5. PUBLICATIONS IN INTERNATIONAL PEER-REVIEWED JOURNALS, AND SEVEN (7) FULL SIZE PUBLICATIONS IN PROCEEDINGS OF INTERNATIONAL CONFERENCES


23. Christomir Christov, Thermodynamics of adsorption in the systems Me(NO₃)₂·H₂O and Me(NO₃)₂ - Me’(NO₃)₂·H₂O (Me, Me’ = Co, Ni, Cu, Zn), Proceedings of 8th International Symposium on Heterogeneous Catalysis, 5-9 October (1996), Varna, Bulgaria, pp. 781-786.


25. Christomir Christov, Thermodynamics of formation of solid solutions of the type (Me, Me’)SeO₄·6H₂O (Me, Me’ = Mg, Co, Ni, Zn) from aqueous solutions, J. Chem. Thermodynamics, 29 (1997) 481-489.


30. Christomir Christov, Study of (m₁KCl + m₂MeCl₂)(aq), and (m₁K₂SO₄ + m₂MeSO₄)(aq) where m denotes molality and Me denotes Cu or Ni, at the temperature 298.15 K, J. Chem. Thermodynamics, 31 (1999) 71-83.


33. T. Ojkova, Christomir Christov and D. Mihov, Thermodynamic study of \((\text{NH}_4)_2\text{SeO}_4\) (aq) and \(\text{K}_2\text{SeO}_4\) (aq) at the temperature 298.15 K, *Monatsh. Chemie*, **130** (1999) 1061-1065.


35. Christomir Christov, S. Velikova and K. Ivanova, Study of \((m_1\text{LiX} + m_2\text{CaX}_2)\) (aq) where \(m\) denotes molality and \(X\) denotes Cl or Br, at the temperature 298.15 K, *J. Chem. Thermodynamics*, **32** (2000) 1505-1512.


37. D. Barkov, Christomir Christov and T. Ojkova, Thermodynamic study of \((m_1\text{Cs}_2\text{SeO}_4 + m_2\text{NiSeO}_4)\) (aq), where \(m\) denotes molality, at the temperature 298.15 K, *J. Chem. Thermodynamics*, **33** (2001) 1073-1080.


45. Christomir Christov, Thermodynamics of formation of double salts \(\text{M}_2\text{SO}_4\cdot\text{MeSO}_4\cdot6\text{H}_2\text{O}\) and \(\text{M}_2\text{SeO}_4\cdot\text{MeSeO}_4\cdot6\text{H}_2\text{O}\) where \(M\) denotes Rb, or Cs, and Me denotes Co, Ni or Zn, *J. Chem. Thermodynamics*, **35** (2003) 1775-1792.


50. N. Moller, Christomir Christov and J. Weare, Models of subsurface rock water


63. Christomir Christov, Study of bromide salts solubility in the (m₁KBr + m₂CaBr₂)(aq) system at T = 323.15 K. Thermodynamic model of solution behavior and solid-liquid equilibria in the ternary (m₁KBr + m₂CaBr₂)(aq), and (m₁MgBr₂ + m₂CaBr₂)(aq), and in quinary {Na+K+Mg+Ca+Br+H₂O} systems to high concentration and temperature, *J. Chem. Thermodynamics*, 55 (2012), 7-22.


68. 73. A. Lassin, C. Christov, L. André and M. Azaroual, A thermodynamic model of aqueous electrolyte solution behavior and solid liquid equilibrium in the Li-H-Na-K-Cl-OH-H₂O system to a very high concentrations (40 molal) from 0°C to 250°C, *American Journal of Science* 315 (2015) 204-256.

69. 74. L. André, C. Christov, A. Lassin and M. Azaroual, Pitzer ion-interaction parameters for Al(III) in the (H-Na-K-Ca-Mg-Cl-H₂O) system up to salts solubility at 298.15 K, ABC-Salt IV Workshop 2015, Apr 2015, Heidelberg, Germany <hal-01136472>


74. Adeline Lach, Laurent André, Sylvain Guignot, Christomir Christov, Pierre Henocq, Arnauld Lassin, A Pitzer parameterization to predict solution properties and salt solubility

