

## CURRICULUM VITAE

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### **Affiliation:**

College of Science, Al-Qasim Green University, Al-Qasim Town, Babylon, 51013, Iraq

### **Educational Background:**

1. B.Sc. (General Physics): University of Babylon, College of Science, Department of Physics, 2002, Iraq.
2. M.Sc. (Solid State Physics): University of Babylon, College of Science, Department of Physics, 2006, Iraq.
3. Ph.D. (Nano Physics): Lancaster University, Physics Department, 2017, UK.

### **Employment:**

1. Assistant Lecturer from 2007 to 2010, Basic Science Department, College of Veterinary Medicine, Babylon University.
2. Lecturer from 2010 to 2018, Chemistry and Physiology Department, College of Veterinary Medicine, Al-Qasim Green University.
3. Assistant Professor from 2017, Chemistry and Physiology Department, College of Veterinary Medicine, Al-Qasim Green University.
4. Professor from 2023, Department of Pathological Analysis, College of Science, Al-Qasim Green University.

### **Communication Languages:**

1. Arabic
2. English
3. German

### **Other Certificates:**

1. Certificate in German Language, Akad Cultural Institute, Babylon, Iraq.
2. Certificate in German Language, [bbc.co.uk/languages](http://bbc.co.uk/languages).
3. Certificate in English Language, University of Babylon, Babylon, Iraq, 2002.
4. Certificate in Computer Science, Baghdad University, Baghdad, Iraq, 2009.
5. Certificate in Developing Methodologies, University of Babylon, Iraq, 2007.
6. Certificate in Computer Science, University of Babylon, Babylon, Iraq, 2010.
7. IELTS Certificate, University of Manchester, University Language Centre, Manchester, UK, 2013.
8. Gateway English Course, University Language Centre, Manchester, UK, 2013.

### **Programming Languages**

1. FORTRAN.
2. Matlab.

### **Software Experience**

1. Olife.
2. SIESTA.
3. Gaussian 03.
4. Gaussian View 03.
5. Gollum.

### **Software Developing**

1. Olife (Developer and License Holder),
  - a. <https://sourceforge.net/projects/olife/>.
  - b. <https://iopscience.iop.org/article/10.1088/1742-6596/1003/1/012114>.
2. Gollum (Ex-Developer), <http://www.physics.lancs.ac.uk/gollum/index.php/about>.

### **Related Websites:**

1. Google scholar: Zainelabideen Y. Mijbil, <https://scholar.google.com/citations?user=QvlldS8AAAAJ&hl=en>
2. Researchgate: Zainelabideen Y Mijbil, [https://www.researchgate.net/profile/Zainelabideen\\_Mijbil](https://www.researchgate.net/profile/Zainelabideen_Mijbil)
3. Mendeley: Zainelabideen Mijbil, <https://www.mendeley.com/profiles/zainelabideen-mijbil/>

### **Teaching Experience:**

1. Computer Science, First year of the Basics Science Department, 6 Years.
2. Calculus, First year of the College of Water Recourses Engineering, 1 Year.
3. Electricity, First year of Physics Education, 1 Year.
4. English Language, MSc Level, 2 Years.

### Participations in Conferences and Activities

1. The Third Scientific Conference of the College of Science, Baghdad University, 2009.
2. The First Scientific Conference of the Education for Pure Sciences, Kerbala University, 2012.
3. The First Scientific Conference of the Collage of Sciences, Kerbala University, 2013.
4. The MOLESCO Workshop, University of Konstanz, 2014.
5. Science and Technology Christmas Conference, Lancaster University, 2014.
6. The SYMOLESCO Workshop, University of Basel, 2015.
7. Thermoelectric Network Meeting, University of Reading, 2015.
8. EPSRC Thermoelectric Network Workshop, Loughborough University, 2015.
9. Thermoelectric Network Meeting, Glasgow, 2016.
10. Thermoelectric Network UK Meeting, University of Manchester, 2017.
11. Ibn Al-Haitham First International Scientific Conference, Baghdad, 2017.
12. Quantum 2020, Virtual conference, Institute of Physics, London, 2020.
13. Materials and Molecular Modelling Hub++ Annual Conference 2021, UK's Materials and Molecular Modelling Hub, the Thomas Young Centre, CCP9, CCP5, CCPBioSim, the Materials Chemistry Consortium and the UK Car-Parrinello Consortium, UK, 2021.

