Sanjeev Chandra

List of Publications by Year
in descending order

161 papers	7,693 citations	50170 46 h-index	54797 84 g-index
164 all docs	164 docs citations	164 times ranked	3525 citing authors

#	Article	IF	Citations
1	Effect of moisture condensation on vapour transmission through porous membranes. Journal of Industrial Textiles, 2022, 51, 1931S-1951S.	1.1	5
2	Producing Steam by Spraying Water on a Heated Bed of Steel Spheres. Journal of Thermal Science and Engineering Applications, 2022, 14, .	0.8	1
3	Penetration characteristics of a liquid droplet impacting on a narrow gap: Experimental and numerical analysis. Physics of Fluids, 2022, 34, 057111.	1.6	3
4	Miniature Liquid Cold-plate Enabled by Metal Spraying: A Thermal Management Solution for a Modular 1 kW Bi-directional GaN-based dc-ac Converter. , 2022, , .		6
5	Metallization of Porous Polyethylene Using a Wire-Arc Spray Process for Heat Transfer Applications. Journal of Thermal Spray Technology, 2021, 30, 145-156.	1.6	8
6	On surface area coverage by an electrostatic rotating bell atomizer. Journal of Coatings Technology Research, 2021, 18, 649-663.	1.2	10
7	Thermal conductivity and oxidation behavior of porous Inconel 625 coating interface prepared by dual-injection plasma spraying. Surface and Coatings Technology, 2021, 411, 126990.	2.2	12
8	Bell-cup serrations and their effect on atomization in electrostatic rotating bell atomizers. Experiments in Fluids, 2021, 62, 1.	1.1	1
9	Surface coverage by impact of droplets from a monodisperse spray. Journal of Coatings Technology Research, 2020, 17, 207-217.	1.2	3
10	Infiltration of impacting droplets into porous substrates. Experiments in Fluids, 2020, 61, 1.	1.1	9
11	Analysis of a Wide Range of Commercial Exterior Wood Coatings. Coatings, 2020, 10, 1013.	1.2	9
12	Thermal spray deposition of aluminum and zinc coatings on thermoplastics. Surface and Coatings Technology, 2020, 399, 126114.	2.2	29
13	A novel ultra-large flat plate heat pipe manufactured by thermal spray. Applied Thermal Engineering, 2020, 171, 115030.	3.0	22
14	Cooling of porous metal surfaces by droplet impact. International Journal of Heat and Mass Transfer, 2020, 152, 119494.	2.5	9
15	Colour variation in drying paint films. Progress in Organic Coatings, 2019, 136, 105173.	1.9	6
16	Droplet impact and flow into a gap between parallel plates. Physics of Fluids, 2019, 31, 062104.	1.6	11
17	Fabrication of Composite Heat Sinks Consisting of a Thin Metallic Skin and a Polymer Core Using Wire-Arc Spraying. Journal of Thermal Spray Technology, 2019, 28, 974-985.	1.6	11
18	Evaporation of ethanol films wicking on structured, porous coatings deposited on copper plates. International Journal of Heat and Mass Transfer, 2019, 136, 821-831.	2.5	14

