R P Chhabra

List of Publications by Year
in descending order

104 papers	2,730 citations	147566 31 h-index	205818 48 g-index
106 all docs	106 docs citations	106 times ranked	1133 citing authors

#	Article	IF	Citations
1	Flow and Forced Convection Heat Transfer in Crossflow of Non-Newtonian Fluids over a Circular Cylinder. Industrial & Engineering Chemistry Research, 2005, 44, 5815-5827.	1.8	143
2	A numerical study of the steady forced convection heat transfer from an unconfined circular cylinder. Heat and Mass Transfer, 2007, 43, 639-648.	1.2	143
3	Steady Flow of Power Law Fluids across a Circular Cylinder. Canadian Journal of Chemical Engineering, 2006, 84, 406-421.	0.9	119
4	Effects of Reynolds and Prandtl Numbers on Heat Transfer Across a Square Cylinder in the Steady Flow Regime. Numerical Heat Transfer; Part A: Applications, 2006, 49, 717-731.	1.2	91
5	Steady non?Newtonian flow past a circular cylinder: a numerical study. Acta Mechanica, 2004, 172, 1-16.	1.1	88
6	Two-Dimensional Steady Poiseuille Flow of Power-Law Fluids Across a Circular Cylinder in a Plane Confined Channel:Â Wall Effects and Drag Coefficients. Industrial & Engineering Chemistry Research, 2007, 46, 3820-3840.	1.8	80
7	Momentum and heat transfer from an asymmetrically confined circular cylinder in a plane channel. Heat and Mass Transfer, 2006, 42, 1037-1048.	1.2	76
8	Creeping motion of spheres through shear-thinning elastic fluids described by the Carreau viscosity equation. Rheologica Acta, 1980, 19, 187-195.	1.1	71
9	Effect of rheological properties on power consumption with helical ribbon agitators. AICHE Journal, 1993, 39, 1421-1430.	1.8	71
10	Laminar Natural Convection from a Horizontal Cylinder in Power-Law Fluids. Industrial & Engineering Chemistry Research, 2011, 50, 2424-2440.	1.8	59
11	Prediction of solute diffusion coefficients in liquid metals. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1988, 19, 273-279.	1.4	58
12	Forced convection heat transfer from a sphere to non-Newtonian power law fluids. AICHE Journal, 2006, 52, 3658-3667.	1.8	57
13	Flow of Newtonian and Power-Law Fluids Past an Elliptical Cylinder: A Numerical Study. Industrial & Engineering Chemistry Research, 2010, 49, 6649-6661.	1.8	55
14	Drag on spheroidal particles in dilatant fluids. AICHE Journal, 1995, 41, 728-731.	1.8	54
15	Yield stress measurements of aqueous foams in the dry limit. Journal of Rheology, 1998, 42, 1437-1450.	1.3	52
16	An experimental study of motion of cylinders in newtonian fluids: Wall effects and drag coefficient. Canadian Journal of Chemical Engineering, 1991, 69, 729-735.	0.9	51
17	Mixed Convection From a Heated Square Cylinder to Newtonian and Power-Law Fluids. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 506-513.	0.8	48
18	Mixed Convection From a Circular Cylinder to Power Law Fluids. Industrial & Engineering Chemistry Research, 2009, 48, 8219-8231.	1.8	48

#	Article	IF	Citations
19	Forced Convection Heat Transfer from a Heated Square Cylinder to Power Law Fluids in the Unsteady Flow Regime. Numerical Heat Transfer; Part A: Applications, 2009, 56, 109-131.	1.2	44
20	Rising velocity of a swarm of spherical bubbles in a power law nonâ€newtonian liquid. Canadian Journal of Chemical Engineering, 1987, 65, 1004-1008.	0.9	43
21	Heat Transfer to Power-Law Fluids from a Heated Square Cylinder. Numerical Heat Transfer; Part A: Applications, 2007, 52, 185-201.	1.2	43
