

R G LIST OF PUBLICATIONS 2012 - 2020

P E E R - R E V I E W E D (SEQ. NO. FROM WEB OF SCIENCE)

89.

"The chronology of Tell el-Daba: a crucial meeting point of ^{14}C dating, archaeology, and egyptology in the 2nd millennium BC";

W. Kutschera, M. Bietak, E.M. Wild, C. Bronk Ramsey, M. Dee, **R. Golser**, K. Kopetzky, P. Stadler, P. Steier, U. Thanheiser, F. Weninger;

Radiocarbon 54/3-4 (2012) 407--422; 10.1017/S0033822200047172 .

90.

moved to proceedings

91.

"Light induced suppression of sulfur in a cesium sputter ion source";

M. Martschini, J. Rohlén, P. Andersson, **R. Golser**, D. Hanstorp, A.O. Lindahl, A. Priller, P. Steier, O. Forstner;

Int. J. Mass. Spectr. 315 (2012) 55--59; 10.1016/j.ijms.2012.02.023 .

92.

"Stable platinum isotope measurements in presolar nanodiamonds by TEAMS",

A. Wallner, K. Melber, S. Merchel, U. Ott, O. Forstner, **R. Golser**, W. Kutschera, A. Priller, P. Steier, Nucl. Instr. and Meth. B 294 (2013) 496--502; 10.1016/j.nimb.2012.03.036 .

93.

"High-sensitivity isobar-free AMS measurements and reference materials for ^{55}Fe , ^{68}Ge , ^{202}gPb ";

A. Wallner, M. Bichler, K. Buczak, D. Fink, O. Forstner, **R. Golser**, M.A.C. Hotchkis, A. Klix, A. Krasa, W. Kutschera, C. Lederer, A. Plompen, A. Priller, D. Schumann, V. Semkova, P. Steier;

Nucl. Instr. and Meth. B 294 (2013) 374--381; 10.1016/j.nimb.2012.03.029 .

94.

"Carbon background and ionization yield of an AMS system during ^{14}C measurements of microgram-size graphite samples";

J. Liebl, P. Steier, **R. Golser**, W. Kutschera, K. Mair, A. Priller, I. Vonderhaid, E.M. Wild;

Nucl. Instr. and Meth. B 294 (2013) 335--339; 10.1016/j.nimb.2012.06.015 .

95.

"AMS of Cl with the VERA 3 MV tandem accelerator";

M. Martschini, P. Andersson, O. Forstner, **R. Golser**, D. Hanstorp, A.O. Lindahl, W. Kutschera, S. Pavetich, A. Priller, J. Rohlén, P. Steier, M. Suter, A. Wallner;

Nucl. Instr. and Meth. B 294 (2013) 115--120; 10.1016/j.nimb.2012.01.055 .

96.

"Cesium, iodine and tritium in NW Pacific waters – a comparison of the Fukushima impact with global fallout";

P.P. Povinec, M. Aoyama, D. Biddulph, R. Breier, K. Buesseler, C.C. Chang, **R. Golser**, X.L. Hou, M. Jeskovsky, A.J.T. Jull, J. Kaizer, M. Nakano, H. Nies, L. Palcsu, L. Papp, M.K. Pham, P. Steier, L.Y. Zhang;

Biogeosciences 10 (2013) 5481--5496; 10.5194/bg-10-5481-2013 .

97.

"A New UV Oxidation Setup for Small Radiocarbon Samples in Solution";

P. Steier, C. Fasching, K. Mair, J. Liebl, T. Battin, A. Priller, **R. Golser**;

Radiocarbon 55/2-3 (2013) 373--382; 10.1017/S0033822200057490 .

98.

moved to proceedings

99.

"Spectroscopic analysis of the blue light emitted from Middleton type cesium sputter negative ion sources";

P. Andersson, M. Martschini, A. Priller, P. Steier, **R. Golser**, O. Forstner;
Nucl. Instr. and Meth. B 295 (2013) 55--60, 10.1016/j.nimb.2012.11.009 .

100.

"Iodine-129 in Seawater Offshore Fukushima: Distribution, Inorganic Speciation, Sources, and Budget";

X. Hou, P.P. Povinec, L. Zhang, K. Shi, D. Biddulph, Ch.-Ch. Chang, