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Curriculum Vitae

Professor at the Higher School of Technology of Beni Mellal, Morocco. **specialty (Physics)**

Profession

2019—*Present*	**Professor at the Higher School of Technology of Béni Mellal, Morocco specialty (Physics)**
2014-2019	**Teacher of Secondary Education Qualifying 1st Grade "Amr Ou Halli -Agbala High School", Morocco**

Education

2018	**PhD in Condensed Matter and Modeling of Systems - Faculty of Sciences Rabat, Morocco**
2016	**DPG/ENTRIA Physics school on radiation exposure and disposal options for nuclear waste Physikzentrum Bad Honnef, Germany**
2015	**DPG School on Physical properties of nanoparticles: Characterization and applications Physikzentrum Bad Honnef, Germany**
2015	**Training certificate on university pedagogy - Faculty of Sciences Rabat, Morocco**
2013	**intellectual property training certificate World Intellectual Property Organization (WIPO)**
2012	**Use of scientific applications on the computing grid- National Center for Scientific and Technical Research (CNRST- Rabat)**
2011-2012	**Master's degree (Industrial Inorganic Materials and Mineral Resources) - Faculty of Sciences Rabat**

Experiences / Internships

2018-202: Referred in recognized scientific journals (Journal of Computational Electronics, Optical and Quantum Electronics, etc.)

2012: ENIME National School of Mineral Industry (Study of the metallurgical weldability of steels)

2005: ONICL National Interprofessional Office for Cereals and Legumes

2004: ONEP National Drinking Water Office

2004: Direction of Meteorology North-Rabat

Working on

- **Metallurgical**
- **Photovoltaic**
- **Spintronic**

Publications

1 **Y. Ziat,** M. Hammi, Z. Zarhri, O. Ifguis, "*Surface Analysis, Mechanical and Corrosion Behavior of Welded Steel in 1M HCl Corrosive Media with Epoxy/Alumina Coating*", Biointerface Research in Applied Chemistry, 3 (2022) 3559-3571

2 Z. Zarhri, M. B. C. Dzul, **Y. Ziat**, L. F. J. Torrez, O. Oubram, O. Ifguis, "*Comparative study of optical properties of ZnO Zinc Blend and Rock Salt structures, TB- mBJ and GGA approximations*", Physica B, 2022

3 **Y. Ziat**, Z. Zarhri, M. Hammi, H. Belkhanchi, O. Ifguis, A. D- Cano, A C-Bastos, "*Effect of* (*Na, Si, Al, K or Ca*) *doping on the electronic structure and optoelectronic properties of half-Heusler LiMgN alloy: Ab initio framework*", Solid State Communications, (2022)

4 M. Hammi, **Y. Ziat**, C. Lazrak, "*Positive temperature coefficient in lead phosphate glass-based composites with charges-hopping*", Materials Chemistry and Physics, 276 (2022) 125370

5 O. Ifguis, A. Moutcine, C. Laghlimi, **Y. Ziat**, R. Bouhdadi, A. Chtaini, A. Moubarik, M. Mbarki, *Biopolymer-modified carbon paste electrode for the electrochemical detection of Pb(II) in water*, Journal of Analytical Methods in Chemistry

6 M. Hammi, Y. Ziat, Z. Zarhri, C. Laghlimi, A. Moutcine, "*Epoxy/alumina composite coating on welded steel 316L with excellent wear and anticorrosion properties*", Scientific Reports, 11 (2021) 12928

7 H. Belkhanchi, M. Rouan, M. Hammi, **Y. Ziat**, M. Chigr, "*Synthesis of biodiesel by transesterification of used frying oils (UFO) through basic homogeneous catalysts (NaOH and KOH)*", Biointerface Research in Applied Chemistry, 11 (2021) 12858–12868

8 Y. Ziat, Z. Zarhri, M. Hammi, C. Laghlimi, A. Moutcine, S. Rzaoudi, "*The ferromagnetism stability induced by (Ti, V and Cr)—doped LiMgN alloy for the spintronic application*: First-principles calculations", Journal of Superconductivity and Novel Magnetism, (2021) 1-7