**Conference Abstracts published in International IF - Journals**

**Импакт Фактор на Списанията (Impact Factor of Journals)**
1. *Geochimica et Cosmochimica Acta* (3 publications) ; Impact Factor: 4.847
5. *Abstracts of Papers of the American Chemical Society*; Impact Factor: 2.3
6. *Calphad* (9 publications) ; Impact Factor: 1.724
7. *Mineralogical Magazine* (3 publications) ; Impact Factor: 2.21
8. *Journal of Chemical & Engineering Data* (2 publications) ; Impact Factor: 2.323
11. *Monatshefte fur Chemie/Chemical Monthly* (3 publications) ; Impact Factor: 1.63
12. *Collection of Czechoslovak Chemical Communications* (7 publications) ; Impact Factor: 1.283
13. *Procedia Earth and Planetary Science* (1 publication); Impact Factor: 0.6
14. *ChemInform* (1 publication); Impact Factor: 0.55
15. *Bulgarian Chemical Communications* (1 publication); Impact Factor: 0.35
16. *Comptes rendus de l’Académie bulgare des sciences: sciences mathématiques et naturelles* (2 publications) ; Impact Factor: 0.28
17. *National Science Fund Magazine* (in Bulgarian) (1 publication); Impact Factor: (?) 
18. *Nanoscience & Nanotechnology*; (1 publication); Impact Factor: (?) 
19. *Acta Scientifica Naturalis*; (1 publication); Impact Factor: (?)
B. LIST OF SCIENTIFIC FORUMS PRESENTATIONS: PEER-REVIEWED CONFERENCE, WORKSHOP AND SYMPOSIUM PAPERS


12. Chr. Christov, Chr. Balarew: "Gibbs Energy of Mixing in Crystals of the Type (Me, Me')SeO4.6H2O (Me, Me'= Mg,Ni,Zn,Co)", The VII-th Conference on Physical Chemistry, (IUPAC) September 21-24, 1994, Bucharest, Romania – invited presentation, p. 34


17. Chr. Balarew, St. Tepavitcharova, J. Macicek, Chr. Tzvetkova and **Chr. Christov**: "New Double Salts with Carnallite Formula Type MeX.MX₂.6H₂O" International Conference BLACK SEA'94, 12-17 September, 1994, Varna, Bulgaria – invited presentation, p.10.


26. **Chr. Christov**: Thermodynamics of formation of double salts and solid solutions from aqueous solutions, Research Meeting of Science and Engineering Research Laboratory, Ritsumeikan University, Japan (Host. Prof. Hitoshi Ohtaki), February, 1999 – invited seminars.

27. **Chr. Christov**: Thermodynamics of formation of double salts and solid solutions from aqueous solutions, Research Meeting of Department of Chemistry, Faculty of Science, Chiba University, Japan (Hosts: Professor Keiko Nishikawa and Professor Katsumi Kaneko), June, 1999 – invited seminars.


34. N. Moller, **Chr. Christov** and J. Weare, Thermodynamic models of aluminum silicate mineral solubility for application to enhanced geothermal systems. *Proceedings 31th Workshop on Geothermal Reservoir Engineering*, Stanford University, Stanford, California, January 30 – February 1, 2006 - invited presentation.


37. **Chr. Christov**, Thermodynamic modeling as a powerful tool for accurate prediction of a real behavior of complex natural systems, *Research Meeting of BRGM Water and
CO₂ Storage Divisions, Orléans, France (Host: Dr. M. Azaroual), 26-29 November, 2008-invited seminars.


40. Chr. Christov, Chemical thermodynamic models as a powerful tool for predicting solution chemistry and solid-liquid-gas equilibria in multicomponent natural systems: How to develop, validate, and to use the models? Seminar Session of CNRS/Universite Paul Sabatier, Toulouse, France, Host: Laboratoire Mecanismes de Transfert en Geologie (Professor Christophe Monnin) 1-3 November, 2009-invited seminars.


42. Chr. Christov, Accurate thermodynamic XTP variation models for natural and industrial systems: Development and applications, Seminar Session of OLI SYSTEMS, New Jersey, USA, 11-13 January, 2010 -invited seminars.


45. A. Lassin, Chr. Christov, L. André, M. Azraoual, Chemistry of Li-Na-K-(Ca)-OH-H₂O brines up to high concentrations and temperatures, Goldschmidt Conference 2011, Prague, August 2011 - oral presentation.

46. Christomir Christov, Min Zhang, Stephen Talman, Eric Reardon, Yucca Mountain Pitzer Database (YPF.R2), Research conference of Nuclear Waste Management Organization (NWMO), Toronto - Canada, August 2011-invited oral presentation.

47. A. Lassin, C. Christov, L. André, M. Azraoual, Chemistry of H-Li-Na-K-Cl-H₂O brines to high concentrations and temperatures, Goldschmidt Conference 2012, Montreal, CANADA, 24-29 June 2012 - oral presentation.


49. Hristo Kolev, Krasimir L. Kostov, Georgi Tyuliev and Christomir Christov, THEORETICAL AND EXPERIMENTAL STUDY OF MINERALS PRECIPITATION AND THEIR CHEMICAL COMPOSITION ON THE SURFACE DURING SEAWATER EVAPORATION AT
NATURAL CONDITIONS, National Crystallographic Symposium NCS2012, 01-03 November 2012, Sofia, Bulgaria-poster session.


51. L. André, C. Christov, A. Lassin and M. Azaroual, Thermodynamic behavior of FeCl$_3$-H$_2$O and HCl-FeCl$_3$-H$_2$O systems - A Pitzer Model at 25°C, Water Rock Interaction (WRI) Triennial Symposium of the International Association of Geochemistry, Avignon, France, 4-9 June 2013, oral presentation.

