Curriculum vitae

PERSONAL INFORMATION

Tarek Mohamed

Laser Institute for Research and Applications (LIRA), Beni-Suef University, 62511 Beni-Suef (Egypt)
+201159492205

tarekhassan1969@gmail.com

https://www.linkedin.com/in/tarek-hassan-58973057/
https://www.researchgate.net/profile/Tarek_Mohamed7 https://scholar.google.com/citations?user=vDtvSSEAAAAJ&hl=en

Sex Male | Date of birth 7 Mar 1969 | Nationality Egyptian

WORK EXPERIENCE

20/10/2016–Present
Dean of faculty
Laser Institute for Research and Application (LIRA), Beni-Suef University, Beni-Suef (Egypt)

14/10/2015–Present
Professor
Physics Department, Faculty of Science, Beni-Suef University, Beni-Suef (Egypt)

20/03/2014–20/06/2015
Senior Scientist
Attosecond Physics group, ELI - ALPS (Extreme Light Infrastructure- Attosecond Light Pulse Source) Research Center, Szeged (Hungary)

20/03/2014–20/06/2015
Senior Scientist
Attosecond Physics group, Lund University, Lund (Sweden)

15/02/2012–07/02/2013
Senior Researcher
Atomic Physics Department, Stockholm University, Stockholm (Sweden)

22/06/2009–01/02/2012
Senior Researcher
Department of Physics, Texas A&M University, College Station, Texas (United States)

10/12/2009–13/10/2015
Associate Professor (On leave of absence)
Physics Department, Faculty of Science, Beni-Suef University, Beni-Suef (Egypt)

20/01/2005–31/01/2009
Research Scientist
Atomic Physics Laboratory, Institute of Physical and Chemical Research (RIKEN), Tokyo (Japan)

08/07/2004–12/01/2005
Postdoctoral Fellow
Laser Cooling Group, Physics Department, National Chung Cheng University, Chiayi (Taiwan)

01/07/2003–05/07/2004
Assistant Professor
Faculty of Science, Physics Department, Cairo University, Cairo (Egypt)

25/05/1999–07/07/2003
PhD Student
Atomic Physics Department, Stockholm University, Stockholm (Sweden)

23/04/1996–23/05/1999
University teaching assistant
Physics Department, Faculty of Science, Cairo University, Cairo (Egypt)

03/10/1990–23/04/1996
Instructor and Researcher
Physics Department, Faculty of Science, Cairo University, Cairo (Egypt)

EDUCATION AND TRAINING

2003
Ph. D. in Laser Physics
Stockholm University, Stockholm (Sweden)

2001
Licentiate degree in Laser Physics
Stockholm University, Stockholm (Sweden)

1996
M. Sc. in Experimental Physics
Cairo University, Cairo (Egypt)

1990
B. Sc. in Physics (First Class Honors)
Cairo University, Cairo (Egypt)

PERSONAL SKILLS

Mother tongue(s): Arabic

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Swedish	A2	A1	A1	A1	A1
Japanese	A1	A1	A2	A2	A1
Hungarian	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills

- Excellent written and verbal communication skills
- Multilingual
- Very good communication skills gained through leadership positions and master/PhD students supervision
- Confident, articulate, and professional speaking abilities from leadership experiences
- Empathic listener and persuasive speaker
- Skill of Speaking in public, to groups, or via electronic media confidently
- Excellent presentation and negotiation skills
- Confidence and honesty
- Very open-minded due to traveling and living in different countries

Organisational / managerial skills

- Leadership (currently leading a new Laser institute in my university)
- Possess strong commitment to team environment dynamics with the ability to contribute expertise and follow leadership directives at appropriate times
- Able to lead others in high-demand situations
- Delegating tasks or responsibilities
- Evaluating performance, programs, processes, or events
- Extensive experience providing project management
- Strongly committed to team-building and staff development
- Ability to grasp new ideas and integrate them into desired results
- Ability to work independently in a fast-paced environment
- Consistent record of forging strong relationships

