

# السيرة الذاتية

## أولاً: البيانات الشخصية:-



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## ثانياً: البيانات العلمية:

أستاذ مساعد	الدرجة العلمية
العلوم الأساسية	القسم العلمي
الفيزيكا والرياضيات الهندسية	التخصص العام
فيزياء المواد النانومترية وتطبيقاتها	التخصص الدقيق

## ثالثاً: التدرج الوظيفي:

استاذ مساعد العلوم الاساسية		الوظيفة الحالية
خارج الكلية	داخل الكلية	المناصب التي تقلدها
	رئيس قسم تكنولوجيا الإنتاج	

## الخبرات الأكاديمية والعملية والصناعية

- استاذ بقسم الفيزياء بجامعة اولسان بكوريا الجنوبية 2012 - 2016
- استاذ مساعد بقسم بقسم الفيزياء – جامعة بوسان الوطنية 2005-2007
- باحث بجامعة سيول بكوريا الجنوبية 2002-2004
- باحث مساعد بجامعة يونسيه بكوريا الجنوبية 2001-2002

### EXPERIENCE IN EGYPT

- Associate Professor (**Dec. 2014- Up to now**) Department of Basic Science, Faculty of Industrial Education & Technology, Helwan University, Cairo, Egypt.
- Assistant Professor (**October 2009- Dec. 2014**) Department of Basic Science, Faculty of Industrial Education and Technology, Helwan University, Cairo, Egypt.
- Lecturer (**December 2006- 2008**) Department of Basic Science, Faculty of Engineering and Technology, Arab Academy for Science and Marine time Transportation, Egypt.
- Assistant lecturer (**September, 2004-March, 2005**) Department of Physics, Helwan University, Cairo, Egypt.
- Assistant lecturer (**2001-2002**) Department of Physics, Helwan University, Cairo, Egypt.
- Assistant lecturer (**1995-1997**) Physics Department, Faculty of Science, Helwan University, Cairo, Egypt.
- Instructor (**1991-1995**) Physics Department, Faculty of Science, Helwan University, Cairo, Egypt.

### EXPERIENCE IN SOUTH KOREA

- Research Professor (**Dec. 2015 ~ Oct. 2016**) Energy Harvest-Storage Research Center & Department of Physics, University of Ulsan, Ulsan 680-749 South Korea.
- Research Professor (**March 2012 ~ May 2013**) Energy Harvest-Storage Research Center &

Department of Physics, University of Ulsan, Ulsan 680-749 South Korea.

- Post Doctorate Researcher (April, 2005 – December, 2006) Physics Department, Pusan National University, Busan, Korea.
- Post Doctorate Researcher (July, 2003-Augst, 2004) Material Science Engineering, Seoul National University, Seoul, Korea.
- Post Doctorate Researcher (March, 2002-June, 2003) Applied Physics Department, Younsei University, Seoul, Korea.
- Assistant researcher & Ph. D. Student (1997-2001), Korean Governmental Scholarship, Physics Department, Faculty of Science, Seoul National University, Seoul, Korea.

### خامساً: المواد القائم بتدريسها:

في مرحلة الدراسات العليا	في مرحلة البكالوريوس
<ul style="list-style-type: none"><li>• اختيار المواد</li><li>• معالجة حرارية للمواد</li><li>• تصنيف وتصنيع المواد في نطاق النانومتر</li></ul>	<ul style="list-style-type: none"><li>• الفيزياء العامة</li><li>• فيزياء 1 (ضوء- كهربية-حرارة)</li><li>• فيزياء 2 (مغناطيسية- موجات- اشعاعية)</li><li>• الكيمياء عامة</li><li>• قياسات كهربية</li><li>• قياسات ميكانيكية</li></ul>

### سادساً: النشر العلمي:

بيان بالنشر العلمي للسيد الدكتور/أحمد ابراهيم احمد علي

The publications:

1. Amany M. ElNahrawy, Ahmed I. Ali, Aïcha Mbarek, Ali B. AbouHammad, “Structural and optical properties of sol–gel ZnTiO<sub>3</sub>:Cu<sup>3+</sup> thin films deposited by a spin coating method” (submitted to Journal of Mat. Chem. Phys. Ms. Ref. No. MATCHEMPHYS-S-16-02105).
2. Ahmed I. Ali, and J. Y. Son "Enhancement of multiferroic of BiFiO<sub>3</sub> thin film by Yb-doping using PLD" (submitted Applied Physics Letter).
3. N. Okasha and Ahmed I. Ali<sup>2\*</sup> “Interfacial effects on the magnetic properties of LiFO/BTO-nanocomposites” Journal of Alloys and Compounds (submitted Ms. Ref. No.: JALCOM-F-17-04528).
4. M. M. Mohamed, M.Y. Elzayat, Ahmed I. Ali, A. I. Aboud, A. Abdel-Razik “Some Aspects of Thermal and Electrical Properties of Pyrocatechol Violet” (Submitted to Chinese Physics B).
5. Optimization of physical properties of Ag-Li nanoferrites via the facile citrate combustion method, Ahmed I. Ali, N Ockasha, and M Mohsen, Journal of Alloys and Compounds (Under press 2016: Ms. Ref. No.: JALCOM-D-16-04222).
6. Ahmed I. Ali · M. M. Ahmed · A. Hassen “The effect of some transition metal oxides on the physical properties of K 0.5 Na 0.5 Nb 0.95 Ta 0.05 O 3 ceramics” Philosophical Magazine· October 2016, DOI: 10.1080/14786435(2016)1245882
7. Room Temperature Ferromagnetism in Sm<sub>0.5</sub>Sr<sub>0.5</sub>CoO<sub>3</sub> Thin Films Deposited by Pulsed Laser Deposition, Ahmed I. Ali, and Y.S. Kim,\* Journal of Nanoscience and Nanotechnology (IF: 1.556@2014, ISSN: 1533-4880, <60%) (Aug. 09, 2016).
8. Magnetic Oxide Thin Solid Films Deposited at Room Temperature and Ambient Pressure using an Electro-Spray Method, Ahmed I. Ali and Y.S. Kim\*, Materials Research Bulletin (IF: 2.288, ISSN: 0025-5408, < 40%) (ms#: MRB\_2016\_338, 24-Aug-2016).
9. Comparative study on the influence of rare earth ions doping in Bi<sub>0.6</sub>Sr<sub>0.4</sub>FeO<sub>3</sub> nanomultiferroics Ahmed I. Ali, N Okasha, S El Dieck, and M. Ayman, Journal of Alloys and Compounds 8 (11), (2016) (6/j.jallcom.2016.08.077).
10. Influences of Ag-NPs doping chitosan/calcium silicate nanocomposites for optical and antibacterial activity, Amany M. El-Nahrawy Ahmed I. Ali Ali B. Abou Hammad Ahmed M. Youssef, International Journal of Biological Macromolecules, Volume 93, Part A, December 2016, Pages 267–275.
11. F. Ullah, V. Senthilkumar<sup>1</sup>, S.-H. Kim, C. T. Le, H. Rock, D. –Y. Lee, S. Park, Ahmed. I. Ali, and Y. S. Kim, ”Continuous large area few layers MoS<sub>2</sub> films by pulse laser deposition and effect of

