

# 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	On the transcritical mixing of fuels at diesel engine conditions. <i>Fuel</i> , 2017, 208, 535-548.	3.4	118
2	Microscopic imaging of the initial stage of diesel spray formation. <i>Fuel</i> , 2015, 157, 140-150.	3.4	108
3	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
4	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
5	A breakup model for transient Diesel fuel sprays. <i>Fuel</i> , 2012, 97, 288-305.	3.4	68
6	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
7	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
8	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
9	High-Speed Microscopic Imaging of the Initial Stage of Diesel Spray Formation and Primary Breakup. , 0, , .		53
10	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
11	The initial stage of fuel spray penetration. <i>Fuel</i> , 2003, 82, 875-885.	3.4	51
12	Modelling of gasoline fuel droplets heating and evaporation. <i>Fuel</i> , 2015, 159, 373-384.	3.4	46
13	The Influence of Injector Parameters on the Formation and Break-Up of a Diesel Spray. , 2001, , .		42
14	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
15	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
16	Thermal risk assessment of vegetable oil epoxidation. <i>Journal of Thermal Analysis and Calorimetry</i> , 2015, 122, 795-804.	2.0	34
17	Investigation of Puffing and Micro-Explosion of Water-in-Diesel Emulsion Spray Using Shadow Imaging. <i>Energies</i> , 2018, 11, 2281.	1.6	32
18	Modelling of biodiesel fuel droplet heating and evaporation: Effects of fuel composition. <i>Fuel</i> , 2015, 154, 308-318.	3.4	30

#	ARTICLE	IF	CITATIONS
19	PDA Characterisation of Dense Diesel Sprays Using a Common-Rail Injection System. , 0, , .		29
20	A model for multi-component droplet heating and evaporation and its implementation into ANSYS Fluent. International Communications in Heat and Mass Transfer, 2018, 90, 29-33.	2.9	29
21	2D Titanium Carbide (Ti <sub>3</sub> C <sub>2</sub> Ti <sub>x</sub> ) in Accommodating Intraocular Lens Design. Advanced Functional Materials, 2020, 30, 2000841.	7.8	26
22	Simultaneous measurement of monocomponent droplet temperature/refractive index, size and evaporation rate with phase rainbow refractometry. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 214, 146-157.	1.1	24
23	Drop impact onto attached metallic meshes: liquid penetration and spreading. Experiments in Fluids, 2018, 59, 1.	1.1	21
24	Droplet Impact on Suspended Metallic Meshes: Effects of Wettability, Reynolds and Weber Numbers. Fluids, 2020, 5, 81.	0.8	21
25	In-Cylinder Penetration and Break-Up of Diesel Sprays Using a Common-Rail Injection System. , 0, , .		20
26	Spray Penetration in a Turbulent Flow. Flow, Turbulence and Combustion, 2002, 68, 153-165.	1.4	20
27	Diesel fuel spray penetration, heating, evaporation and ignition: modelling vs. experimentation. International Journal of Engineering Systems Modelling and Simulation, 2008, 1, 1.	0.2	20
28	A mathematical model for heating and evaporation of a multi-component liquid film. International Journal of Heat and Mass Transfer, 2018, 117, 252-260.	2.5	19
29	Diesel autogignition at elevated in-cylinder pressueres. International Journal of Engine Research, 2004, 5, 365-374.	1.4	18
30	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
31	Time-resolved gas thermometry by laser-induced grating spectroscopy with a high-repetition rate laser system. Experiments in Fluids, 2017, 58, 1.	1.1	15
32	Time-resolved fuel injector flow characterisation based on 3D laser Doppler vibrometry. Measurement Science and Technology, 2014, 25, 125301.	1.4	13
33	Temperature measurements under diesel engine conditions using laser induced grating spectroscopy. Combustion and Flame, 2019, 199, 249-257.	2.8	13
34	Change of evaporation rate of single monocomponent droplet with temperature using time-resolved phase rainbow refractometry. Proceedings of the Combustion Institute, 2019, 37, 3211-3218.	2.4	12
35	Quantitative analysis of dribble volumes and rates using three-dimensional reconstruction of X-ray and diffused back-illumination images of diesel sprays. International Journal of Engine Research, 2020, 21, 43-54.	1.4	12
36	The Effect of Fuel Injection Equipment of Water-In-Diesel Emulsions on Micro-Explosion Behaviour. Energies, 2018, 11, 1650.	1.6	11

