

## Curriculum Vitae



### 1. Personal Details:

**Correspondence Name:** *Mohamed Hassan Eisa Salim* (M. H. EISA or *Yi Sang*: 易桑)

**Date of Birth:** 01/01/1970

**Place of Birth:** ElGadarif (East), Sudan

**Nationality:** Sudanese

**Marital Status:** Married

**Gender:** Male

### 2. Correspondence Address

#### Present Address:

Department of Physics, College of Science, Imam Mohammad Ibn Saud Islamic University, Riyadh, 11642, KSA

Phone: +966-566974584,

E-mail: mheisas@hotmail.com

Website: <http://www.imamm.org>

**Position:** Full Professor of Physics (Applied Ion Beam Physics)

**Field of Study:** Applied Ions Beams Physics

**Keywords of Interest:** Nano Physics: thin films, wide band gaps materials, optoelectronics, biomedical materials and simulation

#### Permanent Address:

Department of Physics, College of Science, Sudan University of Science & Technology (SUST) Box: 407 Khartoum, Sudan, Phone: + 249-920904217, Fax: +249-183-779219

**E-mail:** [mhsalim@imamu.edu.sa](mailto:mhsalim@imamu.edu.sa), [15@imamm.org](mailto:15@imamm.org) and [mheisas@hotmail.com](mailto:mheisas@hotmail.com)

**Web site :** [http://sustech.edu/faculty\\_en/staff2.php](http://sustech.edu/faculty_en/staff2.php)

**Web site:** <https://scholar.google.com/citations?user=HJKeQTcAAAAJ&hl=en>

**Web site:** <https://www.journals.elsevier.com/scientific-african/editorial-board/m-h-eisa>

**Web site:** [https://www.researchgate.net/profile/Mohamed\\_Eisa](https://www.researchgate.net/profile/Mohamed_Eisa)

**Web of Science:** Researcher I D: [L-7966-2013 · Researcher](https://orcid.org/0000-0003-2058-7307)

**ORCID ID:** [0000-0003-2058-7307](https://orcid.org/0000-0003-2058-7307)

**Scopus Author ID:**

**Position:** Full Professor of Physics

**Field of Study:** Applied Ions Beams Physics

**Specialization:** Nuclear Condensed Matter Physics

**Interest:**

Prof. Eisa research interests lie in ion beam physics and its application. He is currently working on ion beam modification of wide band-gap semiconductor nanostructures for applications in optoelectronics and biomedical

materials. He also would like to pursue more theoretical studies of nanomaterials and their implications in biomedical materials, detectors and sensors.

### 3. Academic Particulars:

**31-05-2010:** Postdoctoral Fellow: Nano Physics, TWAS and Universiti Sains Malaysia (USM), Pinang, Malaysia

**08-06-2005:** Ph. D., Doctor of Philosophy (Physics) by (Courses +Thesis) Applied Ion Beam Physics, Fudan University, Shanghai, China

**05-07-2001:** Diploma, Chinese Language, Fudan University, Shanghai, China

**10-02-1997:** M. Sc. (Courses+ Thesis) Physics, Nanjing Normal University (NJNU), Nanjing, China

**23-03-1992:** B. Sc., Physics (Honor, 2nd Class, Division One, 5 years) University of Khartoum, Khartoum, Sudan

### 4. Thesis Title:

**Ph. D.** Thesis titled" Nuclear Techniques Investigation on the role of Trace Elements in Bone (Fudan University, Published: 2005-04-20) (Supervisor: Advisory committee: Professor *Zhou Zhuying* Chair Advisor, Professor *Mi Yong*, Associate Professor *Shen Hao*, Associate Professor *Yao Hui ying* and Assistant Professor *Yang Ming Jie*)

**M. Sc.:** Thesis titled" Monte Carlo Simulation on Bilayer Vesicle Shapes (Supervisor: Professor: *Zheng Chang Liang*).

