

# Osamu Fujita

## List of Publications by Year in descending order

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Version: 2024-02-01

125  
papers

2,436  
citations

159585

30  
h-index

243625

44  
g-index

126  
all docs

126  
docs citations

126  
times ranked

702  
citing authors

#	ARTICLE	IF	CITATIONS
1	Flame spread over electric wire in sub-atmospheric pressure. Proceedings of the Combustion Institute, 2009, 32, 2559-2566.	3.9	105
2	Effect of low external flow on flame spread over polyethylene-insulated wire in microgravity. Proceedings of the Combustion Institute, 2002, 29, 2545-2552.	3.9	90
3	Flame spread over electric wire with high thermal conductivity metal core at different inclinations. Proceedings of the Combustion Institute, 2015, 35, 2607-2614.	3.9	88
4	Experimental study on flame spread over wire insulation in microgravity. Proceedings of the Combustion Institute, 1998, 27, 2507-2514.	0.3	83
5	Solid combustion research in microgravity as a basis of fire safety in space. Proceedings of the Combustion Institute, 2015, 35, 2487-2502.	3.9	76
6	Extinction limits of an ammonia/air flame propagating in a turbulent field. Fuel, 2019, 246, 178-186.	6.4	59
7	Flame spread: Effects of microgravity and scale. Combustion and Flame, 2019, 199, 168-182.	5.2	58
8	Experimental observations of spot radiative ignition and subsequent three-dimensional flame spread over thin cellulose fuels. Combustion and Flame, 2001, 125, 852-864.	5.2	56
9	Ignition of electrical wire insulation with short-term excess electric current in microgravity. Proceedings of the Combustion Institute, 2011, 33, 2617-2623.	3.9	56
10	Fire safety in space “beyond flammability testing of small samples. Acta Astronautica, 2015, 109, 208-216.	3.2	53
11	Turbulent burning velocity of ammonia/oxygen/nitrogen premixed flame in O <sub>2</sub> -enriched air condition. Fuel, 2020, 268, 117383.	6.4	53
12	Effective mechanisms to determine flame spread rate over ethylene-tetrafluoroethylene wire insulation: Discussion on dilution gas effect based on temperature measurements. Proceedings of the Combustion Institute, 2000, 28, 2905-2911.	3.9	52
13	Limiting oxygen concentration (LOC) of burning polyethylene insulated wires under external radiation. Fire Safety Journal, 2016, 86, 32-40.	3.1	51
14	Study on unsteady molten insulation volume change during flame spreading over wire insulation in microgravity. Proceedings of the Combustion Institute, 2013, 34, 2657-2664.	3.9	50
15	Effect of insulation melting and dripping on opposed flame spread over laboratory simulated electrical wires. Fire Safety Journal, 2018, 95, 1-10.	3.1	50
16	A study on developing aviation biofuel for the Tropics: Production process”Experimental and theoretical evaluation of their blends with fossil kerosene. Chemical Engineering and Processing: Process Intensification, 2013, 74, 124-130.	3.6	49
17	Effects of slow wind on localied radiative ignition and transition to flame spread in microgravity. Proceedings of the Combustion Institute, 1996, 26, 1345-1352.	0.3	47
18	Microgravity flammability limits of ETFE insulated wires exposed to external radiation. Proceedings of the Combustion Institute, 2015, 35, 2683-2689.	3.9	47

