

**Prof. Ismael SAADOUNE**

45 years old, Moroccan

Married, three children

Professional address : Faculty of Science  
and Technologies Marrakesh

Av. A. El Khattabi, BP 549, 40000,

Marrakech, MOROCCO

e-mail : [saadounel@yahoo.fr](mailto:saadounel@yahoo.fr)

Tel : 212 5 24 43 46 88

Fax : 212 5 24 43 31 70

Personal address:

Lotissement Nakhil II, n°684

Targa, Marrakesh, MOROCCO



**FULL PROFESSOR,  
DOCTOR, University Bordeaux (FRANCE).  
DOCTOR, University Cadi Ayyad (MOROCCO)  
HEAD of the CHEMISTRY DEPARTEMENT  
COORDINATOR of the FACULTY RESEARCH COMMITTEE  
MEMBER of the FACULTY SCIENTIFIC COMMITTEE  
MEMBER OF THE UNIVERSITY RESEARCH COUNCIL  
MEMBER OF THE UNIVERSITY MANAGING COUNCIL  
PRINCIPAL INVESTIGATOR OF MORE THAN 10 RESEARCH PROJECTS  
PEER REVIEWER OF MORE THAN 20 RESEARCH PAPERS**

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**Academic qualifications**

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- 1992-1996 **Moroccan Ph.D. in "Solid State Chemistry and Materials Science"**  
Univesity Cadi Ayyad, Faculté des Sciences SEMLALIA  
Diploma awarded with honors.  
  
*Title: Physico-chemical and electrochemical characterization of a new positive electrode materials for high energy density batteries.*
- 1989-1992 **French Ph.D. in "Solid State Chemistry and Materials Science"**  
ICMCB and ENSCPB (Institut de Chimie de la Matière Condensée de Bordeaux and Ecole Nationale Supérieure de Chimie et de Physique de Bordeaux) University of Bordeaux I  
Diploma awarded with honors  
  
*Title :  $LiNi_{1-y}Co_yO_2$  positive electrode materials : structure, physical properties and electrochemical relationships.*
- 1988-1989 **Master Course in Materials Science**, awarder for University Bordeaux I  
1986-1988 **Maîtrise (graduate studies)** awarded from the University of Hassan II (Casablanca).  
1984-1986 **DEUG (undergraduate studies)** awarded from the University of Hassan II (Casablanca)

## Training and Experience

- 1988/1996      **Ph.D. research topics:**
- *solid state synthesis and ion-exchange reactions*
  - *Sol-Gel, Pechini, Combustion Synthesis methods*
  - *Lithium-ion batteries, electrochemical cycling*
  - *X-Ray Diffraction, Rietveld Refinement*
  - *Solid State Nuclear Magnetic Resonance*
  - *Scanning Electron Microscopy*
  - *Electronic conductivity, thermoelectric power*
  - *Magnetism*
- 1996-2001      **Guest professor in ICMCB (Institut de Chimie de la Matière Condensée de Bordeaux-CNRS), FRANCE**
- ◆ *Synthesis of new positive electrode material.*
  - ◆ *Correlation between the electrochemical behavior and the structural features of materials.*
- July 2002      **Guest professor in Tokyo University of Science, JAPAN**
- ◆ *Lectures and conferences on new positive electrode material.*
- June 2005      **Guest professor in Technical University of Darmstadt, GERMANY**
- ◆ *Electrochemical performances of the layered materials,*
  - ◆ *Conferences*
- March 2006      **Guest professor in Polytechnic University of Barcelona, SPAIN**
- Feb. 2007      **Guest professor in Uppsala University, Angstrom Lab., SWEDEN**
- ◆ *Electrochemical performances of phosphates,*
  - ◆ *Practices to Master Students*
- May 2008      **Guest professor in Tokyo University of Science, JAPAN**
- ◆ *Courses for Master Students: Materials for Energy*
  - ◆ *Practices for Master Students: Synthesis methods, Rietveld Refinement*
- February 2009 **Guest professor in Uppsala University, Angstrom Lab., SWEDEN**
- June 2010      **Guest professor in Uppsala University, Angstrom Lab., SWEDEN**
- October 2010 **Guest Professor of the European Master (Erasmus Mundus): MESC Network, SPAIN.**

