

CV



- A) - **Name of the researcher:** Yahia CHERGUI
- **Date of Birth:** 18/10/1967
- **ORCID ID:** <https://orcid.org/0000-0003-3961-028X>
- **Married:** I have three boys

Research

My research field is condensed matter using molecular dynamics, and DL_poly_4 software; where the title of my Magister was the structure of TiO_2SiO_2 using molecular dynamics, and my PhD title was the properties of ZnO using molecular dynamics. My new research field is the soft matter using molecular dynamics method for bacteriophages.

B) - Professional experience

- **Adjunct Instructor:** University of Tebessa, Algeria 1992-1994 and 2009-2011 teaching courses in mechanics, electricity, and didactics.
- **Supervisor:** more than 32 of license students 2009-2020.
- **English Language Tutor:** 1992-1996
- **Business:** personal Para Pharmaceutical Company 1997-2003.
- **Business:** partner in Pharmacy 1997-2000.
- **Business:** personal shop for clothes 1998-2005
- **High School Physics Tutor:** 2008-2012
- **Summer School:** Queen's University of Belfast, United Kingdom 2010.
- **Assistant professor:** Feb.27, 2012 to 27/02/2019, Electrical & Electronics Engineering Institute, M'hamed Bougara University, Boumerdès, Algeria; Permanent faculty member; teaching courses in mechanics, electricity, vibrations and waves.
- **Visiting postgraduate Student Researcher:** University of Cardiff, United Kingdom 2015 (Jan-Jul).
- **Current Position; Lecturer:** 28/02/2019 till today Electrical & Electronics Engineering Institute, M'hamed Bougara University, Boumerdès, Algeria; Permanent faculty member; teaching courses in mechanics, electricity, Electromagnetism.
- **Referee:** Journal of Energy (Elsevier), Condensed Matter, Material Research Express (IOP), ACS, and American Journal of Modern Physics since 20/11/2018.

C) – Education

- **Bachelor:** 1986, Science, Fares Tahar High School, Tebessa, Algeria
- **Diplome of Higher Education:** 1986-1991, Solid Physics, Badji Mokhtar University, Annaba, Algeria
- **Magister:** Physics, condensed matter surfaces & interfaces, Badji Mokhtar University, Annaba, Algeria, 2008.
- **PhD:** 2008-2019 Badji Mokhtar University Annaba Algeria, Feb.28, 2019.
- **License:** Law, Badji Mokhtar University (fourth year level) 2008

D) – Publications

- 1) - **Y. CHERGUI**, N. Nehaoua and D. E. Mekki. The structural properties of PbF₂ by Molecular Dynamics *Eur. Phys. J. Appl. Phys.* **51**, 20502 (2010). [DIO:10.1051/epjap/2010096](https://doi.org/10.1051/epjap/2010096)
- 2) - N. Nehaoua, **Y. CHERGUI** and D. E. Mekki. Determination of organic solar cell parameters based on single or multiple pin structures, *Vacuum* **84** (2010) 326-329.
- 3) - N. Nehaoua, **Y. CHERGUI** and D. E. Mekki Tandem and single organic solar cells parameters evaluation from illumination I-V plot *Journal of Electron Devices*, Vol. **11**, 2011, pp. 515-520
- 4) - **Y. CHERGUI**, N. Nehaoua and D. E. Mekki *Chapitre Solar Cells / Book 2 (first editin July 2011, InTec)*, ISBN979-953-307-191-5. Comparative study of dye-sensitized solar cell based on ZnO and TiO₂: parameters evaluation, Edited by Prof. Leonid Kosyachenko Yuriy Fedkovych Chernivtsi National University, Optoelectronics Department, Ukraine.
- 5) - N. Nehaoua, **Y. CHERGUI** and D. E. MEKKI *Chapitre Solar Cells / Book 3 (first edition July 2011, InTec)*, ISBN 9-953-307-192-2 A New Model for Extracting the Physical Parameters from I-V Curves of Organic and Inorganic Solar Cells Edited by Prof. Leonid Kosyachenko Yuriy Fedkovych Chernivtsi National University
- 6) - **Y. CHERGUI**, N. Nehaoua and D. E. Mekki, Low and wide gap organic solar cells parameters extraction from illumination current-voltage. *Materials Science, Trade Science, MSAIJ*, **8**(4), 2012 [174-178]
- 7) - **Y. CHERGUI**, N. Nehaoua et D. E. Mekki, Photovoltaic characteristics of ZnO Nanotube Dye-Sensitized Solar Cells and TiO₂ Nanostructure, *Journal of Material Sciences*, Issue **2321-6212**, Page 2347-2278. 2/10/2013
- 8) - **Y CHERGUI** et al Molecular Dynamics Prediction of Wurtzite ZnO Phase under High and Low Pressures and Temperatures, *2017 Mater. Res. Express* **4** 115016.
- 9) - Yahia Chergui¹, Tahar Aouaroun², Mark J Hadley³, Rafik Chemam⁴ and Abd Elaziz Ouatzerga⁵, Behavior of phase transition of ZnO in nanoscale of time a molecular dynamics computation.

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<https://doi.org/10.1088/2053-1591/abe565>.

