

## Personal History



### I. PERSONAL DATA:

1. **Full Name:** Mohamed .....Hamdy.....F. M.....

Family name                      First                      Middle

2. **Place & Date of Birth**    Mallaway, Minia & 29 /11 / 1965....

3. **Nationality:**.....**Egyptian**.....

4. **Married**    :            Yes:     No:     Number of children .....**None**. ...

5. **Address:** Physics Department, Faculty of Science, Minia University, B.O. 61519 Minia,

Egypt. Tel. /Fax (work):+20-86-2363011, Tel. (home): +20-86-2636709.

Mobile: +20-1208281849

E-mail: [hamdyfm@gmail.com](mailto:hamdyfm@gmail.com) & [hamdy.farghal@mu.edu.eg](mailto:hamdy.farghal@mu.edu.eg)

### II. ACADEMIC QUALIFICATIONS:

| Degree | University | Country | Date      | Field of Specialization |
|--------|------------|---------|-----------|-------------------------|
| Ph. D. | Minia      | Egypt   | 29/6/1997 | Applied Nuclear Physics |
| M. Sc. | Minia      | Egypt   | 3/2/1992  | Nuclear Physics         |
| B. Sc. | Minia      | Egypt   | 30/5/1987 | Physics                 |

#### Languages/Special Skills:

|                        |   |   |   |
|------------------------|---|---|---|
| <b>Arabic</b>          | Speaking <input checked="" type="checkbox"/>  | Reading <input checked="" type="checkbox"/> | Writing <input checked="" type="checkbox"/> |
| <b>English</b>         | Speaking <input checked="" type="checkbox"/>  | Reading <input checked="" type="checkbox"/> | Writing <input checked="" type="checkbox"/> |
| <b>Japanese</b>        | Speaking <input checked="" type="checkbox"/>  | Reading <input type="checkbox"/>            | Writing <input type="checkbox"/>            |
| <b>Computer Skills</b> | Windows 7, Windows XP, Windows 2000, MS Office 2010, Power Point, Publisher, Various Graphic Software, Internet Explorer, Experience Programmer Calculation for Fit and Communication using FORTRAN, BASIC, and LABVIEW software. |   |   |

### III. PROFESSIONAL EXPERIENCE

#### Academic Positions:

| Title  | From - To                | University | Country |
|--|--------------------------|------------|---------|
| <b>Professor of Applied Nuclear Physics, Physics Department, Faculty of Science</b>  | 26/8/2008–<br>Till Now   | Minia      | Egypt   |
| <b>Head of the Renewable Energy Science &amp; Engineering Department, Faculty of Postgraduate Studies for Advanced Science</b> | 18/8/2015–<br>31/7/2018  | Beni-Suef  | Egypt   |
| <b>Professor of Applied Nuclear Physics, Physics Department, Faculty of Science</b>  | 26/8/2008–<br>Till Now   | Minia      | Egypt   |
| <b>Associate Professor, Physics Department, Faculty of Science</b>   | 26/11/2002<br>–25/8/2008 | Minia      | Egypt   |
| <b>Assistant Professor, Physics Department, Faculty of Science</b>   | 29/7/1997–<br>25/11/2002 | Minia      | Egypt   |
| <b>Instructor/Post-Doctoral, Physics Department, Faculty of Science</b>  | 25/1/1992-<br>28/7/1997  | Minia      | Egypt   |
| <b>Teaching Assistant, Physics Department, Faculty of Science</b>  | 22/11/1987<br>–24/2/1992 | Minia      | Egypt   |