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37	Quantitative characterisations of spray deposited liquid films and post-injection discharge on diesel injectors. <i>Fuel</i> , 2021, 289, 119833.	3.4	10
38	MODELING AND CONTROL OF INTERNAL COMBUSTION ENGINES USING INTELLIGENT TECHNIQUES. <i>Cybernetics and Systems</i> , 2007, 38, 509-533.	1.6	8
39	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
40	Laser-Induced Fluorescence Investigation of Nitric Oxide Formation and Hydroxyl Radicals in a Diesel Rapid Compression Machine. , 0, , .		7
41	Fuel Nozzle Geometry Effects on Cavitation and Spray Behavior at Diesel Engine Conditions. , 2018, , 474-480.		6
42	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
43	The effect of unstable emulsion of water-in-diesel on micro-explosion phenomena. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	5
44	High-Speed Infrared Measurement of Injector Tip Temperature during Diesel Engine Operation. <i>Energies</i> , 2021, 14, 4584.	1.6	4
45	Visual Analyses of End of Injection Liquid Structures and the Behaviour of Nozzle Surface-Bound Fuel in a Direct Injection Diesel Engine. , 0, , .		4
46	A phenomenological model for near-nozzle fluid processes: Identification and qualitative characterisations. <i>Fuel</i> , 2022, 310, 122208.	3.4	4
47	Characterisation of the Soot Formation Processes in a High Pressure Combusting Diesel Fuel Spray. , 0, , .		3
48	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
49	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
50	Fuzzy Logic and Neuro-fuzzy Modelling of Diesel Spray Penetration. <i>Lecture Notes in Computer Science</i> , 2005, , 642-650.	1.0	3
51	ADVANCEMENT IN TURBULENT SPRAY MODELLING: THE EFFECT OF INTERNAL TEMPERATURE GRADIENT IN DROPLETS. , 2012, , .		3
52	Transcritical mixing of sprays for multi-component fuel mixtures. , 0, , .		3
53	A model for mono- and multi-component droplet heating and evaporation and its implementation into ANSYS Fluent.. , 0, , .		3
54	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

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55	Jet and Vortex Ring-Like Structures in Internal Combustion Engines: Stability Analysis and Analytical Solutions. Procedia IUTAM, 2013, 8, 196-204.	1.2	1
56	A study of the controlling parameters of fuel air mixture formation for ECN Spray A. , 0, , .		1
57	A quantitative analysis of nozzle surface bound fuel for diesel injectors. , 0, , .		1
58	Tools and Techniques for Intelligent Characterization of Fuels. Smart Innovation, Systems and Technologies, 2011, , 129-138.	0.5	0
59	Investigation of the effects of cavitation on near nozzle dynamics in multi-hole gasoline direct injection sprays. , 2021, 1, .		0
60	MODELLING OF DROPLET HEATING, EVAPORATION AND BREAK-UP: RECENT DEVELOPMENTS. , 2006, , .		0
61	Neural Network Classification of Diesel Spray Images. Lecture Notes in Computer Science, 2006, , 1179-1189.	1.0	0
62	MODELLING OF HEATING AND EVAPORATION OF SPHEROIDAL DROPLETS. , 2017, , .		0
63	MODELLING OF HEATING AND EVAPORATION OF SPHEROIDAL DROPLETS. , 2017, , .		0
64	Drop Impact onto a Metallic Porous Layer: Effect of Liquid Viscosity and Air Entrapment. , 0, , .		0
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