## Languages

- Arabic :      First language.
- French :      Read, written and spoken, second maternal language.
- English :      Read, written and spoken
- German :      basic knowledge

## **Leader of the following research projects**

1. Project : CNRST (Centre National de Recherche Scientifique et Technique, MOROCCO) – CNRS (Centre National de Recherche Scientifique, FRANCE), 2002-2005,
2. Research project PROTARS : Programme Thématique d'Appui à la Recherche Scientifique PROTARS II, MOROCCO, 2002-2006,
3. Project PELUR : Programme d'Équipement des Laboratoires Universitaires de Recherche, MOROCCO, 2003-2007,
4. Project CORUS, French Foreign Minister , FRANCE, 2005-2008,
5. Project REMAT, Moroccan Network on Material Chemistry, MOROCCO, 2004-2008,
6. Third World Academy of Sciences TWAS, 2006,
7. Project CNRST (MOROCCO) - DFG (GERMANY), 2006-2010,
8. Project CNRST (MOROCCO)-CSIC (SPAIN), 2006-2009,
9. Project : MOROCCO-TUNISIA, 2007-2009,
10. Project MOROCCO-AECI (SPANISH RESEARCH AGENCY), 2007-2008,
11. Project : MENA VR Swedich Research Council, SWEDEN 2007,
12. Project : MENA VR Swedich Research Council, SWEDEN, 2008-2010,
13. Project CNRST (MOROCCO)-CSIC (SPAIN), 2010-2011,
14. Project : MOROCCO-TUNISIA, 2010-2011.

## **Supervision of PhD thesis**

- 2005-2009 : Mr HSINE BIH (defended the 4<sup>th</sup> July 2009)
- 2006-2010 : Mr Mohammed DAHBI (defended January 2010)
- 2006-2010 : Mr Mohamed AKLALOUCH (defended February 2010)
- 2007-2011 : Mrs Kenza MAHER
- 2007-2011 : Mr Mustapha YAHYA
- 2008-2012 : Mr Yassine BENTALEB
- 2008-2012 : Mr Abdelfettah MAHMOUD
- 2009-2013 : Mr Abdelhay BENDRISS
- 2009-2013 : Mr Mohamed LABRINI
- 2010-2014 : Mrs Karima LASRI

## **Commissions of trust**

- Member of the evaluation board of more than 15 Phd Dissertations,
- Peer Reviewer of 'J. Alloys and Compounds', Elsevier Edition
- Peer Reviewer of 'Phys.Chem.Chem', Royal Society of Chemistry Edition,
- Peer Reviewer of 'Ionics', Springer Edition,
- Peer Reviewer of 'electrochimica acta', Elsevier Edition
- Peer Reviewer of 'Solid State Ionics', Elsevier Edition

- Peer Reviewer of 'Solid State Science', Elsevier Edition
- Peer Reviewer of 'J. Mater. Res.', Royal Society of Chemistry Edition
- Peer Reviewer of 'Electrochem. Comm.', Elsevier Edition
- Peer reviewer of 'Mat. Res. Bull.', Elsevier Edition
- Member of the evaluation board of the LMD programs,
- Member of the evaluation commission for the professor's promotion.
- Member of the Research and Academic committees of the University Council