Job-related skills

- Excellent research skills in Laser Physics
- Good team leading skills
- Good in making research collaborations with other institutes
- Proficient with the following areas of expertise:
  - ❖Laser Physics,
  - ❖ Attosecond Science,
  - ❖ High-Intensity lasers,
  - ❖ Nonlinear Optics,
  - ❖ Laser material processing,
  - ❖ Laser-based Spectroscopic Techniques for Sensitive Species Detection,
  - ❖ Medical laser applications,
  - ❖ Atomic Physics,
  - ❖ Nanotechnology,
  - ❖ Ultra-high Vacuum,
  - ❖ Plasma Physics.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem-solving
Proficient user	Proficient user	Independent user	Independent user	Proficient user

Digital skills - Self-assessment grid

- Great command of office suite
- Very skilled with both Windows and MacOs operating systems
- Good command of Java and Python
- Great command of OriginLab program
- Great command of C++
- Great command of Matlab

ADDITIONAL INFORMATION

Publications

1- Abdalla Shehata, and **Tarek Mohamed** "New method for an accurate measurement of nonlinear refractive index in the case of high repetition rate fs laser pulses" **Journal of the Optical Society of America B 36, (2019)** 276-283.

2- Abdalla Shehata, Mona Ali, Reinhold Schuch, and **Tarek Mohamed** "Experimental investigations of nonlinear optical properties of soda-lime glasses and theoretical study of self-compression of fs laser pulses" **Journal of Optics and Laser Technology Volume 116C (2019)** 276-283.

3- **Tarek Mohamed** "Compression features of high density electron plasma in a long harmonic trap using a rotating wall technique" **Physics Letters A Volume 382, Issue 35, (2018)** 2459-2463.

4- Abdalla Shehata, Vladimir Chvykov, Reinhold Schuch, and **Tarek Mohamed** "**Design of an optical trap for storing femtosecond laser pulses" Applied Optics Volume 57, Issue 5, (2018) 1212.**

5- Osama M. Ahmed, **Tarek Mohamed**, Ebtesam Aboud, Hany Hamdy, Hala Moustafa "Quercetin and low level laser therapy promote wound healing process in diabetic rats via structural reorganization and modulatory effects on inflammation and oxidative stress" **Biomedicine & Pharmacotherapy, Volume 101 (2018) 58-73.**

6- B. Manschwetus, L. Rading, F. Campi, S. Maclot, H. Coudert-Alteirac, J. Lahl, H. Wikmark, P. Rudawski, C. M. Heyl, B. Farkas, **T. Mohamed**, A. L'Huillier, and P. Johnsson "Two-photon double ionization of neon using an intense attosecond pulse train" **Physical Review A Rapid Communication, Volume 93, Issue 6 (2016) 061402.**

7- Ebtesam Aboud, Osama M. Ahmed, **Tarek Mohamed**, Hany Hamdy, Hala Moustafa "Efficacy of Quercetin Treatment and Low Level Laser Therapy on Wound Healing in Normal and Diabetic Rats" **International Journal of Science and Research (IJSR), Volume 5, Issue 11 (2016) 45.**

8- **Tarek Mohamed**, Guillermo Andler, and Reinhold Schuch "A seeded dye laser cavity for intracavity experiments ". **Laser Physics, Volume 25, Issue 9 (2015) 095801.**

9- **Tarek Mohamed**, Guillermo Andler, and Reinhold Schuch," Linear Optical Trap with Active Medium for Experiments with High Power Laser Pulses". **Review of Scientific Instruments, Volume 86, Issue 2 (2015) 023113.**

10- **T. Mohamed**, F. Zhu, S. Chen, J. Strohaber, A. A. Kolomenskii, A. A. Bengali, H. A. Schuessler "A multipass cell based on confocal mirrors for Ultra-sensitive broadband laser spectroscopy in the near IR" **Applied Optics, Vol. 52, Issue 29, October, (2013), pp. 7145-7151.**

