

## PUBLICATIONS DANS DES REVUES INTERNATIONALES A COMITE DE LECTURE

- [P27]** Dardour, H., Mazouz, S., Reneaume, J.-M., Cézac P., Bourouis, M., Bellagi, A., 2015, Document Feasibility limits and performance of an absorption cooling machine using light alkane mixtures, *Applied Thermal Engineering* 78, pp. 24-29
- [P26]** Lach, A., André, L., Lassin, A., Serin, J.-P., Cézac, P., 2015, A New Pitzer Parameterization for the Binary NaOH-H<sub>2</sub>O and Ternary NaOH-NaCl-H<sub>2</sub>O and NaOH-LiOH-H<sub>2</sub>O Systems up to NaOH Solid Salt Saturation, from 273.15 to 523.15 K and at Saturated Vapor Pressure, *Journal of Solution Chemistry* 44 (7), pp. 1424-1451
- [P25]** Girard, C., Couture, F., Reneaume, J.-M., Cézac, P., 2015, Modélisation par homogénéisation d'une colonne d'absorption réactive, *Canadian Journal of Chemical Engineering* 93 (2), pp. 363-377
- [P24]** Corvisier J., El Ahmarb E., Coquelet C., Sterpenich J., Privat R., Jaubert J-N., Ballerat-Busserolles K., Coxam J.-Y., Cézac P., Contamine F., Serin J.P., La chet V., Creton B., Parmentier M., Blanc P., André L., De Laryh L., Gaucher E., 2014, Simulations of the Impact of Co-injected Gases on CO<sub>2</sub> Storage, the SIGARR Project: First Results on Water-gas Interactions Modeling, *Energy Procedia*, 63, 3160-3171
- [P23]** Dumas J.P., Gibout S., Cézac P., Franquet E., Haillot D., 2013, Model for the DSC thermograms of the melting of ideal binary solutions, *Thermochimica Acta*, 571, pp 64-76
- [P22]** Dardour H., Cézac P., Reneaume J.M., Bourouis M., Bellagi A., 2013, Numerical Investigation of an Absorption-Diffusion Cooling Machine Using C3H8/C9H20 as Binary Working Fluid, *Oil & Gas Science and Technology*, vol. 68, 2, 249-254
- [P21]** Dardour H., Mazouz S., Cézac P., Reneaume J.M., Bellagi A., 2012, Investigation of heat transfer process in plate heat exchanger in two fluid flow configurations, *Journal of Thermophysics and Heat Transfer*, vol. 26, 3, pp 476
- [P20]** Cloarec E., Serin JP, Cézac P., Contamine F., Mercadier J., Louvat A., Casola Lopez A., Van Canegham P., Forster R., Kim U., 2012, Experimental studies of solubility of elemental sulphur in Methane at 363.15 K for pressure ranging from 4 to 25 MPa, *Journal of Chemical & Engineering Data*, 57, 4, pp 1222-125
- [P19]** Coussine C., Serin J.P., Cézac P., Contamine F., Reneaume J-M., Dubourg K., Knorst A., Cambar J., 2012, A general dynamic model for multiphase electrolytic systems, *AIChE Journal*, 58 (12), pp 3832-3840
- [P18]** Lucile F., Cézac P., Contamine F., Serin J.P., Houssin-Agbomson D., Arpentinier P., 2012, Solubility of Carbon Dioxide in Water and Aqueous Solution Containing Sodium Hydroxide at Temperatures from 293.15 to 393.15 K and Pressure up to 5 MPa: Experimental Measurement, *Journal of Chemical & Engineering Data*, 57, 3, pp 784-789
- [P17]** Marias F., Letellier S., Cézac P. and Serin J.P., 2011, Energetic analysis of aqueous biomass in Supercritical Water, *Biomass and Bioenergy*, 35 (1), pp. 59-73
- [P16]** Serin J.P., Jay S., Cézac P., Contamine F., Mercadier J., Arrabie C., Legros-Adrian J.M., 2010, Experimental Studies of solubility of elemental sulphur in supercritical carbon dioxide, *The Journal of Supercritical Fluids* , 53 (1-3), pp. 12-16
- [P15]** Letellier S., Marias F., Cézac P., Serin J.P., 2010, Gasification of aqueous biomass in supercritical water: a thermodynamic equilibrium analysis, *The Journal of Supercritical Fluids*, 51, 3, 353-361

