Ernesto Salzano

List of Publications by Year
in descending order

145 papers	4,431 citations	94269 37 h-index	123241 61 g-index
163 all docs	163 docs citations	163 times ranked	1935 citing authors

#	Article	IF	Citations
1	Escalation thresholds in the assessment of domino accidental events. Journal of Hazardous Materials, 2006, 129, 1-21.	6.5	277
2	The quantitative assessment of domino effects caused by overpressure. Journal of Hazardous Materials, 2004, 107, 67-80.	6.5	175
3	Explosion behavior of hydrogenâ€"methane/air mixtures. Journal of Loss Prevention in the Process Industries, 2012, 25, 443-447.	1.7	161
4	Seismic risk of atmospheric storage tanks in the framework of quantitative risk analysis. Journal of Loss Prevention in the Process Industries, 2003, 16, 403-409.	1.7	130
5	CFD analysis of gas explosions vented through relief pipes. Journal of Hazardous Materials, 2006, 137, 654-665.	6.5	118
6	Prevention of domino effect: From active and passive strategies to inherently safer design. Journal of Hazardous Materials, 2007, 139, 209-219.	6.5	116
7	The development of an inherent safety approach to the prevention of domino accidents. Accident Analysis and Prevention, 2009, 41, 1216-1227.	3.0	112
8	Explosion behavior of CH4/O2/N2/CO2 and H2/O2/N2/CO2 mixtures. International Journal of Hydrogen Energy, 2009, 34, 6970-6978.	3.8	108
9	Quantitative risk analysis of oil storage facilities in seismic areas. Journal of Hazardous Materials, 2005, 123, 61-69.	6.5	107
10	Dust/gas mixtures explosion regimes. Powder Technology, 2011, 205, 81-86.	2.1	102
11	Venting of gas explosion through relief ducts: Interaction between internal and external explosions. Journal of Hazardous Materials, 2008, 155, 358-368.	6.5	96
12	Industrial accidents triggered by natural hazards: an emerging risk issue. Natural Hazards and Earth System Sciences, 2011, 11, 921-929.	1.5	94
13	Extending the Quantitative Assessment of Industrial Risks to Earthquake Effects. Risk Analysis, 2008, 28, 1231-1246.	1.5	88
14	Combined effects of initial pressure and turbulence on explosions of hydrogen-enriched methane/air mixtures. Journal of Loss Prevention in the Process Industries, 2009, 22, 607-613.	1.7	83
15	Risk assessment and early warning systems for industrial facilities in seismic zones. Reliability Engineering and System Safety, 2009, 94, 1577-1584.	5.1	83
16	Sustainability of cruise ship fuel systems: Comparison among LNG and diesel technologies. Journal of Cleaner Production, 2020, 260, 121069.	4.6	81
17	Seismic vulnerability of gas and liquid buried pipelines. Journal of Loss Prevention in the Process Industries, 2014, 28, 72-78.	1.7	75
18	Seismic vulnerability of natural gas pipelines. Reliability Engineering and System Safety, 2013, 117, 73-80.	5.1	73

