

Dr. Mohammad F. Gharaibeh 	Qatar University College of Arts and Sciences Department of Physics and Materials Sciences P.O. Box 110003, Doha, Qatar Tel.: (974) 4403 6599 Cell: (974) 5040 8427 Fax: (974) 4483 4601 E-mail: mgharaibeh@qu.edu.qa Website: http://qufaculty.qu.edu.qa/mgharaibeh/home/
<u>Education:</u>	➤ Ph.D. degree in Experimental Atomic Physics, based on using synchrotron radiation, University of Nevada, Reno (UNR), USA May 2005. ➤ Master degree in X Ray Fluorescence, Yarmouk University, Jordan, June 1998. ➤ Bachelor's degree in physics, Yarmouk University, Jordan, June 95.
<u>Work and Teaching Experience:</u>	➤ Associate professor of physics at Qatar University, Qatar 29th of April 2019–present: Teaching undergraduate physics classes and research work at the mathematics, statistics and physics department. ➤ Radiation Protection Officer, Facility and General Services Department, Qatar University, August 27th 2020 to Present. ➤ Assistant professor of physics at Qatar University, Qatar August 2014–April 2019: Teaching undergraduate physics classes and research work at the mathematics, statistics and physics department. ➤ Assistant professor of physics at Jordan University of Science and Technology, Jordan December 2007–February 2020: Teaching undergraduate and graduate physics classes and research work at the physics department. ➤ Part time lecturer of physics at College of Medical Professions, Jordan February 2010- June 2014: Teaching college-students (two to three years college). I am teaching there introductory medical physics class and Imaging techniques (Ultra-Sound, Gamma, TC, MRI, etc...) for advance Radiology-students in the college. ➤ Beamline scientist at Synchrotron-light for Experimental Science and Applications in the Middle East (SESAME), Jordan February 2008 – February 2009: I worked for one year at SESAME synchrotron light source, Allan, Jordan in designing the frontends and one of the beamlines in VUV region. ➤ Lecturer of physics at Jordan University of Science and Technology, Jordan February 2005 – December 2007: Teaching undergraduate and graduate physics classes and research work at the physics department. ➤ 3 semesters of freshman level physics labs at UNR, USA: Teaching physics labs. ➤ 2 semesters of freshman and advanced level physics labs at the Jordanian University of Science and Technology, Jordan: Teaching physics labs. ➤ 3 semesters of freshman level physics labs at Yarmouk University, Jordan: Teaching physics labs.
<u>Academic and professional Activities:</u>	➤ Jordanian representative member in Scientific Advisory Committee for Synchrotron-light for Experimental Science and Applications in the Middle East (SESAME), Jordan June 2019 – June 2025. ➤ University Committees (Q.U.): ▪ Professional Development & Training subcommittee in the main committee assigned by the Vice-President office to build the development to the College of Education in Qatar University. ▪ Laboratories and Facilities Safety Committee. ▪ College of Arts and Science Department-Presentative in Student Success Committee. ▪ School Physics-Books Evaluation Committee.

