

CURRICULUM VITAE (Condensed)

2017

Jean-Pierre E. GROLIER

Institute of Chemistry of Clermont-Ferrand (ICCF), Blaise Pascal University
24 avenue Blaise Pascal
63178 AUBIERE Cedex
Tel: + 33 (0) 4 73 40 71 86 and + 33 (0) 6 09 42 08 75
E-mail: j-pierre.grolier@univ-bpclermont.fr



Education

1961: MS in General Chemistry, Licence-ès-Sciences, University of Clermont-Ferrand,
1970: PhD Thesis in Physical Chemistry, Docteur-ès-Sciences, University of Clermont-Ferrand,

Scientific Profile

Professor of Physical Chemistry
Specialist in Chemical Thermodynamics, Calorimetric and Thermal Methods

Fields of Interest

Physical chemistry of solutions. Experimental and theoretical thermodynamic study of solutions: non electrolyte mixtures, electrolyte solutions, microemulsions and micellar solutions. Thermophysical study of petroleum fluids (crude oil) at in-well conditions. Thermophysical study of polymers under extreme conditions of temperature and pressure. Development (synthesis) including high pressure and supercritical polymerization, modification and characterization of polymers. New experimental techniques in calorimetry and thermal analysis, pVT calorimetry. High temperature/high pressure techniques. Combined experimental techniques: calorimetry, spectroscopy, densitometry, solubility. Scanning techniques with modulation of temperature or pressure. Thermodynamics in confined media. Thermomechanics at the interface of heterogeneous nanoporous lyophobic systems.

Current Research Activities

Investigation of nanothermomechanical aspects in repulsive clathrates. Investigation at high temperatures and pressures of heterogeneous systems of the type {a mesoporous lyophobic matrix + a non wetting fluid} to produce/store/restore mechanical/thermal energy. All results of this activity are published in open literature.

Thermophysical investigations of different types of crude oils including heavy ones (asphaltenic) or light ones (light hydrocarbon gas mixtures compressed) in relation with their extraction and flow assurance. High temperature and high pressure thermodynamical evaluations of complex fluids in porous media (including vacuum residues). This activity is mostly organized within confidential contracts and afferent results cannot be communicated or published so far. The industrial partners are essentially the petroleum companies (the majors) operating in the Gulf of Mexico

Carreer

1962-1971: Assistant, University of Clermont-Ferrand, France
1972-73 and 1977: Post-Doctorate Fellow and Visiting Scientist, National Research Council of Canada, Thermochemistry Laboratory (with Dr. G.C; Benson) Ottawa, Canada
1973: Visiting Scientist, University of Sherbrooke (with Dr. P. Picker), Quebec, Canada
1974-77: Research Associate, CNRS Microcalorimetry Center, Marseille, France
1971-1983: Assistant-Professor, University of Clermont-Ferrand, France
1981: Visiting Scientist, University of Lethbridge (with Prof. L.G. Hepler), Alberta, Canada
1979-1980 and 1983: Fulbright Visiting Professor and NATO Fellow (with Prof. R.H. Wood), University of Delaware (Newark), Delaware, USA
1985: Visiting Scientist, University of Edmonton (with Prof. L.G. Hepler), Alberta, Canada
1983-2007: Full Professor, Department of Chemistry Blaise Pascal University, Clermont-Ferrand, France
2007- : Emeritus Professor, Department of Chemistry Blaise Pascal University, Clermont-Ferrand, France

Teaching Activities

-*Blaise Pascal University, Clermont-Ferrand (since 2003)*
Physical Chemistry for Chemical Engineers. Thermodynamics of pure substances and mixtures for License (2nd Year) of Chemistry & of Physical Chemistry cursus. Thermal Methods and Characterization of Materials for Master (3rd Year) of Chemistry. Thermodynamics of Polymers: for Master (4th Year), e.g. Doctorate in Chemistry (1st Year).
-*University of Aberdeen, U.K. (2006 & 2007)*. Thermal Methods of Analysis for Master (last Year) within European Erasmus Program
-*University of Valladolid, Superior Technical School of Industrial Engineers, Valladolid, Spain (2009, 2010 & 2011)* Thermodynamics of Solutions and Polymers for Master & Doctorate courses

Direction of Theses and Masters: 75

Visitors from abroad (PhD, Post-Doc, Collaborations): 77

Publications

Scientific papers in refereed Journals: over **270**
Books/ Chapters: **2/ 13**
Patents : **5**

Conferences/Communications

Conferences and communications: over **500**
Including **47** Plenary Lectures **78** Invited Lectures

Co-inventor, with S.L. Randzio, of Scanning Transitiometry (see web site: www.transitiometry.com); four patents on Scanning transitiometry and Supercritical scanning transitiometry. Also creator of the Society BGR TRCH, a French-Polish joint venture based in Warsaw which produces scanning transitiometers¹

Professional Societies

1989-1991 and 2000-Present: Member, Board of Directors, American Calorimetry Conference (www.calorimetry-conference.org)
1985-2001: Member, IUPAC Commission I.2 on Thermodynamics
2002-2008: President, IUPAC International Association of Chemical Thermodynamics (IACT) (www.iact-org.org)
2008-2010: Past President, IUPAC International Association of Chemical Thermodynamics (IACT)
1999-Present : Vice President , Eurostar Science, European Society for Applied Physical Chemistry (www.eurostar-science.org)

Awards and Honours

In Sciences

(Actually the only one scientist having received the entire list of following awards)

- Calvet Prize from French Association for Calorimetry and Thermal Analysis, 1985
- Polish Association for Calorimetry and Thermal Analysis, Member of Honour, 1991
- Swietoslowski Medal from Polish Association for Calorimetry and Thermal Analysis, 1994
- Kurnakov Medal from Kurnakov Institute of General and Inorganic Chemistry, 1994
- H. Huffman Memorial Award from American Calorimetry Conference, 1997
- Applied Chemical Thermodynamics Prize from Swiss Association for Calorimetry and Thermal Analysis, 1998
- F.D. Rossini Award for Excellence in Thermodynamics, from International Union of Pure and Applied Chemistry, 2004
- AICAT-SETARAM Award, from Italian Association of Calorimetry and Thermal Analysis, 2008

Other Honours

1994: Medal of the City of Clermont-Ferrand

1995: Order of Merit Commander Cross from the Republic of Poland

2008: Officer, Academic Palms, France

References for the (03. 10. 2017) Seminar

. Determination of the asphaltene precipitation envelope and bubble-point pressure for a Mexican crude oil by scanning transmittometry. M. A. Aquino-Olivos, J-P. E. Grolier, S.L. Randzio, A.J. Aguirre-Gutierrez, F. Garcia-Sanchez; *Energy & Fuels* 27 (2013) 1212-1222.

. Thermophysical properties of Normafluid (ISO 4113) over wide pressure and temperature ranges. M. Chorazewski, F. Degal, T. Sawsaya, I. Mokbel, J-P. E. Grolier, J. Jose, *Fuel*, 2013, 105, 440-450.

. NADIA_bio: New Advanced Diagnosis for Diesel Injection Analysis and Bio-fuels. A Federative Project around Hydraulics of CR (Common Rail) systems. J-B. Blaisot, J-l. Daridon, C. Garsi, P. Gastaldi, J-P. E. Grolier, S. Honnet, B. Loyer, P. Manuelli, L. Méès, I. Mokbel B. Réveillé, R. Saliba, M. Zellat. *Diesel Powertrain International Conference SIA Rouen (France)*, 06/05-06/2012