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المؤهلات العلمية

- 2017 **PhD** Subject: **Nanotechnology - Physics**
Title: **Synthesis of Gamma and Theta Alumina Phases Complemented With First Principle Calculation**
Department of Physics, Faculty of Science, Universiti Teknologi Malaysia, Skudai, Johor Bahru, Malaysia.
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Department of Physics, Faculty of Science, University of Babylon, Iraq.
The M Sc. work was completed under the supervision of **Assist. Prof. Dr. Hameed I. Abood**, and **Prof. Dr. Amin H. Al-Khursan**
- 2005 **B Sc.** Subject: **Physics**
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Department of Physics, Faculty of Science, Al- Muthanna University, Iraq.
The B Sc. work was completed under the supervision of **Assist. Prof. Dr. Abdul Ameer K. Farhood**

البحوث المنشورة

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2. Amin H. Al-Khursana, **A. Subhi**, H.I. Abood, "Four-wave mixing in long wavelength III-nitride QD-SOAs", *Optik*, Vol. 124, (2013) 4072– 4079.
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3. **Ahmed S. Jbara**, Zulkafli Othaman, and M A Saeed, "Effect of size and indium-composition on linear and nonlinear optical absorption of InGaN/GaN lens-shaped quantum dot", *Chin. Phys. B*, Vol. 25, No. 5 (2016) 057801.