	▪ College of Arts and Science Department-Presentative in the Educational Excellence Themes and QU Graduate Attribute. ➤ Department of Physics and Materials Sciences committees since August 2023 (Q.U.): ▪ Department Council Member (2023/2024, 2024/2025, 2025/2026). ▪ Student Success and Activities Committee Chair (2025/2026). ▪ Budget and Strategic Plan Committee Chair (2024/2025). ▪ Budget and Strategic Plan Committee vice-chair (2025/2026). ▪ Curriculum and Quality Assurance Committee Member (2024/2025, 2025/2026). ▪ Labs and Facilities Committee Chair (2023/2024). ▪ Student Success and Activities Committee Member (2023/2024). ▪ Budget and Strategic Plan Committee Member (2023/2024). ➤ Department of Mathematics, Statistics and Physics committees since August 2014 till August 2023 (Q.U.): ▪ Student Success Committee. ▪ Schedule Committee. ▪ Department Council member (2017/2018), (2018/2019) and (2022/2023). ▪ Proposal For The Reactivation Of An Academic Program (Physics). ▪ Outreach Committee Chair. ▪ Engagement and Activities Committee. (Vice Chair 2016/2017. Chair 2017/2018) ▪ Research Enabling Committee. ▪ Social Activities Committee. ▪ Laboratories Development Committee: Physics Program. ▪ Designing and building Neutron Source Shielding in the MSP Department ▪ Curriculum and Study Plans Committee: Physics Program. ▪ Seminars Committee. ▪ Scientific Research Committee. ➤ Nominated member from Qatar University as member in committee “The Level of None Ionized Radiation In Qatar State” assigned by the Ministry of Environment and Climate Change (MECC), Qatar, 2025. ➤ International Judge in “The Undergraduate Awards, Ireland”, 2020. ➤ International Judge in “The Undergraduate Awards, Ireland”, 2019. ➤ International Judge in “The Undergraduate Awards, Ireland”, 2018. ➤ International Judge in “The Undergraduate Awards, Ireland”, 2017. ➤ International Judge in “The Undergraduate Awards, Ireland”, 2016. ➤ University Committees (J.U.S.T.): ▪ Faculty of Science and Arts representative in the university council for the academic year 2012/2013. ▪ Physics department representative for student union election for the academic year 2011/2012. ▪ Physics department representative for student union election for the academic year 2005/2006. ➤ Department of Physics committees since 2005 (J.U.S.T.): ▪ Scientific research ▪ Tenders ▪ Committee for developing advance laboratory for both bachelor and master level. ▪ Committee for developing a new bachelor department naming computational physics.
--	--

	▪ Committee for reviewing the needs and development of the electronic laboratory for the bachelor students. ➤ Faculty of Science and Arts committees in the academic years 2011/2012 and 2012/2013 (J.U.S.T.): ▪ Physics department representative in the Faculty of Science and Arts council. ▪ Committee for studying the mechanism to differentiate between the applicants for physics-laboratory supervisor position. ▪ Committee for studying and evaluation of the applications from the applicants to the faculty position in the chemistry department. ▪ Tenders Libraries and database. ▪ Committee of the Faculty of Arts and Science homepage and database. ➤ Member of many committees in the physics department and the Faculty of Science and Arts (J.U.S.T.) for studying and evaluation the applications of academic faculties promotions. ➤ Fifth Symposium on Use of Nuclear Techniques in Environmental Studies, Yarmouk University, Jordan, September 2005 (member of the organizers committee).
<u>Research Experience:</u>	➤ Research ranking (<i>h</i>-index): • Scopus bibliographic database ranking (Author ID 7003714011): 23 (more than 1200 citations). • Google scholars bibliographic database ranking: 25 (more than 1600 citations). ➤ Research Profile Links: • Scopus, author-Id 7003714011: Gharaibeh, Mohammad F. - Author details - Scopus Preview • Orcid ID: https://orcid.org/0000-0002-3997-5724 • Research Gate: https://www.researchgate.net/profile/Mohammad-Gharaibeh • Google Scholar: Mohammad F. Gharaibeh, Associate Prof. Physics - Google Scholar ➤ As Main Proposer to a research group on studying “K-Shell Photoionization of Nitrogen Isonuclear Sequence” and “K-Shell Photoionization of Oxygen Isonuclear Sequence” with my colleagues in France and mainly Dr. Jean-Marc Bizau from the CNRS and Paris SUD University, France. We had an experiment at MAIA endstation on PLEIADES beamline Synchrotron SOLEIL, France. We explored so far the inner-shell photoionization of Nitrogen N and O ions. Now we are exploring NO⁺ and O₂⁺. ➤ I have been studying the electron impact ionization of multiply charged ions during my research visits to the Institute for Atomic and Molecular Physics, Giessen University, Germany with my colleague Prof. Dr. Alfred Müller and his group. We studied Xe, Sn, Kr and W ions over four summer visits. The publications from this work part of it have been published and others in the preparation for publishing. ➤ I worked for one year at SESAME synchrotron light source, Allan, Jordan in designing the frontends and one of the beamlines in VUV region. ➤ I have been studying during my Ph.D. the photoionization of ions in Prof. Ronald Phaneuf’s group at University of Nevada, Reno, USA using the Ion-Photon-Beam endstation located on beamline 10.0.1.2 at the Advance Light Source, Lawrence Berkeley National Laboratory, USA. Dissertation title: “Systematic Photoionization Study along the Iron Isonuclear Sequence”. ➤ My master thesis from Yarmouk University, Jordan in “Analytical Study of Heavy Trace Elements in Jordanian Phosphate Using XRF Technique”.