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19	Lessons Learned from Toulouse and Buncefield Disasters: From Risk Analysis Failures to the Identification of Atypical Scenarios Through a Better Knowledge Management. Risk Analysis, 2012, 32, 1404-1419.	1.5	67
20	The quantitative assessment of domino effect caused by overpressure. Journal of Hazardous Materials, 2004, 107, 81-94.	6.5	65
21	The analysis of domino accidents triggered by vapor cloud explosions. Reliability Engineering and System Safety, 2005, 90, 271-284.	5.1	63
22	Threshold values for domino effects caused by blast wave interaction with process equipment. Journal of Loss Prevention in the Process Industries, 2004, 17, 437-447.	1.7	62
23	Vulnerability of industrial facilities to attacks with improvised explosive devices aimed at triggering domino scenarios. Reliability Engineering and System Safety, 2015, 143, 53-62.	5.1	62
24	Numerical simulation of turbulent gas flames in tubes. Journal of Hazardous Materials, 2002, 95, 233-247.	6.5	60
25	Numerical simulation of gas explosions in linked vessels. Journal of Loss Prevention in the Process Industries, 1999, 12, 189-194.	1.7	56
26	Explosions of Syngas/CO₂ Mixtures in Oxygen-Enriched Air. Industrial & Engineering Chemistry Research, 2012, 51, 7671-7678.	1.8	56
27	Public awareness promoting new or emerging risks: Industrial accidents triggered by natural hazards (NaTech). Journal of Risk Research, 2013, 16, 469-485.	1.4	54
28	Analysis of physical and cyber security-related events in the chemical and process industry. Chemical Engineering Research and Design, 2018, 116, 621-631.	2.7	54
29	Anomalous behavior during explosions of CH4 in oxygen-enriched air. Combustion and Flame, 2011, 158, 2214-2219.	2.8	53
30	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
31	Supporting the selection of process and plant design options by Inherent Safety KPIs. Journal of Loss Prevention in the Process Industries, 2012, 25, 830-842.	1.7	53
32	Minimum Ignition Temperature of layer and cloud dust mixtures. Journal of Loss Prevention in the Process Industries, 2015, 36, 326-334.	1.7	52
33	Seismic damage to pipelines in the framework of Na-Tech risk assessment. Journal of Loss Prevention in the Process Industries, 2015, 33, 159-172.	1.7	48
34	Thermal risk in semi-batch reactors: The epoxidation of soybean oil. Chemical Engineering Research and Design, 2017, 109, 529-537.	2.7	47
35	Experimental analysis of gas explosions at non-atmospheric initial conditions in cylindrical vessel. Chemical Engineering Research and Design, 2010, 88, 341-349.	2.7	43
36	The effect of ultra-low temperature on the flammability limits of a methane/air/diluent mixtures. Journal of Hazardous Materials, 2019, 362, 224-229.	6.5	42

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37	Effect of diluents on rapid phase transition of water induced by combustion. AIChE Journal, 2012, 58, 2810-2819.	1.8	41
38	The effect of a hydrogen addition to the premixed flame structure of light alkanes. Fuel, 2018, 234, 1064-1070.	3.4	37
39	Removal of naphthalene by activated carbons from hot gas. Chemical Engineering Journal, 2016, 291, 244-253.	6.6	36
40	Laminar Burning Velocity of Methane, Hydrogen, and Their Mixtures at Extremely Low-Temperature Conditions. Energy & Fuels, 2018, 32, 8830-8836.	2.5	35
41	Acoustic analysis of blast waves produced by rapid phase transition of LNG released on water. Safety Science, 2009, 47, 515-521.	2.6	34
42	A fuzzy set analysis to estimate loss intensity following blast wave interaction with process equipment. Journal of Loss Prevention in the Process Industries, 2006, 19, 343-352.	1.7	33
43	Case study of a nylon fibre explosion: An example of explosion risk in a textile plant. Journal of Loss Prevention in the Process Industries, 2010, 23, 106-111.	1.7	33
44	Post-Accident Analysis of Vapour Cloud Explosions in Fuel Storage Areas. Chemical Engineering Research and Design, 1999, 77, 360-365.	2.7	32
45	Comparison and Validation of Detailed Kinetic Models for the Oxidation of Light Alkenes. Industrial & Engineering Chemistry Research, 2018, 57, 7130-7135.	1.8	32
46	Explosion parameters of wood chip-derived syngas in air. Journal of Loss Prevention in the Process Industries, 2014, 32, 399-403.	1.7	31
47	Study of Soybean Oil Epoxidation: Effects of Sulfuric Acid and the Mixing Program. Industrial & Engineering Chemistry Research, 2018, 57, 11517-11525.	1.8	30
48	Experimental and numerical analysis of the oxidative decomposition of H 2 S. Fuel, 2017, 198, 68-75.	3.4	29
49	Hazard of Pressurized Tanks Involved in Fires. Industrial & Engineering Chemistry Research, 2003, 42, 1804-1812.	1.8	26
50	The effects of extreme winds on atmospheric storage tanks. Reliability Engineering and System Safety, 2020, 195, 106686.	5.1	26
51	CFD simulation of pressure piling. Journal of Loss Prevention in the Process Industries, 2010, 23, 498-506.	1.7	25
52	Towards a new approach for the identification of atypical accident scenarios. Journal of Risk Research, 2013, 16, 337-354.	1.4	25
53	Thermal behaviour of Peracetic Acid for the epoxydation of vegetable oils in the presence of catalyst. Chemical Engineering Research and Design, 2018, 116, 718-726.	2.7	24
54	A comparative analysis of security risk assessment methodologies for the chemical industry. Reliability Engineering and System Safety, 2019, 191, 106083.	5.1	24

