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**Educational Data:**

1- Ph.D. in Physics, School of Applied Physics, Faculty of Science and Technology,  
Universiti Kebangsaan Malaysia (UKM), Malaysia, 26/6/2013. The title of thesis:

“PHOTOPHYSICAL AND OPTOELECTRONIC PROPERTIES OF POLY (9,9'-DI-N-  
OCTYLFLUORENYL- 2,7-DIYL) (PFO)/FLUOROL 7GA/TiO<sub>2</sub> NANOCOMPOSITES  
FOR ORGANIC LIGHT EMITTING DIODES”

2- M.Sc. in Physics, Department of Physics and Astronomy, Faculty of Science, King Saud  
University, Riyadh, Saudi Arabia, 30/6/2009. The title of thesis:

“SPECTRAL PROPERTIES AND LASER EMISSION FROM CONJUGATED (PDEHF)  
POLYMER”

3- Bachelor in Physical & Chemical Science, Department of Physics and Chemistry, Faculty of  
Sciences, Damascus University, Syria, 17/9/2002 (The top in my batch).

**Professional Experience:**

1. 1/2016 – present: Assistant professor at Dept. of Physics and Astronomy, College of Science,  
King Saud University, Riyadh, Saudi Arabia.

2. 12/2014 – present: Assistant professor at Dept. of Physics, Faculty of Science, Sana'a  
University, Sana'a, Yemen.

3. 8/2013 – 8/2014: post doctoral researcher, School of Applied Physics, Faculty of Science and  
Technology, Universiti Kebangsaan Malaysia (UKM), Malaysia.

4. 10/2005 – 6/2009: demonstrator in physics labs (during my study in KSU) at Dept. of  
Physics, College of Science, King Saud University, Riyadh, Saudi Arabia.

5. 12/2002 – 6/2005 : Instructor in physics labs at Dept. of Physics, Faculty of Science, Sana'a  
University, Sana'a, Yemen.

6. 10/2002 – 9/2005 : Assistant lecturer ( general physics for engineering, Statics, & Dynamics ) at Faculty of Science and Engineering, University of Science & Technology, Sana'a, Yemen.

In addition, I have contributed as secretariat for the 3<sup>rd</sup> ISESCO International Workshop and Conference on Nanotechnology (IWCN 2012), 5-7 December, Universiti Kebangsaan Malaysia (UKM), Malaysia.

### **Publications**

1. **Al-Asbahi, B. A.,** Haji Jumali, M. H. & AlSalhi, M. S. **2016.** Enhanced Optoelectronic Properties of PFO/Fluorol 7GA Hybrid Light Emitting Diodes via Additions of TiO<sub>2</sub> Nanoparticles. *Polymers*. 8: 334-343.
2. Fuzi, S. A. A., Jumali, M. H. H., & **Al-Asbahi, B. A. A. 2015.** Enhanced optophysical properties of poly [(9, 9-di-n-octylfluorenyl-2, 7-diyl)-alt-(benzo [2, 1, 3] thiadiazol-4, 8-diyl)] via addition of TiO<sub>2</sub> nanoparticles. AIP Publishing. 1678: 040009.
3. **Al-Asbahi, B. A. &** Haji Jumali, M. H. **2014.** Non-Radiative Energy Transfer Mechanism and Optoelectronic Properties of (PFO/TiO<sub>2</sub>)/Fluorol 7GA Hybrid Thin Films. *GSTF Journal of Physics and Applications*. 1: 2.
4. **Al-Asbahi, B. A.,** Haji Jumali, M. H. & Al-Gaashani, R. **2014.** Efficient Charge Transfer in Polyfluorene/ZnO Nanorods Composite Thin Films. *Journal of Nanomaterials*. 2014:87-95.
5. **Al-Asbahi, B. A.** and Haji Jumali, M. H. **2014.** Enhancement optical properties of poly( 9,9'-di-n-octylfluorenyl-2,7-diyl) in conjugated polymer/TiO<sub>2</sub> nanocomposites. *Canadian Journal of Physics*. 92: 1021-1025.
6. **Al-Asbahi, B. A.,** Haji Jumali, M. H., Yap, C. C. & Salleh, M. M. **2013.** Enhancement of Poly (9,9'-di-n-octylfluorenyl-2,7-diyl) Optoelectronic Properties in Novel Conjugated Polymer/Laser Dye Hybrid OLEDs. *Materials Science Forum* 756:281-288.
7. **Al-Asbahi, B. A.,** Haji Jumali, M. H., Yap, C. C. Flaifel, M. H. & Salleh, M. M. **2013.** Photophysical Properties and Energy Transfer Mechanism of PFO/Fluorol 7GA Hybrid Thin Films. *Journal of Luminescence* 142:57-65.
8. **Al-Asbahi, B. A.,** Haji Jumali, M. H., Yap, C. C., Salleh, M. M. & AlSalhi, M.S. **2013.** Inhibition of Dark Quenching by TiO<sub>2</sub> Nanoparticles Content in Novel PFO/Fluorol 7GA Hybrid: A New Role to Improve OLED Performance. *Chemical Physics Letters* 570: 109–112.

