



Mohammed El Amine Monir

35 years old
Street Frères Touaa, Mascara City Center,
(29000) Mascara – Algeria
Sex: Male | Date of birth: 15/06/1984 | Marital status: Married | Nationality: Algerian

PhD in Physics

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SKILLS

Languages:

English: Near native and speaker difficulty.

French: Near native and speaker fluency.

Arabic: Native and speaker fluency.

Programs:

Good keyboard skills, familiarity with Excel, Power-Point, Word, WIEN2k, and Origin packages.

Knowledge in:

Mathematics, Crystallography, Materials Physics, Quantum Mechanics, Classical Mechanics, Groups Theory, Thermodynamic and Statistical Physics, Electronic and Magnetic properties of Half-metallic Materials.

WORK EXPERIENCE

2015 - Present

UNIVERSITY ASSOCIATE PROFESSOR, Area: Higher Education, Mascara University, Algeria.

Missions and tasks realized:

-Unity: Advanced Quantum Mechanics (in charge of course, tutorials, and TP (Practical Works)).

-Unity: Quantum Mechanics second level (in charge course and tutorials).

-Unity: Atomic Physics (in charge course and tutorials).

-Unity: Nuclear Physics (in charge course and tutorials).

2013 - 2015

UNIVERSITY ASSISTANT PROFESSOR, Area: Higher Education, Mascara University, Algeria.

Missions and tasks realized:

-Unity: Methods of Analysis, using the MATLAB program (in charge of TP (Practical Works)).

-Unity: Advanced Quantum Mechanics (in charge course and tutorials).

2010 - 2015

HIGH SCHOOL TEACHER, Area: Education, Academy of Mascara, Algeria.

Missions and tasks realized:

-Physics teacher at secondary school (1st, 2nd and 3rd year students).

EDUCATION AND QUALIFICATIONS

Year 2019 **Mascara- Algeria** Habilitation degree to supervise research in Physics, Option: Materials Science. *University of Mascara*

Year 2016 **Mascara- Algeria** PhD degree in Solid State Physics, Option: Materials Science. *University of Mascara*

Year 2010 **Mascara- Algeria** Master's degree in Physics, Option: Materials Science. *University of Mascara*

Year 2008 **Mascara- Algeria** High studies degree in Physics, Option: Materials Science. *University of Mascara*

INTERESTS

Sport, Cinema, Reading, **Projects**: Scientific researches in the field of materials physics (Physics of the Solid State)

