

R. P. Chhabra

Complete list of Publications

Books

1. R. P. Chhabra and D. De Kee, (Eds.) *Transport Processes in Bubbles, Drops and Particles*, Hemisphere, New York (1991) (ISBN: 0 89116 999 7).
2. R. P. Chhabra, *Bubbles, Drops, and Particles in Non-Newtonian Fluids*, CRC Press, Boca Raton, FL (1993) (ISBN: 0 8493 6718 2). Reprinted, 1994. **Second edition, 2006**. CRC Press, Boca Raton, FL (ISBN: 0 8247 2329 5) pp 800.
3. P. J. Carreau, D. De Kee and R. P. Chhabra, *Rheology of Polymeric Systems: Principles and Applications*, Hanser, Munich (1997) (ISBN: 1 56990 218 6).
4. D. Siginer, D. De Kee and R. P. Chhabra (Eds.), *Advances in the Flow and Rheology of Non-Newtonian Fluids*, Parts A & B, Elsevier, Amsterdam (1999) (ISBN : 0 44482 679 3).
5. R. P. Chhabra and J.F.Richardson, *Non-Newtonian Flow in the Process Industries: Fundamentals and Engineering Applications*, Butterworth-Heinemann, Oxford (1999) (ISBN: 0 7506 3770 6).
6. D. De Kee and R. P. Chhabra (Eds.) *Transport Processes in Bubbles, Drops and Particles*, Volume 2, Taylor & Francis, New York, (2002) (ISBN: 1 56032 9068).
7. R. P. Chhabra and J. F. Richardson, *Non-Newtonian Flow and Applied Rheology*, IInd edition, Butterworth-Heinemann, Oxford, U. K. (2008) (ISBN: 978-0-7508-8532-0) pp.536.

Other Book Authoring Activities

1. SI adaptation of the book: W S Janna: *Design of Fluid Thermal Systems*, IIIrd edition, CENGAGE, Stamford, CT (2010).

Chapters in Books

1. R. P. Chhabra, Steady non-Newtonian flow about a rigid sphere, *Encyclopedia of Fluid Mechanics*, Vol.1: Edited by N.P. Cheremisinoff, Gulf, Houston (USA) pp.983-1023 (1986).
2. R.P. Chhabra and J.F. Richardson, Co-current horizontal and vertical upwards flow of gas and non-Newtonian Liquid, *Encyclopedia of Fluid Mechanics*, Vol.III Edited by N.P. Cheremisinoff, Gulf, Houston (USA) pp.563-609 (1986).
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4. R.P. Chhabra and P.H.T. Uhlherr, Static equilibrium and motion of spheres in viscoplastic liquids, *Encyclopedia of Fluid Mechanics*, Vol.VII: Edited by N.P. Cheremisinoff, Gulf, Houston (USA) pp.611-633 (1988).
5. R.P. Chhabra, Hydraulic transport of solids in horizontal pipes, *Civil Engineering Practice*, Vol.II Edited by P.N. Cheremisinoff, N.P. Cheremisinoff and S.L. Cheng., Technomic, Lancaster, PA (USA), pp. 251-295 (1988).
6. R.P. Chhabra, Diffusion in liquid metal systems: A predictive approach, *Handbook of Ceramics and Composites*, Vol.I: Edited by N.P. Cheremisinoff, Marcel Dekker, New York (USA) 601-627 (1990).
7. R.P. Chhabra, Transport properties of liquid metals, *CRC Handbook of Chemistry and Physics*, E-12; F51-53, 70th Edition CRC, Boca Raton, FL (1989/90) and subsequent editions.
8. R.P. Chhabra, Liquid Mixing Chemical Engineering, Vol.1: J.M. Coulson and J.F. Richardson, 225-260, IVth edition, Pergamon, Oxford (1990) and subsequent editions.
9. R.P. Chhabra, Viscosity of Liquid Metals, *CRC Handbook of Chemistry and Physics*, E-12, F51-55, 71st edition CRC, Boca Raton, FL (1990/91) and subsequent editions.
10. R.P. Chhabra and D. DeKee, Fluid particles in rheologically complex media, *Transport Processes in Bubbles, Drops and Particles*, Hemisphere, New York, (1991) Chapter 2.
11. R.P. Chhabra, Fluid flow, heat and mass transfer in non-Newtonian fluids: Multiphase systems, *Advances in Heat Transfer*, 23, 187-278 (1993).
12. R.P. Chhabra, Transport processes in particulate systems with non-Newtonian fluids, *Advances in Transport Processes*, 9, 501-577, Elsevier, Amsterdam (1993).
13. U.K. Ghosh, S.N. Upadhyay and R.P. Chhabra, Heat and mass transfer from immersed bodies to non-Newtonian Fluids, *Advances in Heat Transfer*, 25, 251-319 (1994).
14. R.P. Chhabra, Hydrodynamics of non-spherical particles in non-Newtonian fluids, *Handbook of Applied Polymer Processing Technology*, edited by N.P. Cheremisinoff and