#### Membership of Cultural, Educational and Professional Societies:

|                     |   |
|---------------------|---|
| <b>Member of</b>    | Positron Science Society (Japan).<br>Japanese Society of Radiation Chemistry.<br>Society for Positron Annihilation and Nuclear Probes (India)<br>Egyptian Physica Society.<br>Egyptian Nuclear Physics Association.<br>Egyptian Society of Solid State Science and Application.<br>Egyptian Society of Polymer Science and Technology.  |
| <b>Committee</b>    | International Scientific Committee of the International Workshop of Positron and Positronium Chemistry from 2017 till 2026.   |
| <b>Editorial of</b> | World Journal of Applied Physics, Science Publishing Group.<br>Journal of Solid State Physics, Hindawi Publishing Corporation.<br>Egyptian Journal of Physics.  |
| <b>Reviewer of</b>  | Egyptian Community for the Permoation of Professor and Associated Professor Degree, Polymer, Journal of Applied Polymer Science, Industrial & Engineering Chemistry Research, Journal of Physics: Conference Series, Journal of Polymer Engineering, Journal of Molecular Structure, Journal of Research in Environmental Science and Toxicology, Journal of Alloys and Compounds, Egyptian Journal of Physics, Egyptian MSC thesis and Indian PHD Thesis |

|  |   |
|--|---|
| <p><b>Workshop or Conference organizations</b></p> | <p>Environmental Physics Conference 24-28/2/2004, (Minia University, Minia).<br/> Workshop on Enhancing Modeling and Simulation Technology in Training and Education of Physics, 8/12/2005 (Minia University, Minia).<br/> 3<sup>rd</sup> International Conference on Advanced Basic &amp; Applied Sciences (ABASIII), 17-20/11/2015 (Beni-Suef University, Hurghada).<br/> Recent Advances in Renewable Energy Technologies-I, 28/2/2016 (Beni-Suef University)<br/> Recent Advances in Renewable Energy Technologies-II, 18/3/2017 (Beni-Suef University).<br/> The Fourth International Conference on Advanced Sciences (ICAS4), 7-10/11/2017 (Beni-Suef University, Hurghada).</p>  |
| <p><b>Academic advisor</b></p>                     | <p>For the Physics undergraduate students, Physics Department, Faculty of Science, Minia University (2013 -present).<br/> For the Science Club of the Faculty of Science, Minia University (2013-present)<br/> As an arbitrator in the Intel International Science and Engineering Fair (Intel ISEF) Egypt.</p>   |
| <p><b>Official License</b></p>                     | <p>From the Egyptian Ministry of Health for using ionizing radiation.<br/> From the Egyptian Ministry of Health in Bakady record of qualified experts in the prevention of the risk of exposure to ionizing radiation.</p>  |
| <p><b>Courses</b></p>                              | <p>“Computer Tanning” by the Scientific &amp; Statistical Computer Research Center, Cairo University, Egypt (20/7/1985-29/8/1985).<br/> “Use of Radioactive Materials and Protection from Radiation” by Atomic Energy Authority, Egypt (11/1/1992-5/2/1992).<br/> “International Course and Symposium on Glass Science and Engineering” by The American University in Cairo, Egypt (12/10/1992-22/10/1992)<br/> “Pedagogy” by Education Center humanitarian and Technology Education, Minia University, Egypt (7/11/1993-30/11/1993).<br/> “Use of radioactive materials and protection from Radiation” by Atomic Energy Authority, Egypt (1/1/1994-5/1/1994).<br/> “Electromagnetic radiation-produce, effect, uses” by Atomic Energy Authority, Egypt (13/5/2000 to 14/5/2000).<br/> “Develop the Skills of Youth Care” by Faculty and Leadership Development Project, Minia University, Egypt (28/12/2004-29/12/2004).<br/> “Development of Effective Presentation Skills” by Faculty and Leadership Development Project, Minia University, Egypt (15/1/2005-17/1/2005).</p> |