9 H. Belkhanchi, Y. Ziat, M. Hammi, C. Laghlimi, A. Moutcine, A. Benyounes, "*Nitrogen doped carbon nanotubes grafted TiO_2 rutile nanofilms: Promising material for dye sensitized solar cell application*", Optik, 229 (2021) 166234

10 C. Laghlimi, Y. Ziat, A. Moutcine, M,Hammi, Z. Zarhri, O. Ifguis, A.Chtaini, "*A new sensor based on graphite carbon paste modified by an organic molecule for efficient determination of heavy metals in drinking water*", Chemical Data Collections, 31 (2021) 100595

11 **Y. Ziat**, H. Belkhanchi, M. Hammi, O. Ifguis, "*Epoxy/Silicone blend loaded with N-doped CNTs composites: Study on the optoelectronic properties*", International Journal of Photoenergy, 2021 (2021) 3749722

12 Y. Ziat, Z. Zarhri, M. Hammi, C. Laghlimi, A. Moutcine, "*Computational study of the magnetic and electronic properties of the $LiMgN(Vc_{1-x}Z_x)$ and $LiMg(N_{1-x}Z_x)$ alloys where Z is B, C or S*", Computational Condensed Matter, 25 (2020) e00502

13 C. Laghlimi, Y. Ziat, A. Moutcine, M,Hammi, Z. Zarhri, R. Maallah, O. Ifguis, A.Chtaini, " *Analysis of Pb(II), Cu(II) and Co(II) in drinking water by a new carbon paste electrode modified with an organic molecule*" Chemical Data Collections, 29 (2020) 100496

14 H. Belkhanchi, **Y. Ziat**, M. Hammi, C. Laghlimi, A. Moutcine, A. Benyounes "*Synthesis of N-CNT/TiO_2 composites thin films: Surface analysis and optoelectronic properties*", E3S Web of Conferences, 183 (2020) 05002

15 A. Moutcine, C. Laghlimi, **Y. Ziat**, M. A. Smaini, S. E. El Qouatli, M. Hammi, A. Chtaini," *Preparation, characterization and simultaneous electrochemical detection toward Cd(II) and Hg(II) of a phosphate/zinc oxide modified carbon paste electrode*", Inorganic Chemistry Communications, 116 (2020) 107911

16 **Y. Ziat**, M. Hammi, Z. Zarhri, C. Laghlimi,"*Epoxy coating modified with graphene: A promising composite against corrosion behavior of copper surface in marine media*", Journal of Alloys and Compounds, 820 (2020) 153380

17 Z. Zarhri, M. Ángel Avilés Cardos, **Y. Ziat**, M. Hammi, O. El Rhazouani, J. Cesar Cruz Argüello, D. Avellaneda Avellaneda," *Synthesis, structural and crystal size effect on the optical properties of sprayed TiO_2 thin films: Experiment and DFT TB-mbj*", Journal of Alloys and Compounds, 819 (2020) 153010

18 **Y. Ziat**, M. Hammi, H. Belkhanchi, O. Ifguis, S. Rzaoudi1, C. Laghlimi, A. Moutcine, C. Lazrak, "*CNTs modified ZnO and TiO_2 thin films: The effect of loading rate on band offset at metal / semiconductor interfaces*", E3S Web of Conferences, 337 (2022) 05003

19 M. Hammi, **Y. Ziat**, O. Ifguis, "*The influence of lead brass alloys sampling parameters on the surface properties and mechanical responses*", Journal of Physics: Conference Series, (2021)

20 Z. Zarhri, **Y. Ziat** Comparative study of optical properties of ZnO zinc blend and rock salt structures, Tb-mbj and GGA approximations, Physica B: Physics of Condensed Matter

21 **Y. Ziat**, M. Hammi, Z. Zarhri, C. Laghlimi, O. El Rhazouani," *Ferrimagnetism and ferromagnetism behavior in (C, Mn) co-doped SnO2 for microwave and spintronic: Ab initio investigation*" Journal of Magnetism and Magnetic Materials, 483 (2019) 219-223

22 R. Bouachraoui, **Y. Ziat**, Y. Sbai, O. El Rhazouanib, F. Goumrhar, L. Bahmad," *The magnetocaloric and magnetic properties of the MnFe4Si3: Monte carlo investigation*", Journal of Alloys and Compounds, 809 (2019) 151785

23 **Y. Ziat** , M. Hammi, " *An experimental evaluation of inhibiting corrosion effect of phosphate glass on mild steel in acidic solution*", Materials Research Express, 6 (2019) 086567

24 R. Bouachraoui, **Y. Ziat**, N. Tahiri, L. Bahmad, O. El Rhazouani, A. Benyoussef," *Study of the frustration in a 2D square lattice: a Monte Carlo study*", Materials Research Express, 6 (2019) 056109.

