Almerinda Di Benedetto

List of Publications by Year
in descending order

82 papers	2,480 citations	172386 29 h-index	223716 46 g-index
83 all docs	83 docs citations	83 times ranked	1452 citing authors

#	Article	IF	Citations
1	Explosion behavior of hydrogenâ€“methane/air mixtures. Journal of Loss Prevention in the Process Industries, 2012, 25, 443-447.	1.7	161
2	Using Large Eddy Simulation for understanding vented gas explosions in the presence of obstacles. Journal of Hazardous Materials, 2009, 169, 435-442.	6.5	121
3	Catalytic diesel particulate filters with highly dispersed ceria: Effect of the soot-catalyst contact on the regeneration performance. Applied Catalysis B: Environmental, 2016, 197, 116-124.	10.8	112
4	Large Eddy Simulation of transient premixed flameâ€“vortex interactions in gas explosions. Chemical Engineering Science, 2012, 71, 539-551.	1.9	93
5	Modeling and simulation of soot combustion dynamics in a catalytic diesel particulate filter. Chemical Engineering Science, 2015, 137, 69-78.	1.9	87
6	Sub-grid scale combustion models for large eddy simulation of unsteady premixed flame propagation around obstacles. Journal of Hazardous Materials, 2010, 180, 71-78.	6.5	86
7	Ceriaâ€coated diesel particulate filters for continuous regeneration. AICHE Journal, 2017, 63, 3442-3449.	1.8	76
8	Combined effects of soot load and catalyst activity on the regeneration dynamics of catalytic diesel particulate filters. AICHE Journal, 2018, 64, 1714-1722.	1.8	62
9	Combined Effect of Ignition Energy and Initial Turbulence on the Explosion Behavior of Lean Gas/Dust-Air Mixtures. Industrial & Engineering Chemistry Research, 2012, 51, 7663-7670.	1.8	61
10	Effect of the nozzle type on the integrity of dust particles in standard explosion tests. Powder Technology, 2015, 279, 203-208.	2.1	58
11	Explosions of Syngas/CO₂ Mixtures in Oxygen-Enriched Air. Industrial & Engineering Chemistry Research, 2012, 51, 7671-7678.	1.8	56
12	Prevention and mitigation of dust and hybrid mixture explosions. Process Safety Progress, 2010, 29, 17-21.	0.4	55
13	Anomalous behavior during explosions of CH4 in oxygen-enriched air. Combustion and Flame, 2011, 158, 2214-2219.	2.8	53
14	Reconsidering the flammability diagram for CH4/O2/N2 and CH4/O2/CO2 mixtures in light of combustion-induced Rapid Phase Transition. Chemical Engineering Science, 2012, 84, 142-147.	1.9	53
15	Operating Map for Regeneration of a Catalytic Diesel Particulate Filter. Industrial & Engineering Chemistry Research, 2016, 55, 11052-11061.	1.8	52
16	Modelling attrition of limestone during calcination and sulfation in a fluidized bed reactor. Powder Technology, 1998, 95, 119-128.	2.1	50
17	Synergy Between Ceria and Metals (Ag or Cu) in Catalytic Diesel Particulate Filters: Effect of the Metal Content and of the Preparation Method on the Regeneration Performance. Topics in Catalysis, 2021, 64, 256-269.	1.3	50
18	High pressure methane catalytic combustion over novel partially coated LaMnO3-based monoliths. Chemical Engineering Journal, 2015, 259, 381-390.	6.6	48