22	Numerical Predictions of Momentum and Heat Transfer Characteristics from a Heated Sphere in Yield-Stress Fluids. Industrial & Engineering Chemistry Research, 2013, 52, 6848-6861.	1.8	42
23	A study of wall effects on the motion of a sphere in viscoelastic fluids. Canadian Journal of Chemical Engineering, 1981, 59, 771-775.	0.9	41
24	Wall effect for the fall of spheres in cylindrical tubes at high reynolds number. Canadian Journal of Chemical Engineering, 1995, 73, 918-923.	0.9	41
25	Laminar Forced Convection Heat Transfer from a Rotating Cylinder to Power-Law Fluids. Numerical Heat Transfer; Part A: Applications, 2011, 59, 297-319.	1.2	41
26	Effect of Shear-Thinning Behavior on Heat Transfer from a Heated Sphere in Yield-Stress Fluids. Industrial & Engineering Chemistry Research, 2013, 52, 13490-13504.	1.8	41
27	Effect of Blockage on Heat Transfer from a Sphere in Power-Law Fluids. Industrial & Engineering Chemistry Research, 2010, 49, 3849-3861.	1.8	40
28	Drag on nonâ€spherical particles in nonâ€newtonian fluids. Canadian Journal of Chemical Engineering, 1994, 72, 588-593.	0.9	38
29	Estimation of zero-shear viscosity of polymer solutions from falling sphere data. Rheologica Acta, 1979, 18, 593-599.	1.1	37
30	Development Length Requirements for Fully Developed Laminar Pipe Flow of Yield Stress Fluids. Journal of Fluids Engineering, Transactions of the ASME, 2010, 132, .	0.8	35
31	A photographic study of shapes of bubbles and coalescence in non-Newtonian polymer solutions. Rheologica Acta, 1988, 27, 656-660.	1.1	33
32	Creeping motion of spheres through Ellis model fluids. Rheologica Acta, 1981, 20, 346-351.	1.1	28
33	Rising velocity of a swarm of spherical bubbles in power law fluids at high reynolds numbers. Canadian Journal of Chemical Engineering, 1998, 76, 137-140.	0.9	27
34	AN ANALYTICAL STUDY OF THE TRANSIENT MOTION OF A DENSE RIGID SPHERE IN AN INCOMPRESSIBLE NEWTONIAN FLUID. Chemical Engineering Communications, 1998, 168, 45-58.	1.5	27
35	The Effect of a Blockage on Forced Convection Heat Transfer From a Heated Square Cylinder to Power-Law Fluids. Numerical Heat Transfer; Part A: Applications, 2010, 58, 641-659.	1.2	27
36	Characterization of Slag-Metal Droplet-Gas Emulsion in Oxygen Steelmaking Converters.. ISIJ International, 1996, 36, 658-666.	0.6	26

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37	TRANSVERSE LAMINAR FLOW OF NON-NEWTONIAN FLUIDS OVER A BANK OF LONG CYLINDERS. Chemical Engineering Communications, 1996, 147, 197-212.	1.5	25
38	Sedimentation of a sphere along the axis of a long square duet filled with nonâ€newtonian liquids. Canadian Journal of Chemical Engineering, 1992, 70, 803-807.	0.9	24
39	Prediction of flow pattern for the coâ€current flow of gas and nonâ€newtonian liquid in horizontal pipes. Canadian Journal of Chemical Engineering, 1984, 62, 449-454.	0.9	23
40	SIMULATION OF NON-NEWTONIAN FLUID FLOW THROUGH FIXED AND FLUIDIZED BEDS OF SPHERICAL PARTICLES. Numerical Heat Transfer; Part A: Applications, 1992, 21, 275-297.	1.2	22
41	Flow of power law liquids through particle assemblages at intermediate reynolds numbers. Canadian Journal of Chemical Engineering, 1991, 69, 1235-1241.	0.9	21
42	Momentum and Heat Transfer from a Semi-Circular Cylinder to Power-Law Fluids in the Vortex Shedding Regime. Numerical Heat Transfer; Part A: Applications, 2013, 63, 489-510.	1.2	21