25 R. Bouachraoui, **Y. Ziat**, L. Bahmad, N.Tahiri," *Investigation of electronic and magnetic properties of FeS: First principle and Monte Carlo simulations*", Solid State Communications, 274 (2018) 46-50

26 A. Benyounes, M. Hammi, **Y. Ziat**, A. Slassi, N. Zahra," *Fabrication and characterization of novel transparent conducting oxide N-CNT doped ZnO for photovoltaic applications*", Applied Physics A, 124 (2018) 90

27 M. Houmad, Z. Zarhri, **Y. Ziat**, Y. Benhouria, A. Benyoussef, A. El Kenz," *Ferromagnetism induced by double impurities Mn and Cr in 3C–SiC*", Chinese Journal of Physics, 56 (2018) 404-410

28 A. Slassi, M. Hammi, Z. Oumekloul, A. Nid-bahami, M. Arejdal, **Y. Ziat**, O. El Rhazouani," *Effect of halogens doping on transparent conducting properties of SnO_2 rutile: an ab initio investigation*", Optical and Quantum Electronics, 50 (2018) 8

29 O. El Rhazouani, A. Slassi, **Y. Ziat**, A. Benyoussef, Current Applied Physics," *Exchange couplings calculation in Sr_2CrNO_6 (N= Os, Ir) Double Perovskites: Monte Carlo simulation*", 17 (2017) 951-956

30 O. El Rhazouani, A. Slassi, **Y. Ziat**, A. Benyoussef," *Exchange couplings calculation in the Double Perovskite Sr_2CrWO_6*", Physica A: Statistical Mechanics and its Applications, 476 (2017) 38-42

31 O. El Rhazouani, A. Slassi, **Y. Ziat**, A. Benyoussef, "*Magnetocaloric effect in Sr_2CrIrO_6 double perovskite: Monte Carlo simulation*",Journal of Physics and Chemistry of Solids, 104 (2017) 32-35

32 O. El Rhazouani, A. Slassi, **Y. Ziat**, A. Benyoussef, "*Competing Exchange Couplings in Sr_2CrReO_6 Double Perovskite*", Physics Letters A, 381 (2017) 1177-1180

33 M. Hammi, **Y. Ziat**, A. Ait Raiss, M. Arejdal, Y. Sbai, O. El Rhazouani, A. Slassi,"*Effect of Fe doping on the electronic structure, optical and electrical properties of ZnO compound: Ab initio insights*", Optik, 131 (2017) 399-405

34 **Y. Ziat**, Z. Zarhri, M. Hammi, A. Slassi, A. El Kenz, A. Benyoussef, "*The effect of nitrogen doping on magnetic and electronic properties of $Fe_{0.98}TM_{0.02}S_2$ pyrite (TM= V or Cr): Ab-initio calculations*", Solid State Communications, 237 (2016) 5-9

35 **Y. Ziat**, A. Slassi, Z. Zarhri, M. Hammi, A. El Kenz, A. Benyoussef, "*First-Principles Study of Magnetic and Electronic Properties of Fluorine-Doped $Sn_{0.98}Mn_{0.02}O_2$ System*", Journal of Superconductivity and Novel Magnetism, 29 (2016) 2979-2985

36 **Y. Ziat**, A. Abbassi, A. Slassi, M. Hammi, O. El Rhazouani, A. El Kenz, "*First-principles investigation of the electronic and optical properties of Al-doped FeS_2 pyrite for photovoltaic applications*", Optical and Quantum Electronics, 48 (2016) 511

