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Research Resume

2005 **Ph. D Thesis** (3 years)
BPU (Blaise Pascal University, Clermont-Ferrand, France) Laboratory of Molecular and Macromolecular Photochemistry, Dr. Gilles MAILHOT and Dr. Michèle BOLTE.
Impact of iron complexes and sunlight on the fate of pollutants in aquatic environment.

2001 **Master** (6 months)
BPU (Blaise Pascal University Clermont-Ferrand, France) Laboratory of Molecular and Macromolecular Photochemistry, and Laboratory of Meteorology Physics, Dr. Gilles MAILHOT and Paolo LAJ.
Photochemistry of iron in aqueous phase of clouds.

2000 **Maîtrise** (1 month)
CDU (Chouïb Doukali University, El jadida, Morocco) Laboratory of Inorganique Material, Prof. Mohammed BENKHOUSA.
Structural and magnetic study of mixed phosphate $MnNiP_2O_7$.

Teaching Resume

◆ **CHEMICAL-PHYSICS**, 2004-2006 at University Institute of Technology in Clermont-Ferrand (France): (218 hours)

Formation

2003-2005: **Ph. D Thesis in Chemistry-physics: Environment and Analytical chemistry**
Blaise Pascal University Clermont-Ferrand, France

2001-2002: Degree Master of Material science
Blaise Pascal University Clermont-Ferrand, France

2000-2001: Maîtrise of Chemistry Science

1999-2000: License of Chemistry Science

1996-1997: Baccalaureate of Mathematic Science

Award

2003-2005: **MENRT Fellowship** (French Ministry of National Education and Technology Research) for doctorate studies.

1999-2000: **First prize** for student in chemistry science in Chouaïb Doukali University, *EL Jadida, Morocco*

Professional Skills

- ◆ **Organic Synthesis:** -Synthesis of organic compounds for determination of Chromium (III), and complex compounds of Iron (III).
- ◆ **Heterogeneous catalysis:** - Kinetic studies in a pilot- reactor with TiO₂ (Plataforma solar d' Almeria-Spain)
- ◆ **Analytical chemistry:** IR-TF ; Spectroscopy UV-visible, High Performance Liquid Chromatography (HPLC), Ionic Chromatography (IC), Gas Chromatography-Mass Spectrometry GC-MS, LASER, Spectrometry of fluorescence, Analysis of organic carbon, Analysis of formaldehyde, Electronic Paramagnetic Resonance (EPR), RMN, Mass spectrometry (¹H, ¹³C), Artificial Irradiation by UV, Analysis of iron and Chromium(VI) by spectrophotometry, Chromium(III) analysis, Calibration of Analytical Instrument.
- ◆ **Theoretical chemistry:** -*Ab-initio* calculation of charge-transfer (Hyperchem); FORTRAN programming.
- ◆ **Internship** at OCP Company in Morocco: *the fertilizer and phosphoric acid production*
- ◆ **Internship** at Plataforma solar laboratory of Almeria in *SPAIN (2003)*
- ◆ **Language Skills:**
 - French: Fluent
 - English: Good
 - Arabic: Native language

Publications

-Impact of iron-complex (Fe(III)-NTA) on photoinduced degradation of 4-chlorophenol in aqueous solution

O. ABIDA, G. MAILHOT, M. LITTER and M. BOLTE

Journal of Photochemical and Photobiological Science, 2006, 5, 395

-Speciation and role of iron in cloud droplets at the puy de dôme station

M. PARAZOLS, A. MARINONI, P. AMATO, O. ABIDA, P. LAJ and G. MAILHOT

Submitted and Accepted in Atmospheric Environment (2006)

-Degradation of 4-chlorophenol mediated by Fe(III)-NTA in homogeneous and heterogeneous systems

O. ABIDA, C. EMILIO, N. QUICI, R. GETTAR, M. LITTER, G. MAILHOT and M. BOLTE

Journal Water Science and Technology, 2004, 49, 123-128

- Iron photochemistry in cloud at puy de Dôme station

A. MARINONI, P. LAJ, O. ABIDA and G. MAILHOT

Journal de Physique IV, 2003, 107, 823-826.