43	The influence of fluid elasticity on wall effects for creeping sphere motion in cylindrical tubes. Canadian Journal of Chemical Engineering, 1988, 66, 154-157.	0.9	20
44	Natural Convection from a Heated Sphere in Bingham Plastic Fluids. Industrial & Engineering Chemistry Research, 2014, 53, 17818-17832.	1.8	20
45	Creeping motion of a carreau fluid past a newtonian fluid sphere. Canadian Journal of Chemical Engineering, 1986, 64, 897-905.	0.9	19
46	An experimental study of nonâ€newtonian fluid flow through fixed and fluidized beds of nonâ€spherical particles. Canadian Journal of Chemical Engineering, 1992, 70, 586-591.	0.9	19
47	Spheroids in Viscoplastic Fluids: Drag and Heat Transfer. Industrial & Engineering Chemistry Research, 2014, 53, 18943-18965.	1.8	18
48	Predicting transport coefficients of liquidsâ€" a unified approach. AICHE Journal, 1980, 26, 522-525.	1.8	17
49	Flow of non-Newtonian polymeric solutions through fibrous media. Journal of Applied Polymer Science, 2000, 76, 1171-1185.	1.3	17
50	An experimental investigation of the crossâ€flow of power law liquids past a bundle of cylinders and in a bed of stacked screens. Canadian Journal of Chemical Engineering, 2001, 79, 28-35.	0.9	17
51	Mixed Convection from a Heated Sphere in Bingham Plastic Fluids. Numerical Heat Transfer; Part A: Applications, 2014, 66, 1048-1075.	1.2	17
52	Sphere motion through nonâ€newtonian fluids at high reynolds number. Canadian Journal of Chemical Engineering, 1980, 58, 124-128.	0.9	16
53	Temperature Dependence of Self Diffusion in Liquid Metals. Physics and Chemistry of Liquids, 1983, 13, 37-46.	0.4	16
54	Laminar Boundary Layer Heat Transfer to Power Law Fluids: An Approximate Analytical Solution.. Journal of Chemical Engineering of Japan, 1999, 32, 812-816.	0.3	16

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55	Two-dimensional steady flow over a semi-circular cylinder: drag coefficient and Nusselt number. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2011, 3, 44-59.	0.7	16
56	Forced Convection from a Heated Equilateral Triangular Cylinder in Bingham Plastic Fluids. Numerical Heat Transfer; Part A: Applications, 2014, 66, 107-129.	1.2	16
57	COMPUTER SIMULATION OF HEAT TRANSFER DURING DRYING AND PREHEATING OF WET IRON ORE IN A ROTARY KILN. Drying Technology, 2002, 20, 19-35.	1.7	15
58	Effect of Orientation on the Steady Laminar Free Convection Heat Transfer in Power-Law Fluids from a Heated Triangular Cylinder. Numerical Heat Transfer; Part A: Applications, 2014, 65, 780-801.	1.2	15
59	Pressure drop in two phase cocurrent upward flow in packed beds: Air/nonâ€newtonian liquid systems. Canadian Journal of Chemical Engineering, 1994, 72, 1085-1091.	0.9	13
60	Wall effects on terminal velocity of small drops in newtonian and nonâ€newtonian fluids. Canadian Journal of Chemical Engineering, 1997, 75, 817-822.	0.9	13
61	Wall Effects in Two-Dimensional Axisymmetric Flow Over a Circular Disk Oriented Normal to Flow in a Cylindrical Tube. Canadian Journal of Chemical Engineering, 2005, 83, 450-457.	0.9	13
62	The fluidity of molten salts. Rheologica Acta, 1981, 20, 203-206.	1.1	12
63	Sedimentation of a circular disk in power law fluids. Journal of Colloid and Interface Science, 2006, 295, 520-527.	5.0	12