11- F. Zhu, **T. Mohamed**, J. Strohaber, A. A. Kolomenskii, Th. Udem, H. A. Schuessler "Real time

dual frequency comb spectroscopy in the near IR" **Applied Physics Letters, Vol. 102, Issue 12, March 29, (2013), pp. 121116.**

12- **T. Mohamed**, A. Mohri, Y. Yamazaki, "Comparison of non-neutral electron plasma confinement in harmonic and rectangular potentials in a very dense regime" **Physics of Plasmas, Vol. 20, Issue 1, January 13, (2013), pp. 012502.**

13- **Tarek Mohamed**, James Strohaber, Ricardo Nava, Alexandre Kolomenskii, Norbert Thonnard and Hans A. Schuessler "Krypton separation from ambient air for application in collinear fast beam laser spectroscopy" **Journal of The American Society for Mass Spectrometry, Vol. 23, Issue 7, May 2 (2012) pp. 1260-1265.**

14- J. Strohaber, **T. Mohamed**, N. Hart, F. Zhu, R. Nava, F. Pham, A. A. Kolomenskii, H. Schroeder, G. G. Paulus, and H. A. Schuessler "Intensity-resolved ionization yields of aniline with femtosecond laser pulses" **Physical Review A, Vol. 84, Issue 6, December 3, (2011), pp. 063414.**

15- **T. Mohamed**, M. Fogle, S. Madzunkov, E. Justiniano, R. Schuch "Effects of laser polarization on laser induced electron ion recombination" **Physical Review A, Vol. 83, Issue 3, March 3, (2011), pp. 032702.**

16- **T. Mohamed**, H. Imao, N. Oshima, A. Mohri, Y. Yamazaki, "Fast electron accumulation and its mechanism in a harmonic potential under ultra-high vacuum conditions" **Physics of Plasmas, Vol. 18, Issue 3, March 11, (2011), pp. 032507.**

17- H. Imao, **T. Mohamed**, K. Michishio, Y. Enomoto, T. Shimoyama, Y. Kanai, N. Kuroda, A. Mohri, H. Higaki, H. Saitoh, H. A. Torii, Y. Nagata, H. Toyoda, Y. Matsuda, Y. Nagashima and Y. Yamazaki,"ASACUSA MUSASHI: New progress with intense ultra-slow antiproton beam " **Hyperfine Interactions, Vol. 194, Issue 1-3, September 21, (2009), pp. 71-76.**

18- **T. Mohamed**, "Experimental studies on the confinement of electron plasma in a multi-ring trap" **Plasma Devices and Operations, Vol. 17, Issue 4, June (2009), pp. 256 - 250**.

19- **T. Mohamed**, "Successful Production of a non-neutral electron plasma of high density at the multi-ring trap" **Plasma Devices and Operations, Vol. 16, Issue 3, September (2008), pp. 181-188.**

20- Guo-Wei Li, S. J. H uang, H. S. Wu, S. Fang, De-Sheng Hong, **T. Mohamed**, and D. J. Han, " A Michelson Interferometer for Relative Phase Locking of Optical Beams" **Journal of the Physical Society of Japan, Vol.77, No.2, February (2008), 024301.**

21- Lan-Sheng Yang, Bai-Tzeng Han, De-Sheng Hong, **Tarek Ali Mohamed**, and D. J. Han, "Loading and Compression of a Large Numbers of Rubidium Atoms Using a Semi-Dark Type Magneto-Optical Trap". **Chinese Journal of Physics, Vol. 45, Number 6-I, pp. 606-615, December 2007.**

22- **T. Mohamed**, N. Oshima, A. Mohri, Y. Yamazaki, "Fast accumulation of electron plasma in a Multi-Ring Trap (MRT) under ultra-high vacuum conditions" **AIP Conference Proceedings Vol. 862,**

page 56-61 (2006).