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19	Droplet Impact on Solid Surfaces. Energy, Environment, and Sustainability, 2018, , 299-310.	0.6	1
20	Drop impact onto attached metallic meshes: liquid penetration and spreading. Experiments in Fluids, 2018, 59, 1.	1.1	21
21	Capillary rise of liquids in thermally sprayed porous copper wicks. Experimental Thermal and Fluid Science, 2018, 98, 206-216.	1.5	29
22	Droplet Impact and Solidification in Plasma Spraying. , 2018, , 2967-3008.		4
23	Composite Heat Sink LED Cooling. , 2018, , .		1
24	Analyitcal heat conduction model of annular composite fins. , 2018, , .		1
25	EVAPORATION OF WATER AND N-HEPTANE DROPLETS ON HOT, POROUS, STAINLESS STEEL SURFACES. , 2018, , .		0
26	Heat Transfer During High Temperature Gas Flow Through Metal Foam Heat Exchangers. Journal of Heat Transfer, 2017, 139, .	1.2	3
27	Spray Impingement Fundamentals. , 2017, , 177-220.		0
28	COALESCENCE AND AGGLOMERATION OF DROPLETS SPRAYED ON A SUBSTRATE. Atomization and Sprays, 2017, 27, 81-94.	0.3	5
29	Droplet Impact and Solidification in Plasma Spraying. , 2017, , 1-42.		1
30	Bubble Clustering in Drying Paint Films. Industrial & Engineering Chemistry Research, 2016, 55, 12825-12835.	1.8	0
31	Bubble entrapment and escape from sprayed paint films. Progress in Organic Coatings, 2016, 97, 153-165.	1.9	7
32	Nucleation of bubbles during drying of sprayed paint films. Progress in Organic Coatings, 2016, 99, 452-462.	1.9	4
33	Fabrication of High-Temperature Heat Exchangers by Plasma Spraying Exterior Skins on Nickel Foams. Journal of Thermal Spray Technology, 2016, 25, 1056-1067.	1.6	3
34	Orange peel formation due to surface tension-driven flows within drying paint films. Journal of Coatings Technology Research, 2016, 13, 413-426.	1.2	11
35	Bubble growth and movement in drying paint films. Chemical Engineering Science, 2016, 145, 149-161.	1.9	6
36	Adhesion of Wax Droplets to Porous Polymer Surfaces. Journal of Adhesion, 2015, 91, 538-555.	1.8	4

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37	Surface Tension-Driven Flows within Thin Drying Paint Films. Journal of Heat Transfer, 2014, 136, .	1.2	0
38	Fabrication of Wire Mesh Heat Exchangers for Waste Heat Recovery Using Wire-Arc Spraying. Journal of Thermal Spray Technology, 2014, 23, 609-615.	1.6	3
39	Formation of liquid sheets by deposition of droplets on a surface. Journal of Colloid and Interface Science, 2014, 418, 292-299.	5.0	20
40	Leveling of a Line of Paint Droplets on a Surface. , 2014, , .		0
41	Bubble Entrapment in Sprayed Films. , 2014, , .		0
42	High Temperature Metal Foam Heat Exchanger. , 2014, , .		0
43	Surface Tension-Driven Flows within Drying Paint Films. , 2014, , .		0
44	Coalescence of sessile droplets of varying viscosities for line printing. International Journal of Multiphase Flow, 2013, 56, 138-148.	1.6	27
45	Rupture of thin liquid films sprayed on solid surfaces. Experiments in Fluids, 2013, 54, 1.	1.1	16
46	Cold Spray Deposition of Copper Electrodes on Silicon and Glass Substrates. Journal of Thermal Spray Technology, 2013, 22, 1092-1102.	1.6	59
47	Producing molten metal droplets smaller than the nozzle diameter using a pneumatic drop-on-demand generator. Experimental Thermal and Fluid Science, 2013, 47, 26-33.	1.5	37
48	Heat Transfer Through Metal-Foam Heat Exchanger at Higher Temperature. , 2013, , .		3
49	Interactions Between High-Viscosity Droplets Deposited on a Surface: Experiments and Simulations. , 2012, , .		0
50	Forced Convection Heat Transfer in Spray Formed Copper and Nickel Foam Heat Exchanger Tubes. Journal of Heat Transfer, 2012, 134, .	1.2	13
51	Adhesion of Wax Droplets to Porous Substrates. , 2012, , .		0
52	Analytical and Numerical Modeling of Conductive and Convective Heat Transfer Through Open-Cell Metal Foams. , 2012, , .		1
53	Tuning Hydrophobicity with Honeycomb Surface Structure and Hydrophilicity with <scp><scp>CF</scp></scp>₄ Plasma Etching for Aerosolâ€Deposited Titania Films. Journal of the American Ceramic Society, 2012, 95, 3955-3961.	1.9	16
54	Droplet Impact on a Solid Surface. , 2011, , 183-211.		6