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55	Flammability parameters of liquified natural gas. Journal of Loss Prevention in the Process Industries, 2018, 56, 424-429.	1.7	23
56	Automatically generated model for light alkene combustion. Combustion and Flame, 2022, 241, 112080.	2.8	23
57	Simulation of VCEs by CFD modelling: an analysis of sensitivity. Journal of Loss Prevention in the Process Industries, 1998, 11, 169-175.	1.7	22
58	Simplified model for the evaluation of the effects of explosions on industrial target. Journal of Loss Prevention in the Process Industries, 2015, 37, 119-123.	1.7	21
59	Numerical simulation of small-scale pool fires of LNG. Journal of Loss Prevention in the Process Industries, 2019, 61, 82-88.	1.7	21
60	Emerging Risks in the Biodiesel Production by Transesterification of Virgin and Renewable Oils. Energy & Fuels, 2010, 24, 6103-6109.	2.5	20
61	Potential loading damage to industrial storage tanks due to volcanic ash fallout. Natural Hazards, 2013, 66, 939-953.	1.6	20
62	The vulnerability of industrial equipment to tsunami. Journal of Loss Prevention in the Process Industries, 2017, 50, 301-307.	1.7	20
63	Study of the explosible properties of textile dusts. Journal of Loss Prevention in the Process Industries, 2018, 54, 110-122.	1.7	20
64	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
65	Safety guidelines and a training framework for LNG storage and bunkering at ports. Safety Science, 2021, 138, 105212.	2.6	19
66	A comparison of dispersion models for the LNG dispersion at port of Koper, Slovenia. Safety Science, 2021, 144, 105467.	2.6	19
67	Comparison of the Explosion Thermodynamics of TNT and Black Powder Using Le Chatelier Diagrams. Propellants, Explosives, Pyrotechnics, 2012, 37, 724-731.	1.0	18
68	Dust explosion risk in metal workings. Journal of Loss Prevention in the Process Industries, 2019, 61, 195-205.	1.7	18
69	Predicting pressure piling by semi-empirical correlations. Fire Safety Journal, 2005, 40, 282-298.	1.4	17
70	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
71	Quantitative risk analysis for the Amerigo Vespucci (Florence, Italy) airport including domino effects. Safety Science, 2019, 113, 472-489.	2.6	17
72	A risk-based multi-level stress test methodology: application to six critical non-nuclear infrastructures in Europe. Natural Hazards, 2020, 100, 595-633.	1.6	17

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73	Experimental and numerical evaluation of low-temperature combustion of bio-syngas. International Journal of Hydrogen Energy, 2020, 45, 1084-1095.	3.8	17
74	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
75	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
76	Pressurized CO 2 releases in the framework of carbon sequestration and enhanced oil recovery safety analysis: Experiments and model. Chemical Engineering Research and Design, 2018, 116, 433-449.	2.7	15
77	Dust explosion hazard in the textile industry. Journal of Loss Prevention in the Process Industries, 2019, 62, 103935.	1.7	15
78	Major accident hazard in biodiesel production processes. Safety Science, 2019, 113, 490-503.	2.6	15
79	Implementation of gas-phase kinetic model for the optimization of the ethylene oxide production. Chemical Engineering Science, 2020, 212, 115331.	1.9	15
80	Evaluating the structural priorities for the seismic vulnerability of civilian and industrial wastewater treatment plants. Safety Science, 2017, 97, 51-57.	2.6	14
81	Evaluation of safety parameters of light alkenes by means of detailed kinetic models. Chemical Engineering Research and Design, 2018, 119, 131-137.	2.7	14
82	Realistic aviation fuel chemistry in computational fluid dynamics. Fuel, 2019, 254, 115676.	3.4	14
83	A Numerical Study on the Effect of Temperature and Composition on the Flammability of Methaneâ€“Hydrogen Sulfide Mixtures. Combustion Science and Technology, 2019, 191, 1541-1557.	1.2	14
84	Analysis of an Explosion in a Wool-Processing Plant. Industrial & Engineering Chemistry Research, 2012, 51, 7713-7718.	1.8	12
85	Safety distances for the sour biogas in digestion plants. Chemical Engineering Research and Design, 2021, 147, 1-7.	2.7	12
86	The design of duct venting of gas explosions. Process Safety Progress, 2008, 27, 164-172.	0.4	11
87	Runaway Reaction for the Esterification of Acetic Anhydride with Methanol Catalyzed by Sulfuric Acid. Industrial & Engineering Chemistry Research, 2018, 57, 4195-4202.	1.8	11
88	The mitigation of pressure piling by divergent connections. Process Safety Progress, 2005, 24, 310-315.	0.4	10
89	Combustion-Induced Rapid-Phase Transition (cRPT) in CH₄/CO₂/O₂-Enriched Mixtures. Energy & Fuels, 2012, 26, 4799-4803.	2.5	10
90	Low temperature combustion of methane/alkenes mixtures. Fuel, 2019, 254, 115567.	3.4	10

