**Curriculum Vitae**

**Personal Information**

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| --- | --- |
| Name | Imed Ghiloufi |
| Date of birth | 25 – 03 – 1972 Tunisia |
| Nationality | Tunisian |
| Marital status | Maried |
| Email | [ghiloufimed@yahoo.fr](mailto:ghiloufimed@yahoo.fr) |
| Professional Addresses | Al Imam Muhammad Ibn Saud University , College of Sciences, Riyad King of Saudi Arabia  🕿: 0096612582174 ✆ : 00966509407164 |

# Education

**Ph.D. in Plasma Physics: July 2000**

Paul Sabatier University, Toulouse, France

Dissertation title: “Study of Heavy Metals Volatility During the Vitrification of Fly Ashes by Thermal Plasma”

Advisor: Jean Marie Baronnet.

**M.S. in Plasma Physics: June 1997**

Paul Sabatier University, Toulouse, France

Thesis title: “Study of Nitrogen impurities and the secondary emission coefficient on the stability of a glow discharge controlled by dielectric barrier at the atmospheric pressure”.

**B.S. in Physics: June 1996**

College of Sciences, Sfax University, Tunisia

**Experience**

* **Associate Professor,** *Al-Imam Muhammed Ibn Saud University, Faculty of Sciences, Department of Physics, Kingdom of Saudi Arabia, 2009-present*
* **Assistant Professor,** *Al-Imam Muhammed Ibn Saud University, College of Sciences, Department of Physics, Kingdom of Saudi Arabia, 2007-2009*
* **Assistant Professor,** *Al-Imam Muhammed Ibn Saud University, College of Computer Sciences, Kingdom of Saudi Arabia, 2001-2007*

**Academic Activities**

**Undergraduate Level Courses Teaching**

* Modern Physics
* Classical Mechanics
* Quantum Mechanics
* Introduction to Plasma Physics
* Electricity and magnetism
* General Physics
* Laboratory of mechanics and thermodynamics
* Thermodynamics
* Plasma and Spectroscopy
* Pre-calculus

**Students’ Supervision**

**** Supervised/Co-supervised PhD Dissertations (2)

 Supervised/Co-supervised MS Theses (1)

 Supervised BS Senior Projects (10)

**Research Activities**

 Chapter Books (2)

 Journal Publications (20)

 Conference Proceedings (20)

 Funded Projects (7)

**Affiliations**

* Member in the American material research Society (MRS)
* Member in the Saudi Physical Society
* Member in the Saudi Atomic Molecular& Optical Physics (AMOP)

**University and Community Services**

* Editorial Board in the Journal of Applied and Theoretical Physics Research, from 2015.
* Regular referee in the journal Hazardous materials, Elsevier, from 2009.
* Referee in the Journal of Materials Science: Materials in Electronics, from 2015.
* Referee in the international journal of environment science and technology, Springer, from 2014.
* Referee in the journal environmental chemical engineering, Elsevier, from 2014.
* Referee in the committee for the “Innovation and entrepreneurship” axis, the Saudi Student Conference, organized by the Saudi Ministry of Higher Education, Riyadh, 2012, 2014.
* Responsible for the senior projects, Dept. of Physics, Al Imam University, 2007-2009.
* Co-founder of the undergraduate Program in Physics, Al Imam University, 2007.
* Referee for a number of International research projects, conferences, promotion applications, and awards.
* Founder of the thermodynamic lab, Al Imam University, 2007.
* Co-founder of the General physics lab, Al Imam University, 2007.
* Coordinator of the exam Committee, College of Sciences, Al Imam University, 2007-2016.
* Member of the Evaluation and Assessment Committee, College of Sciences, Al Imam University, 2014-2015.
* Member of many Committees (Scientific, Results, Training students) in the Physics Department, Al Imam. University, 2007-2016.
* Referee for a number of International research projects, conferences, promotion applications, and awards.

**RESEARCH**

**Research in Plasma Physics 2015-present**

Project research performed in the Water & Energy Research Institute (WERI), at the National Center for Combustion & Plasma Technology (NCCPT), King Abdulaziz City for Science & Technology (KACST), Saudi Arabia.