**B. Sc.:** Thesis titled" Studies on Solar Energy and its Applications (Supervisor: Professor: *Hisham Mohamed Wadatallah*)

### 5. Research Area:

Applied Ion Beam Physics, Thin Films, Advanced Materials, Applications in Solar Energy (solar cells, Nanomaterials) and simulation

**Dr. Eisa** area of research includes ion beam techniques, nanomaterial synthesis and processing by ion beams and doped nanomaterials with and without capping and determination of the corresponding functional properties in view of efficient optoelectronic and biosensors for the biomedical applications. Characterization of rare-earth doped nanomaterials and semiconductor nanostructures.

### 6. Area of Interest:

Ion Beam Physics, Nanomaterials and Simulation

### 7. Specific Skills:

**Core skills and competencies are as follows:**

- ❖ Well acquainted with experimental aspects of accelerator technology including, Nuclear Microscopy such as PIXE, EXAFS and complementary techniques.
- ❖ Well acquainted with analytical skills for XRD, AFM, SEM, MBE, FESEM and ICP.
- ❖ Highly computer literate–Word/PowerPoint/Excel and numerous Nuclear Analytical software as well as scientific program development using Fortran, C++, MATLAB, MAPLE, SEGMA, ORIGIN Professional, LATEX, SRIM, Crystal, Quantum Espresso, COMSOL, MENDELEY, Nano-hub and AXIL.
- ❖ Advise on research matters
- ❖ Teach more university subjects in physics
- ❖ Prepare, administer and grade assigned work
- ❖ Direct research programs of graduate students
- ❖ Conduct research in field of specialization
- ❖ Conduct seminars and discussion groups
- ❖ Conduct laboratory sessions
- ❖ Serve on faculty committees dealing with research, budgets, curriculum planning and requirements and staffing
- ❖ Accreditation

#### 8. Summary:

I am a team player and willing to learn, adapt and contribute to the organization and institutions with my excellent communication skills and ability to coordinate and undertake multiple tasks simultaneously. I have worked with multidisciplinary teams with different cultural background and maintained the mutual respect.

My Career objective is to be part of a team that develops, implements and monitors effective strategies and solutions to address pressing Physics Education issues, reduce the impact of assorted problems on Physics Education, and improve the provision, and access of Physics solution. I aspire to sustain the welfare of the communities both nationally and globally, and attain professional development in my chosen fields of interest.

I aspire also to teach effectively at the undergraduate and graduate levels, supervise graduate students, and provide service within the Department, to the University, and to the broader community. I have qualifications to the role: publications in reputable scientific journals; demonstrated capacity to pursue research independently; experience mentoring students and staff.

#### Personal Suitability:

- Initiative
- Effective interpersonal skills
- Team player
- Excellent oral communication
- Excellent written communication
- Client focus
- Dependability
- Judgement
- Organized

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#### 9. Academic Awards:

- ❖ **1994-1997:** Chinese's Scholarship, M. Sc., NJNU, China
- ❖ **2000-2001:** Chinese's Scholarship, Diploma, Fudan University, Shanghai, China
- ❖ **2001-2005:** Chinese's Scholarship, Ph. D, Fudan University, Shanghai, China
- ❖ **2006:** the 2006 TWAS Prize for Young Scientists awarded in the field of Physics, Trieste, Italy
- ❖ **2009-2010:** Post-Doctoral Fellowship-Universiti Sains Malaysia (USM and Third World Academy of Science (TWAS) Post-Doctoral Fellowship- Universiti Sains Malaysia, Pinang 11800, Malaysia
- ❖ **2014:** (ISI) publication and excellence awards (Excellent Publication), College of Science, Al Imam Mohammad Ibn Saud Islamic University, Riyadh, 11642, KSA
- ❖ **2015:** (ISI) publication and excellence awards (Excellent Publication), College of Science, Imam Mohammad ibn Saud Islamic University, Riyadh, 11642, KSA
- ❖ **2017:** (ISI) publication and excellence awards (Excellent Publication), College of Science, Imam Mohammad ibn Saud Islamic University, Riyadh, 11642, KSA
- ❖ **2018:** (ISI) publication and excellence awards (Excellent Publication), College of Science, Imam Mohammad ibn Saud Islamic University, Riyadh, 11642, KSA
- ❖ **2019:** (ISI) publication and excellence awards (Excellent Publication), College of Science, Imam Mohammad ibn Saud Islamic University, Riyadh, 11642, KSA
- ❖ **2020:** (ISI) publication and excellence awards (Excellent Publication), College of Science, Imam Mohammad ibn Saud Islamic University, Riyadh, 11642, KSA
- ❖ **2021:** (ISI) publication and excellence awards (Excellent Publication), College of Science, Imam Mohammad ibn Saud Islamic University, Riyadh, 11642, KSA