- [P14]** Jay S., Cézac P., Serin J.P., Contamine F., Martin C., Mercadier J., 2009, Solubility of elemental sulfur in toluene between (267.15 and 313.15) K under atmospheric pressure, Journal of Chemical & Engineering Data, 54, 12, 3238-3241
- [P13]** Kriaa K., Serin J.P., Contamine F., Cézac P., Mercadier J., 2009, 2-Butyne-1,4-diol hydrogenation in supercritical CO<sub>2</sub>: effect of hydrogen concentration, The journal of supercritical Fluids, 49, 2, 227-232
- [P12]** Cézac P., Castaing Lasvignottes J., Reneaume J.M. and Maunaury A., 2009, Description of ice slurry composition and enthalpy calculation from gE models: application to Water-Ethanol Systems, Chemical Engineering Communication, 196, 6, 715-728
- [P11]** Dardour H., Mazouz S., Cézac P., Reneaume J. M., Bellagi A., 2008, Numerical Analysis of Ammonia Absorption in a Falling Film, International Review of Mechanical Engineering, 2, 2, 194-199
- [P10]** Serin J.P. and Cézac P., 2008, Three thermodynamics paths to describe solid fugacity: Application to sulphur precipitation from supercritical natural gas, The Journal of Supercritical Fluids, 46, 1, 21-26.
- [P9]** Cézac P., Serin J.P., Reneaume J.M., Mercadier J. and Mouton G., 2008, Elemental Sulphur deposition in natural gas transmission and distribution networks, The Journal of Supercritical Fluids, 4, 2, 155-122.
- [P8]** Cézac P., Serin J.P., Mercadier J. and Mouton G., 2007, Modelling solubility of solid sulphur in natural gas, Chemical Eng. Journal, 133, 283-291.
- [P7]** F. Marias, S. Vielcazals, P. Cézac, J. Mercadier and F. Cansell, 2007, Theoretical study of the expansion of supercritical water in a capillary device at the output of a hydrothermal oxidation process, The Journal of Supercritical Fluids, 40, 2, 208-217
- [P6]** Cézac P., Manzola A., Ben Amor M., 2006, Modelling of a decarbonation reactor for geothermal waters: application to geothermal waters of Chott El Fejje, Desalination, 189, 278-286.
- [P5]** Cézac P., 2005, A general and applied thermodynamic model for the characterisation of saline systems, Desalination 175(3), 269-278.
- [P4]** Vaxelaire J., Cézac P., 2004, Moisture distribution in activated sludges: a review, Water Research 38(9), 2214-2249.
- [P3]** Battaglia F., D'Hugues P., Cézac P., Cabral T., Garcia J.L., et Morin D., 1998, The mutual effect of mixed thiobacilli and leptospirilli populations on pyrite bioleaching, Minerals Engineering, 11, 2, 195-205
- [P2]** D' Hugues P., Cézac P., Cabral T., Battaglia F., Truong-Meyer X.M. et Morin D., 1997, Bioleaching of a cobaltiferous pyrite : a continuous laboratory scale study at hight solid concentration, Minerals Engineering, 10 ,5, 507-527
- [P1]** Khalidi A., Lafage B., Taxil P., Gave G., Clifton M.J. et Cézac P., 1996, Electrolyte and water transfer through the porous electrodes of an immobilised-alkali hydrogen-oxygen fuel cell, Int. J. Hydrogen Energy, 21, 1,25-31.

- **COMMUNICATIONS A DES CONGRES INTERNATIONAUX AVEC ACTES ET COMITE DE LECTURE**

- [CIR41]** A. Lach, L. André, A. Lassin, M. Azaroual, P. Cézac, J.P. Serin, Estimation of Pitzer interaction parameters from heat capacity and osmotic coefficient for the NaOH-H<sub>2</sub>O system at temperatures from 0 to 150°C and concentrations up to NaOH(s) saturation, 15-18 septembre, 2015, Thermodynamics, Copenhague, Denmark
- [CIR40]** A. Lach, L. André, A. Lassin, M. Azaroual, P. Cézac, J.P. Serin, Estimation of Pitzer interaction parameters from heat capacity, osmotic coefficient and density data:

Application to the BaCl<sub>2</sub>-H<sub>2</sub>O system (0 < T < 90°C and 0 < m BaCl<sub>2</sub> < 2 mol.kgw<sup>-1}), ABC-Salt IV Workshop 2015, 14-15 April 2015, Heidelberg, Germany</sup>

