Bo Zhang

List of Publications by Year
in descending order

59 papers	2,663 citations	126907 33 h-index	189892 50 g-index
60 all docs	60 docs citations	60 times ranked	521 citing authors

#	Article	IF	Citations
1	The influence of wall roughness on detonation limits in hydrogenâ€“oxygen mixture. Combustion and Flame, 2016, 169, 333-339.	5.2	156
2	The effects of large scale perturbation-generating obstacles on the propagation of detonation filled with methaneâ€“oxygen mixture. Combustion and Flame, 2017, 182, 279-287.	5.2	128
3	Explosion characteristics of argon/nitrogen diluted natural gasâ€“air mixtures. Fuel, 2014, 124, 125-132.	6.4	119
4	The effect of instability of detonation on the propagation modes near the limits in typical combustible mixtures. Fuel, 2019, 253, 305-310.	6.4	101
5	Theoretical prediction model and experimental investigation of detonation limits in combustible gaseous mixtures. Fuel, 2019, 258, 116132.	6.4	92
6	End-wall ignition of methane-air mixtures under the effects of CO2/Ar/N2 fluidic jets. Fuel, 2020, 270, 117485.	6.4	87
7	Experimental study of detonation limits in methane-oxygen mixtures: Determining tube scale and initial pressure effects. Fuel, 2020, 259, 116220.	6.4	77
8	Analysis of the ignition induced by shock wave focusing equipped with conical and hemispherical reflectors. Combustion and Flame, 2022, 236, 111763.	5.2	76
9	Direct blast initiation of spherical gaseous detonations in highly argon diluted mixtures. Proceedings of the Combustion Institute, 2011, 33, 2265-2271.	3.9	73
10	Critical energy for direct initiation of spherical detonations in H2/N2O/Ar mixtures. International Journal of Hydrogen Energy, 2011, 36, 5707-5716.	7.1	70
11	Explosion behavior of methaneâ€“dimethyl ether/air mixtures. Fuel, 2015, 157, 56-63.	6.4	68
12	An experimental investigation of detonation limits in hydrogenâ€“oxygenâ€“argon mixtures. International Journal of Hydrogen Energy, 2016, 41, 6076-6083.	7.1	68
13	Effect of acoustically absorbing wall tubes on the near-limit detonation propagation behaviors in a methaneâ€“oxygen mixture. Fuel, 2019, 236, 975-983.	6.4	66
14	Investigation on the detonation propagation limit criterion for methane-oxygen mixtures in tubes with different scales. Fuel, 2019, 239, 617-622.	6.4	62
15	Detonation velocity deficits of H2/O2/Ar mixture in round tube and annular channels. International Journal of Hydrogen Energy, 2015, 40, 15078-15087.	7.1	58
16	On the dynamic detonation parameters in acetyleneâ€“oxygen mixtures with varying amount of argon dilution. Combustion and Flame, 2014, 161, 1390-1397.	5.2	55
17	The precursor shock wave and flame propagation enhancement by CO2 injection in a methane-oxygen mixture. Fuel, 2021, 283, 118917.	6.4	55
18	Explosion behaviors of mixtures of methane and air with saturated water vapor. Fuel, 2016, 177, 15-18.	6.4	54

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19	Detonation limits in binary fuel blends of methane/hydrogen mixtures. Fuel, 2016, 168, 27-33.	6.4	54
20	Measurement and prediction of detonation cell size in binary fuel blends of methane/hydrogen mixtures. Fuel, 2016, 172, 196-199.	6.4	53
21	An experimental investigation of the explosion characteristics of dimethyl ether-air mixtures. Energy, 2016, 107, 1-8.	8.8	52
22	Methaneâ€"oxygen detonation characteristics near their propagation limits in ducts. Fuel, 2016, 177, 1-7.	6.4	52
23	Ignition behavior and the onset of quasi-detonation in methane-oxygen using different end wall reflectors. Aerospace Science and Technology, 2021, 116, 106873.	4.8	52
24	Velocity behavior downstream of perforated plates with large blockage ratio for unstable and stable detonations. Aerospace Science and Technology, 2019, 86, 236-243.	4.8	49
25	The critical tube diameter and critical energy for direct initiation of detonation in C2H2/N2O/Ar mixtures. Combustion and Flame, 2012, 159, 2944-2953.	5.2	48
26	Explosion characteristics of methane-ethane mixtures in air. Journal of Loss Prevention in the Process Industries, 2017, 45, 102-107.	3.3	45
27	Explosion and flame characteristics of methane/air mixtures in a largeâ€scale vessel. Process Safety Progress, 2014, 33, 362-368.	1.0	42
28	On the detonation propagation behavior in hydrogen-oxygen mixture under the effect of spiral obstacles. International Journal of Hydrogen Energy, 2017, 42, 21392-21402.	7.1	41
29	Impacts of turbulence on explosion characteristics of methane-air mixtures with different fuel concentration. Fuel, 2020, 271, 117610.	6.4	41
30	Methods to predict the critical energy of direct detonation initiation in gaseous hydrocarbon fuels â€" An overview. Fuel, 2014, 117, 294-308.	6.4	40
31	Effects of argon/nitrogen dilution on explosion and combustion characteristics of dimethyl etherâ€"air mixtures. Fuel, 2015, 159, 646-652.	6.4	40
32	Velocity fluctuation analysis near detonation propagation limits for stoichiometric methaneâ€"hydrogenâ€"oxygen mixture. International Journal of Hydrogen Energy, 2016, 41, 17750-17759.	7.1	40
33	Measurement and relationship between critical tube diameter and critical energy for direct blast initiation of gaseous detonations. Journal of Loss Prevention in the Process Industries, 2013, 26, 1293-1299.	3.3	39
34	Measurement and scaling analysis of critical energy for direct initiation of gaseous detonations. Shock Waves, 2012, 22, 275-279.	1.9	33
35	Measurement of effective blast energy for direct initiation of spherical gaseous detonations from high-voltage spark discharge. Shock Waves, 2012, 22, 1-7.	1.9	32
36	Critical energy of direct detonation initiation in gaseous fuelâ€"oxygen mixtures. Safety Science, 2013, 53, 153-159.	4.9	32