23- R. Schuch, E. Lindroth, S. Madzunkov, M. Fogle, **T. Mohamed**, and P. Indelicato “Dielectronic Resonance Method for Measuring Isotope Shifts”. **Physical Review Letter 95 (2005) 183003.**

24- **Tarek Mohamed**, Guillermo Andler, and Reinhold Schuch, " Broadband optical trap for increasing the duty factor of high power pulsed laser systems". **AIP Conference Proceedings Vol. 748, pp. 256-263 (2005).**

25- **T. Mohamed**, G. Andler, and R. Schuch, “Active Optical Storage Ring for High-Power Laser Pulses”. **Applied Physics B: Lasers and Optics, Vol. 79, Number 7, pp. 817-821, November 2004.**

26- P. Glans, M. Fogle, S. Madzunkov, M. Tokman, D. Nikolic´, **T. Mohamed**, N. Eklow, N. R. Badnell,E. Lindrothand R. Schuch “Dielectronic Recombination Used As a Tool for Spectroscopic Studies of Highly Charged Ions” **Physica Scripta, Vol. T110, 212 (2004).**

27- R. Schuch, M. Fogle, P.Glans, E.Lindroth, S. Madzunkov, **T. Mohamed**, D. Nikolic, “High Resolution Studies of Electron-Ion Recombination” **Radiation Physics and Chemistry, Vol. 68, Issues 1-2, September 2003, Pages 51-56.**

28- M. Fogle, N. Badnell, N. Eklow, **T. Mohamed**, and R. Schuch, “Plasma Recombination Rate Coefficients for Ni17+ Ions” **Astronomy and Astrophysics J. 409, 782, 2003**

29- M. Fogle, N. Badnell, N. Eklöw, E. Lindroth, S. Madzunkov, **T. Mohamed**, R. Schuch, and M. Tokman “High Resolution Recombination Measurements of Stored Ions” **AIP Conference Proceedings Vol. 680(1) pp. 156-159. August 26, 2003.**

30- **Tarek Mohamed**, “Trapping of High Power Laser Pulses for Recombination Experiments” **Ph. D. thesis, Department of Physics, Stockholm University, Sweden, 2/6/ 2003, ISBN 91-7265-690-5.**

31- M. Fogle, N. Eklow, E. Lindroth, **T. Mohamed**, R. Schuch, and M. Tokman, “Spectroscopic study of Mg-like Ni by means of dielectronic recombination of stored ions” **J. Phys. B: At. Mol. Opt. Phys. 36 (2003) 2563-2577.**

32- **T. Mohamed**, R. Schuch and G. Andler "Seeded dye laser for intra-cavity experiments with pulsed lasers". **ICPEAC 2003, XXIII International Conference on Photonic Electronic and Atomic Collisions, Stockholm, Sweden 23 - 29 July.**

33- **T. Mohamed**, R. Schuch and G. Andler"Optical traps with active media for experiments with high power laser pulses". **ICPEAC 2003, XXIII International Conference on Photonic Electronic and Atomic Collisions, Stockholm, Sweden 23 - 29 July.**

34- **Tarek Mohamed**, Guillermo Andler, and Reinhold Schuch, “Development of an electro-optical device for storage of high power laser pulses”. **Optics Communication 214/1-6, 291 - 295 (2002).**

35- **T. Mohamed**, D. Nikolic, E. Lindroth, S. Madzunkov, M. Fogle, M. Tokman, and R. Schuch, “Dielectronic recombination of lithiumlike beryllium: theoretical and Experimental investigation”. **Physical Review A, 66, 022719, (2002).**

36- R. Schuch, N. Eklow, M. Fogle, E.Lindroth, S. Madzunkov, **T. Mohamed**, D. Nikolic, P.Glans, H. Danared, A. Kallberg and A. Paal, “High Resolution Studies of Ion Recombination with Cold Electrons” **Nuclear Physics Review NPR, Vol. 19 (2): 136-139 (2002).**

37- **T. Mohamed**, “Spectroscopy of doubly excited states of Be and development of a laser pulse system for recombination studies” **Licentiate thesis, Department of Physics, Stockholm University, Sweden, 2001.**

38- **Tarek Mohamed**, Guillermo Andler, and Reinhold Schuch, “A LASER-PULSE AMPLIFIER FOR LASER INDUCED RECOMBINATION AT CRYRING” **MANNE SIEGBAHN LABORATORY ANNUAL REPORT**, Manne Siegbahn Laboratory, Stockholm, Sweden, page 44-46, (2001).

39- **Tarek Mohamed**, Guillermo Andler, and Reinhold Schuch, “AN ELECTRO-OPTICAL DEVICE TO STORE HIGH POWER LASER PULSES FOR LASER INDUCED RECOMBINATION AT CRYRING” **MANNE SIEGBAHN LABORATORY ANNUAL REPORT**, Manne Siegbahn Laboratory, Stockholm, Sweden, page 47-49, (2001).

40- M. Fogle, N. Eklöw, **T. Mohamed**, R. Schuch, and N. Badnell, “DETERMINING THE Ni XVIII PLASMA RECOMBINATION RATE COEFFICIENT” **MANNE SIEGBAHN LABORATORY ANNUAL REPORT**, Manne Siegbahn Laboratory, Stockholm, Sweden, page 50-52, (2001).

41- P. Glans, N. Eklöw, M. Fogle, S. Madzunkov, **T. Mohamed**, and R. Schuch, “ELECTRON–ION RECOMBINATION RATE COEFFICIENTS FOR N2+, **MANNE SIEGBAHN LABORATORY ANNUAL REPORT**, Manne Siegbahn Laboratory, Stockholm, Sweden, page 56-57, (2001).

42- M. Fogle, T. Hansson, P. Johansson, **T. Mohamed**, R. Schuch, C. L. Cocke, and G. Andler, “TOWARDS LIGHT-INDUCED MOLECULAR POTENTIALS IN ION STORAGE RINGS - PHOTODISSOCIATION OF H2+ ” IN CRYRING”, **MANNE SIEGBAHN LABORATORY ANNUAL REPORT**, Manne Siegbahn Laboratory, Stockholm, Sweden, page 61-62, (2001).

43- M. Fogle, M.Tokman, N. Eklöw, **T. Ali Mohamed**, E. Lindroth, and R. Schuch, “ELECTRON-ION RECOMBINATION FOR Na-LIKE Ni17+, **MANNE SIEGBAHN LABORATORY ANNUAL REPORT**, Manne Siegbahn Laboratory, Stockholm, Sweden, page 61-62, (2000).

44- **T. Ali Mohamed**, M. Fogle, S. Madzunkov, D. NikoliC´, E. Lindroth, and R. Schuch, “OBSERVATION OF Δn =0 DIELECTRONIC RECOMBINATION RESONANCES OF LITHIUM-LIKE BERYLLIUM”, **MANNE SIEGBAHN LABORATORY ANNUAL REPORT**, Manne Siegbahn Laboratory, Stockholm, Sweden, page 63-65, (2000).

45- N. Eklöw, S. Madzunkov, **T. Mohamed**, P. Glans, H. Danarad, and R. Schuch, "TEMPERATURE AND MAGNETIC-FIELD DEPENDENCE IN ELECTRON–DEUTERON RECOMBINATION AT VERY LOW RELATIVE ENERGY", **MANNE SIEGBAHN LABORATORY ANNUAL REPORT**, Manne Siegbahn Laboratory, Stockholm, Sweden, page 66-68, (2000).

46- R. Schuch, H. Danared, N. Eklow, M. Pogle, P. Glans, E. Justiniano, E. Lindroth, S. Madzunkov, **M. Tarek**, and W. Zong " Collisions of cold electrons with cooled ions in CRYRING", Advances in Nuclear Physics, **Proceeding of the International, Symposium, D. Poenaru and S. Stoicaeds., World Scientific Singapore: 378-390 (2000).**

47- H. Hamdy, M. M. Mahdy, M. A. K. El-Fayoumi, **T. Ali Mohamed**, and F. Shahin, "Optical Excitation and Polarization of Fluorescence Emitted from Calcium Excited Atoms" **Egypt. J. Phys. Vol. 29, No. 3. pp. 385-397 (1998).**

48- **T. Ali Mohamed**, H. Saad, H. Hamdy and F. Shahin, "Excitation Cross Section of the Calcuim ✦ = 468.52 nm line by Electron Impact" **The 4th Radiation Conference, Alexandria 15-19 Nov. 1998. Arab. J. Nucl. Sci. Appl., Vol. 32 (1999) 113-114.**

Publications Under Review

1- Abdullah Shehata, Guillermo Andler, Reinhold Schuch, and **Tarek Mohamed**, "Optical Trap for storing laser pulses" to be submitted to **Applied Science** (Invited Review Paper, 2019).

