PUBLICATIONS IN REVIEWED JOURNALS

1. **Z. El-Bayyari** and S. Erkoç
Molecular - Dynamics Computer Simulation of Aluminum Clusters (Aln ; n = 3 - 55): Empirical Many - Bo
Function Calculation. Phys. Stat. Sol. (b) 170, 103 - 111 (1992).
http://www3.interscience.wiley.com/cgi-bin/abstract/112454791/ABSTRACT

2. Z. El-Bayyari and S. Erkoç
Bulk and Surface Properties of Aluminum: A Molecular - Dynamics Simulation, Materials Chemistry and Ph
http://dx.doi.org/10.1016/0254-0584(94)90179-1

3. Z. El-bayyari
Molecular – Dynamics Computer Simulations of Silver Aggregates (Agn ; n = 3 – 13) : Empirical Many – B
Function Calculation. Phys. Stat. Sol. (b). 208, 339 – 347 (1998).
http://www3.interscience.wiley.com/cgi-bin/abstract/40001494/ABSTRACT

4. Mohammad A. Abadi and **Z. El-Bayyari.**
Screened Hydrogenic Calculations of the Photo-detachment Cross-Section of the Atomic Lithium Anion. Mu
Dirasat. 15, No. 4, 161-176 (2001).
www.mutah.edu.jo/dar/sciej.htm

5. Mohammad A. Abadi and **Z. El-Bayyari** .
The Absolute Threshold Photo-detachment Cross-Section of AL- Mutah Lil-Buhuth Wad-Dirasat .16, No. 1,
www.mutah.edu.jo/dar/sciej.htm

6. Z. El-Bayyari
Gold Microclusters (Aun; n =3 - 13): A Molecular - Dynamics Computer Simulation. in "Computer Simulati
Matter Physics XIV, Eds. D. P. Landau, S. P. Lewis, and H. B. Schüttler ", Vol. 89, Part II, Page 47, (Springe
Berlin, 2001).
http://www.springer.com/east/home/

7. Z. El-Bayyari
Embryonic Form of Nickel and Palladium: A Molecular - Dynamics Computer Simulation in "Computer Sim
Condensed Matter Physics XVII, Eds. D. P. Landau, S. P. Lewis, and H. B. Schüttler ", Vol. 103, Page 205,
Heidelberg, Berlin, 2004).
http://www.springer.com/east/home/materials?SGWID=5-10041-22-51644178-detailsPage=ppmmedia|toc

8. Z. El-Bayyari, Hüseyin Oymak and Hatice Kökten
On the Structure and Energetic Features of Small metal Clusters: Nin, Cun, Pdn, Ptn, and Pbn, n=3-13. Interr
Physics C, 15, 917-930 (2004).
http://ejournals.wspc.com.sg/ijmpc/15/1506/S0129183104006339.html

9. Z. El-Bayyari
Embryonic Forms of Nickel: A Molecular - Dynamics Computer Simulation. Journal of Molecular Structure
174 (2005).

http://dx.doi.org/10.1016/j.theochem.2004.12.010

10. Z. El-Bayyari
A comparison Study of Ni, Pd, Pt, and Pb Microclusters: A Molecular - Dynamics Computer Simulation. Sul
the Journal of Material Chemistry and Physics.
http://www.elsevier.com/wps/find/journaldescription.cws_home/504097/description#description

11. Carol J. Hirschmugl, **Z. El-bayyari**, Maria Bunta, Justin B. Holt, and Mario Giordano. Analysis of the nu
Fourier Transform Infrared Chemical Imaging. Infrared Physics & Technology, 49, 57- 63 (2006).
http://dx.doi.org/10.1016/j.infrared.2006.01.032

12. Ayman AbdEl-Aziz El-Sayed, Monem A. S, **Zuheir S. El-bayyari,** Galal A. A., Zeinab K. Protein Seco
Induced By UV Radiation: FTIR Spectroscopy Study For Chlorella Kessleri.
Conference: ***International conference on Powering a Greener Future: Nanomaterials for Solar Energy Co***
LUXOR, EGYPT.

13. Michael J. Nasse, Eric. C. Mattson, Ruben Reininger, Tim Kubala, Sebastian Janowski, **Z. El-bayyari**, a
Multi-beam synchrotron infrared chemical imaging with high spatial resolution: Beamline realization and firs
restoration. Nuclear Instruments and Methods in Physics Research A. 649, 172-176 (2011).
Journal homepage: http://www.elsevier.com/locate/nima , http://dx.doi.org/10.1016/j.nima.2010.12.095

14. Bothina Hamad**, Zuheir El-Bayyari** and Ali Marashdeh. Investigation of the stability of platinum cluste
nitrogen monoxide: First principles calculations. **Chemical Physics, 443, 26 – 32**
(2014). http://dx.doi.org/10.1016/j.chemphys.2014.07.004

15. Z. El-Bayyari Nanotechnology and Nanomedicine. **Journal of Nanomedicine Research. Volume 7 issu**
http://medcraveonline.com/JNMR/JNMR-07-00174.pdf

WORKS IN PROGRESS

13. M. J. Nasse, R. Reininger, T. Kubala, S. Janowski, **Z. El-Bayyari**, and C. Hirschmugl.
Synchrotron Infrared Microspectroscopy Imaging Using a Multi-Element Detector (IRMSI-MED) for Diffra
Imaging. In reparation.

14. Z. El-Bayyari, M. J. Nasse, R. Julian, A. Norici, S. Ratti, C. Hirschmugl, and M. Giordano.
Rapid assessment of resource partitioning in algae with IR microspectroscopy. In preparation.

15. M. J. Nasse, **Z. El-Bayyari**, S. Ratti and C. Hirschmugl.
Flow Cell Design for IR Microspectroscopy of Living Biological Cells. In preparation.

16. Z. El-Bayyari
Growth of copper aggregates: A Molecular - Dynamics Computer Simulation. In preparation.

PROCEEDINGS PRESENTED IN NATIONAL MEETINGS

1. Z. El-bayyari
Molecular – Dynamics Computer Simulation of Silver Aggregates (Agn; n = 3 – 13): Empirical Many-Body
Calculation.
Third Symposium on Computational Condensed Matter Physics, November 3 – 5, 1997. Irbid – Jordan.

PROCEEDINGS PRESENTED IN INTERNATIONAL MEETINGS

1. Z. El-Bayyari
Gold Micro-clusters (Aun; n = 3 - 13): A Molecular - Dynamics Computer Simulation. The14th Annual Wor
Developments in Computer Simulation Studies in Condensed Matter Physics, Center for Simulational Physic
Athens, 19-24, Feb, 2001, USA.

2. Z. El-Bayyari
Embryonic Form of Nickel and Palladium: A Molecular - Dynamics Computer Simulation. The 17th Annual
Developments in Computer Simulation Studies in Condensed Matter Physics, Center for Simulational Physic
Athens, 16-20, Feb, 2004, USA