<u>Programming Languages and computer Skills:</u>	➤ BlackBoard and Elearning for academic and teaching communication. ➤ SRW ray tracing for synchrotron radiation (moderate). ➤ Data Acquisition programming using LabWindows (moderate). ➤ C++, Microsoft QuickBasic
<u>Student Supervisor and Defense Committees</u>	➤ Ph.D. defense committee member for the student Mohammad Al-Shorman from the physics department at University of Paris-SUD (11) under the supervision of Dr. Jean-Marc Bizau. 2014. ➤ Main supervisor of three master students in physics department at Jordan University of Science and Technology. (they graduated) ➤ Co-supervisor of master student who shared with me experiment on O^+ and O^{2+} ions at synchrotron SOLEIL, France. She defended her thesis in summer 2015.
<u>Awards, Grants and Honors:</u>	➤ Qatar University Internal Student Grant Cycle #2 number QUST-2-CAS-2022-670 for one academic semester start in August 20th 2022. Title: “Tracing Heavy Elements in the Irrigated Soil in the BCR-Building using XRF Technique”. ➤ Qatar University Collaborative Internal Grant number QUCG-CAS-2018\2019-1 for two years (2018-2020). Title: “Production of organic supercapacitors with polymer/metal-oxide nanofiber electrodes”. ➤ Qatar National research Fund (QNRF), Qatar research grant number NPRP8-1467-1-268 for three years (April 2016 – April 2020). Title: “Plasmon Assisted Frequency conversion layer for Solar Cell”. ➤ Qatar University Startup grant, Qatar number QUSG-CAS-DMSP-14\15-4 for one year (2014-2015). To cover the research visits to synchrotron facilities and mainly in Europe for studying the atomic structure of ions by photoionization. ➤ Scientific Research Support Fund (SRSF), Jordan research grant number Bas\2\02\2010 for three years (2012-2015) to cover the research visits to synchrotron facilities and mainly in Europe for studying the atomic structure of ions by photoionization. ➤ The Deutsche Forschungsgemeinschaft (DFG), the German Research Foundation, fellowship for research visit to the Justus-Liebig-Universität Giessen, Germany (June 09 to August 26 2011). ➤ DFG fellowship for research visit to the Justus-Liebig-Universität Giessen, Germany (June 22 to August 21 2010). ➤ Scopus: The highest <i>h</i>-index in the physics department, Jordan University of Science and Technology for the year 2009 ➤ IAEA fellowship for training for being a beamline scientist, the training was at Synchrotron SOLEIL, France (June 16 to September 12 2009). ➤ DFG fellowship for research visit to the Justus-Liebig-Universität Giessen, Germany (June 11 to August 27 2007). ➤ DFG fellowship for research visit to the Justus-Liebig-Universität Giessen, Germany (June 14 to August 15 2006). ➤ One year ALS Doctoral Fellowships in Residence, Berkeley National Laboratory, USA (2003-2004). ➤ Sigma Pi Sigma Physics Honors Society, USA (2002). ➤ I ranked first among 92 graduates when I earned my Bachelor’s degree (1995).
<u>Publications (Journals only and without the conference proceedings):</u>	1. M.F. Gharaibeh, K. Tőkési, A. Borovik Jr, P.-M. Hillenbrand, A. Müller, and S. Schippers, Single and Double Ionization of Sn^+ and Sn^{2+} by Electron Impact: Experiment and Theory, <i>Phys. Rev. A.</i>; In the Final preparation for submission. 2. M. F. Gharaibeh and K. Tőkési; Calculation of Dielectronic Recombination Of Lithium-Like Ni^{25+}; <i>Journal of Electron Spectroscopy and Related Phenomena</i>; 282: 147561; 2025.

3. Mariem Chamakh, Ahmad I. Ayesh, and **Mohammad F. Gharaibeh**; Fabrication and characterization of flexible ruthenium oxide-loaded polyaniline/poly (vinyl alcohol) nanofibers; *J. Appl. Polym. Sci.*; **137**: 49125; 2020.