- [CIR39]** A. Lach, L. André, A. Lassin, M. Azaroual, P. Cézac, J.P. Serin, A new Pitzer parameterization for the Na-OH-Cl-NaOH<sup>0</sup>(aq)-H<sub>2</sub>O system up to high concentrations (30 M), from 0 to 250°C at water saturation pressure, 21<sup>th</sup> International Congress of Chemical and Process Engineering, 23-27 August, 2014, Prague Czech Republic
- [CIR38]** A. Lach, L. André, A. Lassin, M. Azaroual, P. Cézac, J.P. Serin, Study of the binary NaOH-H<sub>2</sub>O system and its extension to two ternary highly concentrated systems (NaOH-NaCl-H<sub>2</sub>O and NaOH-LiOH-H<sub>2</sub>O) up to high temperature, 27-31 octobre 2014, 24<sup>th</sup> Earth Sciences Meeting, Pau
- [CIR37]** A. Lach, L. André, A. Lassin, M. Azaroual, P. Cézac, J.P. Serin, Thermodynamic characterization of electrolytic solutions using the Pitzer model: calculations of dilution enthalpy and heat capacity, 27-31 octobre 2014, 24<sup>th</sup> Earth Sciences Meeting, Pau
- [CIR36]** Broseta D, Nouailletas O, Perlot C, La Borderie C, Langlais C, Contamine F, Cézac P, A summary of the research conducted at UPPA in relation to the Rousset CO<sub>2</sub> storage project, Sustainable Earth Sciences : technologies for sustainable use of the deep sub-surface, 30 september - 4 october 2013, Pau.
- [CIR35]** Cézac P., Contamine F., Bassil G., Serin J.P., Lucile F., Baudoin O., Houssin D. and Arpentinier P., Measurement of carbon dioxide solubility in aqueous solution of sodium hydroxide from 293 to 333 K up to 5 MPa, XXXIX JEEP – 39th Edition of the Joint European Days on Equilibrium Between Phases, 2013, march 19-21, Nancy, France
- [CIR34]** Coussine C., Lucile L., Cézac P., Contamine F., Serin J.P., Reneaume J.M., A comparison of activity coefficient models integrated in a general dynamic model for multiphase electrolytic systems, 20<sup>th</sup> International Congress of Chemical and Process Engineering, 25-29 August, 2012, Prague Czech Republic
- [CIR33]** Lucile F, Cézac P., Contamine F., Houssin-Agbomson D., Arpentinier P., Baudouin O., Vapour-liquid equilibria on the carbon dioxide-aqueous solutions systems from 293 to 393 K: experiments and modeling, 25th European Symposium on Applied Thermodynamics, Saint Petersburg, Russia, June 24-27, 2011
- [CIR32]** Coussine C., Cézac P., Serin J.-P., Contamine F., Reneaume J.-M., Dubourg K., Cambar J., Thermodynamic modelling of thermal salt production process, 25th European Symposium on Applied Thermodynamics, Saint Petersburg, Russia, June 24-27, 2011
- [CIR31]** Cloarec E. , Serin J.-P. , Contamine F. , Cézac P. , Mercadier J. , Arrabie C. , Louvat A. , de Renty M. Experimental studies of solubility of elemental sulphur in Methane European Gas Technology Conference (EGATEC), 2011, May 11-13, Copenhagen, Denmark
- [CIR30]** Coussine C., Cézac P., Serin J.-P., Contamine F., Reneaume J.-M., Dubourg K., Cambar J. "Thermodynamic modelling of salt spring water", 19<sup>th</sup> International Congress of Chemical and Process Engineering, 28 August-1 September, 2010, Prague Czech Republic
- [CIR29]** Cloarec E. , Serin J.-P. , Contamine F. , Cézac P. , Mercadier J. , Arrabie C. , Legros-Adrian J.-M. , Martin C. , Louvat A. , de Renty M. , Experimental studies of solubility of elemental sulphur in supercritical nitrogen, 19<sup>th</sup> International Congress of Chemical and Process Engineering, 28 August-1 September, 2010, Prague Czech Republic
- [CIR28]** Lucile F., Cézac P., Contamine F., Houssin D., Arpentinier P., Serin J.P., Claeys C., Solubility of carbon dioxide in aqueous solutions containing sodium hydroxide at pressure up to 4 MPa and temperature from 283 to 373 K: Experimental measurement, 19<sup>th</sup> International Congress of Chemical and Process Engineering, 28 August-1 September, 2010, Prague Czech Republic

