



**Resume & Publications Of Dr. Mohammad Imam Hossain**

(1) Full name: **Mohammad Imam Hossain**  
 Date of Birth: **31st December, 1969**  
 Citizenship: Bangladesh

Corresponding address Professor  
 Dept. of Physics,  
 Faculty of Science and Arts  
 Rabigh College  
 King Abdulaziz University, P.O. 344, Rabigh 21911,  
 Saudi Arabia  
 e.mail: mihossain@kau.edu.sa  
 hossain196977@yahoo.com

Mobile #: 0558141319

(2) Academic Qualifications:

Degree	Institution	Subjects	Periods	Date of Awards	Results
Doctor of Science (D.Sc.)	Tokyo Institute of Technology	Energy Sciences	1996-1999	30 Sep. 1999	Awarded
Master of Science (M.Sc.)	Jahangirnagar University	Physics	1989-1990	July 1990	1 <sup>st</sup> class
Bachelor of Science (B.Sc. with Honrs)	Jahangirnagar University	Physics	1986-1989	June 1989	1 <sup>st</sup> class
Higher secondary certificate (H.S.C.)	Comilla Victoria Govt. College	Science	1984-1986	Oct. 1986	1 <sup>st</sup> division
Secondary School Certificate (S.S.C.)	Adda Umedia High School	Science	1974-1984	July 1984	1 <sup>st</sup> division

Title of D.Sc. Thesis: **“Study on Neutron Rich Isomers around <sup>68</sup>Ni Produced by Deep-inelastic Collisions”**

Title of M.Sc.Thesis: **“Design and Development of a Timing Single Channel analyzer”**

(3) Employment History/Experiences ( about 23 years ):

Position	Name of Institution	Periods	Responsibilities
Professor	King Abdulaziz University	1 <sup>st</sup> April 2012-Continue	Teaching and research
Professor	Shah Jalal University of Science &	22 <sup>nd</sup> June 2009-3 <sup>rd</sup>	Teaching and

	Technology, Bangladesh	june 2010	research
*Associate Professor	Universiti Teknologi Malaysia	4 <sup>th</sup> June, 2010 to 31 <sup>st</sup> March 2012	Teaching and research
*Postdoctoral Fellow	Osaka University, Japan	29 <sup>th</sup> Nov. 2005-28 <sup>th</sup> Nov.2007	Research work
*Postdoctoral Fellow	Seoul National University, Republic of Korea	11 <sup>th</sup> May 2004-28 <sup>th</sup> Nov. 2005	Research work
Associate Professor	Shah Jalal University of Science & Technology, Bangladesh	29 June 2004-21 <sup>st</sup> June 2009	Teaching and research
Assistant Professor	Shah Jalal University of Science & Technology, Bangladesh	19 <sup>th</sup> March 1997-10 May 2004	Teaching and research
Lecturer	Shah Jalal University of Science & Technology, Bangladesh	19 <sup>th</sup> Mar. 1994-18 <sup>th</sup> Mar. 1997	Teaching and research
Lecturer	Sylhet Cadet College, Bangladesh	1 <sup>st</sup> Sep. 1993-18 <sup>th</sup> Mar. 1994	Teaching

\* Leave from Shah Jalal University of Science & Technology, Bangladesh

(b) Short term visiting fellow (Research work)

- (i) Visiting fellow (22<sup>nd</sup> March, 2004 - 29<sup>th</sup> March, 2004) at University of Leuven, Institute voor Kern-en stralingsfysica, Celestijnenlaan 200D, Belgium
- (ii) Visiting Researcher (July 7, 2004 to July 21, 2004) Japan Atomic Energy Research Institute, Tokai-mura, Ibaraki, Japan
- (iii) Visiting Researcher (December 6, 2004 to December 17, 2004) Japan Atomic Energy Research Institute, Tokai-mura, Ibaraki, Japan
- (iv) INFN Visiting fellow (January 15, 2005 to February 15, 2005) Legnaro National Laboratory (LNL), Padova, Italy
- (v) Visiting fellow (Aug.2-12, 2005) KEK, High Energy Accelerator Research Organization, Tsukuba-shi, Ibaraki-Ken, Japan
- (vi) Visiting fellow (Feb. 20 – Mar. 31, 2006) KEK, High Energy Accelerator Research Organization, Tsukuba-shi, Ibaraki-Ken, Japan
- (vii) Visiting fellow (April 07 – Sep. 14, 2006) KEK, High Energy Accelerator Research Organization, Tsukuba-shi, Ibaraki-Ken, Japan
- (viii) Visiting fellow (March 05 – 29, 2007) KEK, High Energy Accelerator Research Organization, Tsukuba-shi, Ibaraki-Ken, Japan

(c) *Awards/Scholarship/Fellowship*

- 2013-2014

Outstanding research award, Dean of faculty of Science and Arts, Rabigh college of Science & Arts, King Abdulaziz university

- 2014-2015  
Distinguish research award from Deanship of Scientific research, King Abdulaziz University
- 2013-2014  
Distinguish research award from Deanship of Scientific research, King Abdulaziz University
- 2012-2013  
Distinguish research award from Deanship of Scientific research, King Abdulaziz University
- 2005-2007  
Japan Society for the Promotion of Science (JSPS) Research fellowship
- 2004-2005  
Brain Korea (BK) 21 Research Fellowships
- 1996-1999  
Japanese Government Monbusho Scholarship for postgraduate level
- 2005  
INFN –LNL fellowship (Italy)
- 2004  
Short term K.U. Leuven fellowship (Belgium)
- 1993-1994  
National Science and Technology Research Fellowship, Ministry of Science, Information & Communication Technology, Government of Bangladesh.
- 1986-1990  
B.Sc (Honrs) and M.Sc. Merit Scholarship, Jagangirnagar University, Savar, Dhaka , Bangladesh.

- (d) **Teaching Experiences**

I taught different branches of physics such as Radiation physics, Nuclear Physics, Mechanics, Electricity and Magnetism, Heat and optics, Modern Physics, Statistical Mechanics, Classical mechanics, Electronics, Electrodynamics, special theory of relativity and Quantum Mechanics etc. I had an experience as `student’s advisor or supervisor to teach and guide the students (M.Sc. or Ph.D.) in their study and research. My experience also for introducing the experiments to the students, helping them in doing experiments, and supervising research students in the under graduate and post graduate level. Under my astute and efficient supervision, a lot of students in the field of radiation physics, nuclear physics, Health Physics were completed their B.Sc. M.Sc. and Ph.D. thesis work.

**(e) Title of Research Projects or grant:**

i) “ Ground states structure of even-even  $^{104-112}\text{Ru}$  isotopes” Deanship of scientific research (DSR), king Abdulaziz university, Jeddah, Saudi Arabia.

Research leader

Grant no. G-223-662-37

Fund: SAR 48,000

Period: April 2016 to December 2016

i) “ Dopant concentration and effective atomic number of copper-doped potassium borate glasses” Deanship of scientific research (DSR), king Abdulaziz university, Jeddah, Saudi Arabia ”

Research leader

Grant no. 662-010-D1433

Fund: SAR 20,000

Period: October. 2012 to September, 2013

ii) Backbending phenomena in even-even  $^{110-118}\text{Te}$  isotopes”

Deanship of scientific research (DSR), king Abdulaziz university, Jeddah, Saudi Arabia ”

Research leader

Grant no. 662-016-D1434

Fund: SAR 20,000

Period: September 2013 to August 2014

iii) “ The Thermoluminescence Characteristics of  $\text{B}_2\text{O}_3$ : Al Ceramics for Ionizing Radiations Measurement” Short term Research Grant- Foreign Academic Visitor Fund ” UTM

Research leader

Fund: RM 30,000

Period: 1<sup>st</sup> Feb. 2010 to 31<sup>st</sup> December, 2011

No. of Vot: 4D006

iv) The Thermoluminescence Characteristics of  $\text{K}_2\text{B}_4\text{O}_7$ : Ge glass for Ionizing Radiations Measurement”

GUP fund” UTM

Research leader

Fund: RM 40,000

Period: 1<sup>st</sup> April. 2011 to 31<sup>st</sup> March, 2012

No. of Vot: Qj130000.7126.00j64

v) Thermoluminescence Response of Ge and Ca doped  $\text{B}_2\text{O}_3$  based for dose measurement subjected to ionizing radiation.

Member of the project

FRGS

Fund: 62000 RM

1<sup>st</sup> Jan 2011 to 31<sup>st</sup> December 2012

No. of vote: 4F012

vi) Thermoluminescence Response of calcium tellurite borate based glass for dose measurement subjected to ionizing radiation.

Member of the project

GUP

Fund: RM 40,000

1<sup>st</sup> April 2011 to 31<sup>st</sup> March 2012

No. of vote: QJ130000. 7126.00J58

vii) In-beam gamma ray spectroscopy of isomers around  $^{68}\text{Ni}$  by deep-inelastic collisions (Research fund by Monobosho, Japan).

Fund: 80000 USD

viii) In-beam gamma ray spectroscopy of prompt event around  $^{238}\text{U}$  by transfer reactions (Research fund by Brain Korea 21 fellowship, Korea).

Fund: 20,000 USD

ix) Study on PRISM (Phase Rotated Intense Slow Muon Source) project funded by JSPS, Japan

Fund: 240000 Yen

f) **Field of Research Interest:** Nuclear Physics and Radiation Physics/ Medical Physics, Environmental Physics

g) Research supervision: Supervised 25 B.Sc. thesis, 15 M.Sc. thesis, 2 Ph.D. thesis

## References

1. Prof. Dr. Md. Yusuf Ali  
Dept. of Molecular Physiology and Biophysics,  
University of Vermont, Burlington VT05405, USA  
[yusuf@physiology.med.uvm.edu](mailto:yusuf@physiology.med.uvm.edu)  
+1-802-656-3820
2. Dr. Mohammad Alam Saeed  
Professor  
Division of Science and Technology  
University of Education  
E.mail: [moalsd@hotmail.com](mailto:moalsd@hotmail.com)  
Tel: +60-755-37427
3. Dr. Hewa Yasen Abdullah  
Head  
Dept. of Physics, College of Science Education  
Salahaddin University, Erbil, Krg, Iraq  
E.mail: [kuhewa@yahoo.com](mailto:kuhewa@yahoo.com)

## ***List of Publications***

### **Journals (Total impact factor: 110)**

- 1) Imad M. Ahmed, Ghaith N. Flaiyh, Huda H. Kassim, Hewa Y. Abdullah **I. Hossain** and Fadhil I. Sharrad. Microscopic description of the even-even  $140x-148Ba$  isotopes using BM, IBM and IVBM. Eur. Phys. J. Plus 132: 84(2-9) (2017)
- 2) **I.Hossain**, HusinWagiran, M H Sahini, Thermoluminescence properties of Yb-Tb doped optical fibers subject to 1.25 gamma irradiation, J. Applied Spectros. 84(162-165) 2017.
- 3) **I.Hossain**, N M Yussuf, H. Wagiran. Radioactive contamination in tap, rain and mine water in Malaysia by gamma-ray spectroscopy ” Journal of optoelectronics and biomedical materials 8(2), 39-43(2016).
- 4) Huda H. Kassim, Fadhil I. Sharrad, **I Hossain**, Nuclear structure of even  $178-182Hf$  isotopes under frame work of interacting Boson Model (IBM-1). Iranian J. Sci. & Tech. (IJST) publish online 01, September 2016
- 5) Mushtaq A. Al-Jubbori, Huda H. Kassim, Fadhil I. Sharrad, **I. Hossain**. Nuclear structure of even  $^{120-136}Ba$  under the framework of IBM, IVBM and new method (SEF). Nuclear Physics A 955, 101–115 (2016)
- 6) **I.Hossain**, Nuclear structure of ground state bands of  $^{186}Pt$  nucleus by means of interacting boson model 1 ” “Problems of Atomic Science and Technology”, No 5, .12-17 (2016).
- 7) **I Hossain**, Fadhil I Sharrad, Mohammad A. Saeed, Hewa Y Abdullah, Said A. Mansour. B(E2) values of Te isotopes with even N(68-74) by means of interacting boson model-1. Maejo International Journal of Science and Technology 10(1) 95-103 (2016).
- 8) **I. Hossain**, H. Wagiran, N.N.A.M.A. Ghani, S. A. Mansour, A. Salam, Nuclear Properties of  $vg_{9/2}^+$  Isomers in Odd  $^{59}Cr$  to  $^{69}Se$  Nuclei for N=35. Applied Phys. Res. **8(2)**, 38-43(2016).
- 9) **I. Hossain**, The U(5) symmetry of B(E2) values in  $^{104}Ru$  nuclei by interacting Boson Model (IBM-1)" “Problems of Atomic Science and Technology, No 5(105)” 8-11(2016).
- 10) **I. Hossain**, Huda H Kassim, F. I. Sharrad, A S Ahmed. Nuclear structure of yrast bands of  $^{180}Hf$ ,  $^{182}W$ , and  $^{184}Os$  nuclei by means of interacting boson model-1. Science Asia.42(1), 22-27(2016).
- 11) AzadehRefaei, HusinWagiran, M.A.Saeed ,**I.Hossain**, Thermoluminescence characteristics of Nd-doped  $SiO_2$  optical fibers subject to X- rays. High Energy Chemistry, 50( 4) 245–249(2016).

- 12) J Islam, **I Hossain**, Application of interacting boson model-1 for even N=68.....78 for Te isotopes” Prob. Atom. Sci. Tech. No. 5, 33-37(2016).
- 13) HusinWagiran, **I.Hossain**, SAB Ibrahim, M.A.Saeed , Thermoluminescence Response of Ytterbium-doped and undoped of Silicon optical fibers subject to Photon irradiation. Digest J Nanomaterials and Biostructures, 10(4), 1439-1467(2015).
- 14) **I. Hossain**, Hewa Y. Abdullah, I. M. Ahmed, Evolution of yrast states and B(E2:8<sup>+</sup>→6<sup>+</sup>) values of <sup>114,116,118,120,122</sup>Cd by interacting boson model (IBM-1). Prob. Atom. Sci. Tech. N3(97), 19-24 (2015).
- 15) M A Saeed, N F Abdul Pattah, **I Hossain**, H Wagiron, RESPONSE OF YTTERBIUM-DOPED OF SILICON DIOXIDE FIBER IN THERMOLUMINESCENCE. High energy Chemistry 49, No. 4, c.1-4(2015).
- 16) F. I. Sharrad, **I. Hossain**, M I Ahmed, H Y Abdullah, S T Ahmad and A S Ahmed.U(5) Symmetry of Even <sup>96,98</sup>Ru Isotopes Under the Framework of interacting boson model (IBM-1). Braz J Phys 45, 340-346(2015)
- 17) A. Shelley, **I. Hossain**, F. I. Sharrad, H Y Abdullah, M A Saeed, Yrast states and electromagnetic reduced transition properties of <sup>122</sup>TE BY MEANS OF INTERACTING BOSON MODEL-I. Prob. Atom. Sci. Tech. N3(97), 38-43 (2015).
- 18) **I. Hossain**, A. A Mobaruk, F. I. Sharrad, H Y Abdullah,”Moments of inertia for even-even <sup>120-124</sup>Isotopes”. Armenian J. Phys. Vol. 8, 7-16 (2015).
- 19) **I. Hossain**, H Y Abdullah, M I Ahmed. Nuclear structure of <sup>110</sup>Pd and <sup>110</sup>Cd isobar by interacting boson model (IBM-1). Prob. Atom. Sci. Tech. N3(97), 13-18 (2015).
- 20) **I. Hossain**, M I Ahmed, F. I. Sharrad, H Y Abdullah, A. D. Salman, N. Al-Dahan,”Yrast states and B(E2) values of even <sup>100-102</sup>Ru isotopes using interacting boson model (IBM-1). Chang Mai J. Sci. 42(4):996-1004 (2015).
- 21) M H Sahini, **I Hossain**, M A Saeed,H Wagiran, Characteristics of thermoluminescence ofLiF:Mg,Ti (TLD 100) subject to 1.25 Mega volt gamma radiotherapy. Natl. Aca. Sci. Lett. 38(4), 365-368 (2015).
- 22) M A Saeed, **I Hossain**, Nursyazwanie, H Wagiron, Thermoluminescence response of multimode fluorine-doped SiO<sub>2</sub> optical fibers and TLD 100 with 6 Mega Volt photon irradiation. High energy Chemistry 49(3), 146-149 (2015).
- 23) **I. Hossain**, N. K. Shekaili, H. Wagiran, Thermoluminescence Response of Copper-Doped Potassium Borate Glass Subjected to 6 Megavolt Photon Irradiation. J. applied Spectros. V.82(1), 152-155(2015).
- 24) **I Hossain**, M. A.Saeed, H. Wagiran, N. Hida, N.H. Yaakob,