4. V. Jonauskas; A. Kyni  n; S. Ku  as; S. Pakalka;   . Masys; A. Pranci  kevi  cius; A. Borovik Jr.; **M. F. Gharaibeh**; S. Schippers; A. M  ller; Electron-impact ionization of W^{5+} ; *Phys. Rev. A.*; **100**: 062701; 2019.
5. B. M. McLaughlin, J.-M. Bizau, D. Cubaynes, S. Guilbaud, S. Douix, M. M. Al Shorman, M. O. A. El Ghazaly, I. Sakho and **M. F. Gharaibeh**; K-shell photoionisation of O^{4+} and O^{5+} ions: experiment and theory; *Mon. Not. Roy. Astro. Soc.*; **465**: 4690-4702; 2017.
6. J. M. Bizau; D. Cubaynes; S. Guilbaud; M. M. Al-Shorman; **M. F. Gharaibeh**; I. Q. Ababneh; C. Blancard; B M McLaughlin; K-shell photoionization of O^+ and O^{2+} ions: Experiment and theory.; *Phys. Rev. A.*; **92**: 023401; 2015.
7. A Borovik Jr; **M F Gharaibeh**; S Schippers; A M  ller; Plasma rate coefficients for electron-impact ionization of X^{q+} ions ($q = 8, \dots, 17$).; *J. Phys. B.*; **48**: 035203; 2015.
8. B M McLaughlin; J M Bizau; D Cubaynes; M M Al-Shorman; S Guilbaud; I Sakho; C Blancard; **M F Gharaibeh**; K-Shell Photoionization of B-like Oxygen (O^{3+}) Ions: Experiment and Theory.; *J. Phys. B.*; **47**: 115201; 2014.
9. **M F Gharaibeh**; N El Hassan; M M Al Shorman; J M Bizau; D Cubaynes; S Guilbaud; I Sakho; C Blancard; B M McLaughlin; K-Shell Photoionization of B-like Atomic Nitrogen Ions: Experiment and Theory.; *J. Phys. B.*; **47**: 065201; 2014.
10. M  ller A.; Schippers S.; Phaneuf R.A.; Scully S.W.J.; Aguilar A.; Cisneros C.; **Gharaibeh M.F.**; Schlachter A.S.; McLaughlin B.M.; K-shell photoionization of Be-like Boron (B^+) Ions: Experiment and Theory.; *J. Phys. B.*; **47**: 135201; 2014.
11. M S Pindzola; S D Loch; A Borovik Jr; **M F Gharaibeh**; J K Rudolph; S Schippers; A M  ller; Electron-impact ionization of moderately charged xenon ions.; *J. Phys. B.*; **46**: 215202; 2013.
12. M M Al Shorman; **M F Gharaibeh**; J M Bizau1; D Cubaynes; S Guilbaud; N El Hassan1z; C Miron; C Nicolas; E Robert; I Sakho; C Blancard; B MMcLaughlin; K-Shell Photoionization of Be-like and Li-like Ions of Atomic Nitrogen: Experiment and Theory.; *J. Phys. B.*; **46**: 195701; 2013. (**Highlight Article for the year 2013**).
13. A Borovik Jr; **M F Gharaibeh**; P M Hillenbrand; S Schippers; A M  ller; Detailed investigation of electron-impact single-ionization cross sections and plasma rate coefficients of N-shell tin ions.; *J. Phys. B.*; **46**: 175201; 2013.
14. Isam M. Arafa; **Mohammad F. Gharaibeh**; Mazin Shatnawi; Javier Perez; SAXS and DSC studies on the structural characteristics of siliconized s-triazine glassy hybrid materials.; *J. Non-Cryst. Sol.*; **358**: 1044-1051; 2012.
15. **M F Gharaibeh**; J M Bizau; D Cubaynes; S Guilbaud; N El Hassan; M M Al Shorman; C Miron; C Nicolas; E Robert; C Blancard; B M McLaughlin; K-Shell Photoionization of Singly Ionized Atomic Nitrogen: Experiment and Theory.; *J. Phys. B.*; **44**: 175208; 2011. (**Featured Article**)
16. **Gharaibeh M.F.**; Aguilar A.; Covington A.M.; Emmons E.D.; Scully S.W.J.; Phaneuf R.A.; M  ller A.; Bozek J.D.; Kilcoyne A.L.D.; Schlachter A.S.;   lvarez I.; Cisneros C.; Hinojosa G.; Photoionization Measurements for the Iron Isonuclear Sequence Fe^{3+} , Fe^{5+} and Fe^{7+} .; *Phys. Rev. A.*; **83**: 043412; 2011.

