Luigi T De Luca

List of Publications by Year
in descending order

38	1,516	361413 20	361022 35
papers	citations	h-index	g-index

41	41	41	814
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Catalytic effects of nano additives on decomposition and combustion of RDX-, HMX-, and AP-based energetic compositions. Progress in Energy and Combustion Science, 2016, 57, 75-136.	31.2	283
2	Recent advances in new oxidizers for solid rocket propulsion. Green Chemistry, 2017, 19, 4711-4736.	9.0	178
3	Thermal behavior and decomposition kinetics of composite solid propellants in the presence of amide burning rate suppressants. Journal of Thermal Analysis and Calorimetry, 2018, 132, 1601-1615.	3.6	104
4	Overview of Al-based nanoenergetic ingredients for solid rocket propulsion. Defence Technology, 2018, 14, 357-365.	4.2	83
5	Theoretical analysis of hydrides in solid and hybrid rocket propulsion. International Journal of Hydrogen Energy, 2012, 37, 1760-1769.	7.1	80
6	Characterization of HTPB-based solid fuel formulations: Performance, mechanical properties, and pollution. Acta Astronautica, 2013, 92, 150-162.	3.2	79
7	Nanoaluminum as a Solid Propellant Fuel. Journal of Propulsion and Power, 2009, 25, 482-489.	2.2	72
8	Effect of amide-based compounds on the combustion characteristics of composite solid rocket propellants. Arabian Journal of Chemistry, 2019, 12, 3639-3651.	4.9	67
9	Efficient solid rocket propulsion for access to space. Acta Astronautica, 2010, 66, 1563-1573.	3.2	59
10	Activated aluminum powders for space propulsion. Powder Technology, 2015, 270, 46-52.	4.2	58
11	The rapid H2 release from AlH3 dehydrogenation forming porous layer in AlH3/hydroxyl-terminated polybutadiene (HTPB) fuels during combustion. Journal of Hazardous Materials, 2019, 371, 53-61.	12.4	50
12	Fracture Mechanics of Composite Solid Rocket Propellant Grains: Material Testing. Journal of Propulsion and Power, 2009, 25, 60-73.	2.2	41
13	Mechanical Modifications of Paraffinâ€based Fuels and the Effects on Combustion Performance. Propellants, Explosives, Pyrotechnics, 2017, 42, 1268-1277.	1.6	40
14	Combustion Mechanism of Ammonium-Nitrate-Based Propellants. Journal of Propulsion and Power, 2008, 24, 1068-1078.	2.2	36
15	Combustion of metal agglomerates in a solid rocket core flow. Acta Astronautica, 2013, 92, 163-171.	3.2	34
16	Combustion behavior of AP/HTPB/Al composite propellant containing hydroborate iron compound. Combustion and Flame, 2020, 220, 157-167.	5.2	31
17	CL-20-Based Cocrystal Energetic Materials: Simulation, Preparation and Performance. Molecules, 2020, 25, 4311.	3.8	31
18	Effect of Metal Nanopowders on the Performance of Solid Rocket Propellants: A Review. Nanomaterials, 2021, 11, 2749.	4.1	27

#	Article	IF	Citations
19	Combustion enhancement of hydroxyl-terminated polybutadiene by doping multiwall carbon nanotubes. Carbon, 2019, 144, 472-480.	10.3	24
20	Preparation and Properties of a nRDX-based Propellant. Propellants, Explosives, Pyrotechnics, 2017, 42, 649-658.	1.6	23
21	Nanoenergetic Materials: Preparation, Properties, and Applications. Nanomaterials, 2020, 10, 2347.	4.1	22
22	Innovative Methods to Enhance the Combustion Properties of Solid Fuels for Hybrid Rocket Propulsion. Aerospace, 2019, 6, 47.	2.2	19
23	AGGREGATION VERSUS AGGLOMERATION IN METALLIZED SOLID ROCKET PROPELLANTS. International Journal of Energetic Materials and Chemical Propulsion, 2010, 9, 91-105.	0.3	16
24	Effect of Nano-Sized Energetic Materials (nEMs) on the Performance of Solid Propellants: A Review. Nanomaterials, 2022, 12, 133.	4.1	16
25	Prospects of Aluminum Modifications as Energetic Fuels in Chemical Rocket Propulsion. Springer Aerospace Technology, 2017, , 191-233.	0.3	9
26	EFFECTS OF NANO-METRIC ALUMINUM POWDER ON THE PROPERTIES OF COMPOSITE SOLID PROPELLANTS. International Journal of Energetic Materials and Chemical Propulsion, 2015, 14, 265-282.	0.3	7
27	Testing and Modeling Fuel Regression Rate in a Miniature Hybrid Burner. International Journal of Aerospace Engineering, 2012, 2012, 1-15.	0.9	5
28	Nanoenergetic Ingredients to Augment Solid Rocket Propulsion. , 2019, , 177-261.		4
29	Innovative Solid Rocket Propellant Formulations for Space Propulsion. Advances in Chemical and Materials Engineering Book Series, 2018, , 1-24.	0.3	4
30	EFFECT OF AZODICARBONAMIDE PARTICLES ON THE REGRESSION RATE OF HYDROXYL-TERMINATED POLYBUTADIENE (HTPB)-BASED FUELS FOR HYBRID ROCKET PROPULSION. International Journal of Energetic Materials and Chemical Propulsion, 2017, 16, 103-114.	0.3	3
31	A NOVEL POLYETHYLENE PARTICLES/PARAFFIN-BASED SELF-DISINTEGRATION FUEL FOR HYBRID ROCKET PROPULSION. International Journal of Energetic Materials and Chemical Propulsion, 2018, 17, 205-216.	0.3	2
32	Hybrid Combustion Studies on Regression Rate Enhancement and Transient Ballistic Response. Springer Aerospace Technology, 2017, , 627-651.	0.3	1
33	Surface Pyrolysis of High Energy Materials. Defence Science Journal, 1998, 48, 379-402.	0.8	1
34	ACOUSTIC EMISSION OF UNDERWATER BURNING SOLID ROCKET PROPELLANTS. International Journal of Energetic Materials and Chemical Propulsion, 2002, 5, 274-283.	0.3	1
35	BURNING RATE DATA REDUCTION OF SMALL-SCALE TEST MOTORS. International Journal of Energetic Materials and Chemical Propulsion, 2002, 5, 146-160.	0.3	1
36	LIMIT CYCLES FOR SOLID PROPELLANT BURNING RATE AT CONSTANT PRESSURE. International Journal of Energetic Materials and Chemical Propulsion, 2002, 5, 825-836.	0.3	1

#	Article	IF	Citations
37	Professor Boris Vasilievich Novozhilov (1930 - 2017). Combustion and Flame, 2017, 180, A1-A3.	5.2	0
38	FREQUENCY RESPONSE OF A MODEL SUBSCALE ROCKET MOTOR. International Journal of Energetic Materials and Chemical Propulsion, 2002, 5, 889-902.	0.3	0