

# **Curriculum Vitae**

## **Dr. Ahmed Mourtada Elseman**

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### **A. Personal Data:**

- *Nationality:* Egyptian
- *Date of Birth:* 18/4/1985
- *Languages:* Arabic  
English



### **B. Address:**

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- *Department:* Electronic and Magnetic Materials
- *Division:* Advanced Materials

### **C. Education:**

Degree	Field	University and Title	Date
B.Sc.	Special Chemistry	Faculty of Science, Al-Azhar University	2007
M.Sc.	Inorganic & Analytical Chemistry	Faculty of Science, Al-Azhar University	2013
Ph.D.	Inorganic & Analytical Chemistry	Faculty of Science, Al-Azhar University	2017

### **D. Employment History:**

Date	Organization	Position
(11/4/2017 – until now)	Central Metallurgical Research and Development Institute (CMRDI)	Researcher (Postdoctoral)

(3/2014 – 4/2017)	CMRDI	Assistant Researcher
(1/2012 – 3/2014)	CMRDI	Researcher Assistant

## **E. Personal experience**

<b>I- General Field of Specialization</b>
Inorganic & Analytical Chemistry – Materials Science and Engineering
<b>II- Fine Specialization</b>
Renewable Energy
<b>III- Current Research Interest</b>
<ul style="list-style-type: none"> <li>▪ Green Chemistry Principle as efficient Design for Energy Efficiency</li> <li>▪ New Concept Development in Perovskite Solar cells</li> <li>▪ Construction and development of ETLs and HTMs for Perovskite based PV cells</li> <li>▪ Nano-scale materials preparation and characterization of strongly-correlated crystal structures and surface morphology</li> </ul>

## **F. Contribution in Industrial Projects**

**Participating in several industrial projects in the fields of -----**

<b>Project Title</b>	<b>Organization/Role</b>	<b>FY</b>
Smart magnetic nanocomposites for multidisciplinary wastewater treatment.	STDF, Egypt / member	2015 – 2017
A Novel Approach for Fabrication Technology of Mullite Nanoparticles from Industrial Wastes for Advanced Applications.	US-Egypt / member	2011 – 2014

Hexagonal strontium and barium ferrites nanoparticles for microwave absorbance and magnetic applications.	STDF, Egypt / member	2009 - 2012
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## **G. Training Activities:**

### **1- Attended**

<b>Place</b>	<b>Type</b>	<b>Time</b>
1. Egyptian Organization for Standardization and Quality, Cairo, Egypt	General requirements for the competence of testing & calibration laboratories according to ISO / IEC 17025 – 2005 from.	8-10 March 2010
2. Egyptian Syndicate of Scientific Professions- Egypt (ESSP)	Application of nanotechnology and water pollution treatment, two days theoretical and interactive teaching.	April 15 – 16, 2015
3. Amman, Jordan	The 4th SESAME-LinkSCEEM Summer School on Synchrotron Radiation (SR) and Haigh Performance Computing (HPC) application	July 2014
4. by Stanford University on Coursera	Writing in the Sciences, 8 weeks of study	November 23, 2017
5. Institute of New Energy Wuhan, China.	Technology and Application for New Energy	20 October to 3 November 2017

## **H. Fellowship and scholarship:**

<b>Place</b>	<b>Position</b>	<b>Time</b>
State Key Laboratory of Alternate Electrical Power System with Renewable Energy Sources, North China Electric Power University, Beijing, China	Postdoc Research Fellow	(5/2017 – 5/2018)

## **I. Professional Society Affiliations (Member)**

- Member of Egyptian Chemical Society.
- Member of Egyptian Syndicate of Scientific Professions 78603/44591 (Chemistry).