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37	The critical energy of direct initiation and detonation cell size in liquid hydrocarbon fuel/air mixtures. Fuel, 2013, 113, 331-339.	6.4	30
38	Detonation limits in methane-hydrogen-oxygen mixtures: Dominant effect of induction length. International Journal of Hydrogen Energy, 2019, 44, 23532-23537.	7.1	30
39	Experimental study on the effects of different fluidic jets on the acceleration of deflagration prior its transition to detonation. Aerospace Science and Technology, 2020, 106, 106203.	4.8	28
40	Deflagration to detonation transition and detonation structure in diethyl ether mist/aluminum dust/air mixtures. Fuel, 2013, 107, 400-408.	6.4	27
41	The effects of pre-ignition turbulence by gas jets on the explosion behavior of methane-oxygen mixtures. Fuel, 2020, 277, 118190.	6.4	27
42	An experimental study on the detonability of gaseous hydrocarbon fuelâ€"oxygen mixtures in narrow channels. Aerospace Science and Technology, 2017, 69, 193-200.	4.8	26
43	On the explosion characteristics for central and end-wall ignition in hydrogen-air mixtures: A comparative study. International Journal of Hydrogen Energy, 2021, 46, 30861-30869.	7.1	24
44	Response of critical tube diameter phenomenon to small perturbations for gaseous detonations. Shock Waves, 2014, 24, 219-229.	1.9	22
45	Effects of inert gas jet on the transition from deflagration to detonation in a stoichiometric methane-oxygen mixture. Fuel, 2021, 285, 119237.	6.4	22
46	Numerical simulation of flame acceleration and deflagration-to-detonation transition of ethylene in channels. Journal of Loss Prevention in the Process Industries, 2016, 43, 120-126.	3.3	21
47	The effect of gas jets on the explosion dynamics of hydrogen-air mixtures. Chemical Engineering Research and Design, 2022, 162, 384-394.	5.6	21
48	Detonation velocity behavior and scaling analysis for ethylene-nitrous oxide mixture. Applied Thermal Engineering, 2017, 127, 671-678.	6.0	20
49	Experimental investigation on the lower flammability limits of diethyl ether/n-pentane/epoxypropane-air mixtures. Journal of Loss Prevention in the Process Industries, 2019, 57, 273-279.	3.3	18
50	The effect of ignition delay time on the explosion behavior in non-uniform hydrogen-air mixtures. International Journal of Hydrogen Energy, 2022, 47, 9810-9818.	7.1	15
51	Measurement and chemical kinetic model predictions of detonation cell size in methanolâ€"oxygen mixtures. Shock Waves, 2012, 22, 173-178.	1.9	14
52	Explosion behavior of methane-air mixtures and Rayleigh-Taylor instability in the explosion process near the flammability limits. Fuel, 2022, 324, 124730.	6.4	14
53	Detonation propagation limits in highly argon diluted acetylene-oxygen mixtures in channels. Experimental Thermal and Fluid Science, 2018, 90, 125-131.	2.7	13
54	Schlieren visualization of the interaction of jet in crossflow and deflagrated flame in hydrogen-air mixture. Fuel, 2021, 292, 120380.	6.4	9

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55	Analysis of dispersion behavior of aluminum powder in a 20â€‰L chamber with two symmetric nozzles. Process Safety Progress, 2020, 39, e12097.	1.0	8
56	Investigation of the effect of turbulence induced by double non-reactive gas jet on the deflagration-to-detonation transition. Aerospace Science and Technology, 2022, 124, 107556.	4.8	8
57	Effects of inert dispersed particles on the propagation characteristics of a H2/CO/air detonation wave. Aerospace Science and Technology, 2022, 126, 107660.	4.8	6
58	Detonation and deflagration characteristics of p-Xylene/gaseous hydrocarbon fuels/air mixtures. Fuel, 2015, 140, 73-80.	6.4	5
59	Effects of jet/flame interaction on deflagration-to-detonation transition by non-reactive gas jet in a methane-oxygen mixture. Aerospace Science and Technology, 2022, 126, 107581.	4.8	5