

Scientific Publications

by Friedrich Aumayr

Overview

A.	Journal articles in international peer-reviewed ISI-listed journals	323
B.	Books, edited books, book chapters, and invited contributions to conferences	55
C.	Contributions in conference proceedings and other publications	284
	Total number of publications	662

Publications are listed in reversed chronological order below. Publications in **high impact factor journals** (i.e. journal impact factor > 5) are highlighted in **red**.

For up-to-date ISI statistics, including citations and Hirsch-index, visit Publons (ResearcherID) online at <https://publons.com/researcher/2876047/>.

A. Journal articles (peer-reviewed)

2023

- A323 R.A. Wilhelm, M.J. Deuzeman, S. Rai, W. Husinsky, P.S. Szabo, H. Biber, R. Stadlmayr, C. Cupak, J. Hundsbichler, C. Lemell, W. Möller, A. Mutzke, G. Hobler, O.O. Versolato, **F. Aumayr**, and R. Hoekstra
On the missing single collision peak in low energy heavy ion scattering
Nuclear Instruments and Methods in Physics Research B **544** (2023) 165123 (12 pages)
<https://doi.org/10.1016/j.nimb.2023.165123>
- A322 J. Brötzner, C. Cupak, M. Fellingner, H. Biber, A. Lopez-Cazalilla, F. Granberg, F. Kporha, A. Mutzke, R. González-Arrabal, and **F. Aumayr**
Sputtering yield reduction for nano-columnar W surfaces under D ion irradiation
Nuclear Materials and Energy **37** (2023) 101507 (6 pages)
<https://doi.org/10.1016/j.nme.2023.101507>
- A321 C. Cupak, A. Lopez-Cazalilla, H. Biber, J. Brötzner, M. Fellingner, F. Brandstätter, P. S. Szabo, A. Mutzke, F. Granberg, K. Nordlund, R. González-Arrabal, and **F. Aumayr**
Sputter yield reduction and fluence stability of numerically optimised nanocolumnar tungsten surfaces
Physical Review Materials **7** (2023) 065406 (11 pages)
<https://doi.org/10.1103/PhysRevMaterials.7.065406>
- A320 N. Jäggi, A. Mutzke, H. Biber, J. Brötzner, P. S. Szabo, **F. Aumayr**, P. Wurz, and A. Galli
New Compound and Hybrid Binding Energy Sputter Model for Modeling Purposes in Agreement with Experimental Data
The Planetary Science Journal **4** (2023) 86 (15 pages)
<https://doi.org/10.3847/PSJ/acd056>
- A319 C. Cupak, F. Brandstätter, R. Cserveny, F. Troneberger, H. Biber, M. Fellingner, A. Redl, M.V. Moro, D. Böhm, Ch. Eisenmenger-Sittner, A. Mutzke, D. Primetzhofer, and **F. Aumayr**
Absence of synergistic effects in quasi-simultaneous sputtering of tungsten by Ar and D ions
Nuclear Materials and Energy **35** (2023) 101435 (9 pages)
<https://doi.org/10.1016/j.nme.2023.101435>

- A318 E. Pitthan, C. Cupak, M. Fellingner, M. V. Moro, S. Kioumourtzoglou, D. Moldarev, M. Wolff, **F. Aumayr**, and D. Primetzhofer
In-situ, real-time investigation of the formation of oxygen-containing rare-earth hydrides using a combination of a highly sensitive quartz crystal microbalance and ion beam analysis
Materialia **27** (2023) 101675 (7 pages)
<http://dx.doi.org/10.1016/j.mtla.2023.101675>
- 2022**
- A317 A. Sagar Grosseck, A. Niggas, R. A. Wilhelm, **F. Aumayr**, and C. Lemell
Model for nanopore formation in two-dimensional materials by impact of highly charged ions
Nano Letters **22** (2022) 9679 - 9684
<https://doi.org/10.1021/acs.nanolett.2c03894>
- A316 H. Biber, J. Brötzner, N. Jäggi, P. S. Szabo, J. Pichler, C. Cupak, C. Voith, B. Cserveny, A. Nening, A. Mutzke, M. V. Moro, D. Primetzhofer, K. Mezger, A. Galli, P. Wurz, and **F. Aumayr**
Sputtering behaviour of rough, polycrystalline mercury analogs
The Planetary Science Journal **3** (2022) 271 (10 pages)
<https://doi.org/10.3847/PSJ/aca402>
- A315 P. Dergham, **F. Aumayr**, E. Lamour, S. Macé, C. Prigent, S. Steydli, D. Vernhet, M. Werl, R. A. Wilhelm, and M. Trassinelli
Toward probing surface magnetism with highly charged ions
Atoms **10** (2022) 151 (6pages)
<https://doi.org/10.3390/atoms10040151>
- A314 P. S. Szabo, A. R. Poppe, H. Biber, A. Mutzke, J. Pichler, N. Jäggi, A. Galli, P. Wurz, and **F. Aumayr**
Deducing Lunar regolith porosity from energetic neutral atom emission
Geophysical Research Letters **49** (2022) e2022GL101232 (10 pages)
<https://doi.org/10.1029/2022GL101232>
- A313 G. F. Harrer, M. Faitsch, L. Radovanovic, E. Wolfrum, C. Albert, A. Cathey, M. Cavedon, M. Dunne, T. Eich, R. Fischer, M. Hoelzl, B. Labit, H. Meyer, and **F. Aumayr**
A quasi-continuous exhaust scenario for a fusion reactor: the renaissance of small edge localized modes
Physical Review Letters **129** (2022) 165001 (7 pages)
<https://doi.org/10.1103/PhysRevLett.129.165001>
- A312 A. Niggas, J. Schwestka, K. Balzer, D. Weichselbaum, N. Schlünzen, R. Heller, S. Creutzburg, H. Inani, M. Tripathi, C. Speckmann, N. McEvoy, T. Susi, J. Kotakoski, Z. Gan, A. George, A. Turchanin, M. Bonitz, **F. Aumayr**, and R. A. Wilhelm
Ion-induced surface charge dynamics in freestanding monolayers of graphene and MoS₂ probed by the emission of electrons
Physical Review Letters **129** (2022) 086802 (9 pages)
<https://doi.org/10.1103/PhysRevLett.129.086802>
- A311 N. S. Mühlich, J. Gerger, B. Seifert, and **F. Aumayr**
Performance improvements of IFM Nano Thruster with highly focused ion beam generated with a compact electrostatic lens module
Acta Astronautica **201** (2022) 464 - 471
<https://doi.org/10.1016/j.actaastro.2022.08.053>
- A310 C. Cupak, E. Pitthan, M. V. Moro, M. Fellingner, D. Primetzhofer, and **F. Aumayr**
Retention of deuterium in beryllium: A combined investigation using TDS, ERDA and EBS
Nuclear Materials and Energy **33** (2022) 101249 (7 pages)
<https://doi.org/10.1016/j.nme.2022.101249>

- A309 N. S. Mühlich, B. Seifert, E. Ceribas, J. Gerger and **F. Aumayr**
High-precision digital Faraday cups for FEEP thrusters
Journal of Instrumentation **17** (2022) P08008 (13 pages)
<https://doi.org/10.1088/1748-0221/17/08/P08008>
- A308 A. Lopez-Cazalilla, C. Cupak, M. Fellingner, F. Granberg, P. S. Szabo, A. Mutzke, K. Nordlund, **F. Aumayr**, and R. González-Arrabal
Comparative study regarding the sputtering yield of nanocolumnar tungsten surfaces under Ar⁺ irradiation
Physical Review Materials **6** (2022) 075402 (13 pages)
<https://doi.org/10.1103/PhysRevMaterials.6.075402>
- A307 N. S. Mühlich, J. Gerger, B. Seifert, and **F. Aumayr**
Simultaneously measured direct and indirect thrust of a FEEP thruster using novel thrust balance and beam diagnostics
Acta Astronautica **197** (2022) 107 - 114
<https://doi.org/10.1016/j.actaastro.2022.05.009>
- A306 L. Radovanovic, M. Dunne, E. Wolfrum, G. F. Harrer, M. Faitsch, R. Fischer, **F. Aumayr**
Developing a physics understanding of the quasi-continuous exhaust regime: pedestal profile and ballooning stability analysis
Nuclear Fusion **62** (2022) 086004 (12 pages)
<https://doi.org/10.1088/1741-4326/ac6d6a>
- A305 P. S. Szabo, D. Weichselbaum, H. Biber, C. Cupak, A. Mutzke, R. A. Wilhelm, and **F. Aumayr**
Graphical user interface for SDTrimSP to simulate sputtering, ion implantation and the dynamic effects of ion irradiation
Nuclear Instruments and Methods in Physics Research B **522** (2022) 47 – 53
<https://doi.org/10.1016/j.nimb.2022.04.008>
- A304 P. S. Szabo, C. Cupak, H. Biber, N. Jäggi, A. Galli, P. Wurz, and **F. Aumayr**
Analytical model for the sputtering of rough surfaces
Surfaces and Interfaces **30** (2022) 101924 (11 pages)
<https://doi.org/10.1016/j.surfin.2022.101924>

2021

- A303 S. Creutzburg, A. Niggas, D. Weichselbaum, P. L. Grande, **F. Aumayr**, and R. A. Wilhelm
Angle-dependent charge exchange and energy loss of slow highly charged ions in freestanding graphene
Physical Review A **104** (2021) 042806 (8 pages)
<https://doi.org/10.1103/PhysRevA.104.042806>
- A302 C. Cupak, P. S. Szabo, H. Biber, R. Stadlmayr, C. Grave, M. Fellingner, J. Brötzner, R. A. Wilhelm, W. Möller, A. Mutzke, M. V. Moro, and **F. Aumayr**
Sputter yields of rough surfaces: Importance of the mean surface inclination angle from nano- to microscopic rough regimes
Applied Surface Science **570** (2021) 151204 (11 pages)
<https://doi.org/10.1016/j.apsusc.2021.151204>
- A301 K. Kantre, P. S. Szabo, M. V. Moro, C. Cupak, R. Stadlmayr, L. Z. Medina, **F. Aumayr** and D. Primetzhofer
Combination of in-situ ion beam analysis and thermal desorption spectroscopy for studying deuterium implanted in tungsten
Physica Scripta **96** (2021) 124004 (8 pages)
<https://doi.org/10.1088/1402-4896/ac1a88>

- A300 A. Niggas, S. Creutzburg, J. Schwestka, B. Wöckinger, T. Gupta, P. L. Grande, D. Eder, J. P. Marques, B. C. Bayer, **F. Aumayr**, R. Bennett, R. A. Wilhelm
Peeling graphite layer by layer reveals the charge exchange dynamics of ions inside a solid
Communications Physics **4** (2021) 180 (9 pages)
<https://doi.org/10.1038/s42005-021-00686-1>
- A299 S. Creutzburg, M. Mergl, R. Hübner, I. Jirka, D. Erb, R. Heller, A. Niggas, P. L. Grande, **F. Aumayr**, R. A. Wilhelm, M. Kalbac, and S. Facsko
Fluorination of graphene leads to susceptibility for nanopore formation by highly charged ion impact
Physical Review Materials **5** (2021) 074007 (11 pages)
<https://doi.org/10.1103/PhysRevMaterials.5.074007>
- A298 G. L. Szabo, M. Lehner, L. Bischoff, W. Pilz, H. Muckenhuber, U. Kentsch, **F. Aumayr**, N. Klingner, R. A. Wilhelm
Nano-hillock formation on CaF₂ due to individual slow Au-cluster impacts
Nanotechnology **32** (2021) 355701 (7 pages)
<https://doi.org/10.1088/1361-6528/ac037e>
- A297 N. Jäggi, A. Galli, P. Wurz, H. Biber, P. S. Szabo, J. Brötzner, **F. Aumayr**, P. M. E. Tollan, K. Mezger
Creation of Lunar and Hermean analogue mineral powder samples for solar wind irradiation experiments and mid-infrared spectra analysis
Icarus **365** (2021) 114492 (13 pages)
<https://doi.org/10.1016/j.icarus.2021.114492>
- 2020**
- A296 N. S. Mühlich, B. Seifert, and **F. Aumayr**
IFM NanoThruster performance studied by experiments and simulations
Journal of Physics D: Applied Physics **54** (2020) 095203 (12 pages)
<http://dx.doi.org/10.1088/1361-6463/abc84c>
- A295 P. S. Szabo, H. Biber, N. Jäggi, M. Wappl, R. Stadlmayr, D. Primetzhofer, A. Nenning, A. Mutzke, J. Fleig, K. Mezger, H. Lammer, A. Galli, P. Wurz, and **F. Aumayr**
Experimental insights into space weathering of Phobos: Laboratory investigation of sputtering by atomic and molecular planetary ions
Journal of Geophysical Research: Planets **125** (2020) e2020JE006583 (17 pages)
<http://dx.doi.org/10.1029/2020JE006583>
- A294 R. Stadlmayr, P. S. Szabo, H. Biber, H. R. Koslowski, E. Kadletz, C. Cupak, R. A. Wilhelm, M. Schmid, C. Linsmeier, and **F. Aumayr**
A high temperature dual-mode quartz crystal microbalance technique for erosion and thermal desorption spectroscopy measurements
Review of Scientific Instruments **91** (2020) 125104 (9 pages)
<https://doi.org/10.1063/5.0012028>
- A293 J. Schwestka, H. Inani, M. Tripathi, A. Niggas, N. McEvoy, F. Libisch, **F. Aumayr**, J. Kotakoski, and R. A. Wilhelm
Atomic-scale carving of nanopores into a van der Waals heterostructure with slow highly charged ions
ACS Nano **14** (2020) 10536 – 10543
<https://doi.org/10.1021/acsnano.0c04476>
- A292 H. Biber, P. S. Szabo, N. Jäggi, M. Wallner, R. Stadlmayr, M. V. Moro, A. Nenning, A. Mutzke, K. Mezger, H. Lammer, D. Primetzhofer, J. Fleig, A. Galli, P. Wurz, and **F. Aumayr**
Solar wind Helium ion interaction with Mg and Fe rich pyroxene as Mercury surface analogue
Nuclear Instruments and Methods in Physics Research B **480** (2020) 10 – 15
<https://doi.org/10.1016/j.nimb.2020.07.021>

- A291 S. Creutzburg, J. Schwestka, A. Niggas, H. Inani, M. Tripathi, A. George, R. Heller, R. Kozubek, L. Madauß, N. McEvoy, S. Facsko, J. Kotakoski, M. Schleberger, A. Turchanin, P. L. Grande, **F. Aumayr**, and R. A. Wilhelm
Vanishing influence of the band gap on charge exchange of slow highly charged ions in freestanding single layer MoS₂
Physical Review B **102** (2020) 045408 (8 pages)
<https://doi.org/10.1103/PhysRevB.102.045408>
- A290 A. Niggas, J. Schwestka, S. Creutzburg, T. Gupta, D. Eder, B. C. Bayer, **F. Aumayr**, and R. A. Wilhelm
The role of contaminations in ion beam spectroscopy with freestanding 2D materials: a study on thermal treatment
The Journal of Chemical Physics **153** (2020) 014702 (7 pages)
<https://doi.org/10.1063/5.0011255>
- A289 P.S. Szabo, H. Biber, N. Jäggi, M. Brenner, D. Weichselbaum, A. Niggas, R. Stadlmayr, D. Primetzhofer, A. Nanning, A. Mutzke, M. Sauer, J. Fleig, A. Foelske-Schmitz, K. Mezger, H. Lammer, A. Galli, P. Wurz, and **F. Aumayr**
Dynamic potential sputtering of lunar analog material by solar wind ions
The Astrophysical Journal **891** (2020) 100 (12 pages)
<https://doi.org/10.3847/1538-4357/ab7008>
- A288 R. Stadlmayr, P.S. Szabo, D. Mayer, C. Cupak, W. Möller, and **F. Aumayr**
Erosion of iron-tungsten model films by deuterium ion irradiation: a benchmark for TRI3DYN
Physica Scripta **T171** (2020) 014021 (6 pages)
<https://doi.org/10.1088/1402-4896/ab438f>
- A287 R. Stadlmayr, P.S. Szabo, D. Mayer, C. Cupak, T. Dittmar, L. Bischoff, S. Möller, M. Rasiński, R.A. Wilhelm, W. Möller, and **F. Aumayr**
Sputtering of nanostructured tungsten and comparison to modelling with TRI3DYN
Journal of Nuclear Materials **532** (2020) 152019 (9 pages)
<https://doi.org/10.1016/j.jnucmat.2020.152019>
- A286 L. Ballauf, F. Hechenberger, R. Stadlmayr, T. Dittmar, M. Daxner, S. Zöttl, **F. Aumayr**, Z. Herman, and P. Scheier
Formation of beryllium-hydrogen ions in chemical sputtering from 20 to 420 eV
Nuclear Materials and Energy **22** (2020) 100722 (8 pages)
<https://doi.org/10.1016/j.nme.2019.100722>
- 2019**
- A285 J. Schwestka, A. Niggas, S. Creutzburg, R. Kozubek, R. Heller, M. Schleberger, R.A. Wilhelm, and **F. Aumayr**
Charge-exchange-driven low-energy electron splash induced by heavy ion impact on condensed matter
Journal of Physical Chemistry Letters **10** (2019) 4805 - 4811
<https://doi.org/10.1021/acs.jpcclett.9b01774>
- A284 M. Akram, S. Bashir, S. Jalil, M. ElKabbash, **F. Aumayr**, A. Ajami, W. Husinsky, K. Mahmood, M. Rafique, and C. Guo
Femtosecond laser induced periodic surface structures for the enhancement of field emission properties of tungsten
Optical Materials Express **9** (2019) 3183 - 3192
<https://doi.org/10.1364/OME.9.003183>