## 10. Full Time Experience

04-1992 -04-1994, Al-Sharg University, Kassala, Sudan, Teaching Assistant of Physics

03-1997 -11-1997, Kassala University, Kassala, Sudan, Lecturer of Physics

11-1997 -04-1999, Kassala University, Kassala, Sudan, Head of Physics Department

04-1999- 09-1999, Sudan Institute for Natural Sciences (SIFNS) Khartoum, Sudan, Research Unit, Researcher

10-1999 -08-2000, SUST- Khartoum, Sudan, Lecturer

30-08-2005 - 12-05-2009, SUST- Khartoum, Sudan, Assistant Professor of Physics

2006- 2009, SUST- Khartoum, Sudan, Coordinator of Master Program of Physics

2009-2010: School of Physics, Universiti Sains Malaysia, Pinang 11800, Malaysia

2010 (25-10 to 25-11) SUST- Khartoum, Sudan, Head of Physics Department

12-05-2009 -01-11-2012, SUST- Khartoum, Sudan, Associate Professor of Physics

01-11-2012 Up to now: Physics Department, College of Science, Imam Mohammad Ibn Saud Islamic University (IMSIU), Riyadh, KSA

20-08-2015: Director of Training Unit at College of Science: Imam Mohammad Ibn Saud Islamic University (IMSIU), Riyadh, KSA

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## 11. Professional

2012 Up to now: Physics Department, College of Science, IMSIU, Riyadh, KSA

20010-2012: Physics Department, College of Science, SUST, Khartoum, Sudan

2009-2010: Nano–Optoelectronics Research Laboratory, School of Physics; USM, Pinang, Malaysia

2005-2009: Physics Department, College of Science, SUST, Khartoum, Sudan

2002-2005: Applied Ion Beam Laboratory for Accelerator, Fudan University, Shanghai, China

2001-2005: The Institute of Modern Physics, Fudan University, Shanghai, China

1999-2000: Physics Department, College of Science, SUST, Khartoum, Sudan

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## 12. Teaching Experiences:

**Undergraduate:** Mechanics and Vectors, Vibration and Waves, Modern Physics, Classical Mechanics, Nuclear Physics, Plasma Physics, Quantum Mechanics, Applied Nuclear Physics, Physics of spectroscopy, Atomic Physics

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## 13. Graduate:

**High Diploma:** Non-Destructive Test course and Solar Energy

**Master of Science:** Advanced Nuclear Physics, Plasma Physics, Spectroscopy of Physics, Electrodynamics, High Vacuum Physics, Thin Film Technology

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## 14. Supervision of Undergraduate Students:

In SUST: 50 Students

In IMSIU: 9 students

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## 15. Supervision of Graduate Student:

- ❖ *Abdullah Elrasheed Mohamed*, Studies on Energy Loss of Electron at Low Velocities, Master thesis (Partial), SUST, Khartoum, Sudan, 2006
- ❖ *Elnapega Mohamed Nageeb*, Electrons Velocity Distribution for Plasma Debye Sphere in Tokamak, Master Thesis (Partial), SUST, Khartoum, Sudan, May 2009
- ❖ *El Sadig Gumaa Elnour Gumaa*, Calculation of Stopping Power and Energy Range for Hydrogen Ion in Concrete, Master thesis (Partial), SUST, Khartoum, Sudan, June 2009
- ❖ *Habib Suleiman Judi Bush*, Monte Carlo Simulation of X- Ray Absorption of Bismuth Oxide, Nano Particles, Master Thesis (Full), SUST, Khartoum, Sudan, September 2011
- ❖ *Ali Yahia Ali*, Simulation of Proton Induced X- Ray Emission in Superconductor Materials, Master Thesis Partial), SUST, Khartoum, Sudan, August 2012

- ❖ *Adam Suleiman Ibrahim*, Conductivity Simulation of Gallium Arsenide (GaAs), Master Thesis (Partial), SUST, Khartoum, Sudan, August 2012
- ❖ *Ibrahim Omer Abdullah*, X-ray Attenuation on some Materials, High Diploma, Thesis (Partial), SUST, Khartoum, Sudan, February 2012
- ❖ *Sumayyah Abdulrahman Aloraini*, Study on the properties of Aluminum Doped Zinc Oxide Deposited on Glass Substrates Master Thesis (Partial), IMSIU, Riyadh, KSA, December 2018
- ❖ *Suaad Mahdi Abdalgadir Habani*, Study on the properties of some solar cells materials by different methods, Master Thesis (Partial), Omdurman Islamic University, Omdurman, Sudan, June 2018

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#### 16. Ph.D. Students

- ❖ *Abdel Aziz Mohamed Ibrahim Elrufai*, Study of Charge Transition Levels of Intrinsic Defect, Band Gap and Formation Energy in Barium Fluoride and Calcium Fluoride, Ph. D, Thesis (Full), SUST, Khartoum, Sudan, August 2016
- ❖ *Habib Suleiman Bush Judo*, Enhancement of Nanoparticles for Contrast Agents and Radiation Dose Distribution in Breast Cancer by Monte Carlo Simulation, Ph. D, Thesis (Full), SUST, Khartoum, Sudan, July 2018
- ❖ *Mujahid Eldaw Abu Firas*, First Principles and Monte Carlo Simulation for Investigation of Phase Transition in  $Au_{1-x}Cu_x$  Nano Alloy, Ph. D, Thesis (Full), SUST, Khartoum, Sudan, July 2018
- ❖ *Ahmed A. Abel-Wahab*, Characterization of some wide band gaps thin films, Ph. D, Thesis (Full), SUST, Khartoum, Sudan, started January 2021

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#### 17. Internal and External Examiners

- ❖ I have examined 6 Theses of Ph. D. in Physics as an external Examiner
- ❖ I have examined 25 Theses of M.Sc. in Physics as an internal Examiner
- ❖ I have examined 72 projects of B.Sc. in Physics as an internal Examiner

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#### 18. Research Projects and Grands:

- 2003-2005:** The Chinese National Science Foundation under the Grand (No. 10175015 and 10490180)  
**2009-2010:** Universiti Sains Malaysia, under Grant No. 305/PFIZIK/613321  
**2021-2022:** Imam Mohammad Ibn Saud Islamic University (IMSIU), Research Group No. RG-21- 09-44.  
**2021-2022:** Imam Mohammad Ibn Saud Islamic University (IMSIU), Research Group No. RG-21-09-45.  
**2021-2022:** Imam Mohammad Ibn Saud Islamic University (IMSIU), under Grant No. GR

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#### 19. Administrative Experience:

- 2010 (25-10 to 25-11):** Head of Physics Department, College of Science, SUST, Khartoum; Sudan  
**11-1997 -04-1999:** Head of Physics Department, Kassala University, Kassala, Sudan  
**04-1999 -09-1999:** Research Assistant, SIFNS, Khartoum; Sudan  
**2006- 2009:** Coordinator of Master Program of Physics at SUST, Khartoum; Sudan

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#### 20. Editorial and Review Board:

- ❖ *International Journal of Science Research (IJSR)*
- ❖ *American Journal of Scientific and Industrial Research (AJSIR)*
- ❖ *Editor of Scientific African, Elsevier* (<https://www.journals.elsevier.com/scientific-african/editorial-board/m-h-eisa>)

## 21. Memberships

- ❖ International X-ray Absorption Society (IXAS)
- ❖ American Association of Physics Teachers (AAPT)
- ❖ American Association for Science and Technology (AASCIT)
- ❖ <https://nanohub.org/members/117999>

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## 22. List of Publications: **Selected Papers:** Publications in international refereed journals

2022

- [1]. Ethar Yahya Salih \*, Asmiet Ramizy, Osamah Aldaghri, Mohd Faizul Mohd Sabri, Nawal Madkhali, Tarfah Alinad, Khalid Hassan Ibnaouf, **Mohamed Hassan Eisa**, In-Depth Optical Analysis of Zn (Al)O Mixed Metal Oxide Film-based Zn/Al-Layered Double Hydroxide for TCO Application, Crystals, 12 (1), (2022)
- [2]. O. Aldaghri, E. Y. Salih, A. Ramizy, M. F. M. Sabri, N. Madkhali, T. Alinad, K. H. Ibnaouf, M. H. Eisa, Morphological characteristics of  $\beta$ -irradiated lead oxide nano-sized particles, Digest Journal of Nanomaterials and Biostructures, Vol. 17, No. 1, January - March (2022), p. 29 - 37

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2021

- [3]. Fawzia E. M. Elbashir, Wassim Ksouri, **Mohamed Hassan Eisa**, Sitah Alanazi, Farouk Habbani, Abdelmoneim Sulieman, David A. Bradley, and Ibrahim I. Suliman, Comparison of Dosimetry Protocols for Electron Beam Radiotherapy Calibrations and Measurement Uncertainties, Life, 26 December (2021)
- [4]. Ibrahim Idris Suliman, Sawsan Mohamed, Alaa Mahadi, Einas Bashier, A Farah, Nada Hassan, Nada Ahmed, **Mohamed Eisa**, Ahmed El-Khayatt, Salem Sassi, Analysis of Average Glandular Dose (AGD) and Associated Parameters for Conventional and Digital X-Ray Mammography, (2021)
- [5]. **M. H. Eisa** and A. A. Ahmed, Structural Characterization of Synthesized Al-Doped ZnS Nanoparticles Deposited on Glass Substrate, Journal of Chalcogenide Letters, Vol. 18, No. 12, December (2021), p. 783-789
- [6]. M. E. Ali, A. A. Alfaki, A. S. Mohammed, H. H. Abuelhassan, A. A. Qurtam, Kh. M. Haroun, **M. H. Eisa**, Synthesis and characterization of carbon nanotubes incorporated with MgO nanoparticles, Journal of Ovonic Research, Vol. 17, No. 5, September–October (2021), p 429 - 435
- [7]. Adam S. Abdalla, Suliman Alameen, **M. H. Eisa** and O Aldaghri, Electronic and magnetic properties of Fe-doped GaN: First principle calculations, Zeitschrift für Naturforschung A, ZNA: vol:76 (2021), iss:03
- [8]. M. S. ABDELRAHIM, KH. M. HAROUN, A. H. ALFAKI, H. S. BUSH, O ALDAGHRI, **M. H. EISA**, Effective atomic numbers and electron densities of gel dosimeters for He, B, C, and O highly charged particles interaction in the energy range 10 keV–100 MeV, Digest Journal of Nanomaterials and Biostructures, Vol. 16, No. 1, January - March (2021), p. 61 – 71
- [9]. Ethar Yahya Salih, Mohd Faizul Mohd Sabri, **M. H. Eisa**; Khaulah Sulaiman, Asmiet Ramizy, Mohd Zobir Hussein; Suhana Mohd Said, Mesoporous ZnO/ZnAl<sub>2</sub>O<sub>4</sub> Mixed Metal Oxide-Based Zn/Al Layered Double Hydroxide as an Effective Anode Materials for Visible Light Photodetector, Materials Science in Semiconductor Processing, Volume 121, January (2021), 105370