## Publications

1. Lithium rocking chair batteries : A convenient way for high energy storage on electrical vehicles ? Practical requirements and new intercalation compounds for use as positive electrode. C. Delmas, **I. Saadoune**, H. Auradou, M. Ménétrier and P. Hagenmuller, *Solid State Ionics ; Materials and Applications*, ed. B.V.R. Chowdari et al., **255 (1992)**.
2. Electrochemical and Physical properties of the  $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_2$  phases, C. Delmas and **I. Saadoune**, *Solid State Ionics*, **53-56**, 370 (1992).
3. The cycling properties of the  $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_2$  electrode, C. Delmas, **I. Saadoune** and A. Rougier, *J. Power Sources*, **43-44**, 595 (1993).
4. Effect of cobalt substitution on the Jahn-Teller distortion of the  $\text{NaNiO}_2$  layered oxide, C. Delmas, **I. Saadoune** and P. Dordor, *Mol. Cryst. Liq. Cryst.*, **244**, 337 (1994).
5. Li-Batteries : A convenient high density sources for electrical engine vehicles ? C. Delmas, **I. Saadoune**, H. Auradou, M. Ménétrier and P. Hagenmuller. *Solid State Sciences and Technology*, **2(1)**, 45 (1994).
6.  $\text{LiNi}_{1-y}\text{Co}_y\text{O}_2$  positive electrode materials : relationships between the structure, physical properties and electrochemical behaviour. **I. Saadoune** and C. Delmas, *J. Mater. Chem.*, **6(2)**, 193 (1996).
7. Effect of cobalt substitution on cationic distribution in  $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_2$  electrode materials. A. Rougier, **I. Saadoune**, P. Gravereau, P. Willmann and C. Delmas, *Solid State Ionics*, **90**, 83 (1996).
8. On the  $\text{Na}_x\text{Ni}_{0.6}\text{Co}_{0.4}\text{O}_2$  system : Physical and electrochemical studies., **I. Saadoune**, A. Maazaz, M.Ménétrier and C. Delmas, *J. Solid State Chem.*, **122**, 111 (1996).
9. Redox processes in  $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_2$  cobalt-rich phases., **I. Saadoune**, M. Ménétrier and C. Delmas, *J. Mater. Chem.*, **7(2)**, 2505 (1997).
10. On the  $\text{Li}_x\text{Ni}_{0.8}\text{Co}_{0.2}\text{O}_2$  system., **I. Saadoune** and C. Delmas, *J. Solid State Chem.*, **136**, 8 (1998).
11. The insulator-metal transition upon lithium intercalation from  $\text{LiCoO}_2$  : electronic properties and  $^7\text{Li}$  NMR studies. M Ménétrier, **I. Saadoune**, S. Levasseur and C. Delmas, *J. Mater. Chem.*, **9**, 1135 (1999).
12. Structure of  $[\text{NH}_3(\text{CH}_2)_4\text{NH}_3]_2\text{P}_4\text{O}_{12}\cdot 2\text{H}_2\text{O}$ . E.H. Soumhi, **I. Saadoune**, B.Driss and T. Jouini, *Eur. J. Solid State Inorg. Chem.* **35**, 629 (1998).
13. Structure of  $[\text{C}_3\text{H}_5\text{NH}_3]_2\text{H}_2\text{P}_2\text{O}_7\cdot \text{H}_2\text{O}$ . E.H. Soumhi, **I. Saadoune**, B.Driss and T. Jouini, *Eur. J. Solid State Inorg. Chem.* **35**, 699 (1998).
14. Characterization of a New Organic-Cation Cyclotetraphosphate  $(1,4\text{-HOC}_6\text{H}_4\text{NH}_3)_4\text{P}_4\text{O}_{12}\cdot 6\text{H}_2\text{O}$ . E.H. Soumhi, **I. Saadoune**, B.Driss and T. Jouini, *J. Solid State Chem.*, **144**, 318 (1999).
15. Structure of  $[\text{C}_3\text{H}_5\text{NH}_3]_2\text{P}_4\text{O}_{12}\cdot 4\text{H}_2\text{O}$ . E.H. Soumhi, **I. Saadoune**, B.Driss and T. Jouini, *Acta Cryst. C* **55**, (1999).
16. An overview of the  $\text{Li}(\text{Ni},\text{M})\text{O}_2$  systems : syntheses, structures and properties, C. Delmas, M. Ménétrier, L. Croguennec, **I. Saadoune**, S. Levasseur, C. Pouillier, *Electrochimica acta* **45**, 243 (1999).
17. A New Organic-Cation Cyclotetraphosphate  $\text{C}_{10}\text{H}_{28}\text{N}_4\text{P}_4\text{O}_{12}\cdot 4\text{H}_2\text{O}$  : Crystal Structure, Thermal Analysis and Vibrational Spectra. E.H. Soumhi, **I. Saadoune**, and B.Driss. *J. Solid State Chem.*, **156**,

