Curriculum Vitae

Dr. Souraya Goumri-Said

ASSISTANT PROFESSOR OF PHYSICS

College of Science, Alfaisal University
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Education

2013 -present	Qualification for the Rank of Full Professor of Physics, CNU (University National Council), Ministry of Higher Education and Scientific Research, France Section 28: Condensed Matter and Materials, Section 30: Optical material science.
2004	Ph.D. Physics, University of Bourgogne (France). Major: Nano-Optic. Title : "Contribution to study of the optical images formation in Near-field Microscopy: two-dimensional study of the probe"

Professional Experience

2015 – present	Assistant Professor of Physics, College of Science, Alfaisal University
2014 – present	Research Scientist, School of Chemistry and Biochemistry, at the Georgia Institute of Technology
2010 – 2014	Research fellow, Physical Science & Engineering division, at KAUST
2009 – 2010	Research Assistant and Manager of Mirage project, collaboration between Arcelor Mittal-University of Namur, Physics Department (FUNDP) (NAMUR, Belgium)
2008 – 2009	Research associate CERUNA Project, Physics Department (FUNDP) (NAMUR, Belgium)
2007 – 2008	Contractual Assistant Professor at University of Maine, Le Mans (France).
2006-2007	Research associate at the University of Maine, Le Mans (France).
2005 – 2006	Research associate and lecturer at Physics Department, Technische Universität Kaiserslautern (Germany)
2004 – 2005	Contractual Assistant Professor at University of Paris 12 (Val de Marne, Creteil, Paris) (France
2000-2004	PhD student, teaching assistant, lecturer and research associate at college of science, physics department (Dijon, France)

Research Interests

I am physicist and computational material scientist seeking to solve contemporary challenging problems using theoretical and computational approaches. In the recent past, I used ab-initio methods and molecular dynamic simulations to explore physical and chemical properties of semiconductor and nitrides and borides based transition metal. Magnetic material for RAM storage such as the diluted magnetic semiconductors in different forms: bulk, thin-film, clusters and recently nanowires. My main recent research topics are related to designing new materials for various applications including: materials for photovoltaic, thermoelectric and energy conversion, materials for hydrogen storage, molecular devices for electronic and spintronic applications.

Teaching Experience (recent)

- Mechanic for life sciences (PHU 205), 2nd year for science major (fall'15 and fall'16, Alfaisal University)
- Mechanics and Waves for Engineers (PHU 103) freshman level course for engineering minor (fall'15 and fall'16, Alfaisal University).
- Programming for life science (CSC112) (spring'16 and spring'17, Alfaisal University)
- Electromagnetism and Waves for Engineers (PHU 124) freshman level course for engineering minor (spring'16 and spring'17, Alfaisal University)
- Electromagnetism and optics for life science, 2nd year for science major (spring'16 and spring'17, Alfaisal University).
- Introduction to nanoscience and nanotechnology I (MNT 510), Master of nanotechnology (fall'15 and fall'16, Alfaisal University).
- Renewable energy and storage systems (MNT 511) (spring'16 and spring'17, Alfaisal University)

University service

1) Alfaisal University, Saudi Arabia, (March 2016 – till now), life science program council, representative member of physics department.

2) Alfaisal University, Saudi Arabia, (october2015 – till now), Research and development committee of college of Science, representative member of physics department

3) Alfaisal University, Saudi Arabia, (october2016 – till now), curriculum committee of Physics Department, Chair.

4) Alfaisal University, Saudi Arabia, (october2016 – till now), Research and development committee of Physics Department, Chair.

5) Alfaisal University, Saudi Arabia, (August 2015 – till now), member of the Nanoscience & Nanotechnology master program Committee.

6) Alfaisal University, Saudi Arabia, (october2016 – till now), examination committee of Physics Department, member

7) Alfaisal University, Saudi Arabia, (August 2015 – till now), member of the Nanoscience & Nanotechnology master program Committee.

8) Alfaisal University, Saudi Arabia, (August 2015-June 2017), member of the Master thesis committee of Nano-science & Nanotechnology master program.

9) Alfaisal University, Saudi Arabia, (March-June 2016), member of the Bachelor thesis committee of life science program.

Editorial broads

(a) Editor

2013-Now Associate Editor for: Frontiers in physics, www.frontiersin.org/people/SourayaGoumri-Said/124586.