- Thermoluminescence response of Ge-, Al- and Nd- doped optical fibres by 6 MeV electron and 6 MV photon irradiations. *Prob. Atom. Sci. Tech.* N3(97), 65-68 (2015).
- 25) **I Hossain**, M Hussein, S A Mansour, J Islam “ Back-bending phenomena in even-even  $^{110-118}\text{Te}$  isotopes” *J. Nat. Sci. Foundation Sri-lanka.*42(4), 335-339(2014)
- 26) AzadehRefaei, HusinWagiran, M.A.Saeed ,**I.Hossain**, Thermoluminescence characteristics of Nd-doped  $\text{SiO}_2$  optical fibers irradiated with the  $^{60}\text{Co}$  gamma rays. *Applied Radiation and Isotopes* 94,89–92 (2014).
- 27) T.N.H. TengkuKamarulBahri, H. Wagiran, R. Hussin, **I. Hossain**, H. Ali, Dosemetric properties of germanium doped calcium borate glass subjected to 6 MV and 10 MV X-ray irradiation in *Nuclear Instruments and Methods in Physics Research B* 336, 70-73 (2014).
- 28) M. Hussein, **I. Hossain**, S A Mansour; Characterization of backbending in even-even  $^{120-131}\text{Te}$  isotopes. *Prob. Atom. Sci. Tech.* 63, 26-30 (2014).
- 29) A. D. Salman, N. Al-Dahan, F. I. Sharrad, **I. Hossain**, Calculation of inelastic electron-nucleus scattering form factors of  $^{29}\text{Si}$ , *Int. J. Modern Phys. E* Vol. 23 (9) 1450046 (2014).
- 30) M H Sahini, **I Hossain**,H Wagiran, M A Saeedand H Ali, Thermoluminescenceresponse of Yb- andYb-Tb-doped  $\text{SiO}_2$  optical fibers to 6-MV photon. *Appl. Radiat. Isot.* 92, 18-21 (2014)
- 31) T.N.H. TengkuKamarulBahri, H. Wagiran, R. Hussin, **I.Hossain**, T. KadniThermoluminescence properties of  $\text{CaO} - \text{B}_2\text{O}_3$  glass system doped with  $\text{GeO}_2$ " in *Rad. Phys. Chem.* 104, 103-107 (2014).
- 32) M H Sahini, H Wagiran, **I Hossain**, M A Saeedand H Ali,Thermoluminescence properties of Yb-Tb-doped  $\text{SiO}_2$  optical fiber subject to 6 and 10 MV photon irradiation.*Ind. J. Phys.* 88(8), 843–847 (2014).
- 33) **I Hossain**, M.A. Saeed, NNAMB Ghani, M Hussein &H Y Abdullah, Electromagnetic reduced transition properties of the ground state band of even-even  $^{102-106}\text{Pd}$  isotopes by means of interacting boson model-I. *Ind. J. Phys.* 88(1), 5-9 (2014)
- 34) **I Hossain**, H Y Abdullah, M I Ahmed, M A Saeed, B(E2) value of even-even  $^{108-112}\text{Pd}$  isotopes by interacting boson model-I. *Chin. Phys. C* Vol. 38 (2) 024103 (2014)



- 35) M A Saeed, N J Zainal, **I Hossain**, M A Javed, A A Mubarak, Measurement of natural radionuclides in vegetables in Malaysia by gamma ray spectroscopy. J. of applied Spectros. Vol. 81(3), 488-(1-5) **2014**.
- 36) **I Hossain**, N. K. Shekaili & H Wagiran, "Dopant concentration and effective atomic number of copper doped potassium borate glass" Advances in Materials Science and Engineering, 278934, 4 pages (2013)
- 37) M A Saeed, **I. Hossain**, N Hida, H. Wagiron, Comparison of Thermoluminescent of neodymium- and germanium doped SiO<sub>2</sub> optical fibres measured with 6 MeV photons. Accepted to " J. Eng. ThermoPhys (2013).
- 38) **I Hossain**, N N A M A Ghani, M A Saeed, L Barik, Theoretical calculation of energies of projectile like fragments in <sup>76</sup>Ge (635 MeV) + <sup>198</sup>Pt deep inelastic collisions. Iranian J. Sci. & Tech. (IJST) 37A4, 463-465 (2013).
- 39) M A Saeed, **I. Hossain**, N Hida, H. Wagiron, Thermoluminescent sensitivity of single clad neodymium doped SiO<sub>2</sub> optical fibres measured with 6 MeV photons. Rad. Phys. Chem. Vol. 91, 98-100 (2013)
- 40) **I. Hossain**, H. Wagiron, A N.H. Yaakob. Thermoluminescence of Ge- and Al-doped SiO<sub>2</sub> optical fibres subjected to 0.2-4.0 Gy external photon radiotherapeutic dose. J. of applied Spectros. Vol. 80, N4, 635-638(2013)
- 41) Nik N.A.M.A. Ghani, **I.Hossain**, Mohammad A. Saeed, Hewa Y. Abdullah, Magdy Hussein, Calculation of  $\nu g_{(9/2)^+}$  Isomers in <sup>65</sup>Ni, <sup>67</sup>Zn, <sup>69</sup>Ge, <sup>71</sup>Se Nuclei, Proceedings of the Pakistan academy of sciences 50(4):335-338(2013)
- 42) **I Hossain**, J Islam, I M Ahmed and H Y Abdullah, Evaluation of B(E2: 8<sup>+</sup> to 6<sup>+</sup>) values of <sup>114,116,118,120,122</sup>Cd by interactiong boson model-1. Armenian journal of Phys. Vol. 6 (4)pp. 166-176( 2013)
- 43) **I Hossain**, H Y Abdullah, M I Ahmed, M A Saeed, Ground-state energy band of even <sup>104-122</sup>Cd isotopes under the framework of interactiong boson model-1: A review. J. Theoretical Appl. Phys. 7:46 ( 2013)
- 44) H Y Abdullah, **I Hossain**, I. M. Ahmed, S.T. Ahmed, M.A. Saeed, N.Ibrahim. Electromagnetic reduced transition properties of even-even <sup>104-112</sup>Cd isotopes. Ind. J. Phys. Vol. 87, 571-574(2013)
- 45) J. Md Khudzari, H. Wagiran, **I. Hossain**, N. Ibrahim, Screening heavy metals levels in hair of sanitation workers by X-ray fluorescence analysis. J. Environmental Radioactivity. 115, 1-5.(2013)
- 46) **I Hossain**, N N A M A Ghani, M A Saeed, H Y Abdullah, K K Viswanathan and H