9. Haji Jumali, M. H., **Al-Asbahi, B. A.**, Yap, C. C., Salleh, M. M. & AlSalhi, M. S. **2013**. Optical Properties of Poly( 9,9'-di-n-octylfluorenyl-2.7-diyl)/Amorphous SiO<sub>2</sub> Nanocomposite Thin Films. *Sains Malaysiana* 42(8):1151-1157.
10. **Al-Asbahi, B. A.**, Haji Jumali, M. H., Yap, C. C. & Salleh, M. M. **2013**. Influence of TiO<sub>2</sub> Nanoparticles on Enhancement of Optoelectronic Properties of PFO-Based Light Emitting Diode. *Journal of Nanomaterials* Volume 2013, Article ID 561534, 7 pages.
11. Al-Qubaisi, M. S., Abdullah, R., Flaifel, M. H., Sahrim, H. A., Al-Ali, S. H., Hussein, M. Z., Zainal, Z., Alhassan, F. H., Taufiq-Yap, Y. H., Eltayeb E.M., Arbab, I. A., **Al- Asbahi, B. A.**, Thomas, J. W. & El Zowalaty, M. E. **2013**. Induction of apoptosis in cancer cells by NiZn ferrite nanoparticles through mitochondrial cytochrome C release. *International Journal of Nanomedicine* 8:4115-4130.
12. **Al-Asbahi, B. A.**, AlSalhi, M. S. Al-Dwayyan, A. S. & Haji Jumali, M. H. **2012**. Förster-Type Energy Transfer Mechanism in PF<sub>2/6</sub> to MEH-PPV Conjugated Polymers. *Journal of Luminescence* 132 (2):386–390.
13. Flaifel, M. H., Ahmad, S. H., Abdullah, M. H., **Al-Asbahi, B. A.** **2012**. NiZn Ferrite filled thermoplastic natural rubber nanocomposites: effect of low temperature on their magnetic behavior. *Cryogenics* 52:523–529.
14. Haji Jumali, M. H., **Al-Asbahi, B. A.**, Yap, C. C., Salleh, M. M. & Alsalhi, M. S. **2012**. Optoelectronic Properties Enhancement of Conjugated polymer in Poly( 9,9'-di- n-octylfluorenyl-2.7-diyl)/Titania Nanocomposites. *Thin solid film* 524:257–262.