2008-Now Associate Editor for Open physics (DeGruyter) http://degruyteropen.com/people/goumri-said/

2015-Now Editor at Journal of Nanoscience with Advanced Technology (Verizona Publisher). http://verizonaonlinepublishing.com/NanoscienceEditors.aspx

2012-Now Editor for Journal of Materials and Chemical Engineering (World academic publishing) (http://www.academicpub.org/JMCE/EditorialBoard.aspx)

(b) Peer-Reviewer

1. Journal of Applied Physics, 0021-8979, (AIP, American Institute of Physics) (2006)
2. Polymer, 0032-3861 (Elsevier) (2001)
3. Material chemistry and physics, 0254-0584 (Elsevier) (2005).
4. Physica B, 0921-4526, (Elsevier) (2005).
5. Physica status solidi, 1521-3951, (Wiley-VCH Verlag GmbH and Co. KGaA). (2010).
6. Philosophical Magazine and Philosophical Magazine Letters, ISSN 1362-3036, (Taylors and Francis Group) (2005).
7. Journal of Physics and Chemistry of Solids (Elsevier) (2005).
8. The Journal of Physical Chemistry, 1089-5639,(ACS edition) (2014).
9. Physical Chemistry Chemical Physics *ISSN* 1463-9076 (Royal Society of Chemistry) (2012)
10. Solid State Communications, 1879-2766, Elsevier, (2005)
11. Computational Materials Science, *0927-0256,* Elsevier, (2004)
12. Journal of Physics and Chemistry of Solids, 0022-3697, Elsevier, (2004)
13. Diamond and related materials, *0925-9635,* Elsevier, (2008)
14. Journal of the American Ceramic Society, 1551-2916, Wiley, (2009)
15. Journal Alloys and Compounds, *0925-8388,* Elsevier, (2010)
16. Journal of Magnetism and Magnetic Materials, *0304-8853,* Elsevier, (2006)
17. Superlattices and Microstructures, 1096-3677, Elsevier (2010)
18. Sensors and Actuators B: Chemical Journal, 0925-4005, - Elsevier (2015)

Grant Panels reviewer

2008 Reviewer for proposals: Agence Nationale de la Recherche (France).
2006 Reviewer for Research proposal submitted to the FONDECYT Regular 2016 grant competition. CONICYT – Chile.

Membership of Conference Committees

1) Member of congress committee of Asian Advanced Materials Congress (ASAMC), Singapore 11 - 16 March 2017. http://www.vbripress.org/asamc/members-of-congress.pdf

2) Member of scientific committee 2nd INTERNATIONAL CONGRESS ON THE WORLD OF TECHNOLOGY AND ADVANCED MATERIAL, at KIRŞEHİR,TURKEY 28 September-02 October 2016 (http://witam2016.ahievran.edu.tr/_Web/Default.aspx)
3) Invited speaker to IWCCMP-2016 and IWCCMP-2015, India, Nov. 2015 and Nov. 2016. http://tiiciiitm.com/iwccmp/index.php/home/speakers
4) Member of steering committee in NanoMatEn 2016 International Conference and Exhibition Nano MatEn 2015, Paris - France (01 June - 03 June 2016), (https://www.setcor.org/conferences/NanoMatEn-2016/steering-committee/18)
5) Member of scientific committee in NanoMatEn 2015 International Conference and Exhibition Nano MatEn 2015, Paris - France (15 Jun - 17 Jun 2015), (http://www.setcor.org/conferences/Nano-MatEn-2015).
6) Member of scientific committee in the First International Symposium on Dielectric Materials and Applications Rabat (Morocco), May 4-6, (2016). http://www.uit.ac.ma/ISYDMA/commitees_Scientific.php
7) Key note speaker, member of scientific committee and reviewer at The first North African workshop on Dielectric Materials for Photovoltaic Systems, NAWDMPV14,. Invited talk Talk: Organic solar cell materials: prospects and new challenges for Photovoltaic". Tlemcen, Algeria, 26 to 27 October 2014
8) Technical Committee of the "2013 International Conference on Advances in Industrial Control, Electronics and Computer Engineering (AICECE'13)". http://www.aicece.net/committee.htm