- [CIR27]** Baudoïn O., Cézac P., Serin J.P., Seawater Modelling with Simulis Thermodynamics, 24 th European Symposium on Applied Thermodynamics, June 27-July 1, 2009, Santiago de Compostela, Espagne
- [CIR26]** Jay S., Cézac P., Serin J.P., Contamine F., Mercadier J., Arrabie C., Legros Adrian J.M., Solubility of elemental sulphur in SC carbon dioxide, 9eme congrès mondial de fluides supercritiques, may 18-20, 2009, Bordeaux
- [CIR25]** Kriaa K., Serin J.P., Contamine F., Cézac P., Mercadier J., Green Hydrogenation of a alkine, 9eme congrès mondial de fluides supercritiques, may 18-20, 2009, Bordeaux
- [CIR24]** Serin J.P., Kriaa K., Contamine F., Cézac P., Mercadier J., Green hydrogenation of 2-butyne-1,4-diol, GPE-EPIC 2009, Venise 14-17 juin 2009
- [CIR23]** Cézac P., Reneaume J.M., Castaing-Lasvignottes J., Excess model for enthalpy and freezing points determination of ice slurries: the water / ethanol case, 18th European Conference on Thermophysical Properties Pau, France 31 Aug-4 Sep 2008
- [CIR22]** Raynaud M., Cézac P., Vaxelaire J., DSC Study of water ethanol and water methanol ice slurries, 18th European Conference on Thermophysical Properties Pau, France 31 Aug-4 Sep 2008
- [CIR21]** Serin J.P., Cézac P., Impact of the solid fugacity expression on sulfur deposition in natural gas networks, 23th European Symposium on Applied Thermodynamic, May 28-01 June, Cannes
- [CIR20]** Jay S., Cézac P., Serin J.P., Mercadier J., Experimental Studies Of solubility of Elemental Sulphur in Supercritical Carbon Dioxide, 11<sup>th</sup> European Meeting on Supercritical Fluids, May 4-7 2008, Barcelona
- [CIR19]** Cézac P., Castaing-lasvignottes J., Reneaume J.M., Strub F., Enthalpy and freezing points determination of ice slurries by excess model : application to the water ethanol pair, The 22<sup>nd</sup> IIR International Congress of refrigeration, Beijing, China, August 21-26, 2007
- [CIR18]** Kriaa K., Serin J.P., Contamine F., Cézac P., Mercadier J., Hydrogenation of the 2-Butyn1-4 diol in supercritical carbon dioxide, 11<sup>th</sup> European Meeting on Supercritical Fluids, May 4-7 2008, Barcelona
- [CIR17]** Serin J.P., Cézac P., Reneaume J.M., Mercadier J., Three approaches to describe the fugacity of a solid: Application to Sulphur, the 8<sup>th</sup> International Conference on Petroleum Phase behavior and Fouling, Pau, France, 10-14 juin 2007
- [CIR16]** Jay S., Cézac P., Serin J.P., Mercadier J., Arrabie C., Legros-Adrian J.M., Emeraud T., Experimental Studies of Solubility of Elemental Sulphur in Supercritical Carbon Dioxide, the 8<sup>th</sup> International Conference on Petroleum Phase behavior and Fouling, Pau, France, 10-14 juin 2007
- [CIR15]** Serin J.P., Cézac P., Broto F., Mouton G., Sulphur deposition in natural gas transportation, 7th World Congress of Chemical Engineering, Glasgow, 10-14 juillet 2005
- [CIR14]** Serin J.P., Cézac P., Broto F. and Mouton G., 2005, Modelling of sulphur deposition in natural gas, Computer-Aided Chemical Engineering, Vol. 20, p 699-707 (ISBN : 0-444-51987-4)
- [CIR13]** Dubois X., Contamine F., Mory M., Cézac P., Raynal L., Ferschneider G., Gas-liquid mass transfer into a liquid film trickling over plane or corrugated surface, 7th World Congress of Chemical Engineering, Glasgow,.10-14 juillet 2005
- [CIR12]** Serin J.P., Mercadier J., Marias F., Cézac P., Cansell F., Use of injectors for the design of injectors of supercritical water oxidation, 10th European Meeting on Supercritical Fluids, Colmar, France, Dec. 12-14; 2005
- [CIR11]** Serin J.P., Cézac P., Broto F., Mouton G., Sulfur in natural gas transportation: deposition and solubility, 16<sup>th</sup> international Congress of Chemical and Process Engineering, Prague, 22-26 août 2004