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|  | <p>“Development of Effective Communication Skills” by Faculty and Leadership Development Project, Minia University, Egypt (29/1/2005-31/1/2005).</p> <p>“Decision-making and Problem-solving” by Faculty and Leadership Development Project, Minia University, Egypt (16/5/2005-19/5/2005).</p> <p>“Recent Trends in Teaching” by Faculty and Leadership Development Project, Minia University, Egypt (20/5/2005-23/5/2005).</p> <p>“Standards of Quality in the Teaching Process” by Faculty and Leadership Development Project, Minia University, Egypt (15/7/2008-17/7/2008).</p> |
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**IV. HONORS: (Names and dates of professional honors, awards, fellowships and scholarships)**

| Names  | Dates                        |
|--|------------------------------|
| Egyptian scholarship for two years in University of Tokyo, Japan   | From 29/11/1994 to 4/12/1996 |
| Fulbright Postdoctoral Scholarship for five months in Wayne State University, Michigan, USA  | From 15/2/2002 to 14/7/2002  |
| Korean Federation of Science and Technology Societies (KOFST) award me fellowship under the Brain Pool Program, Korean Atomic Energy Research Institute, Daejeon, Republic of Korea. | From 1/1/2006 to 31/12/2006  |
| Arab Fund for Economic and Social Development scholarship for one year in, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan                   | From 1/1/2007 to 31/12/2007  |
| Visiting researcher in Fuel Cell Cutting-Edge Center (FC-Cubic), Technology Research Association, 2-3-26 Aomi, Koto-Ku, Tokyo 135-0064, Japan.                                       | From 1/1/2008 to 31/3/2013   |
| Award of the International Publication for Science Papers from Minia University, Minia, Egypt for the year of 2013.  | 17/3/2014                    |
| Award of the International Publication for Science Papers from Minia University, Minia, Egypt for the year of 2014.  | 4/5/2015                     |
| Award of the International Publication for Science Papers from Minia University, Minia, Egypt for the year of 2017.  | 8/5/2018                     |

## V. COURSES TAUGHT

### Undergraduate Courses

I have taught the following Courses: General Physics (Heat, properties of matter, waves, electricity, alternating electricity), Electronic, Nuclear Physics, Radiation Physics, Atomic Physics, Atomic, Cosmic rays and Molecular Spectra.

### Graduate Courses

I have taught the following Courses: Nuclear Physics, Radiation Physics, Applied Nuclear Physics, Reactor Physics and Nuclear techniques for studying materials science. In addition, I have also taught Advanced fuel cells, Advanced Energy and Environment, Semiconductor Converters and Advanced Polymer membranes for Diploma and Pre-mister students.

## VI. PROJECTS:

- 1) I was a co-investigator in the project funding by Higher Education Enhancement Project Fund (HEEPE) 2005 which in title, “**Enhancing Modeling and Simulation Technology in Training and Education of Physics at Minia University**”.
- 2) I am a co-investigator in the project funding by Science & Technology Development Fund (STDF) under ID. 15113 from the year of 2015 which in title, “**Development of Electrodes using Carbon Nano-fibers for Fuel Cell**”.
- 3) I am a co-investigator in the project funding by Beni-Suef University “**Design, Implementation and Performance of 5 kW Rooftop Grid Connected PV System: Faculty of Post graduates for Advanced Science: as a Case Study**”.
- 4) I am a supervisor in the project funding by Academy of Scientific Research and Technology, Egypt for the undergraduated students 2017 which in title” **Synthesis and Characterization of Nanocatalyst Materials for Fuel Cell Applications**”.

## VII. RESEARCH EXPERIENCE:

- Study Polymer Electrolyte Membranes for fuel cells as a bulk and thin films using many techniques such as slow positron beam spectroscopy, wide angle x-ray, X-ray photoelectron spectroscopy, water uptake, proton conductivity, contact angle, Fourier transform infrared spectroscopy and so on. I worked for this subject for more than 6

years in the biggest center in Japan, Fuel Cell Cutting-Edge Center (FC-Cubic), Tokyo and I continue this subject in my Minia University lab.

- Investigating of Materials using Nuclear Technique (Positron Annihilation Lifetime and Coincidence Doppler Broadened of Annihilation Radiation Techniques) and Positron-molecule experiments (Positronium formation cross section in gas).
- Professional in experimental nuclear physics (coincidence spectrometer& Gamma, Beta, and Alpha Spectrometers).

## **VIII. SUPERVISING EXPERIENCES:**

Eleven MSc. Students and four PhD. students.

## **IX. CONFERENCES:**

### **I. INTERNATIONAL CONFERENCES**

1. 4<sup>th</sup> Symposium of Research Center for Nuclear Science and Technology, the University of Tokyo, Dec. 4-5, 1995 (Tokyo, Japan).
2. 33<sup>rd</sup> Annual Meeting on Radioisotopes in Physical Science and Industries, July 1-3, 1996 (Tokyo, Japan).
3. 39<sup>th</sup> Japan Radiation Chemistry Symp., Oct. 15-17, 1996 (Tsukuba, Japan).
4. 40<sup>th</sup> Japan Nuclear Chemistry Symp., Oct. 22-24, 1996 (Wako, Japan).
5. Short Workshop in Solid State Physics, the University of Tokyo, Dec. 2-3, 1996 (Tokyo, Japan).
6. 5<sup>th</sup> Int. Workshop on Positron and Positronium Chemistry (PPC-5), June 9-14, 1996 (Lillafüred, Hungary).
7. 11<sup>th</sup> Int. Conference on Positron Annihilation (ICPA-11), May 25-30, 1997 (Kansas City, Missouri, USA).
8. 6<sup>th</sup> Int. Workshop on Positron and Positronium Chemistry (PPC-6), June 7-11, 1999 (Tsukuba, Japan).
9. 12<sup>th</sup> Int. Conference on Positron Annihilation (ICPA-12), August 6-12, 2000 (München, Germany).
10. Meeting of the Division of Atomic, Molecular, and Optical Physics (DAMOP 2002) May 28 – June 1, 2002 (Williamsburg, Virginia, USA).
11. 7<sup>th</sup> Int. Workshop on Positron and Positronium Chemistry (PPC-7), July 7-12, 2002 (Knoxville, Tennessee, USA).

12. 13<sup>th</sup> Int. Conference on Positron Annihilation (ICPA-13), September 7-13, 2003 (Kyoto, Japan).
13. 8<sup>th</sup> Int. Workshop on Positron and Positronium Chemistry (PPC-8), September 4-9, 2005 (Coimbra, Portugal).
14. International Symposium on Industrial Safety, Chungbuk National University, April 14, 2006 (Chungbuk, Republic of Korea).
15. 50<sup>th</sup> Japan Radiation Chemistry Symposium, Oct. 10-12, 2007 (Kyoto, Japan).
16. International Symposium on Charged Particle and Photon Interactions with Mater, Nov. 6-9, 2007 (Tokai, Japan).
17. Specialist Meeting on Positron Science and its Application to Science and Engineering, Nov. 16-17, 2007 (Osaka, Japan).
18. 9<sup>th</sup> Int. Workshop on Positron and Positronium Chemistry (PPC-9), May 11-15, 2008 (Wuhan, China).
19. The 2<sup>nd</sup> Asia Pacific Symposium on Radiation Chemistry (APSRC-2008), August 29-September 1, 2008 (Waseda University, Tokyo, Japan).
20. 51<sup>st</sup> Japan Radiation Chemistry Symposium, Oct. 15-17, 2008 (Tsukuba, Japan).
21. Specialist Meeting on Positron Science and its Application to Science and Engineering, Dec. 5-6, 2008 (Osaka, Japan).
22. 15<sup>th</sup> Int. Conference on Positron Annihilation (ICPA-15), January 18-23, 2009 (Kolkata, India).
23. 58<sup>th</sup> SPSJ Symposium on Macromolecules, September 16 -18, 2009 (Kumamoto, Japan).
24. 52<sup>nd</sup> Japan Radiation Chemistry Symposium, September 24-26, 2009 (Fukui, Japan).
25. Advanced Science Research Symposium 2009 (ASR2009), November 10-12, 2009 (Tokai, Japan).
26. 11<sup>th</sup> Pacific Polymer Conference (PPC11), December 6 -10, 2009 (Cairns, Australia).
27. 59<sup>th</sup> SPSJ Annual Meeting, May 26 - 28, 2010 (Yokohama, Japan).
28. 47<sup>th</sup> Annual Meeting on Radioisotope and Radiation Research, July 7 - 9, 2010 (Odaiba, Japan).
29. 53<sup>rd</sup> Japan Radiation Chemistry Symposium, September 21-23, 2010 (Nagoya, Japan).
30. 59<sup>th</sup> SPSJ Symposium on Macromolecules, September 15-17, 2010 (Hokkaido University, Sapporo, Japan).
31. Specialist Meeting on Positron Science and its Application to Science and Engineering, November 26-27, 2010 (Osaka, Japan).