64	Steady Two-Dimensional Non-Newtonian Flow Past an Array of Long Circular Cylinders up to Reynolds number 500: A Numerical Study. Canadian Journal of Chemical Engineering, 2008, 83, 437-450.	0.9	12
65	Effects of Viscous Dissipation on Heat Transfer between an Array of Long Circular Cylinders and Power Law Fluids. Canadian Journal of Chemical Engineering, 2007, 85, 808-816.	0.9	12
66	Momentum and Heat Transfer Characteristics for the Flow of Power-Law Fluids over a Semicircular Cylinder. Numerical Heat Transfer; Part A: Applications, 2014, 66, 1365-1388.	1.2	12
67	Hindered settling in nonâ€newtonian power law liquids. Canadian Journal of Chemical Engineering, 1992, 70, 716-720.	0.9	11
68	Mixed Convection in Power-Law Fluids from a Heated Semicircular Cylinder: Effect of Aiding Buoyancy. Numerical Heat Transfer; Part A: Applications, 2015, 67, 330-356.	1.2	11
69	Laminar Free Convection in Bingham Plastic Fluids from an Isothermal Elliptic Cylinder. Journal of Thermophysics and Heat Transfer, 2016, 30, 152-167.	0.9	11
70	Drag on chains and agglomerates of spheres in viscous newtonian and power law fluids. Canadian Journal of Chemical Engineering, 1995, 73, 566-571.	0.9	10
71	Laminar Free Convection in Power-Law Fluids from a Heated Hemisphere. Journal of Thermophysics and Heat Transfer, 2014, 28, 750-763.	0.9	10
72	Combined Influence of Fluid Viscoelasticity and Inertia on Forced Convection Heat Transfer From a Circular Cylinder. Journal of Heat Transfer, 2020, 142, .	1.2	10

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73	Slow nonâ€newtonian flow through packed beds: Effect of zero shear viscosity. Canadian Journal of Chemical Engineering, 1993, 71, 646-651.	0.9	9
74	Determination of Mixing Times with Helical Ribbon Impeller for Non-Newtonian Viscous Fluids Using an Advanced Imaging Method. Chemical Engineering and Technology, 2007, 30, 1686-1691.	0.9	9
75	Momentum and Heat Transfer Phenomena for Powerâ€"Law Liquids in Assemblages of Solid Spheres of Moderate to Large Void Fractions. Numerical Heat Transfer; Part A: Applications, 2009, 56, 970-986.	1.2	9
76	Mixed convection from a spheroid in Bingham plastic fluids: Effect of buoyancy-assisted flow. Numerical Heat Transfer; Part A: Applications, 2016, 69, 898-920.	1.2	9
77	Prediction of viscosity of liquid hydrocarbon mixtures. AICHE Journal, 1992, 38, 1657-1661.	1.8	8
78	Natural convection in power-law fluids from two square cylinders in tandem arrangement at moderate Grashof numbers. Heat and Mass Transfer, 2013, 49, 843-867.	1.2	8
79	Effect of the angle of incidence on laminar forced convection from an elliptical cylinder in Bingham plastic fluids. Numerical Heat Transfer; Part A: Applications, 2016, 70, 917-937.	1.2	8
80	Shear-Thinning Effects in Creeping Flow about a Sphere. , 1980, , 9-16.		8
81	Pressure drop for the slow flow of dilatant fluids through a fixed bed of spherical particles. Canadian Journal of Chemical Engineering, 1994, 72, 352-353.	0.9	7
82	Hydrodynamic behaviour of an ensemble of encapsulated liquid drops in creeping motion: a fluid-mechanic based model for liquid membranes. Fluid Dynamics Research, 2003, 32, 201-215.	0.6	7
83	Effect of Orientation on Mixed Convection from a Heated Square Bar in Newtonian and Power-Law Fluids. Numerical Heat Transfer; Part A: Applications, 2014, 65, 435-460.	1.2	7
