

# Cyril Crua

## List of Publications by Year in descending order

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66  
papers

1,494  
citations

361045

20  
h-index

360668

35  
g-index

66  
all docs

66  
docs citations

66  
times ranked

1080  
citing authors

#	ARTICLE	IF	CITATIONS
1	A phenomenological model for near-nozzle fluid processes: Identification and qualitative characterisations. <i>Fuel</i> , 2022, 310, 122208.	3.4	4
2	Bioengineering a cryogel-derived bioartificial liver using particle image velocimetry defined fluid dynamics. <i>Materials Science and Engineering C</i> , 2021, 123, 111983.	3.8	3
3	Quantitative characterisations of spray deposited liquid films and post-injection discharge on diesel injectors. <i>Fuel</i> , 2021, 289, 119833.	3.4	10
4	High-Speed Infrared Measurement of Injector Tip Temperature during Diesel Engine Operation. <i>Energies</i> , 2021, 14, 4584.	1.6	4
5	Investigation of the effects of cavitation on near nozzle dynamics in multi-hole gasoline direct injection sprays. , 2021, 1, .		0
6	Quantitative analysis of dribble volumes and rates using three-dimensional reconstruction of X-ray and diffused back-illumination images of diesel sprays. <i>International Journal of Engine Research</i> , 2020, 21, 43-54.	1.4	12
7	2D Titanium Carbide ( $Ti_3C_2Tx$ ) in Accommodating Intraocular Lens Design. <i>Advanced Functional Materials</i> , 2020, 30, 2000841.	7.8	26
8	Droplet Impact on Suspended Metallic Meshes: Effects of Wettability, Reynolds and Weber Numbers. <i>Fluids</i> , 2020, 5, 81.	0.8	21
9	Effect of the scale resolution on the two phase coupling characteristics of high speed evaporating sprays using LES / Eulerian-Lagrangian methodologies. <i>International Journal of Multiphase Flow</i> , 2019, 120, 103060.	1.6	8
10	A simple model for puffing/micro-explosions in water-fuel emulsion droplets. <i>International Journal of Heat and Mass Transfer</i> , 2019, 131, 815-821.	2.5	83
11	Temperature measurements under diesel engine conditions using laser induced grating spectroscopy. <i>Combustion and Flame</i> , 2019, 199, 249-257.	2.8	13
12	Change of evaporation rate of single monocomponent droplet with temperature using time-resolved phase rainbow refractometry. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 3211-3218.	2.4	12
13	Simultaneous measurement of monocomponent droplet temperature/refractive index, size and evaporation rate with phase rainbow refractometry. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 214, 146-157.	1.1	24
14	The effect of fuel injection equipment on the dispersed phase of water-in-diesel emulsions. <i>Applied Energy</i> , 2018, 222, 762-771.	5.1	58
15	A mathematical model for heating and evaporation of a multi-component liquid film. <i>International Journal of Heat and Mass Transfer</i> , 2018, 117, 252-260.	2.5	19
16	A model for multi-component droplet heating and evaporation and its implementation into ANSYS Fluent. <i>International Communications in Heat and Mass Transfer</i> , 2018, 90, 29-33.	2.9	29
17	Drop impact onto attached metallic meshes: liquid penetration and spreading. <i>Experiments in Fluids</i> , 2018, 59, 1.	1.1	21
18	The effect of unstable emulsion of water-in-diesel on micro-explosion phenomena. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	5

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19	Investigation of Puffing and Micro-Explosion of Water-in-Diesel Emulsion Spray Using Shadow Imaging. <i>Energies</i> , 2018, 11, 2281.	1.6	32
20	Primary rainbow of high refractive index particle ( $1.547 < n < 2$ ) has refraction ripples. <i>Optics Communications</i> , 2018, 426, 237-241.	1.0	2
21	The Effect of Fuel Injection Equipment of Water-In-Diesel Emulsions on Micro-Explosion Behaviour. <i>Energies</i> , 2018, 11, 1650.	1.6	11
22	Fuel Nozzle Geometry Effects on Cavitation and Spray Behavior at Diesel Engine Conditions. , 2018, , 474-480.		6
23	Mathematical modelling of heating and evaporation of a spheroidal droplet. <i>International Journal of Heat and Mass Transfer</i> , 2017, 108, 2181-2190.	2.5	54
24	Puffing and Microexplosion Behavior of Water in Pure Diesel Emulsion Droplets During Leidenfrost Effect. <i>Combustion Science and Technology</i> , 2017, 189, 1186-1197.	1.2	53
25	On the transcritical mixing of fuels at diesel engine conditions. <i>Fuel</i> , 2017, 208, 535-548.	3.4	118
26	Time-resolved gas thermometry by laser-induced grating spectroscopy with a high-repetition rate laser system. <i>Experiments in Fluids</i> , 2017, 58, 1.	1.1	15
27	MODELLING OF HEATING AND EVAPORATION OF SPHEROIDAL DROPLETS. , 2017, , .		0
28	MODELLING OF HEATING AND EVAPORATION OF SPHEROIDAL DROPLETS. , 2017, , .		0
29	A model for droplet heating and its implementation into ANSYS Fluent. <i>International Communications in Heat and Mass Transfer</i> , 2016, 76, 265-270.	2.9	56
30	Designing and Demonstrating a Master Student Project To Explore Carbon Dioxide Capture Technology. <i>Journal of Chemical Education</i> , 2016, 93, 633-638.	1.1	5
31	Aerodynamical phenomena in a large top covered wind mill with vertical axis wind turbine. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2016, 26, 365-378.	1.6	3
32	Thermal risk assessment of vegetable oil epoxidation. <i>Journal of Thermal Analysis and Calorimetry</i> , 2015, 122, 795-804.	2.0	34
33	Modelling of gasoline fuel droplets heating and evaporation. <i>Fuel</i> , 2015, 159, 373-384.	3.4	46
34	Microscopic imaging of the initial stage of diesel spray formation. <i>Fuel</i> , 2015, 157, 140-150.	3.4	108
35	Modelling of biodiesel fuel droplet heating and evaporation: Effects of fuel composition. <i>Fuel</i> , 2015, 154, 308-318.	3.4	30
36	Time-resolved fuel injector flow characterisation based on 3D laser Doppler vibrometry. <i>Measurement Science and Technology</i> , 2014, 25, 125301.	1.4	13

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37	Jet and Vortex Ring-Like Structures in Internal Combustion Engines: Stability Analysis and Analytical Solutions. <i>Procedia IUTAM</i> , 2013, 8, 196-204.	1.2	1
38	A breakup model for transient Diesel fuel sprays. <i>Fuel</i> , 2012, 97, 288-305.	3.4	68
39	ADVANCEMENT IN TURBULENT SPRAY MODELLING: THE EFFECT OF INTERNAL TEMPERATURE GRADIENT IN DROPLETS. , 2012, , .		3
40	Tools and Techniques for Intelligent Characterization of Fuels. <i>Smart Innovation, Systems and Technologies</i> , 2011, , 129-138.	0.5	0
41	Grouping and trapping of evaporating droplets in an oscillating gas flow. <i>International Journal of Heat and Fluid Flow</i> , 2008, 29, 415-426.	1.1	35
42	Diesel fuel spray penetration, heating, evaporation and ignition: modelling vs. experimentation. <i>International Journal of Engineering Systems Modelling and Simulation</i> , 2008, 1, 1.	0.2	20
43	MODELING AND CONTROL OF INTERNAL COMBUSTION ENGINES USING INTELLIGENT TECHNIQUES. <i>Cybernetics and Systems</i> , 2007, 38, 509-533.	1.6	8
44	The effect of compression ratio on exhaust emissions from a PCCI diesel engine. <i>Energy Conversion and Management</i> , 2007, 48, 2918-2924.	4.4	106
45	MODELLING OF DROPLET HEATING, EVAPORATION AND BREAK-UP: RECENT DEVELOPMENTS. , 2006, , .		0
46	Neural Network Classification of Diesel Spray Images. <i>Lecture Notes in Computer Science</i> , 2006, , 1179-1189.	1.0	0
47	Fuzzy Logic and Neuro-fuzzy Modelling of Diesel Spray Penetration. <i>Lecture Notes in Computer Science</i> , 2005, , 642-650.	1.0	3
48	Diesel autogignition at elevated in-cylinder pressueres. <i>International Journal of Engine Research</i> , 2004, 5, 365-374.	1.4	18
49	Laser-induced incandescence study of diesel soot formation in a rapid compression machine at elevated pressures. <i>Combustion and Flame</i> , 2003, 135, 475-488.	2.8	40
50	The initial stage of fuel spray penetration. <i>Fuel</i> , 2003, 82, 875-885.	3.4	51
51	Spray Penetration in a Turbulent Flow. <i>Flow, Turbulence and Combustion</i> , 2002, 68, 153-165.	1.4	20
52	The Influence of Injector Parameters on the Formation and Break-Up of a Diesel Spray. , 2001, , .		42
53	In-Cylinder Penetration and Break-Up of Diesel Sprays Using a Common-Rail Injection System. , 0, , .		20
54	Characterisation of the Soot Formation Processes in a High Pressure Combusting Diesel Fuel Spray. , 0, , .		3

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55	PDA Characterisation of Dense Diesel Sprays Using a Common-Rail Injection System. , 0, , .		29
56	High-Speed Microscopic Imaging of the Initial Stage of Diesel Spray Formation and Primary Breakup. , 0, , .		53
57	Laser-Induced Fluorescence Investigation of Nitric Oxide Formation and Hydroxyl Radicals in a Diesel Rapid Compression Machine. , 0, , .		7
58	Visual Analyses of End of Injection Liquid Structures and the Behaviour of Nozzle Surface-Bound Fuel in a Direct Injection Diesel Engine. , 0, , .		4
59	Simulation and Measurement of Transient Fluid Phenomena within Diesel Injection. SAE International Journal of Advances and Current Practices in Mobility, 0, 1, 291-305.	2.0	17
60	A study of the controlling parameters of fuel air mixture formation for ECN Spray A. , 0, , .		1
61	Transcritical mixing of sprays for multi-component fuel mixtures. , 0, , .		3
62	Drop Impact onto a Metallic Porous Layer: Effect of Liquid Viscosity and Air Entrapment. , 0, , .		0
63	A quantitative analysis of nozzle surface bound fuel for diesel injectors. , 0, , .		1
64	A model for mono- and multi-component droplet heating and evaporation and its implementation into ANSYS Fluent.. , 0, , .		3
65	Quantification of diesel injector dribble using 3D reconstruction from x-ray and DBI imaging. , 0, , .		0
66	High-Speed Thermographic Analysis of Diesel Injector Nozzle Tip Temperature. , 0, , .		0