32. 60<sup>th</sup> SPSJ Annual Meeting, May 25 - 27, 2011 (Osaka, Japan).
33. 48<sup>th</sup> Annual Meeting on Radioisotope and Radiation Research, July 6-8, 2011 (Odaiba, Japan).
34. 10<sup>th</sup> Int. Workshop on Positron and Positronium Chemistry (PPC-10), September 5-9, 2011 (Smolenice Castle, Slovak Republic).
35. 60<sup>th</sup> SPSJ Symposium on Macromolecules, September 28-30, 2011 (Okayama, Japan).
36. Specialist Meeting on Positron Science and its Application to Science and Engineering, December 2-3, 2011 (Osaka, Japan).
37. The 15<sup>th</sup> International Symposium, on Batteries, Fuel Cells and Capacitors, October 17-20, 2011 (Tokyo, Japan).
38. 61<sup>st</sup> SPSJ Annual Meeting, May 29-31, 2012 (Yokohama, Japan).
39. 49<sup>th</sup> Annual Meeting on Radioisotope and Radiation Research, July 9-11, 2012 (Tokyo, Japan).
40. 61<sup>st</sup> SPSJ Symposium on Macromolecules, September 19-21, 2012 (Nagoya, Japan).
41. 55<sup>th</sup> Japan Radiation Chemistry Symposium, September 26-28, 2012 (Sandi, Japan).
42. 1<sup>st</sup> China-Japan Joint Workshop on Positron Annihilation October 16-18, 2012 (Wuhan University, China)
43. The 16<sup>th</sup> International Symposium, on Batteries, Fuel Cells and Capacitors, November 14-16, 2012 (Fukuoka, Japan).
44. The 5<sup>th</sup> Asian Pacific Symposium on Radiation Chemistry (APSRC 2014), September 8-11, 2014 (Tokyo, Japan).
45. The 11<sup>th</sup> Int. Workshop on Positron and Positronium Chemistry (PPC-11), November 9-14, 2014 (Cidade de Goa, Goa, India).
46. The Annual Meeting of the International Nuclear Security Education Network, August 22-26, 2016 (International Atomic Energy Agency, IAEA's Headquarters, Vienna, Austria).
47. The Annual Meeting of the International Nuclear Security Education Network, July 24-28, 2017 (International Atomic Energy Agency, IAEA's Headquarters, Vienna, Austria).
48. The 12<sup>th</sup> Int. Workshop on Positron and Positronium Chemistry (PPC-12), August 28-September 1, 2017 (Lublin, Poland).
49. The Annual Meeting of the International Nuclear Security Education Network, July 9-13, 2018 (International Atomic Energy Agency, IAEA's Headquarters, Vienna, Austria).