- A283 **F. Aumayr**, K. Ueda, E. Sokell, S. Schippers, H. Sadeghpour, F. Merkt, T. Gallagher, B. Dunning, P. Scheier, O. Echt, T. Kirchner, S. Fritzsche, A. Surzhykov, X. Ma, R. Rivarola, O. Fojon, L. Tribedi, E. Lamour, J.R. Crespo López-Urrutia, Y.A. Litvinov, V. Shabaev, H. Cederquist, H. Zettergren, M. Schleberger, R.A. Wilhelm, T. Azuma, P. Boduch, H.T. Schmidt, T. Stöhlker
Roadmap on photonic, electronic and atomic collision physics: III. Heavy particles: with zero to relativistic speeds
Journal of Physics B: At. Mol. Opt. Phys. **52** (2019) 171003 (51 pages)
<http://dx.doi.org/10.1088/1361-6455/ab26ea>
- A282 S. Schippers, E. Sokell, **F. Aumayr**, H. Sadeghpour, K. Ueda, I. Bray, K. Bartschat, A. Murray, J. Tennyson, A. Dorn, M. Yamazaki, M. Takahashi, N. Mason, O. Novotný, A. Wolf, L. Sanche, M. Centurion, Y. Yamazaki, G. Laricchia, C. Surko, J. Sullivan, G. Gribakin, D.W. Savin, Y. Ralchenko, R. Hoekstra, G. O'Sullivan
Roadmap on photonic, electronic and atomic collision physics II. Electron and Antimatter interactions
Journal of Physics B: At. Mol. Opt. Phys. **52** (2019) 171002 (49 pages)
<http://dx.doi.org/10.1088/1361-6455/ab26e0>
- A281 K. Ueda, E. Sokell, S. Schippers, **F. Aumayr**, H. Sadeghpour, J. Burgdörfer, C. Lemell, X.-M. Tong, T. Pfeifer, F. Calegari, A. Palacios, F. Martin, P. Corkum, G. Sansone, E.V. Gryzlova, A.N. Grum-Grzhimailo, M. Novella Piancastelli, P.M. Weber, T. Steinle, K. Amini, J. Biegert, N. Berrah, E. Kukk, R. Santra, A. Müller, D. Doweck, R.R. Lucchese, C.W. McCurdy, P. Bolognesi, L. Avaldi, T. Jahnke, M.S. Schöffler, R. Dörner, Y. Mairesse, L. Nahon, O. Smirnova, T. Schlathölder, E.E.B. Campbell, J.-M. Rost, M. Meyer, K.A. Tanaka
Roadmap on photonic, electronic and atomic collision physics I. Light- matter interaction
Journal of Physics B: At. Mol. Opt. Phys. **52** (2019) 171001 (62 pages)
<http://dx.doi.org/10.1088/1361-6455/ab26d7>
- 2018**
- A280 G. F. Harrer, E. Wolfrum, M. G. Dunne, P. Manz, M. Cavedon, P. T. Lang, B. Kurzan, T. Eich, B. Labit, J. Stober, H. Meyer, M. Bernert, F. Laggner, and **F. Aumayr**
Parameter dependences of small edge localized modes (ELMs)
Nuclear Fusion **58** (2018) 112001 (10 pages)
<https://doi.org/10.1088/1741-4326/aad757>
- A279 J. Schwestka, D. Melinc, R. Heller, A. Niggas, L. Leonhartsberger, H. Winter, S. Facsko, **F. Aumayr**, and R. A. Wilhelm
A versatile ion beam spectrometer for studies of ion interaction with 2D materials
Review of Scientific Instruments **89** (2018) 085101 (8 pages)
<https://doi.org/10.1063/1.5037798>
- A278 R. A. Wilhelm, E. Gruber, J. Schwestka, R. Heller, S. Facsko, and **F. Aumayr**
Neutralization dynamics of slow highly charged ions in 2D materials
Applied Sciences **8** (2018) 1050 (16 pages)
<https://doi.org/10.3390/app8071050>
- A277 E. Gruber, L. Bergen, P. Salou, E. Lattouf, C. Grygiel, Y.Y. Wang, A. Benyagoub, D. Levavasseur, J. Rangama, H. Lebius, B. Ban-d'Etat, M. Schleberger, and **F. Aumayr**
High resolution AFM studies of irradiated mica - Following the traces of swift heavy ions under grazing incidence
Journal of Physics: Condensed Matter **30** (2018) 285001 (8 pages)
<https://doi.org/10.1088/1361-648X/aac7f7>
- A276 P. S. Szabo, R. Chiba, H. Biber, R. Stadlmayr, B. M. Berger, D. Mayer, A. Mutzke, M. Doppler, M. Sauer, J. Appenroth, J. Fleig, A. Foelske-Schmitz, H. Hutter, K. Mezger, H. Lammer, A. Galli, P. Wurz, and **F. Aumayr**
Solar wind sputtering of wollastonite as a lunar analogue material – Comparisons between experiments and simulations
Icarus **314** (2018) 98 - 105
<https://doi.org/10.1016/j.icarus.2018.05.028>

- A275 R. Stadlmayr, P.S. Szabo, B.M. Berger, C. Cupak, R. Chiba, D. Blöch, D. Mayer, B. Stechauner, M. Sauer, A. Foelske-Schmitz, M. Oberkofler, T. Schwarz-Selinger, A. Mutzke, and **F. Aumayr**
Fluence dependent changes of surface morphology and sputtering yield of iron: Comparison of experiments with SDTrimSP-2D
Nuclear Instruments and Methods in Physics Research B **430** (2018) 42 - 46
<https://doi.org/10.1016/j.nimb.2018.06.004>
- A274 J. Schwestka, R. A. Wilhelm, E. Gruber, R. Heller, R. Kozubek, M. Schleberger, S. Facsko, and **F. Aumayr**
The role of radiative de-excitation in the neutralization process of highly charged ions interacting with a single layer of graphene
Nuclear Instruments and Methods in Physics Research B **422** (2018) 63 - 67
<https://doi.org/10.1016/j.nimb.2018.02.022>
- A273 F. M. Laggner, E. Wolfrum, M. Cavedon, M. G. Dunne, G. Birkenmeier, R. Fischer, M. Willensdorfer, **F. Aumayr**
Plasma shaping and its impact on the pedestal of ASDEX Upgrade: Edge stability and inter-ELM dynamics at varied triangularity
Nuclear Fusion **58** (2018) 046008 (13 pages)
<https://doi.org/10.1088/1741-4326/aaaa43>
- A272 F. M. Laggner, S. Keerl, J. Gnisen, E. Wolfrum, M. Bernert, D. Carralero, L. Guimaraes, V. Nikolaeva, S. Potzel, M. Cavedon, F. Mink, M. G. Dunne, G. Birkenmeier, R. Fischer, E. Viezzer, M. Willensdorfer, M. Wischmeier, **F. Aumayr**
Divertor, scrape-off layer and pedestal particle dynamics in the ELM cycle on ASDEX Upgrade
Plasma Physics and Controlled Fusion **60** (2018) 025002 (11 pages)
<http://dx.doi.org/10.1088/1361-6587/aa90bf>
- 2017**
- A271 R.A. Wilhelm, E. Gruber, J. Schwestka, R. Kozubek, T.I. Madeira, J.P. Marques, J. Kobus, A.V. Krasheninnikov, M. Schleberger, and **F. Aumayr**
Interatomic coulombic decay - the mechanism for rapid de-excitation of hollow atoms
Physical Review Letters **119** (2017) 103401 (6 pages)
<http://dx.doi.org/10.1103/PhysRevLett.119.103401>
- A270 B.M. Berger, R. Stadlmayr, D. Blöch, E. Gruber, K. Sugiyama, T. Schwarz-Selinger, and **F. Aumayr**
Erosion of Fe-W model system under normal and oblique D ion irradiation
Nuclear Materials and Energy **12** (2017) 468 - 471
<http://dx.doi.org/10.1016/j.nme.2017.03.030>
- A269 B.M. Berger, P.S. Szabo, R. Stadlmayr, and **F. Aumayr**
Sputtering measurements using a quartz crystal microbalance as a catcher
Nuclear Instruments and Methods in Physical Research B **406** (2017) 533 - 537
<http://dx.doi.org/10.1016/j.nimb.2016.11.039>
- A268 M. Gulka, E. Bourgeois, J. Hruby, P. Siyushev, G. Wachter, **F. Aumayr**, P.R. Hemmer, A. Gali, F. Jelezko, M. Trupke, and M. Nesladek
Pulsed photoelectric coherent manipulation and detection of NV center spins in diamond
Physical Review Applied **7** (2017) 044032 (7 pages)
<https://doi.org/10.1103/PhysRevApplied.7.044032>
- A267 F. M. Laggner, E. Wolfrum, M. Cavedon, F. Mink, M. Bernert, M. G. Dunne, P. A. Schneider, A. Kappatou, G. Birkenmeier, R. Fischer, M. Willensdorfer, **F. Aumayr**
Pedestal structure and inter-ELM evolution for different main ion species in ASDEX Upgrade
Physics of Plasmas **24** (2017) 056105 (8 pages)
<http://dx.doi.org/10.1063/1.4977461>
- A266 C. Dufour, V. Khomrenkov, Y.Y. Wang, Z.G. Wang, **F. Aumayr**, and M. Toulemonde
An attempt to apply the inelastic thermal spike model to surface modifications of CaF₂ induced by highly charged ions: Comparison to swift heavy ions and extension to some others material
Journal of Physics: Condensed Matter **29** (2017) 095001 (16 pages)
<http://dx.doi.org/10.1088/1361-648X/aa547a>

- A265 E. Bourgeois, E. Londero, K. Buczak, Y. Balasubramaniam, G. Wachter, J. Stursa, K. Dobes, **F. Aumayr**, M. Trupke, A. Gali, and M. Nesladek
Enhanced dual-beam excitation photoelectric detection of NV magnetic resonances in diamond
Physical Review B **95** (2017) 041402 (Rapid Communication, 5 pages)
<https://doi.org/10.1103/PhysRevB.95.041402>
- A264 S. Brezinsek, J.W. Coenen, T. Schwarz-Selinger, K. Schmid, A. Kirschner, A. Hakola, F.L. Tabares, H.J. van der Meiden, M.-L. Mayoral, M. Reinhart, E. Tsitrone, T. Ahlgren, M. Aints, M. Airila, S. Almaviva, E. Alves, T. Angot, V. Anita, R. Arredondo Parra, **F. Aumayr**, M. Balden, J. Bauer, M. Ben Yaala, B.M. Berger, R. Bisson, C. Björkas, I. Bogdanovic Radovic, D. Borodin, J. Bucalossi, J. Butikova, B. Butoi, I. Cadez, R. Caniello, L. Caneve, G. Cartry, N. Catarino, M. Cekada, G. Ciraolo, L. Ciupinski, F. Colao, Y. Corre, C. Costin, T. Craciunescu, A. Cremona, M. De Angeli, A. de Castro, R. Dejarnac, D. Dellasega, P. Dinca, T. Dittmar, C. Dobreá, P. Hansen, A. Drenik, T. Eich, S. Elgeti, D. Falie, N. Fedorczak, Y. Ferro, T. Fornal, E. Fortuna-Zalesna, L. Gao, P. Gasior, M. Gherendi, F. Ghezzi, Z. Gosar, H. Greuner, E. Grigore, C. Grisolia, M. Groth, M. Gruca, J. Grzonka, J.P. Gunn, K. Hassouni, K. Heinola, T. Höschen, S. Huber, W. Jacob, I. Jezu, X. Jiang, I. Jogi, A. Kaiser, J. Karhunen, M. Kelemen, M. Köppen, H.R. Koslowski, A. Kreter, M. Kubkowska, M. Laan, L. Laguardia, A. Lahtinen, A. Lasa, V. Lazic, N. Lemahieu, J. Likonen, J. Linke, A. Litnovsky, Ch. Linsmeier, T. Loewenhoff, C. Lungu, M. Lungu, G. Maddaluno, H. Maier, T. Makkonen, A. Manhard, Y. Marandet, S. Markelj, L. Marot, C. Martin, A.B. Martin-Rojo, Y. Martynova, R. Mateus, D. Matveev, M. Mayer, G. Meisl, N. Mellet, A. Michau, J. Miettunen, S. Möller, T.W. Morgan, J. Mougenot, M. Mozetic, V. Nemanic, R. Neu, K. Nordlund, M. Oberkofler, E. Oyarzabal, M. Panjan, C. Pardanaud, P. Paris, M. Passoni, B. Pegourie, P. Pelicon, P. Petersson, K. Piip, G. Pintsuk, G.O. Pompilian, G. Popa, C. Porosnicu, G. Primc, M. Probst, J. Räisänen, M. Rasinski, S. Ratynskaia, D. Reiser, D. Ricci, M. Richou, J. Riesch, G. Riva, M. Rosinski, P. Roubin, M. Rubel, C. Ruset, E. Safi, G. Sergienko, Z. Siketic, A. Sima, B. Spilker, R. Stadlmayr, I. Steudel, P. Ström, T. Tadic, D. Tafalla, I. Tale, D. Terentyev, A. Terra, V. Tiron, I. Tiseanu, P. Toliás, D. Tskhakaya, A. Uccello, B. Unterberg, I. Uytendhoven, E. Vassallo, P. Vavpetic, P. Veis, I.L. Velicu, J.W.M. Vernimmen, A. Voïtkans, U. von Toussaint, A. Weckmann, M. Wirtz, A. Zaloznik, R. Zaplotnik and WP PFC contributors
Plasma-wall interaction studies within the EUROfusion consortium: progress on plasma-facing components development and qualification
Nuclear Fusion **57** (2017) 116041 (9 pages)
<https://doi.org/10.1088/1741-4326/aa796e>
- 2016**
- A263 E. Gruber, R.A. Wilhelm, R. Pétuya, V. Smejkal, R. Kozubek, A. Hierzenberger, B.C. Bayer, I. Aldazabal, A.K. Kazansky, F. Libisch, A.V. Krasheninnikov, M. Schleberger, S. Facsko, A.G. Borisov, A. Arnau, and **F. Aumayr**
Ultrafast electronic response of graphene to a strong and localized electric field
Nature Communications **7** (2016) 13948 (7 pages)
<http://dx.doi.org/10.1038/ncomms13948>
- A262 A.S. El-Said, R.A. Wilhelm, R. Heller, M. Sorokin, S. Facsko, and **F. Aumayr**
Tuning the fabrication of nanostructures by low-energy highly charged ions
Physical Review Letters **117** (2016) 126101 (5 pages)
<http://dx.doi.org/10.1103/PhysRevLett.117.126101>
- A261 B.M. Berger, R. Stadlmayr, G. Meisl, M. Cekada, C. Eisenmenger-Sittner, T. Schwarz-Selinger, and **F. Aumayr**
Transient effects during erosion of WN by deuterium ions studied with the quartz crystal microbalance technique
Nuclear Instruments and Methods in Physical Research B **382** (2016) 82 - 85
<http://dx.doi.org/10.1016/j.nimb.2016.04.060>
- A260 V. Smejkal, E. Gruber, R.A. Wilhelm, L. Brandl, R. Heller, S. Facsko, and **F. Aumayr**
A setup for transmission measurements of low energy multiply charged ions through free-standing few atomic layer films
Nuclear Instruments and Methods in Physical Research B **382** (2016) 119 - 122
<http://dx.doi.org/10.1016/j.nimb.2016.01.023>

