**CURRICULUM VITAE**

# I. Personal Data

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| **Name:**  | Youssef Ben Smida |
| **Academic:** Ph.D **Rank:** Researcher  |  | **Nationality:** | Tunisian |
| **Languages:** | Arabic, French, English | **Date of Birth:**  | 21 January 1984 |
| **Current Contact Information:**  | Laboratory of Materials and Crystal chemistry , Department of Chemistry, Faculty of Sciences of Tunis, University of Tunis ElManr, 2092 Tunis, Tunisia.*youssef\_smida@yahoo.fr**+21696019445* |
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# II. Academic Qualifications

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| **June 2015**  | **Ph.D. in Chemistry (Excellent with honor)**, Laboratory of Materials and Crystal Chemistry, Department of Chemistry, Faculty of Sciences of Tunis, University of Tunis El Manar 2092, Tunisia & Laboratory of Electrochemistry and Physical Chemistry of Materials and Interfaces, Saint Martin d'Hères, France |
| **July 2011** | **M.Sc. Solid State Chemistry (Very Good)**, Laboratory of Materials and Crystal Chemistry, Department of Chemistry, Faculty of Sciences of Tunis, University of Tunis El Manar 2092, Tunisia |
| **June 2009** | **B.Sc. in Fundamental Chemistry**, Faculty of Sciences of Tunis, Tunisia |
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# III. Employment History:

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| **September 2015 till now**  | * Professor assistant and Responsible of X-ray platform at the Laboratory of Materials and Crystal Chemistry, Faculty of Sciences of Tunis, University of Tunis El Manar, Tunis, Tunisia.
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| **September 2011 till June 2012** | Temporary assistant, Chemistry Department, Faculty of Sciences of Tunis, University of Tunis El Manar 2092, Tunisia. |
| **September 2013 till June 2014** | Temporary assistant, Chemistry Department, Faculty of Sciences of Tunis, University of Tunis El Manar 2092, Tunisia. |

# IV. Research Interests:

1. Crystallography: Synthesis, Crustal structure determination form single crystal data or powder diffraction,
2. Structure Validation: Charge Distribution, Bond Valence Sum.
3. Theoretical methods: Density Functional Theory and Molecular Dynamics.
4. Ceramics microstructure study: densification and effect of the relative density on electrical properties
5. Electrical conductivity studies
6. Cations pathways transport simulation using BVSM and BVSE models, NEB-DFT and MD theories

# V. Research Publications

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| * 1. “Synthesis, crystal structure, electrical properties, and sodium transport pathways of the new arsenate Na4Co7(AsO4)6”. *Journal of Solid State Chemistry.* **(2016) accepted.**

**Authors:** [**Youssef Ben Smida**](https://www.researchgate.net/researcher/2014325828_Youssef_Ben_Smida), [Riadh Marzouki](https://www.researchgate.net/researcher/49534419_Riadh_Marzouki), [Samuel Georges](https://www.researchgate.net/researcher/74412205_Samuel_Georges), [Ramzi Kutteh](https://www.researchgate.net/researcher/2030600532_Ramzi_Kutteh), [Maxim Avdeev](https://www.researchgate.net/researcher/2105371777_Maxim_Avdeev), [Abderrahmen Guesmi](https://www.researchgate.net/researcher/9535975_Abderrahmen_Guesmi),  [Mohamed Faouzi Zid](https://www.researchgate.net/researcher/11484660_Mohamed_Faouzi_Zid). |
| * 1. “ [Synthesis, optical characterizations and DFT calculations of electronic structure of Sb2O3 films obtained by thermal oxidation of Sb2S3](https://www.researchgate.net/publication/299598287_Synthesis_optical_characterizations_and_DFT_calculations_of_electronic_structure_of_Sb2O3_films_obtained_by_thermal_oxidation_of_Sb2S3)”. *Journal of Alloys and Compounds.* **(2016) accepted**

**Authors:** M. Haj Lakhdar, [**Y. Ben Smida**](https://www.researchgate.net/researcher/2105389858_Y_Ben_Smida), M. Amlouk |
| * 1. “Crystal structure and ionic conductivity of the new cobalt polyphosphate NaCo(PO3)3”. *Journal of Solid State Chemistry.*234 **(2016)** 15-21**.**

**Authors: Youssef Ben Smida**, Abderrahmen Guesmi, Samuel Georges, Maxim Avdeev, Mohamed Faouzi Zid. |
| * 1. “Synthesis, Crystal Structure and Ionic Conductivity of a New Open-Framework Arsenate K0.405Bi0.865AsO4”. *Journal of Alloys and Compounds.* **(2015)**.

**Authors:** Chiraz Falah, **Youssef Ben Smida**, Isabelle Ledoux-Rak, Habib Boughzala. |
| * 1. “Synthesis, Crystal Structure and Electrical Properties of a New Iron Arsenate Na2.77K1.52Fe2.57(AsO4)4”.*Journal of Alloys and Compounds.*651 **(2015)** 616-626**.**

**Authors:** Najoua Ouerfelli, **Youssef Ben Smida,** Mohamed Faouzi Zid. |
| * 1. “Crystal structure of ethyl 2-(4-chlorophenyl)- 3-cyclopentyl-4-oxo-1-propylimidazolidine- 5-carboxylate”. *Acta Crystallographica Section E* .71**(2015)** o682-o683.