Research applied Plasma Processing of Fly Ash Resulted from Desalination Plants.

**2 years Research in nanomaterials for waste water treatment 2014-2016**

Project research funded by the national plan for sciences and technology

Research applied to the synthesis and characterization of nanometal oxides for the adsorption of heavy metal from waste water

**2 years Research in waste water treatment 2010-2012**

Project research funded by the national plan for sciences and technology

Research applied to the adsorption of heavy metal and radioelement from waste water using activated carbon

**1 years Edition of book 2011-2012**

Project research funded by Al Imam Muhammed Ibn Saud University

Book name: Introduction to plasma physics and its industrial applications

**2 years Research in modeling and simulation 2007-2009**

Project research funded by Al Imam Muhammed Ibn Saud University

Research applied to the modeling and simulation of toxic element volatility during the treatment of radioactive wastes and fly ashes by thermal plasma

**2 years** **Research in Plasma** **2003 – 2005**

*King Abdul Aziz City for Science and Technology (KACST), institute of Atomic Energy research, Riyad, Kingdom of Saudi Arabia*

Research applied to plasma ion implantation for surface treatment

**3 years PHD** **Decembre 1997 – – July 2000**

*Limoges University, College of Sciences, Laboratory of Plasma chemistry*, *Limoges,* France

« Study of Heavy Metals Volatility During the Vitrification of Fly Ashes by Thermal Plasma »

Research applied to waste treatment by plasma

* Installation of reactor for the fly ashes vitrification
* Measure of heavy metals volatility by emission spectroscopy diagnostic
* Development of a computer code in FORTRAN language which simulates the heavy metals volatility during vitrification
* Participation in the contract : “Incineration of radioactive graphite muds in a plasma furnace with transferred arc”, collaboration with Commissariat of Atomic Energy (CEA)
* Participation in the contract : “Characterization of a plasma torch used for the post combustion of gases resulting from the waste incineration”, collaboration with Commissariat of Atomic Energy (CEA)

**6 months Master Training** January1997 – July 1997

Paul Sabatier University, *Centre of Plasma Physics, group “determination of the fundamental data and modeling of the non-self-governing discharges”,* Toulouse, France

“Study of Nitrogen impurities and the secondary emission coefficient on the stability of a glow discharge controlled by dielectric barrier at the atmospheric pressure”

Research applied in surfaces treatment by plasma

* Use of a computer code to study the influence of the nitrogen impurities on the stability of the discharge

**OTHER**

**8 months Consultant**  November 2000 – July 2001

*Exoline Company, Toulouse, France*

* Correction of books of mathematics and physics for terminal classes

***COMPUTER COMPETENCES***

*Office automation:* Word, Excel, PowerPoint

*Software :* Designer, HSC, Labview

*Programming:* FORTRAN, Graphic

*Environment :* Windows (95, 98, XP), UNIX

**LANGUAGES**

Technical English reading, speaking, writing

Technical French reading, speaking, writing

Literary Arab reading, speaking, writing

***Books Chapters:***

1. **I. Ghiloufi, (2011),** Chapter’s Name: Modeling and Simulation of Chemical System Vaporization at High Temperatures: Application to the Vitrification of Fly Ashes and Radioactive Wastes by Thermal Plasma

Book’s Name: [Heat and Mass Transfer - Modeling and Simulation](http://www.intechopen.com/books/show/title/heat-and-mass-transfer-modeling-and-simulation)

ISBN # 978-953-308-79-0, Intech open acces publisher, [www.intechweb.org](http://www.intechweb.org)

2- **I. Ghiloufi, (2012),** Chapter’s Name: Electronic Waste Treatment by Thermal Plasma,