- A259 E. Gruber, P. Salou, L. Bergen, M. El Kharrazi, E. Lattouf, C. Grygiel, Y.Y. Wang, A. Benyagoub, D. Levavasseur, J. Rangama, H. Lebius, B. Ban-d'Etat, M. Schleberger, and **F. Aumayr**
Swift heavy ion irradiation of CaF₂ – from grooves to hillocks in a single ion track
Journal of Physics: Condensed Matter **28** (2016) 405001 (7 pages)
<http://dx.doi.org/10.1088/0953-8984/28/4/405001>
- A258 F.M. Laggner, E. Wolfrum, M. Cavedon, F. Mink, E. Viezzer, M.G. Dunne, P. Manz, H. Doerk, G. Birkenmeier, R. Fischer, S. Fietz, M. Maraschek, M. Willensdorfer, and **F. Aumayr**
High frequency magnetic fluctuations correlated with the inter-ELM pedestal evolution in ASDEX Upgrade
Plasma Physics and Controlled Fusion **58** (2016) 065005 (8 pages)
<http://dx.doi.org/10.1088/0741-3335/58/6/065005>
- A257 R.A. Wilhelm, E. Gruber, V. Smejkal, S. Facsko, and **F. Aumayr**
Charge-state-dependent energy loss of slow ions. I. Experimental results on the transmission of highly charged ions
Physical Review A **93** (2016) 052708 (4 pages)
<http://dx.doi.org/10.1103/PhysRevA.93.052708>
- 2015**
- A256 E. Gruber, R.A. Wilhelm, V. Smejkal, R. Heller, S. Facsko, and **F. Aumayr**
Interaction of highly charged ions with carbon nano membranes
Journal of Physics: Conference Series **635** (2015) 012027 (7 pages)
<http://dx.doi.org/10.1088/1742-6596/635/1/012027>
- A255 M. Oberkofler, D. Alegre, **F. Aumayr**, S. Brezinsek, T. Dittmar, K. Dobes, D. Douai, A. Drenik, M. Köppen, U. Kruezi, Ch. Linsmeier, C.P. Lungu, G. Meisl, M. Mozetic, C. Porosnicu, V. Rohde, S. G. Romanelli
Plasma-wall interactions with nitrogen seeding in all-metal fusion devices: Formation of beryllium nitride and ammonia
Fusion Engineering and Design **98 - 99** (2015) 1371 - 1374
<http://dx.doi.org/10.1016/j.fusengdes.2015.01.044>
- A254 R.A. Wilhelm, E. Gruber, R. Ritter, R. Heller, A. Beyer, A. Turchanin, N. Klingner, R. Hübner, M. Stöger-Pollach, H. Vieker, G. Hlawacek, A. Gölzhäuser, S. Facsko, and **F. Aumayr**
Threshold and efficiency for perforation of 1 nm thick carbon nanomembranes with slow highly charged ions
2D Materials 2 (2015) 035009 (6 pages)
<http://dx.doi.org/10.1088/2053-1583/2/3/035009>
- A253 R.A. Wilhelm, A. S. El-Said, F. Krok, R. Heller, E. Gruber, **F. Aumayr**, and S. Facsko
Highly charged ion induced nanostructures at surfaces by strong electronic excitations
Progress in Surface Science 90 (2015) 377 - 395
<http://dx.doi.org/10.1016/j.progsurf.2015.06.001>
- A252 M. Willensdorfer, E. Fable, E. Wolfrum, **F. Aumayr**, R. Fischer, F. Reimold, F. Ryter
Role of electron temperature in the particle transport in the pedestal during pedestal evolution
Journal of Nuclear Materials **463** (2015) 1091 - 1095
<http://dx.doi.org/10.1016/j.jnucmat.2015.01.035>
- A251 A. Wartak, R.J. Berezcky, G. Kowarik, K. Tökési, and **F. Aumayr**
Conceptual design and sample preparation of electrode covered single glass macro-capillaries for studying the effect of an external electric field on particle guiding
Nuclear Instruments and Methods in Physical Research B **354** (2015) 324 -327
<http://dx.doi.org/10.1016/j.nimb.2014.12.055>
- A250 N. Stolterfoht, E. Gruber, P. Allinger, S. Wampl, Y.Y. Wang, M.J. Simon, and **F. Aumayr**
Experiments and simulations of 4.5-keV Ar⁷⁺-ion guiding through a conical glass macrocapillary
Physical Review A **91** (2015) 032705 (8 pages)
<http://dx.doi.org/10.1103/PhysRevA.91.032705>

2014

- A249 K. Dobes, M. Köppen, M. Oberkofler, C.P. Lungu, C. Porosnicu, T. Höschel, G. Meisl, C. Linsmeier, and **F. Aumayr**
Interaction of nitrogen ions with beryllium surfaces
Nuclear Instruments and Methods in Physical Research B **340** (2014) 34 - 38
<http://dx.doi.org/10.1016/j.nimb.2014.06.025>
- A248 E. Gruber, N. Stolterfoht, P. Allinger, S. Wampl, Y.Y. Wang, M.J. Simon, and **F. Aumayr**
Temperature control of ion guiding through tapered capillaries
Nuclear Instruments and Methods in Physical Research B **340** (2014) 1 - 4
<http://dx.doi.org/10.1016/j.nimb.2014.06.023>
- A247 E. Bodewits, R. Hoekstra, K. Dobes, and **F. Aumayr**
Electron-emission processes in highly charged Ar and Xe ions impinging on highly ordered pyrolytic graphite at energies just above the kinetic threshold
Physical Review A **90** (2014) 052703 (9 pages)
<http://dx.doi.org/10.1103/PhysRevA.90.052703>
- A246 A.S. El-Said, R. Heller, R.A. Wilhelm, S. Facsko, and **F. Aumayr**
Surface Modifications of BaF₂ and CaF₂ single crystals by slow highly charged ions
Applied Surface Science **310** (2014) 169 - 173
<http://dx.doi.org/10.1016/j.apsusc.2014.03.083>
- A245 Y. Y. Wang, C. Grygiel, C. Dufour, J. R. Sun, Z. G. Wang, Y. T. Zhao, G. Q. Xiao, R. Cheng, X. M. Zhou, J. R. Ren, S. D. Liu, Y. Lei, Y. B. Sun, R. Ritter, E. Gruber, A. Cassimi, I. Monnet, S. Bouffard, **F. Aumayr** and M. Toulemonde
Energy deposition by heavy ions: Additivity of kinetic and potential energy contributions in hillock formation on CaF₂
Nature Scientific Reports **4** (2014) 5742 (6 pages)
<http://dx.doi.org/10.1038/srep05742>
- A244 K. Dobes, V. Smejkal, T. Schäfer, and **F. Aumayr**
Interaction between seeding gas ions and nitrogen saturated tungsten surfaces
International Journal of Mass Spectrometry and Ion Processes **365-366** (2014) 64 – 67
<http://dx.doi.org/10.1016/j.ijms.2013.11.015>
- A243 A.S. El-Said, R.A. Wilhelm, R. Heller, R. Ritter, G. Wachter, S. Facsko, C. Lemell, J. Burgdörfer, and **F. Aumayr**
Nanostructuring CaF₂ surfaces with slow highly charged ions
Journal of Physics: Conference Series **488** (2014) 012002 (17 pages)
<http://dx.doi.org/10.1088/1742-6596/488/1/012002>
- A242 R.A. Wilhelm, E. Gruber, R. Ritter, R. Heller, S. Facsko, and **F. Aumayr**
Charge exchange and energy loss of slow highly charged ions in 1 nm thick carbon nanomembranes
Physical Review Letters **112** (2014) 153201 (5 pages)
<http://dx.doi.org/10.1103/PhysRevLett.112.153201>
- A241 M. Willensdorfer, G. Birkenmeier, R. Fischer, F.M. Laggner, E. Wolfrum, G. Veres, **F. Aumayr**, D. Carralero, L. Guimarães, B. Kurzan
Characterization of the lithium beam emission spectroscopy at ASDEX Upgrade
Plasma Physics and Controlled Fusion **56** (2014) 025008 (10 pages)
<http://dx.doi.org/10.1088/0741-3335/56/2/025008>

2013

- A240 D. Schrempf, W. Meissl, and **F. Aumayr**
An ultra-compact setup for measuring ion-induced electron emission statistics
Nuclear Instruments and Methods in Physics Research B **317** (2013) 44 - 47
<http://dx.doi.org/10.1016/j.nimb.2012.12.085>

- A239 R. Ritter, Q. Shen, R. A. Wilhelm, R. Heller, R. Ginzler, J. R. Crespo López-Urrutia, S. Facsko, C. Teichert, and **F. Aumayr**
Novel aspects on the irradiation of HOPG surfaces with slow highly charged ions
Nuclear Instruments and Methods in Physics Research B **315** (2013) 252 - 256
<http://dx.doi.org/10.1016/j.nimb.2013.02.025>
- A238 T.N. Makgato, E. Sideras-Haddad, S. Shrivastava, T. Schenkel, R. Ritter, G. Kowarik, **F. Aumayr**
J. Crespo López-Urrutia, S. Bernitt, C. Beilmann, R. Ginzler
Highly charged ion impact induced nanodefects in diamond
Nuclear Instruments and Methods in Physics Research B **314** (2013) 135 - 139
<http://dx.doi.org/10.1016/j.nimb.2013.04.062>
- A237 R. Ritter, R. A. Wilhelm, R. Ginzler, P. Schadauer, R. Heller, W. Rupp, J. R. Crespo López-Urrutia, S. Facsko, and **F. Aumayr**
Effect of chemical etching on poly (methyl methacrylate) irradiated with slow highly charged ions
Physica Scripta **T156** (2013) 014065 (3 pages)
<http://dx.doi.org/10.1088/0031-8949/2013/T156/014065>
- A236 M. Willensdorfer, E. Fable, E. Wolfrum, L. Aho-Mantila, **F. Aumayr**, R. Fischer, F. Reimold, F. Ryter
Particle transport analysis of the density build-up after the L–H transition in ASDEX Upgrade
Nuclear Fusion **53** (2013) 093020 (11 pages)
<http://dx.doi.org/10.1088/0029-5515/53/9/093020>
- A235 C. Lemell, J. Burgdörfer, and **F. Aumayr**
Interaction of charged particles with insulating capillary targets – The guiding effect
Progress in Surface Science **88** (2013) 237 – 278
<http://dx.doi.org/10.1016/j.progsurf.2013.06.001>
- A234 R. Ritter, R. A. Wilhelm, M. Stöger-Pollach, R. Heller, A. Mucklich, U. Werner, H. Vieker, A. Beyer, S. Facsko, A. Götzhäuser, and **F. Aumayr**
Fabrication of nanopores in 1 nm thick carbon nanomembranes with slow highly charged ions
Applied Physics Letters **102** (2013) 063112 (5 pages)
<http://dx.doi.org/10.1063/1.4792511>
- 2012**
- A233 E. Bodewits, R. Hoekstra, K. Dobes, and **F. Aumayr**
Kinetic energy driven enhancement of secondary electron yields of highly charged ions impinging on thin films of C₆₀ on Au
Physical Review A **86** (2012) 062904 (6 pages)
<http://dx.doi.org/10.1103/PhysRevA.86.062904>
- A232 E. Gruber, G. Kowarik, F. Ladinig, J. P. Waclawek, D. Schrempf, and **F. Aumayr**
R. J. Berezky, K. Tökési, P. Gunacker, T. Schweigler, C. Lemell, and J. Burgdörfer
Temperature Control of Ion Guiding Through Insulating Capillaries
Physical Review A **86** (2012) 062901 (8 pages)
<http://dx.doi.org/10.1103/PhysRevA.86.062901>
- A231 E. Wolfrum, P. Sauter, M. Willensdorfer, F. Ryter, **F. Aumayr**, L. Barrera-Orte, A. Burckhart, E. Fable, R. Fischer, B. Kurzan, T. Puetterich, S. Rathgeber, W. Suttrop, E. Viezzer
Recent progress in understanding the L–H transition physics from ASDEX Upgrade
Plasma Physics and Controlled Fusion **54** (2012) 124002 (6 pages)
<http://dx.doi.org/10.1088/0741-3335/54/12/124002>
- A230 M. Willensdorfer, E. Wolfrum, A. Scarabosio, **F. Aumayr**, R. Fischer, B. Kurzan, R.M. McDermott, A. Mlynek, B. Nold, S.K. Rathgeber, V. Rohde, F. Ryter, P. Sauter, E. Viezzer
Electron density evolution after L–H transitions and the L–H/H–L cycle in ASDEX Upgrade
Nuclear Fusion **52** (2012) 114026 (10 pages)
<http://dx.doi.org/10.1088/0029-5515/52/11/114026>

- A229 A.S. El-Said, R.A. Wilhelm, R. Heller, S. Facsko, C. Lemell, G. Wachter, J. Burgdörfer, R. Ritter, and **F. Aumayr**
Phase diagram for nanostructuring CaF₂ surfaces by slow highly charged ions
Physical Review Letters **109** (2012) 117602 (5 pages)
<http://dx.doi.org/10.1103/PhysRevLett.109.117602>
- A228 K. Dobes, P. Naderer, C. Hopf, T. Schwarz-Selinger, and **F. Aumayr**
Transient effects during sputtering of a-C:H surfaces by nitrogen ions
Nuclear Instruments and Methods in Physics Research B **286** (2012) 20 - 24
<http://dx.doi.org/10.1016/j.nimb.2012.01.001>
- A227 R. J. Berezky, G. Kowarik, K. Tökési and **F. Aumayr**
Sample holder for studying temperature dependent particle guiding
Nuclear Instruments and Methods in Physics Research B **279** (2012) 182 - 185
<http://dx.doi.org/10.1016/j.nimb.2011.10.064>
- A226 K. Igenbergs, J. Schweinzer, A. Veiter, L. Perneczky, E. Frühwirth, M. Wallerberger, R. E. Olson, and **F. Aumayr**
Charge exchange and ionisation in N⁷⁺, N⁶⁺, C⁶⁺ - H(n=1,2) collisions studied systematically by theoretical approaches
Journal of Physics B: At. Mol. Opt. Phys. **45** (2012) 065203 (21 pages)
<http://dx.doi.org/10.1088/0953-4075/45/6/065203>
- A225 M. Willensdorfer, E. Wolfrum, R. Fischer, J. Schweinzer, M. Sertoli, B. Sieglin, G. Veres, and **F. Aumayr**
Improved chopping of a lithium beam for plasma edge diagnostic at ASDEX Upgrade
Review of Scientific Instruments **83** (2012) 023501 (7 pages)
<http://dx.doi.org/10.1063/1.3682003>
- A224 R. Ritter, R. A. Wilhelm, R. Ginzl, G. Kowarik, R. Heller, A. S. El-Said, R. M. Papaléo, W. Rupp, J. R. Crespo López-Urrutia, J. Ullrich, S. Facsko and **F. Aumayr**
Pit formation on poly(methyl methacrylate) due to ablation induced by individual slow highly charged ion impact
EPL (Europhysics Letters) **97** (2012) 13001 (5 pages)
<http://dx.doi.org/10.1209/0295-5075/97/13001>
- 2011**
- A223 K. Dobes, P. Naderer, N. Lachaud, C. Eisenmenger-Sittner and **F. Aumayr**
Sputtering of tungsten by N⁺ and N₂⁺ ions: investigations of molecular effects
Physica Scripta **T145** (2011) 014017 (4 pages)
<http://dx.doi.org/10.1088/0031-8949/2011/T145/014017>
- A222 G. Kowarik, R. J. Berezky, F. Ladinig, D. Schrempf, C. Lemell, J. Burgdörfer, K. Tökési, and **F. Aumayr**
Temperature Control of Ion Guiding Through Insulating Capillaries
arXiv:1109.3953v1 [cond-mat.other] (2011)
<http://arxiv.org/abs/1109.3953v1>
- A221 W. S. M. Werner, F. Salvat-Pujol, W. Smekal, R. Khalid, **F. Aumayr**, H. Störi, A. Ruocco, and G. Stefani
Contribution of surface plasmon decay to secondary electron emission from an Al surface
Applied Physics Letters **99** (2011) 184102 (3 pages)
<http://dx.doi.org/10.1063/1.3658455>
- A220 E. Bodewits, R. Hoekstra, G. Kowarik, K. Dobes, and **F. Aumayr**
Highly charged ion induced electron emission from C₆₀ thin films
Physical Review A **84** (2011) 042901 (6 pages)
<http://dx.doi.org/10.1103/PhysRevA.84.042901>