**Authors:** Mohamed Ali Tabarki, **Youssef Ben Smida**, Abderrahmen Guesmi, Rafaa Besbes. |
| * 1. “A Convenient Synthesis of 3,4-cis-Disubstituted Pyrrolidin-2-ones”.*Tetrahedron Letters.* 56 **(2015)** 98-100.

**Authors:** Aïcha Arfaoui, Fatma Saâdi, **Youssef Ben Smida**, Youssef Arfaoui, Adel Nefzi, Hassen Amri. |
| * 1. “Synthesis, Crystal Structure, Sintering and Electrical Properties of a New Alluaudite‐Like Triple Molybdate K0.13Na3.87MgMo3O12”. *RSC Advances.*5 **(2015)** 38918-38925.

**Authors:** Ines Ennajeh, Samuel Georges, **Youssef Ben Smida**, Abderrahmen Guesmi, Mohamed Faouzi Zid, Habib Boughazala. |
| * 1. “Synthesis, Crystal Structure and Electrical Proprieties of New Phosphate KCoP3O9”.

*Journal of Solid State Chemistry.*5 **(2015)** **Authors**: **Y. Ben Smida**, A. Guesmi, S. Georges, M. F. Zid. |
| * 1. “Synthesis, Structural and Electrical Properties of a New Cobalt Arsenate NaCo2As3O10”. *Journal of Solid State Chemistry*. 221 **(2015)**132–139.

**Authors:** **Y. Ben Smida**, R. Marzouki, A. Guesmi, S. Georges, M. F. Zid. |
| * 1. “Na3Co2(As0.52P0.48)O4(As0.95P0.05)2O7”.*Acta Crystallographica Section E*. 69 **(2013)** i85-i86.

**Authors:** **Youssef Ben Smida**, Abderrahmen Guesmi, Mohamed Faouzi Zid, Ahmed Driss. |
| * 1. « LiCo2As3O10: Une nouvelle structure à tunnels interconnectés ». *Acta Crystallographica Section E*. 69 **(2013)** i39.

**Authors:** **Youssef Ben Smida**, Abderrahmen Guesmi, Ahmed Driss. |

# VI- Conference Papers

**1-** «Synthèse, étude structurale et analyse par (CHARDI) & (BVS) du nouvel arséniate LiCo2As3O10»,5th Days of Solid State Chemistry organized by the Chemical Society of Tunisia, 19-22 December 2011, Zarzis, Tunisia.

**Authors: Youssef Ben Smida**, Abderrahmen Guesmi, Ahmed Driss.

**2-** « *Synthèse, étude structurale et Validation CHARDI et BVS du nouveau trimétaphosphate KCoP3O9 »*. Third Tunisian Crystallographic Meeting organized by the Tunisian Crystallographic Association, 7-9 April 2013, Monastir Tunis.

**Authors: Youssef Ben Smida**, Abderrahmen Guesmi, Mohamed Faouzi Zid.

**3-** « *Synthèse, étude structurale et propriétés électriques d’un nouveau phosphates NaCo(PO3)3*». 5th days de of Solid State Chemistry organized by the Chemical Society of Tunisia, 16-18 December 2013,  Yasmine Hammamet, Tunisia.

**Authors: Youssef Ben Smida**, Abderrahmen Guesmi, Samuel Georges, Mohamed Faouzi Zid.

# VII- Participation in internationals specialized schools

* Participation in the spring school "*Electrochemistry of Ceramics*" organized by the Interfaces Group of Electrochemistry of Solids, 19-23 May 2014, Grenoble INP-PHELMA, France.
* Participation in the spring school "*Electrochemistry of Ceramics*" organized by the Interfaces Group of Electrochemistry of Solids, 21-25 May 2012, Grenoble INP-PHELMA, France.
* Participation in the training school of the International Union of Crystallography workshop 2012 of "*School on Fundamental Crystallography*" organized by the Commission on Mathematical and Theoretical Crystallography (MaThCryst) and the Tunisian Crystallographic Association in cooperation with the IUCr Commission on Teaching crystallographic, 9-13 April 2012, Mahdia, Tunisia.
* Participation in the workshop: « *Theoretical chemistry applied on adsorption and catalysis* », organized by the Laboratory of Materials Chemistry and Catalysis 13-15 February 2012 at the Faculty of Sciences of Tunis.

# VIII- Internship

Internship in Laboratory of Electrochemistry and Physical Chemistry of Materials and Interfaces, Saint Martin d'Hères, France: Three times:

1. 15 April-16 June 2012.
2. 16 April-15 June 2013
3. 02 April-15 June 2014

# XI- Teaching experience

1. Inorganic Chemistry, BSc Level
2. Chemistry of Transition Metals, BSc Level
3. Crystallography, BSc Level
4. Solid State Chemistry, BSc Level
5. Binary and Unary diagrams, Ellingham diagram, E-pH diagram, BSc Level
6. General Chemistry (1) & (2), BSc Level
7. General Organic Chemistry, BSc Level

# X. Teaching Philosophy:

*Education is the best gift that you can do and offer*

For me, a course should be captivating as a good show. It should be agreeable, inspiring and enriching the lives of students. I never take it for granted that my students are obliged to follow my course or listen in class. I have to earn their presence, listening and commitment. So I do everything to make my courses at once rich and entertaining.

My teaching approach is guided by the following principles:

* be generous and alive;
* Make the course fun;
* Speak to the heart before the mind;
* Inspire and teach at the same time;
* Use several pedagogical approaches to reach everybody (Practice experiences, simulations, images, videos, visits, etc.);
* Practice what you preach;
* Create commitment by involving students;
* Make a unique and memorable experience.