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19	Fire safety in space – Investigating flame spread interaction over wires. <i>Acta Astronautica</i> , 2016, 126, 500-509.	3.2	47
20	Effect of ammonia/oxygen/nitrogen equivalence ratio on spherical turbulent flame propagation of pulverized coal/ammonia co-combustion. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 4043-4052.	3.9	46
21	Propagation speed of tribrachial (triple) flame of propane in laminar jets under normal and micro gravity conditions. <i>Combustion and Flame</i> , 2003, 134, 411-420.	5.2	44
22	Opposed-wind Effect on Flame Spread of Electric Wire in Sub-atmospheric Pressure. <i>Journal of Thermal Science and Technology</i> , 2008, 3, 430-441.	1.1	44
23	Effect of fuel ratio of coal on the turbulent flame speed of ammonia/coal particle cloud co-combustion at atmospheric pressure. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 4131-4139.	3.9	44
24	Normal and microgravity experiment of oscillating lifted flames in coflow. <i>Proceedings of the Combustion Institute</i> , 2002, 29, 37-44.	3.9	41
25	Extinction limits of spreading flames over wires in microgravity. <i>Combustion and Flame</i> , 2013, 160, 1900-1902.	5.2	41
26	Ignition limits of short-term overloaded electric wires in microgravity. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 2665-2673.	3.9	41
27	Flame spread over electrical wire with AC electric fields: Internal circulation, fuel vapor-jet, spread rate acceleration, and molten insulator dripping. <i>Combustion and Flame</i> , 2015, 162, 1167-1175.	5.2	41
28	Effect of AC electric fields on flame spread over electrical wire. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 1145-1151.	3.9	38
29	Agglomeration of soot particles in diffusion flames under microgravity. <i>Combustion and Flame</i> , 1994, 99, 363-370.	5.2	31
30	Limiting oxygen concentration for extinction of upward spreading flames over inclined thin polyethylene-insulated NiCr electrical wires with opposed-flow under normal- and micro-gravity. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 3045-3053.	3.9	31
31	Downward flame spreading over electric wire under various oxygen concentrations. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 3817-3824.	3.9	31
32	Flame spread over inclined electrical wires with AC electric fields. <i>Combustion and Flame</i> , 2017, 185, 82-92.	5.2	29
33	A numerical and experimental study of the ignition of insulated electric wire with long-term excess current supply under microgravity. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 3063-3071.	3.9	27
34	Can a spreading flame over electric wire insulation in concurrent flow achieve steady propagation in microgravity?. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 4155-4162.	3.9	27
35	Effect of wind velocity on flame spread in microgravity. <i>Proceedings of the Combustion Institute</i> , 2002, 29, 2553-2560.	3.9	26
36	An Overview of Challenges in Modeling Heat and Mass Transfer for Living on Mars. <i>Annals of the New York Academy of Sciences</i> , 2006, 1077, 232-243.	3.8	26

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37	Turbulent flame propagation limits of ammonia/methane/air premixed mixture in a constant volume vessel. Proceedings of the Combustion Institute, 2021, 38, 5171-5180.	3.9	26
38	Onset mechanism of primary acoustic instability in downward-propagating flames. Combustion and Flame, 2016, 170, 1-11.	5.2	23
39	Spherical turbulent flame propagation of pulverized coal particle clouds in an O <sub>2</sub> /N <sub>2</sub> atmosphere. Proceedings of the Combustion Institute, 2019, 37, 2935-2942.	3.9	20
40	Experimental study on flammability limits of electrolyte solvents in lithium-ion batteries using a wick combustion method. Experimental Thermal and Fluid Science, 2019, 109, 109858.	2.7	18
41	Broadband modulated absorption/emission technique to probe sooting flames: Implementation, validation, and limitations. Proceedings of the Combustion Institute, 2019, 37, 3959-3966.	3.9	18
42	Experimental Evaluation of Flame Radiative Feedback: Methodology and Application to Opposed Flame Spread Over Coated Wires in Microgravity. Fire Technology, 2020, 56, 185-207.	3.0	18
43	Research on the relation of flame front curvature and oscillatory flame propagation by external laser irradiation method. Proceedings of the Combustion Institute, 2009, 32, 1003-1009.	3.9	17
44	Two-sided ignition of a thin PMMA sheet in microgravity. Proceedings of the Combustion Institute, 2005, 30, 2319-2325.	3.9	16
45	Blowout of non-premixed turbulent jet flames with coflow under microgravity condition. Combustion and Flame, 2019, 210, 315-323.	5.2	16
46	Prediction of soot formation characteristics in a pulverized-coal combustion field by large eddy simulations with the TDP model. Proceedings of the Combustion Institute, 2019, 37, 2883-2891.	3.9	16
47	Observation of soot agglomeration process with aid of thermophoretic force in a microgravity jet diffusion flame. Experimental Thermal and Fluid Science, 2002, 26, 305-311.	2.7	15
48	Laser piloted ignition of electrical wire in microgravity. Proceedings of the Combustion Institute, 2019, 37, 4211-4219.	3.9	15
49	Experimental study on radiative ignition of a paper sheet in microgravity. Proceedings of the Combustion Institute, 2000, 28, 2761-2767.	3.9	14
50	Effect of Co-Axial Flow Velocity on Soot Formation in a Laminar Jet Diffusion Flame under Microgravity. Journal of Thermal Science and Technology, 2007, 2, 281-290.	1.1	14
51	Experimental investigation of the effects of cycloparaffins and aromatics on the sooting tendency and the freezing point of soap-derived biokerosene and normal paraffins. Fuel, 2016, 185, 855-862.	6.4	14
52	Rapidly mixed combustion of hydrogen/oxygen diluted by N <sub>2</sub> and CO <sub>2</sub> in a tubular flame combustor. International Journal of Hydrogen Energy, 2018, 43, 14806-14815.	7.1	14
53	Opposed-Flow Flame Spread and Extinction in Electric Wires: The Effects of Gravity, External Radiant Heat Flux, and Wire Characteristics on Wire Flammability. Fire Technology, 2020, 56, 131-148.	3.0	14
54	Ignition Behavior of Bio-Coke (Highly Densified Biomass Fuel) in High-Temperature Air Flows. Journal of Thermal Science and Technology, 2011, 6, 111-122.	1.1	13