17. J M Bizau; C Blancard; M Coreno; D Cubaynes; C Dehon; N El Hassan; F Folkmann; **M F Gharaibeh**; A Giuliani; J Lemaire; A R Milosavljević; C Nicolas; R Thissen; Photoionization study of Kr^+ and Xe^+ ions with the combined use of a merged-beam set-up and an ion trap.; *J. Phys. B.*; **44**: 055205; 2011.
18. Müller A.; Schippers S.; Phaneuf R.A.; Scully S.W.J.; Aguilar A.; Cisneros C.; **Gharaibeh M.F.**; Schlachter A.S.; McLaughlin B.M.; K-shell photoionization of ground-state Li-like boron ions [B^{2+}]: experiment and theory.; *J. Phys. B.*; **43**: 135602; 2010.
19. Müller A.; Schippers S.; Phaneuf R.A.; Scully S.W.J.; Aguilar A.; Covington A.M.; Álvarez I.; Cisneros C.; Emmons E.D.; **Gharaibeh M.F.**; Hinojosa G.; Schlachter A.S.; McLaughlin B.M.; K-shell photoionization of ground-state Li-like carbon ions [C^{3+}]: experiment, theory and comparison with time-reversed photorecombination.; *J. Phys. B.*; **42**: 235602; 2009.
20. Lu M.; Alna'washi G.; Habibi M.; **Gharaibeh M.F.**; Phaneuf R.A.; Kilcoyne A.L.D.; Levenson E.; Schlachter A.S.; Cisneros C.; Hinojosa G.; Photoionization and Electron-impact Ionization of Kr^{3+} .; *Phys. Rev. A.*; **74**: 062701; 2006.
21. Scully S.W.J.; Álvarez I.; Cisneros C.; Emmons E.D.; **Gharaibeh M.F.**; Leitner D.; Lubell M.S.; Müller A.; Phaneuf R.A.; Püttner R.; Schlachter A.S.; Schippers S.; Balance C.P.; McLaughlin B.M.; Doubly Excited Resonances in the Photoionization Spectrum of Li^+ : experiment and theory.; *J. Phys. B.*; **39**: 3957-3968; 2006.
22. Lu M.; **Gharaibeh M.F.**; Alna'washi G.; Phaneuf R.A.; Kilcoyne A.L.D.; Levenson E.; Schlachter A.S.; Müller A.; Schippers S.; Jacobi J.; Scully S.W.J.; Cisneros C.; Photoionization and Electron-impact Ionization of Kr^{5+} .; *Phys. Rev. A.*; **74**: 012703; 2006.
23. Aguilar A.; Gillaspay J.D.; Gribakin G.F.; Phaneuf R.A.; **Gharaibeh M.F.**; Kozlov M.G.; Bozek J.D.; Kilcoyne A.L.D.; Absolute photoionization cross sections for Xe^{4+} , Xe^{5+} , and Xe^{6+} near 13.5 nm: Experiment and theory.; *Phys. Rev. A.*; **73**: 032717; 2006.
24. Emmons E.D.; Aguilar A.; **Gharaibeh M.F.**; Scully S.W.J.; Phaneuf R.A.; Kilcoyne A.L.D.; Schlachter A.S.; Álvarez I.; Cisneros C.; Hinojosa G.; Photoionization and Electron-Impact Ionization of Xe^{3+} .; *Phys. Rev. A.*; **71**: 042704; 2005.
25. Scully S.W.J.; Emmons E.D.; **Gharaibeh M.F.**; Phaneuf R.A.; Kilcoyne A.L.D.; Schlachter A.S.; Schippers S.; Müller A.; Chakraborty H.S.; Madjet M.E.; Rost J.M.; Photoexcitation of a Volume Plasmon in C_{60} Ions.; *Phys. Rev. Lett.*; **94**: 065503; 2005.
26. Aguilar A.; Emmons E.D.; **Gharaibeh M.F.**; Covington A.M.; Bozek J.D.; Ackerman G.; Canton S.; Rude B.; Schlachter A.S.; Hinojosa G.; Álvarez I.; Cisneros C.; McLaughlin B.M.; Phaneuf R.A.; Photoionisation of Ions of the Nitrogen Isoelectronic Sequence: Experiment and Theory for F^{2+} and Ne^{3+} .; *J. Phys. B.*; **38**: 343-361; 2005.