- 364-369 (2001).
18. On the metastable O<sub>2</sub>-LiCoO<sub>2</sub> positive electrode material. D. Carlier, **I. Saadoune**, E. suard, L. Croguennec, M. Ménétrier and C. Delmas, *Solid State Ionics*, **144** (3-4), 263-276 (2001).
  19. Lithium electrochemical deintercalation from O<sub>2</sub>-LiCoO<sub>2</sub> : Structure and Physical properties. D. Carlier, **I. Saadoune**, M. Ménétrier and C. Delmas, *J. Electrochem. Soc.*, **149** (10), 1310-1320 (2002).
  20. On the mechanism of the P2-Na<sub>0.7</sub>CoO<sub>2</sub> → O<sub>2</sub>-LiCoO<sub>2</sub> exchange reaction : Part I : Proposition of a model to describe the P2-O<sub>2</sub> transition. F. Tournadre, L. Croguennec, **I. Saadoune**, D. Carlier, Y. Shao-Horn, P. Willmann and C. Delmas. *J. Solid State Chem.* **177**, 2790-2802 (2004)
  21. The T<sup>#</sup>2-Li<sub>2/3</sub>Co<sub>2/3</sub>Mn<sub>1/3</sub>O<sub>2</sub> System - Part I : Its structural characterization.
  22. F. Tournadre, L. Croguennec, **I. Saadoune**, F. Weill, Y. Shaou-Horn, P. Willman and C. Delmas, *Chem. Mater.*, **16**, 1411-1417 (2004)
  23. The T<sup>#</sup>2-Li<sub>2/3</sub>Co<sub>2/3</sub>Mn<sub>1/3</sub>O<sub>2</sub> System - Part II.: Its electrochemical behaviour, F. Tournadre, L. Croguennec, **I. Saadoune**, M. Morcrette, P. Willman and C. Delmas. *Chem. Mater.*, **16**, 1417-1426 (2004)
  24. Structures of two newly synthesized A<sub>0.50</sub>SbFe(PO<sub>4</sub>)<sub>3</sub> (A = Mn , Cd) Nasicon phases A. Aatiq, R. Hassine, R. Tigha and **I. Saadoune**, *J. Powder diffraction*, **20** (1), 33-40 (2005).
  25. (4,4'-Methylenedianilinium hemi(cyclotetraphosphate), R. Nahouane, E.H. Soumhi, **I. Saadoune** and A. Driss, *Acta Cryst. E61*, o2850-o2852 (2005).
  26. Bis(1,6-hexanediaminium) cyclotetraphosphate dihydrate, E.H. Soumhi, **I. Saadoune**, R. Nahouane and A. Driss, *Acta Cryst. E61*, o2847-o2849 (2005).
  27. Tetrakis (1,4-anisidium) cyclotetraphosphatehexahydrate, E.H. Soumhi, **I. Saadoune** et A. Driss, *Acta Cryst. E62*, o212-o214 (2006).
  28. Crystallochemistry and Structures of two newly CaSb<sub>0.50</sub>Fe<sub>1.5</sub>(PO<sub>4</sub>)<sub>3</sub> and Ca<sub>0.50</sub>SbFe(PO<sub>4</sub>)<sub>3</sub> Nasicon phases. A. Aatiq, R. Tigha, R. Hasine and **I. Saadoune**, *J. Powder diffraction*, **21**(1), (2006).
