS
1	Pressure drop measurements and modeling on SiC foams. <i>Chemical Engineering Science</i> , 2007, 62, 3259-3267.	3.8	220
2	Nitrogen-doped Carbon Nanotubes as a Highly Active Metal-free Catalyst for Selective Oxidation. <i>ChemSusChem</i> , 2012, 5, 102-108.	6.8	162
3	Pressure drop modeling on SOLID foam: State-of-the art correlation. <i>Chemical Engineering Journal</i> , 2008, 144, 299-311.	12.7	146
4	Silicon carbide foam composite containing cobalt as a highly selective and re-usable Fischer-Tropsch synthesis catalyst. <i>Applied Catalysis A: General</i> , 2011, 397, 62-72.	4.3	140
5	Towards a more realistic modeling of solid foam: Use of the pentagonal dodecahedron geometry. <i>Chemical Engineering Science</i> , 2009, 64, 5131-5142.	3.8	106
6	High thermal conductive γ -SiC for selective oxidation of H ₂ S: A new support for exothermal reactions. <i>Applied Catalysis B: Environmental</i> , 2007, 76, 300-310.	20.2	80
7	Effect of structure and thermal properties of a Fischer-Tropsch catalyst in a fixed bed. <i>Catalysis Today</i> , 2009, 147, S305-S312.	4.4	79
8	Experimental measurements and multiphase flow models in solid SiC foam beds. <i>AIChE Journal</i> , 2008, 54, 2823-2832.	3.6	69
9	Open cell foam catalysts for CO ₂ methanation: Presentation of coating procedures and in situ exothermicity reaction study by infrared thermography. <i>Catalysis Today</i> , 2016, 273, 83-90.	4.4	59
10	Co-Ru/SiC impregnated with ethanol as an effective catalyst for the Fischer-Tropsch synthesis. <i>Applied Catalysis A: General</i> , 2012, 419-420, 31-40.	4.3	58
11	High performance structured platelet milli-reactor filled with supported cobalt open cell SiC foam catalyst for the Fischer-Tropsch synthesis. <i>Chemical Engineering Journal</i> , 2013, 222, 265-273.	12.7	54
12	Optimization of structured cellular foam-based catalysts for low-temperature carbon dioxide methanation in a platelet milli-reactor. <i>Comptes Rendus Chimie</i> , 2015, 18, 283-292.	0.5	49
13	Residence time distribution, axial liquid dispersion and dynamic-static liquid mass transfer in trickle flow reactor containing γ -SiC open-cell foams. <i>Chemical Engineering Journal</i> , 2012, 185-186, 294-299.	12.7	47
14	Fe ₂ O ₃ / γ -SiC: A new high efficient catalyst for the selective oxidation of H ₂ S into elemental sulfur. <i>Catalysis Today</i> , 2009, 141, 397-402.	4.4	41
15	UV-A photocatalytic treatment of Legionella pneumophila bacteria contaminated airflows through three-dimensional solid foam structured photocatalytic reactors. <i>Journal of Hazardous Materials</i> , 2010, 175, 372-381.	12.4	41
16	Polydopamine-coated open cell polyurethane foams as an inexpensive, flexible yet robust catalyst support: a proof of concept. <i>Chemical Communications</i> , 2016, 52, 4691-4693.	4.1	41
17	Methanol dehydration to dimethyl ether in a platelet milli-reactor filled with H-ZSM5/SiC foam catalyst. <i>Applied Catalysis A: General</i> , 2011, 409-410, 113-121.	4.3	40
18	1D SiC decoration of SiC macroscopic shapes for filtration devices. <i>Journal of Materials Chemistry</i> , 2008, 18, 4654.	6.7	39

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19	Observer based multivariable control of a catalytic reverse flow reactor: comparison between LQR and MPC approaches. <i>Computers and Chemical Engineering</i> , 2005, 29, 851-865.	3.8	35
20	Pressure drop measurements and hydrodynamic model description of SiC foam composites decorated with SiC nanofiber. <i>Catalysis Today</i> , 2009, 141, 403-408.	4.4	35
21	Adsorption of dye with carbon media supported on polyurethane open cell foam. <i>Catalysis Today</i> , 2018, 301, 98-103.	4.4	34
22	Silicon carbide foam decorated with carbon nanofibers as catalytic stirrer in liquid-phase hydrogenation reactions. <i>Applied Catalysis A: General</i> , 2014, 469, 81-88.	4.3	32
23	The effective thermal conductivity for SiC - and SiC/SiO_2 -foams. <i>AIChE Journal</i> , 2011, 57, 1646-1651.	3.6	31
24	The effective thermal properties of solid foam beds: Experimental and estimated temperature profiles. <i>International Journal of Heat and Mass Transfer</i> , 2010, 53, 3807-3816.	4.8	30
25	Control of a reverse flow reactor for VOC combustion. <i>Chemical Engineering Science</i> , 2005, 60, 1661-1672.	3.8	28
26	Polydopamine-coated open cell polyurethane foam as an efficient and easy-to-regenerate soft structured catalytic support (S 2 CS) for the reduction of dye. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 79-85.	6.7	27