- annealing in sulfur environment”, *Journal of Nanoscience and Nanotechnology*, 16(10), 10284-10289 (2016) (IF: 1.339@2013, ISSN: 1533-4880, <60%) (2015. 10. 01) (doi:10.1166/jnn.2016.13145).
12. Amany M. ElNahrawy, Ahmed I. Ali, and Y. S. Kim “Synthesis of hybrid chitosan/calcium aluminosilicate using sol gel technique for optical applications” *Journal of Alloys and Compounds* 676, 432 (2016) (ISSN: 0925-8388) (IF 2.397@ 2015) (*Metallurgy & Metallurgical Engineering < 10%*) (2016. 04. 19) (DOI: 10.1016/j.jallcom.2016.03.210).
  13. Ahmed I Ali, A Hassen, Nguyen Cao Khang, YS Kim, “Ferroelectric, and piezoelectric properties of  $\text{BaTi}_{1-x}\text{Al}_x\text{O}_3$ ,  $0 \leq x \leq 0.015$ ”, *AIP Advances* (5), 9, 097125 (2015).
  14. Amany Mohamed Elnahrawy, Ahmed I. Ali, “Influence of Reaction Conditions on Sol-Gel Process Producing  $\text{SiO}_2$  and  $\text{SiO}_2\text{-P}_2\text{O}_5$  Gel and Glass”, *New Journal of Glass and Ceramics*, Vol.4 No.2(2014), Article ID:45420,6 pages.
  15. A. M. El Nahrawy, H. H. Afify, Ahmed I. Ali “Investigations of structural and spectroscopic characterization of Lithium Silicate nanocrystalline” *International Journal of Advancement in Engineering, Technology and Computer Sciences*, JAETCS (2014) Vol.1, No.1, 28-35.
  16. Ahmed I. Ali, Kim Il-Won, and Y. S. Kim "The influence of  $\text{SrTiO}_3$  buffer layer on ferroelectric properties of Al-doped  $\text{BaTiO}_3$  thin films", (*Journal of Electroceramics*; V32, N (1) (2014).
  17. Ahmed I. Ali, Y. S. Kim, A. Abdel Moez “Influence of different single crystal substrates on the structure, optical properties and dielectric results of  $\text{Y}_{0.225}\text{Sr}_{0.775}\text{CoO}_3$  thin films prepared by Pulsed Laser Deposition (PLD) method”, *Results in Physics* (2015).
  18. Ahmed I. Ali, Amir Ullah, Kibog Park, Rock Huh, Y. S. Kim “*Ferroelectric Enhancement of La-Doped  $\text{BaTiO}_3$  Thin Films Using  $\text{SrTiO}_3$  Buffer Layer*”, *Thin Solid Films* 551 (2014) 127–130.
  19. Ahmed I. Ali, Y. J. Son, N. Okasha, M. Hammam and M. A. Ahmed, "The electrical and magnetic properties of Zn substituted Li-R-Ferrite at low temperature" *Journal of Materials Research and technology* 2013, 2 (4), 356-361).
  20. Ahmed I. Ali, A. H. Ammar, A. Abdel Moez “Influence of Substrate Temperature on Structural, Optical Properties and Dielectric Results of Nano-  $\text{ZnO}$  Thin Films Prepared by Radio Frequency Technique” *Superlattices and Microstructures*, Volume 65, January 2014, Pages 285–298.
  21. Ahmed I. Ali, A. Abed Al Moez and A. Ammar, Y. S. Kim and J. Y. Son "Optical and dielectric results of  $\text{Y}_{0.225}\text{Sr}_{0.775}\text{CoO}_{3+\delta}$  Thin Films Studied by Spectroscopic Ellipsometry Technique; *Results in Physics* 3 (2013) 167–172.
  22. Ahmed I. Ali, C.W. Ahn, Y. S. Kim, “Enhancement of Piezoelectric and Ferroelectric Properties of  $\text{BaTiO}_3$  Ceramics by Aluminum Doping”, *Ceramics International*, Volume 39, Issue 6, August 2013, Pages 6623-6629.
  23. Ahmed I. Ali and A. Hassan "Magnetic and Electric Properties of  $\text{Y}_{2-x}\text{Sr}_x\text{CoO}_4$ ” *Advances in*

