Sandra L Olson

List of Publications by Year
in descending order

65	1,450	21	36
papers	citations	h-index	g-index
		331538	345118

65	65	65	241
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanisms of Microgravity Flame Spread Over a Thin Solid Fuel: Oxygen and Opposed Flow Effects. Combustion Science and Technology, 1991, 76, 233-249.	1.2	128
2	Near-limit flame spread over a thin solid fuel in microgravity. Proceedings of the Combustion Institute, 1989, 22, 1213-1222.	0.3	87
3	Flame spread over thin fuels in actual and simulated microgravity conditions. Combustion and Flame, 2009, 156, 1214-1226.	2.8	69
4	Buoyant low-stretch diffusion flames beneath cylindrical PMMA samples. Combustion and Flame, 2000, 121, 439-452.	2.8	67
5	Ignition and behavior of laminar gas-jet diffusion flames in microgravity. AIAA Journal, 1990, 28, 236-244.	1.5	60
6	Flame spread: Effects of microgravity and scale. Combustion and Flame, 2019, 199, 168-182.	2.8	58
7	Experimental observations of spot radiative ignition and subsequent three-dimensional flame spread over thin cellulose fuels. Combustion and Flame, 2001, 125, 852-864.	2.8	56
8	Experimental comparison of opposed and concurrent flame spread in a forced convective microgravity environment. Proceedings of the Combustion Institute, 2009, 32, 2445-2452.	2.4	56
9	Fire safety in space â€“ beyond flammability testing of small samples. Acta Astronautica, 2015, 109, 208-216.	1.7	53
10	Finger-like smoldering over thin cellulosic sheets in microgravity. Proceedings of the Combustion Institute, 1998, 27, 2525-2533.	0.3	52
11	Self induced buoyant blow off in upward flame spread on thin solid fuels. Fire Safety Journal, 2015, 71, 279-286.	1.4	43
12	Microgravity flammability boundary for PMMA rods in axial stagnation flow: Experimental results and energy balance analyses. Combustion and Flame, 2017, 180, 217-229.	2.8	43
13	Effects of ignition and wind on the transition to flame spread in a microgravity environment. Combustion and Flame, 1996, 106, 377-382.	2.8	41
14	Characterizing fingering flamelets using the logistic model. Combustion Theory and Modelling, 2006, 10, 323-347.	1.0	40
15	Concurrent flame growth, spread, and quenching over composite fabric samples in low speed purely forced flow in microgravity. Proceedings of the Combustion Institute, 2017, 36, 2971-2978.	2.4	37
16	SOUNDING ROCKET MICROGRAVITY EXPERIMENTS ELUCIDATING DIFFUSIVE AND RADIATIVE TRANSPORT EFFECTS ON FLAME SPREAD OVER THERMALLY THICK SOLIDS. Combustion Science and Technology, 2004, 176, 557-584.	1.2	33
17	Opposed-flow flame spread: A comparison of microgravity and normal gravity experiments to establish the thermal regime. Fire Safety Journal, 2016, 79, 111-118.	1.4	33
18	Radiative, thermal, and kinetic regimes of opposed-flow flame spread: A comparison between experiment and theory. Proceedings of the Combustion Institute, 2017, 36, 2963-2969.	2.4	32

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19	Transition from opposed flame spread to fuel regression and blow off: Effect of flow, atmosphere, and microgravity. Proceedings of the Combustion Institute, 2019, 37, 4117-4126.	2.4	30
20	The Effect of Gravity on Flame Spread over PMMA Cylinders. Scientific Reports, 2018, 8, 120.	1.6	28
21	Effect of wind velocity on flame spread in microgravity. Proceedings of the Combustion Institute, 2002, 29, 2553-2560.	2.4	26
22	Flame spread along free edges of thermally thin samples in microgravity. Proceedings of the Combustion Institute, 2000, 28, 2843-2849.	2.4	20
23	The critical flow velocity for radiative extinction in opposed-flow flame spread in a microgravity environment: A comparison of experimental, computational, and theoretical results. Combustion and Flame, 2016, 163, 472-477.	2.8	19
24	Two-sided ignition of a thin PMMA sheet in microgravity. Proceedings of the Combustion Institute, 2005, 30, 2319-2325.	2.4	16
25	Thermal response characteristics of fire blanket materials. Fire and Materials, 2014, 38, 609-638.	0.9	16
26	High-speed video analysis of flame oscillations along a PMMA rod after stagnation region blowoff. Proceedings of the Combustion Institute, 2019, 37, 1555-1562.	2.4	15
27	On simulating concurrent flame spread in reduced gravity by reducing ambient pressure. Proceedings of the Combustion Institute, 2019, 37, 3793-3800.	2.4	15
28	A theoretical analysis of the extinction limits of a methane-air opposed-jet diffusion flame. Combustion and Flame, 1987, 70, 161-170.	2.8	14
29	Heat Transfer to a Thin Solid Combustible in Flame Spreading at Microgravity. Journal of Heat Transfer, 1991, 113, 670-676.	1.2	14
30	Near-surface vapour bubble layers in buoyant low stretch burning of polymethylmethacrylate. Fire and Materials, 1999, 23, 227-237.	0.9	14
31	Transient flame growth and spread processes over a large solid fabric in concurrent low-speed flows in microgravity â€“ Model versus experiment. Proceedings of the Combustion Institute, 2019, 37, 4163-4171.	2.4	14
32	Experimental evaluation of flame and flamelet spread over cellulosic materials using the narrow channel apparatus. Fire and Materials, 2013, 37, 503-519.	0.9	13
33	Flame Growth Around a Spherical Solid Fuel in Low Speed Forced Flow in Microgravity. Fire Technology, 2020, 56, 5-32.	1.5	13
34	Flame Spread Over Ultra-thin Solids: Effect of Area Density and Concurrent-Opposed Spread Reversal Phenomenon. Fire Technology, 2020, 56, 91-111.	1.5	13
35	Opposed flow flame spread over thermally thick solid fuels: buoyant flow suppression, stretch rate theory, and the regressive burning regime. Combustion and Flame, 2020, 219, 57-69.	2.8	13
36	Concurrent-flow flame spread over thin discrete fuels in microgravity. Combustion and Flame, 2021, 226, 211-221.	2.8	13