-Solar light induced degradation of herbicide monuron in aqueous solution of Fe(III) and/or suspension of TiO₂.

H.Mestankova, G.Mailhot, O.ABIDA, W. Gernjak, J.Jirkovsky.

Journal of Ciemat “ The improving human potential programme access to research infrastructures activity-research results at Platafoma solar of Almeria within the year 2003”

Access Campaign- p 77-84-2003.

Impact of iron-complex (Fe(III)-citrate) on photoinduced degradation of 4-chlorophenol in aqueous solution

O. ABIDA, G. MAILHOT, M. LITTER and M. BOLTE

In progress (2006)

Chromium(VI) reduction photoinduced by iron-complex (Fe(III)-NTA) in aqueous solution.

O. ABIDA, G. MAILHOT, M. LITTER and M. BOLTE

In progress (2006)

Communications:

-VIIth Scientific Conference of the International Global Atmospheric Chemistry Project (IGAC), Eraklion (Crête, Grèce), 18-25 september 2002.

« In-cloud photochemistry of iron at Puy de Dome »

A.MARINONI, O. ABIDA, E. CLAUSTRE, P. LAJ and G. MAILHOT

- IWA 3rd Conference on Oxidation Technologies for Water and Wastewater Treatment, Goslar (Germany), 18-22 may 2003.

« Degradation of 4-chlorophenol mediated by Fe(III)-NTA on homogeneous and heterogeneous systems »

O. ABIDA, C. EMILIO, N. QUICI, R. GETTAR, M. LITTER, G. MAILHOT and M. BOLTE

- Groupe français de photochimie Session de printemps, 13-14 may 2004, Clermont-Ferrand, France.

« La photochimie d'un complexe carboxylique de fer : impact sur la dégradation d'un polluant organique dans un système homogène »

O. ABIDA, G. MAILHOT et M. BOLTE

Posters:

-Colloque de Prospective du PNCA, Saint Jean de Luz, 22-25 september 2003

« Chimie et photochimie dans la phase aqueuse des nuages : rôle des métaux de transition »

A. MARINONI, **O. ABIDA**, E. CLAUSTRE, P. LAJ et G. MAILHOT

J-L. COLIN, S. COSTES, R. LOSNO, A. SOFIKITIS, J-M. VELAY et K. DESBOEUF

14th Conference on Photochemical Conversion and storage of solar Energy-IPS-15 Programme (4-9 July 2004, Paris- France)

“ Photochemical of iron(III)-Complex of carboxylic acid: impact on degradation of organic pollutant in aqueous solution”

O.ABIDA, G.MAILHOT, M.BOLTE.

1st International Workshop on Environmental Technologies (7-8 September 2005, Prague-Czech)

“Chromium(VI) reduction photoinduced by iron(III) complexes: an efficient process relevant of the environment”

O.ABIDA, G.MAILHOT, M.LITTER, M.BOLTE, Laboratory of Molecular and Macromolecular Photochemistry, UBP / CNRS, CNEA Buenos Aires.

Other Experiences

◆ **Data-processing:** Excel, Word, Origin, Power point, Chem-win, FORTRAN, Matlab

References:

Michèle BOLTE, (Research Director in CNRS)
Laboratory of Molecular and Macromolecular Photochemistry, France.
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Gilles MAILHOT, (Research Director in CNRS)
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gilles.mailhot@univ-bpclermont.fr

Laurent CHARLET (Professor at Joseph Fourier University)
Laboratoire de Géophysique Interne et Tectonophysique
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Marie-Thérèse MAURETTE (Research Director in CNRS)
Laboratoire des Interactions Moléculaires et Réactivité Chimique et Photochimique
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Paolo LAJ (Professor at Blaise Pascal University)
Laboratoire de Météorologie Physique
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