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55	Optimization of supersonic nozzle flow for titanium dioxide thin-film coating by aerosol deposition. Journal of Aerosol Science, 2011, 42, 771-780.	1.8	66
56	Kinematic Viscosities of High-Temperature Materials Used in Plasma Spraying. Journal of the American Ceramic Society, 2011, 94, 1865-1871.	1.9	3
57	An Evaluation of the Underlying Mechanisms of Bloodstain Pattern Analysis Error. Journal of Forensic Sciences, 2011, 56, 1136-1142.	0.9	19
58	Coating the inner surfaces of pipes with high-viscosity epoxy in annular flow. Journal of Coatings Technology Research, 2011, 8, 697-706.	1.2	0
59	Supersonic Nozzle Flow Simulations for Particle Coating Applications: Effects of Shockwaves, Nozzle Geometry, Ambient Pressure, and Substrate Location upon Flow Characteristics. Journal of Thermal Spray Technology, 2011, 20, 514-522.	1.6	49
60	Numerical Studies on the Effects of Stagnation Pressure and Temperature on Supersonic Flow Characteristics in Cold Spray Applications. Journal of Thermal Spray Technology, 2011, 20, 1085-1097.	1.6	32
61	Maximum Spread of Droplet on Solid Surface: Low Reynolds and Weber Numbers. Journal of Fluids Engineering, Transactions of the ASME, 2010, 132, .	0.8	28
62	Coalescence of two droplets impacting a solid surface. Experiments in Fluids, 2010, 48, 1025-1035.	1.1	53
63	Rupture and dewetting of water films on solid surfaces. Journal of Colloid and Interface Science, 2010, 352, 194-201.	5.0	20
64	A fast response thermocouple for internal combustion engine surface temperature measurements. Experimental Thermal and Fluid Science, 2010, 34, 183-189.	1.5	59
65	Use of thermal emission signals to characterize the impact of fully and partially molten plasma-sprayed zirconia particles on glass surfaces. Surface and Coatings Technology, 2010, 204, 2323-2330.	2.2	9
66	Small droplet formation in a pneumatic drop-on-demand generator: Experiments and analysis. Experimental Thermal and Fluid Science, 2010, 34, 1488-1497.	1.5	23
67	Rupture of thin films formed during droplet impact. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 1229-1245.	1.0	38
68	Preliminary Testing of Metal-Based Thermal Barrier Coating in a Spark-Ignition Engine. Journal of Engineering for Gas Turbines and Power, 2010, 132, .	0.5	6
69	Spray-Formed, Metal-Foam Heat Exchangers for High Temperature Applications. Journal of Thermal Science and Engineering Applications, 2009, 1, .	0.8	17
70	Heat Transfer During Deposition of Molten Aluminum Alloy Droplets to Build Vertical Columns. Journal of Heat Transfer, 2009, 131, .	1.2	29
71	Formation of Solid Splats During Thermal Spray Deposition. Journal of Thermal Spray Technology, 2009, 18, 148-180.	1.6	156
72	Preliminary Testing of Metal-Based Thermal Barrier Coating in a Spark-Ignition Engine. , 2009, , .		3