- [CIR10]** Roquet D., Cézac P., Arrabie C., Rigorous modelling of multicomponent mass transfert in reactive absorption, 4th European Congress on Chemical Engineering, Grenade, 21-25 septembre 2003
- [CIR9]** Roquet D., Cézac P., Roques M., Model Intensification of Flue Gas Absorber, 15<sup>th</sup> international Congress of Chemical and Process Engineering, Prague, 22-26 août 2002
- [CIR8]** Dutournier P., Vielcazals S., Cézac P. and Mercadier J., Simulations of a tank reactor for supercritical water oxidation, 8th Meeting on Supercritical Fluids Chemical Reactivity and Material Processing in Supercritical Fluids, BORDEAUX, April 14 through 17, 2002
- [CIR7]** Roquet, D., Cézac P. and Roques M., 2002, Modelling of Multicomponent Reactive Absorption using Continuum Mechanics, Computer-Aided Chemical Engineering, Vol. 10, p 325-330 (ISBN : 0-444-51109-1)
- [CIR6]** Roquet D., Cézac P., Roques M., "Introduction of Continuum Mechanics in Modelling of Flue Gas Absorber, 3<sup>rd</sup> International Symposium on Incineration and Flue Gas Treatment Technologies (IChemE), Bruxelles, 29 juin-2 juillet 2001
- [CIR5]** Dutournier P., Borthaire L., Cézac P. and Mercadier J., Simulations of supercritical water oxidation : effect of carbon dioxide, nitrogen and oxygen concentrations on temperature profiles, Seventh Meeting on Supercritical Fluids Particle design - Material and natural products processing, Antibes/Juan Les Pins, 2000
- [CIR4]** Brochot S., Cézac P., Durance M.V., Guillaneau J.C.G., Morin D. and Villeneuve J., 2000, Simulation of biotreatments in complex mineral processes, Proc. Of 21th International Mineral processing Congress, p 108-119. (ISBN : 0-444-50283-1)
- [CIR3]** D'Hugues P., Cézac P., Battaglia F. and Morin D., 1999, Bioleaching of a cobaltiferous at 20% solids, Process Metallurgy, volume 9, part 1, p 167-176 (ISBN : 9780444501936)
- [CIR2]** Cézac P., Truong Meyer X.M.,Joulia X.,Brochot S.,Morin D., A new modelling approach of bioleaching process, European Congress on Chemical Engineering, Montpellier, 1999
- [CIR1]** Dutournier P., Mercadier J. and Cézac P. , Simulation of a tubular reactor for supercritical water oxidation, European Congress on Chemical Engineering, Montpellier, 1999
- **COMMUNICATIONS A DES CONGRES NATIONAUX AVEC ACTES ET COMITE DE LECTURE SUR TEXTE COMPLET**

- [CNTC10]** Dardour H., Cézac P., Reneaume J.M. and Bellagi A., Etude numérique d'une machine frigorifique à absorption-diffusion utilisant le couple C3H8/C9H20, SFGP 2011, 29 novembre - 1 décembre, Lille, France.
- [CNTC9]** Marias F., Letellier S., Cézac P. and Serin J.P., Analyse énergétique de la gazéification de biomasse en eau supercritique, SFGP 2011, 29 novembre - 1 décembre, Lille, France.
- [CNTC8]** Coussine C., Cézac P., Serin J.-P., Contamine F., Reneaume J.-M., Dubourg K., Cambar J., Modélisation thermodynamique d'un procédé de fabrication d'un sel à finalité cosmétique, SFGP 2011, 29 novembre - 1 décembre, Lille, France.
- [CNTC7]** Jay S., Cézac P., Serin J.P., Mercadier J., Study of elemental sulphur solubility in toluene by Gaseous Chromatography, SFGP 2009, 14-16 octobre 2009, Marseille
- [CNTC6]** Raynaud M., Cézac P., Vaxelaire J., Experimental and modelling study of ethanol and methanol ice slurries, SFGP 2009, 14-16 octobre 2009, Marseille

- [CNTC5]** Cézac P., Serin J.P., Desrumeaux S., Wohlhuter A., Alexandre G., Etudes des mécanismes de formation de dépôts solides dans les postes de détentes , Congrès du gaz, 11-13 Septembre 2007, Paris
- [CNTC4]** Serin J.P., Cézac P., Broto F. and Mouton G., Formation et dépôt de soufre lors du transport du gaz naturel, 10th Congrès de la Société Française de Génie des Procédés, Toulouse, 20-22 Septembre 2005
- [CNTC3]** Dubois X, Contamine F, Mory M., Cézac P., Raynal L., Ferschneider G., Etude du transfert de matière gaz-liquide en écoulement à film ruisselant sur surface plane lisse ou corrugée, 10th Congrès de la Société Française de Génie des Procédés, Toulouse, 20-22 Septembre 2005
- [CNTC2]** Roquet D., Cézac P., Roques M., Apport de la mécanique des milieux continus à la modélisation de l'absorption réactive multiconstituants, Congrès SIMulation OPtimisation, Toulouse 2002
- [CNTC1]** Roquet D., Cézac P., Roques M., Nouvelle approche de la modélisation de l'absorption réactive multiconstituants dans les colonnes à garnissage, 9th Congrès de la Société Française de Génie des Procédés, Toulouse, 20-22 Septembre 2002