Publications

Over 863 citations to 30/01/2017, *H*-number = 16

(a) Referred Journals

1. W. Khan, **S. Goumri-Said,** Magnetic and electronic properties of Neptunium chalcogenides from GGA+U+SOC and DFT investigations, Journal of Magnetism and Magnetic Materials, http://dx.doi.org/10.1016/j.jmmm.2017.01.073 (In press 2017)

2. BU Haq, R Ahmed, M Mohamad, A Shaari, JY Rhee, S Alfaifi, MB Kanoun, **S. Goumri-Said**, Engineering of highly mismatched alloy with semiconductor and semi-metallic substituent's for photovoltaic applications, Current Applied Physics, 17, 162–168 (2017).

3. S Azam, SA Khan, **S. Goumri-Said**, MB Kanoun, "Predicted Thermoelectric Properties of the Layered XBi_4S_7 (X= Mn, Fe) Based Materials: First Principles Calculations", Journal of Electronic Materials 46 (1), 23-29 (2017).

4. M. Mohamad, R. Ahmed, A.A. Kanoun A. Shaari, and **S. Goumri-Said**, "I-V characterization and efficiency prediction of Vinazene molecular device for organic solar cell applications", Solar energy, 140, 124-129 (2016).

5. B SanthiBhushan, A Srivastava, MS Khan, A Srivastava, **S. Goumri-Said**, "Transport Phenomenon in Boron–GroupV Linear Atomic Chains Under Tensile Stress for Nanoscale Devices and Interconnects: First Principles Analysis", IEEE Transactions on Electron Devices 63 (12), 4899-4906 (2016).

6. S Azam, SA Khan, HU Din, R Khenata, **S. Goumri-Said**, "Exploring the thermoelectric and magnetic properties of uranium selenides: $Tl_2Ag_2USe_4$ and $Tl_3Cu_4USe_6$, Journal of Magnetism and Magnetic Materials 413, 57-64 (2016).

7. W Khan, S Azam, MB Kanoun, **S. Goumri-Said**, Optoelectronic structure and the related transport properties of BiCuSeO-based oxychalcogenides: First principle calculations, Solid State Sciences, Volume 58,Pages 86–93 (2016).

8. A Yumak, **S. Goumri-Said**, W Khan, K Boubaker, P Petkova, Doping-induced stability in vanadium-doped ZnO quantum well wires (QWW): Combination of DFT calculations within experimental measurements, Solid State Sciences 57, 33-37 (2016).

9. S Azam, SA Khan, **S. Goumri-Said**, DFT combined to Boltzmann transport theory for optoelectronic and thermoelectric properties investigations for monoclinic metallic selenide: $Cu_5Sn_2Se_7$, Optik-International Journal for Light and Electron Optics 127 (13), 5472-5478 (2016).
10. **S. Goumri-Said**, R. Ahmed, M. B. Kanoun, "Density-functional study of High hydrogen content complex hydrides Mg $(BH4)_2$: a promising conducting hydride", Renewable Energy 90, 114-119 (2016).

11. Nor A. Abdul Rahim, R. Ahmed, Bakhitar Ul Haq, A. Shaari, Mazmira Mohamad, N. Ali and **S. Goumri-Said** "Computational Modeling and Characterization of X-Bi (X = B, Al, Ga, In) Compounds; Prospective Optoelectronic Materials for Infrared/near infra Applications", Computational Materials Science 114, 40-46 (2016).

12. M Mohamad, R Ahmed, A Shaari, BU Haq, MB Kanoun, **S. Goumri-Said**, Optoelectronic Characterization of Cu-Phthalocyanine Molecule and β-Molecular Crystal for Organic Photovoltaic Applications, ECS Journal of Solid State Science and Technology 5 (6), M58-M62 (2016)
13. B. Ul Haq, R. Ahmed, G. Abdellatif, A. Shaari, Faheem K. Butt, Mohammed B. Kanoun, **S. Goumri-Said**, "Dominant ferromagnetic coupling over antiferromagnetic in Ni doped ZnO: First-principles calculations", Front. Phys. 11(3), 117101 (2016).

14. N. Shahzad, A. Hussain, N. Mustafa, N. Ali, M. B. Kanoun**, S. Goumri-Said**, "First principles study of the adsorption and dissociation mechanisms of H_2S on a TiO_2 anatase (001) surface" RSC Adv. 6, 7941-7949 (2016).