## **J. Reviewer for Scientific Journals:**

1. *Alloy and compound*
2. *Applied Energy*
3. *EEEEP committee*
4. *Environmental Science & Technology*
5. *Journal of Coordination Chemistry*
6. *Journal of Materials Science: Materials in Electronics*

## **K. International conferences:**

### **1- Presenter**

1. Ahmed Mourtada Elseman, Mohamed M. Rashad, Ali M. Hassan, "Fabrication of Nanostructured Organo-Metal Halide Perovskite as Light Harvesting Active Layers for Low Cost Production of Solar Cells Energy" 5th Anniversary of ANSOLE (2011-2016): International Conference on Renewable Energy (INCORE2016), 6th of October City, Egypt, 3-6 February 2016. (Presentation). DOI: 10.13140/RG.2.1.4369.6883.
2. A. M. Elseman, M. M. Rashad," An efficient technique used for

## **L. List of Publications (Peer-Reviewed Articles)**

1. **A. M. Elseman**; A. Nassar; N. Ibrahim; M. Rashad; A. Hassan, An easy synthesis of nanostructures magnetite-loaded functionalized carbon spheres and cobalt ferrite, *J Coordination Chemistry*, **2013**, 66(24), 4387-4398.
2. **A. Mourtada**; A. Nassar; N. Ibrahim; M. Rashad; A. Hassan, new nano-structured Ni(II) Schiff base complex: Synthesis, characterization, optical band gaps and biological activity, *Applied Physics A*, **2014**, 117(2), 877-890.
3. A. E. Shalan, **A. M. Elseman**, M. Rasly, M. M. Moharam, M. Lira-Cantu and M. M. Rashad, Concordantly Fabricated Heterojunction ZnO-TiO<sub>2</sub> Nanocomposites Electrodes via Co-precipitation Method for Efficient Stable Quasi-Solid-State Dye-Sensitized Solar Cells, *RSC Advanced*, **2015**, 5, 103095.
4. **A. M. Elseman**, D. A. Rayan, M. M. Rashad. Structure, optical and magnetic behavior of nanocrystalline CuO nanopowders synthesized via a new technique using Schiff base complex. *Journal of Materials Science: Materials in Electronics*, **2016**, 27(3), 2652-2661.
5. M. M. Rashad, **A. M. Elseman**, A. M. Hassan, Facile synthesis, characterization and structural evolution of nanorods single-crystalline (C<sub>4</sub>H<sub>9</sub>NH<sub>3</sub>)<sub>2</sub>PbI<sub>2</sub>X<sub>2</sub> mixed halide organometal perovskite for solar cell application. *Optik*, **2016**, **127**(20), **9775-9787**.
6. **A. M. Elseman**, M. M. Rashad, A. M. Hassan, Easy Attainable, Efficient solar cell with Mass Yield of Nanorods Single-crystalline Organo-Metal Halide Perovskite-Based on Ball Milling Technique. *ACS Sustainable Chemistry & Engineering*. **2016**, 4(9), 4875-4886.
7. M. M. Rashad, **A. Mourtada**, A. M. Hassan, A. M. Nassar and N. M. Ibrahim “Easy Attainable, New Approach of Mass Yield Ferrocenyl Schiff Base and Different Metal Complexes of Ferrocenyl Schiff Base Through Convenient Ultrasonication-Solvothermal Method”, *Journal of Physical Organic Chemistry*, **2017**, 30, e3639
8. **A. M. Elseman**, A. E. Shalan, M. M. Rashad, A. M. Hassan, Experimental and simulation study for impact of different halides on the performance of planar perovskite solar cells, *Materials Science in Semiconductor Processing*, **2017**, 66, 176-185.
9. M. M. Rashad, A. El-Dissouky, H. M. A. Soliman, **A. M. Elseman**, Heba M. Refaat, Asmaa Ebrahim “Structure evaluation of bismuth telluride (Bi<sub>2</sub>Te<sub>3</sub>) nanoparticles with enhanced Seebeck coefficient and low thermal conductivity” *Materials Research Innovations*, **2017**, 1-9.
10. A. M. Nassar, E. F. Abo Zeid, **A. M. Elseman**, and N. F. Alotaibi “A novel heterometallic compound for design and electrical properties of silver nanoparticles decorated lead compounds” *New J Chemistry*, **2018**, 42(2), 1387-1395.
11. Sajid, **A. M. Elseman**, Jun Ji, Shangyi Dou, Hao Huang, Peng Cui, and Dong Wei, Meicheng Li, “Novel Hole Transport Layer of Nickel Oxide Composite with Carbon for High Performance Perovskite Solar Cells” *Chinese Physics B*, **2018**, 27(1), 017305.