- Wagiron. Studies of  $Pg9/2+$  isomers in odd  $^{67-79}As$  nuclei by deep-inelastic collisions. Journal of Sci. And Tech. Vol.4, 91-98(2013)
- 47) I. M. Ahmed, S.T. Ahmed, Hewa Y. Abdullah, **I Hossain**, M.A. Saeed, N.Ibrahim. Study on ground state energy band of even  $^{1024-110}Pd$  isotopes under the framework of interacting boson model (IBM-1). Int. J. Modern Phys. E. Vol.21, No. 12, 1250101-(1-8)(2012) .
- 48) **I Hossain**, Hewa Y. Abdullah, I. M. Ahmed, M.A. Saeed and S.T. Ahmed. Study on ground state energy band of even  $^{114-124}Cd$  isotopes under the framework of interacting boson model (IBM-1). Int. J. Modern Phys. E. Vol.21, No. 8, 1250071-(1-6) (2012).
- 49) M A Saeed, N A Fauziz, **I Hossain**, A T Ramli, B A Tahir, Thermoluminescence response of Ge-doped optical fibers to X-ray irradiation. Chin. Phys. Lett. Vol. 29(7),078701(2012)
- 50) **I Hossain**, Hewa Y Abdullah, I Ahmed, M Hussein, S Mansour. Quadrupole Moments and deformation parameters of even-even nuclei  $^{112-122}Cd$  by interacting Boson Model (IBM-1). Caspian Journal of Applied Sciences Research. 1(13), pp. 71-75, (2012)
- 51) **I. Hossain**, H. Wagiron, H.Asni, A N.H. Yaakob. Energy response of Ge-doped optical fiber dosimeter subject to photon irradiation. High Energy Chemistry. 46.N.6 1-3(2012).
- 52) Hayder Aboud, H. Wagiran, **I. Hossain**, R. Hussin, Saader Saber, Madzlan Aziz. Effect of co-doped  $SnO_2$  nanoparticles on the optical properties of Cu-doped lithium potassium borate glass. Materials letters Vol. 85(15), 21-24(2012)
- 53) Hewa Y. Abdullah, **I Hossain**, I. M. Ahmed, M.A. Saeed and S.T. Ahmed. The investigation of energy level of even-even  $^{104-112}Cd$  isotopes under the framework of IBM-1. *Armenian Journal of Physics*, vol. 5, issue 2, pp. 58-61(2012)
- 54) I.A.Alnour, N.Ibrahim, **I. Hossain** Concentration of  $^{214}Pb$ ,  $^{214}Bi$  in  $^{238}U$  series and  $^{208}Tl$ ,  $^{228}Ac$  in  $^{232}Th$  series in granite rock in Sudan. Indian J. Pure & App. Phys. pp. 285-288, May 2012.
- 55) **I Hossain**, Hewa Y. Abdullah, I. M. Ahmed, M.A. Saeed and S.T. Ahmed Calculation of Reduced Transition Probabilities  $B(E2)$  in  $^{114,116,118,122}Cd$  by interacting boson model (IBM-1). *Armenian Journal of Physics*, vol. 5, issue 3, pp. 101-104(2012)
- 56) N.M. Yussuf, **I.Hossain**, H. Wagiran. Natural radioactivity in drinking and

- mineral water in Johor Bahru (Malaysia). *Sci. Res. and Essays*. Vol. 7(9), pp , 1070-1075 (2012)
- 57) **I. Hossain**, H. Wagiran, H. Asni, Mass energy absorption coefficient for 0.2 – 20 MeV Photon in Ge-doped optical fiber and TLD-100 by Monte Carlo n-particle code version 5 (MCNP5). *Optoelectronics and advanced materials-Rapid communication*. Vol.6 No. 1-2, P. 170-172 (2012)
- 58) HayderAboud, H. Wagiran, **I.Hossain**, R. Hussin. FTIR Spectroscopy and Energy band gap of Potassium Lithium Borate glass dosimetry. *Int. J. Phys. Sci.* Vol. 7(6), p 922-926 (2012)
- 59) H. Wagiran, **I. Hossain**, D. Bradley, A N.H. Yaakob, and T. Ramli, Thermoluminescence Responses of Photon and Electron Irradiated Ge- and Al- doped SiO<sub>2</sub> Optical fibres. *Chin. Phys. Lett.* CPL Vol 29 No. 2, 027802 (2012)
- 60) **I. Hossain**, N. Sharip, KK Viswanathan, Gamma-ray spectroscopy using HPGe and NaI(Tl) detectors. *Sci. Res. and Essays*. Vol. 7(1), pp 86-89, (2012)
- 61) M.A. SAEED, SITI SARAH YUSOF, **I.HOSSAIN**, R. AHMED, H.Y. ABDULLAH, M. SHAHID, A. T. RAMLI "Soil to rice transfer factor of the natural radionuclides in Malaysia" – publication in *Rom. J. Phys*, vol. 57, Nos. 9-10, p. 1417-1424(2012)
- 62) **I.Hossain**, N AAzmi, M.A. Saeed, M E Hoque, KK Viswanathan. COMPTON SCATTERING OF 662 kev GAMMA RAYS BY ALUMINIUM AND COPPER MATERIALS USING nai(Tl) DETECTOR. *Int. J. Phys. Sci.* Vol. 7(4), pp 544-549, (2012)
- 63) K.K. Viswanathan, Zainal Abdul Aziz, **I.Hossain**, H. Y. Abdulla. Free vibration analysis of cross-ply layered conical shell frusta under shear deformation theory using spline method. *Journal of Engineering Mathematics*. Vol 76, pp 139-156(2012)
- 64) H Wagiran, **I Hossain**, H Asni, A T Ramli, "Comparison of Thermoluminescence Energy Response of Optical Fibre subject to photon irradiation between Monte Carlo Simulation and experiments" *J. Eng. ThermoPhys.*, JET # 1 vol. 21, pp 1-5, April (2012).
- 65) **I.Hossain**, N.N.A.M.A. Ghani, M.A. Saeed, H.Y. Abdullah, I.A. Alnour, K.K.Viswanathan, Rashid Ahmed and H. Wagiran. Studies of  $\pi g_{9/2}^+$  isomers in odd  $^{67-79}\text{As}$  nuclei by deep-inelastic collisions. *Journal of Nuclear Science*. (2012).