Book’s Name: **E-Waste: Management, Types and Challenges,**

**ISBN:** 978-1-61942-217-9, Nova Science Publishers, www.novapublishers.com

**Journal Articles**

1. L. Khezami, K. Taha, E. Amami, I. Ghiloufi, L. El Mir, Removal of cadmium (II) from aqueous solution by zinc oxide nanoparticles: kinetic and thermodynamic studies, Desalination and Water Treatment, xx (2016) 1–9.
2. L. Khezami, K. Taha, **I. Ghiloufi**, L. El Mir, Adsorption and photocatalytic degradation of malachite green by vanadium doped zinc oxide nanoparticles, Water Science & Technology, 73, 4 (2016) 881-889.
3. I. Ghiloufi, J. El Ghoul, A. Modwi and L. El Mir, Preparation and characterization of Ca-doped zinc oxide nanoparticles for heavy metal removal from aqueous solution. MRS Advances, Available on CJO 2016 doi:10.1557/adv.2016.511
4. R. Slama, J. El Ghoul, **I. Ghiloufi**, K. Omri, L. El Mir, A. Houas, Synthesis and physico-chemical studies of vanadium doped zinc oxide nanoparticles and its photocatalysis, J Mater Sci: Mater Electron (2016) 27:8146–8153
5. **Ghiloufi I.** J. [El Ghoul, A. Modwi,](http://www.scopus.com/authid/detail.url?authorId=23987207000&origin=resultslist&zone=contextBox) [El Mir, L.](http://www.scopus.com/authid/detail.url?authorId=6508163478&origin=resultslist&zone=contextBox) **,** Ga-doped ZnO for adsorption of heavy metals from aqueous solution, Materials Science in Semiconductor Processing, 42 (2016) 102-106.
6. [AL-Hobaib, A.S.](http://www.scopus.com/authid/detail.url?authorId=8409701700&origin=resultslist&zone=contextBox) [El Ghoul, J.](http://www.scopus.com/authid/detail.url?authorId=23987207000&origin=resultslist&zone=contextBox) [**Ghiloufi, I.**](http://www.scopus.com/authid/detail.url?authorId=15836838500&origin=resultslist&zone=contextBox) [El Mir, L.](http://www.scopus.com/authid/detail.url?authorId=6508163478&origin=resultslist&zone=contextBox) [Synthesis and characterization of polyamide thin-film nanocomposite membrane reached by aluminum doped ZnO nanoparticles,](http://www.scopus.com/record/display.url?eid=2-s2.0-84938099303&origin=resultslist&zone=contextBox) Materials Science in Semiconductor Processing, 42 (2016) 111–114.
7. J. El Ghoul, **I. Ghiloufi**, L. El Mir, Effect of annealing temperature on the luminescence properties of Zn2SiO4:V nanocomposite, Journal of Luminescence 170 (2016) 288–292
8. **I. Ghiloufi,** Fast removal of Co2+ and Ni2+ from aqueous solution using partial carbonized nanoporous resin, Curr. World Environ. 2015; 10(3).
9. **I. Ghiloufi**, A. S. AL-Hobaib, L. El Mir, Partial carbonized nanoporous resin for uptake of lead from aqueous solution, Water Science & Technology, 72, 6 (2015) 974-982.
10. **I. Ghiloufi**, L. El Mir, Preparation and characterization of doped and undoped nanoporous carbon for heavy metal removal from aqueous solution, Phys. Status Solidi C 12, No. 1–2 (2015) 25–29
11. **I. Ghiloufi**, L. Khezami, L. El Mir, (2014) Preparation and characterization of nanoporous resin for heavy metal removal from aqueous, Journal of Water Supply: Research and Technology—AQUA**,** 64 (2015) 3; 316-325.
12. I. Ghiloufi, L. Khezami, L. El Mir, Nanoporous Activated carbon for fast uptake of heavy metals from aqueous solution, Desalination and Water treatment, 55 (2015) 4, 935-944.
13. O.M. Lemine, **I. Ghiloufi**, M. Bououdina, L. Khezami, M. M’hamed, A. Taha, (2014) Nanocrystalline Ni doped α-Fe2O3 for Adsorption of Metals from Aqueous Solution, Journal of Alloys and Compounds 588 (2014) 592–595.
14. **I. Ghiloufi,** Christophe Girold, Optical Emission Spectroscopy Measurements and Simulation of Radioelement Volatility During Radioactive Waste Treatment by Plasma, *J. Plasma Chemistry and Plasma Processing,* (2011) 31:109–125.
15. **Ghiloufi I.,**  [Amouroux](http://www.begellhouse.com/authors/1.html) J., Electrolyses Effects on the Cesium Volatility during Thermal Plasma Vitrification of Radioactive Wastes, J. High Temperature Materials Process, volume 14, Issue 1, (2010), p. 71-84.
16. **I. Ghiloufi,** Study of 239Pu, 144Ce and 90Sr Behavior During Radioactive Wastes Treatment by Thermal Plasma Technology, *J. Plasma Chemistry and Plasma Processing,* [Volume 29, Number 4](http://www.springerlink.com/content/n3m052k47617/?p=072116684fff414da68b928c2e60c55f&pi=0)  (2009) 321-331.
17. **I. Ghiloufi,** Simulation of radioelement volatility during the vitrification of radioactive wastes by arc plasma, J. Hazard. Mater. 163 (2009) 136-142.
18. **I. Ghiloufi,** Modeling of Chemical System Vaporization at High Temperatures: Application to the Vitrification of Fly Ashes by Plasma, J. High Temperature Materials Process, 12, n°1, (2008), 1-10.
19. **Ghiloufi I,** "Experimental Evolution of Radioactive waste treatment by plasma”, Journal of King Saud University, Vol. 21, Science (1), pp. 77-83, Riyadh (2009/1430H).
20. **I. Ghiloufi,** J. M. Baronnet, Simulation of Heavy Metals Volatility during the Vitrification of Fly Ashes by Thermal Plasma,J. High Temperature Materials Process, 10, n°1, (2006), 117-139.