- A219 **F. Aumayr**, S. Facsko, A. S. El-Said, C. Trautmann and M. Schleberger
Topical Review: *Single-ion induced surface nanostructures - A comparison between slow highly-charged and swift heavy ions*
Journal of Physics: Condensed Matter **23** (2011) 393001 (23 pages)
<http://dx.doi.org/10.1088/0953-8984/23/39/393001>
- A218 A. S. El-Said, R. A. Wilhelm, R. Heller, S. Facsko, C. Trautmann and **F. Aumayr**
Surface nanostructuring of SrTiO₃ single crystals by slow highly charged ions and swift heavy ions
Nuclear Instruments and Methods in Physics Research B **269** (2011) 1234–1237
<http://dx.doi.org/10.1016/j.nimb.2010.10.020>
- A217 E. Bodewits, H. Bekker, A.J. de Nijs, R. Hoekstra, D. Winklehner, B. Daniel, G. Kowarik, K. Dobes, and **F. Aumayr**
Electron emission yields from boron-like Ar ions impinging on Au(100)
Nuclear Instruments and Methods in Physics Research B **269** (2011) 1203–1207
<http://dx.doi.org/10.1016/j.nimb.2010.12.001>
- A216 G. Kowarik, E. Gruber, K. Iskratsch, and **F. Aumayr**
Using a current method for measuring ion-induced electron emission from LiF
Nuclear Instruments and Methods in Physics Research B **269** (2011) 964–967
<http://dx.doi.org/10.1016/j.nimb.2010.11.078>
- A215 M. Wallerberger, K. Igenbergs, J. Schweinzer, and **F. Aumayr**
Fast computation of close-coupling exchange integrals using polynomials in a tree representation
Computer Physics Communications **182** (2011) 775 – 778
<http://dx.doi.org/10.1016/j.cpc.2010.10.027>
- 2010**
- A214 A. S. El-Said, R. Heller, **F. Aumayr** and S. Facsko
Pyramidal pits created by single highly charged ions in BaF₂ single crystals
Physical Review B **82** (2010) 033403 (4 pages)
<http://dx.doi.org/10.1103/PhysRevB.82.033403>
- A213 R. Ginzl, S. G. Higgins, P. Mrowczynski, P. Northway, M. C. Simon, H. Tawara, J. R. Crespo López-Urrutia, J. Ullrich, G. Kowarik, R. Ritter, W. Meissl, C. Vasko, C. Gösselsberger, A. S. El-Said, and **F. Aumayr**
A deceleration system at the Heidelberg EBIT providing very slow highly charged ions for surface nanostructuring
Nuclear Instruments and Methods in Physics Research B **268** (2010) 2972 – 2976
<http://dx.doi.org/10.1016/j.nimb.2010.05.020>
- A212 R. Ritter, G. Kowarik, W. Meissl, L. Süß, L. Maunoury, H. Lebius, C. Dufour, M. Toulemonde, and **F. Aumayr**
Nano-structure formation due to impact of highly charged ions on HOPG
Nuclear Instruments and Methods in Physics Research B **268** (2010) 2897 – 2900
<http://dx.doi.org/10.1016/j.nimb.2010.04.023>
- A211 R. Ritter, G. Kowarik, W. Meissl, A. S. El-Said, L. Maunoury, H. Lebius, C. Dufour, M. Toulemonde, and **F. Aumayr**
Nanostructure formation due to impact of highly charged ions on mica
Vacuum **84** (2010) 1062 - 1065
<http://dx.doi.org/10.1016/j.vacuum.2009.10.018>
- A210 D. A. Kovacs, A. Golczewski, G. Kowarik, **F. Aumayr**, and D. Diesing
Low-energy ion-induced electron emission in metal-insulator-metal sandwich structures
Physical Review B **81** (2010) 075411 (12 pages)
<http://dx.doi.org/10.1103/PhysRevB.81.075411>

2009

- A209 S. Facsko, W. Meissl, R. Heller, R. Wilhelm, A. S. El-Said, G. Kowarik, R. Ritter and **F. Aumayr**
Nanostructures induced by highly charged ions on CaF₂ and KBr
Journal of Physics: Conference Series **194** (2009) 012060 (8 pages)
<http://dx.doi.org/10.1088/1742-6596/194/1/012060>
- A208 K. Igenbergs, J. Schweinzer, and **F. Aumayr**
Charge exchange in Be⁴⁺ - H(n = 1, 2) collisions studied systematically by atomic-orbital close-coupling calculations
Journal of Physics B: At.Mol.Opt.Phys. **42** (2009) 235206 (8 pages)
<http://dx.doi.org/10.1088/0953-4075/42/23/235206>
- A207 I. C. Gebeshuber, D. Holzer, R. Goschke, **F. Aumayr** and H. Störi
Development of an atomic force microscope closed fluid cell for tribological investigations of large samples in chemically aggressive environments
IMechE Part J: Journal of Engineering Tribology **223** (2009) 759 – 765
<http://dx.doi.org/10.1243/13506501JET539>
- A206 G. Kowarik, M. Brunmayr, and **F. Aumayr**
Electron emission from tungsten induced by slow, fusion-relevant ions
Nuclear Instruments and Methods in Physics Research B **267** (2009) 2634 – 2637
<http://dx.doi.org/10.1016/j.nimb.2009.05.064>
- A205 S. Facsko, R. Heller, A. S. El-Said, W. Meissl, and **F. Aumayr**
Surface nanostructures by single highly charged ions
Journal of Physics: Condensed Matter **21** (2009) 224012 (9 pages)
<http://dx.doi.org/10.1088/0953-8984/21/22/224012>
- A204 G. Kowarik, R. J. Bereczky, **F. Aumayr**, and K. Tökési
Production of a microbeam of slow highly charged ions with a single microscopic glass capillary
Nuclear Instruments and Methods in Physics Research B **267** (2009) 2277 – 2279
<http://dx.doi.org/10.1016/j.nimb.2009.03.086>
- A203 E. Wolfrum, J. Schweinzer, D. Bridi, K. Igenbergs, J. Kamleitner, **F. Aumayr**
A sodium (Na) beam edge diagnostic
Journal of Nuclear Materials **390–391** (2009) 1110–1113
<http://dx.doi.org/10.1016/j.jnucmat.2009.01.282>
- A202 A. Golczewski, A. Kuzucan, K. Schmid, J. Roth, M. Schmid, and **F. Aumayr**
Ion - induced erosion of tungsten surfaces studied by a sensitive quartz-crystal-microbalance technique
Journal of Nuclear Materials **390–391** (2009) 1102–1105
<http://dx.doi.org/10.1016/j.jnucmat.2009.01.279>
- A201 J. Lörincik, Z. Sroubek, M. Brunmayr, G. Kowarik, and **F. Aumayr**
Kinetic electron emission due to perpendicular impact of carbon ions on tungsten
Applied Surface Science **255** (2009) 6303 – 6307
<http://dx.doi.org/10.1016/j.apsusc.2009.02.006>
- A200 A. Golczewski, K. Dobes, G. Wachter, M. Schmid, and **F. Aumayr**
A quartz-crystal-microbalance technique to investigate ion - induced erosion of fusion relevant surfaces
Nuclear Instruments and Methods in Physics Research B **267** (2009) 695 – 699
<http://dx.doi.org/10.1016/j.nimb.2008.10.088>
- A199 R. J. Bereczky, G. Kowarik, **F. Aumayr**, and K. Tökési
Transmission of 4.5 keV Ar⁹⁺ ions through a single glass macro-capillary
Nuclear Instruments and Methods in Physics Research B **267** (2009) 317 - 320
<http://dx.doi.org/10.1016/j.nimb.2008.10.080>

2008

- A198 S. N. Markin, D. Primetzhofer, S. Prusa, M. Brunmayr, G. Kowarik, **F. Aumayr**, and P. Bauer
Electronic interaction of very slow light ions in Au - Electronic stopping and electron emission
Physical Review B **78** (2008) 195122 (6 pages)
<http://dx.doi.org/10.1103/PhysRevB.78.195122>
- A197 K. Igenbergs, J. Schweinzer, I. Bray, D. Bridi, and **F. Aumayr**
Database for Inelastic Collisions of Sodium Atoms with Electrons, Protons, and Multiply Charged Ions
Atomic Data and Nuclear Data Tables **94** (2008) 981 – 1014
<http://dx.doi.org/10.1016/j.adt.2008.06.001>
- A196 D. A. Kovacs, T. Peters, C. Haake, M. Schleberger, A. Wucher, A. Golczewski, **F. Aumayr**
and D. Diesing
Potential electron emission induced by multiply charged ions in thin film tunnel junctions
Physical Review B **77** (2008) 245432 (11 pages)
<http://dx.doi.org/10.1103/PhysRevB.77.245432>
- A195 T. Peters, C. Haake, D. Diesing, D. A. Kovacs, A. Golczewski, G. Kowarik, **F. Aumayr**, A. Wucher,
M. Schleberger
Hot electrons induced by slow multiply charged ions
New Journal of Physics **10** (2008) 073019 (8 pages)
<http://dx.doi.org/10.1088/1367-2630/10/7/073019>
- A194 A.S. El-Said, R. Heller, W. Meissl, R. Ritter, S. Facsko, C. Lemell, B. Solleder, I.C. Gebeshuber,
G. Betz, M. Toulemonde, W. Möller, J. Burgdörfer, and **F. Aumayr**
Creation of nano-hillocks on CaF₂ surfaces by single slow highly charged ions
Physical Review Letters **100** (2008) 237601 (4 pages)
<http://dx.doi.org/10.1103/PhysRevLett.100.237601>
- A193 **F. Aumayr**, A. S. El-Said, and W. Meissl
Nano-sized surface modifications induced by the impact of slow highly charged ions - A first review
Nuclear Instruments and Methods in Physics Research B **266** (2008) 2729 - 2735
<http://dx.doi.org/10.1016/j.nimb.2008.03.106>
- A192 W. Meissl, D. Winklehner, **F. Aumayr**, M. C. Simon, R. Ginzl, J. R. Crespo López-Urrutia, J. Ullrich,
B. Solleder, C. Lemell, and J. Burgdörfer
Electron emission from insulators irradiated by slow highly charged ions
e-Journal of Surface Science and Nanotechnology **6** (2008) 54 - 59
<http://dx.doi.org/10.1380/ejssnt.2008.54>

2007

- A191 R. Hoekstra, D. Bodewits, S. Knoop, R. Morgenstern, L. Mendez, L.F. Errea, C. Illescas, A. Macias,
B. Pons, A. Riera, **F. Aumayr** and HP. Winter
Charge exchange data for alpha particles interacting with atoms and molecules
Atomic and Plasma-Material Interaction Data for Fusion **13** (2007) 8 - 20
http://www-pub.iaea.org/MTCD/publications/PDF/APID-Vol13_web.pdf
- A190 K. Dimitriou, **F. Aumayr**, K. Katsonis, HP. Winter, M.I. Chibisov, R.K. Janev, X. Urbain and
F. Brouillard
*Atomic data for H⁺-He(1s²), He(nlm) collisions: Single ionization, excitation and charge exchange
cross sections*
Atomic and Plasma-Material Interaction Data for Fusion **13** (2007) 88 – 101
http://www-pub.iaea.org/MTCD/publications/PDF/APID-Vol13_web.pdf

- A189 C. Lemell, A. S. El-Said, W. Meissl, I. C. Gebeshuber, C. Trautmann, M. Toulemonde, J. Burgdörfer, and **F. Aumayr**
On the nano-hillock formation induced by slow highly charged ions on insulator surfaces
Solid State Electronics **51** (2007) 1398 -1404
<http://dx.doi.org/10.1016/j.sse.2007.06.016>
- A188 M. S. Gravielle, I. Aldazabal, A. Arnau, V. H. Ponce, J. E. Miraglia, **F. Aumayr**, S. Lederer, and H. Winter
Electron emission and energy loss in grazing collisions of protons with insulator surfaces
Physical Review A **76** (2007) 012904 (6 pages)
<http://dx.doi.org/10.1103/PhysRevA.76.012904>
- A187 A. S. El-Said, W. Meissl, M. C. Simon, J. R. Crespo López-Urrutia, I. C. Gebeshuber, J. Laimer, HP. Winter, J. Ullrich, and **F. Aumayr**
Creation of surface nanostructures by irradiation with slow highly charged ions
Radiation Effects and Defects in Solids **162** (2007) 467 - 472
<http://dx.doi.org/10.1080/10420150701470803>
- A186 **F. Aumayr**, and HP. Winter
Potential electron emission from metal and insulator surfaces
Springer Tracts in Modern Physics **225** (2007) 79 - 112
http://dx.doi.org/10.1007/3-540-70789-1_3
- A185 E. Galutschek, E. Salzborn, **F. Aumayr** and HP. Winter
Compact, low cost, 14.5 GHz all-permanent magnet ECR ion source
High Energy Physics and Nuclear Physics (Chinese Physics C) **31** (2007) 66 - 69
<http://hepnp.ihep.ac.cn/qikan/epaper/zhaiyao.asp?bsid=6105>
- A184 S. Figueira da Silva, HP. Winter, and **F. Aumayr**
Single and double electron capture cross sections for slow He²⁺ impact on O₂, H₂ and D₂
Physical Review A **75** (2007) 042706 (7 pages)
<http://dx.doi.org/10.1103/PhysRevA.75.042706>
- A183 A. S. El-Said, W. Meissl, M. C. Simon, J. R. Crespo López-Urrutia, C. Lemell, J. Burgdörfer, I. C. Gebeshuber, HP. Winter, J. Ullrich, C. Trautmann, M. Toulemonde, and **F. Aumayr**
Potential energy threshold for nanohillock formation by impact of slow highly charged ions on a CaF₂(111) surface
published online: arXiv.org cond-mat/0609246 (Sep. 2006)
Nuclear Instruments and Methods in Physics Research B **258** (2007) 167 - 171
<http://dx.doi.org/10.1016/j.nimb.2006.12.142>
- A182 C. Gruenberger, R. Ritter, F. Aumayr, H. Stachelberger, and I. C. Gebeshuber
Algal biophysics: Euglena gracilis investigated by atomic force microscopy
Materials Science Forum **555** (2007) 411 - 416
<http://dx.doi.org/10.4028/www.scientific.net/MSF.555.411>
- A181 E. Galutschek, R. Trassl, E. Salzborn, **F. Aumayr** and HP. Winter
Compact 14.5 GHz all-permanent magnet ECRIS for experiments with slow multicharged ions
Journal of Physics: Conference Series **58** (2007) 395 - 398
<http://dx.doi.org/10.1088/1742-6596/58/1/090>
- A180 M. Fürsatz, W. Meissl, S. Pleschko, I. C. Gebeshuber, N. Stolterfoht, HP. Winter, and **F. Aumayr**
Charging and discharging of nano-capillaries during ion-guiding of multiply charged projectiles
Journal of Physics: Conference Series **58** (2007) 319 - 322
<http://dx.doi.org/10.1088/1742-6596/58/1/071>
- A179 S. Figueira da Silva, G. Kowarik, **F. Aumayr** and HP. Winter
Single and double electron capture by slow He²⁺ from atoms and molecules
Journal of Physics: Conference Series **58** (2007) 181 - 184
<http://dx.doi.org/10.1088/1742-6596/58/1/036>