#### **CONFERENCES PAPERS (ORAL PRESENTER)**

1. **Al-Asbahi, B. A.** & Haji Jumali, M. H. 2014. Non-radiative energy transfer mechanism and optoelectronic properties of (PFO/TiO<sub>2</sub>)/Fluorol 7GA hybrid thin films. 2<sup>nd</sup> Annual International Conference on Optoelectronics, Photonics & Applied Physics (OPAP 2014), 3<sup>rd</sup> – 4<sup>th</sup> February 2014, Singapore.
2. **Al-Asbahi, B. A.**, Haji Jumali, M. H., Yap, C. C. & Salleh, M. M. 2012. Enhancement of Poly (9,9'-di-n-octylfluorenyl-2.7-diyl) Optoelectronic Properties in Novel Conjugated Polymer/Laser Dye Hybrid OLEDs. *The 3<sup>rd</sup> ISESCO International Workshop and Conference on Nanotechnology (IWCN 2012)*, 5-7 December, Malaysia.
3. **Al-Asbahi, B. A.**, Haji Jumali, M. H., Yap, C. C., Salleh, M. M. & Alsalhi, M. S. Optical Properties of Poly( 9,9'-di-n-octylfluorenyl-2.7-diyl)/SiO<sub>2</sub> Nanocomposite thin films. *Malaysia Polymer International Conference* 18-20 October (2011), Malaysia.
4. **Al-Asbahi, B. A.**, Yap, C. C., & Haji Jumali, M. H. 2011. Optical Properties Enhancement of Poly (9,9'-Di-N-Octylfluorenyl-2.7-Diyl) in Novel Conjugated Polymer/TiO<sub>2</sub> Nanocomposites. *11<sup>th</sup> Postgraduate Colloquium at the Faculty of Science and Technology*. 6-7 July, Malaysia. **(with best presenter award)**.

5. **Al-Asbahi, B. A.,** Haji Jumali, M. H., Yap, C. C. & Salleh, M. M. Optical Properties Enhancement of Poly ( 9,9'-Di-N-Octylfluorenyl-2.7-Diyl) in Novel Conjugated Polymer/TiO<sub>2</sub> Nanocomposites. *International Conference on NANO-Scitech*. 2-3 March (2011), Malaysia.
6. **Al-Asbahi, B. A.,** Yap, C. C. & Haji Jumali, M. H. Optical properties of Poly( 9,9'-di-n-octylfluorenyl-2.7-diyl) /Titania nanocomposites. *3<sup>rd</sup> International Conference on Solid State Science & Technology*. 1-3 December (2010), Malaysia.

### **Participations:**

I have attended the following workshops:

- 1- 5<sup>th</sup> Series of lectures in sustainable energy (April-May, 2016, KSA)
- 2- Program in: Creating a course that meets student needs (25/9/2016, KSA).
- 3- Program in: Improving student learning (27/9/2016, KSA).
- 4- Program in: Utilizing problem solving approach in teaching (28/9/2016, KSA).
- 5- Workshop on nanomaterials characterization by techniques of electrochemical, PEC, SEM, XRD and optical spectroscopy (12/2012, Malaysia).
- 6- UKM-Flinders Nanotechnology Summer School (7/2012, Malaysia).
- 7- Workshop on How to write and publish a manuscript in impact factor journal for advance materials and solid state science (7/2012, Malaysia).
- 8- The 7<sup>th</sup> workshop on X-ray diffraction (12/2011, Malaysia).
- 9- Workshop on nanomaterials synthesis and characterization (7/2011, Malaysia).
- 10- The 5<sup>th</sup> workshop on X-ray diffraction 2010: theory & application (12/2010, Malaysia).
- 11- Nano material processing workshop (11/2010, Malaysia).
- 12- The International Conference for Nanotechnology Industries. (4/2009, KSA).
- 13- The Fourth meeting of Saudi Physical Society. (11/2008, KSA).
- 14- The Chinese Experience in Nano Industry Workshop. (3/2008, KSA).
- 15- The 1<sup>st</sup> Workshop on Nano research at Universities (10/2007, KSA) .
- 16- The Workshop of "Quantum Information Processing" (4/2007, KSA).