## II. INTERNAL CONFERENCES

1. 1<sup>st</sup> Radiation Physics Conference, Nov. 15-19, 1992 (Qena).
2. 5<sup>th</sup> Conference on Nuclear Science and Application, 1992 (Cairo).
3. 16<sup>th</sup> Conference on Solid State Science, Jan. 9-14, 1993 (Minia).
4. 1<sup>st</sup> Conference on Nuclear and Particle Physics Nov. 15-19, 1997 (Cairo).
5. 4<sup>th</sup> Radiation Physics Conference, Nov. 15-19, 1998 (Alexandria).
6. 2<sup>nd</sup> Conference on Nuclear and Particle Physics Nov. 13-17, 1999 (Cairo).
7. 5<sup>th</sup> Radiation Physics Conference, Nov. 5-9, 2000 (Cairo).
8. 3<sup>rd</sup> Conference on Nuclear and Particle Physics Oct. 20-24, 2001 (Cairo).
9. 6<sup>th</sup> Radiation Physics Conference, Oct. 27-30, 2002 (Assiut).
10. 7<sup>th</sup> Arab International Conference of Polymer Science & Technology and the 3<sup>rd</sup> Arab Conference of Materials Science, Oct. 5-9, 2003 (Cairo-Hurghada).
11. 4<sup>th</sup> Conference on Nuclear and Particle Physics Oct. 11-15, 2003 (Fayoum).
12. Environmental Physics Conference 24-28 Feb, 2004 (Minia).
13. 7<sup>th</sup> Radiation Physics Conference, Nov. 29-30, 2004 (Ismailia, Suez Canal).
14. The XXV Conference on Solid State Physics and Materials Science & Workshop on Photonic Materials and Optoelectronic Devices (II) 6-10 March 2005 (Luxor).
15. 8<sup>th</sup> Arab International Conference of Polymer Science & Technology, November 27-30, 2005 (Cairo-Sharm El-Shiekh).
16. 2<sup>nd</sup> International Conference on Advanced Basic & Applied Sciences (ABAS II), April 2-4, 2014 (Sokhna).
17. 3<sup>rd</sup> International Conference on Advanced Basic & Applied Sciences (ABAS III), November 17-20, 2015 (Hurghada).
18. The 1<sup>st</sup> International conference of Environmental Security and Global Climate Change (ESGCC-1) April 10-12, 2016 (Beni-Suef University }
19. 7<sup>th</sup> Environmental Physics Conference (EPC'16), September 24-27, 2016 (Sharm el-Sheikh).
20. Italian-Egyptian Workshop on Energy & Related Materials, October 17-19, 2016 (Pyramisa Hotel, Dokki).
21. The 1<sup>st</sup> International Conference on Natural Resources and Renewable Energy (ICRRE-1), April 17-20, 2017 (Hurghada).
22. 10<sup>th</sup> Conference on Nuclear and Particle Physics October. 7-10, 2017 (Hurghada).
23. The Fourth International Conference on Advanced Sciences (ICAS4), November 7-10,

2017 (Hurghada).

## **X. LIST OF PUBLICATIONS:**

### **1992:**

1. M. A. El-Sayed, E. E. Abdel-Hady and **Hamdy F. M. Mohamed**, "Time resolution study of staged photomultiplier with a plastic scintillation crystal", 5<sup>th</sup> Conference on Nuclear Science & Applications (Cairo, Egypt) 2, 752-759, 1992.
2. E. E. Abdel-Hady, A. M. A. El-Sayed and **Hamdy F. M.**, "Half lives of two levels in <sup>133</sup>Cs", Science Bulletin Minia University 5, 95, 1992.

### **1993:**

1. A. M. A. El-Sayed, E. E. Abdel-Hady and **Hamdy F. M.**, "Lifetime measurement of first excited state in <sup>152</sup>Gd", Arab Journal of Nuclear Sciences and Applications 26-2, 87, 1993.

