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Coordonnées

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✚ Grade: Docteur d'Etat.

✚ Fonction : Professeur

Diplômes

1981-1984 : U.S.T.H.B Institut de Chimie BAB EZZOUAR

Magister en chimie (Conversion chimique)

✚ **Sujet :**

✚ Directeur de thèse : A. Vervaet

1987-1993 : U.S.T.H.B Institut de Chimie BAB EZZOUAR. Laboratoire de Chimie Solaire Institut de Chimie U.S.T.H.B / Laboratoire Grenoble (France).

✚ Doctorat d'état

✚ **Sujet :**

✚ **Directeur de thèse:** Pr. J.P. Doumerc

Expérience professionnelle Recherche

🚦 **1980-2000** Laboratoire de chimie solaire. Enseignant chercheur

🚦 **2000-2009** Laboratoire de Stockage et de Valorisation des Energies
Renouvelables. Chef d'équipe de recherche

Expérience professionnelle Enseignement

1980-1991 Maître Assistant Titulaire

Enseignement T.D et T.P Thermodynamique et chimie générale

1993-2005 Maître de Conférences

Enseignement de la Thermodynamique (cours, TD, TP)

2005-2009 Professeur

Enseignement : Thermodynamique, Structure de la matière (cours, TD, TP)

Encadrement Formation

Magisters :

Y. BESSEKHOUD

Sujet :

Date de soutenance : / / 1999

N. KORICHE :

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R. BRAHIMI :

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Mémoires de Fin d'Etude d'Ingénieurs

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Publications Internationales : 1994 (2) / 2002 (2) / 2003 (1) / 2005 (4) / 2006 (6) / 2007 (10) / 2008 (11) / 2009 (9 au 1^{er} Fév.)

PUBLICATIONS 2009

1. Boumaza, S., Bouguelia, A., Bouarab, R., Trari, M. (2009) Physical and photoelectrochemical studies for hydrogen photo-evolution over the spinel $ZnCr_2O_4$, Article in Press
2. Bassaid, S., Chaib, M., Omeiri, S., Bouguelia, A., Trari, M. (2009) Photocatalytic reduction of cadmium over $CuFeO_2$ synthesized by sol-gel, *Journal of Photochemistry and Photobiology A: Chemistry* 201 (1), pp. 62-68
3. Souhila Boumaza, Rabah Bouarab, Mohamed Trari, Aissa Bouguelia. (2009) Hydrogen photo-evolution over the spinel $CuCr_2O_4$. *Energy Conversion and Management, Volume 50, Issue 1, January 2009, Pages 62-68*
4. W. Ketir, A. Bouguelia, M. Trari (2009) NO_3^- removal with a new delafossite $CuCrO_2$ photocatalyst. *Desalination* 244, pp.144-152
5. Djellal, L., Omeiri, S., Bouguelia, A., Trari, M. (2009) Photoelectrochemical hydrogen-evolution over p-type chalcopyrite $CuInSe_2$, Article in Press
6. Bouarab, R., Boudjemaa, A., Trari, M., Bennici, S., Auroux, A. Influence du support sur la structure cristalline, les propriétés acido-basiques et l'activité des systèmes à base de fer en réaction $CO + H_2O$ (2008) *Comptes Rendus Chimie*, Article in Press
7. Omeiri, S., Bellal, B., Bouguelia, A., Bessekhoud, Y., Trari, M. (2009) Electrochemical and photoelectrochemical characterization of $CuFeO_2$ single crystal, *Journal of Solid State Electrochemistry*, pp. 1-7, Article in Press
8. Ketir, W., Bouguelia, A., Trari, M. (2009) Visible Light Induced NO_2^- Removal Over $CuCrO_2$ Catalyst, *Water, Air, and Soil Pollution*, pp. 1-8, Article in Press
9. Boudjemaa, A., Bouarab, R., Saadi, S., Bouguelia, A., Trari, M. (2009) Photoelectrochemical H_2 -generation over Spinel $FeCr_2O_4$ in X^{2-} solutions ($X^{2-} = S^{2-}$ and SO_4^{2-}), *Applied Energy*, Article in Press

PUBLICATIONS 2008

1. Ketir, W., Bouguelia, A., Trari, M. (2008) Photocatalytic removal of M^{2+} ($= Ni^{2+}, Cu^{2+}, Zn^{2+}, Cd^{2+}, Hg^{2+}$ and Ag^+) over new catalyst $CuCrO_2$, *Journal of Hazardous Materials* 158 (2-3), pp. 257-263