  29. Structural characterization of two K<sub>2</sub>SnX(PO<sub>4</sub>)<sub>3</sub> (X=Fe,Yb) with langbeinite structure, A. Aatiq,, B. Haggouch, R. Bakri; Y. Lakhdar and **I. Saadoune**, *J. Powder diffraction*, **21**(3), 214-219 (2006).
  30. The lamellar Na<sub>2</sub>CoP<sub>2</sub>O<sub>7</sub> pyrophosphate: Preparation, structural and spectroscopic studies, H. Bih, **I. Saadoune**, M. Mansori, *M. J. CONDENSED MATER*, **7**(1), 74-76 (2006).
  31. Tetrakis(triethanolammonium) cyclotetraphosphate, E. H. Soumhi, **I. Saadoune** and A. Driss, *Acta Cryst. E63*, [o2828-o2827] (2007).
  32. Positive Electrode Material for lithium batteries based on LiNi<sub>0.6</sub>Co<sub>0.2</sub>Mn<sub>0.2</sub>O<sub>2</sub> oxide, **I. Saadoune**, M. Dahbi, H. Ehrenberg and H. Fuess, Proceedings of the Fourth Research Conference of Materials Science and Engineering, 113-118 (2007).
  33. On the new positive electrode materials for high energy density batteries, **I. Saadoune**, M. Dahbi, M. Yahya, A. Almaggoussi, *International Scientific Journal for Alternative Energy and Ecology*, **6**(62), 204-207 (2007) .
  34. Effect of the synthesis temperature on the structure and electrochemical behaviour of the LiNi<sub>0.65</sub>Co<sub>0.25</sub>Mn<sub>0.1</sub>O<sub>2</sub> positive electrode material, **I. Saadoune**, M. Dahbi, M. Wikberg, T. Gustafsson, P. Svedlindh and K. Edström, *Solid State Ionics*, **178**, 1668-1675, (2008).
  35. Li<sub>x</sub>Ni<sub>0.7</sub>Co<sub>0.3</sub>O<sub>2</sub> electrode material: structural, physical and electrochemical investigations, M. DAHBI, **I. SAADOUNE**, J.M. Amarilla, *Electrochem. Acta* **53**, 5266-5271 (2008).
  35. Structural and electrical properties of nano-crystalline LiCoO<sub>2</sub> cathode material synthesized by a simplified combustion method, M. Yahya, **I. Saadoune**, A. Almaggoussi, A. Abounadi, A. Outzourit, *Smart Materials for Energy, Communications and Security*, A. Luk'yanchuk and D. Mezzane Eds, Springer Science, 145-155 (2008).
  36. Chromium doping as a new approach to improve the cycling performance at high temperature of 5V LiNi<sub>0.5</sub>Mn<sub>1.5</sub>O<sub>4</sub>-based positive electrode, M. Aklalouch, J. M. Amarila, R. M. Rojas, **I. Saadoune**, J. M. Rojo, *J. Power Sources*, **185**, 501-511 (2008).