15. S. Azam, S. A. Khan, **S. Goumri-Said**, "Engel-Vosko GGA Approach Within DFT Investigations of the Optoelectronic Structure of the Metal Chalcogenide Semiconductor $CsAgGa_2Se_4$", Journal of Electronic Materials 45, 746-754, (2016).

16. W. Khan and **S. Goumri-Said**, "Engel–Vosko generalized gradient approximation within DFT investigations of optoelectronic and thermoelectric properties of copper thioantimonates(III) and thioarsenate(III) for solar-energy conversion", Phys. Status Solidi B, Volume 253, 583–590, (2016).
17. M. Belarbi, B. Benyoucef, A. Benyoucef, T. Benouaz, and **S. Goumri-Said**, "Enhanced electrical model for dye-sensitized solar cell characterization Solar Energy", Solar Energy, 122, Pages 700-711, (2015).

18. A.Yumak, G. Turgut, O. Kamoun, H. Ozisik, E. Deligoz, P. Petkova, R. Mimouni, K. Boubaker, M. Amlouk, **S. Goumri-Said,** Stability and morphology-dependence of Sc 3+ ions incorporation and substitution kinetics within ZnO host lattice, Materials Science in Semiconductor Processing, 39, 103-111 (2015).

19. W. Khan, S. Azam, FA. Shah, **S. Goumri-Said**, DFT and modified Becke Johnson (mBJ) potential investigations of the optoelectronic properties of $SnGa_4Q_7$ (Q= S, Se) compounds: Transparent materials for large energy conversion, Solid State Sciences 48, 244-250 (2015).
20. S. Azam, S.A. Khan, J Minar, **S. Goumri-Said**, Exploring the electronic structure and optical properties of new inorganic luminescent materials $Ba(Si, Al)_5(O, N)_8$ compounds for light-emitting diodes devices, Current Applied Physics 15 (10), 1160-1167 (2015).
21. S. Azam, S. A. Khan, **S. Goumri-Said**, Modified Becke-Johnson (mBJ) exchange potential investigations of the optoelectronic structure of the quaternary diamond-like semiconductors Li2CdGeS4 and Li2CdSnS4, Materials Science in Semiconductor Processing, Volume 39, (2015), Pages 606-613.

22. S. Azam, S.A. Khan, **S. Goumri-Said**, Revealing the optoelectronic and thermoelectric properties of the Zintl quaternary arsenides $ACdGeAs_2$ (A= K, Rb), Materials Research Bulletin 70, 847-855 (2015).

23. S. Azam, SA Khan, **S. Goumri-Said**, Exploring the electronic structure and optical properties of the quaternary selenide compound, $Ba_4Ga_4SnSe_{12}$: For photovoltaic applications, Journal of Solid State Chemistry 229, 260-265 (2015).

24. S. Azam, S. A. Khan, J. Minar, W. Khan, H. Ud Din, R. Khenata, G. Murtaza, S. Bin-Omran and **S. Goumri-Said**, "Coulomb interaction and spin-orbit coupling calculations of thermoelectric properties of the quaternary chalcogenides $Tl_2Pb_XY_4$ (X = Zr, Hf and Y = S, Se)", Semicond. Sci. Technol. 30, 105018 (2015).

25. H. H. Nguyen, N. Thu Huong, T. Y. Kim, **S. Goumri-Said,** M. B. Kanoun, Tuning Magnetic Properties of BiFeO3 Thin Films by Controlling Rare-Earth Doping: Experimental and First-Principles Studies, The Journal of Physical Chemistry C 119 (25), 14351-14357 (2015).

26. N. Ali, R. Ahmed, B. Ul Haq, A Shaari, R Hussain, **S. Goumri-Said**, A novel approach for the synthesis of tin antimony sulphide thin films for photovoltaic application, Solar energy 113, 25-33 (2015).

27. M. Mohamad, R. Ahmed, A.Shaari, **S. Goumri-Said**, First principles investigations of vinazene molecule and molecular crystal: a prospective candidate for organic photovoltaic applications, Journal of molecular modelling 21 (2), 27 (2015).

28. **S. Goumri-Said**, On the optical properties and electronic charge transfer of an anticancer agent: ferrocene-substituted dithio-o-carborane conjugate, Biointerface Research Applied Chemistry 5 (2), 941-944 (2015).