**Conference Publications**

1. S. Almayman, **I. Ghiloufi**, I. AlShunaifi, A. Albeladi, M. Aljuhni, Treatment of fly ash from power plant using thermal plasma, EMRS Spring Meeting, (2016) Lille France.
2. **I. Ghiloufi**, J. El Ghoul, A. Modwi and L. El Mir, Preparation and characterization of Ca-doped zinc oxide nanoparticles for heavy metal removal from aqueous solution. MRS Spring Meeting, (2016) Phoenix Arizona USA.
3. **Ghiloufi I.** J. [El Ghoul, A. Modwi,](http://www.scopus.com/authid/detail.url?authorId=23987207000&origin=resultslist&zone=contextBox) [El Mir, L.](http://www.scopus.com/authid/detail.url?authorId=6508163478&origin=resultslist&zone=contextBox) **,** Ga-doped ZnO for adsorption of heavy metals from aqueous solution, EMRS Spring Meeting, (2015) Lille France.
4. [AL-Hobaib, A.S.](http://www.scopus.com/authid/detail.url?authorId=8409701700&origin=resultslist&zone=contextBox) [El Ghoul, J.](http://www.scopus.com/authid/detail.url?authorId=23987207000&origin=resultslist&zone=contextBox) [**Ghiloufi, I.**](http://www.scopus.com/authid/detail.url?authorId=15836838500&origin=resultslist&zone=contextBox) [El Mir, L.](http://www.scopus.com/authid/detail.url?authorId=6508163478&origin=resultslist&zone=contextBox) [Synthesis and characterization of polyamide thin-film nanocomposite membrane reached by aluminum doped ZnO nanoparticles,](http://www.scopus.com/record/display.url?eid=2-s2.0-84938099303&origin=resultslist&zone=contextBox)  EMRS Spring Meeting, (2015) Lille France.
5. **I. Ghiloufi**, L. Khezami, L. El Mir, Al-doped ZnO for adsorption of heavy metals from aqueous solution, 7th European Meeting on Chemical Industry and Environment, (2015) Tarragona, Spain.
6. **I. Ghiloufi**, L. El Mir, Preparation and characterization of doped and undoped nanoporous carbon for heavy metal removal from aqueous solution, EMRS Spring Meeting, (2014) Lille France.
7. **I. Ghiloufi**, Effect of indium concentration in zinc oxide nanoparticles on heavy metals adsorption from aqueous solution, 5th WSEAS International Conference on Nanotechnology, (2013), 329-335, Cambridge, UK
8. **I. Ghiloufi,** Nanomaterial for wastewater treatment: Effect of the presence of Indium in ZnO on the uptake of heavy metals from industrial wastewater, The 2 end Saudi international nanotechnology conference, (2012), KACST, Riyad, KSA.
9. L. Khezami, **I. Ghiloufi,** L. El Mir, Waste water treatment using synthetic nanouporous activated carbon, International workshop in advanced materials for sensors, electronic devices & renewable energy, (2012) Najran university KSA.
10. **I. Ghiloufi,** L. Khezami. L. El Mir, A. Alaamer, Radioactive wastes treatment by thermal plasma, International conference on materials science and its applications development and innovation, (2012), Taif University KSA.