27. Schippers S.; Müller A.; McLaughlin B.M.; Aguilar A.; Cisneros C.; Emmons E.D.; **Gharaibeh M.F.**; Phaneuf R.A.; Photoionization Studies of the B^+ Valance Shell: Experiment and Theory.; *J. Phys. B.*; **36**: 3371-3381; 2003.
28. Schippers S.; Müller A.; Phaneuf R.A.; Zoest T. van; Álvarez I.; Cisneros C.; Emmons E.D.; **Gharaibeh M.F.**; Hinojosa G.; Schlachter A.S.; Scully S.W.J.; Threshold Truncation of a 'Giant' Dipole Resonance in Photoionization of Ti^{3+} .; *J. Phys. B.*; **37**: L209-L216; 2003.

	29. Schippers S.; Müller A.; Ricz S.; Bannister M.E.; Dunn G.H.; Schlachter A.S.; Hinojosa G.; Cisneros C.; Aguilar A.; Covington A.M.; Gharaibeh M.F.; Phaneuf R.A.; Photoionization of Sc^{2+} Ions by Synchrotron Radiation: Measurements and Absolute Cross Sections in the Photon Energy Range 23–68 eV.; <i>Phys. Rev. A.</i>; 67: 032702; 2003. 30. Schlachter A.S.; Sant’Anna M.M.; Covington A.M.; Aguilar A.; Gharaibeh M.F.; Emmons E.D.; Scully S.W.J.; Phaneuf R.A.; Hinojosa G.; Álvarez I.; Cisneros C.; Müller A.; McLaughlin B.M.; Lifetime of a K-Shell Vacancy in Atomic Carbon Created by $1s \rightarrow 2p$ Photoexcitation of C^+.; <i>J. Phys. B.</i>; 37: L103-L109; 2003. 31. Covington A.M.; Aguilar A.; Covington I.R.; Gharaibeh M.F.; Hinojosa G.; Shirley C.A.; Phaneuf R.A.; Álvarez I.; Cisneros C.; Dominguez-Lopez I.; Sant’Anna M.M.; Schlachter A.S.; McLaughlin B.M.; Dalgarno A.; Photoionization of Ne^+ using synchrotron radiation.; <i>Phys. Rev. A.</i>; 66: 062710; 2002. 32. Schippers S.; Müller A.; Ricz S.; Bannister M.E.; Dunn G.H.; Bozek J.D.; Schlachter A.S.; Hinojosa G.; Cisneros C.; Aguilar A.; Covington A.M.; Gharaibeh M.F.; Phaneuf R.A.; Experimental Link of Photoionization of Sc^{2+} to Photorecombination of Sc^{3+}: An Application of Detailed Balance in a Unique Atomic System.; <i>Phys. Rev. Lett.</i>; 89: 193002; 2002. 33. Müller A.; Phaneuf R.A.; Aguilar A.; Gharaibeh M.F.; Schlachter A.S.; Álvarez I.; Cisneros C.; Hinojosa G.; McLaughlin B.M.; Photoionization of C^{2+} Ions: Time-Reversed Recombination of C^{3+} with Electrons.; <i>J. Phys. B.</i>; 35: L137-L143; 2002. 34. Covington A.M.; Aguilar A.; Covington I.R.; Gharaibeh M.; Shirley C.A.; Phaneuf R.A.; Álvarez I.; Cisneros C.; Hinojosa G.; Bozek J.D.; Dominguez I.; Sant’Anna M.M.; Schlachter A.S.; Berrah N.; Nahar S.N.; McLaughlin B.M.; Photoionization of Metastable O^+ Ions: Experiment and Theory.; <i>Phys. Rev. Lett.</i>; 87: 243002; 2001. 35. Kantsyrev V; Bauer B; Shlyaptseva A; Fedin D; Hansen S; Presura R; Batie S; Brinsmead W; Faretto H; Le Galloudec B; Oxner A; Chamberlain D; Ouart N; Jones A; LeBeau H; Gharaibeh M; Advanced x-ray and extreme ultraviolet diagnostics and first applications to x-pinch plasma experiments at the Nevada Terawatt Facility. <i>Review of Scientific Instruments.</i>; 72: 663; 2001.								