- P.N. Cheremisinoff, Chapter 1, Marcel Dekker, New York (1996).
15. R.P. Chhabra, U.K. Ghosh, Y. Kawase and S.N. Upadhyay, Non-Newtonian effects in bubble column reactors, *Multiphase reactor and Polymerisation System Hydrodynamics*, edited by N.P. Cheremisinoff, pp.539-570, Gulf, Houston, (1996).
 16. D. DeKee, R.P. Chhabra and D. Rodrigue, Hydrodynamics of free rise of bubbles in non-Newtonian polymer solutions, *Handbook of Applied Polymer Processing Technology*, edited by N.P. Cheremisinoff and P.N. Cheremisinoff, Chapter 3, Marcel Dekker, New York (1996).
 17. R.P. Chhabra, Terminal velocity of particles, *Encyclopedia of Chemical Processing & Design*, edited by J.J. McKetta, Vol.57, pp.135-143, Marcel-Dekker, New York (1996).
 18. R.P. Chhabra, Heat and mass transfer in rheologically complex systems, *Advances in the Flow and Rheology of Non-Newtonian Fluids*, edited by D.A. Siginer, D. DeKee and R.P. Chhabra, Chapter 39, Elsevier, Amsterdam (1999).
 19. R.P. Chhabra, Wall effects on spheres falling axially in cylindrical tubes, *Transport Processes in Bubbles, Drops and Particles*, 2nd edition, Eds. D. DeKee and R.P. Chhabra, Taylor & Francis, New York, Chapter 13 (2002).
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 21. R. P. Chhabra , Non-Newtonian Fluids: An Introduction, *Rheology of Complex Fluids*, Eds. A. P. Deshpande, J. Murali Krishnan and P. B. Sunil Kumar & Springer, Munich, Chapter 1 (2010).
 22. R. P. Chhabra, Fluid flow and heat transfer from circular and non-circular cylinders submerged in non-Newtonian liquids, *Advances in Heat Transfer*, 43, 289-417 (2011).

In Referred Journals

1. R.Pandya, R.P. Chhabra, P.H.T. Uhlherr and O.E. Potter, Application of Hildebrand's fluidity model to non-Newtonian solutions, *Rheol. Acta*, 17, 519-524 (1978).
2. R.P. Chhabra and P.H.T. Uhlherr, Estimation of zero shear viscosity of polymer solutions from falling sphere data, *Rheol. Acta*, 18, 593-599 (1979).

3. R.P. Chhabra, P.H.T. Uhlherr and D.V. Boger, The influence of fluid elasticity on the drag coefficient for creeping flow around a sphere, *J.Non-Newt.Fluid Mech.*, 6, 187-199 (1979/1980).
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11. R.P. Chhabra, C. Tiu and P.H.T. Uhlherr, Creeping motion of spheres through Ellis model fluids, *Rheol.Acta.*, 20, 346-351 (1981).
12. R.P. Chhabra, C. Tiu and P.H.T. Uhlherr, A Study of wall effects on the motion of a sphere in viscoelastic fluids, *Can.J.Chem.Eng.*, 59, 771-775 (1981).
13. R.P. Chhabra and J.F. Richardson, Comments on - A new concept for the calculation of pressure drop with hydraulic transport of solids in horizontal pipes, *Chem.Eng.Sci.*, 37, 1575-1578 (1982).
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Outside Seminars