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55	Effects of Lewis number on generation of primary acoustic instability in downward-propagating flames. Proceedings of the Combustion Institute, 2017, 36, 1603-1611.	3.9	13
56	Influence of lithium salts on the combustion characteristics of dimethyl carbonate-based electrolytes using a wick combustion method. Combustion and Flame, 2020, 213, 314-321.	5.2	13
57	Range of "complete" instability of flat flames propagating downward in the acoustic field in combustion tube: Lewis number effect. Combustion and Flame, 2020, 216, 326-337.	5.2	13
58	Role of wire core in extinction of opposed flame spread over thin electric wires. Combustion and Flame, 2020, 220, 7-15.	5.2	13
59	Transition of flat flames to turbulent motion induced by external laser irradiation. Proceedings of the Combustion Institute, 2011, 33, 1105-1112.	3.9	12
60	Initiation and formation of the corrugated structure leading to the self-turbulization of downward propagating flames in a combustion tube with external laser absorption. Combustion and Flame, 2014, 161, 1558-1565.	5.2	12
61	The sooting tendency of aviation biofuels and jet range paraffins: effects of adding aromatics, carbon chain length of normal paraffins, and fraction of branched paraffins. Combustion Science and Technology, 2018, 190, 1710-1721.	2.3	12
62	Effect of geometrical parameters on thermo-acoustic instability of downward propagating flames in tubes. Proceedings of the Combustion Institute, 2019, 37, 1869-1877.	3.9	12
63	Effect of Ignition Condition on the Extinction Limit for Opposed Flame Spread Over Electrical Wires in Microgravity. Fire Technology, 2020, 56, 149-168.	3.0	12
64	Experimental and theoretical study of secondary acoustic instability of downward propagating flames: Higher modes and growth rates. Combustion and Flame, 2019, 205, 316-326.	5.2	11
65	Numerical simulation and flight experiment on oscillating lifted flames in coflow jets with gravity level variation. Combustion and Flame, 2006, 145, 181-193.	5.2	10
66	Experimental observation of pulsating instability under acoustic field in downward-propagating flames at large Lewis number. Combustion and Flame, 2018, 188, 1-4.	5.2	10
67	Experimental study on flame stability limits of lithium ion battery electrolyte solvents with organophosphorus compounds addition using a candle-like wick combustion system. Combustion and Flame, 2019, 207, 63-70.	5.2	10
68	Formation Characteristics of High-density and High-hardness New Briquette Based on Herby Biomass. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2012, 91, 41-47.	0.2	10
69	Downstream interaction between stretched premixed syngas "air flames. Fuel, 2013, 104, 739-748.	6.4	9
70	Study on one-dimensional steady combustion of highly densified biomass briquette (bio-coke) in air flow. Proceedings of the Combustion Institute, 2015, 35, 2415-2422.	3.9	9
71	Acoustic parametric instability, its suppression and a beating instability in a mesoscale combustion tube. Combustion and Flame, 2021, 228, 277-291.	5.2	9
72	Effect of sample thickness on concurrent steady spread behavior of floor- and ceiling flames. Combustion and Flame, 2021, 233, 111600.	5.2	9