- 66) M.A. Saeed, N.A.A. Wahab, **I. Hossain**, R. Ahmed, H.Y. Abdullah, A.T. Ramli and Bashir Ahmed Tahir. Measuring radioactivity level in various types of rice using hyper pure germanium (HPGe) detector. *Int. J. Phys. Sci.* Vol. 6(32), pp. 7335-7340 (2011).
- 67) **I. Hossain**, N A Azmi, M E Hoque, KK Viswanathan, Compton scattering of 662 keV gamma rays proposed by klein-nishina formula. *Sci. Res. and Essays.* Vol. 6(30), pp 6312-6316 (2011)
- 68) K.K. Viswanathan, SairaJaved, Zainal Abdul Aziz, **I.Hossain**. Free vibration of symmetric angle-ply laminated cylindrical shells of variable thickness including shear deformation theory. *Int. J. Phys. Sci.* Vol. 6(25), pp. 6098-6109 (2011).
- 69) **I.Hossain**, J. Islam, N.N.A.M.A. Ghani, M. E. Hoque, K.K.Viswanathan, H.Y. Abdullah, M.A. Saeed, M.H. Al-Monthery, I.M. Ahmed, Calculation of gamma-ray spectroscopy of  $\pi g_{9/2}^+$  isomers in  $^{69,71,73,75,77,79}\text{As}$  Nuclei. ” *Int. J. Phys. Sci.* Vol. 6(13), pp. 3162-3167(2011).
- 70) K.K. Viswanathan, Jang Hyun Lee, Zainal Abdul Aziz, **I.Hossain**. Free vibration of symmetric angle-ply laminated cylindrical shells of variable thickness. *Acta Mech.* 221, 309-319 (2011).
- 71) H Asni, H Wagiran, **I Hossain**, A T Ramli, M I Saripan “Thermoluminescence Energy Response of TLD 100 subject to Photon irradiation Using Monte Carlo N-Particle Code Simulation” *J. Eng. ThermoPhys.*, Vol. 20, #3. pp 1-5(2011).
- 72) N.H. Yaakob, H. Wagiran, **I. Hossain**, A.T. Ramli, D.A. Bradley, S. Hashim, H.Ali “Electron irradiation response on Ge and Al-doped SiO<sub>2</sub> optical fibres “*Nucl. Inst. & Meth. in Phys. Res. A637*, 185-189 (2011).
- 73) H.Y. Abdulla, **I. Hossain**, I.M. Ahmed, S.T. Ahmad, and N.Ibrahim “Calculation of 8<sup>+</sup> isomers of even-even Nuclei  $^{76}\text{Ni}$  to  $^{94}\text{Pd}$  for N=48 neutrons” *Int. J. Phys. Sci.* Vol. 6(4), pp.901-907 (2011)
- 74) N.H. Yaakob, H. Wagiran, **I. Hossain**, A.T. Ramli, D.A. Bradley, S. Hashim, H.Ali “ Thermoluminescence Response of Ge- and Al-doped optical fibres subject to low dose electron irradiation” *J. Nucl. Sci. & Tech.* Vol. 48, No. 7, P. 1-3 (2011).
- 75) H Wagiran, **I Hossain**, H Asni, A T Ramli, M I Saripan “Thermoluminescence Energy Response of Germanium Doped Optical Fiber Using Monte Carlo N-Particle Code Simulation” *J. Kor. Phys. Soc.* Vol. 59, No.2, 337-340(Aug. 2011)
- 76) N.H. Yaakob, H. Wagiran, **I. Hossain**, A.T. Ramli, D.A. Bradley, H. Ali “Low-dose photon irradiation response of Ge and Al-doped SiO<sub>2</sub> optical fibres” **App. Radia. And Isotop.** 69, 1189-1192 (2011)

- 77) J. Md Khudzari, H. Wagiran, **I. Hossain**, N. Ibrahim, M. A. Agam, Heavy Metals Mn, Fe, Ni, Cu and Zn in human hair samples using energy-dispersive X-ray fluorescence analysis" in *Int. J. Phys. Sci.* Vol. 6(80, pp. 2094-2094, April 2011.
- 78) Y. Arimoto, T. Oki, **I. Hossain**, Y. Takubo, M. Aoki, Y. Kuriyama, T. Itahashi, A. Sato, M. Yoshida, N. Miyamoto, and Y. Kuno, "Magnetic Field Measurement of Large Aerture FFAG magnet for Muon Phase Rotated Ring" in **Nucl. Instrum. & Methods.Phys. Res. B** 268, 200–208 (2010).
- 79) T. Itahashi, Y. Arimoto, Y. Kuriyama, M Yoshida, **I. Hossain**, S. Araki, A. Sato, Y. Eguchi, Y. Nikanishi, M. Aoki, Y. Kuno, T. Oki, C. Ohmori, Y. Takubo. Injection Study of 6-sector PRISM-FFAG using pulsed alpha particles. *J. Kor. Phys. Soc.* Vol. 54, Issue 1 part, 323-327(Jan. 2009)
- 80) T.shii, H. Makai, M.Asai, K.Tsukada, A. Toyoshima, M. Matsuda, A. Makishima, S. Shigematsu, J. Kaneku, T. Shizuma, H. Toume, **I. Hossain**, T. Kohono, and M. Ogawa, Observation of high-  $j$  quasiparticle states in  $^{249}\text{Cm}$  by in-beam  $\gamma$  -ray spectroscopy using heavy-ion transfer reactions *Phys. Rev. C* 78, 054309(2008).
- 81) Y. Arimoto, T. Oki, **I.Hossain**, Y. Takubo, M. Aoki, Y. Kuriyama, T. Itahashi, A. Sato, M. Yoshida, N. Miyamoto, and Y. Kuno, Magnetic Field Measurement of Radial Sector FFAG Magnet for High-Brightness Muon Ring" *IEEE Transactions on Applied Superconductivity*, Vol.18, No.2, (330--333) June 2008.
- 82) Ishii, T.; Makii, H.; Asai, M.; Tsukada, K.; Toyoshima, A.; Matsuda, M.; Makishima, A.; Shigematsu, S.; Kaneko, J.; Shizuma, T.; Toume, H.; **Hossain, I.**; Kohno, T.; Ogawa, M.Quasi-particle states in  $^{249}\text{Cm}$  measured by in-beam gamma-ray spectroscopy. *JAEA-Tokai Tandem Annual Report 2007*. April 1, 2007 - March 31, 2008 **Pages:** 38-9 **Published:** Nov. 2008
- 83) T. Ishii, H. Makii, M. Asai, S. Shigematsu, K. Tsukada, A. Toyoshima, M. Matsuda, A. Makishima, J. Kaneko, H. Toume, **I. Hossain**, T. Shizuma, S. Ichikawa, T. Kohno, and M. Ogawa "Ground-state bands of neutron-rich  $^{236}\text{Th}$  and  $^{242}\text{U}$  nuclei and implication of spherical subshell closure of  $N = 164$ " *Phys. Rev C* 00, 001300(1-5)® (2007).
- 84) T. Ishii, S. Shigematsu, H. Makii, M. Asai, K. Tsukadai, A. Toyoshima, M. Matsuda, A. Makishima, T. Shizuma, J. Kaneko, **I. Hossain**, H. Toume, M. Ohara, S. Ichikawa, T. kohno, and M. Ogawa "In-beam  $\gamma$ -ray study of the neutron-rich nuclei  $^{240}\text{U}$ ,  $^{246}\text{Pu}$ , and  $^{250}\text{Cm}$  produced by ( $^{18}\text{O}$ ,  $^{16}\text{O}$ ) reaction" *Phys. Atomic Nuclei*, Vol. 70, no. 8, pp 1457-146, 2007

- 85) T. Ishii, S. Shigematsu, H. Makii, M. Asai, K. Tsukadai, A. Toyoshima, M. Matsuda, A. Makishima, T. Shizuma, J. Kaneko, **I. Hossain**, H. Toume, M. Ohara, S. Ichikawa, T. Kohno, and M. Ogawa “Ground-State Band of the Neutron-Rich Transuranium Nucleus  $^{250}\text{Cm}_{154}$ ” *J. Phys. Soc. Jpn* Vol. 75, No. 4, 043201(1-4) 2006,
- 86) T. Ishii, S. Shigematsu, M. Asai, A. Makishima, M. Matsuda, J. Kaneko, **I. Hossain**, S. Ichikawa, T. Kohno, and M. Ogawa “In-beam  $\gamma$ -ray spectroscopy of  $^{240}\text{U}$  using the ( $^{18}\text{O}$ ,  $^{16}\text{O}$ ) reaction” *Phys. Rev. C* 72, 021301(1-5) (2005).
- 87) **I. Hossain**, “Comparative studies of population yields in  $^{76}\text{Ge}$  (635 MeV) +  $^{198}\text{Pt}$  and  $^{76}\text{Ge}$  (680 MeV) +  $^{186}\text{W}$  reactions” *Indian J. Phys.* Vol.78(9), 961-963(2004).
- 88) **I. Hossain**, “Systematic studies of  $\nu g_{9/2}^+$  isomers in  $^{61,63,65}\text{Ni}$ ” *J. Pakistan Aca. of Sci.* vol. 41 (1) , 15-20 (2004) .
- 89) T. Ishii, M. Asai, A. Makishima, **I. Hossain**, P. Kleinheinz, M. Ogawa, M. Matsuda, and S. Ichikawa *Eur. Phys. J. A* **13**, 15–19 (2002).
- 90) T. Ishii, M. Asai, A. Makishima, **I. Hossain**, M. Ogawa, M. Matsuda, S. Ichikawa “Neutron-rich nuclei around the doubly magic  $68\text{Ni}$  produced in heavy-ion deep-inelastic collisions” **Proceedings of the International Riken Symposium Shell Model 2000** T. Otsuka et. Al. Elsevier Science B.V. P23-26(Eds) 2002.
- 91) SK. A. Latif, M.A. Halim, M.N. Chowdhury, K. Naher, M.A. Hahiz, R.U. Miah, F. U. Ahmed, M.A. Islam, **I. Hossain** & M. Katada; “Determination of Arsenic in Groundwater and foodstuffs using Instrumental Neutron Activation Analysis (INAA)”; *Journal of Nuclear and Radiochemical Sciences*, Vol. 3, Supplement 35 (2002).
- 92) T. Ishii, M. Asai, M. Matsuda, S. Ichikawa, A. Makishima, **I. Hossain**, P. Kleinheinz and M. Ogawa “Nano-Second isomers in neutron-rich Ni region produced by deep- inelastic Collisions” *Acta Physica Polonica B* Vol. 32, 739-746(2001)
- 93) **I. Hossain**, “Studies on experimental features of  $^{76}\text{Ge}$  (635 MeV) +  $^{198}\text{Pt}$  deep - inelastic collisions” *Indian J. Phys.* **75A**(3), 249-253(2001),
- 94) **I. Hossain**, T. Ishii, M. Ogawa, M. Asai, & A. Makishima, “Yields of isomers in  $^{76}\text{Ge}$  (635 MeV) +  $^{198}\text{Pt}$  deep-inelastic collision & their dependence on projectiles ( $^{74,76}\text{Ge}$ ) and beam energies (635, 550 MeV)” *Indian J. Phys.* **75A**(2), 165-168 (2001)
- 95) M. Asai, T. Ishii, A. Makishima, **I. Hossain**, M. Ogawa, and S. Ichikawa; “Nanosecond isomers in neutron-rich  $^{67}\text{Cu}$  and  $^{64}\text{Co}$  and a fast E3 transition in  $^{67}\text{Cu}$ ” *Phys. Rev. C* **62**, 054313-(1-7) (2000).

- 96) **I. Hossain**, T. Ishii, & M. Ogawa, “ns- $\mu$ s” isomers in  $^{76}\text{Ge}$  (635 MeV) +  $^{198}\text{Pt}$  deep-inelastic collisions” **Jahangirnagar University J. Sci.** Vol.22 & 23, 159- 165 (2000).
- 97) T. Ishii, M. Asai, A. Makishima, **I.Hossain**, M. Ogawa, J. Hasegawa, M. Matsuda and S. Ichikawa; “Core-excited states in the doubly magic  $^{68}\text{Ni}$  and its neighbor  $^{69}\text{Cu}$ ” **Phys. Rev. Lett.** Vol. **84**, 39-42 (2000).
- 98) A. Makishima, M. Asai, T. Ishii, **I. Hossain**, M. Ogawa, S. Ichigawa, M. Ishii, “The  $(\nu g_{9/2}^{-2})_8^{+}$  isomers in  $^{82}\text{Se}_{48}$  and  $^{80}\text{Ge}_{48}$  populated by deep-inelastic collisions” **Phys. Rev. C**, Vol. 59, Num. 5,R2331-3 (1999)
- 99) **I. Hossain**, T. Ishii, A. Makishima, M. Asai, S. Ichigawa, M. Itoh, M. Ishii, P. Kleinheinz, and M. Ogawa, “Lifetime measurement of  $\pi g_{9/2}$  isomer in  $^{79}\text{As}$ ” **Phys. Rev. C** 58,2, 1318(Aug, 1998)
- 100) T. Ishii, M. Asai, **I. Hossain**, P. Kleinheinz, M. Ogawa, A. Makishima, S. Ichigawa, M. Itoh, M. Ishii, and J. Blomqvist, “The  $[(\nu g_{9/2})^2 \pi p_{3/2}]_{19/2^{-}}$  isomer in  $^{71}\text{Cu}$  and the prediction of its E2 decay from shell model” **Phys. Rev. Lett.** 81, 4100-03(Nov. 1998)
- 101) T. Ishii, M. Itoh, M. Ishii, A. Makishima, M. Ogawa, **I.Hossain**, T. Hakawa, T. Kohno, “Isomer-scope: A new instrument for in-beam  $\gamma$ -ray spectroscopy through deep inelastic collisions” **Nucl. Instrum. & Methods.Phys. Res.**A395, 210-216 (1997)
- 102) A. Shelley, **I. Hossain**, W. Mondal, “One dimensional criticality calculation of a small pressurized water reactor” **SUST Studies**,Vol.2,No.1,(1997)
- 103) **I. Hossain**, A. Taher, and H. Ali, “Design and development of a timing Single channel analyzer” **SUST Studies**, Vol.1, No.1, 7 (1996)

### Reports/ proceeding

- 104) T N H TengkuKamarulBahri, H Wagiron, I Hossain, A. R. El-Sersy and A. Ab Rashid, Mass attenuation coefficient of Germanium doped calcium borate glass system using WinXcom software, 8<sup>th</sup> national seminar on medical physics, Sunway hotel, Seberang Jaya, penang, Malaysia, 19 December 2012.
- 105) N.N.A.M.A Ghani, **I. Hossain**, H. Wagiran. CALCULATION OF NUCLEAR PROPERTIES OF  $\pi g_{9/2}^{+}$  ISOMERS IN ODD  $^{83}\text{Rb}$  TO  $^{87}\text{Rb}$  FOR  $Z=37$ . International Seminar on the application & Mathematics 2013.
- 106) M A Saeed, **I Hossain**, N Hida, Nursyazwanie, H Wagiran. Thermoluminescence response of Single clad Nd-doped optical fibers with 6 MV photon irradiation. 21-26, April 2013 Fifth international conference on Modern trends in Phys. Res. MTPR-012 in Cairo University