- Indian Institute of Technology, Delhi (1985)
- Thapar Corporate R&D Centre, Patiala (1986)
- Monash University, Melbourne (1986, 1987, 1993, 1994, 2006)
- University of Melbourne, Melbourne (1986)
- Royal Melbourne Institute of Technology, Melbourne (1986, 2006)
- State University of New York at Buffalo, Buffalo (1987)
- University of Toronto, Toronto (1987, 1992)
- Ottawa University, Ottawa (1987, 1992)
- Ecole Polytechnique of Montreal, Montreal (1987, 1990, 1992, 2001, 2007)
- University of Windsor, Windsor (1987, 1988)
- Banaras Hindu University, Varanasi (1990, 2008)
- University of Waterloo, Waterloo (1990, 1992, 2008)
- Clarkson University, Potsdam (1991, 1992, 1995, 2001, 2007)
- University of West Virginia, Morgantown (1992, 2007)
- University of Massachusetts, Amherst (1992)
- Michigan State University, East Lansing (1992)
- University of Laval, Quebec (1992)
- McMaster University, Hamilton (1992)
- Drexel University, Philadelphia (1992)
- Indian Institute of Technology, Bombay (1993, 2002)
- University of New South Wales, Sydney (1993, 1999)
- University of Adelaide, Adelaide (1996, 1997)
- The University of New Castle, Callaghan (1996, 1997)
- University of Francois Rabelais, Tours (1998)
- Universite de Nantes, Nantes (1998, 2000, 2002, 2003, 2005, 2007, 2009)
- EFPG, INPG, Grenoble (1998, 2000, 2002, 2003, 2005, 2007)
- University College London, London (1998)
- University of Wales, Swansea (1998)
- University of Porto, Porto (1998)
- Cape Technikon, Capetown (1999, 2000, 2001, 2004)
- University of Cape Town, Cape Town (1999).
- University of Natal, Durban (1999)
- University of Stellenbosch, Stellenbosch (1999)
- University of Sydney, Sydney (1999)
- University of Lund, Lund (2000)
- The University of Western Ontario, London, (2002, 2007, 2008).
- Sherritt International, Edmonton, Alberta (2002)
- LMSGC, Champs sur Marne, Paris (2002).
- University of Surrey, Guildford (2002)
- Indian Institute of Technology, Roorkee (2002)
- Indian Institute of Science, Bangalore (2002)
- John F. Welch Technology Centre, Bangalore (2002)
- ENSIC-CNRS, Nancy (2003, 2007)

- Polytechnique, University of Marseille, Marseille (2003)
- National Chemical Laboratory, Pune (2004)
- Tata Research, Design and Development Center, Pune (2004)
- Tokyo Institute of Technology, Tokyo (2004).
- Osaka University, Osaka (2004)
- The University of Hyogo, Himeji (2004)
- Kobe University, Kobe (2004).
- Institute for Chemical Research, Kyoto University, Kyoto (2004).
- Laboratory for Food Process Engineering (INRA), Villeneuve d'Ascq, Lille (2005).
- Technical University of Delft, Delft (2005).
- Technical University of Eindhoven, Eindhoven(2005).
- Cape Peninsula University of Technology, Cape Town(2006).
- Sultan Qaboos University, Muscat (2006).
- Exxon-Mobil Research & Engineering Company, Annandale, NJ (2007).
- Purdue University, West Lafayette, IN(2007).
- University of Liverpool, Liverpool (2007).
- University of Sheffield, Sheffield (2007).
- Institut Français du Pétrole, Rueil Malmaison (2007).
- Technical University of Graz, Graz(2007).
- LSTM, University of Erlangen-Nuremberg (2007).
- University of South Paris, Paris (2007).
- University of Southampton, Southampton (2008).
- Apex Institute of Technology, Kaushal Puri (U.P.) (2009)

- University of Saskatchewan, Saskatoon (2010).
- University of British Columbia, Vancouver (2010).
- Laboratoire Inter-disciplinary Physics, Université Joseph Fourier, Grenoble (2011).
- ENSAM, Angers, France (2011).
- University of Miskolc, Miskolc, Hungary (2011).
- CEMAGREF, Clermont Ferrand, France (2011).
- Indian Institute of Technology Roorkee, Roorkee (2012).
- Rajiv Gandhi Institute of Petroleum Technology, Raibareilly (2012).
- Central Mechanical Engineering Research Institute, Durgapur (2013).
- Indian Institute of Technology, Hyderabad (2013).
- Technical University of Lodz, Lodz, Poland (2013).