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4. Shadab Dabagh, Ali Ati, S.K. Ghoshal, Samad Zare, R. M. Rosnan, **Ahmed S. Jbara**, Zulkafli Othaman, "Cu²⁺ and Al³⁺ co-substituted cobalt ferrite: Structural analysis, morphology and magnetic properties", *Bulletin of Materials Science*, Vol. 39, No. 4 (2016) 1029–1037.
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5. **Ahmed S. Jbara**, Zulkafli Othaman, Ali A. Ati, and M. A. Saeed, "Characterization of gamma-Al₂O₃ nanopowders synthesized by co-precipitation method", *Materials Chemistry and Physics*, Vol. 188, (2016) 24-29.
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6. **Ahmed S. Jbara**, Zulkafli Othaman, and M. A. Saeed, "Structural, morphological and optical investigations of θ -Al₂O₃ ultrafine powder", *Journal of Alloys and Compounds*, Vol. 718, (2017) 1-6.
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7. **Ahmed S. Jbara**, Zulkafli Othaman, H. A. Rahnamaye Aliabad, and M. A. Saeed, "Electronic and Optical Properties of γ - and θ - Alumina by First Principle Calculations", *Advanced Science, Engineering and Medicine*, Vol. 9, No. 4 (2017) 287-293.
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8. **Ahmed S. Jbara**, Zulkafli Othaman, H. A. Rahnamaye Aliabad, and M. A. Saeed, "Investigated electronic and optical properties of γ - and θ -Al₂O₃: First principles calculations", *Advanced Science Letters*, Vol. 24, No. 4 (2018) 3579-3581(3).
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9. **Ahmed S. Jbara**, M. A. Saeed, and Muhammad Umer Saleem, "Theoretical investigation of structural and electronic properties of BeS_{1-x}Se_x alloys for optoelectronic applications", *Optik*, Vol. 179 (2019) 1118–1122.
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10. **Ahmed S. Jbara**, Junaid Munir, Bakhtiar Ul Haq, and M. A. Saeed, "Density functional theory study of mixed halide influence on structures and optoelectronic attributes of CsPb(I/Br)₃", *Applied Optic*, Vol. 59, No. 12 (2020) 3751- 3759.
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11. Bakhtiar Ul Haq, S AlFaify, **Ahmed S Jbara**, R Ahmed, Faheem K Butt, A Laref, Aijaz Rasool Chaudhry, Zulfiqar Ali Shah, "Optoelectronic properties of three PbSe polymorphs", *Ceramics International*, Vol. 46, No. 14 (2020) 22181-22188.
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12. S. Saad Essaoud, **Ahmed S. Jbara**, "First-principles calculation of magnetic, structural, dynamic, electronic, elastic, thermodynamic and thermoelectric properties of Co_2ZrZ ($\text{Z} = \text{Al}, \text{Si}$) Heusler alloys", *Journal of Magnetism and Magnetic Materials*, Vol. 531, No. 1 (2021) 167984-15.
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13. **Ahmed S. Jbara**, Munir, J., Yousaf, M. and Saeed, M.A., "Pressure effect on structures and optoelectronic attributes of mixed halide $\text{CsPb}(\text{I/Br})_3$: a density functional theory study", *Journal of the Optical Society of America A*, Vol. 38, No. 7 (2021) 940-946.
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14. Munir, J., **Ahmed S. Jbara**, Ain, Q., Fatima, K., Noor, N.A., Naeem, H., Jamil, M. and Yousaf, M., "An insight into the electronic, optical and transport properties of promising Zintl-phase BaMg_2P_2 ", *Physica B: Condensed Matter*, Vol. 618, No. 1 (2021) 413181.
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15. Junaid Munir, Muhammad Jamil, **Ahmed S. Jbara**, Kaneez Fatima, Quratul Ain, Hamid Ullah, Masood Yousaf, "Spin-polarized electromagnetic and optical response of full-Heusler Co_2VZ ($\text{Z} = \text{Al}, \text{Be}$) alloys for spintronic application", *The European Physical Journal Plus*, Vol. 136, No. 10 (2021) 1-18.
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16. Yousaf, M., Younis, M.W., **Jbara, A.S.**, Khan, M.J.I., Murtaza, G. and Saeed, M.A., 2022. Effect of layer sliding on the interfacial electronic properties of intercalated silicene/indium selenide van der Waals heterostructure. *Communications in Theoretical Physics*, 74(3), p.035701.
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17. Munir, J., **Jbara, A.S.**, Ain, Q., Mohammed, L. and Yousaf, M., 2022. Magneto-electronic, and optical properties of reduced layered hybrid $\text{Zn}(\text{C}_4\text{H}_4\text{N}_2)\text{V}_4\text{O}_{10}$ complex: A DFT study. *Journal of Optoelectronics and Advanced Materials*, 24(November-December 2022), pp.576-583.
18. Sâad Essaoud, S. and **Jbara, A.S.**, 2023. Electronic-structural, thermo-electric, and thermo-mechanical properties of M_2AC and M_2AB ($\text{M} = \text{Nb}$ or Mo , $\text{A} = \text{Al}$ or Ga) compounds. *Indian Journal of Physics*, 97(1), pp.105-114.
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20. Munir, J., Jamil, M., **Jbara, A.S.**, Ullah, H., Murtaza, H., Ali, H.E. and Ain, Q., 2023. Electronic structure and optical and thermoelectric response of lead-free double perovskite BaMgLaBiO_6 : a first-principles study. *Journal of Computational Electronics*, pp.1-13.
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21. Hudabia Murtaza, Quratul Ain, **Ahmed S. Jbara**, Junaid Munir, Abdullah S. Aldwayyan, Hamid M. Ghaithan, Smahane Dahbi, Abdullah Ahmed Ali Ahmed, Saif M. H. Qaid, 2024. A DFT-based determination of the physical attributes of $\text{Cs}_2\text{InBiF}_6$ fluoroperovskite by using multiple potentials. *Optical and Quantum Electronic*, 56(9), p.1440.
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22. Hudabia Murtaza, Quratul Ain, **Ahmed S. Jbara**, Junaid Munir, Abdullah S. Aldwayyan, Hamid M. Ghaithan, Abdullah Ahmed Ali Ahmed, Saif M. H. Qaid, 2024. The prediction of hydrogen storage capacity and solar water splitting applications of Rb_2AlXH_6 ($\text{X} = \text{In, Tl}$) perovskite halides: A DFT study. *Journal of Physics and Chemistry of Solids*, 198, p.112427.
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23. **Jbara, A.S.**, Naeem, H.T., Munir, J., M. A. Saeed, Toheed Akhter. Investigation of the Lead-Free Perovskites AlSnX_3 ($\text{X} = \text{Cl, Br, I}$) for Optoelectronic Applications: A First-Principles Analysis. *J Inorg Organomet Polym* (2025).
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24. **Ahmed S. Jbara**, Zulkafli Othaman, H. A. Rahnamaye Aliabad, and M. A. Saeed, "Investigated electronic and optical properties of γ - and θ - Al_2O_3 : First principles calculations", 2nd International Conference on Science, Engineering, and the Social Sciences (ICSESS 2016), 29th May - 1st June, 2016, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.
25. **Ahmed S. Jbara**, and M. A. Saeed, "Theoretical investigation of structural and electronic properties of $\text{BeS}_{1-x}\text{Se}_x$ alloys for optoelectronic applications", 6th International Conference on Education (ICE 2018): Science Beyond Class room, 15-17 March, 2018, University of Education, Lahore, Pakistan.
26. Iman A. Laim, **Ahmed S. Jbara**, and Hadey K. Mohamad, " Structural, and Electronic Properties of ZnX ($\text{X}=\text{S, Se, Te}$) By First-principles Calculation", 1st International Conference