37. A delithiated  $\text{LiNi}_{0.65}\text{Co}_{0.25}\text{Mn}_{0.10}\text{O}_2$  electrode material: A structural, magnetic and electrochemical study, M. Dahbi, J. M. Wikberg, **I. Saadoune**, T. Gustafsson, P. Svedlindh, K. Edström, *Electrochim. Acta* 54, 3211-3217 (2009).
38. Crystal structure, magnetic and infrared spectroscopy studies of the  $\text{LiCr}_y\text{Fe}_{1-y}\text{P}_2\text{O}_7$  solid solution, H. Bih, **I. Saadoune**, H. Ehrenberg, H. Fuess, *J. Solid State Chem.* 182, 821-826 (2009).
39. Synthesis and characterization of carbon-coated  $\text{Li}_{0.5}\text{Ni}_{0.25}\text{TiOPO}_4$  anode material, K. Maher, **I. Saadoune**, M. Mansori, T. Gustafsson and K. Edstrom, *Electrochim. Acta*, 54, 5531-5536 (2009).
40. The role of particle size on the electrochemical properties at 25 and 55°C of the  $\text{LiCr}_{0.2}\text{Ni}_{0.4}\text{Mn}_{1.4}$  spinel as 5V-cathode materials for lithium-ion batteries, M. Aklalouch, R.M. Rojas, J.M. Rojo, **I. Saadoune**, J.M. Amarilla, *Electrochim. Acta*, 54, 7542-7550 (2009).
41. On the  $\text{LiNi}_{0.2}\text{Mn}_{0.2}\text{Co}_{0.6}\text{O}_2$  positive electrode material, Y. Bentaleb, **I. Saadoune**, K. Maher, L. Saadi, K. Fujimoto and S. Ito, *J. Power Sources* 195, 1510-1515 (2010).
42. J.M. Wikberg, M. Dahbi, **I. Saadoune**, T. Gustafsson, K. Edström, P. Svdlinhd, Dimensionality crossover and frustrated spin dynamics on a triangular lattice, *Phys. Rev. B*, 81, 2244111-2244116 (2010).
43. **I. Saadoune**, M. Labrini, M. Yahya, A. Almaggoussi, H. Ehrenberg,  $\text{LiNi}_{0.1}\text{Mn}_{0.1}\text{Co}_{0.8}\text{O}_2$  electrode material: structural changes upon lithium electrochemical extraction, *Electrochim. Acta*, 55, 5180-5185 (2010).
44. M. Aklalouch, J. M. Amarilla, R. M. Rojas, **I. Saadoune** and J. M. Rojo, *Sub-micrometric  $\text{LiCr}_{0.2}\text{Ni}_{0.4}\text{Mn}_{1.4}\text{O}_4$  spinel as 5 V-cathode material exhibiting huge rate capability at 25 and 55 °C*, *Electrochem. Commun.*, 12( 4), 548-552 (2010).
45. Resonant inelastic X-ray scattering and X-ray absorption spectroscopy on the cathode material  $\text{LiNi}_{0.65}\text{Co}_{0.25}\text{Mn}_{0.1}\text{O}_2$ , H. M. Hollmark, L. C. Duda, M. Dahbi, **I. Saadoune**, T. Gustafsson, K. Edström, *J. electrochem. Soc.*, 157(8), A962-A966 (2010).
46. Magnetic order, aging, and spin frustration in a percolating spin system,  $\text{LiNi}_{0.8}\text{Co}_{0.1}\text{Mn}_{0.1}\text{O}_2$ , J. M. Wikberg, M. Dahbi, **I. Saadoune**, T. Gustafsson, K. Edström, and P. Svedlindh, *J. App.Phys.* 108, 083909 (2010).
47. The Electrochemical Behaviour of the carbon-coated  $\text{Ni}_{0.5}\text{TiOPO}_4$  Electrode Material, K. Maher, K. Edström, **I. Saadoune**, T. Gustafsson, and M. Mansori, *J. Power Sources*, 196, 2819-2825 (2011).
48. Electrochemical Na-deintercalation from  $\text{NaVO}_2$ , C. Didier, C. Denage, O. Szajwaj, S. Ito, **I. Saadoune**, J. Darriet, C. Delmas, *Electrochem. Solid State Lett.*, 14(5), A75-A78 (2011).
49. On the  $\text{LiCo}_{2/3}\text{Ni}_{1/6}\text{Mn}_{1/6}\text{O}_2$  positive electrode material, A. Mahmoud, **I. Saadoune**, J.M. Amarilla, R. Hakkou, *Electrochim. Acta* accepted, DOI 10.1016/j.electacta.2011.01.118 (2011).
50. Resonant inelastic X-ray scattering and X-ray absorption spectroscopy on the negative electrode material  $\text{Li}_{0.5}\text{Ni}_{0.25}\text{TiOPO}_4$  in a Li-ion battery, H. M. Hollmark, K. Maher, **I. Saadoune**, T. Gustafsson, K. Edström, and L.-C. Duda, *Phys. Chem. Chem. Phys.* accepted (2011).