PUBLICATIONS

1. *Ab-initio* study of structural, electronic, magnetic and optical properties of Ti-doped ZnTe and CdTe.
M. El Amine Monir, H. Baltache, G. Murtaza, R. Khenata, S. Bin Omran, S. Ugur, S. Benalia, and D. Rached, International Journal of Modern Physics B, Vol. 28, No. 11 (2014) 1450080.
2. Structural and elastic properties of TiN and AlN compounds: first-principles study.
Meriem Fodil, **M. El Amine Monir**, Mohammed Ameri, Hadj Baltache, Bachir Bouhafs, Y. Al-Douri, and Ibrahim Ameri, Materials Science-Poland, Vol. 32, No. 02 (2014) 220-227.
3. Spin-polarized structural, elastic, electronic and magnetic properties of half-metallic ferromagnetism in V-doped ZnSe.
M. El Amine Monir, H. Baltache, G. Murtaza, R. Khenata, Waleed K.Ahmed, A. Bouhemadou, S. Bin Omran, and T. Seddik, Journal of Magnetism and Magnetic Materials, Vol. 374 (2015) 50–60.
4. First-principles calculations of a half-metallic ferromagnet zincblende $Zn_{1-x}V_xTe$.
M. El Amine Monir, H. Baltache, R. Khenata, G. Murtaza, Sikander Azam, A. Bouhemadou, Y. Al-Douri, S. Bin Omran, and Roshan Ali, Journal of Magnetism and Magnetic Materials, Vol. 378 (2015) 41–49.
5. Half-metallic ferromagnetism in $Be_{1-x}V_xTe$ alloys: An *Ab-initio* study.
M. El Amine Monir, R. Khenata, G. Murtaza, H. Baltache, A. Bouhemadou, Y. Al-Douri, S. Azam, S. Bin Omran, and H. Ud Din, Indian Journal of Physics, Vol. 89, No. 12 (2015) 1251–1263.
6. Study of structural, electronic and magnetic properties of CoFeIn and Co_2FeIn Heusler alloys.
M. El Amine Monir, R. Khenata, H. Baltache, G. Murtaza, M. S. Abu-Jafar, A. Bouhemadou, S. Bin Omran, and D. Rached, Journal of Magnetism and Magnetic Materials, Vol. 394 (2015) 404–409.
7. First-principles Investigation of Half-metallicity and Ferrimagnet Properties of Co_2ScZ ($Z = As, Sb, \text{ and } Bi$).
Mohammed El Amine Monir, H. Baltache, G. Murtaza, and Asif Mehmood, Journal of Superconductivity and Novel Magnetism, Vol. 29, No. 2 (2016) 501-508.
8. Structural, Magnetic, and Optoelectronic Properties of $TbNi_5$, $TbNi_3Ti_2$ and $TbNi_3V_2$ Compounds.
Mohammed El Amine Monir, H. Baltache, R. Khenata, G. Murtaza, and Asif Mahmood, Journal of Superconductivity and Novel Magnetism, Vol. 29, No. 8 (2016) 1255-1266.
9. Half-metallicity and optoelectronic properties of V-doped zincblende ZnS and CdS alloys.
Mohammed El Amine Monir, H. Baltache, R. Khenata, G. Murtaza, R. Ahmed, Waleed. K. Ahmed, S. Bin Omran, and A. Bouhemadou, International Journal of Modern Physics B, Vol. 30, No. 8 (2016) 1650034.
10. Electronic, bonding, linear and non-linear optical properties of novel $Li_2Ga_2GeS_6$ compound.
Wilayat Khan, G. Murtaza, T. Ouahrani, Asif Mahmood, R. Khenata, **Mohammed El Amine Monir**, and H. Baltache, Journal of Alloys and Compounds, Vol. 674 (2016) 109-115.
11. Doping-Induced Half-Metallic Ferromagnetism in Vanadium and Chromium-Doped Alkali Oxides K_2O and Rb_2O : *Ab Initio* Method.
Mohammed El Amine Monir, A. Abdiche, Y. Al-Douri, R. Khenata, S. Bin Omran, X.Wang, D. P. Rai, A. Bouhemadou, W. K. Ahmed, and C. H. Voon, Journal of Superconductivity and Novel Magnetism, Vol. 30, No. 8 (2017) 2197–2210.
12. Mechanical and magneto-electronic properties of half-metallic ferromagnetism in Ti-doped ZnSe and CdSe alloys: *Ab initio* study.
Mohammed El Amine Monir, Hayat Ullah, Hadj Baltach, M. Gulbahar Ashiq, and R. Khenata, Journal of Magnetism and Magnetic Materials, Vol. 442 (2017) 107–117.
13. Half-Metallic Ferrimagnetic Characteristics of Co_2YZ ($Z = P, As, Sb, \text{ and } Bi$) New Full-Heusler Alloys: A DFT Study.
O. Amrich, **Mohammed El Amine Monir**, H. Baltach, S. Bin Omran, Xiao-Wei Sun, Xiaotian Wang, Y. Al-Douri, A. Bouhemadou, and R. Khenata, Journal of Superconductivity and Novel Magnetism, Vol. 31, No. 1 (2018) 241–250.
14. The Effects of Ru and Rh Substitutions on the Magneto-electronic and Optical Properties of the $TbNi_5$ Intermetallic Compound: An *Ab Initio* Investigation.
Mohammed El Amine Monir, Hadj Baltach, Younes Mouchaal, and G. Murtaza, Journal of Superconductivity and Novel Magnetism, Vol. 31, No. 2 (2018) 547–559.
15. First-principles investigation on the mechanical and electronic properties of novel $Pb_{1-x}Ce_xY$ alloys ($Y = S, Se, \text{ and } Te$): an *Ab initio* study.
M. Zenasni, **Mohammed El Amine Monir**, H. Baltach, Xiao-Wei Sun, Dinesh Varshney, S. Bin Omran, Mohamed Sehil, and R. Khenata, Material Research Express, Vol. 4, No. 9 (2017) 095903.
16. First-principles investigations on the structural, elastic, phase stability and electronic properties of the binary monopnictide compounds based on the fermium FmX ($X = P, As, \text{ and } Sb$).
Mohammed El Amine Monir, Hayat Ullah, Hadj Baltach, and Younes Mouchaal, Computational Condensed Matter, Vol. 13 (2017) 131-138.