84	Settling of cylinders in power law liquids. Canadian Journal of Chemical Engineering, 1992, 70, 385-386.	0.9	6
85	Effect of Nonâ€Newtonian Characteristics on Convective Liquidâ€Solid Heat Transfer in Packed and Fluidised Beds of Spherical Particles. Canadian Journal of Chemical Engineering, 2004, 82, 1071-1075.	0.9	6
86	Laminar flow of power law fluids in concentric annuli. AICHE Journal, 1996, 42, 2080-2083.	1.8	4
87	Power law and composite power law friction factor correlations for laminar and turbulent non-Newtonian open channel flow. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2015, 37, 601-612.	0.8	4
88	Laminar Free Convection in Bingham Plastic Fluids from an Isothermal Semicircular Cylinder. Journal of Thermophysics and Heat Transfer, 2016, 30, 369-378.	0.9	4
89	Momentum and heat transfer characteristics of a thin circular disk in Bingham plastic fluids. Numerical Heat Transfer; Part A: Applications, 2017, 72, 844-868.	1.2	4
90	A Fluid-Mechanic-Based Model for the Sedimentation of Flocculated Suspensions. Separation Science and Technology, 1991, 26, 223-241.	1.3	3

#	ARTICLE	IF	CITATIONS
91	Effect of Power-Law Fluid Behavior on Nusselt Number of a Circular Disk in the Forced Convection Regime. Journal of Heat Transfer, 2019, 141, .	1.2	3
92	Forced Convective Flow of Bingham Plastic Fluids in a Branching Channel With the Effect of T-Channel Branching Angle. Journal of Fluids Engineering, Transactions of the ASME, 2021, 143, .	0.8	3
93	Flow of Power-Law Fluids Past a Rotating Cylinder at High Reynolds Numbers. Journal of Fluids Engineering, Transactions of the ASME, 2021, 143, .	0.8	3
94	Terminal Velocity Formula For Objects In A Viscous Fluid. Journal of Hydraulic Research/De Recherches Hydrauliques, 1986, 24, 216-220.	0.7	2
95	Effect of pressure on self-diffusion in liquids. International Journal of Thermophysics, 1991, 12, 153-161.	1.0	2
96	Coarse Particles in Homogeneous Non-Newtonian Slurries: Combined Effects of Shear-Thinning Viscosity and Fluid Yield Stress on Drag and Heat Transfer from Hemispherical Particles. Transactions of the Indian Institute of Metals, 2017, 70, 341-358.	0.7	2
97	Effect of Sinusoidally Varying Flow of Yield Stress Fluid on Heat Transfer From a Cylinder. Journal of Heat Transfer, 2021, 143, .	1.2	2
98	Temperature Dependence of the Surface Tension of Alkali Metals: A Unified Correlation. Physics and Chemistry of Liquids, 1991, 23, 175-180.	0.4	1
99	Forced Convection from an Inclined Elliptical Cylinder with Constant Heat Flux: Effect of Prandtl Number. Lecture Notes in Mechanical Engineering, 2017, , 385-394.	0.3	1
100	Comment on â€œdrag on individual cubic assemblies of spheres in non-newtonian tube flowâ€, Girish Subramanian and Carlos A. Zuritz, Can. J. Chem. Eng. 72, 201-206 (1994). Canadian Journal of Chemical Engineering, 1995, 73, 160-160.	0.9	0
101	Mass transfer from highly soluble cylinders in cross flow: Some experimental results. Canadian Journal of Chemical Engineering, 1995, 73, 263-266.	0.9	0
102	Drag and Mass Transfer of Bubble Swarms in Power-Law Liquids at Moderate Reynolds and Peclet Numbers. , 2007, , 487.		0
103	Flow of Newtonian and power law liquids in tube bundles. Canadian Journal of Chemical Engineering, 2009, 87, 646-648.	0.9	0
104	Steady flow of power-law fluids past a sphere in a tapered tube. AIP Conference Proceedings, 2019, , .	0.3	0