### Publications

1. Hartree-Fock Calculations to Study the Effect of Pressure on the Properties of Boron Nitride Crystals, The 3rd Scientific Conference of Science College, pp. 2039-2050, 2009.
2. A Study for CNDO Efficiency for Band Structure Calculations of IV-Covalent Materials: (Sn, Ge, Si and C), J. Bab. Univ., Vol. 18, No. 3, pp. 960-967, 2010.
3. The Effect of Temperature on Phase Transition Pressure of Zinc-Blende Boron Nitride, J. Bab. Univ., Vol. 18, No. 3, pp. 1686- 1691, 2010.
4. The Correlation Between some Structural Properties of IV Materials with Compression Stress, J. Bab. Univ., Vol. 19, No. 1, 2011.
5. The Correlation Between some Structural Properties of NR with Weight Percentage of N330 and Gr, J. Bab. Univ., Vol. 19, No. 3, 2011.
6. Ab Initio Calculations for the Effect of Pressure on the Structural Properties of Si Nanoclusters, World Journal of Condensed Matter Physics, Vol. 2, No. 3, pp. 133-138, 2012, DOI: [10.4236/wjcmp.2012.23022](https://doi.org/10.4236/wjcmp.2012.23022).
7. Thermal dependence of the properties of cubic boron nitride crystal, Natural Science, Vol. 3, No. 2, pp. 154-163, 2011, DOI: [10.4236/ns.2011.32022](https://doi.org/10.4236/ns.2011.32022).
8. Variation of the Structural Properties of IV Element Nano Clusters Due to Tensile Stress, World Journal of Condensed Matter Physics, Vol. 2, pp. 16-23, 2012, DOI: [10.4236/wjcmp.2012.21003](https://doi.org/10.4236/wjcmp.2012.21003).
9. The Electronic Properties of Dicyano Naphthalene Molecules Group, 1st Scientific Conference of College of Education for Pure Sciences, Karbala, Iraq, 2012, [https://kj.uokerbala.edu.ig/article\\_72880.html](https://kj.uokerbala.edu.ig/article_72880.html).
10. Quantum interference independence of the heteroatom position, Chemical Physics Letters 716 (2019) 69–75, <https://doi.org/10.1016/j.cplett.2018.12.012>.
11. Analytical formula for calculating transmission coefficient of one-dimensional molecules with

- single impurity, *Solid State Communications* 287 (2019) 13–18, <https://doi.org/10.1016/j.ssc.2018.09.015>.
12. OLIFE: Tight Binding Code for Transmission Coefficient Calculation, *IOP Conf. Series: Journal of Physics: Conf. Series* 1003 (2018) 012114, <https://doi.org/10.1088/1742-6596/1003/1/012114>.
  13. Functionalization mediates heat transport in graphene nanoflakes, *Nature communications* 7, 11281, 2015, <https://doi.org/10.1038/ncomms11281>.
  14. Transmission of a single impurity system: A comprehensive pedagogical tutorial, *Eur. J. Phys.* 40 (2019) 045801 (12pp), <https://doi.org/10.1088/1361-6404/ab1214>.
  15. Tuning electrical conductance of molecular junctions via multipath Ru-based metal complex wire, *Indian J Phys*, <https://doi.org/10.1007/s12648-019-01560-1>
  16. Electronegativity, symmetry, and bond strength intrinsically control charge transport through five membered single-molecule junction, *Eur. Phys. J. B* (2019) 92: 220, <https://link.springer.com/article/10.1140%2Fepjb%2Fe2019-100361-7>.
  17. Destructive-quantum-interference suppression in crown ether single molecule junction, *Eur. Phys. J. B* **93**, 106 (2020), <https://doi.org/10.1140/epjb/e2020-100573-6>
  18. Quantum interference in monocyclic molecules: A novel and straightforward phase wave model, *Karbala International Journal of Modern Science* 6 (2020) 185-189, <https://doi.org/10.33640/2405-609X.1548>.
  19. Mach-Zehnder quantum interference rules in hydrocarbons with substituents, *Karbala International Journal of Modern Science* 7 (2021) 83-89, <https://doi.org/10.33640/2405-609X.2517>.
  20. Tuning the Length-Dependent Conductance of Thiophene and Furan's Derivatives Via Connectivity, *Journal of Elec Materi* **49**, 7457–7463 (2020), <https://doi.org/10.1007/s11664-020-08496-x>.
  21. Unexpected Fano resonance in deformed porphyrin, *Physica B: Condensed Matter*, **Vol.** 606, 2021, 412800, <https://doi.org/10.1016/j.physb.2020.412800>.
  22. Single-molecule thermoelectric properties susceptibility to environment molecules, *Molecular Simulation*, 47:13, 1059-1065, 2021, DOI: [10.1080/08927022.2021.1946055](https://doi.org/10.1080/08927022.2021.1946055)

**Reviewer:**

1. Karbala International Journal of Modern Science.
2. AIP Conference Proceedings.
3. Materials today: proceedings.
4. Journal of Physics Conference Series.
5. Materials Science Forum.
6. Physica B: Condensed Matter.
7. Journal of University of Babylon for Pure and Applied Sciences