2- Abdullah Shehata, Mona Ali, and **Tarek Mohamed**, "New method for an accurate measurement of nonlinear refractive index in the case of high repetition rate fs laser pulses " Submitted to **Journal of the Optical Society of America B** (Under Revision, 2019).

3- Abdullah Shehata, Reinhold Schuch, and **Tarek Mohamed**, "Nonlinear optical properties of soda-lime: Experimental and theoretical investigations of self-compression of fs laser pulses " Submitted to **Laser Physics letters** (Under Revision, 2019).

4- **T. Mohamed**, F. Zhu, A. A. Kolomenskii, H. A. Schuessler "Absorption Spectroscopy with Frequency Comb Lasers for
Breath Analysis" **Journal of Breath Research**(Under preparation).

5- Nesreen R. Abd Elwahab, Nadia Helal, **Tarek Mohamed**, Fayez Shahin, Fadel M. Ali, "New Shielding Composite Paste for Mixed Fields of Fast Neutrons and Gamma Rays" **Journal of Alloys and Compounds** (Under Review 2018).

6- V. Lioubimov, **T. Mohamed**, H. A. Schuessler, "Fast ion beam and frequency comb assisted precision laser spectroscopy of ArII" **Physical Review A** (Under Review 2018).

Conferences and Workshops

1. SIBOR workshop, 3rd -4th November 2017, Department of Physics and Astronomy, Texas A&M University, USA.

2. The 6th International Conference on Modern Trends In Physics Research MTPR-016, 15-19th December 2016, Cairo/ Hurghada, Egypt.

3. ICLA 9, National Institute of Laser Enhanced Sciences (NILES), 13 - 15 November 2016, Cairo University, Egypt.

4. The 5th International Conference on Modern Trends In Physics Research MTPR-014, 15-19th December 2015, Cairo/Luxor, Egypt.

5. STORI'14- 9th International Conference on Nuclear Physics at Storage Ringes from September 28, 2014 to October 3, 2014, Schloss Rheinfels, St. Goar, Germany.

6. ELI-ALPS 2nd User Workshop, 11-12 September 2014, Hotel Novotel Szeged, Hungary.

7. BREATH ANALYSIS Summit 2013 - International Conference of Breath Research 9-12 June 2013 – Saarbrucken / Wallerfangen, Germany.

8. Symposium on Trends in Ion Physics, Stockholm University, September 19-21, 2012.

9. 5th EPS-QEOD EUROPHOTON CONFERENCE "Solid State, Fiber, and Waveguide Coherent Light Sources" Stockholm University, Sweden, 26-31 August 2012.

10. The 23rd International Conference on Atomic Physics ICAP 2012, Ecole polytechnique, Palaiseau, France, 23-27 July 2012.

11. Workshop on Stored Ion and Bio Optical Research, Department of Physics, Texas A&M University, Texas, USA, June 7, 2012.

12. International Conference on Photoacoustic and Photothermal Phenomena (ICPPP16), Mérida, Yucatán, México, 27th November 2011.

13. The 20th International Conference on Laser Spectroscopy ICOLS 2011, Schlosshotel Münchhausen in Aerzen (near Hameln), Germany, May 30th to June 3rd, 2011.

14. 22nd International Conference on Atomic Physics, ICAP2010, Cairns, Tropical North Queensland, Australia, 25-30 July 2010.