37 Z. Zarhri, **Y. Ziat**, O. El Rhazouani, A. Benyoussef, A. El kenz, "*Titanium atoms dimerization phenomenon and magnetic properties of titanium-antisite (Ti_O) and chromium doped rutile TiO_2, ab-initio calculation*", Journal of Physics and Chemistry of Solids, 94 (2016) 12-16

38 Z. Zarhri, **Y. Ziat**, O. El Rhazouani, A. Slassi, A. Benyoussef, A. El Kenz," *Ab-initio study of magnetism behavior in TiO2 semiconductor with structural defects*", Journal of Magnetism and Magnetic Materials, 406 (2016) 212-216

39 A. Slassi, **Y. Ziat**, Z. Zarhri, M. Abdellaoui, A. F. Lamrani, "*Ab initio investigations of the F-doped ZnO transparent conducting oxide*", Physica Scripta, 90 (2015) 085801

40 A. Slassi, N. lakouari, **Y. Ziat**, Z. Zarhri, A. F. Lamrani, E. K. Hlil, A. Benyoussef,"*Ab initio study on the electronic, optical and electrical properties of Ti-, Sn-and Zr-doped ZnO"*, Solid State Communications, 218 (2015) 45-48

41 **Y. Ziat**, Z. Zarhri, A. Slassi, A. Benyoussef, A. El Kenz, "*The Magnetism Behavior of $Fe_{0.93}V_{0.02}Cr_{0.05}S_2$ Pyrite Within Ab Initio Calculation*", Journal of Superconductivity and Novel Magnetism, 28 (2015) 3645-3649

42 **Y. Ziat**, M. Boujnah, A. Benyoussef, A. El Kenz, "*Magnetic Properties of Co-(Os, Mn) Co-doped ZrO_2 Within GGA and mBJ Approaches*", Journal of Superconductivity and Novel Magnetism, 28 (2015) 3397-3403.

43 **Y. Ziat**, A. Benyoussef, A. El Kenz," *Magnetic and electronic properties of Cr-and Mn-doped SnO_2: ab initio calculations*", Journal of Physics and Chemistry of Solids,75 (2014) 701-709

Communications

1 **Y. Ziat**, M. Hammi, H. Belkhanchi, C. Laghlimi, O. Ifguis, A. Moutcine, S. Rzaoudi, "*CNTs modified ZnO and TiO2 thin films: The effect of loading rate on Schottky contact barrier*" The 2^{ed} international E-conference on Climate Nexus Perspectives (I2CNP): Water Food and Biodiversity organized by the research team "Environment and Natural Resources Management" in the Higher School of Technology, Khenifra, in 04/06/2020 - 05/06/2020.
Lien sur le WEB:
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2 Y. Ziat, M. Hammi, H. Belkhanchi, C. Laghlimi, A. Moutcine, "Study on N doped CNT/ Titanium Dioxide (Anatase) composites films: Swanepoel method and opto-electronic characteristic", Impact of COVID – 19 on Human Health & Environment: International e- Conference organized by P.G. Department of Botany, Tata

College, Chaibasa (Kolhan University, Chaibasa), Singhbhum (W), Jharkhand, India 833202, in July, 29 -30, 2020

3 **Y. Ziat**, H. Belkhanchi, M. Hammi, C. Laghlimi, A. Moutcine, "*Synthesis of N-CNT/TiO_2 composites thin films: surface analysis and opto-electronic properties*" The 1st international E-conference on Climate Nexus Perspectives (I2CNP): Water Food and Biodiversity organized by the research team "Environment and Natural Resources Management" in the Higher School of Technology, Khenifra, in June, 04th, 2020.
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https://www.e3s-conferences.org/articles/e3sconf/abs/2020/43/e3sconf_i2cnp2020_05002/e3sconf_i2cnp2020_05002.html

4 **Y. Ziat**, M. Hammi, Z. Zarhri, C. Laghlimi, A. Moutcine, O. El Rhazouani **, "***Epoxy based composite coating on welded steel 316 l with excellent wear and anticorrosion properties*", advances in physics conferences series 2020, Apioc2020-SymposiumV
London EC1A 2BN, UK, in 11-12 April 2020.
Lien sur le WEB:
https://apioc.e-master.org/epoxy-based-composite-coating-on-welded-steel-316l-with-excellent-wear-and-anticorrosion-properties/