17. Half-metallic Ferromagnetism in Novel Rh₂-based Full-Heusler Alloys Rh₂FeZ (Z = Ga and In).
Mohammed El Amine Monir, Hayat Ullah, Hadj Baltach, and Younes Mouchaal, *Journal of Superconductivity and Novel Magnetism*, Vol. 31, No. 7 (2018) 2233–2239.
18. Shifting in optoelectronic properties from pure K₂O and Rb₂O compounds to their V- and Cr-doped alloys.
Mohammed El Amine Monir, Hayat Ullah, Hadj Baltach, Younes Mouchaal, Omar Merabiha, Aicha Bahnes, and Djamel Rached, *International Journal of Modern Physics B*, Vol. 32 (2018) 1850116.
19. Half- Metallic Ferromagnetism in V-Doped FmP Binary Monopnictide Compounds: an *Ab Initio* Calculation.
Aicha Bahnes, **Mohammed El Amine Monir**, Hadj Baltach, Younes Mouchaal, Abdelbassat Kenane, and A. Bekhti-Siad, *Journal of Superconductivity and Novel Magnetism*, Vol. 32, No. 3 (2019) 705–714.
20. Study of Structural, Electronic, and Magnetic Properties of Cubic Lanthanide Based on Oxide Perovskite-Type NdGaO₃.
Mohammed El Amine Monir, Hadj Baltach, Fouad El Haj Hassan, Aicha Bahnes, and Zohra Bahnes, *Journal of Superconductivity and Novel Magnetism*, Vol. 32, No. 7 (2019) 2149–2154.
21. *ab-initio* investigations of electronic and magnetic properties of the tetragonal chalcopyrite BeTiTe₂ compound: DFT + *U* study.
Mohammed El Amine Monir, Fouad El Haj Hassan, Aicha Bahnes, Hadj Baltach, and Abdelkarim Bendoukha Reguig, *Philosophical Magazine*, Vol. 99, Issue 17 (2019) 2185-2197.
22. First-principles calculations to investigate half-metallic ferromagnetism in Zn_{0.50}Ti_{0.50}S alloy by using DFT + *U* calculations.
Aicha Bahnes, **Mohammed El Amine Monir**, Younes Mouchaal, Fouad El Haj Hassan, Zohra Bahnes, and Abdelkarim Bendoukha Reguig, *Philosophical Magazine*, Vol. 99, Issue 23 (2019) 3000-3014.
23. Density functional theory investigation of half-metallic ferromagnetism in V-doped GaP alloys.
Mohammed El Amine Monir, Aicha Bahnes, Abdelkader Boukourt, Abdelkarim Bendoukha Reguig, and Younes Mouchaal, *Journal of Magnetism and Magnetic Materials*, Vol. 497 (2020) 166067.