15. Workshop on Interaction of ions with insulators,NAGANO, Japan, September 8-10, 2008

16. The 9th International Workshop on Non-Neutral Plasmas, Columbia University, New York City, USA, June 16-20, 2008

17. Workshop on Cold Antimatter Plasmas and Application to Fundamental Physics, (2008), Okinawa, Japan 20-22 February, 2008.

18. The Thirteenth International Conference on the Physics of Highly Charged Ions, Queen's University Belfast, Northern Ireland, UK, 28th August – 1st September 2006.

19. International Workshop on Non-Neutral plasmas, NNP, Aarhus, Denmark 25 - 29 June, 2006.

20. International Conference on Modern Trends in Physics Research, MTPR, Cairo, Egypt 20 - 24 April, 2004.

21. International Conference on Photonic Electronic and Atomic Collisions, ICPEAC 2003, XXIII, Stockholm, Sweden 23 - 29 July, 2003.

Scientific Presentations

1. “Towards diagnostics and monitoring of disease biomarkers in exhaled breath using frequency comb laser” Plenary presentation, The 6th International Conference on Modern Trends In Physics Research MTPR-016, 15-19th December 2016, Cairo/ Hurghada, Egypt.

2. “Generation of an intense attosecond pulse train for two-photon double ionization of neon ” Plenary presentation, ICLA 9, National Institute of Laser Enhanced Sciences (NILES), 13 - 15 November 2016, Cairo University, Egypt.

3. “ELI-ALPS Gas High Harmonic Generation Beamlines” Plenary presentation, The 5th International Conference on Modern Trends In Physics Research MTPR-014, 15-19th December 2015, Cairo/Luxor, Egypt.

4. “Trapping of High Power Laser Pulses for Multiple Interactions with Optically Thin Targets” Talk, Division of Atomic Physics, Physics Department, Lund University, Box 118, SE-221 00 Lund, SWEDEN, 13th of October 2014 .

5. “Laser spectroscopy of lithium-like ions at HESR” Poster, STORI'14- 9th International Conference on Nuclear Physics at Storage Ringes from September 28, 2014 to October 3, 2014, Schloss Rheinfels, St. Goar, Germany.

6. “Trapping of High Power Laser Pulses for Interaction with Low Density Targets” Talk, ELI- ALPS (Extreme Light Infrastructure-Attosecond Light Pulse Source) Research Centre in Szeged, 6720 Szeged, Dugonics tér 13, Hungary, 5th of September 2014.

7. “Absorption spectroscopy with frequency comb lasers for breath analysis” Poster, BREATH ANALYSIS Summit 2013 - International Conference of Breath Research 9-12 June 2013 - Saarbrucken/Wallerfangen, Germany.

8. “A multipass cell based on confocal mirrors for sensitive broadband laser spectroscopy in the near IR ” Poster session, The 23rd International Conference on Atomic Physics ICAP 2012, Ecole polytechnique, Palaiseau, France, 23-27 July 2012.

9. “Dual frequency comb spectroscopy in the near IR”, “Measuring krypton tracers in well gas with ultra-sensitive collinear fast beam laser spectroscopy” Poster session, Workshop on Stored Ion and Bio
Optical Research, Department of Physics, Texas A&M University, Texas, USA, June 7, 2012.

10. “Measuring of methane and carbon dioxide concentration in sea waters” Poster session, International Conference on Photo acoustic and Photo thermal Phenomena (ICPPP16), Mérida, Yucatán, México, 27th November 2011.

11. " A cryogenic system to separating Krypton tracers from well gases for ultra-sensitive collinear fast beam laser spectroscopy " Poster session, The 20th International Conference on Laser Spectroscopy ICOLS 2011, Schlosshotel Münchhausen in Aerzen (near Hameln), Germany, May 30th to June 3rd, 2011.

12. " Separating krypton tracers from air samples for ultra-sensitive collinear fast beam laser spectroscopy " Poster session, 22nd International Conference on Atomic Physics, ICAP2010, Cairns, Tropical North Queensland, Australia, 25-30 July 2010.

13. “Laser Spectroscopy for Tracer Analysis in Reservoirs” Talk, TAMUQ Science Colloquium, Texas A&M University in Qatar, 8th of April, 2010.