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73	DYNAMICS OF PARTICLE DEFORMATION DURING PLASMA SPRAY COATING. High Temperature Material Processes, 2009, 13, 247-265.	0.2	3
74	Shape and surface texture of molten droplets deposited on cold surfaces. Surface and Coatings Technology, 2008, 202, 3960-3966.	2.2	15
75	Photographing impact of plasma-sprayed particles on rough substrates. Journal of Materials Science, 2008, 43, 4631-4643.	1.7	25
76	Contraction of free liquid ligaments. AICHE Journal, 2008, 54, 3084-3091.	1.8	10
77	Drop impact onto a dry surface: Role of the dynamic contact angle. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 322, 183-191.	2.3	115
78	Droplet generation from pulsed micro-jets. Experimental Thermal and Fluid Science, 2008, 32, 1679-1686.	1.5	34
79	A stochastic coating model to predict the microstructure of plasma sprayed zirconia coatings. Modelling and Simulation in Materials Science and Engineering, 2008, 16, 065006.	0.8	15
80	Deposition of Molten Ink Droplets on a Solid Surface. Journal of Imaging Science and Technology, 2008, 52, 20502-1-20502-10.	0.3	7
81	Drawback During Deposition of Overlapping Molten Wax Droplets. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	1.3	20
82	Building threeâ€dimensional objects by deposition of molten metal droplets. Rapid Prototyping Journal, 2008, 14, 44-52.	1.6	69
83	Rupture of radially spreading liquid films. Physics of Fluids, 2008, 20, .	1.6	20
84	Experiments on Remelting and Solidification of Molten Metal Droplets Deposited in Vertical Columns. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2007, 129, 311-318.	1.3	35
85	Heat Transfer in Plasma Spray Coating Processes. Advances in Heat Transfer, 2007, 40, 143-204.	0.4	7
86	Predicting splat morphology in a thermal spray process. Surface and Coatings Technology, 2007, 201, 7789-7801.	2.2	123
87	Effect of substrate oxidation on spreading of plasma-sprayed nickel on stainless steel. Surface and Coatings Technology, 2007, 202, 23-33.	2.2	41
88	Modeling fragmentation of plasma-sprayed particles impacting on a solid surface at room temperature. Comptes Rendus - Mecanique, 2007, 335, 351-356.	2.1	17
89	Thermal contact resistance between plasma-sprayed particles and flat surfaces. International Journal of Heat and Mass Transfer, 2007, 50, 1737-1749.	2.5	83
90	Producing droplets smaller than the nozzle diameter by using a pneumatic drop-on-demand droplet generator. Experiments in Fluids, 2007, 44, 105-114.	1.1	42

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91	Formation of Pores in Thermal Spray Coatings due to Incomplete Filling of Crevices in Patterned Surfaces. Plasma Chemistry and Plasma Processing, 2007, 27, 647-657.	1.1	22
92	Modeling the impact of a molten metal droplet on a solid surface using variable interfacial thermal contact resistance. Journal of Materials Science, 2007, 42, 9-18.	1.7	66
93	Solidification contact angles of molten droplets deposited on solid surfaces. Journal of Materials Science, 2007, 42, 9511-9523.	1.7	15
94	Effect of Droplet Characteristics and Substrate Surface Topography on the Final Morphology of Plasma-Sprayed Zirconia Single Splats. Journal of Thermal Spray Technology, 2007, 16, 291-299.	1.6	28
95	Measuring Substrate Temperature Variation During Application of Plasma-Sprayed Zirconia Coatings. Journal of Thermal Spray Technology, 2007, 16, 580-587.	1.6	24
96	Numerical Simulation of Droplet Impact on Patterned Surfaces. Journal of Thermal Spray Technology, 2007, 16, 713-721.	1.6	66
97	Boiling during high-velocity impact of water droplets on a hot stainless steel surface. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 3115-3131.	1.0	26
98	Modeling development of residual stresses in thermal spray coatings. Computational Materials Science, 2006, 35, 13-26.	1.4	58
99	Effect of substrate temperature on the properties of coatings and splats deposited by wire arc spraying. Surface and Coatings Technology, 2006, 201, 3350-3358.	2.2	38
100	Impact of plasma-sprayed metal particles on hot and cold glass surfaces. Thin Solid Films, 2006, 514, 212-222.	0.8	79
101	Photographing Impact of Plasma-Sprayed Particles on Metal Substrates. Journal of Thermal Spray Technology, 2006, 15, 708-716.	1.6	36
102	Investigation of Splat Curling up in Thermal Spray Coatings. Journal of Thermal Spray Technology, 2006, 15, 531-536.	1.6	50
103	Producing molten metal droplets with a pneumatic droplet-on-demand generator. Journal of Materials Processing Technology, 2005, 159, 295-302.	3.1	90
104	A fast-response thin film thermocouple to measure rapid surface temperature changes. Experimental Thermal and Fluid Science, 2005, 30, 153-159.	1.5	68
105	Particle Size Distribution in a Wire-Arc Spraying System. Journal of Thermal Spray Technology, 2005, 14, 502-510.	1.6	36
106	Impact of molten metal droplets on the tip of a pin projecting from a flat surface. International Journal of Heat and Fluid Flow, 2005, 26, 334-347.	1.1	17
107	Freezing-induced splashing during impact of molten metal droplets with high Weber numbers. International Journal of Heat and Mass Transfer, 2005, 48, 5625-5638.	2.5	75
108	Building Vertical Walls by Deposition of Molten Metal Droplets. , 2005, , 325.		1