29. W. Khan and **S. Goumri-Said**, Exploring the optoelectronic structure and thermoelectricity of recent photoconductive chalcogenides compounds, CsCdInQ3 (Q = Se, Te), RSC Advances 5, 9455-9461 (2015).

30. M. Bououdina, A. A. Dakhel, M. El-Hilo, D. H. Anjum, M.B. Kanoun, **S. Goumri-Said**, Revealing a room temperature ferromagnetism in cadmium oxide nanoparticles: an experimental and first-principles study, RSC Advances 5 (42), 33233-33238 (2015).

31. B.Ul Haq, R. Ahmed, **S. Goumri-Said**, DFT characterization of cadmium doped zinc oxide for photovoltaic and solar cell applications, Solar Energy Materials and Solar Cells 130, 6-14 (2014).

32. G. Abadias, M.B. Kanoun, **S. Goumri-Said**, L Koutsokeras, SN Dub, Ph Djemia, Electronic structure and mechanical properties of ternary ZrTaN alloys studied by ab initio calculations and thin-film growth experiments, Physical Review B 90 (14), 144107 (2014).

33. B. Ul Haq, R. Ahmed, A. Shaari, F. E. H. Hassan, M. B. Kanoun, **S. Goumri-Said**, Study of wurtzite and zincblende GaN/InN based solar cells alloys: First-principles investigation within the improved modified Becke–Johnson potential, Solar Energy 107, 543-552 (2014).

34. M. B. Kanoun, **S. Goumri-Said**, Effect of alloying on elastic properties of ZrN based transition metal nitride alloys, Surface and Coatings Technology 255, 140-145 (2014).

35. B. Ul Haq, R. Ahmed, A. Shaari, **S. Goumri-Said**, GGA+ U investigations of impurity d-electrons effects on the electronic and magnetic properties of ZnO, Journal of Magnetism and Magnetic Materials 362, 104-109 (2014).

36. B. Ul Haq, M. B. Kanoun, R. Ahmed, M. Bououdina, **S. Goumri-Said**, Hybrid functional calculations of potential hydrogen storage material: Complex dimagnesium iron hydride, international journal of hydrogen energy 39 (18), 9709-9717 (2014).

37. B. Ul Haq, R. Ahmed, **S. Goumri-Said**, Tailoring ferromagnetism in chromium-doped zinc oxide, Materials Research Express 1 (1), 016108 (2014).

38. B. Ul Haq, R. Ahmed, F. E. H Hassan, R. Khenata, M. K. Kasmin, **S. Goumri-Said**, Mutual alloying of XAs (X= Ga, In, Al) materials: Tuning the optoelectronic and thermodynamic properties for solar energy applications, Solar Energy 100, 1-8 (2014).

39. M. B. Kanoun, **S. Goumri-Said**, U. Schwingenschlögl, Ferromagnetism in Cr-doped passivated AlN nanowires, Journal of Materials Chemistry A 2 (24), 9287-9290 (2014).

40. B. Ul Haq, R. Ahmed, **S. Goumri-Said**, A. Shaari, A. Afaq, Electronic structure engineering of ZnO with the modified Becke–Johnson exchange versus the classical correlation potential approaches Phase Transitions 86 (12), 1167-1177 (2013).

41. M. Zarshenas, R. Ahmed, M. B. Kanoun, B. Ul Haq, A.R. M. Isa, **S. Goumri-Said**, First principle investigations of the physical properties of hydrogen-rich MgH2, Physica Scripta 88 (6), 065704 (2013).

42. N. H. Hong, M. B. Kanoun, **S. Goumri-Said**, JH Song, E Chikoidze, Y Dumont, The origin of magnetism in transition metal-doped ZrO2 thin films: experiment and theory, Journal of Physics: Condensed Matter 25 (43), 436003 (2013).

43. N.N. Anua, R. Ahmed, A. Shaari, M.A. Saeed, B. Ul Haq, **S. Goumri-Said**, Non-local exchange correlation functionals impact on the structural, electronic and optical properties of III–V arsenides, Semiconductor Science and Technology 28 (10), 105015 (2013)

44. **S. Goumri-Said,** H. Ozisik, E. Deligoz and M. B. Kanoun, "Ab-initio investigations of the Strontium Gallium Nitrides ternaries Sr_3GaN_3 and Sr_6GaN_5: promising materials for optoelectronic", Semicond. Sci. Technol. 28, 085005 (2013).

