**Khalid Hassan Ibnaouf**



**Associated Professor of Physics**

Department of Physics- College of Science

Imam Mohammed bin Saud Islamic University

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**Personal Information**

Date and Place of Birth December 18, 1974, Khartoum, Sudan

Nationality Sudanese

Marital Status Married

**Education**

* **Ph.D. Laser Physics,** Physics Department, College of Science**,** University of AL-Neelain, Khartoum, Sudan (2008)

Thesis Title: Characteristics of Amplified spontaneous emission spectra from conjugated polymers- Based materials.

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1. **M.Sc. Physics,** King Saud University – College of Science , Kingdom of Saudi Arabia (2005)

Thesis Title: Amplified spontaneous emission spectra from some coumarin dyes

**B. Sc. Physics (Honors),** Physics Department, College of Science**,** University of AL-Neelain, Khartoum, Sudan (1998)

Grade: First division.

**Careers**

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| **Al-Imam University, (Riyadh- Kingdom of Saudi Arabia)**  Assistant Professor of Physics | 14 Nov 2009- to now |
| **University of AL-Neelain (Khartoum- Sudan)**  Assistant Professor of Physics | June. 23, 2008- Nov.13, 2009 |
| **University of AL-Neelain (Khartoum- Sudan)**  Lecturer of Physics | July. 10, 2005 - June. 22, 2008 |
| **King Saud University, (Riyadh- Kingdom of Saudi Arabia)**  Teacher Assistant | Oct. 1, 2001- June. 1, 2005 |

1. **Taught the following courses:**

**Graduate courses- M.Sc students of Physics**

* Laser Spectroscopy
* Electrodynamics theory
* Atomic & Molecular Spectroscopy
* Techniques of Experiments in laser physics
* Some Special Topics physics

**Undergraduate - B.Sc. students of physics**

* Introduction to laser physics
* Atomic physics
* Molecular Spectroscopy
* Electromagnetic Theory
* Electricity and Magnetism
* Physics 101:General Physics

**Positions Held**

\* Director, School of physics & Applied physics, AL-Neelain University 2008- 2009.

\* Head, Department of laser physics & Renewable Energy, AL-Neelain University 2007-2008.

* University council member (Al-Neelain University).
* Faculty council member (Al-Neelain University).
* Department council member for graduate studies and scientific research (Al-Neelain University).
* Coordinator of post graduate, School of physics & Applied physics (Al-Neelain University).
* Member of Laser Research Center,(King Saud University)

**Research Experience and activities**

1. **Laser Physics**
   * Establishment of a well-equipped laser laboratory at the Department of laser and renewable energy, Faculty of Science, AL-Neelain university- 2007.
   * Good research experiences in preparation and characterization the spectral properties of conjugated polymers as macro molecules using, CCD camera, UV-Vis Spectrophotometer, Spectrofluorometer, Nd: YAG lasers
   * Experience in synthesis and characterization of thin film using conjugated polymers as schottky diode using HVD, spin coater, FTIR and SEM.
   * The present research interests in laser materials focused on:
   * The Spectral properties of the quantum dots as a new medium laser using nano second and Pico second lasers.

* Electrical and spectral properties of some conjugated polymers doped with some nanomaterials and study the effect of gamma radiation on the electrical and spectral properties.

1. **Trainings:**
   * + Radiation Isotopes Center, Khartoum 1996.
     + Sudan Atomic Energy Commission 1997.
     + Laser laboratory, collage of science, King Saud University, 2001 – 2015 Supervision of Graduate Students

* **Conferences:**
* Nanotechnology and its application in science, Al Neelain University, Sudan, 2008
* Fourth Saudi Science Conference Almadinah Almonawara, KSA, 2010
* Mathematics and its Applications, Alriyadh, KSA, 2011.