24. Ahmed I. Ali, A. Abed Al Moez, and Y. S. Kim, "Hall mobility, resistivity and dielectric properties of reduced  $\text{La}_{0.01}\text{Ba}_{0.99}\text{TiO}_3$ ", *Journal of Korean Physical Society*, 62 (7), (April 2013)1024-1030.
25. Min-Gyu Sung, Sung-Ki Park, Ahmed I. Ali and Yong Soo Kim, "Optimization of tungsten dual poly-metal gates in memory devices with Ti/WN/WSiN barrier metal", *Journal of Nanoscience and Nanotechnology*, V 13, 1-4 (2013).
26. Y. H. Elshaer S. S. Aly, Ahmed I. Ali and Y. S. Kim, "Gamma induced modifications in structure and optical properties of high density polyethylene thin films", *Journal of Applied Sciences Research* 8(4), 2371-2378 (2012).
27. A. Hassan, Ahmed I. Ali, Bog G. Kim and A. Krimmel, "Structure-Property Relationships in  $\text{Pr}_{1-x}\text{Sr}_{x+1}\text{CoO}_4$ ", *American Journal of Condensed Matter Physics* 2(4), 93-100 (2012).
28. Ahmed I. Ali, Saleh H. Kaytbay, "Electrical Transport Properties of  $\text{La-BaTiO}_3$ " *Materials Sciences and Application* 2, 716-720 (2011).
29. J. Y. Son, Y.-H. Shin, S.B. Park, C.S. Park, Hyungjun Kim, J.H. Cho, Ahmed I. Ali, "Thin Film growth and magnetic anisotropy of epitaxial  $\text{Sr}_{0.775}\text{Y}_{0.225}\text{CoO}_3$ ", *Journal of Crystal Growth* 310, 3649– 3652 (2008).
30. J. Y. Son, C. S. Park, and Ahmed I. Ali, "Ferromagnetic Epitaxial  $\text{Sr}_{0.775}\text{Y}_{0.225}\text{CoO}_3$ Thin Films", *Electrochemical and Solid-State Letters* 11(12), G59-G61 (2008).
31. M. A. Ahmed, N. Okasha, Ahmed I. Ali, M. Hammam and J. Y. Son "Effects of rare earth oxides on some physical properties of Li-Zn nanoparticle ferrites", *Proceedings of the 3th International Conference on Modern Trends in Physics Research Cairo, Egypt*, 6 – 10 April (2008).
32. J. Y. Son, Young-Han Shin, Han-Bo-Ram Lee and H. Kim, J. H. Cho, and Ahmed I. Ali, "Surface Charge on Ferroelectric Thin Film by High Electric Field Induced at Scanning Probe Microscope Tip", *Journal of the Korean Physical Society* 51, S125-S128 (2007) (OCT. 2007).
33. A. Hassen, Ahmed I. Ali, Bongju Kim, Y. S. Wu, S. H. Park, and Bog G. Kim, "The antiferromagnetic Phase Transition in  $\text{Dy}_{1-x}\text{Sr}_x\text{CoO}_3$ ", *Journal of Applied Physics* 102, 123905 (2007).
34. Ahmed I. Ali, Bongju Kim, Y. S. Wu, S. H. Park, and Bog G. Kim, "Magnetic Phase Transition and Variable Range Hopping Conduction of  $\text{Y}_x\text{Sr}_{1-x}\text{CoO}_3$ ", *Journal of the Korean Physical Society* 51, 1736-1742 (2007).
35. K. H. Kim, Ahmed I. Ali, K. H. Kim, J. H. Cho, Hyun-Jong Paik, and Bog G. Kim, "Investigation of the structure, thermal, and magnetic properties of  $\text{Ca}_{3-x}\text{Y}_x\text{Co}_2\text{O}_6$ ", *Journal of Korean Physics Society* 49, 2380-2385 (2006) (Dec. 2006).
36. Bongju Kim, Ahmed I. Ali, J. H. Cho, H. C. Kim, S. H. Park, and Bog G. Kim, "Electrical and

- Magnetic Properties of  $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$** ", Journal of the Korean Physical Society 49, S657-S661 (2006) (Dec. 2006).
37. **Ahmed I. Ali, C. H. Kim, J. H. Cho, and Bog G. Kim,**" Growth and Characterization of ZnO:Al Thin Film using RF sputtering for Transparent Conducting Oxide", Journal of the Korean Physical Society 49, S652-S656 (2006) (Dec. 2006).
38. **Ahmed I. Ali, Bongju Kim, J. H. Cho, H. C. Kim, S. H. Park, and Bog G. Kim.** "Magnetic phase diagram of  $\text{Pr}_{0.5}\text{Sr}_{0.5-x}\text{Ca}_x\text{CoO}_3$ " Journal of the Korean Physical Society, Vol. 49, December 2006, pp. S662-S666.
39. **M. A. Ahmed, N. Okasha, and Ahmed I. Ali,** "Correlation of the physicochemical properties of Zn substituted Li-La Ferrite ", Journal of Ceramics International 31, 361-369 (2005).
40. **M. A. Ahmed and Ahmed I. Ali,** "Optical properties of Mn-Co-Ferrite system", Journal of Egyptian Solid State 45, 241 (2004).
41. **Ahmed I. Ali and Yu Insuk,** "Dielectric, thermal and Electrical properties of  $\text{NH}_4\text{HCO}_3$ ", Ferroelectrics 262, 179-182 (2001).
42. **W. M. Shaheen and Ahmed I. Ali,** "Characterization of solid-solid interactions and physicochemical properties of copper- cobalt mixed oxides and  $\text{Cu}_x\text{Co}_{3-x}\text{O}_4$  spinels", Materials Research Bulletin 36, 1703-1716 (2001).
43. **W. M. Shaheen and Ahmed I. Ali,** "Thermal solid-solid interaction and physicochemical properties of  $\text{CuO-Fe}_2\text{O}_3$ ", International Journal of Inorganic Materials 3, 1073-1081 (2001).
44. **Ahmed I. Ali and Yu Insuk,** "Electrical Conduction properties of  $\text{KHCO}_3$ " Journal of Korean Physics Society 24, 242 (1999).
45. **M. M. Abdel-Kader, M. Fadly, M. Abu-Taleb, K. Eldehmy, and Ahmed I. Ali,** "Electrical and thermal investigations of the Phase transition in Sodium Bicarbonate,  $\text{NaHCO}_3$  ", Physics Scripta 52, 334-337 (1995).
46. **M. M. Abdel-Kader, M. Fadly, M. Abu-Taleb, K. Eldehmy and Ahmed I. Ali,** "Electrical, Dielectric and thermal properties of Sodium salicylate,  $\text{C}_7\text{H}_5\text{O}_3\text{Na}$ ", Journal of Egyptian Solid State Physics 18, 265(1995).
47. **M. M. Abdel-Kader, M. Fadly, M. Abu-Taleb, K. Eldehmy and Ahmed I. Ali,** "Electrical conductivity and Relative Permittivity of  $\text{KHCO}_3$ ", Phys. Stat. Sol.(a) 142, 69 (1994).