- [10]. Mohammed Al-zharani, Ashraf Ahmed Qurtam, Walid M. Daoush, [Mohamed Hassan Eisa](#), Nada H. Aljarba, Saad Alkahtani and Fahd A. Nasr, Environmental Science and Pollution Research, (2021) <https://doi.org/10.1007/s11356-020-09843-5>, IF: 2.914

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2020

- [11]. A. S. Abdalla, Suliman Alameen\*, Mohammed S. G. Hamed and [M. H. Eisa](#), Single-photon pulse transport in a waveguide coupled with a quantum system, Results in Optics, Volume 1, 21 November, (2020), 100026
- [12]. H. S. Bush, [M. H. Eisa](#), Asmeit Ramizy, M. Ashari, Kh. M. Haroun and M. D. Abd-Alla, The Effect of Gold Nanoparticles on Radiation Dose Distribution in Breast Cancer Using Monte Carlo Simulation, Journal of Optoelectronic and Biomedical Materials, Volume 12, Number 3, July - September (2020)
- [13]. Adam S. I. Abdalla, Ahmed M. Dafalla, [M. H. Eisa](#), O. Aldaghri and Ahmed M. Al kaoud, Digest Journal of Nanomaterials and Biostructures, Vol. 15, No. 2, April-June (2020), p. 569-577
- [14]. [M. H. Eisa](#), Effects of beta-ray irradiation on optical properties of PbO thin films, Journal of Materials Science in Semiconductor Processing, Volume 110, May (2020), 104966
- [15]. [M. H. EISA](#), A. H. A. ALFEDEEL, SIMULATION PROPERTIES OF THIN FILMS OF INDIUM TIN OXIDE DEPOSITED ON POLYMER SUBSTRATES, Digest Journal of Nanomaterials and Biostructures, Vol. 15, No. 1, January-March (2020), p. 59-65
- [16]. Asmiet Ramizy, Isam M. Ibrahim, Abu baker S. Mohammed and [M. H. Eisa](#), Performance of multi-function devices fabricated from La2O3-doped NiO Thin Films, International Journal of Nanoelectronics and Materials, Volume 13, No. 1, Jan (2020) p. 101-112

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2019

- [17]. M. G. Faraj, [M. H. Eisa](#), M. Z. Pakhuruddin, Physical Properties of Spray Pyrolysis Cadmium Sulfide Thin Films Deposited on Different Polymer Substrates, Int. J. Electrochem. Sci., 14 (2019), 10633 – 10641
- [18]. M. G. Faraj and [M. H. EISA](#), Effect of polyimide substrate on the physical properties of aluminum doped zinc oxide (AZO) thin films deposited by spray pyrolysis technique, Digest Journal of Nanomaterials and Biostructures, Volume 14, No. 2, April -June (2019) 471 – 478
- [19]. [M. H. Eisa](#), Electronic structure and optical properties of Cd co-doped wurtzite GaN exposed from first principles study, Results in Physics (13), June (2019) 102330
- [20]. Batol I Dheeb, Sundus MA Al-dujayli, Isam M Ibrahim, Qayes A Abbas, Ahmed H Ali, Asmeit Ramizy, [M. H. Eisa](#), and et al., Study the Antifungal Activity of ZnS: Mn Nanoparticles against Some Isolated Pathogenic Fungi, Journal of Physics: Conference Series 1178 (1), (2019) 012008

- [21]. Abd-Elmoniem A. Elzain, Hajo Idriss, Yousif Sh. Mohammed, Khidir Shaib Mohamed, Mohamed Abd Elwahab Mohamed Ali, Mohamed Musa Saad Hasb Elkhalig, Isam Salih, Adam Khatir Sam, [Mohammed H. Eisa](#) and et al., Assessment of radioactivity from selected soil samples from Halfa Aljadida area, Sudan, Radiochim. Acta January (2019); Volume: 107, Issue: 6, JUN (2019) Pages: 489-502