E) – Presentations

- 1) - **Y. CHERGUI** et al. *School of R-X 2006, University of Annaba*
- 2) - **Y. CHERGUI** et al. *5 TH Arab Congress on Materials Science October 23-25, 2007- Gabes-Tunisia*
- 3) - **Y. CHERGUI** et al. International Conference on Modelling and Simulation (*MS'07 Algiers*) *July 02-04, 2007*
- 4) - **Y. CHERGUI** Methods of Numerical Simulation used in Physics ; *First Summer School of Physics, University of Mouloud Maammeri, Tizi-Ouzou, Faculty of Sciences*
- 5) - **Y. CHERGUI** et al. Physics of Materials and its Applications, *University of Annaba le 25, 26 et 27 novembre 25, 26, 27, 2007.*
- 6) - **Y. CHERGUI**, N. Nehaoua and D. E. MEKKI
CCP5/CECAM “Methods in Molecular Simulation Summer School 2010 “at Queen’s university Belfast, UK.

7) - **Y. CHERGUI**, N. Nehaoua and D. E. MEKKI ; Comparative study of dye-sensitized solar cell based on ZnO and TiO₂: parameters evaluation *First International Conference on New Materials and Active Devices (NMCA2011)*, May 23rd -25th 2011, University Oum EL-Baouaghi (Algeria).

8) - N. Nehaoua, **Y. CHERGUI** et D. E. MEKKI, A New Model for Extracting the Physical Parameters from I-V Curves of Organic and Inorganic Solar Cells, First *International Conference on New Materials and Active Devices (NMCA2011)*. May 23rd -25th 2011, University Oum EL-Baouaghi (Algeria)

9) - **Y. CHERGUI**, N. Nehaoua and D. E. MEKKI Photovoltaic characteristics of ZnO Nanotube Dye-Sensitized Solar Cells and TiO₂ Nanostructure. *BIAMS'11 Annaba.2012*.

10) - **Y. CHERGUI**, T. Aouaroun, A. Outzergua, and R. CHEMAM. Effect of temperature and pressure on molar volume of ZnO wurtzite phases under extended pressure and temperature a molecular dynamics prediction. *International conference on Green energy and recycling* December 02-03, 2019 Berlin, Germany.

11)- CCPBioSim Training Week starting 02 October – 09 October, 2020. *STFC is part of UK Research and Innovation* For more information visit <https://stfc.ukri.org/>.

12)- International Webinar; Microfluidics; Zinc oxide properties under different conditions of pressure and temperatures a molecular dynamics simulation, 2020, 19/10/2020

13)- International Webinar on Organ-on-a-Chip July 16, 2020, Meetings International; The effect of pressure on system temperature of ZnO a molecular dynamics prediction.

14)- International Webinar Optics Virtual 2020, Magnus Group Conference, September 24, 2020.

15)- *Mechanical and Aerospace Engineering; Zinc Oxide Phase Transition Under Different Temperatures and Pressures*, PHRONESIS LLC Mar. 29, 2021.

16)- InovSciTech the Researchers net work; Robotics and Artificial Intelligence Biopolymers and Polymers Chemistry" May 23/5/2021; Total energy of Zinc Oxide Zinc Blend Type under Isobaric and Isothermal Ensemble a Molecular Dynamics Prediction.

17)- *Nanotechnology and Nanomedicine*, PHRONESIS LLC 7-6-2021 USA, "Molar Volume and Total Energy Behavior of ZnO Zinc Blend Structure a Phase Transition Study a Computation Prediction".

16)- 2021 EMMC-Essence Modelling Meeting 7-8 June 2021 UPPSALA-SWEDEN.

F) - Organisation of International Conferences

1) - International Conference on Physics and Networks, June 08-10, 2020, Seoul, South Korea

2)- 3rd International Conference On Atomic, Molecular And Optical Physics.

3)- 2nd International Conference and Exhibition on Nanoscience and Nanotechnology during November 13-15, 2021 at Naples, Italy. O/L/C INTERNATIONAL.

4)- 2nd International Conference and Exhibition on Nanoscience and Nanotechnology during November 13-15, 2021 at Naples, Italy as an Organizing Committee Member

5)- 2nd Global Conference on Applied Science, Engineering and Technology August 27-29, 2021: Modern Trends in Applied Science and Engineering Progressing to the future. GLOBAL SCIENTIFIC GUID, email: appliedscience@gsguid.org

6)- Scientific committee member of 11th International Advances in Applied Physics & Materials Science Congress & Exhibition" which will be held on October 17-23, 2021 in Blue Lagoon, Fethiye / Mugla-TURKEY.

7)- Committee Organizing Member of **MagnetForum-2022** ;Magnetism and Magnetic Materials World Forum September 15-17, 2022 Budapest Hungary.

G) – Memberships of Scientific Societies

1)- The Athens Institute for Education and Research belonging to Physics Unit.

2)- EMMC ASBL, European Materials Modelling Council, Silversquare Stéphanie Avenue Louise 54, 1050 Brussels
CBE no: 0731 621 312, contact@emmc.eu

3)- World Research Society since 28/12/2020.

4)- Editor Board of Journal Physical Sciences & Biophysics.

H) - Languages

- Arabic (mother tongue) – French (language of studying) - English (language of teaching).

K) Software

- DL_poly_4: code of research.
- Moldy,dft, Lamps, cristal, VASP, dlpoly_classic, and VMD (summer school and tests).

L)- Reviewer

Condensed matter journal (IOP), Energy journal (Elsevier), and recently accepted to be a reviewer of *American Journal of Modern Physics* since 20/11/2018.

M) Proposal project

- **H2020-Standard EF-ST- MSCA- Ca' Foscari University: Self-assembly-Bacteriophages**