## Communications

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1. Désintercalation du sodium des phases  $\text{NaNi}_{1-y}\text{Co}_y\text{O}_2$ , **I. Saadoune**, C. Dutruc-Ross et C. Delmas, *Groupe Français d'Etude des Composés d'Insertion (GFECI), Bordeaux (France)* (1991).
2. Electrochemical and physical properties of the  $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_2$  phases, C. Delmas and **I. Saadoune**, 8<sup>th</sup> International Conference on Solid State Chemistry, Lake Louise, Canada (1991).
3. Li-batteries : A convenient high density energy sources for electrical engine vehicles ? C. delmas, **I. Saadoune**, H. Auradou, M. Ménétrier and P. Hagenmuller, *International Conference on Solid State Science and Technology, Penang (Malaisie)* (1992).
4. On the cycling properties of the  $\text{LiNi}_{1-y}\text{Co}_y\text{O}_2$  electrode. C. Delmas, **I. Saadoune** and A. Rougier, 6<sup>th</sup> International Meeting on lithium Batteries, Münster (Germany) (1992).
5. Etude par voltamétrie cyclique des nickelates cobaltés  $\text{ANi}_{1-y}\text{Co}_y\text{O}_2$  (A : Li, Na), A. Rougier, **I. Saadoune**,

- et C. Delmas, *GFECI*, *Bierville (France)* (1992).
6. Le système  $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_2$ , C. Delmas et **I. Saadoune** (*GFECI*), *Bierville (France)* (1992).
  7. Effect of cobalt substitution on the Jahn Teller distortion of the  $\text{NaNiO}_2$  layered oxide, C. Delmas, **I. Saadoune** and P. Dordor *7<sup>th</sup> International Symposium on Intercalation Compounds, Lanvin laneuve (Belgique)* (1993).
  8. Effect of cobalt substitution on the cationic disordering and the electrochemical behaviour of lithium nickel oxide. A. Rougier, **I. Saadoune**, P. Gravereau and C. Delmas, *International Symposium of Soft Chemistry Routes to New Materials, Nantes* (1993).
  9. Etude de la substitution du cobalt au nickel dans les phases  $\text{LiNi}_{1-y}\text{Co}_y\text{O}_2$ , A. Rougier, **I. Saadoune**, P. Gravereau, M. Ménérier et C. Delmas *Journées de la Sociétés Française de Chimie, Bordeaux (France)* (1993).
  10. Les matériaux d'électrode positive  $\text{LiNi}_{1-y}\text{Co}_y\text{O}_2$ . Etude des relations : structure, propriétés physiques et comportement électrochimique, **I. Saadoune**, A. Maazaz et C. Delmas. *REMCESVI, El Jadida (Maroc)* (1993).
  11. Comportement électrochimique du matériau d'électrode positive  $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_2$ , C. Delmas, **I. Saadoune** et A. Rougier. *SFC journée d'étude Piles et Accumulateurs au Lithium, Paris* (1993)
  12. Etude cristallographique et magnétique des phases  $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_2$  : matériaux d'électrode positive pour batteries au lithium, A. Rougier, **I. Saadoune**, P. Gravereau et C. Delmas, *2<sup>ème</sup> Journées nationales des jeunes physico-chimistes, Bordeaux, France* (1994).
  13. Selective oxidation of the 3d cations upon lithium deintercalation from  $\text{Li}_x\text{Ni}_{1-y}\text{Co}_y\text{O}_2$  oxides: a  $^7\text{Li}$  NMR and conductivity study, M. Ménérier, **I. Saadoune** et C. Delmas. *V<sup>th</sup> European conference on solid state chemistry, Montpellier, France* (1995).
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