**Selected presentations at the following meetings and conferences:**

- **1<sup>st</sup> Egyptian–Sweden Workshop and International Conference of Advanced Materials 2012. Hold in Egypt. " Room Temperature Ferromagnetic of  $\text{Sm}_{0.5}\text{Sr}_{0.5}\text{CoO}_3$  thin films for ferromagnetic**



## RAM application"

- **Ahmed I. Ali, and Yong Soo Kim, "Room temperature ferromagnetic state in  $\text{Sm}_{0.5}\text{Sr}_{0.5}\text{CoO}_{3-\delta}$  thin films deposited by using PLD method", 1st International Conference of Advanced Basic & Applied Science (2012.11.06-09), p.90, Hurghada (Egypt).**
- **Hak-Soon Choi, Moon-Su Shin, Ahmed I. Ali, and Yong Soo Kim\*, "Low Resistive Tungsten Dual Poly-metal Gates with Multi-Diffusion Barrier Metals in High Performance Memory Devices", The 10<sup>th</sup> Internal international Nanotech Symposium and Nano-Convergence Expo (2012.08.16-18) p.69, Seoul (Korea).**
- **Ahmed I. Ali, Abdel Moez and Yong Soo Kim, "Electric and Dielectric Properties of reduced  $\text{La}_{0.01}\text{Ba}_{0.99}\text{TiO}_3$ ", The 9<sup>th</sup> Korea-Japan Conference on Ferroelectrics (2012.08.07-10), p.36, Ulsan (Korea).**
- **Korean-Japan meeting on dielectric 2004 held in Moju, Korea. "The Growth and optimization AZO thin films using RF spurting for transport electrodes"**
- **Asian meeting on ferroelectric materials 2003 held in Seoul, Korea. "Growing the HTSC single crystals using floating Zone method".**
- **Asian meeting on superconductivity and correlated materials, 2002 held at Seoul National University, Korea. "The optical and electrical measurements on  $\text{Al}_2\text{C}_7\text{O}_{33}$  single crystal".**
- **International meeting of ferroelectrics 2001, held at Polytechnics University Hong Kong. "The Dielectric and electrical measurements on ammonium hydrogen carbonates"**
- **Korean-Japanese conference of Ferroelectric materials 1999. "The ferroelectric relaxation in the Hydrogen Bicarbonates".**
- **International conference of solid state physics 1995, held at Suez Canal University Suez, Egypt. "The Dielectric measurements of Hydrogen Bicarbonates".**

## Developing laboratory and courses

- **Developing the nanomaterials laboratory in physics department, Ulsan University, South Korea** Establishing and developing the nanomaterials laboratory in basics science department, helwan University, Cairo, Egypt.
- **Developing the physics courses for 1<sup>st</sup> year and 2<sup>nd</sup> year , in basics science department, helwan University, Cairo, Egypt.**
- **Preparation the physics courses for 1<sup>st</sup> year and 2<sup>nd</sup> year for open Education system in basics science department, helwan University, Cairo, Egypt.**
- **Preparation the physics courses for 1<sup>st</sup> year and 2<sup>nd</sup> year for teachers program in basics science department, helwan University, Cairo, Egypt.**