- A178 S. Lederer, H. Winter, HP. Winter, and **F. Aumayr**
Electronic excitations during grazing scattering of hydrogen atoms on KI(001) and LiF(001) surfaces
European Physical Journal D **41** (2007) 505 - 511
<http://dx.doi.org/10.1140/epjd/e2006-00270-4>
- A177 A. S. El-Said, **F. Aumayr**, S. Della-Negra, R. Neumann, K. Schwartz, M. Toulemonde, C. Trautmann, and K.-O. Voss
Scanning force microscopy of surface damage created by fast C₆₀ cluster ions in CaF₂ and LaF₃ single crystals
Nuclear Instruments and Methods in Physics Research B **256** (2007) 313 - 318
<http://dx.doi.org/10.1016/j.nimb.2006.12.025>
- A176 A. S. El-Said, W. Meissl, M. C. Simon, J. R. Crespo López-Urrutia, I. C. Gebeshuber, M. Lang, HP. Winter, J. Ullrich, and **F. Aumayr**
Surface nanostructures induced by slow highly charged ions on CaF₂ single crystals
Nuclear Instruments and Methods in Physics Research B **256** (2007) 346 - 349
<http://dx.doi.org/10.1016/j.nimb.2006.12.140>
- A175 W. Meissl, M. C. Simon, J. R. Crespo López-Urrutia, H. Tawara, J. Ullrich, HP. Winter, and **F. Aumayr**
Highly charged ion-induced potential electron emission from clean Au(111): Dependence on the projectile angle of incidence
Nuclear Instruments and Methods in Physics Research B **256** (2007) 520 - 523
<http://dx.doi.org/10.1016/j.nimb.2006.12.102>
- A174 HP. Winter, **F. Aumayr**, C. Lemell, J. Burgdörfer, S. Lederer and H. Winter
Kinetic electron emission by grazing atom scattering from clean flat metal surfaces
Nuclear Instruments and Methods in Physics Research B **256** (2007) 455 - 463
<http://dx.doi.org/10.1016/j.nimb.2006.12.044>
- 2006**
- A173 HP. Winter, **F. Aumayr**, H. Winter and S. Lederer
Recent advances in slow heavy particle induced electron emission
Mat. Fys. Medd. Dan. Vid. Selsk. **52** (2006) 525 – 556
(Matematisk-fysiske Meddelelser det Kongelige Danske Videnskabernes Selskab)
<http://dx.doi.org/10.1118/1.2823217>
- A172 W. Meissl, M. C. Simon, J. R. Crespo López-Urrutia, H. Tawara, J. Ullrich, HP. Winter, and **F. Aumayr**
Novel method for unambiguous ion identification in mixed ion beams extracted from an electron beam ion trap
Review Scientific Instruments **77** (2006) 093303 (4 pages)
<http://dx.doi.org/10.1063/1.2238856>
- A171 N. Schupfer, D.D. Tskhakaya sr., R. Khanal, S. Kuhn, **F. Aumayr**, S. Figueira da Silva, and HP. Winter
Effect of particle-induced electron emission (PIEE) on the plasma sheath voltage
Plasma Physics and Controlled Fusion **48** (2006) 1093 - 1103
<http://dx.doi.org/10.1088/0741-3335/48/8/004>
- A170 **F. Aumayr**, J. Stöckl, M. Fürsatz, W. Meissl and HP. Winter
Interaction of slow multiply charged Ar ions with a LiF insulator surface
e-Journal of Surface Science and Nanotechnology **4** (2006) 388 - 393
<http://dx.doi.org/10.1380/ejssnt.2006.388>

2005

- A169 HP. Winter, S. Lederer, **F. Aumayr** and H. Winter
Electron emission for grazing slow atom and ion impact on monocrystalline metal and insulator surfaces
Physica Scripta (Comments on Atomic and Molecular Physics) **72** (2005) C12
<http://dx.doi.org/10.1238/Physica.Regular.072a00C12>
- A168 S. Cernusca, M. Fürsatz, HP. Winter, and **F. Aumayr**
Ion-induced kinetic electron emission from HOPG with different surface orientation
Europhysics Letters **70** (2005) 768 - 774
<http://dx.doi.org/10.1209/epl/i2004-10521-x>
- A167 **F. Aumayr** and HP. Winter
Inelastic interactions of slow ions and atoms with surfaces
Nuclear Instruments and Methods in Physics Research B **233** (2005) 111 - 124
<http://dx.doi.org/10.1016/j.nimb.2005.03.093>
- 2004**
- A166 J. Stöckl, T. Suta, F. Ditroi, HP. Winter, and **F. Aumayr**
Separation of potential and kinetic electron emission for grazing impact of multiply charged Ar ions on a LiF(001) surface
Physical Review Letters **93** (2004) 263201 (4 pages)
<http://dx.doi.org/10.1103/PhysRevLett.93.263201>
- A165 M. Albu, **F. Aumayr**, and HP. Winter
State-selective and total single electron capture in slow collisions of He²⁺ on H₂, O₂ and CO
International Journal of Mass Spectrometry and Ion Processes **223** (2004) 239 - 244
<http://dx.doi.org/10.1016/j.ijms.2003.12.036>
- A164 K. Dimitriou, **F. Aumayr**, K. Katsonis and HP. Winter
H⁺ - He(1s²) collisions: CTMC calculations of single ionisation and excitation cross sections
International Journal of Mass Spectrometry and Ion Processes **223** (2004) 137 - 144
<http://dx.doi.org/10.1016/j.ijms.2003.12.014>
- A163 H. Winter, K. Maass, S. Lederer, HP. Winter and **F. Aumayr**
Kinetic electron emission for planar vs. axial surface channeling of He atoms and ions
Physical Review B **69** (2004) 054110 (4 pages)
<http://dx.doi.org/10.1103/PhysRevB.69.054110>
- A162 **F. Aumayr** and HP. Winter
Potential sputtering
Philosophical Transactions of the Royal Society London A **362** (2004) 77 -102
<http://dx.doi.org/10.1098/rsta.2003.1300>
- 2003**
- A161 **F. Aumayr** and HP. Winter
Slow Highly Charged Ions - A New Tool For Surface Nanostructuring?
e-Journal of Surface Science and Nanotechnology **1** (2003) 171-174
<http://dx.doi.org/10.1380/ejssnt.2003.171>
- A160 H. Winter, A. Mertens, S. Lederer, C. Auth, **F. Aumayr**, and HP. Winter
Electronic processes during impact of fast hydrogen atoms on a LiF(001) surface
Nuclear Instruments and Methods in Physics Research B **212** (2003) 45 - 50
<http://dx.doi.org/10.1016/j.nimb.2003.07.001>
- A159 I.C. Gebeshuber, S. Cernusca, **F. Aumayr** and HP. Winter
Nanoscale surface modification by slow ion bombardment
International Journal of Mass Spectrometry and Ion Processes **229** (2003) 27 - 34
[http://dx.doi.org/10.1016/S1387-3806\(03\)00252-5](http://dx.doi.org/10.1016/S1387-3806(03)00252-5)

- A158 A. Qayyum, W. Schustereder, C. Mair, P. Scheier, T. D. Märk, S. Cernusca, HP. Winter, and **F. Aumayr**
Electron emission and molecular fragmentation during hydrogen and deuterium ion impact on carbon surfaces
Journal of Nuclear Materials **313 - 316** (2003) 670 - 674
[http://dx.doi.org/10.1016/S0022-3115\(02\)01379-X](http://dx.doi.org/10.1016/S0022-3115(02)01379-X)
- A157 I.C. Gebeshuber, S. Cernusca, **F. Aumayr** and HP. Winter
AFM search for slow MCI-produced nanodefects on atomically clean monocrystalline insulator surfaces
Nuclear Instruments and Methods in Physics Research B **205** (2003) 751 - 757
[http://dx.doi.org/10.1016/S0168-583X\(03\)00573-1](http://dx.doi.org/10.1016/S0168-583X(03)00573-1)
- A156 S. Lederer, A. Mertens, H. Winter, **F. Aumayr**, HP. Winter and V. Staemmler
Electronic processes near kinematic threshold for grazing scattering of fast hydrogen atoms from a LiF(001) surface
Nuclear Instruments and Methods in Physics Research B **203** (2003) 23 - 28
[http://dx.doi.org/10.1016/S0168-583X\(02\)02168-7](http://dx.doi.org/10.1016/S0168-583X(02)02168-7)
- A155 S. Cernusca, HP. Winter, **F. Aumayr**, R. Díez Muiño, J.I. Juaristi
Molecular projectile effects for kinetic electron emission from carbon- and metal surfaces bombarded by slow hydrogen ions
Nuclear Instruments and Methods in Physics Research B **203** (2003) 1 - 7
[http://dx.doi.org/10.1016/S0168-583X\(02\)02165-1](http://dx.doi.org/10.1016/S0168-583X(02)02165-1)
- A154 S. Lederer, K. Maass, D. Blauth, H. Winter, HP. Winter and **F. Aumayr**
Kinetic electron emission from the selvage of a free-electron gas metal
Physical Review B **67** (2003) 121405 (Rapid Communication, 4 pages)
<http://dx.doi.org/10.1103/PhysRevB.67.121405>
- A153 S. Cernusca, HP. Winter, **F. Aumayr**, A. Qayyum, W. Schustereder, C. Mair, P. Scheier, T.D. Märk
Edge Plasma relevant ion-surface collision processes
International Journal of Mass Spectrometry and Ion Processes **223-224** (2003) 21 - 36
[http://dx.doi.org/10.1016/S1387-3806\(02\)00777-7](http://dx.doi.org/10.1016/S1387-3806(02)00777-7)
- 2002**
- A152 H. Winter, S. Lederer, K. Maass, A. Mertens, **F. Aumayr** and HP. Winter
Statistics of electron and exciton production for grazing impact of keV hydrogen atoms on a LiF(001) surface
Journal of Physics B: At.Mol.Opt.Phys. **35** (2002) 3315 - 3325
<http://dx.doi.org/10.1088/0953-4075/35/15/306>
- A151 M. Albu, **F. Aumayr**, J.-P. Klein, L. Mrazek, R. Wörgötter-Plunger, and HP. Winter
Charge exchange between slow doubly charged ions and simple molecules: Translational energy spectroscopy and data survey
Atomic and Plasma-Material Interaction Data for Fusion **10** (2002) 55 - 69
<http://www-pub.iaea.org/MTCD/publications/PDF/APID-VOL10.pdf>
- A150 S. Cernusca, A. Diem, HP. Winter, **F. Aumayr**, J. Lörincik, Z. Sroubek,
Kinetic electron emission from highly oriented pyrolytic graphite surfaces induced by singly charged ions.
Nuclear Instruments and Methods in Physics Research B **193** (2002) 616 - 620
[http://dx.doi.org/10.1016/S0168-583X\(02\)00875-3](http://dx.doi.org/10.1016/S0168-583X(02)00875-3)

- A149 J. Stöckl, HP. Winter, **F. Aumayr**, S. Lederer, A. Mertens, K. Maass and H. Winter
Formation of surface excitons and electron emission during grazing impact of hydrogen atoms on LiF(001)
Nuclear Instruments and Methods in Physics Research B **193** (2002) 645 - 650
[http://dx.doi.org/10.1016/S0168-583X\(02\)00880-7](http://dx.doi.org/10.1016/S0168-583X(02)00880-7)
- A148 X. Bonnin, H. Bürbaumer, R. Schneider, D. Coster, **F. Aumayr** and HP. Winter
The two-mesh grid refinement method for the B2 code
Contrib. Plasma Physics **42** (2002) 175 - 180
[http://dx.doi.org/10.1002/1521-3986\(200204\)42:2/4<175::AID-CTPP175>3.0.CO;2-P](http://dx.doi.org/10.1002/1521-3986(200204)42:2/4<175::AID-CTPP175>3.0.CO;2-P)
- A147 HP. Winter, **F. Aumayr**, J. Lörincik, and Z. Sroubek
A close look to subthreshold kinetic electron emission from clean metal surfaces: „Surface-assisted kinetic emission“ and „Potential excitation of plasmons“
Izvestia Rus. Akademii Nauk, Seriya Fizicheskaya **66** (2002) 548 - 550
- A146 J. Lörincik, Z. Sroubek, S. Cernusca, A. Diem, HP. Winter and **F. Aumayr**
Ion induced kinetic electron emission from highly oriented pyrolytic graphite by impact of H⁺, C⁺, N⁺ and O⁺.
Surface Science **504** (2002) 59 - 65
[http://dx.doi.org/10.1016/S0039-6028\(01\)01759-9](http://dx.doi.org/10.1016/S0039-6028(01)01759-9)
- A145 M. Albu, L. Mrazek, **F. Aumayr**, and HP. Winter
Single electron capture in slow collisions of doubly charged ions with di-nuclear molecules
International Journal of Molecular Sciences **3** (2002) 209 - 219
<http://dx.doi.org/10.3390/i3030209>
- A144 A. Mertens, S. Lederer, K. Maass, H. Winter, J. Stöckl, HP. Winter and **F. Aumayr**
Excitation vs. electron emission near their kinetic thresholds for grazing impact of hydrogen atoms on LiF(001)
Physical Review B **65** (2002) 132410 (4 pages)
<http://dx.doi.org/10.1103/PhysRevB.65.132410>
- 2001**
- A143 H.-D. Falter, M. Proschek, S. Menhart, **F. Aumayr**, HP. Winter, D. Ciric, A. Dines, D. Godden, T.T.C. Jones
Helium doped hydrogen or deuterium beam as cost effective and simple tool for plasma spectroscopy
Fusion Engineering & Design **56-57** (2001) 941 - 946
[http://dx.doi.org/10.1016/S0920-3796\(01\)00425-2](http://dx.doi.org/10.1016/S0920-3796(01)00425-2)
- A142 A. Mertens, K. Maass, S. Lederer, H. Winter, H. Eder, J. Stöckl, HP. Winter, **F. Aumayr**, J. Viefhaus and U. Becker
Studies on electron emission during grazing impact of keV hydrogen atoms on a LiF(001) surface via translational spectroscopy
Nuclear Instruments and Methods in Physics Research B **182** (2001) 23 - 28
[http://dx.doi.org/10.1016/S0168-583X\(01\)00650-4](http://dx.doi.org/10.1016/S0168-583X(01)00650-4)
- A141 HP. Winter, H. Eder, **F. Aumayr**, J. Lörincik and Z. Sroubek
Slow-ion induced electron emission from clean metal surfaces: „Subthreshold kinetic emission“ and „potential excitation of plasmons“
Nuclear Instruments and Methods in Physics Research B **182** (2001) 15 - 22
[http://dx.doi.org/10.1016/S0168-583X\(01\)00649-8](http://dx.doi.org/10.1016/S0168-583X(01)00649-8)
- A140 G. Hayderer, S. Cernusca, V. Hoffmann, D. Niemann, N. Stolterfoht, M. Schmid, P. Varga, HP. Winter and **F. Aumayr**
Sputtering of Au - and Al₂O₃ surfaces by slow highly charged ions
Nuclear Instruments and Methods in Physics Research B **182** (2001) 143 - 147
[http://dx.doi.org/10.1016/S0168-583X\(01\)00668-1](http://dx.doi.org/10.1016/S0168-583X(01)00668-1)