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91	Large eddy simulation for the rapid phase transition of LNG. Safety Science, 2021, 133, 105001.	2.6	10
92	Experimental and numerical characterization of hydrogen jet fires. International Journal of Hydrogen Energy, 2022, 47, 21883-21896.	3.8	10
93	Accidental release in the bunkering of LNG: Phenomenological aspects and safety zone. Ocean Engineering, 2022, 252, 111163.	1.9	9
94	Risks associated with volcanic ash fallout from Mt.Etna with reference to industrial filtration systems. Reliability Engineering and System Safety, 2013, 120, 106-110.	5.1	8
95	Measurements of pressure and flame speed during explosions of CH 4 /O 2 /N 2 /CO 2 mixtures. Journal of Loss Prevention in the Process Industries, 2016, 44, 771-774.	1.7	8
96	Including detonations in industrial safety and risk assessments. Journal of Loss Prevention in the Process Industries, 2017, 49, 171-176.	1.7	8
97	Explosion behavior of ammonia and ammonia/methane in oxygenâ€enriched air. Process Safety Progress, 2017, 36, 368-371.	0.4	8
98	Safety parameters for oxygen-enriched flames. Journal of Loss Prevention in the Process Industries, 2020, 65, 104151.	1.7	8
99	The effects of low-temperature phenomena on rapid phase transition of liquid hydrogen. International Journal of Hydrogen Energy, 2020, 45, 32676-32685.	3.8	8
100	Detailed kinetic mechanism for the hydrogen production via the oxidative reforming of ethanol. Chemical Engineering Science, 2021, 237, 116591.	1.9	8
101	Vaginal lactoferrin in asymptomatic patients at low risk for pre-term labour for shortened cervix: Cervical length and interleukin-6 changes. Journal of Obstetrics and Gynaecology, 2013, 33, 144-148.	0.4	7
102	A GIS-based tool for the management of industrial accidents triggered by volcanic ash fallouts. Journal of Risk Research, 2016, 19, 212-232.	1.4	7
103	Structure of premixed flames of propylene oxide: Molecular beam mass spectrometric study and numerical simulation. Proceedings of the Combustion Institute, 2021, 38, 2467-2475.	2.4	7
104	A detailed kinetic model for the thermal decomposition of hydroxylamine. Journal of Hazardous Materials, 2021, 416, 125641.	6.5	7
105	Social Networks, Civic Participation, and Young People. , 2012, , 187-205.		7
106	On the flash fire of stratified cloud of liquefied natural gas. Journal of Loss Prevention in the Process Industries, 2022, 75, 104680.	1.7	7
107	A case study of multiple explosions of chemicals under fire conditions. Journal of Loss Prevention in the Process Industries, 2019, 62, 103932.	1.7	5
108	The role of recirculation loop on the risk of ethoxylation processes. Journal of Loss Prevention in the Process Industries, 2007, 20, 238-250.	1.7	4