- 107) M A Saeed, NorasyidahJenalZainal, **I Hossain**,. Measurement of Natural radionuclides in vegetables using gamma spectroscopy. 21-26, April 2013 Fifth international conference on Modern trends in Phys. Res. MTPR-012 in Cairo University
- 108) N.N.A.M.A Ghani, **I. Hossain**, H. Wagiran. CALCULATION OF NUCLEAR PROPERTIES OF  $\nu g_{9/2}^+$  ISOMERS IN ODD  $^{59}\text{Cr}$  TO  $^{69}\text{Se}$  FOR  $N=35$ . International science postgraduate Conference 2012 (ISPC 2012) @ UniversitiTeknologi Malaysia.
- 109) N.N.A.M.A Ghani, **I. Hossain**. Calculation of Properties of  $\nu g_{(9/2)^+}$  Isomers in  $^{65}\text{Ni}$ ,  $^{67}\text{Zn}$ ,  $^{69}\text{Ge}$ ,  $^{71}\text{Se}$  Nuclei for  $N=37$ . NCON-PGR 2012 UNIVERSITI MALAYSIA PAHANG, KUANTAN 8<sup>th</sup> – 9<sup>th</sup> September 2012
- 110) K.K. Viswanathan, Zainal Abdul Aziz, **I. Hossain**, H. Y. Abdulla. Flexural Free vibration analysis of cross-ply layered conical shell frusta under shear deformation theory using spline method. IHART-volume 19 (2011).
- 111) **I.Hossain**, M.A. Saeed, Hewa Y. Abdulla, K.K. Viswanathan, Rashid Ahmed, H.Wagiron. Calculation of nuclear parameters of  $\pi g_{9/2}^+$  isomers in odd  $^{67-79}\text{As}$  nuclei by deep-inelastic collisions. International Seminar on the application & Mathematics 2011. PP 637-643.
- 112) I.M. Ahmed, S.T. Ahmed, Hewa Y. Abdulla, **I. Hossain**, M.A. Saeed, Rashid Ahmed, K.K. Viswanathan, Nurullah Kurt and N. Ibrahim. Ground state energy band of even  $^{114-124}\text{Pd}$  isotopes under the framework of interacting boson model (IBM-1). International Seminar on the application & Mathematics 2011. PP 631-636.
- 113) **I Hossain**,, Hewa Y. Abdullah, M. A. Saeed, N N A M A Ghani, K. K. Viswanathan, Features and structural yields of isomer in deep-inelastic collisions. Proceeding in ICOWOBAS 2011 September 21<sup>st</sup>-23<sup>rd</sup>, 2011, Surabaya-Indonesia.
- 114) Hewa Y. Abdullah, **I Hossain**, I M Ahmed, M. A. Saeed, K. K. Viswanathan and N Ibrahim, The investigation of energy level of even-even  $^{104-112}\text{Cd}$  isotopes under the framework of IBM-1.. Proceeding in ICOWOBAS 2011 September 21<sup>st</sup>-23<sup>rd</sup>, 2011, p 007 Surabaya-Indonesia.
- 115) M. A. Saeed, Siti Sarah Yousaf, **I Hossain**, R. Ahmad, Hewa Y. Abdullah, and A. T. Ramli, Transfer factor measurements of Uranium, Thorium and potassium from Soil to rice. Proceeding in ICOWOBAS 2011 September 21<sup>st</sup>-23<sup>rd</sup>, 2011,P 016. Surabaya-Indonesia.
- 116) Lim Tou Ying, HazilaBintiAsni, HusinWagiran and **Md. Imam Hossain**, The comparison of mass absorption coefficient and TL response between Ge-doped  $\text{SiO}_2$  optical fibre and TLD-100 subjected to various photon energies by



- using theoretical calculation. National Science postgraduate conference (NSPC 2011), IbnuSina Institute, UTM johorBahru, 15-17 November 2011.
- 117) TengkuNurulHidayahTengkuKamarulBahri, Nor HalizaYaakob, HusinWaguran, and **Md. Imam hossain**. Reproducibility characteristics of Ge- and Al-doped SiO<sub>2</sub> optical fibres subjected to photon irradiation. National Science Postgraduate Conference (NSPC 2011), IbnuSina Institute, UTM Johor Bahru, 15-17 November 2011.
  - 118) Hamiza Ahmad Tajuddin, Nor HalizaYaakob, HusinWaguran, and **Md. Imam hossain**. Thermoluminescence response of dopant concentration of Ge doped SiO<sub>2</sub> optical fibre subjected to photon irradiation. National Science Postgraduate Conference (NSPC 2011), IbnuSina Institute, UTM Johor Bahru, 15-17 November 2011.
  - 119) TengkuNurulHidayahTengkuKamarulBahri, HusinWaguran, RosliHussain and **Md. Imam hossain**. FTIR investigation on the structure of rare earth doped calculation borate glass. The 2<sup>nd</sup> Academic conference on natural science for master and Ph.D. studies from Cambodia, Laos, Malaysia and Vietnam (Vinh city, 11-15 October 2011).
  - 120) T.Ishii, H. Makii, M. Asai, S. Shigematsu, K. Tsukada, A. Toyoshima, M. Matsuda, A. Makishima, T. Shizuma, J. Kaneko, H. Toume, **I. Hossain**, S. Ichikawa, T. Kohno, M. Ogawa “ In beam  $\gamma$  -ray spectroscopy of neutron-rich nuclei in the uranium region through the heavy-ion transfer reaction” JAERI Review 2007
  - 121) T.Ishii, H. Makii, M. Asai, S. Shigematsu, K. Tsukada, A. Toyoshima, M. Matsuda, A. Makishima, T. Shizuma, J. Kaneko, H. Toume, **I. Hossain**, S. Ichikawa, T. Kohno, M. Ogawa “ In beam  $\gamma$ -ray spectroscopy of more neutron-rich nuclei than  $\beta$ -stability line in the U region: <sup>236</sup>Th, <sup>240,242</sup>U, <sup>246</sup>Pu, <sup>250</sup>Cm” TAN07, September 07
  - 122) T.Ishii, H. Makii, M. Asai, S. Shigematsu, K. Tsukada, A. Toyoshima, M. Matsuda, A. Makishima, T. Shizuma, J. Kaneko, H. Toume, **I. Hossain**, S. Ichikawa, T. Kohno, M. Ogawa “Gamma-rays in neutron rich nuclei <sup>236</sup>Th and <sup>242</sup>U JAEA Report 2007.
  - 123) T. Ishii, S. Shigematsu, M. Asai, A. Makishima, M. Matsuda, J. Kaneko, **I. Hossain**, S. Ichikawa, T. kohno, and M. Ogawa “In-beam  $\gamma$ -ray spectroscopy of the neutron-rich nucleus <sup>240</sup>U” JAERI-Review 15(2006-034 )
  - 124) T. Ishii, M. Asai, A. Makishima, **I. Hossain**, M. Ogawa, J. Hasegawa, M. Matsuda and S. Ichikawa “Excited states in the doubly magic <sup>68</sup>Ni and its neighbor <sup>69</sup>Cu” JAERI-Review 13(99-028).
  - 125) T. Ishii, M. Asai, **I. Hossain**, P. kleinheinz, M. Ogawa, “The [( $\nu g_{9/2}$ )<sup>2</sup> $\pi p_{3/2}$ ]<sub>19/2-</sub> isomer decay in <sup>71</sup>Cu” JAERI-Review, 33 (98-017).

- 126) **I. Hossain**, T. Ishii, A. Makishima, M. Asai, S. Ichigawa, M. Itoh, M. Ishii, P. Kleinheinz, and M. Ogawa, “The 773 keV  $\pi g_{9/2}$  isomer in  $^{79}\text{As}$ ” JAERI-Review, 21 (98-017).
- 127) T. Ishii, M. Itoh, M. Ishii, A. Makishima, M. Ogawa, **I. Hossain**, T. Hakawa, T. Kohno “Isomer-Scope” JAERI-Review, 34 (97-010).
- 128) **I. Hossain**, M. Ogawa, and Y. Oguri, “Identification of radioactive contamination” Heavy Ion Accelerator System Scientific Report, (Research laboratory for nuclear reactors, TIT) 41(1996),