14. "Utilizing Laser Spectroscopy of Noble Gas Tracers for Mapping Oil and Gas Deposits," Department of Optical and Biomedical Physics, Texas A&M University, Department of Physics College Station, TX 77843-4242, USA, 24th of September, 2009.

15. "Accumulation mechanism of a large number of electrons in a harmonic trap under ultra-high vacuum condition," The Institute of Physical and Chemical Research (RIKEN), Atomic Physics Laboratory Seminar, Japan, 17th March, 2009.

16. “Positron Accumulation in Ultrahigh Vacuum” Invited Talk, Workshop on Cold Antimatter Plasmas and Application to Fundamental Physics, (2008), Okinawa, Japan 20-22 February.

17. “Deceleration of highly charged ions in a pure electron plasma” Poster session, The Thirteenth International Conference on the Physics of Highly Charged Ions, Queen’s University Belfast, Northern Ireland, UK, 28th August – 1st September 2006.

18. “Fast accumulation of electron plasma in a Multi-Ring Trap (MRT) under ultra-high vacuum condition,” Poster session, International Workshop on Non-Neutral plasmas, NNP 2006, Aarhus, Denmark 25 - 29 June.

19. "Radial Compression of a pure electron plasma formed in a Multi-Ring Electrode Trap," Talk, The Institute of Physical and Chemical Research (RIKEN), Atomic Physics Laboratory, Japan, February, 2005.

20. “Studies of the Polarization Dependence of Laser Induced Recombination,” Invited talk, International Conference on Modern Trends in Physics Research, MTPR 2004, Cairo, Egypt 20 - 24 April.

21. “Optical Traps with Active Medium for Experiments with High Power Laser Pulses,”Poster session, International Conference on Photonic Electronic and Atomic Collisions, ICPEAC 2003, XXIII, Stockholm, Sweden 23 - 29 July.

Professional Society Memberships

1- Laser Physics group, Texas A&M University, College Station, Texas, USA.

2- Atomic Physics Department, Stockholm University, Sweden.

3- ELI- ALPS (Extreme Light Infrastructure- Attosecond Light Pulse Source) Research Centre in Szeged, Hungary.

4- Institute of Physical and Chemical Research (RIKEN), Atomic Physics Laboratory, 2-1 Hirosawa, Wako-Shi, Saitama 351-0198, Japan.

5- Japanese Physical Society, member.

6- Member of MUSASHI group "Monoenergetic Ultra Slow Antiproton Source for High-precision Investigations".

7- Uesaka Laboratory, Nuclear Professional School, University of Tokyo, Japan.

8- The Egyptian Materials Research Society, member.

Professional activities

1- Reviewer: Physics of Plasmas's (AIP)

2- Reviewer: Optical Society of American journals (OSA)

3- The Journal of Instrumentation (JINST), (IOP)

4- Reviewer: Applied Physics B: Lasers and Optics (Springer)

5- Editor: Beni-Suef University Journal of Basic and Applied Sciences (Elsevier)

Supervision

1- Doctoral Degree (Ph.D.), Ebtessam Aboud Abdel Wahab, “Effect of laser therapy and some natural products with antioxidant activity on wound healing in diabetic rats”, 2013.

2- Doctoral Degree (Ph.D.), Mona Ali Ahmed, “Ultrasensitive Laser Spectroscopy for Medical Applications”, 2016.

3- Doctoral Degree (Ph.D.), Yasser Saadeldin Nada, “Laser pulse compression using polymer materials”, 2016.

4- Master Degree (M.Sc), Abdullah Shehata Sabra, “Towards the development of an optical trap for femtosecond laser pulses”, 2016.

5- Master Degree (M.Sc), Esraa Ahmed Mohamed Hassan, “Antibacterial effects of laser in treating contaminated wounds”, 2018.

6- Doctoral Degree (Ph.D.), Mohamed Abbas Ibrahim Ashour, “Studying linear and nonlinear optical properties of materials doped with nanoparticles using pulsed femtosecond laser”, 2019.

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