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109	Predicting Thermal Contact Resistance Between Molten Metal Droplets and a Solid Surface. Journal of Heat Transfer, 2005, 127, 1269-1275.	1.2	50
110	Experiments on Remelting and Solidification of Molten Metal Droplets Deposited in Vertical Columns. , 2005, , 461.		1
111	Photographing Impact of Molten Molybdenum Particles in a Plasma Spray. Journal of Thermal Spray Technology, 2005, 14, 354-361.	1.6	36
112	Modeling interfacial heat transfer from single or multiple deforming droplets. International Journal of Computational Fluid Dynamics, 2005, 19, 105-113.	0.5	5
113	Experimental Study on Micro-Droplets of Molten Wax Impacting on Solid Surfaces. , 2005, , .		0
114	Deducing Drop Size and Impact Velocity from Circular Bloodstains. Journal of Forensic Sciences, 2005, 50, 1-10.	0.9	68
115	Remelting and Coalescence of Molten Metal Droplets Deposited on a Plate. , 2004, , 939.		2
116	Effect of Substrate Temperature on Splashing of Molten Metal Droplets. , 2004, , 71.		1
117	Numerical Study of Impact and Solidification of a Droplet Over a Deposited Frozen Splat. International Journal of Computational Fluid Dynamics, 2004, 18, 133-138.	0.5	8
118	Modelling heat transfer in two-fluid interfacial flows. International Journal for Numerical Methods in Engineering, 2004, 61, 1028-1048.	1.5	12
119	Formation of fingers around the edges of a drop hitting a metal plate with high velocity. Journal of Fluid Mechanics, 2004, 510, 353-373.	1.4	125
120	Effect of Substrate Temperature on Splashing of Molten Tin Droplets. Journal of Heat Transfer, 2004, 126, 445-452.	1.2	25
121	Effect of Impact Velocity and Substrate Temperature on Boiling of Water Droplets Impinging on a Hot Stainless Steel Surface. , 2004, , 461.		0
122	Effect of Interfacial Heat Transfer on Molten Tin Jet Breakup in an Oil Tank. , 2004, , .		0
123	Effect of Substrate Temperature on Adhesion Strength of Plasma-Sprayed Nickel Coatings. Journal of Thermal Spray Technology, 2003, 12, 370-376.	1.6	140
124	A Stochastic Model to Simulate the Formation of a Thermal Spray Coating. Journal of Thermal Spray Technology, 2003, 12, 53-69.	1.6	81
125	A pneumatic droplet-on-demand generator. Experiments in Fluids, 2003, 34, 755-762.	1.1	65
126	Interactions between molten metal droplets impinging on a solid surface. International Journal of Heat and Mass Transfer, 2003, 46, 1395-1407.	2.5	80

