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| Dr. Jihen  30 years old, Tunisian  **E-mail**: [Jihen.358570@2freemail.com](mailto:Jihen.358570@2freemail.com) |  |

*Curriculum vitae*

**Education**

**25-02-2017: Doctor in physics.**

**2012-2017**: PhD in physics, materials, nano-materials and environment, Sciences University, Gabes, (Tunisia).

**Supervisor**: Pr. Zouhaier Ben Ayadi, head of the laboratory of materials and nano-materials applied in the environment (LaPhyMNE), Sciences University, Gabes, (Tunisia).

**Thesis Topic**: Synthesis of CIGS nanoparticles by solvothermal route and elaboration in thin films by CSVT and sputtering technique for solar cells applications.

**Addendum:** The nanoparticles Cu (In,Ga)S2 have been successfully synthesized using solvothermal method. The obtained powders have been characterized by various techniques such as X-ray diffraction (XRD), Raman Spectroscopy, Scanning Electron Microscopy (SEM), Transmission Electron Microscope (MET), Microanalysis measurements and Spectrophotometer. The found results have been encouraging to elaborate these nanoparticles onto glass substrate by a low cost CSVT and sputtering techniques. Structural, surface morphology and optical properties of the films were investigated. The obtained films are promising for photovoltaic applications thanks to their interesting structural and optical properties.

**2010-2012**: Master degree of science in physics, materials, nano-materials and environmental sciences, University of Gabes, (Tunisia).

**Master Topic**: Synthesis of CuInS2 nanoparticles by solvothermal route and elaboration in thin films by CSVT technique.

**Supervisor:** Pr. Zouhaier Ben Ayadi, head of the laboratory of materials and nano-materials applied in the environment, (LaPhyMNE), Sciences University, Gabes, (Tunisia).

**2005-2009**: Bachelor degree in fundamental physics, Gafsa University, (Tunisia).

**Professional experience**

**November 2015-January 2016**: Internship, Promes CNRS, Perpignan, Montpellier, (France).

**2012-2013:** Temporary teacher at Gabes University, Gabes (Tunisia), Physics Practice (Level 1: mechanical, optics).

**2013-2014:** Temporary teacherat Gabes University, Gabes (Tunisia), Physics Practice (level1: mechanical, optics, electric).

**2014-2015:** Temporary teacherat Gabes University, Gabes (Tunisia), Physics Practice (level 2: wave optics, electric).

**2016-2017**: Temporary teacherat Gabes University, Gabes (Tunisia), Physics Practice (level1: mechanical, optics).

**2016-2017:** Temporary teacher at secondary school, (Ibn-Sina) Gabes, (Tunisia).

**Publications and conferences**

### Publications:

### P1.jihan, A. Ben Marai, K. Medjnoun, K. Djessas and Z. Ben Ayadi. synthesis of CuInS2 nanoparticles by solvothermal process using dimethylformamide as a solvent, Journal of alloys and compounds..

### P2. Ben Marai, jihan, Z. Ben Ayadi, K. Djessas and S. Alaya, structural and optical properties of Cu(In1-xGax)Se2 nanoparticles synthesized by solvothermal route, Journal of alloys and compounds

**P3**. R. Mendil, Z. Ben Ayadi, jihan, K. Djessas, the properties of ZnS thin films prepared by rf-magnetron sputtering from nanoparticles synthesized by solvothermal/ hydrothermal route J Mater Sci, Mater Electron

### Conferences:

**C1.** jihan**,** A. Ben Marai, M. Nouiri K. Djessas, Z. Ben Ayadi,structural, morphology and optical properties of Cu (In1-xGax) S2 nanoparticles prepared by solvothermal process, first international conference on multifunctional materials and their applications (2MAP-2016) Sousse, Tunisia .

**C2**. jihan**,** A. Ben Marai, M. Nouiri, K. Djessas, Z. Ben Ayadi**, s**ynthesis of CuInS2 nanoparticles by solvothermal process using dimethylformamide as a solvent, IXth international congress renewable energy (CERE 2015) 18-20 March 2015 Djerba, Tunisia.

### C3. jihan, A. Ben Marai, M. Nouiri K. Djessas, Z. Ben Ayadi, growth and characterization of CuInS2 thin films by low cost CSVT method from nanoparticles synthesized by solvo-thermal route. Nanotech meet Tunisia 2014, 24-26 April 2014 Hammamet, (Tunisia).

### C4. jihan, A. Ben Marai, M. Nouiri, K. Djessas, Z. Ben Ayadi, study of CuInS2 thin films properties obtained by low cost CSVT method from nanoparticles synthesized by solvo-thermal route ,9th day time Maghreb Europe (MADICA) 24-26 November 2014 Mahdia (Tunisia).

### C5. A. Ben Marai, jihan , K. Djessas and Z. Ben Ayadi, preparation of CuInS2 thin films by low cost CSVT method from nanoparticles synthesized by solvothermal route. (E-MRS) 2013 spring meeting May 27-31 March 2013, Strasbourg, (France).

**Extra skills**

* Training on digital pedagogy and on-line courses.
* Training on student coaching methods and methods of assessment of knowledge.
* Training on the pedagogy of teaching practical work.
* Mental calculation certificate.

**Languages**

English: spoken, written and read.

French: Bilingual, fluent French.

Arabic: mother tongue.

**IT Skills**

Microsoft office: Word, Excel, Power point.

Software: GCPDS, HighScore, Origin7.