52. L. André, C. Christov, A. Lassin and M. Azaroual, Pitzer ion-interaction parameters for Al(III) in the {H + Na + K + Ca + Mg + Cl + H$_2$O} system up to salts solubility at 298.15 K, ABC-Salt (IV): Actinide Brine Chemistry in a Salt-Based Repository, 14$^{th}$-15$^{th}$ April, 2015, Heidelberg, Germany.


Персонално поканен лектор в специално организирани семинарни сесии и работни срещи в изследователски центрове и организации

Invited Lecturer in Seminar Sessions and Research Meetings

1. April, 1993: Russian Academy of Sciences, Kurnakov Institute of General and Inorganic Chemistry, Moscow, Russia: Groups of Professor Vladimir Valyashko


4. March, 1999: Dept. Chemistry, Ritsumeikan University, JAPAN, Group of Professor Hitoshi Ohtaki.

5. May, 1999: Dept. Chemistry, Chiba University, JAPAN, Groups of Professor Keiko Nishikawa and Professor Katsumi Kaneko.

- Theme of seminars (1 to 5): “Thermodynamics of formation of stoichiometric salts and solid solutions from aqueous solutions”

6. May, 2003: Dept. Chemistry, UCSD, USA, Chemical and Geochemical Modeling Group of Professor John Weare and Dr. Nancy Moller

- Theme of seminars: “Solid-liquid equilibria in aqueous solutions at high temperature”; with Prof. V. Valyashko

7. April, 2008: Dept. Chemistry, UCSD, USA, Atmospheric Chemistry Group of Nobel Prize Laureate Professor Mario Molina

- Theme of seminars: “Thermodynamic modeling as a powerful tool for accurate prediction of a real behavior of complex natural and industrial systems”

8. June, 2008: Dept. Chemistry, UCSD, USA, Atmospheric Chemistry Group of Nobel Prize Laureate Professor Mario Molina

- Theme of seminars: “Pitzer model studies on the deliquescence behavior of sea salt and inorganic salts under humidity conditions”


- Theme of seminars: “Thermodynamic modeling as a powerful tool for accurate prediction of a real behavior of complex natural and industrial systems”

DOI: 10.13140/RG.2.2.32229.81126


- Theme of seminars: “Comprehensive Chemical Thermodynamic Models for Natural and Industrial Systems: Model Development and Application”

11. November, 2009: Seminar Session of CNRS (French Academy of Sciences)/Universite Paul Sebatier, Toulouse, France, Host: Laboratoire Mecanismes de Transfert en Geologie - Professor Christophe Monnin

- Theme of seminars: “Chemical thermodynamic models for predicting solution chemistry and solid-liquid-gas equilibria in multicomponent natural systems: How to develop, validate, and to use the models?”; DOI: 10.13140/RG.2.2.20485.76004


- Theme of seminars: Thermodynamic modeling of geochemical systems and its application for predicting physical-chemical properties of geothermal energy - and carbon dioxide storage-reservoirs; with Dr. M. Azaroual.

- Theme of seminars: Accurate thermodynamic XTP variation models for natural and industrial systems: Development and applications; DOI: 10.13140/RG.2.2.22163.48163

Theme of seminars: Thermodynamic Equilibrium Models for Natural and Industrial Systems: Model Development, Validation and Application;
DOI: 10.13140/RG.2.2.17969.17763

- Theme of seminars: Thermodynamic modeling-, and experimental-studies of aqueous lithium chemistry and solid-liquid equilibria to high solution concentration and temperature.
- Theme of seminars: Development of solid-liquid-gas equilibrium model for Lithium brine type systems; with Dr. A. Lassin;

- Theme of seminars: Thermodynamic modeling of aqueous Al(III), Cr(III), and Fe (III) chemistry.

20. Research meeting with Prof. Eric Reardon (University of Waterloo (Canada), January, 2010, San Diego, CA.
- Theme of seminars: Development of accurate thermodynamic XTP variation models for natural geo-systems

21. Research meeting with Dr. Min Zang, Dr. Stephen Talman (Carbon Dioxide Storage Group of AITF (Canada), May, 2011, San Diego, CA.
- Theme of seminars: Critical evaluation of US “Yuca Mountain” Nuclear waste thermodynamic database.

22. April, 2015: Research meeting of Chemical Modeling Group of French Geological Survey (BRGM), Orleans, France, Host: Dr. A. Lassin, Dr. L. Andre, and Dr. A. Lauch.
- Theme of seminars: Thermodynamic models for binary and complex nitrate and sulfate systems to high solution concentration.

23. May 2017: Research meeting at Shumen University (Bulgaria) with Chemical Modeling Group of French Geological Survey (BRGM) (Orleans, France). Participants: Dr. A. Lassin, Dr. L. Andre, and Dr. A. Lauch. Host: Prof. Christomir Christov.
- Theme of seminars: Thermodynamic models for binary and complex nitrate / sulfate and M(III) chloride systems to high solution concentration.
- Discussions on preparation of 3 common Christov-BRGM publications and 2 presentations.