27	Axial Dispersion Based on the Residence Time Distribution Curves in a Millireactor Filled with SiC Foam Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 15011-15017.	3.7	25
28	Aluminum Open Cell Foams as Efficient Supports for Carbon Dioxide Methanation Catalysts: Pilot Scale Reaction Results. <i>Energy Technology</i> , 2017, 5, 2078-2085.	3.8	23
29	A predictive model based on tortuosity for pressure drop estimation in SiC and SiC/SiO_2 foams. <i>Chemical Engineering Science</i> , 2011, 66, 4771-4779.	3.8	22
30	Simulation and experimental measurement of dynamic behavior of solid foam filter for diesel exhaust gas. <i>Catalysis Today</i> , 2012, 189, 101-110.	4.4	21
31	Catalytic growth of silicon carbide composite with nanoscopic properties and enhanced oxidative resistance as catalyst support. <i>Applied Catalysis A: General</i> , 2010, 385, 52-61.	4.3	20
32	Observer design for particle size distribution in emulsion polymerization. <i>AIChE Journal</i> , 2005, 51, 3167-3185.	3.6	19
33	Observer design for reverse flow reactor. <i>AIChE Journal</i> , 2004, 50, 2155-2166.	3.6	18
34	Usability of ECT for quantitative and qualitative characterization of trickle-bed flow dynamics subject to filtration conditions. <i>Chemical Engineering and Processing: Process Intensification</i> , 2006, 45, 538-545.	3.6	17
35	Bucky paper with improved mechanical stability made from vertically aligned carbon nanotubes for desulfurization process. <i>Applied Catalysis A: General</i> , 2011, 400, 230-237.	4.3	17
36	An intensification of the CO ₂ methanation reaction: Effect of carbon nanofiber network on the hydrodynamic, thermal and catalytic properties of reactors filled with open cell foams. <i>Chemical Engineering Science</i> , 2019, 195, 271-280.	3.8	16

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37	Role of gas phase in the deposition dynamics of fine particles in trickle-bed reactors. <i>Chemical Engineering Science</i> , 2006, 61, 3875-3884.	3.8	12
38	High surface-to-volume hybrid platelet reactor filled with catalytically grown vertically aligned carbon nanotubes. <i>Catalysis Today</i> , 2010, 150, 133-139.	4.4	12
39	Radial Dispersion in Liquid Upflow through Solid SiC Foams. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 4329-4334.	3.7	11
40	Coating of polydopamine on polyurethane open cell foams to design soft structured supports for molecular catalysis. <i>Chemical Communications</i> , 2019, 55, 11960-11963.	4.1	11
41	Borohydride- ϵ -functionalized polydopamine- ϵ -coated open cell polyurethane foam as a reusable soft structured material for reduction reactions: Application to the removal of a dye. <i>Environmental Progress and Sustainable Energy</i> , 2019, 38, 329-335.	2.3	9
42	Nonlinear soft-sensors design for unsteady-state VOC afterburners. <i>AIChE Journal</i> , 2006, 52, 282-291.	3.6	8
43	Revised cubic model for theoretical estimation of effective thermal conductivity of metal foams. <i>Applied Thermal Engineering</i> , 2017, 113, 1313-1318.	6.0	8
44	Platelet Millireactor Filled with Open Cell Foam-Supported Pt Nanoparticles for a Three-Phase Catalytic System. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 9352-9361.	3.7	6
45	Effective heat transfers in packed bed: Experimental and model investigation. <i>Chemical Engineering Science</i> , 2019, 201, 424-436.	3.8	6
46	Polydopamine film coating on polyurethane foams as efficient "sunscreens". Application to photocatalysis under UV irradiation. <i>Environmental Technology and Innovation</i> , 2021, 23, 101618.	6.1	6
47	An efficient bio-inspired catalytic tool for hydrogen release at room temperature from a stable borohydride solution. <i>International Journal of Energy Research</i> , 2020, 44, 10612-10627.	4.5	5
48	Filtration and Catalytic Reaction in Trickle Beds: The Use of Solid Foam Guard Beds To Mitigate Fines Plugging. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 1729-1740.	3.7	4
49	DirectCell technique: A very fast and simple method for characteristic lengths estimation in polyurethane open cell foam. <i>Chemical Engineering and Processing: Process Intensification</i> , 2014, 86, 64-68.	3.6	1
50	A Theoretical Comparative Study Between Open Cell Foam and Conventional Packed Bed in Externally Cooled Multitubular Fixed-Bed Reactors for the C1 Chemistry. <i>Advanced Chemistry Letters</i> , 2013, 1, 286-291.	0.1	0