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73	Turbulent flame propagation mechanism of polymethylmethacrylate particle cloud-ammonia co-combustion. <i>Combustion and Flame</i> , 2022, 241, 112077.	5.2	9
74	Assessing the soot-related radiative heat feedback in a flame spreading in microgravity: optical designs and associated limitations. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 4805-4814.	3.9	8
75	Experimental study of downward flame spread and extinction over inclined electrical wire under horizontal wind. <i>Combustion and Flame</i> , 2022, 237, 111820.	5.2	8
76	The effect of irradiation angle on laser ignition of cellulose sheet in microgravity. <i>Proceedings of the Combustion Institute</i> , 2005, 30, 2311-2317.	3.9	7
77	Exploring a critical diameter for thermo-acoustic instability of downward propagating flames in tubes. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 1945-1954.	3.9	7
78	Effect of ambient pressure on the extinction limit for opposed flame spread over an electrical wire in microgravity. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 4767-4774.	3.9	7
79	A Study of the Effect of Oxygen Concentration on the Soot Deposition Process in a Diffusion Flame along a Solid Wall by In-Situ Observations in Microgravity. <i>JSME International Journal Series B</i> , 2005, 48, 839-848.	0.3	6
80	In-Situ Observation of the Soot Deposition Process on a Solid Wall with a Diffusion Flame along the Wall. <i>JSME International Journal Series B</i> , 2006, 49, 167-175.	0.3	6
81	Improvements in Pyrolysis of Wastes in an Externally Heated Rotary Kiln (Experimental Study on Heat) <i>Tj ETQq1 1 0,784314 rgBT /Ov</i>	1.1	6
82	Study of the transient combustion of highly densified biomass briquette (Bio-coke) in an air flow. <i>Fuel</i> , 2017, 188, 595-602.	6.4	6
83	The Space Exposure Experiment of PEEK Sheets under Tensile Stress. <i>JSME International Journal Series A-Solid Mechanics and Material Engineering</i> , 2004, 47, 365-370.	0.4	5
84	Experimental study on thermophoretic deposition of soot particles in laminar diffusion flames along a solid wall in microgravity. <i>Experimental Thermal and Fluid Science</i> , 2008, 32, 1484-1491.	2.7	5
85	Observation of Flame Spreading over Electric Wire under Reduced Gravity Condition Given by Parabolic Flight and Drop Tower Experiments. <i>Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan</i> , 2010, 8, Ph_19-Ph_24.	0.2	5
86	Effect of Le on criteria of transition to secondary acoustic instability of downward-propagating flame in a tube with controlled curvature induced by external laser. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 1887-1894.	3.9	5
87	Soot formation of dodecane, aviation bio-paraffins and their blends with propylbenzene in diffusion flames. <i>Renewable Energy</i> , 2019, 136, 84-90.	8.9	5
88	Turbulent flame propagation of polymethylmethacrylate particle clouds in an O <sub>2</sub> /N <sub>2</sub> atmosphere. <i>Combustion and Flame</i> , 2021, 234, 111616.	5.2	5
89	Effects of Early Rearing Conditions and Age upon Open-field Behavior in Chicks. <i>The Annual of Animal Psychology</i> , 1971, 21, 31-42.	0.1	5
90	Effect of Gravity and Beam Diameter on Flame Oscillation Phenomena Induced by External Laser Absorption. <i>Combustion Science and Technology</i> , 2008, 180, 1803-1811.	2.3	4

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91	Experimental investigation on the smoldering limit of scraps of paper initiated by a cylindrical rod heater. Proceedings of the Combustion Institute, 2019, 37, 4099-4106.	3.9	4
92	Effect of reduced ambient pressures and opposed airflows on the flame spread and dripping of LDPE insulated copper wires. Fire Safety Journal, 2021, 120, 103171.	3.1	4
93	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.	5.2	4
94	Microgravity combustion researches by utilizing th.... , 2005, , .		3
95	The Flame Oscillation Phenomena Induced by External Radiation. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2007, 73, 803-808.	0.2	3
96	Phenomena in oscillating downward propagating flames induced by external laser irradiation method. Experimental Thermal and Fluid Science, 2010, 34, 1290-1294.	2.7	3
97	Interaction Between Propagation Speed and Flame Structure in Downward Cellular Propagating Flame in a Combustion Tube with Co2Laser Irradiation. Combustion Science and Technology, 2014, 186, 1434-1446.	2.3	3
98	Effect of flame surface area of downward propagating flames induced by single and double laser irradiation on transition to parametric instability. Combustion and Flame, 2021, 223, 450-459.	5.2	3
99	Experimental Study on Evaporation Characteristics of Light Cycle Oil Droplet under Various Ambient Conditions. Energy & Fuels, 2021, 35, 6219-6230.	5.1	3
100	Prediction Performance of Chemical Mechanisms for Numerical Simulation of Methane Jet MILD Combustion. Advances in Mechanical Engineering, 2013, 5, 138729.	1.6	3
101	Fundamental Studies of Oral Contrast Agents for MR : Comparison of Manganese Agent and Iron Agent. Japanese Journal of Radiological Technology, 1996, 52, 1613-1618.	0.1	3
102	The Effect of Core Material on Combustion Behaviour over Polyethylene Insulated Wire under Microgravity. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2004, 70, 1555-1562.	0.2	2
103	Investigation of applying DC electric field effect on carbon nanotube synthesis. Asia-Pacific Journal of Chemical Engineering, 2013, 8, 246-253.	1.5	2
104	The situational determinants of open-field behavior in ICR/JCL mice. Japanese Psychological Research, 1981, 23, 169-173.	1.1	2
105	Experimental Study on Radiative Ignition of Filter Paper with Near Infrared Radiation Under Microgravity. JSME International Journal Series B, 2003, 46, 625-632.	0.3	1
106	Development of Large-Scale Spacecraft Fire Safety Experiments. , 2013, , .		1
107	Effects of gas temperature and oxygen concentration on the soot formation of laminar diffusion flames in the ambient gas mixtures of carbon-dioxide and oxygen. Transactions of the JSME (in) Tj ETQq1 1 0.7843 142rgBT /Overlock 10		1
108	Near-limit oscillatory behaviors on wick flames of dimethyl carbonate with trimethyl phosphate additions. Proceedings of the Combustion Institute, 2021, 38, 4691-4698.	3.9	1