2. Brahimi, R., Bellal, B., Bessekhoud, Y., Bouguelia, A., Trari, M. (2008) Physical properties of CuAlO₂ single crystal, *Journal of Crystal Growth* 310 (19), pp. 4325-4329
3. Hadjarab, B., Bouguelia, A., Benchettara, A., Trari, M. (2008) The transport and photo electrochemical properties of La-doped stannate BaSnO₃, *Journal of Alloys and Compounds* 461 (1-2), pp. 360-366
4. Derbal, A., Omeiri, S., Bouguelia, A., Trari, M. (2008) Characterization of new heterosystem CuFeO₂/SnO₂ application to visible-light induced hydrogen evolution. *International Journal of Hydrogen Energy* 33 (16), pp. 4274-4282
5. Djellal, L., Bouguelia, A., Trari, M. (2008) Physical and photoelectrochemical properties of p-CuInSe₂ bulk material. *Materials Chemistry and Physics* 109 (1), pp. 99-104
6. Djellal, L., Bouguelia, A., Kadi Hanifi, M., Trari, M. (2008) Bulk p-CuInSe₂ photo-electrochemical solar cells, *Solar Energy Materials and Solar Cells* 92 (5), pp. 594-600
7. Djellal, L., Bouguelia, A., Trari, M. (2008) Structural, optical and photoelectrochemical properties of CuIn₃Se₅, *Semiconductor Science and Technology* 23 (4), art. no. 045019
8. Amara, M., Kerdjoudj, H., Bouguelia, A., Trari, M. (2008) A combination between membrane selectivity and photoelectrochemistry to the separation of copper, zinc and nickel in aqueous solutions. 2008 *Journal of Membrane Science* 312 (1-2), pp. 125-131
9. Omeiri, S., Gabès, Y., Bouguelia, A., Trari, M. (2008) Photoelectrochemical characterization of the delafossite CuFeO₂: Application to removal of divalent metals ions. *Journal of Electroanalytical Chemistry* 614 (1-2), pp. 31-40
10. Brahimi, R., Bessekhoud, Y., Bouguelia, A., Trari, M. (2008) Improvement of eosin visible light degradation using PbS-sensitized TiO₂. *Journal of Photochemistry and Photobiology A: Chemistry* 194 (2-3), pp. 173-180
11. Bassaid, S., Chaib, M., Bouguelia, A., Trari, M. (2008) Elaboration and characterization of poly (acrylic acid-co-crotonic acid) copolymers: Application to extraction of metal cations Pb(II), Cd(II) and Hg(II) by complexation in aqueous media. *Reactive and Functional Polymers* 68 (2), pp. 483-491

PUBLICATIONS 2007

1. Hadjarab, B., Bouguelia, A., Trari, M. (2007) Optical and transport properties of lanthanum-doped stannate BaSnO₃. *Journal of Physics D: Applied Physics* 40 (19), art. no. 006, pp. 5833-5839
2. Töpfer, J., Trari, M., Doumerc, J.-P. (2007) Preparation and physical properties of CuAl_{1-x}Mn_xO₂ (0 ≤ x ≤ 0.2) delafossites. *Solid State Sciences* 9 (3-4), pp. 236-239

3. Hadjarab, B., Bouguelia, A., Trari, M. (2007) Synthesis, physical and photo electrochemical characterization of La-doped SrSnO₃. *Journal of Physics and Chemistry of Solids* 68 (8), pp. 1491-1499
4. Bessekhoud, Y., Gabes, Y., Bouguelia, A., Trari, M. (2007) The physical and photo electrochemical characterization of the crednerite CuMnO₂. *Journal of Materials Science* 42 (15), pp. 6469-6476
5. Younsi, M., Saadi, S., Bouguelia, A., Aider, A., Trari, M. (2007) Synthesis and characterization of oxygen-rich delafossite CuYO_{2+x} - Application to H₂-photo production. *Solar Energy Materials and Solar Cells* 91 (12), pp. 1102-1109
6. Koriche, N., Bouguelia, A., Mohammedi, M., Trari, M. (2007) Synthesis and physical properties of new oxide AgMnO₂ *Journal of Materials Science* 42 (13), pp. 4778-4784
7. Hadjarab, B., Saadi, S., Bouguelia, A., Trari, M. 2007 Physical properties and photoelectrochemical characterization of SrPbO₃ *Physica Status Solidi (A) Applications and Materials* 204 (7), pp. 2369-2380
8. Brahimi, R., Bessekhoud, Y., Bouguelia, A., Trari, M. (2007) Visible light induced hydrogen evolution over the heterosystem Bi₂S₃/TiO₂. *Catalysis Today* 122 (1-2), pp. 62-65
9. Saadi, S., Bouguelia, A., Derbal, A., Trari, M. (2007) Hydrogen photoproduction over new catalyst CuLaO₂. *Journal of Photochemistry and Photobiology A: Chemistry* 187 (1), pp. 97-104
10. Brahimi, R., Bessekhoud, Y., Bouguelia, A., Trari, M. (2007) CuAlO₂/TiO₂ heterojunction applied to visible light H₂ production. *Journal of Photochemistry and Photobiology A: Chemistry* 186 (2-3), pp. 242-247