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19	Sensitivity to the Presence of the Combustion Submodel for Large Eddy Simulation of Transient Premixed Flameâ€"Vortex Interactions. Industrial & Engineering Chemistry Research, 2012, 51, 7704-7712.	1.8	47
20	Optimization of the preparation method of CuO/CeO2 structured catalytic monolith for CO preferential oxidation in H2-rich streams. Applied Catalysis B: Environmental, 2016, 181, 727-737.	10.8	43
21	Effect of diluents on rapid phase transition of water induced by combustion. AICHE Journal, 2012, 58, 2810-2819.	1.8	41
22	Effect of geometry on the thermal behavior of catalytic micro-combustors. Catalysis Today, 2010, 155, 116-122.	2.2	39
23	High-Pressure Methane Combustion over a Perovskyte Catalyst. Industrial & Engineering Chemistry Research, 2012, 51, 7547-7558.	1.8	37
24	On the explosion and flammability behavior of mixtures of combustible dusts. Chemical Engineering Research and Design, 2015, 94, 410-419.	2.7	37
25	Effect of pressure on the flash point of various fuels and their binary mixtures. Chemical Engineering Research and Design, 2018, 116, 615-620.	2.7	37
26	Transient behavior of structured LaMnO3 catalyst during methane combustion at high pressure. Chemical Engineering Science, 2014, 116, 350-358.	1.9	35
27	A novel catalytic-homogenous micro-combustor. Catalysis Today, 2009, 147, S156-S161.	2.2	34
28	CuO/CeO 2 based monoliths for CO preferential oxidation in H 2 -rich streams. Chemical Engineering Journal, 2015, 279, 983-993.	6.6	32
29	CFD modeling and simulation of turbulent fluid flow and dust dispersion in the 20-L explosion vessel equipped with the perforated annular nozzle. Journal of Loss Prevention in the Process Industries, 2015, 38, 204-213.	1.7	30
30	Using CFD Simulation as a Tool to Identify Optimal Operating Conditions for Regeneration of a Catalytic Diesel Particulate Filter. Applied Sciences (Switzerland), 2019, 9, 3453.	1.3	29
31	Bifurcation analysis of the effect of hydrogen addition on the dynamic behavior of lean premixed pre-vaporized ethanol combustion. International Journal of Hydrogen Energy, 2012, 37, 6922-6932.	3.8	28
32	Risk Assessment of the Large-Scale Hydrogen Storage in Salt Caverns. Energies, 2021, 14, 2856.	1.6	28
33	The thermal/thermodynamic theory of flammability: The adiabatic flammability limits. Chemical Engineering Science, 2013, 99, 265-273.	1.9	27
34	Flash point of flammable binary mixtures: Synergistic behavior. Journal of Loss Prevention in the Process Industries, 2018, 52, 1-6.	1.7	27
35	High pressure kinetics of CH4, CO and H2 combustion over LaMnO3 catalyst. Applied Catalysis B: Environmental, 2013, 134-135, 110-122.	10.8	25
36	The effect of support morphology on the reaction of oxidative dehydrogenation of ethane to ethylene at short contact times. Catalysis Today, 2005, 105, 551-559.	2.2	24

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37	Start-up behavior of a LaMnO3 partially coated monolithic combustor at high pressure. Catalysis Today, 2015, 242, 200-210.	2.2	23
38	Improved CO-PROX Performance of CuO/CeO2 Catalysts by Using Nanometric Ceria as Support. Catalysts, 2018, 8, 209.	1.6	22
39	CO reactive adsorption at low temperature over CuO/CeO2 structured catalytic monolith. International Journal of Hydrogen Energy, 2017, 42, 12262-12275.	3.8	20
40	Study of the explosible properties of textile dusts. Journal of Loss Prevention in the Process Industries, 2018, 54, 110-122.	1.7	20
41	CFD Simulation of the Dispersion of Binary Dust Mixtures in the 20ÂL Vessel. Journal of Loss Prevention in the Process Industries, 2020, 67, 104231.	1.7	20
42	Modelling of the effect of size on flocculent dust explosions. Journal of Loss Prevention in the Process Industries, 2013, 26, 1634-1638.	1.7	19
43	Volatile point of dust mixtures and hybrid mixtures. Journal of Loss Prevention in the Process Industries, 2018, 56, 370-377.	1.7	19
44	Influence of initial temperature and pressure on the explosion behavior of n-dodecane/air mixtures. Journal of Loss Prevention in the Process Industries, 2019, 62, 103920.	1.7	19
45	Explosion of lycopodium-nicotinic acidâ€“methane complex hybrid mixtures. Journal of Loss Prevention in the Process Industries, 2015, 36, 505-508.	1.7	18
46	The effect of the hydrogen presence on combustion-induced rapid phase transition of CO/O2/N2 mixtures. International Journal of Hydrogen Energy, 2013, 38, 16463-16470.	3.8	17
47	Post-fire erosion response in a watershed mantled by volcaniclastic deposits, Sarno Mountains, Southern Italy. Catena, 2017, 152, 227-241.	2.2	17
48	CFD simulation of turbulent flow field, feeding and dispersion of non-spherical dust particles in the standard 20â€¯L sphere. Journal of Loss Prevention in the Process Industries, 2019, 62, 103983.	1.7	16
49	Theoretical analysis of anomalous explosion behavior for H 2 /CO/O 2 /N 2 and CH 4 /O 2 /N 2 /CO 2 mixtures in the light of combustion-induced rapid phase transition. International Journal of Hydrogen Energy, 2015, 40, 8239-8247.	3.8	15
50	Effect of turbulence spatial distribution on the deflagration index: Comparison between 20ÂL and 1Âm3 vessels. Journal of Loss Prevention in the Process Industries, 2021, 71, 104484.	1.7	15
51	Modeling ethane oxy-dehydrogenation over monolithic combustion catalysts. AICHE Journal, 2004, 50, 2233-2245.	1.8	14
52	Synergistic behavior of flammable dust mixtures: A novel classification. Journal of Hazardous Materials, 2020, 397, 122784.	6.5	14
53	Heat and mass fluxes in presence of superficial reaction in a not completely developed laminar flow. Chemical Engineering Science, 2003, 58, 1079-1086.	1.9	13
54	On the pyrotechnic ignitors role in dust explosion testing: Comparison between 20â€‰L and 1Âm³ explosion vessels. Process Safety Progress, 2021, 40, 289-295.	0.4	13