### **1996:**

1. **Hamdy F. M. Mohamed**, Yasuo Ito, Ali M. A. El-Sayed and E. E. Abdel-Hady, "Positron annihilation in poly(vinyl alcohol) doped with CuCl<sub>2</sub>", Polymer 37, 1529-1533, 1996.
2. Y. Ito, **Hamdy F. M. Mohamed**, V. M. Byakov and S. V. Stepanov, "Inhibition and anti-inhibition effects of electron scavengers in hydrocarbons revisited", Journal of Radioanalytical and Nuclear Chemistry 210, 607-15, 1996.
3. **Hamdy F. M. Mohamed**, Yasuo Ito, Ali M. A. El-Sayed and Esam E. Abdel-Hady, "Positron annihilation in poly(vinyl alcohol) doped with CuCl<sub>2</sub>", Journal of Radioanalytical and Nuclear Chemistry 210, 469-77, 1996.
4. Yasuo Ito, **Hamdy F. M. Mohamed**, Kazuhiro Tanaka, Ken-ichi Okamoto and Keunho Lee, "Sorption of CO<sub>2</sub> in polymers observed by positron annihilation technique", Journal of Radioanalytical and Nuclear Chemistry 210, 211-8, 1996.
5. Yasuo Ito, **Hamdy F. M. Mohamed** and Masaru Shiotani, "Vacancies in the solids of low molecular weight organic compounds observed by positron annihilation", Journal of Radioanalytical and Nuclear Chemistry 210, 599-605, 1996.
6. Yasuo Ito, **Hamdy F. M. Mohamed**, Tadao Seguchi and Akihiro Oshima, "Vacancy spectroscopy of radiation cross-linked and degraded polytetrafluoroethylenes", Radiation Physics and Chemistry 48, 775-9, 1996.

7. **Hamdy F. M. Mohamed**, Yasuo Ito and Masayuki Imai, "Change of distribution of free volume holes during crystallization of poly(ethylene terephthalate) revealed by positron annihilation lifetime spectroscopy", *Journal of Chemical Physics* 105, 4841-5, 1996.
8. Yasuo Ito, **Hamdy F. M. Mohamed** and Masaru Shiotani, "Vacancies in the solids of low molecular weight organic compounds observed by positron annihilation", *Journal of Physical Chemistry* 100, 14161-5, 1996.

#### **1997:**

1. **Hamdy F. M. Mohamed** and A. M. A. El-Sayed, "Study of ortho-positronium hole volume distribution in synthetic zeolites", *Materials Science Forum* 255-257, 327-9, 1997.

#### **1998:**

1. A. T. Mohamed, A. M. A El-Sayed, and **Hamdy F. M. Mohamed**, "Positron annihilation lifetimes in compacted iron powder", *Proceedings of the First Nuclear and Particle Physics Conference (NUPPAC-1997)*, 1998.

#### **1999:**

1. **Hamdy F. M. Mohamed**, A. M. A. El-Sayed and E. E. Abdel-Hady, "Study of sorption in poly(vinyl alcohol) using positron annihilation technique", *Journal of Physics: Condensed Matter* 11, 4461-7, 1999.

#### **2000:**

1. **Hamdy F. M. Mohamed** and Gomaa G. Abd-Elsadek, "Positron annihilation investigations on poly(methyl methacrylate)", *Radiation Physics and Chemistry* 58, 597-601, 2000.
2. A. M. A. El-Sayed, **Hamdy F. M. Mohamed** and Ahmed A. A. Boraie, "Positron annihilation studies of some charge transfer molecular complex", *Radiation Physics and Chemistry* 58, 791-5, 2000.
3. A. M. A. El-Sayed, **Hamdy F. M. Mohamed** and Gomaa G. Abd-Elsadek, "Study of poly(methyl methacrylate) via positron annihilation lifetime spectroscopy", *Special Issue on Arab Journal of Nuclear Sciences and Applications* V. 34, Part I, p.265-71, 2000.
4. **Hamdy F. M. Mohamed**, A. M. A. El-Sayed and A. Z. Hussien, "Study the effect of radiations on poly(ethylene naphthalate) using positron annihilation lifetime technique", *Special Issue on Arab Journal of Nuclear Sciences and Applications* V. 34, Part I, p.273-8, 2000.

#### **2001:**

1. **Hamdy F. M. Mohamed**, A. M. A. El-Sayed and Gomaa G. Abd-Elsadek, "Effect of temperature on ortho-positronium in poly(methyl methacrylate)", *Polymer Degradation and Stability* 71, 93-7, 2001.
2. E. E. Abdel-Hady and **Hamdy F. M. Mohamed**, "Positron lifetime as a probe for investigation of conducting polystyrene", *Materials Science Forum* 363-365, 284-6, 2001.
3. **Hamdy F. M. Mohamed**, A. M. A. El-Sayed and A. Z. Hussien, "On irradiated poly(ethylene naphthalate) studied by positron annihilation lifetime spectroscopy", *Materials Science Forum* 363-365, 325-7, 2001.
4. **Hamdy F. M. Mohamed** and N. S. Abd El-Aziz, "Study on polystyrene via positron annihilation lifetime and Doppler broadened techniques", *Polymer* 42, 8013-7, 2001.
5. **Hamdy F. M. Mohamed**, "Study on the effect of atmosphere on A-type zeolite using positron annihilation lifetime technique", *Egyptian Journal of Solid* 24, 41-49, 2001.