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109	Vent Sizing Criteria for Partial Volume Deflagration. Chemical Engineering Research and Design, 2007, 85, 549-558.	2.7	4
110	Direction of pressure wave propagation during combustion-induced rapid phase transition. Journal of Loss Prevention in the Process Industries, 2016, 40, 524-528.	1.7	4
111	The Effect of Hydrogen Addition on Low-Temperature Combustion of Light Hydrocarbons and Alcohols. Energies, 2020, 13, 3808.	1.6	4
112	The explosion of non-nano iron dust suspension in the 20-l spherical bomb. Journal of Loss Prevention in the Process Industries, 2021, 71, 104447.	1.7	4
113	The evaluation of risks of ethoxylation reactors. Process Safety Progress, 2007, 26, 304-311.	0.4	3
114	Lessons Learned FromÂNatech Events. , 2017, , 33-52.		3
115	Laminar Burning Velocity and Ignition Delay Time of Oxygenated Biofuel. Energies, 2021, 14, 3562.	1.6	3
116	The effects of phosphorus-free inhibitors on the ignition of lycopodium dust. Journal of Loss Prevention in the Process Industries, 2021, 72, 104543.	1.7	3
117	Reduced Combustion Mechanism for Fire with Light Alcohols. Fire, 2021, 4, 86.	1.2	3
118	Delineating a new critical region for juvenile myoclonic epilepsy at the 22q11.2 chromosome. Epilepsy and Behavior, 2013, 29, 587-588.	0.9	2
119	Overpressure Effects. , 2013, , 43-69.		2
120	Threshold-Based Approach. , 2013, , 189-207.		2
121	Explosion (overpressure) driven domino effect. Methods in Chemical Process Safety, 2021, , 119-133.	0.5	2
122	Assessing the Cost of Medical Care of Respiratory Diseases Caused by Indoor Pollution. Indoor and Built Environment, 1996, 5, 303-310.	1.5	1
123	Confined Gas and Dust Explosions. , 2014, , .		1
124	Assessing the Severity of Runaway Reactions. , 2016, , 127-138.		1
125	The ARGO Project: assessing NA-TECH risks on offshore oil platforms. Energy Procedia, 2017, 125, 145-152.	1.8	1
126	Quantitative Methods for Natech Risk Assessment. , 2017, , 143-156.		1

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127	Reducing Natech Risk: Organizational Measures. , 2017, , 227-235.		1
128	Gas-phase thermal explosions in catalytic direct oxidation of alkenes. Journal of Loss Prevention in the Process Industries, 2020, 65, 104097.	1.7	1
129	Vulnerability assessment of chemical plants to intentional acts. , 2021, , 175-192.		1
130	An Integrated Approach to Risk and Impacts of Geo-Resources Exploration and Exploitation. Energies, 2021, 14, 4178.	1.6	1
131	Industrial hazards associated with the eruption of Etna. , 2011, , 2945-2952.		1
132	The use of integrals and CFD tools to evaluate the cloud dispersion of flammable and toxic substances leakages. , 2013, , 1889-1894.		1
133	Accidental Combustion Phenomena at Cryogenic Conditions. Safety, 2021, 7, 67.	0.9	1
134	Estimation of Damage to Equipment Caused by Blast Waves by Means of Fuzzy Sets. , 2004, , 3653-3658.		1
135	Blast Wave Damage to Process Equipment as a Trigger of Domino Effects. , 0, , 101-113.		1
136	Numerical modeling of natural gas buried pipelines under seismic shaking. , 2014, , 1129-1134.		1
137	Assessing the Cost of Medical Care of Respiratory Diseases Caused by Indoor Pollution. Indoor and Built Environment, 1996, 5, 303-310.	1.5	0
138	Detailed Studies of Domino Scenarios. , 2013, , 229-243.		0
139	Dynamic Assessment of Runaway Reaction Risk. , 2016, , 139-148.		0
140	Technological Hazard Characterization. , 2017, , 91-103.		0
141	Natural Hazard Characterization. , 2017, , 69-89.		0
142	Case Study Application III: RISKCURVES. , 2017, , 191-203.		0
143	Recommendations and Outlook. , 2017, , 237-239.		0
144	Stand-off distances for domino effect caused by intentional acts. , 2021, , 155-174.		0

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145	The Potentiality of Improvised Explosive Devices to Trigger Domino Effects. , 2018, , 103-110.		0