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127	Modeling thermal spray coating processes: a powerful tool in design and optimization. Surface and Coatings Technology, 2003, 163-164, 1-11.	2.2	84
128	Adhesion of tin droplets impinging on a stainless steel plate: effect of substrate temperature and roughness. Science and Technology of Advanced Materials, 2003, 4, 173-181.	2.8	16
129	Air bubble entrapment under an impacting droplet. Physics of Fluids, 2003, 15, 173-183.	1.6	155
130	The Effect of Dissolving Salts in Water Sprays Used for Quenching a Hot Surface: Part 1â€"Boiling of Single Droplets. Journal of Heat Transfer, 2003, 125, 326-332.	1.2	39
131	The Effect of Dissolving Salts in Water Sprays Used for Quenching a Hot Surface: Part 2â€"Spray Cooling. Journal of Heat Transfer, 2003, 125, 333-338.	1.2	58
132	Splat formation in plasma-spray coating process. Pure and Applied Chemistry, 2002, 74, 441-445.	0.9	33
133	Splashing of molten tin droplets on a rough steel surface. International Journal of Heat and Mass Transfer, 2002, 45, 4561-4575.	2.5	74
134	A three-dimensional model of droplet impact and solidification. International Journal of Heat and Mass Transfer, 2002, 45, 2229-2242.	2.5	288
135	Dynamics of Splat Formation in Plasma Spray Coating Process. Plasma Chemistry and Plasma Processing, 2002, 22, 59-84.	1.1	80
136	Splat Shapes in a Thermal Spray Coating Process: Simulations and Experiments. Journal of Thermal Spray Technology, 2002, 11, 206-217.	1.6	205
137	A Three-Dimensional Numerical Study of Tin Droplets Landing Sequentially on a Solid Surface. , 2002, , .		0
138	3D model of the impact and solidification of a droplet on a solid surface. , 2001, , .		1
139	Cooling effectiveness of a water drop impinging on a hot surface. International Journal of Heat and Fluid Flow, 2001, 22, 201-210.	1.1	203
140	Experimental Testing of a Curvilinear Gas Shroud Nozzle for Improved Plasma Spraying. Plasma Chemistry and Plasma Processing, 2001, 21, 65-82.	1.1	18
141	The Effect of Dissolving Gases or Solids in Water Droplets Boiling on a Hot Surface. Journal of Heat Transfer, 2001, 123, 719-728.	1.2	56
142	SIMULATING DROPLET IMPACT ON A SUBSTRATE OF ARBITRARY SHAPE. Atomization and Sprays, 2001, 11, 397-414.	0.3	61
143	Impact, recoil and splashing of molten metal droplets. International Journal of Heat and Mass Transfer, 2000, 43, 2841-2857.	2.5	375
144	Modeling the splash of a droplet impacting a solid surface. Physics of Fluids, 2000, 12, 3121-3132.	1.6	321

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145	Parameters controlling solidification of molten wax droplets falling on a solid surface. Journal of Materials Science, 1999, 34, 4883-4894.	1.7	108
146	On a three-dimensional volume tracking model of droplet impact. Physics of Fluids, 1999, 11, 1406-1417.	1.6	351
147	Deposition of tin droplets on a steel plate: simulations and experiments. International Journal of Heat and Mass Transfer, 1998, 41, 2929-2945.	2.5	232
148	Spray Cooling Enhancement by Addition of a Surfactant. Journal of Heat Transfer, 1998, 120, 92-98.	1.2	103
149	A Gas Shroud Nozzle for HVOF Spray Deposition. , 1998, , .		5
150	3D Modelling of Thermal Spray Droplet Splashing. , 1998, , .		1
151	Experiments on adding a surfactant to water drops boiling on a hot surface. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1997, 453, 673-689.	1.0	119
152	Capillary effects during droplet impact on a solid surface. Physics of Fluids, 1996, 8, 650-659.	1.6	995
153	Boiling of droplets on a hot surface in low gravity. International Journal of Heat and Mass Transfer, 1996, 39, 1379-1393.	2.5	76
154	Hot wire ignition of hydrogen-oxygen mixtures. International Journal of Hydrogen Energy, 1996, 21, 39-44.	3.8	24
155	Effect of liquid-solid contact angle on droplet evaporation. Fire Safety Journal, 1996, 27, 141-158.	1.4	190
156	IMPACT OF N-HEPTANE DROPLETS ON A HOT SURFACE IN LOW GRAVITY. Transactions of the Canadian Society for Mechanical Engineering, 1995, 19, 271-284.	0.3	3
157	Leidenfrost Evaporation of Liquid Nitrogen Droplets. Journal of Heat Transfer, 1994, 116, 999-1006.	1.2	33
158	A gauge to measure the mass flow rate of water in trees. Plant, Cell and Environment, 1994, 17, 867-874.	2.8	7
159	Observations of droplet impingement on a ceramic porous surface. International Journal of Heat and Mass Transfer, 1992, 35, 2377-2388.	2.5	94
160	Electrodes for thin metal films. Journal of Scientific Instruments, 1958, 35, 349-350.	0.5	2
161	An Investigation of Metal and Ceramic Thermal Barrier Coatings in a Spark-Ignition Engine. SAE International Journal of Engines, 0, 3, 115-125.	0.4	10