11. L. El Mir, K. Amri, L. Khezami, **I. Ghiloufi,** C. Barthou, Visible luminescence of ZnO:Ca nanopowder prepared by sol-gel method, International conference on materials science and its applications development and innovation, (2012), Taif University KSA.
12. L. Khezami, K. Amri, **I. Ghiloufi,** A. Alaamer, C. Barthou, L. El Mir, Adsorption and photocatalytic degradation of malachite green by vanadium-doped zinc oxide nanopowder, International conference on materials science and its applications development and innovation, (2012), Taif University KSA.
13. L. Khezami, **I. Ghiloufi,** K. Amri, M. Hjiri, L. El Mir, Removal of trivalent arsenic by indium doped zinc oxide nanopowder, The 2 end Saudi international nanotechnology conference, (2012), KACST, Riyad, KSA.
14. **I. Ghiloufi,** " Computation and Simulation of 237Np and 241Am Volatility During Radioactive Wastes Treatment by Thermal Plasma" The fourth annual meeting for the saudi physical society, November 11-12, 2008, Riyadh, Saudi Arabia.
15. **I. Ghiloufi,** "Radioactive waste treatment by plasma" The third annual meeting for the saudi physical society, December 18-20, 2006, Riyadh, Saudi Arabia.
16. **Ghiloufi I.,** Use of Plasma for the Treatment of Solid Waste, Symposium on management of recycle and refuse of solid waste, 7-9December 2003Bengazi Libyan, p.223-228.
17. **Ghiloufi I.,** Cerqueira N., Vandensteendam C., Baronnet J.M., Heavy metals volatility modeling for fly ash plasma vitrification, 15th International Symposium on Plasma Chemistry, July 2-6, 2001, Orléans p.2441.
18. **Ghiloufi I.,** Cerqueira N., Vandensteendam C., Baronnet J.M., Heavy metals volatility under transferred arc plasma, Symposium A, Thermal Plasma Process (E-MRS), Spring Meeting –May 30 – June 2, 2000 Strasbourg, France.
19. Cerqueira N., **Ghiloufi I.,** Vandensteendam C., Baronnet J.M., Valorisation de résidus minéraux par plasma d’arc transféré, Journée de la société Française de chimie, Orléans, 27 janvier 2000.
20. Cerqueira N., **Ghiloufi I.,** Vandensteendam C., Baronnet J.M., Mineral waste processing under transferred arc plasma, 14th International Symposium on Plasma Chemistry, August 2-6, 1999, Prague p.2441.

**Research Reports**

1. **I. Ghiloufi and L. El Mir,** Synthesis and characterization of nanometal oxides for the adsorption of heavy metal from waste water, National plan for sciences and technology (10/2014-10/2016).
2. **L. Khezami and I. Ghiloufi,** Adsorption of heavy metal and radioelement from waste water using activated carbon, National plan for sciences and technology (10/2010-10/2012).
3. I. Ghiloufi, “Modeling and simulation of toxic element volatility during the treatment of radioactive wastes and fly ashes by thermal plasma”, Deanship of Research, *Al-Imam Muhammed Ibn Saud University* (09/2007-09/2009).