Almerinda Di Benedetto

List of Publications by Year
in descending order

57 papers	2,074 citations	201575 27 h-index	243529 44 g-index
57 all docs	57 docs citations	57 times ranked	1139 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	High pressure methane catalytic combustion over novel partially coated LaMnO3-based monoliths. Chemical Engineering Journal, 2015, 259, 381-390.	6.6	48
18	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

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19	Effect of diluents on rapid phase transition of water induced by combustion. AICHE Journal, 2012, 58, 2810-2819.	1.8	41
20	Effect of geometry on the thermal behavior of catalytic micro-combustors. Catalysis Today, 2010, 155, 116-122.	2.2	39
21	High-Pressure Methane Combustion over a Perovskyte Catalyst. Industrial & Engineering Chemistry Research, 2012, 51, 7547-7558.	1.8	37
22	On the explosion and flammability behavior of mixtures of combustible dusts. Chemical Engineering Research and Design, 2015, 94, 410-419.	2.7	37
23	Transient behavior of structured LaMnO3 catalyst during methane combustion at high pressure. Chemical Engineering Science, 2014, 116, 350-358.	1.9	35
24	A novel catalytic-homogenous micro-combustor. Catalysis Today, 2009, 147, S156-S161.	2.2	34
25	CuO/CeO 2 based monoliths for CO preferential oxidation in H 2 -rich streams. Chemical Engineering Journal, 2015, 279, 983-993.	6.6	32
26	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
27	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
28	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
29	The thermal/thermodynamic theory of flammability: The adiabatic flammability limits. Chemical Engineering Science, 2013, 99, 265-273.	1.9	27
30	High pressure kinetics of CH4, CO and H2 combustion over LaMnO3 catalyst. Applied Catalysis B: Environmental, 2013, 134-135, 110-122.	10.8	25
31	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
32	Start-up behavior of a LaMnO3 partially coated monolithic combustor at high pressure. Catalysis Today, 2015, 242, 200-210.	2.2	23
33	Study of the explosible properties of textile dusts. Journal of Loss Prevention in the Process Industries, 2018, 54, 110-122.	1.7	20
34	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
35	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
36	Volatile point of dust mixtures and hybrid mixtures. Journal of Loss Prevention in the Process Industries, 2018, 56, 370-377.	1.7	19

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37	Explosion of lycopodium-nicotinic acidâ€“methane complex hybrid mixtures. Journal of Loss Prevention in the Process Industries, 2015, 36, 505-508.	1.7	18
38	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
39	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
40	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
41	Modeling ethane oxy-dehydrogenation over monolithic combustion catalysts. AICHE Journal, 2004, 50, 2233-2245.	1.8	14
42	Synergistic behavior of flammable dust mixtures: A novel classification. Journal of Hazardous Materials, 2020, 397, 122784.	6.5	14
43	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
44	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
45	Analysis of an Explosion in a Wool-Processing Plant. Industrial & Engineering Chemistry Research, 2012, 51, 7713-7718.	1.8	12
46	Temperature excursions during the transient behaviour of high temperature catalytic combustion monoliths. Catalysis Today, 2003, 83, 171-182.	2.2	11
47	The design of duct venting of gas explosions. Process Safety Progress, 2008, 27, 164-172.	0.4	11
48	CFD simulations of dust dispersion in the 1Âm3 explosion vessel. Journal of Loss Prevention in the Process Industries, 2020, 68, 104274.	1.7	11
49	The mitigation of pressure piling by divergent connections. Process Safety Progress, 2005, 24, 310-315.	0.4	10
50	Combustion-Induced Rapid-Phase Transition (cRPT) in CH₄/CO₂/O₂-Enriched Mixtures. Energy & Fuels, 2012, 26, 4799-4803.	2.5	10
51	Explosion behavior of ammonia and ammonia/methane in oxygenâ€enriched air. Process Safety Progress, 2017, 36, 368-371.	0.4	8
52	Ignition mechanism of flammable dust and dust mixtures: An insight through thermogravimetric/differential scanning calorimetry analysis. AICHE Journal, 2020, 66, e16256.	1.8	8
53	A fanâ€equipped reactor for dust explosion tests. AICHE Journal, 2015, 61, 1572-1580.	1.8	7
54	Effect of the Re number on heat and mass transport in a catalytic monolith. Catalysis Today, 2006, 117, 498-505.	2.2	6

#	Article	IF	Citations
55	On the flammable behavior of non-traditional dusts: Dimensionless numbers evaluation for nylon 6,6 short fibers. Journal of Loss Prevention in the Process Industries, 2022, 78, 104815.	1.7	6
56	Steady-State Multiplicity in Catalytic Microcombustors. Industrial & Engineering Chemistry Research, 2010, 49, 2130-2134.	1.8	4
57	The Issue of Solid-Solid Contact in Catalytic Soot Oxidation and the Benefits of Catalyst Nanostructuring to Regeneration of Catalytic Diesel Particulate Filters. , 2021, , 155-187.		1