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109	The Effect of Emotional Stimuli on Behavior in the Multiple Choice Situation. The Annual of Animal Psychology, 1963, 13, 17-26.	0.1	1
110	Development and validation of evaporation model for a multi-component fuel considering volume-average internal mass and enthalpy. International Journal of Heat and Mass Transfer, 2022, 188, 122318.	4.8	1
111	Amplification of irrelevant sequence from Bacillus subtilis using a primer set designed for detection of the pag gene of Bacillus anthracis. Japanese Journal of Infectious Diseases, 2002, 55, 99-100.	1.2	1
112	An Application of the Selective Contact Reduction Method by NO <sub>x</sub> -NH <sub>3</sub> Reaction to a Methanol Fueled S. I. Engine Exhaust System. Bulletin of the JSME, 1986, 29, 4291-4296.	0.1	0
113	Ignition limit of electric wire insulation with continuous excess current in several microgravity periods. , 2013, , .		0
114	Atomic Oxygen Irradiation on PEEK Sheet under Tensile Loads. The Proceedings of Conference of Hokkaido Branch, 2002, 2002.42, 122-123.	0.0	0
115	GS(1)-2(GSW0339) The Degradation of PEEK Sheets Accelerated by Stress in a Real Space Environment Based on the Space Exposure Experiment. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2003, 2003, 12.	0.0	0
116	Changes of mechanical properties on PEEK sheet in LEO environment. The Proceedings of the JSME Annual Meeting, 2004, 2004.5, 445-446.	0.0	0
117	315 Catalytic Purification of NO <sub>x</sub> in DME Engine Exhaust Gas with Injection of Reducing Agent. The Proceedings of Conference of Hokkaido Branch, 2005, 2005.44, 108-109.	0.0	0
118	Transition Phenomenon from a Flat Flame to Turbulent Flame Motions by External Laser. Transactions of the Korean Society of Mechanical Engineers, B, 2012, 36, 1209-1215.	0.1	0
119	A124 Change in the Extinction Limit of Electrolyte for Li-ion Batteries by Addition of Fire Retardant. The Proceedings of the Thermal Engineering Conference, 2013, 2013, 17-18.	0.0	0
120	CONDITIONED DRIVES AS MOTIVES IN THE RAT.. The Annual of Animal Psychology, 1955, 5, 1-11.	0.1	0
121	Studies on curiosity drive in rats IV. The Annual of Animal Psychology, 1961, 11, 19-27.	0.1	0
122	Adaptation and Evolution of Behavior : An Ecological Approach to the Study of Behavior. Japanese Journal of Animal Psychology, 1990, 40, 2-17.	0.3	0
123	Effects of aromatic on soot characteristics of aviation fuel surrogates in diffusion flames. Science and Technology Development Journal, 2015, 18, 55-64.	0.1	0
124	Dimensional Analysis for Flammability Limits of Spreading Flame over Electric Wire in Microgravity. The Proceedings of Mechanical Engineering Congress Japan, 2017, 2017, G0600105.	0.0	0
125	Comparison of thermodynamical potentials of oxy-fuel combustion and regenerative combustion. Transactions of the JSME (in Japanese), 2018, 84, 18-00070-18-00070.	0.2	0