**National and International Awards:**

***Award of International Publication. Al-Imam University, Riyadh, KSA, 2013.***

***Award of International Publication. Al-Imam University, Riyadh, KSA, 2014.***

***Award of International Publication. Al-Imam University, Riyadh, KSA, 2015.***

International Conferences

1. A. Hamdan, , Saradh Prasad, M. S. Alsalhi , V. Masilamani , M. R. Karim, *K. H. Ibnaouf*, and M. B. Zaman “*Excimer like Photoluminescence Spectra of CdSe/ZnS Quantun dots.*
2. M.S. Alsalhi, *K.H. Ibnaouf*, V. Masilamani “*Laser From a Liquid Excimer*” Organic Photonic Materials and Devices XIII, Vol. 7935 79350D-1, 2011.
3. *K.H. Ibnaouf*, M.S. Alsalhi , V. Masilamani , Ziyad S. Abu Mustafa “*Energy Transfer Processes In A Polymer Laser*” Organic Photonic Materials and Devices XIII, Vol. 7935 79350C-1,2011.
4. V. Masilamani, Saradh Prasad, *K.H. Ibnaouf*, and M S AlSalhi "*Laser from optically pumped quantum dot CdSe/ZnS",* International Conference and Trade fair on Laser Technology, J Phys Chem Biophys 2015, 5:3