on Advanced Research in Pure and Applied Science (ICARPAS 2021): 24th-25th March 2021, College of Science, Al-Muthanna University, Samawah, Iraq.

الخبرة في التدريس

منذ سنة 2010، لقد شاركت في تدريس طلاب المرحلة الجامعية – بكالوريوس - في مواضيع مختلفة مثل: الميكانيك التحليلي، التحليل العددي، الميكانيك الإحصائي، الجبر الخطي في جامعة المثنى، العراق.

الأنشطة الإدارية

2013 - 2011

2020 - 2019

2024 - 2020

- مدير قسم شؤون الطلاب
- مدير قسم ضمان الجودة والأداء الجامعي
- معاون العميد للشؤون الإدارية - كلية التربية للعلوم الصرفة

الاهتمامات البحثية

➤ فيزياء المادة المكثفة.

➤ فيزياء المواد.

➤ الفيزياء الحاسوبية.

التعاون والعضوية

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- Laboratoire de Physique des Particules et Physique Statistique, Ecole Normale Supérieure-Kouba, BP 92, Vieux-Kouba, 16050 Algiers, Algeria.

المؤتمرات / ورش العمل

أ) القاء البحوث في المؤتمرات المحلية والدولية

1. National Conference of Physics (NCP), 7-8 November, 2012, University of Baghdad and Babylon, Babylon-Iraq.
2. 2nd International Conference on Science, Engineering, and the Social Sciences (ICSESS 2016), 29th May - 1st June, 2016, Universiti Tecknologi Malaysia, Johor-Malaysia.
3. 6th International Conference on Education (ICE 2018): Science Beyond Class room
4. 15-17 March 2018, University of Education, Lahore-Pakistan.
5. 1st International Conference on Advanced Research in Pure and Applied Science (ICARPAS 2021): 24th-25th March 2021, College of Science, Al-Muthanna University, Samawah, Iraq.

ب) حضور في ورش العمل الدولية

1. Writing for Journal Workshop, 07/01/2015, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.
2. Science & Technology Track - Forum of Attending VIVA-VOCE, 28/01/2015, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.



3. Critical Literature Review Workshop, 30/01/2015, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.
4. Talk on Writing a PhD Thesis, 01/02/2015, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.
5. How to write a great paper, and get it published in a research journal, 04/03/2015, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.
6. COMSOL Multiphysics Seminar and Workshop, 09-10/06/2014, University of Malaya, Kuala Lumpur, Malaysia.
7. COMSOL Multiphysics workshop, 12/03/2015, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.
8. Material Characterization by Thermal and Chemical Analysis, 24/08/2015, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.
9. Training of SEM-EDS, 06/04/2016, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.

أيضا، يمكنك أن تجدني

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