45. **S. Goumri-Said** and M. B. Kanoun, A. Manchon, U. Schwingenschlögl, Spin-polarization reversal at the interface between benzene and Fe(100), Journal of Applied Physics 113, 013905 (2013).

46. **S. Goumri-Said** and M. B. Kanoun, DFT+U study of the oxide-ion conductor pentalanthanum hexamolybdenum henicosaoxide, Journal of Solid State Chemistry 197, 304 (2013).

47. M. B.Kanoun, **S. Goumri-Said**, A. Manchon, and U. Schwingenschlogl, Ferromagnetism carried by highly delocalized hybrid states in Sc-doped ZnO thin films", Appl. Phys. Lett. 100, 222406 (2012).

48. M. B. Kanoun, P. Hermet, and **S. Goumri-Said**, Structure, elastic stiffness and hardness of $Os_{1-x}Ru_xB_2$ solid solution transition metal diborides, The Journal of Physical Chemistry C, 116, 11746 (2012).

49. M. B. Kanoun,**S. Goumri-Said**, U. Schwingenschlogl, and A. Manchon, Magnetism in Sc-doped ZnO with zinc vacancies: A hybrid density functional and GGA+U approaches", Chemical Physics Letters 532, 96 (2012).

50. M. B. Kanoun, A. H. Reshak, N. Kanoun-Bouayed, and **S. Goumri-Said**, Evidence of Coulomb correction and spin-orbit coupling in rare-earth dioxides : CeO_2, PrO_2 and TbO_2, Journal of Magnetism and Magnetic Materials 324, 1397-1405 (2012).

51. **S. Goumri-Said**, N. Kanoun-Bouayed, A. H. Reshak, M. B. Kanoun, On the electronic nature of silicon and germanium based oxynitrides and their related mechanical, optical and vibrational properties as obtained from DFT and DFPT, Computational Materials Science 53, 158-168 (2012).

52. B. Amin, S. Arif, I. Ahmad, M. Maqbool, R. Ahmad, **S. Goumri-Said**, K. Prisbrey, Cr-doped III–V nitrides: potential candidates for spintronics, Journal of Electronic Materials 40 (6), 1428-1436 (2011).

53. A. Al-Sunaidi, **S. Goumri-Said**, Investigating the adsorption of H2O on ZnO nanoclusters by first principle calculations, Chemical Physics Letters 507 (1), 111-116 (2011).

54. I Bantounas, **S. Goumri-Said**, M Benali Kanoun, A Manchon, I Roqan, U. Schwingenschlogl, Ab initio investigation on the magnetic ordering in Gd doped ZnO, Journal of Applied Physics 109 (8), 083929 (2011).

55. A. Lafort, H. Kebaili, **S. Goumri-Said**, O. Deparis, R. Cloots, J. De Coninck, M. Voué, F. Mirabella, F. Maseri, S. Lucas, "Optical properties of thermochromic VO2 thin films on stainless steel: experimental and theoretical studies", Thin Solid Films, Volume 519, 3283 (2011).

56. N Kanoun-Bouayed, MB Kanoun, **S. Goumri-Said**, Structural stability, elastic constants, bonding characteristics and thermal properties of zincblende, rocksalt and fluorite phases in copper nitrides: plane-wave pseudo-potential ab initio calculations, Central European Journal of Physics 9 (1), 205-212 (2011).

57. B. Amin, I. Ahmad, M. Maqbool, **S. Goumri-Said**, R. Ahmad, Ab initio study of the bandgap engineering of $Al_{1-x}Ga_xN$ for optoelectronic applications, Journal of Applied Physics 109 (2), 023109 (2011).

58. **S. Goumri-Said**, M. B. Kanoun, Ab-initio investigations of the electronic properties of bulk wurtzite Beryllia and its derived nanofilms, Physics Letters A 374 (38), 3977-398 (2010).

59. M. B. Kanoun, I. R. Shein, **S. Goumri-Said**, Origin of incompressibility and hardness from electronic and mechanical properties of hard material ruthenium diboride, Solid State Communications 150 (23), 1095-1098 (2010).