PUBLICATIONS 2006

1. Saadi, S., Bouguelia, A., Trari, M. (2006) Photoassisted hydrogen evolution over spinel CuM₂O₄ (M=Al, Cr, Mn, Fe and Co). *Renewable Energy* 31 (14), pp. 2245-2256
2. Hadjarab, B., Bouguelia, A., Kadi-Hanifi, M., Trari, M. (2006) The physical properties of oxygen-deficient perovskite SrPbO_{3-δ}. *Journal of Physics Condensed Matter* 18 (37), art. no. 013, pp. 8551-8561
3. Koriche, N., Bouguelia, A., Trari, M. (2006) Photocatalytic hydrogen production over new oxide CuLaO_{2.62}. *International Journal of Hydrogen Energy* 31 (9), pp. 1196-1203
4. Hadjarab, B., Bassaid, S., Bouguelia, A., Trari, M. (2006) On the transport properties of the solid solution Sr_{1-x}La_xPbO_{3-δ} (0 ≤ x ≤ 0.15). *Physica C: Superconductivity and its Applications* 439 (2), pp. 67-72

5. Saadi, S., Bouguelia, A., Trari, M. (2006) Photocatalytic hydrogen evolution over CuCrO₂. *Solar Energy* 80 (3), pp. 272-280
6. Trari, M., Bouguelia, A., Bessekhoud, Y. (2006) P-Type CuYO₂ as hydrogen photocathode. *Solar Energy Materials and Solar Cells* 90 (2), pp. 190-202

PUBLICATIONS 2005

1. N. Koriche, A. Bouguelia, A. Aider and M. Trari. (2005) Photocatalytic hydrogen evolution over delafossite CuAlO₂. *International Journal of Hydrogen Energy*, Volume 30, Issue 7, pp. 693-699
2. M. Younsi, A. Aider, A. Bouguelia and M. Trari. (2005) Visible light-induced hydrogen over CuFeO₂ via S₂O₃²⁻ oxidation. *Solar Energy*, Volume 78, Issue 5, pp. 574-580
3. Trari, M., Töpfer, J., Dordor, P., Grenier, J.C., Pouchard, M., Doumerc, J.P. (2005) Preparation and physical properties of the solid solutions Cu_{1+x}Mn_{1-x}O₂ (0≤x≤0.2) *Journal of Solid State Chemistry* 178 (9), pp. 2751-2758
4. Cheknane, A., Benyoucef, B., Charles, J.-P., Zerdoum, R., Trari, M. (2005) Minimization of the effect of the collecting grid in a solar cell based silicon. *Solar Energy Materials and Solar Cells* 87 (1-4), pp. 557-565

PUBLICATIONS 2003

1. Bessekhoud, Y., Trari, M., Doumerc, J.P. (2003) CuMnO₂, a novel hydrogen photoevolution catalyst. *International Journal of Hydrogen Energy* 28 (1), pp. 43-48

PUBLICATIONS 2002

1. Bessekhoud, Y., Mohammedi, M., Trari, M. (2002) Hydrogen photoproduction from hydrogen sulfide on Bi₂S₃ catalyst *Solar Energy Materials and Solar Cells* 73 (3), pp. 339-350
2. Bessekhoud, Y., Trari, M. 2002 Photocatalytic hydrogen production from suspension of spinel powders AMn₂O₄ (A=Cu and Zn) *International Journal of Hydrogen Energy* 27 (4), pp. 357-362