### Meeting/Conferences

- 129) N.N.A.M.A Ghani, **I. Hossain**. Calculation of Properties of  $vg_{(9/2)^+}$  Isomers in  $^{65}\text{Ni}$ ,  $^{67}\text{Zn}$ ,  $^{69}\text{Ge}$ ,  $^{71}\text{Se}$  Nuclei for  $N=37$ . NCON-PGR 2012 UNIVERSITI MALAYSIA PAHANG, KUANTAN 8<sup>th</sup> – 9<sup>th</sup> September 2012
- 130) Tengku Nurul Hidayah Tengku Kamarul Bahri, Husin Waguran, Rosli Hussain and **Md. Imam Hossain**. FTIR investigation on the structure of rare earth doped calculation borate glass. The 2<sup>nd</sup> Academic conference on natural science for master and Ph.D. studies from Cambodia, Laos, Malaysia and Vietnam (Vinh city, 11-15 October 2011).
- 131) I.M. Ahmed, S.T. Ahmed, Hewa Y. Abdulla, **I. Hossain**, M.A. Saeed, Rashid Ahmed, K.K. Viswanathan, Nurullah Kurt and N. Ibrahim. Abstract in International Seminar on the application & Mathematics 2011.
- 132) **I. Hossain**, M.A. Saeed, Hewa Y. Abdulla, K.K. Viswanathan, Rashid Ahmed, H. Wagiron. Abstract in International Seminar on the application & Mathematics 2011.
- 133) **I. Hossain**, Hewa Y. Abdulla, M. A. Saeed, K.K. Viswanathan, N. Ibrahim, H. Wagiron. Isomeric properties of even-even nuclei from  $^{76}\text{Ni}$  to  $^{94}\text{Pd}$  for  $N = 48$  neutrons. Nustec 2011, 18-20 July, page 24, 2011
- 134) M. A. Saeed, **Md. Imam. Hossain**, Hewa Y. Abdulla, Study of thermoluminescence response of Ge-doped Optical Fibre using X-ray irradiation. Nustec 2011, 18-20 July, p 25, 2011.
- 135) **I. Hossain**, Hewa Y. Abdulla, M. A. Saeed, N N A M A Ghani, K. K. Viswanathan, Features and structural yields of isomer in deep-inelastic collisions. Abstract ICOWOBAS 2011 September 21<sup>st</sup>-23<sup>rd</sup>, 2011, p 008 Surabaya-Indonesia.
- 136) Hewa Y. Abdulla, **I. Hossain**, I M Ahmed, M. A. Saeed, K. K. Viswanathan and N Ibrahim, The investigation of energy level of even-even 104-112Cd isotopes under the framework of IBM-1.. Abstract ICOWOBAS 2011 September 21<sup>st</sup>-23<sup>rd</sup>, 2011, p 007 Surabaya-Indonesia.

- 137) M. A. Saeed, Siti Sarah Yousaf, **I Hossain**, R. Ahmad, Hewa Y. Abdullah, and A. T. Ramli, Transfer factor measurements of Uranium, Thorium and potassium from Soil to rice. Abstract ICOWOBAS 2011 September 21<sup>st</sup>-23<sup>rd</sup>, 2011, P 016. Surabaya-Indonesia.
- 138) N.A.Azmi & **I. Hossain**, Compton scattering of 662 keV  $\gamma$ -ray by Al & Cu materials using NAI(Tl) detector. Symposium at faculty of science, Universiti Teknologi Malaysia, SESI 2010/2011, 10-11 May, page 28, 2011
- 139) N. Sharipi & **I. Hossain**, Comparative studies of  $\gamma$ -ray spectroscopy using HPGe & NaI (Tl) detector and their configuration. Symposium at faculty of science, Universiti Teknologi Malaysia, SESI 2010/2011, 10-11 may, page. 25, 2011
- 140) N.N. A. Mohd & **I. Hossain**, Features of deep-inelastic collision. Symposium at faculty of science, Universiti Teknologi Malaysia, SESI 2010/2011, 10-11 May, page 30, 2011
- 141) **I. Hossain**, NuFact07 Summer School, 6th International School on Neutrino Factories, Super beams and Beta beams, July 27-August 4, 2007 KEK, Tsukuba, Japan (Participated only)
- 142) **I. Hossain**, Nufact 07, August 6-11, 2007, Ninth International Workshop on Neutrino Factories, Super beams and Beta beams Okayama, University, Japan (Participated only)
- 143) **I. Hossain**, "Field measurement of PRISM-FFAG magnets" 2006 PRISM-FFAG workshop 13 to 17 November, Osaka University, Japan
- 144) **I. Hossain**, "Calibration of PRISM-FFAG magnets" PRISM FFAG workshop November 30-December 2, 2005 Osaka University, Japan
- 145) **I. Hossain**, 2005 FFAG workshop 5 to 9 December, KURRI, Japan (Participated only)
- 146) T. Ishii, S. Shigematsu, M. Asai, A. Makishima, M. Matsuda, J. Kaneko, **I. Hossain**, S. Ichikawa, T. Kohno, and M. Ogawa "In-beam  $\gamma$ -ray spectroscopy of the neutron-rich nucleus  $^{240}\text{U}$ " Abstract submitted for the HAW05 Meeting of the American physical society
- 147) **I. Hossain**  
"Complex structural yield of isomers revealed from the production in deep-inelastic reactions" spring meeting of physical society of Korea, Seoul (April 21-23, 2005).
- 148) **I. Hossain**

The BAEC-WHO National workshop on Safety and protection in Radioactive Waste Management (Participated only)

- 149) T. Ishii, M. Asai, A. Makishima, **I.Hossain**, M. Ogawa, J. Hasegawa, M. Matsuda, and S. Ichigawa, “Core-excited states in the doubly magic  $^{68}\text{Ni}$  and its neighbor  $^{69}\text{Cu}$ ” Experimental nuclear physics in Europe, Sevilla(Spain) 21-26 June, 1999.
- 150) T. Ishii, M. Asai, A. Makishima, **I.Hossain**, M. Ogawa, S. Ichigawa, J. Hasegawa, “Nuclear structure of neutron-rich Ni region” Spring Meeting of the Physical Society of Japan, Hiroshima (March 28, 1999).
- 151) A. Makishima, M. Asai, T. Ishii, **I. Hossain**, M. Ogawa, S. Ichigawa, M. Ishii, “ Study of the  $8^+$  isomers in  $^{82}\text{Se}_{48}$  and  $^{80}\text{Ge}_{48}$  produced by deep-inelastic collisions” Spring Meeting of the Physical Society of Japan, Hiroshima (March 28, 1999).
- 152) **I. Hossain**, T. Ishii, A. Makishima, M. Asai, S. Ichigawa, M. Itoh, M. Ishii, P. Kleinheinz, and M. Ogawa “Lifetime measurement of  $\pi g_{9/2}$  isomer in  $^{79}\text{As}$ ” Spring Meeting of the Physical Society of Japan, Hiroshima (March 28, 1999)
- 153) M. Ogawa, **I.Hossain**, T. Ishii, M. Asai, A. Makishima, S. Ichigawa, M. Itoh, P. Kleinheinz, and M. Ishii, “Yield distribution of neutron rich isomers produced via deep inelastic collisions” Experimental nuclear physics in Europe, Sevilla (Spain) 21- 26 June, 1999
- 154) T. Ishii, M. Asai, **I. Hossain**, P. Kleinheinz, M. Ogawa, A. Makishima, S. Ichigawa, M. Itoh, M. Ishii, and J. Blomqvist “The  $[(\nu g_{9/2})^2 \pi p_{3/2}]_{19/2}$ - isomer in  $^{71}\text{Cu}$ ” Meeting abstract of the Physical Society of Japan, Volume 53, issue 2, part 1, page 56, (October, 1998).
- 155) **I. Hossain**, T. Ishii, A. Makishima, M. Asai, S. Ichigawa, M. Itoh, M. Ishii, and M. Ogawa “Isomer decays in neutron rich nuclei produced by deep-inelastic collisions” Meeting abstract of the Physical Society of Japan, Volume 53, issue 2, part 1, page 56, (October, 1998).
- 156) M. Asai, T. Ishii, A. Makishima, **I.Hossain**, M. Ogawa, and S. Ichikawa “ $\gamma$ -ray spectroscopy of  $^{67}\text{Cu}$  through deep-inelastic collision” spring Meeting of the Physical Society of Japan, Chiba (April 1, 1998).
- 157) T. Ishii, M. Itoh, M. Ishii, A. Makishima, M. Ogawa, **I.Hossain**, T. Hakawa, T. Kohno “Nuclear structure of neutron-rich nuclei in the vicinity of  $^{68}\text{Ni}$ ” Fall Meeting of the Physical Society of Japan, Tokyo (Sept. 21, 1997)