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37	Small-scale smoldering combustion experiments in microgravity. Proceedings of the Combustion Institute, 1996, 26, 1361-1368.	0.3	12
38	Boundary Layer Effect on Opposed-Flow Flame Spread and Flame Length over Thin Polymethyl-Methacrylate in Microgravity. Combustion Science and Technology, 2018, 190, 535-549.	1.2	12
39	An Earth-based equivalent low stretch apparatus for material flammability assessment in microgravity and extraterrestrial environments. Proceedings of the Combustion Institute, 2005, 30, 2335-2343.	2.4	11
40	Influence of gap height and flow field on global stoichiometry and heat losses during opposed flow flame spread over thin fuels in simulated microgravity. Combustion and Flame, 2018, 193, 133-144.	2.8	11
41	Microgravity opposed-flow flame spread in polyvinyl chloride tubes. Combustion and Flame, 2008, 154, 789-801.	2.8	9
42	Piloted ignition delay times of opposed and concurrent flame spread over a thermally-thin fuel in a forced convective microgravity environment. Proceedings of the Combustion Institute, 2011, 33, 2633-2639.	2.4	9
43	Upward flame spread in large enclosures: Flame growth and pressure rise. Proceedings of the Combustion Institute, 2015, 35, 2623-2630.	2.4	9
44	Buoyancy Effect on Downward Flame Spread Over PMMA Cylinders. Fire Technology, 2020, 56, 247-269.	1.5	9
45	Microgravity Flame Spread in Exploration Atmospheres: Pressure, Oxygen, and Velocity Effects on Opposed and Concurrent Flame Spread. SAE International Journal of Aerospace, 0, 1, 239-246.	4.0	8
46	Microgravity Flame Spread over Non-Charring Materials in Exploration Atmospheres: Pressure, Oxygen, and Velocity Effects on Concurrent Flame Spread. , 2009, , .		8
47	PMMA rod stagnation region flame blowoff limits at various radii, oxygen concentrations, and mixed stretch rates. Proceedings of the Combustion Institute, 2019, 37, 4001-4008.	2.4	8
48	Transient model and experimental validation of low-stretch solid-fuel flame extinction and stabilization in response to a step change in gravity. Combustion and Flame, 2006, 147, 262-277.	2.8	7
49	Downward burning of PMMA cylinders: The effect of pressure and oxygen. Proceedings of the Combustion Institute, 2021, 38, 4837-4844.	2.4	7
50	Concurrent Flame Spread Over Two-Sided Thick PMMA Slabs in Microgravity. Fire Technology, 2020, 56, 49-69.	1.5	6
51	Prevention of Over-Pressurization During Combustion in a Sealed Chamber. , 2012, , .		6
52	Opposed flow burning of PMMA cylinders in normoxic atmospheres. Fire Safety Journal, 2019, 110, 102903.	1.4	4
53	Low pressure flame blowoff of the stagnation region of cast PMMA cylinders in axial mixed convective flow. Combustion and Flame, 2020, 216, 385-397.	2.8	4
54	Quantitative infrared image analysis of simultaneous upstream and downstream microgravity flame spread over thermally thin cellulose fuel in low speed forced flow. Combustion and Flame, 2021, 227, 402-420.	2.8	4

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55	Zero-Gravity Centrifuge Used for the Evaluation of Material Flammability in Lunar Gravity. Journal of Thermophysics and Heat Transfer, 2011, 25, 457-461.	0.9	3
56	Fire in Microgravity. American Scientist, 2016, 104, 44.	0.1	3
57	Flammability of Human Hair in Exploration Atmospheres. SAE International Journal of Aerospace, 2009, 4, 429-434.	4.0	2
58	Downward Flame Spread Rate Over PMMA Rods Under External Radiant Heating. Fire Technology, 2022, 58, 2229-2250.	1.5	2
59	Pressure Response in Enclosures During and After Large-Scale Flame Spread: Testing and Modeling. , 2013, , .		1
60	Geometry Considerations in Evaluating 0g Materials Flammability Limits for Comparison with NASA Upward Flame Proagation (Test 1) Limits. , 2011, , .		1
61	Combustion Behaviour Over ETFE Insulated Wire in Slow External Flow under Microgravity. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2004, 70, 1043-1050.	0.2	0
62	Flame Spread Experiments in a Simulated Microgravity Flow Environment Using Laminar Planar Couette Flow. , 2012, , .		0
63	A Study of the Effectiveness of a Narrow Channel Apparatus in Simulating Microgravity Flame Spread over Thin Fuels. , 2012, , .		0
64	Low-Gravity Flames. , 2020, , 74-106.		0
65	Fires. , 2020, , 140-175.		0