COMMUNICATIONS

1. Spin-polarized structural and electronic properties of zinc-blend $\text{Be}_{0.50}\text{V}_{0.50}\text{Te}$ alloy.
Hadj Baltache, **Mohammed El Amine Monir**, Rabah Khenata, Djamel Rached, and Taeib Seddik, 4th Tunisian Crystallographic Meeting An International Conference, Djerba-Tunisia, 2-5th November, 2014.
2. Structural and electronic properties of $\text{Cd}_{0.75}\text{V}_{0.25}\text{S}$ alloy.
Hadj Baltache, **Mohammed El Amine Monir**, Rabah Khenata, Djamel Rached, and Taeib Seddik, Conference “Materiaux 2015”, Mahdia-Tunisia, 22-26th March, 2015.
3. Study of structural and electronic properties of half-metallic ferromagnetism in zinc-blend $\text{Zn}_{0.50}\text{V}_{0.50}\text{Se}$.
Hadj Baltache, **Mohammed El Amine Monir**, Rabah Khenata, Djamel Rached, and Taeib Seddik, Third Euro-Mediterranean Meeting of Functionalized Materials, Hammamet-Tunisia, 09-13th September, 2015.
4. Structural, electronic and thermodynamic properties of CeO_2 compound: An *Ab initio* study.
Hadj Baltach, A. Bendjedid, **Mohammed El Amine Monir**, Tarik Ouahrani, Rabah Khenata, Abdelkrim Bendoukha-Reguig, and Djamel Rached, International Conference on Energy and Thermal Engineering, Istanbul-Turkey, 25-28th April, 2017.
5. Le Soleil.
Mohammed El Amine Monir, The first day of Physics in Mustapha Stambouli University of Mascara, Mascara-Algeria, 02nd Mai, 2018.

REVIEWINGS

1. Fundamental properties of scandium chalcogenides and their alloys: DFT study.
A. Ahmad, S. Mahmoud, B. Alshafaay, R. Halabi, and F. El Haj Hassan, Indian Journal of Physic, Vol. 93, Issue 09 (2019) 1129–1135.
2. First Principles Study of the Structural, Electronic, Magnetic and Thermoelectric Properties of Zr_2RhAl .
Marah J. Alrahamneh, Ahmad A. Mousa, and Jamil M. Khalifeh, Physica B: Condensed Matter, Vol. 552 (2019) 227–235.
3. First-principles study on the structural, electronic, and magnetic properties in (001) and (110) surfaces of quaternary Heusler alloy TiZrCoAl .
YanYang, Zhong-Ying Feng, and Jian-MinZhang, Materials Chemistry and Physics, Vol. 552 (2019) 227–235.
4. The manipulation of the physical properties of some typical zinc-blende semiconductors by the electric field.
Yan-Li Li, Hao-Yu Dong, San-Lue Hu, Jia-Ning Li, Meng-Qi Liu, and Zi-Hang Yao, Modern Physics Letters B, Vol. 33, No 09 (2019) 1950110.
5. Electrical conductivity and Impedance calculated beyond τ -approximation.
Farraj Maallawi, and Fouad El Haj Hassan, Indian Journal of Physic, Vol. xx, Issue xx (xxxx) xxxx–xxxx.
6. Mechanical, electronic and optical properties of SeZnO_3 : A GGA+*U* study.
Suleyman Cabuk, Philosophical Magazine, Vol. xx, Issue xx (xxxx) xxxx–xxxx.
7. The effect of Hubbard-like interaction on molecular magnetism of TM-coronene complex (TM = Fe and Co).
Mahdi Afshar, and Adeleh Darabi, Journal of Physics: Condensed Matter, Vol. 32, Issue 11 (2020) 114002.
8. Elastic and ultrasonic properties of fermium mononpnictides.
xxxxxx, xxxxxx, xxxxxx, and xxxxxx, Engineering and Applied Science Research, Vol. xx, Issue xx (xxxx) xxxx–xxxx.

FRAMEWORKS

1. **Medjahed Sihem**, Etude des propriétés structurales, électroniques et magnétiques du composé Li_2O dopé par le vanadium (V), 2017-2018.