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2018

- [22]. A. Ramizy, [M. H. Eisa](#), M. A. Alalousi, I. M. Ibrahim, I. M. Ali, NANOSTRUCTURED SILICON TRAPPING FOR SINGLE ESCHERICHIA COLI BACTERIA DETECTION, Digest Journal of Nanomaterials and Biostructures Vol.13, No.4, October-December 2018, p. 1165-1171
- [23]. M. E. Jahelnabi, M. A. H. Khalafalla, [M. H. Eisa](#) and R. A. Alobaid, Configurational Phase Transition in Au<sub>x</sub> Cu<sub>1-x</sub> Nano-Alloy: First Principle and Monte-Carlo Calculations, Phase Transitions, 02 July (2018)

[24]. A. S. Abdalla, **M. H. Eisa**, R. Alhathlool and O. Aldaghri, Quantum resonant tunneling in semiconductor double-barrier structure, Optik, Volume 170, October (2018), Pages 314–320

[25]. A. Modwi, M. K. M. Ali, Kamal K. Taha, M. A. Ibrahim, H. M. El-Khair, **M. H. Eisa**, M. R. Elamin, O. Aldaghri, Raed Alhathlool, K. H. Ibnaouf, Structural and optical characteristic of chalcone doped ZnO nanoparticles, Journal of Materials Science: Materials in Electronics, Volume --, No.---, 14 November (2018) p 1–6

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2017

[26]. **M. H. Eisa** and A. S. Abdalla, X-ray absorption calculations of ground state and electronic transitions for molecules and crystals of acridine, Digest Journal of Nanomaterials and Biostructures, Volume 12, No 3, July-September (2017) P. 639-644

[27]. Isam M. Ibrahim, Iftikhar M. Ali, Batol Imran Dheeb, Qays A. Abbas, Asmeit Ramizy, **M. H. Eisa** and A. I. Aljameel, Antifungal activity of wide band gap Thioglycolic Acid Capped ZnS: Mn semiconductor nanoparticles against some pathogenic fungi, Materials Science and Engineering C, Vol. 73, 1April (2017), P. 665–669

[28]. A. M. Ibraheem, **M. H. Eisa**, W. Adlan, George O. Amolo, and M. A. H. Khalafalla, First principle identification of charge transition levels of native defects in BaF<sub>2</sub>, Modern Physics Letter B, Vol. 31, Issue 07, 10 March (2017)

[29]. A. M. Ibrahim Elrufai, M. Khalafalla, **M. H. Eisa**, First principle calculation of accurate native defect levels in CaF<sub>2</sub>, European Physical Journal B, Volume 90, Issue 3, 8 March (2017)

[30]. **M. H. Eisa** and A. S. Abdalla, Dynamics of supersolid crystals in microcavity polariton condensates, International Journal of Modern Physics C, Vol. 28, No. 2, 8 March (2017) 1750043

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2016

[31]. Asmeit Ramizy, Mays A. Hammadi, Isam. M. Ibrahim, **M. H. Eisa**, R. Alhathlool, High Sensitive H<sub>2</sub> Gas Sensor of ZnO/PS Nanostructure Prepared Via Pulsed Laser Deposition Technique, Digest Journal of Nanomaterials and Biostructures, Vol. 11, No. 4, October-December (2016), p. 1351-1360

[32]. **M. H. Eisa**, H. Shen, W. Jin, Abdulaziz S. Alaamer, M.A. Al-Rajhi and Hajo Idriss, PIXE study on the effects of parathyroid hormone on elemental content in rat bones, Physica Medica, Vol. 32, Issue 12, 23 December (2016) 1615– 1620

[33]. H. Idriss, K. M. Haroun, D. Abd Allah, **M. H. Eisa**, Effect of Acetylene Rates and Temperature Variations of Iron Nanoparticles in Carbon Nanotubes, International Journal of Mathematics and Physical Sciences Research, Vol. 4, Issue 1, April-September (2016) 110-111