60. M.B. Kanoun, **S. Goumri-Said**, A. H. Reshak, A.E. Merad, Electro-structural correlations, elastic and optical properties among the nanolaminated ternary carbides Zr_2AC, Solid State Sciences 12 (5), 887-898(2010).

61. M. B. Kanoun, **S. Goumri-Said**, AH Reshak, Theoretical study of mechanical, electronic, chemical bonding and optical properties of Ti_2SnC, Zr_2SnC, Hf_2SnC and Nb_2SnC, Computational Materials Science 47 (2), 491-500 (2009).

62. **S. Goumri-Said**, M. B. Kanoun, F. Calvayrac, $PtMn_3N_{0.25}$: A potential candidate for spintronic applications by ab initio calculations, Journal of Magnetism and Magnetic Materials 321 (8), 1012-101 (2009).

63. P. Hermet, **S. Goumri-Said**, M. B. Kanoun, L. Henrard, First-Principles investigations of the physical properties of magnesium nitridoboride, The Journal of Physical Chemistry C 113 (12), 4997-5003 (2009).

64. M. B. Kanoun, **S. Goumri-Said**, M. Jaouen, Steric effect on the M site of nanolaminate compounds M_2SnC (M= Ti, Zr, Hf and Nb), Journal of Physics: Condensed Matter 21 (4), 045404 (2009).

65. M. B. Kanoun, **S. Goumri-Said**, Theoretical study of structural parameters and energy gap composition dependence of $Ga_{1-x}B_xN$ alloys, Semiconductor Science and Technology 23 (12), 125036 (2008).

66. **S. Goumri-Said**, MB Kanoun, Theoretical investigations of structural, elastic, electronic and thermal properties of Damiaoite $PtIn_2$, Computational Materials Science 43 (2), 243-250 (2008).

67. MB Kanoun, **S. Goumri-Said**, Analysis of Mn K edge X-ray absorption spectrum in Al1-xMnxN by full potential calculations, Physica B: Condensed Matter 403 (17), 2847-2850 (2008).

68. **S. Goumri-Said**, MB Kanoun, Electronic structure and magnetism of Eu-doped GaN: first-principles study based on LDA+ U, Journal of Physics D: Applied Physics 41 (3), 035004 (2008).

69. MB Kanoun, **S. Goumri-Said**, M Jaouen, Structure and mechanical stability of molybdenum nitrides: A first-principles study, Physical Review B 76 (13), 134109 (2007).

70. MB Kanoun, **S. Goumri-Said**, Investigation of structural stability and electronic properties of CuN, AgN and AuN by first principles calculations, Physics Letters A 362 (1), 73-83 (2007).

71. AE Merad, MB Kanoun, **S. Goumri-Said**, Ab initio study of electronic structures and magnetism in ZnMnTe and CdMnTe diluted magnetic semiconductors, Journal of magnetism and magnetic materials 302 (2), 536-542 (2006).

72. MB Kanoun, **S. Goumri-Said**, AE Merad, H Mariette, Ab initio study of structural parameters and gap bowing in zinc-blende $Al_xGa_{1-x}N$ and $Al_xIn_{1-x}N$ alloys, Journal of applied physics 98 (6), 063710 (2005).

73. MB Kanoun, **S. Goumri-Said**, Electronic properties of the binary noble metal nitride PtN: First-principles calculations, Physical Review B 72 (11), 113103 (2005).

74. M. B. Kanoun, **S. Goumri-Said**, A. E. Merad and J. Cibert, First-principles investigation electronic structure and magnetic, properties in ferromagnetic Gax Mn1-xN and AlxMn1-xN, J. Phys. D: Appl. Phys. 38 1 (2005).

75. **S. Goumri-Said**, L. Salomon, J. -P. Dufour, F. Defornel and A. Zayats, Numerical Simulations of Photon Scanning Tunneling Microscopy: role of a probe tip geometry in image formation, Optics Communications 244 245 (2005).

76. A. Dazzi, **S. Goumri-Said**, L. Salomon, Theoretical study for an absorbing sample in Infrared Near Field Spectromicroscopy, Optics Communications 235, 351 (2004).