Reference People:	<table border="1"> <tr> <th colspan="2">Academic References</th></tr> <tr> <td> - Prof. Qutaibah Khatatbeh Jordan University of Science and Technology Former Dean of Faculty of Science and Arts P.O. Box 3030 Irbid – 22110 Jordan Tel.: (962) 2-720-1000 Ext.: 23482, 23480 Cell: (962) 777-978-466 Fax: (962) 2-720-1071 qutaibeh@just.edu.jo </td><td> - Dr. Temadher Alassiry AlMaadeed Qatar University Former Head of the Department Department of Mathematics, Statistics and Physics Tel: 00974-4403-4622 t.alassiry@qu.edu.qa </td></tr> <tr> <th colspan="2">Research References</th></tr> <tr> <td> - Prof. Dr. Stefan Schippers Institute of Experimental Physics I Justus-Liebig-Universität Giessen Strahlenzentrum, Leihgesterner Weg 217, Room 204 D-35392 Giessen, Germany +49.641.99.15203 Stefan.Schippers@physik.uni-giessen.de </td><td> - Prof. Dr. Alfred Müller Institute für Atom-und Molekülphysik Justus-Liebig-Universität Giessen Leihgesterner Weg 217 D-35392 Giessen, Germany +49.641.99.15101 Alfred.Mueller@iamp.physik.uni-giessen.de </td></tr> </table>	Academic References		Prof. Qutaibah Khatatbeh Jordan University of Science and Technology Former Dean of Faculty of Science and Arts P.O. Box 3030 Irbid – 22110 Jordan Tel.: (962) 2-720-1000 Ext.: 23482, 23480 Cell: (962) 777-978-466 Fax: (962) 2-720-1071 qutaibeh@just.edu.jo	Dr. Temadher Alassiry AlMaadeed Qatar University Former Head of the Department Department of Mathematics, Statistics and Physics Tel: 00974-4403-4622 t.alassiry@qu.edu.qa	Research References		Prof. Dr. Stefan Schippers Institute of Experimental Physics I Justus-Liebig-Universität Giessen Strahlenzentrum, Leihgesterner Weg 217, Room 204 D-35392 Giessen, Germany +49.641.99.15203 Stefan.Schippers@physik.uni-giessen.de	Prof. Dr. Alfred Müller Institute für Atom-und Molekülphysik Justus-Liebig-Universität Giessen Leihgesterner Weg 217 D-35392 Giessen, Germany +49.641.99.15101 Alfred.Mueller@iamp.physik.uni-giessen.de
Academic References									
Prof. Qutaibah Khatatbeh Jordan University of Science and Technology Former Dean of Faculty of Science and Arts P.O. Box 3030 Irbid – 22110 Jordan Tel.: (962) 2-720-1000 Ext.: 23482, 23480 Cell: (962) 777-978-466 Fax: (962) 2-720-1071 qutaibeh@just.edu.jo	Dr. Temadher Alassiry AlMaadeed Qatar University Former Head of the Department Department of Mathematics, Statistics and Physics Tel: 00974-4403-4622 t.alassiry@qu.edu.qa								
Research References									
Prof. Dr. Stefan Schippers Institute of Experimental Physics I Justus-Liebig-Universität Giessen Strahlenzentrum, Leihgesterner Weg 217, Room 204 D-35392 Giessen, Germany +49.641.99.15203 Stefan.Schippers@physik.uni-giessen.de	Prof. Dr. Alfred Müller Institute für Atom-und Molekülphysik Justus-Liebig-Universität Giessen Leihgesterner Weg 217 D-35392 Giessen, Germany +49.641.99.15101 Alfred.Mueller@iamp.physik.uni-giessen.de								

	• Dr. Jean-Marc Bizau Institute des Sciences Moléculaires d'Orsay (ISMO) CNRS UMR 8214 Université Paris-Sud, Bât. 350 F-91405 Orsay cedex, France +33.169.157504 jean-marc.bizau@u-psud.fr	• Prof. Herman Winick Stanford University SSRL/ SLAC Mail Stop: 69 Manelo Park, CA 94025-7015, USA +1.650.926.3155 winick@slac.stanford.edu
--	---	---