#### **2002:**

1. E. E. Abdel-Hady and **Hamdy F. M. Mohamed**, "Microstructure changes of poly(vinyl chloride) investigated by positron annihilation techniques", *Polymer Degradation and Stability* 77, 449-56, 2002.

#### **2003:**

1. **Hamdy F. M. Mohamed**, "Study of the effect of electric field on positron annihilation parameters in polymers", *Radiation Physics and Chemistry* 68, 449-52, 2003.
2. T. S. Stein, W. E. Kauppila, E. G. Miller, **Hamdy F. M. Mohamed** and E. Surdutovich "Experimental investigation of ortho-positronium-surface interactions", presented in XXIII International Conference on Photonic Electronic and Atomic Collisions (ICPEAC 2003) July 23-29, 2003 (Stockholm, Sweden).
3. E. G. Miller, W. E. Kauppila, **Hamdy F. M. Mohamed**, T. S. Stein and E. Surdutovich, "An investigation of low-energy ortho-positronium-surface interactions", presented in the 34<sup>th</sup> Meeting of the Division of Atomic, Molecular, and Optical Physics (DAMOP 2003) May 20-24, 2003 (Boulder, Colorado, USA).
4. M. A. Ali, **Hamdy F. M. Mohamed** and W. M. Amer, "Biophysical measurements of lead in some biosensors", *Egyptian Journal of Biophysics and Biomedical Engineering* 4, 1-13, 2003.
5. **Hamdy F. M. Mohamed** and N. S. Abd El-Aziz, "Molecular weight effect on the microstructure of polymer observed by positrons", the Proceeding of the 7<sup>th</sup> Arab International Conference of Polymer Science & Technology and the 3<sup>rd</sup> Arab

Conference of Materials Science (Cairo-Hurghada, Egypt), page 447-60, Oct. 5-9, 2003.

6. E. E. Abdel-Hady and **Hamdy F. M. Mohamed**, "Positron annihilation as a probe for free volume distribution in polystyrene-carbon black composite", the Proceeding of the 7<sup>th</sup> Arab International Conference of Polymer Science & Technology and the 3<sup>rd</sup> Arab Conference of Materials Science (Cairo-Hurghada, Egypt), page 485-499, Oct. 5-9, 2003

#### **2004:**

1. M. H. Abd-El Salam, E. E. Abdel-Hady, **Hamdy F. M. Mohamed** and A. S. Ibrahim, "The effect of wheat hay on carbon black loaded EPDM composite studied by positron annihilation lifetime spectroscopy", Materials Science Forum 445-446, 259-61, 2004.
2. **Hamdy F. M. Mohamed**, E. E. Abdel-Hady and H. B. Alaa, "Studies of the positron lifetime and Doppler broadening annihilation radiation of polyvinyl chloride doped with Al<sub>2</sub>O<sub>3</sub>", Materials Science Forum 445-446, 328-30, 2004.
3. E. E. Abdel-Hady, H. M. Abdel-Hamid and **Hamdy F. M. Mohamed**, "Electron beam and gamma irradiation effects on conducting polystyrene studied by positron annihilation technique", Radiation Measurements 38, 211-6, 2004.
4. Yasser B. Saddeek, **Hamdy F. M. Mohamed** and Moenis A. Azooz, "Structural study of some divalent aluminoborate glass using ultrasonic and positron annihilation techniques", Phys. Stat. Sol. (a) 201, 2053-62, 2004.
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