77. **S. Goumri-Said**, L. Salomon, J. -P. Dufour and F. De fornel, Two-Dimensional Numerical Simulations of Photon Scanning Tunneling Microscopy: Fourier Modal Method and R-Matrix Algorithm, Optical and Quantum Electronics 36, 787 (2004).

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(b) Conference Papers

Authors, Title of Article, Name of Conference/Workshop/Symposium/
Forum, City & Country, Dates, Publisher (Country), Pages, Year

1 Ahmed-Ali Kanoun, **Souraya Goumri-Said**, Characterization of DGFET properties from multiscale modeling: Effects of oxide thickness and temperature, Published in: Dielectric Materials for

Photovoltaic Systems (NAWDMPV), 2014 North African Workshop on 26-27 Oct. 2014, publisher IEEE. 10.1109/NAWDMPV.2014.6997597

2 N. Kanoun-Bouayed, **S. Goumri Said**, AE Merad, MB Kanoun, Ab Initio Calculation of Electronic Structure and Magnetic Properties of Rare Earth Nitride Using LDA+ U Approach: EuN and GaEuN, Thin Films and Porous Materials forum, Algiers, November 2011, Materials Science Forum 609, 167-17 (2011)

Contribution in international books chapters/edition of books

1. M. B. Kanoun and **S. Goumri-Said**, Theoretical Assessment of the Mechanical, Electronic, and Vibrational Properties of the Paramagnetic Insulating Cerium Dioxide and Investigation of Intrinsic Defects. Book titled, Handbook of Research on Nanoscience, Nanotechnology, and Advanced Materials. Edited by Engineering science reference, IGI Global, (UK). 2014

2. Nawel Boumaza, T. Benouaz, **S. Goumri-Said**, Understanding the Numerical Resolution of Perturbed Soliton Propagation in Single Mode Optical Fiber, Handbook of Research on Nanoscience, Nanotechnology, and Advanced Materials, Pages 492-504 edition: IGI Global (UK) (2014).

3. M. B. Kanoun and **S. Goumri-Said**, *Theoretical study of physical properties and oxygen incorporation effect in nanolaminated ternary carbides 211MAX phases*. Book titled, Advances in Science & Technology of $M_{n+1}AX_n$ Phases, Edited by Woodhead Publishing Ltd, (USA) 2012

4. M. B. Kanoun, **S. Goumri-Said**, Theoretical investigation of electronic structure and magnetic properties of ferromagnetic $Al_{1-x}Cr_xN$ alloys. Book entitled: Theoretical and Experimental Studies of Magnetic Materials Including Rare-Earth Nitrides, Semimagnetic Semiconductors, Perovskites Manganites and Metallic Multilayers and Films, Edited by Transworld Research Network, (India) 2008

5. M. B. Kanoun and **S. Goumri-Said**, Theoretical calculations of III-V-nitrides properties and their alloys. Book entitled: "Investigation of Electronic, Magnetic and Elastic Properties Using First Principles Calculations and New Empirical Approach: Application to III-V, II-VI Semiconductors and Perovskite-like Fluorides Materials, Edited by Transworld Research Network, (India) 2006.

Edited Books

1. **Editor, Dr. S. Goumri-Said**. Book entitled: "Investigation of Electronic, Magnetic and Elastic Properties Using First Principles Calculations and New Empirical Approach: Application to III-V, II-VI Semiconductors and Perovskite-like Fluorides Materials, Edited by Transworld Research Network, (India) 2006.
2. Co-editor **Dr. S. Goumri-Said**, for NANOTECHNOLOGY: RECENT ADVANCES AND PERSPECTIVES, De Gruyter Germany, Expected for 2018.

Technical Expertise

1. Quantum mechanical and electronic structure packages: VASP, GAUSSIAN 09, $DMol^3$, ADF, CASTEP, Wien2k, ATK-Quantum wise, Quantum Espresso, ABINIT, Exciting, ELK-code, SIESTA, GULP, DMol3.
2. Homemade code: Modeling SNOM and PSTM using Rayleigh and Differential method (Modal method + R-matrix algorithm).

3. Operating systems: Windows, different versions of Linux
4. Programming languages: Fortran, C++, Matlab, Java, Python
5. Document preparation: Microsoft word, powerpoint, Latex, Acrobat professional.
6. Graphing and data analysis software: Origin, Gnuplot, Mercury, Xcrysdens, Material Studio.

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