- A139 J. Lörincik, Z. Sroubek, **F. Aumayr** and HP. Winter
*Electron emission by Doppler-mediated formation of doubly excited H^{**} in grazing incidence of protons on clean Al(111)*
Europhysics Letters **54** (2001) 633 - 639
<http://dx.doi.org/10.1209/epl/i2001-00339-6>
- A138 J. Stöckl, C. Lemell, HP. Winter, and **F. Aumayr**
Electron emission in grazing HCl - LiF(001) collisions
Physica Scripta **T92** (2001) 135 - 137
<http://dx.doi.org/10.1238/Physica.Topical.092a00135>
- A137 G. Hayderer, S. Cernusca, M. Schmid, P. Varga, HP. Winter and **F. Aumayr**
STM studies of HCl-induced surface damage on highly oriented pyrolytic graphite
Physica Scripta **T92** (2001) 156 - 157
<http://dx.doi.org/10.1238/Physica.Topical.092a00156>
- A136 HP. Winter and **F. Aumayr**
Interaction of Slow HCl with Solid Surfaces – What Do We Know, What Should We Know?
Physica Scripta **T92** (2001) 15 - 21
<http://dx.doi.org/10.1238/Physica.Topical.092a00015>
- A135 G. Hayderer, S. Cernusca, M. Schmid, P. Varga, HP. Winter and **F. Aumayr**, D. Niemann, V. Hoffmann, N. Stolterfoht, C. Lemell, L. Wirtz, and J. Burgdörfer
Kinetically-assisted potential sputtering of insulators by highly charged ions
Physical Review Letters **86** (2001) 3530 - 3533
<http://dx.doi.org/10.1103/PhysRevLett.86.3530>
- A134 S. Menhart, M. Proschek, H.-D. Falter, H. Anderson, H. Summers, A. Staebler, P. Franzen, H. Meister, J. Schweinzer, T.T.C. Jones, S. Cox, N. Hawkes, **F. Aumayr** and HP. Winter
Explorative studies for the development of fast He beam diagnostics
Journal of Nuclear Materials **290 - 293** (2001) 673 - 677
[http://dx.doi.org/10.1016/S0022-3115\(00\)00446-3](http://dx.doi.org/10.1016/S0022-3115(00)00446-3)
- A133 H. Bürbaumer, R. Neu, R. Schneider, D. Coster, J. Stober, **F. Aumayr** and HP. Winter
Extension of the B2 edge code towards the plasma core for a self-consistent simulation of ASDEX Upgrade scenarios
Journal of Nuclear Materials **290 - 293** (2001) 571 - 574
[http://dx.doi.org/10.1016/S0022-3115\(00\)00587-0](http://dx.doi.org/10.1016/S0022-3115(00)00587-0)
- A132 H. Eder, **F. Aumayr**, P. Berlinger, H. Störi and HP. Winter
Excitation of plasmons by impact of slow ions in mono- and polycrystalline aluminum
Surface Science **472** (2001) 195 - 204
[http://dx.doi.org/10.1016/S0039-6028\(00\)00934-1](http://dx.doi.org/10.1016/S0039-6028(00)00934-1)
- 2000**
- A131 H. Eder, E. Galutschek, **F. Aumayr**, and HP. Winter
Slow ion-induced electron emission from clean surfaces: Relaxation paths of the potential and kinetic projectile energies
Uzbek Journal of Physics **2** (2000) 1 – 8
- A130 J. Lörincik, Z. Sroubek, H. Eder, **F. Aumayr**, and HP. Winter
Ion induced kinetic electron emission from clean polycrystalline gold induced by Impact of C^+ , N^+ , O^+ , Ne^+ , Xe^+ , and Au^+ ions
Physical Review B **62** (2000) 16116 - 16125
<http://dx.doi.org/10.1103/PhysRevB.62.16116>

A129 H. D. Falter, M. Proschek, S. Menhart, **F. Aumayr**, HP. Winter, D. Ciric, S. Cox, A. Dines, D. Godden, N. Hawkes and T.T.C. Jones
Helium doped hydrogen or deuterium beam as cost effective and simple tool for plasma spectroscopy
Review Scientific Instruments **71** (2000) 3723 - 3727
<http://dx.doi.org/10.1063/1.1289678>

A128 H. Eder, A. Mertens, K. Maass, H. Winter, HP. Winter and **F. Aumayr**
Electron emission during grazing H^0 - LiF(001) collisions
Physical Review A **62** (2000) 052901 (4 pages)
<http://dx.doi.org/10.1103/PhysRevA.62.052901>

A127 F. Biasioli, T. Fiegele, C. Mair, Z. Herman, O. Echt, **F. Aumayr**, HP. Winter, and T.D. Märk
Surface-induced dissociation of singly- and multiply-charged fullerene ions
Journal of Chemical Physics **113** (2000) 5053 - 5057
<http://dx.doi.org/10.1063/1.1288032>

A126 H. Eder, W. Messerschmidt, HP. Winter, and **F. Aumayr**
Electron emission from clean gold bombarded by slow Au^{q+} ($q = 1 - 3$) ions
Journal Applied Physics **87** (2000) 8198 - 8200
<http://dx.doi.org/10.1063/1.373519>

A125 J. I. Juaristi, C. Auth, H(elmut) Winter, A. Arnau, K. Eder, D. Semrad, P. Bauer, **F. Aumayr**, and P. M. Echenique
Explanation of the unexpected behaviour of the stopping of slow ions in ionic crystals
Physical Review Letters **84** (2000) 2124 - 2127
<http://dx.doi.org/10.1103/PhysRevLett.84.2124>

A124 G. Hayderer, C. Lemell, L. Wirtz, M. Schmid, J. Burgdörfer, P. Varga, HP. Winter and **F. Aumayr**
Observation of a threshold in potential sputtering of LiF surfaces
Nuclear Instruments and Methods in Physics Research B **164-165** (2000) 517 - 521
[http://dx.doi.org/10.1016/S0168-583X\(99\)01070-8](http://dx.doi.org/10.1016/S0168-583X(99)01070-8)

A123 L. Wirtz, G. Hayderer, C. Lemell, J. Burgdörfer, L. Hägg and C.O. Reinhold, P. Varga, HP. Winter and **F. Aumayr**
Curve crossing analysis for potential sputtering of insulators
Surface Science **451** (2000) 197 - 202
[http://dx.doi.org/10.1016/S0039-6028\(00\)00027-3](http://dx.doi.org/10.1016/S0039-6028(00)00027-3)

A122 C. Lemell, J. Stöckl, J. Burgdörfer, G. Betz, HP. Winter and **F. Aumayr**
Coincidence measurements of highly charged ions interacting with a clean Au(111) surface
Physical Review A **61** (2000) 012902 (7 pages)
<http://dx.doi.org/10.1103/PhysRevA.61.012902>

1999

A121 P. Scheier, B. Dünser, G. Senn, H. Drexel, HP. Winter, **F. Aumayr**, F. Biasioli, T. Fiegele and T.D. Märk
Stability of Fullerene Ions
European Physical Journal D **9** (1999) 91 - 94
<http://dx.doi.org/10.1007/s100530050405>

A120 G. Hayderer, M. Schmid, P. Varga, HP. Winter and **F. Aumayr**, L. Wirtz, C. Lemell, J. Burgdörfer, L. Hägg and C.O. Reinhold
Threshold for potential sputtering of LiF
Physical Review Letters **83** (1999) 3948 - 3951
<http://dx.doi.org/10.1103/PhysRevLett.83.3948>

- A119 R. Brandenburg, **F. Aumayr**, HP. Winter, G. Petravich, S. Zoletnik, S. Fiedler, K. McCormick, J. Schweinzer
Fast Li beam edge plasma spectroscopy at IPP Garching - Status and recent developments
Fusion Technology **36** (1999) 289 - 295
http://www.new.ans.org/pubs/journals/fst/a_109
- A118 G. Hayderer, M. Schmid, P. Varga, HP. Winter and **F. Aumayr**
A highly-sensitive quartz-crystal microbalance for sputtering investigations in slow ion-surface collisions
Review of Scientific Instruments **70** (1999) 3696 - 3700
<http://dx.doi.org/10.1063/1.1149979>
- A117 J. Schweinzer, R. Brandenburg, I. Bray, R. Hoekstra, **F. Aumayr**, R. K. Janev and HP. Winter
Database for inelastic collisions of Li atoms with electrons, protons and multiply charged ions
Atomic Data and Nuclear Data Tables **72** (1999) 239 - 273
<http://dx.doi.org/10.1006/adnd.1999.0815>
- A116 **F. Aumayr**, P. Varga and HP. Winter
Potential sputtering: desorption from insulator surfaces by impact of slow multicharged ions
International Journal of Mass Spectrometry and Ion Processes **192** (1999) 415 - 424
[http://dx.doi.org/10.1016/S1387-3806\(99\)00075-5](http://dx.doi.org/10.1016/S1387-3806(99)00075-5)
- A115 HP. Winter, H. Eder and **F. Aumayr**
Kinetic electron emission in the near - threshold region studied for different projectile charges
International Journal of Mass Spectrometry and Ion Processes **192** (1999) 407 - 413
[http://dx.doi.org/10.1016/S1387-3806\(99\)00074-3](http://dx.doi.org/10.1016/S1387-3806(99)00074-3)
- A114 **F. Aumayr**, J. Burgdörfer, G. Hayderer, P. Varga and HP. Winter
Evidence against the "Coulomb explosion" model for desorption from insulator surfaces by slow highly charged ions
Physica Scripta **T80** (1999) 240 - 242
<http://dx.doi.org/10.1238/Physica.Topical.080a00240>
- A113 H. Eder, C. Lemell, **F. Aumayr**, HP. Winter
Projectile charge effects in ion-induced kinetic electron emission from solid surfaces
Physica Scripta **T80** (1999) 236 - 237
<http://dx.doi.org/10.1238/Physica.Topical.080a00236>
- A112 C. Lemell, J. Stöckl, J. Burgdörfer, G. Betz, HP. Winter and **F. Aumayr**
Separation of kinetic and potential electron emission in HCl - surface interaction
Physica Scripta **T80** (1999) 76 - 78
<http://dx.doi.org/10.1238/Physica.Topical.080a00076>
- A111 H. Eder, **F. Aumayr**, HP. Winter
Search for projectile charge state dependence of kinetic electron emission from clean polycrystalline gold
Nuclear Instruments and Methods in Physics Research B **154** (1999) 185 - 193
[http://dx.doi.org/10.1016/S0168-583X\(99\)00034-8](http://dx.doi.org/10.1016/S0168-583X(99)00034-8)
- A110 S. Fiedler, R. Brandenburg, J. Baldzuhn, K. McCormick, **F. Aumayr**, J. Schweinzer, HP. Winter
Edge Plasma Diagnostics on W7-AS and ASDEX Upgrade using fast Li Beams
Journal of Nuclear Materials **266 - 269** (1999) 1279 - 1284
[http://dx.doi.org/10.1016/S0022-3115\(98\)00862-9](http://dx.doi.org/10.1016/S0022-3115(98)00862-9)
- A109 HP. Winter and **F. Aumayr**
Topical Review: *Hollow Atoms*
Journal of Physics B: At.Mol.Opt.Phys. **32** (1999) R39 - R65
<http://dx.doi.org/10.1088/0953-4075/32/7/005>

- A108 R. Brandenburg, J. Schweinzer, S. Fiedler, **F. Aumayr**, HP. Winter
Modelling of fast neutral Li beams for fusion edge plasma diagnostics
Plasma Physics and Controlled Fusion **41** (1999) 471-484
<http://dx.doi.org/10.1088/0741-3335/41/4/002>
- A107 C. Lemell, J. Stöckl, HP. Winter and **F. Aumayr**
A versatile electron detector for studies on ion-surface scattering
Review of Scientific Instruments **70** (1999) 1653 - 1657
<http://dx.doi.org/10.1063/1.1149647>
- A106 **F. Aumayr** and HP. Winter
Photonic, Electronic and Atomic Collisions 1997
Comments on Atomic and Molecular Physics **34** (1999) 341 - 346
- A105 **F. Aumayr**, J. Burgdörfer, P. Varga and HP. Winter
Sputtering of insulator surfaces by slow highly charged ions: "Coulomb explosion" or "Defect mediated desorption"?
Comments on Atomic and Molecular Physics **34** (1999) 201 – 219

1998

- A104 S. Zamini, G. Betz, W. Werner, **F. Aumayr**, HP. Winter, J. Anton and B. Fricke
Modelling kinetic electron emission for impact of slow N^+ on LiF
Surface Science **417** (1998) 372 - 383
[http://dx.doi.org/10.1016/S0039-6028\(98\)00691-8](http://dx.doi.org/10.1016/S0039-6028(98)00691-8)
- A103 P. Bauer, R. Golser, D. Semrad, P. Maier-Komor, **F. Aumayr**, A. Arnau
Influence of the chemical state on the stopping of protons and He-ions in some oxides
Nuclear Instruments and Methods in Physics Research B **136 - 138** (1998) 103 - 108
[http://dx.doi.org/10.1016/S0168-583X\(97\)00868-9](http://dx.doi.org/10.1016/S0168-583X(97)00868-9)
- A102 C. Lemell, J. Stöckl, J. Burgdörfer, G. Betz, HP. Winter and **F. Aumayr**
Multicharged ion impact on clean Au(111): Suppression of kinetic electron emission in glancing angle scattering
Physical Review Letters **81** (1998) 1965 - 1969
<http://dx.doi.org/10.1103/PhysRevLett.81.1965>
- A101 R. Brandenburg, J. Schweinzer, **F. Aumayr** and HP. Winter
Li($2p \leftarrow 2s$) excitation by impact of slow ions
Journal of Physics B: At.Mol.Opt.Phys. **31** (1998) 2585 - 2599
<http://dx.doi.org/10.1088/0953-4075/31/11/019>
- A100 S. Fiedler, R. Brandenburg, J. Baldzuhn, K. McCormick, **F. Aumayr**, J. Schweinzer, HP. Winter and W7-AS team
Impurity Investigations by means of Li beam induced charge exchange spectroscopy on W7-AS
Journal of Plasma and Fusion Research SERIES **1** (1998) 287 - 290
http://www.jspf.or.jp/JPFERS/PDF/Vol1/jpfrs1998_01-287.pdf
- A99 **F. Aumayr**, G. Betz, T. D. Märk, P. Scheier and HP. Winter
Electron emission from a clean gold surface bombarded by slow multiply charged fullerenes
International Journal of Mass Spectrometry and Ion Processes **174** (1998) 317 - 328
[http://dx.doi.org/10.1016/S0168-1176\(97\)00311-X](http://dx.doi.org/10.1016/S0168-1176(97)00311-X)

1997

- A98 C. Lemell, H. Eder, HP. Winter and **F. Aumayr**
Charge state effects in the interaction of multiply charged ions with surfaces
"The Nucleus" **34** (1997) 215 – 222