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55	Methodology for risk assessment of COVID-19 pandemic propagation. Journal of Loss Prevention in the Process Industries, 2021, 72, 104584.	1.7	13
56	Analysis of an Explosion in a Wool-Processing Plant. Industrial & Engineering Chemistry Research, 2012, 51, 7713-7718.	1.8	12
57	Structuring CuO/CeO2 Catalyst as Option to Improve Performance Towards CO-PROX. Topics in Catalysis, 2016, 59, 1371-1382.	1.3	12
58	On the effect of initial pressure on the minimum explosive concentration of dust in air. Powder Technology, 2018, 336, 567-572.	2.1	12
59	Temperature excursions during the transient behaviour of high temperature catalytic combustion monoliths. Catalysis Today, 2003, 83, 171-182.	2.2	11
60	The design of duct venting of gas explosions. Process Safety Progress, 2008, 27, 164-172.	0.4	11
61	CFD simulations of dust dispersion in the 1Âm3 explosion vessel. Journal of Loss Prevention in the Process Industries, 2020, 68, 104274.	1.7	11
62	The mitigation of pressure piling by divergent connections. Process Safety Progress, 2005, 24, 310-315.	0.4	10
63	Combustion-Induced Rapid-Phase Transition (cRPT) in CH₄/CO₂/O₂-Enriched Mixtures. Energy & Fuels, 2012, 26, 4799-4803.	2.5	10
64	Effect of carbon dioxide and water on the performances of an iron-promoted copper/ceria catalyst for CO preferential oxidation in H2-rich streams. International Journal of Hydrogen Energy, 2016, 41, 7332-7341.	3.8	10
65	Immobilization of Î²-Glucosidase over Structured Cordierite Monoliths Washcoated with Wrinkled Silica Nanoparticles. Catalysts, 2020, 10, 889.	1.6	10
66	CFD simulation of turbulent fluid flow and dust dispersion in the 1 m3 explosion vessel equipped with the rebound nozzle. Journal of Loss Prevention in the Process Industries, 2022, 76, 104755.	1.7	10
67	A statistical approach to determine the autoignition temperature of dust clouds. Journal of Loss Prevention in the Process Industries, 2018, 56, 181-190.	1.7	9
68	Explosion behavior of ammonia and ammonia/methane in oxygenâ€enriched air. Process Safety Progress, 2017, 36, 368-371.	0.4	8
69	CFD Simulations of Microreactors for the Hydrolysis of Cellobiose to Glucose by Î²-Glucosidase Enzyme. Micromachines, 2020, 11, 790.	1.4	8
70	Ignition mechanism of flammable dust and dust mixtures: An insight through thermogravimetric/differential scanning calorimetry analysis. AIChE Journal, 2020, 66, e16256.	1.8	8
71	Glycerol Hydrogenolysis to 1,2-Propanediol over Novel Cu/ZrO2 Catalysts. Catalysts, 2022, 12, 72.	1.6	8
72	A fanâ€equipped reactor for dust explosion tests. AIChE Journal, 2015, 61, 1572-1580.	1.8	7

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73	Effect of initial pressure on the lower explosion limit of nicotinic acid/acetone mixture. Journal of Loss Prevention in the Process Industries, 2020, 64, 104075.	1.7	7
74	Effect of the Re number on heat and mass transport in a catalytic monolith. Catalysis Today, 2006, 117, 498-505.	2.2	6
75	CFD Simulations of Copper-Ceria Based Microreactor for COPROX. International Journal of Chemical Reactor Engineering, 2016, 14, 1301-1313.	0.6	6
76	Multifuel Catalytic Combustion in the Presence of Carbon Dioxide over Fully and Partially Perovskite-Coated Monoliths. Industrial & Engineering Chemistry Research, 2017, 56, 4920-4928.	1.8	6
77	A Novel Catalytic Micro-Combustor Inspired by the Nasal Geometry of Reindeer: CFD Modeling and Simulation. Catalysts, 2020, 10, 606.	1.6	6
78	K-doped CeO₂â€“ZrO₂ for CO₂ thermochemical catalytic splitting. RSC Advances, 2021, 11, 39420-39427.	1.7	6
79	Steady-State Multiplicity in Catalytic Microcombustors. Industrial & Engineering Chemistry Research, 2010, 49, 2130-2134.	1.8	4
80	Two-Stage Strategy for CO Removal from H2-Rich Streams over (Nano-) CuO/CeO2 Structured Catalyst at Low Temperature. Applied Sciences (Switzerland), 2018, 8, 789.	1.3	4
81	Ni/CeO2 Structured Catalysts for Solar Reforming of Spent Solvents. Catalysts, 2019, 9, 688.	1.6	3
82	Highly Dispersed Ceria for Catalytic Regeneration of Diesel Particulate Filters. Advanced Science Letters, 2017, 23, 5909-5911.	0.2	3