PUBLICATIONS 1994

3. Trari, M., Doumerc, J.-P., Dordor, P., Pouchard, M., Behr, G., Krabbes, G. (1994) Preparation and characterization of lanthanum doped BaSnO₃. *Journal of Physics and Chemistry of Solids* 55 (11), pp. 1239-1243
4. Trari, M., Töpfer, J., Doumerc, J.P., Pouchard, M., Ammar, A., Hagenmuller, P. (1994) Room Temperature Chemical Oxidation of Delafossite-Type Oxides *Journal of Solid State Chemistry* 111 (1), pp. 104-110

Communications

- C1 S. Omeiri, Y. Gabes, A. Bouguelia and M. Trari**, Physical and photoelectrochemical characterization of delafossite CuFeO₂. Applied to photo-catalytic removal of some metals ions. 10^{èmes} journées Algériennes de catalyse. 14 et 15 mai 2007 Tlemcen.
- C2 W. Ketir, A. Bouguelia and M. Trari**, Photocatalytic reduction of M²⁺ (M=Zn, Cd, Hg, Ni, Pb, Cu and Ag) over new catalyst CuCrO₂. 2^{èmes} journées de chimie de l'EMP, Bordj-El-Bahri, 26-27 mars 2007 Journées Scientifiques et Pédagogiques de la Faculté de Chimie. 21-22 Avril 2007. Faculté de Chimie USTHB Alger.
- C3 R. Brahimi, Y. Bessekhoud and M. Trari**, CuAlO₂ heterojunction applied to visible light H₂ production. Congrès international sur les énergies renouvelables et l'environnement « CERE 2006 », 6-8 novembre 2006, Mahdia, Tunisie.
- C4 R. Brahimi, Y. Bessekhoud, A. Bouguelia, M. Trari**, CuAlO₂/TiO₂ Heterojunction Applied To Visible Light H₂ Production. Première rencontre internationale de photochimie, photocatalyse et leurs applications Photocat2006. Agadir 29, 30 et 31 Mars 2006.
- C5 S. Saadi A. Bouguelia, M. Trari**, Hydrogen Production over New Photocatalyst CuLaO₂. 16th World Hydrogen Energy Conference, 13-16 June 2006 Lyon (France).
- C6 Benali L. Bouguelia A., Trari M., Aïder A.**, Hydrogen Photoelectrochemical Production Over Hexagonal CdS. International Hydrogen Energy conference ihec2005.
- C7 N. Koriche, M. Trari, A. Aïder, A. Bouguelia**. Photoconversion des sulfures sur CuAlO₂. 2^{ème} Symposium International des hydrocarbures et de la chimie. Ghardaïa, 21-23 Mars 2004.
- C8 M. Younsi, A. Aïder, A. Bouguelia, M. Trari**. Photodégradation des ions sulfures sur CuFeO_{2.51} photoélectrochimie. 2^{er} Séminaire National de Chimie 18 et 19 Mai 2004
- C9 N. Koriche, A. Bouguelia, A. Aïder, M. Trari**. Conversion de l'énergie solaire en hydrogène sur CuAlO₂. 4^{èmes} Journées de Mécanique. Ecole Militaire Polytechnique 23-24 Mars 2004.
- C10 M. Younsi, A. Aïder, A. Bouguelia, M. Trari**. Conversion de l'énergie solaire en hydrogène sur CuFeO₂. International Congress on Photovoltaic and Wind Energies. Tlemcen, Ageria 20, 21 December 2003
- C11 N. Koriche, A. Aïder, A. Bouguelia, M. Trari**. First International conference on Materials Science & Engineering ICMSE-1. May 5-7 2003 M'sila, Algeria.
- C12 M. Younsi, A. Aïder, A. Bouguelia, M. Trari**. Caractérisation de l'oxyde

CuFeO₂ par photoélectrochimie. 1^{er} séminaire National sur les Polymères et les Matériaux Minéraux PMM' 2003. Université de Béjaia.

C13 N. Koriche, A. Bouguelia, A. Aïder, M. Trari. Algerian Crystallography Congress 1. ACC 1. 2-5 Nov. 2002 Algiers.

C25 M. TRARI, Y. GABES et A. BOUGUELIA. Conversion photo électrochimique de BaSnO₃ . Congrès sur les énergies renouvelables et l'environnement (CEME'97). BISKRA du 03 au 05 Nov. 1997