- A97 K. Eder, D. Semrad, P. Bauer, R. Golser, P. Maier-Komor, **F. Aumayr**, M. Penalba, A. Arnau, J. M. Ugalde and P. M. Echenique
Absence of a "threshold effect" in the energy loss of slow protons traversing solid large band gap insulators
Physical Review Letters **79** (1997) 4112 - 4115
<http://dx.doi.org/10.1103/PhysRevLett.79.4112>
- A96 P. Leputsch, D. Dumitriu, **F. Aumayr**, and HP. Winter
Final vibrational state resolved single electron capture for impact of ≤ 1 keV C^{2+} on H_2 , N_2 , O_2 and CO
Journal of Physics B: At.Mol.Opt.Phys. **30** (1997) 5009 - 5024
<http://dx.doi.org/10.1088/0953-4075/30/21/032>
- A95 D. Niemann, M. Grether, A. Spieler, N. Stolterfoht, C. Lemell, **F. Aumayr** and HP. Winter
Emission of low-energy electrons from slow N^{6+} ions interacting with a Au surface
Physical Review A **56** (1997) 4774 - 4780
<http://dx.doi.org/10.1103/PhysRevA.56.4774>
- A94 HP. Winter, M. Vana, G. Betz, **F. Aumayr**, H. Drexel, P. Scheier and T. D. Märk
Suppression of potential electron emission for impact of slow multicharged fullerenes on clean gold
Physical Review A **56** (1997) 3007 - 3010
<http://dx.doi.org/10.1103/PhysRevA.56.3007>
- A93 **F. Aumayr**, HP. Winter, J. Limburg, R. Hoekstra and R. Morgenstern
Comment on "Observation of hollow atoms or ions above insulator and metal surfaces"
Physical Review Letters **79** (1997) 2590
<http://dx.doi.org/10.1103/PhysRevLett.79.2590>
- A92 H. Eder, M. Vana, **F. Aumayr**, HP. Winter, J. I. Juaristi and A. Arnau
Projectile charge dependence of kinetic electron emission from clean gold
Physica Scripta **T73** (1997) 322 - 323
<http://dx.doi.org/10.1088/0031-8949/1997/T73/106>
- A91 M. Vana, **F. Aumayr**, HP. Winter, H. Drexel, V. Grill, P. Scheier and T. D. Märk
Electron emission for impact of slow fullerene ions on clean gold
Physica Scripta **T73** (1997) 318 - 319
<http://dx.doi.org/10.1088/0031-8949/1997/T73/104>
- A90 P. Varga, T. Neidhart, M. Sporn, G. Libiseller, M. Schmid, **F. Aumayr** and HP. Winter
Potential sputtering of insulators with hyper-thermal highly charged ions
Physica Scripta **T73** (1997) 307 - 310
<http://dx.doi.org/10.1088/0031-8949/1997/T73/100>
- A89 M. Sporn, G. Libiseller, T. Neidhart, M. Schmid, **F. Aumayr**, HP. Winter, P. Varga, M. Grether, D. Niemann and N. Stolterfoht
Potential sputtering of clean SiO_2 by slow highly charged ions
Physical Review Letters **79** (1997) 945 - 948
<http://dx.doi.org/10.1103/PhysRevLett.79.945>
- A88 A. Arnau, **F. Aumayr**, P. M. Echenique, M. Grether, W. Heiland, J. Limburg, R. Morgenstern, P. Roncin, S. Schippers, R. Schuch, N. Stolterfoht, P. Varga, T. J. M. Zouros, and HP. Winter
Interaction of Slow Multicharged Ions with Solid Surfaces
Surface Science Reports **27** (1997) 113 - 240
[http://dx.doi.org/10.1016/S0167-5729\(97\)00002-2](http://dx.doi.org/10.1016/S0167-5729(97)00002-2)
- A87 **F. Aumayr**, M. Vana, HP. Winter, H. Drexel, V. Grill, G. Senn, S. Matt, P. Scheier and T.D. Märk
Distinction between multicharged fullerene ions and their fragment ions with equal charge-to-mass
International Journal of Mass Spectrometry and Ion Processes **163** (1997) 9L - 14L
[http://dx.doi.org/10.1016/S0168-1176\(97\)00003-7](http://dx.doi.org/10.1016/S0168-1176(97)00003-7)

- A86 C. Lemell, HP. Winter and **F. Aumayr**
Charge state effects in the interaction of multiply charged ions with surfaces
Nuclear Instruments and Methods in Physics Research B **125** (1997) 146 - 152
[http://dx.doi.org/10.1016/S0168-583X\(96\)00897-X](http://dx.doi.org/10.1016/S0168-583X(96)00897-X)
- A85 P. Bauer, R. Golser, **F. Aumayr**, D. Semrad, A. Arnau, E. Zarate and R. Diez-Muino
Contribution of valence electrons to the electronic energy loss of hydrogen ions in oxides
Nuclear Instruments and Methods in Physics Research B **125** (1997) 102 - 105
[http://dx.doi.org/10.1016/S0168-583X\(96\)00790-2](http://dx.doi.org/10.1016/S0168-583X(96)00790-2)
- A84 N. Stolterfoht, D. Niemann, M. Grether, A. Spieler, A. Arnau, C. Lemell, **F. Aumayr** and HP. Winter
Structure and dynamics of hollow Ne atoms formed near a C and Al surface
Nuclear Instruments and Methods in Physics Research B **124** (1997) 303 - 313
[http://dx.doi.org/10.1016/S0168-583X\(96\)00840-3](http://dx.doi.org/10.1016/S0168-583X(96)00840-3)
- A83 D. Wutte, R. K. Janev, **F. Aumayr**, M. Schneider, J. Schweinzer, J.J. Smith and HP. Winter
Cross sections for Collision Processes of Li atoms interacting with electrons, protons, multicharged ions and hydrogen molecules
Atomic Data and Nuclear Data Tables **65** (1997) 155 - 180
<http://dx.doi.org/10.1006/adnd.1997.0736>
- A82 H. Eder, M. Vana, **F. Aumayr**, and HP. Winter
Precise total electron yield measurements for impact of singly or multiply charged ions on clean solid surfaces
Review of Scientific Instruments **68** (1997) 165 - 169
<http://dx.doi.org/10.1063/1.1147802>
- 1996**
- A81 G. Horvath J. Schweinzer, HP. Winter and **F. Aumayr**
Na(3p←3s) excitation by impact of slow multiply charged ions
Physical Review A **54** (1996) 3022 - 3028
<http://dx.doi.org/10.1103/PhysRevA.54.3022>
- A80 M. Pöckl, M. Hebenstreit, R. Fertner, T. Neger and **F. Aumayr**
Recombination - pumped XUV lasing in capillary discharges and dynamic z – pinches
Journal of Physics D: Applied Physics **29** (1996) 2091 - 2097
<http://dx.doi.org/10.1088/0022-3727/29/8/005>
- A79 M. Hebenstreit, R. Fertner, T. Neger, M. Pöckl and **F. Aumayr**
An experimental investigation of ablative capillary discharges as possible sources for amplified spontaneous emission in the XUV
Journal of Physics D: Applied Physics **29** (1996) 1933 - 1940
<http://dx.doi.org/10.1088/0022-3727/29/7/030>
- A78 J. Limburg, S. Schippers, R. Hoekstra, R. Morgenstern, H. Kurz, M. Vana, **F. Aumayr** and HP. Winter
On the formation of hollow atoms in front of an insulating LiF surface
Nuclear Instruments and Methods in Physics Research B **115** (1996) 237 - 241
[http://dx.doi.org/10.1016/0168-583X\(95\)01519-1](http://dx.doi.org/10.1016/0168-583X(95)01519-1)
- A77 HP. Winter, M. Vana, C. Lemell and **F. Aumayr**
Interaction of slow multicharged ions with solid surfaces: current concepts and new information on slow electron emission
Nuclear Instruments and Methods in Physics Research B **115** (1996) 224 - 232
[http://dx.doi.org/10.1016/0168-583X\(95\)01504-3](http://dx.doi.org/10.1016/0168-583X(95)01504-3)

- A76 **F. Aumayr**, M. Gieler, HP. Winter and J. Schweinzer
*Electron capture by doubly charged ions from laser excited alkali atoms:
III. Ne²⁺, Ar²⁺ - Na*(3p) collisions*
Journal of Physics B: At.Mol.Opt.Phys. **29** (1996) 1515 - 1523
<http://dx.doi.org/10.1088/0953-4075/29/8/015>
- A75 R. Golser, D. Semrad and **F. Aumayr**
Electronic stopping in a He-H₂ mixture substantially exceeds Bragg's rule value
Physical Review Letters **76** (1996) 3104 - 3107
<http://dx.doi.org/10.1103/PhysRevLett.76.3104>
- A74 C.Lemell, HP. Winter, **F. Aumayr**, J. Burgdörfer and F. Meyer
Image acceleration of highly charged ions by metal surfaces
Physical Review A **53** (1996) 880 - 885
<http://dx.doi.org/10.1103/PhysRevA.53.880>
- 1995**
- A73 M. Vana, **F. Aumayr**, C. Lemell and HP. Winter
Ion-induced electron emission from solid surfaces -information content of the electron number statistics
International Journal of Mass Spectrometry and Ion Processes **149/150** (1995) 45 - 57
[http://dx.doi.org/10.1016/0168-1176\(95\)04231-9](http://dx.doi.org/10.1016/0168-1176(95)04231-9)
- A72 C.Lemell, HP. Winter, **F. Aumayr**, J. Burgdörfer and C. Reinhold
Escape probabilities for electrons emitted during the interaction of slow highly charged ions with metal surfaces
Nuclear Instruments and Methods in Physics Research B **102** (1995) 33 - 36
[http://dx.doi.org/10.1016/0168-583X\(95\)80113-Z](http://dx.doi.org/10.1016/0168-583X(95)80113-Z)
- A71 J. Limburg, S. Schippers, R. Hoekstra, R. Morgenstern, H. Kurz, **F. Aumayr** and HP. Winter
Do hollow atoms exist in front of an insulating LiF(100) surface?
Physical Review Letters **75** (1995) 217 - 219
<http://dx.doi.org/10.1103/PhysRevLett.75.217>
- A70 J. Schweinzer, **F. Aumayr**, P. Platzer, M. Schneider, D. Wutte and HP. Winter
Two programs for calculations of collisional atomic data for lithium - beam plasma spectroscopy
Computer Physics Communication **88** (1995) 83 - 88
[http://dx.doi.org/10.1016/0010-4655\(95\)00032-B](http://dx.doi.org/10.1016/0010-4655(95)00032-B)
- A69 HP. Winter and **F. Aumayr**
The physics of highly charged ions
Comments on Atomic and Molecular Physics **31** (1995) 125 - 134
- A68 T. Neidhart, F. Pichler, **F. Aumayr**, HP. Winter, M. Schmid and P. Varga
Potential sputtering of Lithium Fluoride by slow multicharged ions
Physical Review Letters **74** (1995) 5280 - 5283
<http://dx.doi.org/10.1103/PhysRevLett.74.5280>
- A67 M. Vana, H. Kurz, HP. Winter and **F. Aumayr**
Potential and kinetic electron emission from clean gold induced by multicharged nitrogen ions
Nuclear Instruments and Methods in Physics Research B **100** (1995) 402 - 406
[http://dx.doi.org/10.1016/0168-583X\(94\)00846-9](http://dx.doi.org/10.1016/0168-583X(94)00846-9)
- A66 M. Vana, **F. Aumayr**, P. Varga and HP. Winter
Electron emission from polycrystalline Lithium-Fluoride bombarded by slow multicharged ions
Nuclear Instruments and Methods in Physics Research B **100** (1995) 284 - 289
[http://dx.doi.org/10.1016/0168-583X\(94\)00814-0](http://dx.doi.org/10.1016/0168-583X(94)00814-0)

- A65 T. Neidhart, F. Pichler, **F. Aumayr**, HP. Winter, M. Schmid and P. Varga
Secondary ion emission from lithium fluoride under impact of slow multicharged ions
Nuclear Instruments and Methods in Physics Research B **98** (1995) 465 - 468
[http://dx.doi.org/10.1016/0168-583X\(95\)00169-7](http://dx.doi.org/10.1016/0168-583X(95)00169-7)
- A64 M. Pöckl, H. Störi and **F. Aumayr**
Scheme for stationary continuous - wave vacuum- and extreme-ultraviolet lasing based on a plasma jet
Journal of Applied Physics **77** (1995) 3575 - 3577
<http://dx.doi.org/10.1063/1.358593>
- A63 M. Vana, **F. Aumayr**, P. Varga and HP. Winter
Electron emission from polycrystalline Lithium Fluoride induced by slow multicharged ions
Europhysics Letters **29** (1995) 55 - 60
<http://dx.doi.org/10.1209/0295-5075/29/1/010>
- 1994**
- A62 K. Ilcisin, S. Suckewer, **F. Aumayr** and J.L. Schwob
Demonstration of resonant fluorescence in MoVII induced by MoXII for possible lasing near 600 Å
Journal Optical Society America B **11** (1994) 1436 - 1444
<http://dx.doi.org/10.1364/JOSAB.11.001436>
- A61 M. Pöckl, M. Hebenstreit, T. Neger and **F. Aumayr**
Time - dependent collisional - radiative model for capillary discharge plasmas
Journal of Applied Physics **76** (1994) 733 - 737
<http://dx.doi.org/10.1063/1.357818>
- A60 H. Kurz, **F. Aumayr**, HP. Winter, D. Schneider, M.A. Briere and J.W. McDonald
Electron emission and image - charge acceleration for the impact of very highly charged ions on clean gold
Physical Review A **49** (1994) 4693 - 4702
<http://dx.doi.org/10.1103/PhysRevA.49.4693>
- A59 **F. Aumayr** and HP. Winter
Electron emission induced by slow highly charged ions on a clean metal surface
Nuclear Instruments and Methods in Physics Research B **90** (1994) 523 - 532
[http://dx.doi.org/10.1016/0168-583X\(94\)95607-3](http://dx.doi.org/10.1016/0168-583X(94)95607-3)
- A58 K. Töglhofer, **F. Aumayr**, H. Kurz, HP. Winter, P. Scheier and T.D. Märk
Electron emission induced by cluster impact on a clean metal surface
Nuclear Instruments and Methods in Physics Research B **88** (1994) 44 - 48
[http://dx.doi.org/10.1016/0168-583X\(94\)96078-X](http://dx.doi.org/10.1016/0168-583X(94)96078-X)
- A57 M. Leitner, D. Wutte, J. Brandstötter, **F. Aumayr** and HP. Winter
Single-stage 5 GHz ECR-multicharged ion source with high magnetic mirror ratio and biased disk
Review of Scientific Instruments **65** (1994) 1091 - 1093
<http://dx.doi.org/10.1063/1.1145073>
- A56 **F. Aumayr**, H. Kurz and HP. Winter
Slow electrons produced by slow multicharged ions on a clean metal surface
Nuclear Instruments and Methods in Physics Research B **87** (1994) 130 - 137
[http://dx.doi.org/10.1016/0168-583X\(94\)95248-5](http://dx.doi.org/10.1016/0168-583X(94)95248-5)
- A55 **F. Aumayr** and HP. Winter
Emission of slow and fast electrons from clean metal surfaces under impact of slow multicharged ions
Comments on Atomic and Molecular Physics **29** (1994) 275 - 303