[34]. **M. H. Eisa**, Calculation Parameters of proton Ions in Indium Tin Oxide and Polyethylene Terephthalate, International Journal of Science and Research (IJSR) Vol. 5 (3), March (2016) 480–483, <http://www.ijsr.net/archive/v5i3/v5i3.php>

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2015

[35]. K Ibrahim, M.H. Khalid, **M. H. Eisa**, M. N. Najimudin, M. A. Al- Rajhi and Hajo Idriss, Comparative study of AFM and FESEM for Imaging the Single Cell of Escherichia Coli Bacteria, Journal of Nano Research Vol. 34 October (2015) pp 61-66

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2014

[36]. M. G. Faraj, K. Ibrahim, **M. H. Eisa**, M. A. Al-Rajhi, Comparison of Aluminum Thin Film Deposited on Different Polymer substrates with Thermal Evaporation for Solar Cells Applications, Journal of Ovonic Research, Vol. 10, No. 6, December (2014) 231 -235

[37]. **M. H. Eisa**, H. Shen, M. A. Al-Rajhi, Hajo Idriss, Proton-Induced-X-Ray-Emission-Study-on-the-Content-of-Whale-Tooth, IOSR Journal of Applied Physics (IOSR -JAP), Volume 6 Issue 5, October (2014) 35-39



[38]. M. G Faraj, K. Ibrahim, M. H. Eisa, F Azhari, M. A. Al-Rajhi, Aluminum Deposition on Polymer Substrate by DC Sputtering and Evaporation Methods, Journal of Mechatronics, Volume 2 Issue 3, [September \(2014\)](#)223- 225

[39]. M. D. Abd Allah, K. G. Elgaylani, K. M. Haroun, M. H. Eisa and et al., Derivation of Einstein Generalized Special Relativity Using Lorentz Transformation, International Journal of Science and Research (IJSR) Volume 3 Issue 6, [June \(2014\)](#) 2319-7064

[40]. H. Idriss, I. Salih, AS Alaamer, M. H. Eisa, AK Sam, Investigation of radioactivity concentration in spent technetium generators, Radiation Physics and Chemistry, Vol. 97, [April \(2014\)](#) 346-348

[41]. K. G. Elgaylani, M. D. Abd Allah, K. M. Haroun, M. H. Eisa and et al., Derivation of Einstein's Energy Equation from Maxwell's Electric Wave Equation, International Journal of Science and Research (IJSR) Vol. 3 (3), [March \(2014\)](#) 2319-7064

[42]. K. G. Elgaylani, M. D. Abd Allah, K. M. Haroun, M. H. Eisa and A. S. Al Amer., Derivation of Klein-Gordon Equation from Maxwell's electric wave equation, International Journal of Physical Sciences Vol. 2(2), [February \(2014\)](#) 015-020

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2013

[43]. M. D. Abdulla, A. El-Tahir, M. H. Eisa, Abdulaziz S. Alaamer, M. Elnabhani and K. G. Elgaylani, Gravitational Self Energy Mass and Gravitational Radiation Quantization within the Framework of the Generalized General Relativity, International Journal of Astronomy and Astrophysics, IJAA, Vol.3 No.2 (2013) PP131-136

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2011

[44]. M.G. Faraj, K. Ibrahim and M. H. Eisa, Investigation of the optical and structural properties of thermally Evaporated cadmium sulphide thin films on polyethylene terephthalate substrate, *Materials Science in Semiconductor Processing*, volume 14, [June \(2011\)](#) 146-150

[45]. M. K. M. Ali, K. Ibrahim, Osama S. Hamad, M. H. Eisa, M. G. Faraj, F. Azhari, Deposited Indium Tin Oxide (ITO) Thin Films by DC-Magnetron Sputtering on Polyethylene Terephthalate Substrate (PET), Romanian Journal of Physics, ISSN1221-146X (IF0.279), (Volume 56, [Numbers 5-6, \(2011\)](#) 730-741

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