**Publications**

***Referred Journals***

1. ***K.H. Ibnaouf*** , "*Amplified spontaneous emission spectra of poly(9,9-dioctylfluorenyl-2,7-diyl) under pulsed laser excitation",* Synthetic Metals 209 (2015) 534–543.
2. S. Prasad, ***K .H. Ibnaouf*** , M. S. AlSalhi, D.Devaraj and V. Masilamani, "*High power amplified spontaneous emission from an oligomer in solution*", Journal of Luminescence, 168(2015)109–113.
3. ***K.H. Ibnaouf***, "*Influence of the CdSe quantum dots concentration on the amplified spontaneous emission from the conjugated polymer (MEH-PPV) in solution*", **Elsevier,** OPTICS AND LASER TECHNOLOGY Volume: 67 Pages: 150-154.
4. Saradh Prasad, **K. H. Ibnaouf**, M. S. AlSalhi, Kamal Alameh, D. Devaraj, A. Hamdan, M. R. Karim7, M. B. Zaman, and V. Masilamani " *Laser from Optically Pumped Quantum Dot CdSe/ZnS in a Colloidal Liquid"* Journal of **Nanoscience and Nanotechnology**, Vol. 15, 1–4, 2015
5. ***K.H. Ibnaouf***, O.A. Yassin and Sara A Mukhtar “*The dependence of the ideality factor on the charge density of a conjugated polymer (MEH-PPV) doped with some laser dyes*”, **Elsevier**, Optik
6. ***K.H. Ibnaouf*** ,M. Al Salhi , S. Prasad, A. Hamdan, V. Masilamani, L. ElMir and M. B. Zaman “*Influence of the solvent environments on the spectral features of CdSe quantum dots with and without ZnS shell*”. **Elsevier** , J.of Luminescence, 149(2014)369–373.
7. S. Prasad, ***K .H. Ibnaouf*** V. Masilamani, M. S. AlSalhi “*Laser from dimer state from a conjugated polymer PFO in solution”,* **Elsevier, Journal of Polymer,** **Polymer 55 (2014) 727e732.**
8. ***K.H. Ibnaouf***, S. Prasad, A. Hamdan2,3, M. Al Salhi, A.S. Aldwayyan, V. Masilamani, and M. B. Zaman “*Photoluminescence Spectra of CdSe/ZnS Quantum Dots in solution*”, **Elsevier**, Journal of spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 121, 5 March 2014, Pages 339-345.
9. N. Mustapha, ***K. H. Ibnaouf***, Z. Fekkai A. Hennache, S. Prasad and A. Alyamani“*Improved efficiency of solar cells on BEHP-co-MEH-PPV doped with ZnO nanoparticles*” **Optik - International Journal for Light and Electron Optics, Volume 124, Issue 22, November 2013, Pages 5524-5527.**
10. ***K .H. Ibnaouf***, “*Dual ASE from monomeric and excimeric States of a Conjugated polymer PDHF in Solution* Elsevier, Optics &Laser Technology. **Elsevier** Optics &Laser Technology54(2013)309–314
11. ***K .H. Ibnaouf***, S. Prasad V. Masilamani, M. S. AlSalhi “*Triple amplified spontaneous emissions from a conjugated copolymer BEHP-co-MEH-PPV in solution”* **Elsevier, Journal of Physica E,** 53, 66–71 (2013).
12. ***K .H. Ibnaouf***, S. Prasad V. Masilamani, M. S. AlSalhi “*Evidence for amplified spontaneous emission from Double Excimer State of a Conjugated polymer PDHF in Solution”* , Elsevier, **Polymer journal**, 54, 2401-2405 (2013).
13. ***K.H. Ibnaouf* “***Excimer State of a Conjugated Polymer (MEH-PPV) in Thin Film,* **Elsevier**, **Journal of Optics &Laser Technology,** 48, 401–404 (2013).
14. ***K .H. Ibnaouf***, S. Prasad V. Masilamani, M. S. AlSalhi and A.S Alaamer” *Evidence for Double Excimer State of conjugated polymer in a liquid solution”* **J. Europ. Opt. Soc. Rap. Public**. 8, 13001 (2013).
15. *K.H. Ibnaouf*, S. Prasad , A.S. Aldwayyan, Mohammad S. AlSalhi, V. Masilamani" *Amplified spontaneous emission spectra from Superexciplex" of Coumarin138* ", Elsevier, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 97, 1145–1151, (2012).
16. *K.H. Ibnaouf*, “*Laser from external energy transfer of MEH–PPV conjugated polymer*" Elsevier, Optics &Laser Technology, 44, 710–713, (2012).
17. M. S. AlSalhi , ***K. H. Ibnaouf*** , V. Masilamani , O. A. Yassin “*Amplified Spontaneous Emission from Internal Energy Transfer Process in the Copolymer BEHP-co-MEH-PPV*” **Elsevier**, **Journal of Luminescence**, 132, 484–490, (2012).
18. M. S. AlSalhi, *K. H. Ibnaouf*. V. Masilamani. O. A. Yassin “*Excimer state of a conjugate polymer (MEH-PPV) in liquid solutions “Journal of* Laser Physics. 12, 1361-1366, (2007).
19. V. Masilamani, *K. H. Ibnaouf*. M. S. AlSalhi. O. A. Yassin “*Laser Properties of a Conjugate Polymer (MEH- PPV) in the liquid- Excimeric state"* *Journal of* Laser Physics. 17, 1367- 1372. (2007)
20. *K.H. Ibnaouf*, V. Masilamani, A.S. Aldwayyan, and M.S. AlSalhi “Dual *ASE Spectra from Superexciplex TICT States of Dye Molecules*" *Journal of* Laser Physics, 15, (2005).

Accepted Papers:

1. ***K .H. Ibnaouf***, S. Prasad V. Masilamani, M. S. AlSalhi *“Laser from a conducting oligomer 9, 9, 9’, 9’, 9’’, 9’’-hexakis (octyl)-2, 7’, 2’, 7’’-trifluorene in solution”.*

**Papers sent for publication:**

1. Effects of high dose gamma radiation on the amplified spontaneous emission of the conjugated polymer MEH-PPV.
2. Gamma irradiation effects on the spectral properties of a conjugated polymer the BEHP-co-MEH–PPV in solution.
3. ***K .H. Ibnaouf***, S. Prasad V. Masilamani, M. S. AlSalhi *High Power Laser from dimer and double dimer of a conjugated polymer of PFO in thin films.*