1993

- A54 **F. Aumayr**, T.D. Märk and HP. Winter
The statistics of slow ion-induced electron emission from clean metal surfaces - measurement and applications
International Journal of Mass Spectrometry and Ion Processes **129** (1993) 17 - 29
[http://dx.doi.org/10.1016/0168-1176\(93\)87025-N](http://dx.doi.org/10.1016/0168-1176(93)87025-N)
- A53 **F. Aumayr**, H. Kurz, HP. Winter, D. Schneider, M.A. Briere and J.W. McDonald
Distinction between multicharged ion species with equal q/m
Review of Scientific Instruments **64** (1993) 3499 - 3502
<http://dx.doi.org/10.1063/1.1144274>
- A52 K. Töglhofer, **F. Aumayr**, H. Kurz, HP. Winter, P. Scheier and T.D. Märk
Near-threshold electron emission from impact of slow van der Waals clusters and fullerene ions on clean gold
Journal of Chemical Physics **99** (1993) 8254 - 8261
<http://dx.doi.org/10.1063/1.465651>
- A51 **F. Aumayr**, H. Kurz, D. Schneider, M.A. Briere, J.W. McDonald, C.E. Cunningham and HP. Winter
Emission of electrons from a clean gold surface induced by slow, very highly charged ions at the image charge acceleration limit
Physical Review Letters **71** (1993) 1943 - 1946
<http://dx.doi.org/10.1103/PhysRevLett.71.1943>
- A50 H. Kurz, **F. Aumayr**, C. Lemell, K. Töglhofer and HP. Winter
Neutralization of slow multicharged ions at a clean gold surface: Electron emission statistics
Physical Review A **48** (1993) 2192 - 2197
<http://dx.doi.org/10.1103/PhysRevA.48.2192>
- A49 H. Kurz, **F. Aumayr**, C. Lemell, K. Töglhofer and HP. Winter
Neutralization of slow multicharged ions at a clean gold surface: Total electron yields
Physical Review A **48** (1993) 2182 - 2191
<http://dx.doi.org/10.1103/PhysRevA.48.2182>
- A48 E. Wolfrum, **F. Aumayr**, D. Wutte, HP. Winter, E. Hintz, D. Rusbüldt and R.P. Schorn
Fast lithium - beam spectroscopy of tokamak edge plasmas
Review of Scientific Instruments **64** (1993) 2285 - 2292
<http://dx.doi.org/10.1063/1.1144460>
- A47 M. Gieler, **F. Aumayr**, M. Weber, HP. Winter and J. Schweinzer
Electron capture by doubly charged ions from laser excited alkali atoms: II. He²⁺ - Li(2p) collisions*
Journal of Physics B: At.Mol.Opt.Phys. **26** (1993) 2153 - 216
<http://dx.doi.org/10.1088/0953-4075/26/14/015>
- A46 M. Gieler, **F. Aumayr**, J. Schweinzer, W. Koppensteiner, W. Husinsky, HP. Winter, K. Lozhkin and J.P. Hansen
Electron capture by doubly charged ions from laser excited alkali atoms: I. He²⁺ - Na(3p) collisions*
Journal of Physics B: At.Mol.Opt.Phys. **26** (1993) 2137 - 2151
<http://dx.doi.org/10.1088/0953-4075/26/14/014>
- A45 **F. Aumayr**, H. Kurz, K. Töglhofer and HP. Winter
Slow electron emission from slow hollow atoms produced near a clean metal surface
Nuclear Instruments and Methods in Physics Research B **78** (1993) 99 - 105
[http://dx.doi.org/10.1016/0168-583X\(93\)95784-3](http://dx.doi.org/10.1016/0168-583X(93)95784-3)
- A44 K. Töglhofer, **F. Aumayr**, H. Kurz, HP. Winter, P. Scheier and T.D. Märk
Near-threshold electron emission from slow cluster impact on clean gold
Europhysics Letters **22** (1993) 597 - 602
<http://dx.doi.org/10.1209/0295-5075/22/8/007>

- A43 M. Gieler, **F. Aumayr**, R. Gaggl, C. Neureiter and L. Windholz
Application of an electro-optical modulator in inelastic collision studies with laser excited Na(3p) atoms*
Journal of Physics B: At.Mol.Opt.Phys. **26** (1993) 297 - 303
<http://dx.doi.org/10.1088/0953-4075/26/2/013>
- A42 K. Töglhofer, **F. Aumayr** and HP. Winter
Ion - induced electron emission from metal surfaces - insights from the emission statistics
Surface Science **281** (1993) 143 - 152
[http://dx.doi.org/10.1016/0039-6028\(93\)90864-G](http://dx.doi.org/10.1016/0039-6028(93)90864-G)
- 1992**
- A41 M. Gieler, **F. Aumayr** and L. Windholz
Coherent population trapping probed by charge exchange reactions
Physical Review Letters **69** (1992) 3452 - 3454
<http://dx.doi.org/10.1103/PhysRevLett.69.3452>
- A40 **F. Aumayr**, R.P. Schorn, M. Pöckl, J. Schweinzer, E. Wolfrum, K. McCormick, E. Hintz and H. Winter
Tokamak edge plasma densities measured by means of active Lithium beam diagnostics
Journal of Nuclear Materials **196-198** (1992) 928 - 932
[http://dx.doi.org/10.1016/S0022-3115\(06\)80170-4](http://dx.doi.org/10.1016/S0022-3115(06)80170-4)
- A39 H. Kurz, K. Töglhofer, HP. Winter, **F. Aumayr** and R. Mann
Electron emission from slow hollow atoms at a clean metal surface
Physical Review Letters **69** (1992) 1140 - 1143
<http://dx.doi.org/10.1103/PhysRevLett.69.1140>
- A38 K.Ohya, **F. Aumayr** and H. Winter
Statistics of ion - induced kinetic electron emission - a comparison between experimental and Monte Carlo - simulated results
Physical Review B **46** (1992) 3101 - 3104
<http://dx.doi.org/10.1103/PhysRevB.46.3101>
- A37 J. Schweinzer, E. Wolfrum, **F. Aumayr**, M. Pöckl, H. Winter, R.P. Schorn, E. Hintz and A. Unterreiter
Reconstruction of plasma edge density profiles from LiI(2s-2p) emission profiles
Plasma Physics and Controlled Fusion **34** (1992) 1173 - 1183
<http://dx.doi.org/10.1088/0741-3335/34/7/001>
- A36 **F. Aumayr**, M. Gieler, J. Schweinzer, H. Winter and J.P. Hansen
Electron capture in He²⁺ collisions with aligned Na(3p) atoms*
Physical Review Letters **68** (1992) 3277 - 3280
<http://dx.doi.org/10.1103/PhysRevLett.68.3277>
- A35 R.P. Schorn, E. Wolfrum, **F. Aumayr**, E. Hintz, D. Rusbüldt and H. Winter
Radial temperature distributions of C⁶⁺ - ions in the TEXTOR edge plasma measured with Li-CXS
Nuclear Fusion **32** (1992) 351 - 359
<http://dx.doi.org/10.1088/0029-5515/32/3/I01>
- 1991**
- A34 **F. Aumayr**, W. Lee, C.H. Skinner and S. Suckewer
Quenching of Einstein - coefficients by photons
Journal of Physics B: At.Mol.Opt.Phys. **24** (1991) 4489 - 4504
<http://dx.doi.org/10.1088/0953-4075/24/21/005>

- A33 **F. Aumayr**, M. Gieler, E. Unterreiter and H. Winter
State - selective electron capture by He²⁺ ions from laser - excited Na(3p)*
Europhysics Letters **16** (1991) 557 - 561
<http://dx.doi.org/10.1209/0295-5075/16/6/008>
- A32 M. Gieler, **F. Aumayr**, M. Hüttenecker and H. Winter
Laser enhanced L_α emission from (50 eV - 15 keV) H⁺ - Na collisions
Journal of Physics B: At.Mol.Opt.Phys. **24** (1991) 4419 - 4429
<http://dx.doi.org/10.1088/0953-4075/24/20/012>
- A31 E. Unterreiter, **F. Aumayr** and H. Winter
Multicharged ion-atom collisions - application for Tokamak edge plasma physics
Zeitschrift für Physik D: Atoms Molecules and Clusters **21** Supp. 1 (1991) S167 - S168
<http://dx.doi.org/10.1007/BF01426277>
- A30 H. Winter, **F. Aumayr** and G. Lakits
Recent advances in understanding particle induced electron emission from metal surfaces
Nuclear Instruments and Methods in Physics Research B **58** (1991) 301 - 308
[http://dx.doi.org/10.1016/0168-583X\(91\)95859-C](http://dx.doi.org/10.1016/0168-583X(91)95859-C)
- A29 M. Gieler, P. Ziegelwanger, **F. Aumayr**, H. Winter and W. Fritsch
Experimental and theoretical investigation of electron capture and target excitation in (1 - 20 keV) H⁺ - K collisions
Journal of Physics B: At.Mol.Opt.Phys. **24** (1991) 647 - 655
<http://dx.doi.org/10.1088/0953-4075/24/3/020>
- A28 **F. Aumayr**, G. Lakits and H. Winter
On the measurement of statistics for particle - induced electron emission from a clean metal surface
Applied Surface Science **47** (1991) 139 - 147
[http://dx.doi.org/10.1016/0169-4332\(91\)90028-I](http://dx.doi.org/10.1016/0169-4332(91)90028-I)
- A27 R.P. Schorn, E. Hintz, D. Rusbüldt, **F. Aumayr**, M. Schneider, E. Unterreiter and H. Winter
Absolute concentrations of light impurity ions in tokamak discharges measured with Lithium beam activated charge exchange spectroscopy
Applied Physics B **52** (1991) 71 - 78
<http://dx.doi.org/10.1007/BF00357658>
- A26 M. Gieler, **F. Aumayr**, P. Ziegelwanger, H. Winter and W. Fritsch
L_α emission from (0.1 - 20 keV) H⁺ impact on Li, Na, K
Physical Review A **43** (1991) 127 - 133
<http://dx.doi.org/10.1103/PhysRevA.43.127>
- 1990**
- A25 G. Lakits, **F. Aumayr**, M. Heim and H. Winter
Threshold of ion-induced kinetic electron emission from a clean metal surface
Physical Review A **42** (1990) 5780 – 5783 (Rapid Communication)
<http://dx.doi.org/10.1103/PhysRevA.42.5780>
- 1989**
- A24 G. Lakits, **F. Aumayr** and H. Winter
Electronic effects in slow heavy particle - induced electron emission from a clean metal surface
Europhysics Letters **10** (1989) 679 - 685
<http://dx.doi.org/10.1209/0295-5075/10/7/013>
- A23 **F. Aumayr**, J. Hung and S. Suckewer
Quenching of Einstein's A-coefficients by photons
Physical Review Letters **63** (1989) 1215 – 1218
<http://dx.doi.org/10.1103/PhysRevLett.63.1215>

- A22 **F. Aumayr** and H. Winter
Experimental investigations on electron capture in the presence of metastable ion beam fractions
Physica Scripta T **28** (1989) 96 - 100
<http://dx.doi.org/10.1088/0031-8949/1989/T28/017>
- A21 H.B. Gilbody, A. Salin, **F. Aumayr**, A Barany, D.S. Belkic, R. Hoekstra, R.K. Janev, Y. Nakai, R. D. Rivarola, H. Tawara and T. Watanabe
Review of the data base for collisions of C^{q+} and O^{q+} ions with H, H₂ and He
Physica Scripta T **28** (1989) 8 - 9
<http://dx.doi.org/10.1088/0031-8949/1989/T28/002>
- A20 G. Lakits, **F. Aumayr** and H. Winter
On the statistics of heavy particle - induced kinetic electron emission from a clean metal surface
Physics Letters A **139** (1989) 395 - 398
[http://dx.doi.org/10.1016/0375-9601\(89\)90586-0](http://dx.doi.org/10.1016/0375-9601(89)90586-0)
- A19 G. Lakits, **F. Aumayr** and H. Winter
Statistics of ion - induced electron emission from a clean metal surface
Review of Scientific Instruments **60** (1989) 3151 - 3159
<http://dx.doi.org/10.1063/1.1140546>
- A18 G. Lakits, **F. Aumayr** and H. Winter
Statistics of potential electron emission
Radiation Effects and Defects in Solids **109** (1989) 129 - 136
<http://dx.doi.org/10.1080/10420158908220528>
- A17 A. Pospieszczyk, **F. Aumayr**, H.L. Bay, E. Hintz, P. Leismann, Y.T. Lie, G.G. Ross, D. Rusbüldt, R.P. Schorn, B. Schweer and H. Winter
Recent developments for plasma edge diagnostics using atomic beams
Journal of Nuclear Materials **162-164** (1989) 574 - 581
[http://dx.doi.org/10.1016/0022-3115\(89\)90330-9](http://dx.doi.org/10.1016/0022-3115(89)90330-9)
- A16 **F. Aumayr**, J. Schweinzer and H. Winter
State - selective electron capture in He²⁺ - Li collisions studied jointly by photon - and translational energy spectroscopy
Journal of Physics B: At.Mol.Opt.Phys. **22** (1989) 1027 - 1034
<http://dx.doi.org/10.1088/0953-4075/22/7/011>
- A15 G. Lakits, **F. Aumayr** and H. Winter
Statistics of electron emission from metal surfaces bombarded by ions with different charge states
Journal de Physique C1 - **50** (1989) 533 - 539
<http://dx.doi.org/10.1051/jphyscol:1989156>
- 1987**
- A14 **F. Aumayr** and H. Winter
L_α - emission in H⁺ - Na collisions (1 - 20 keV)
Journal of Physics B: At. Mol. Phys. **20** (1987) L803 - L807
<http://dx.doi.org/10.1088/0022-3700/20/23/006>
- A13 **F. Aumayr**, G. Lakits and H. Winter
Electron capture and target excitation in slow ion - alkali atom collisions: A systematic study
Zeitschrift für Physik D: Atoms, Molecules and Clusters **6** (1987) 145 - 153
<http://dx.doi.org/10.1007/BF01384601>
- A12 **F. Aumayr**, G. Lakits and H. Winter
Charge transfer and target excitation in H⁺ - Na(3s) collisions (2 - 20 keV)
Journal of Physics B: At.Mol.Phys. **20** (1987) 2025 - 2030
<http://dx.doi.org/10.1088/0022-3700/20/9/015>

1986

A11 **F. Aumayr**, G. Lakits and H. Winter
Primary ion state conservation in electron capture from Li(2s) by singly charged ions
Physics Letters A **114** (1986) 81 - 83
[http://dx.doi.org/10.1016/0375-9601\(86\)90484-6](http://dx.doi.org/10.1016/0375-9601(86)90484-6)

A10 **F. Aumayr**, G. Lakits and H. Winter
Electron capture from Li(2s) by doubly charged ions (5 - 40 keV)
Physical Review A **33** (1986) 846 - 850
<http://dx.doi.org/10.1103/PhysRevA.33.846>

1985

A09 **F. Aumayr** and H. Winter
Excitation by impact of He⁺ (2 - 20 keV) on Li(2s)
Journal of Physics B: At.Mol.Phys. **18** (1985) L741 - L746
<http://dx.doi.org/10.1088/0022-3700/18/21/004>

A08 **F. Aumayr** and H. Winter
Plasmadiagnostik mit Lithiumatomstrahl aktivierter Umladungsspektroskopie
Annalen der Physik **497** (1985) 228 - 238
<http://dx.doi.org/10.1002/andp.19854970304>

A07 **F. Aumayr**, G. Lakits, W. Husinsky and H. Winter
Inelastic H⁺ - Li(2s) collisions (2-20 keV): III. Electron capture into the H(2s) subshell
Journal of Physics B: At.Mol.Phys. **18** (1985) 2493 - 2501
<http://dx.doi.org/10.1088/0022-3700/18/12/024>

A06 **F. Aumayr** and H. Winter
Total single electron capture cross sections for impact of H⁺, H₂⁺, He⁺ and Ne⁺ (2 - 20 keV) on Li
Physical Review A **31** (1985) 67 - 71
<http://dx.doi.org/10.1103/PhysRevA.31.67>

1984

A05 **F. Aumayr**, M. Fehringer and H. Winter
Inelastic H⁺ - Li(2s) collisions (2-20 keV): II. Electron capture into H(2p)- and H(3,l) subshells
Journal of Physics B: At.Mol.Phys. **17** (1984) 4201 - 4211
<http://dx.doi.org/10.1088/0022-3700/17/20/018>

A04 **F. Aumayr**, M. Fehringer and H. Winter
Inelastic H⁺ - Li(2s) collisions (2-20 keV): I. Experimental methods and Li(2p) excitation
Journal of Physics B: At.Mol.Phys. **17** (1984) 4185 - 4199
<http://dx.doi.org/10.1088/0022-3700/17/20/017>

A03 P. Bauer, **F. Aumayr**, D. Semrad and B.M.U. Scherzer
Measurement of the stopping cross section for protons in copper by backscattering using various methods for foil-thickness determination
Nuclear Instruments and Methods B **1** (1984) 1 - 8
[http://dx.doi.org/10.1016/0168-583X\(84\)90469-5](http://dx.doi.org/10.1016/0168-583X(84)90469-5)

1983

A02 D. Semrad, P. Bauer, **F. Aumayr**, P. Huber and W. Obermann
Search for an influence of the measuring method on stopping cross section data near the maximum
Nuclear Instruments and Methods **218** (1983) 811 - 816
[http://dx.doi.org/10.1016/0167-5087\(83\)91088-8](http://dx.doi.org/10.1016/0167-5087(83)91088-8)

- A01 **F. Aumayr**, P. Bauer and D. Semrad
Accuracy of stopping cross section determination from RBS-spectra by Wartens' method
Nuclear Instruments and Methods **212** (1983) 529 - 532
[http://dx.doi.org/10.1016/0167-5087\(83\)90738-X](http://dx.doi.org/10.1016/0167-5087(83)90738-X)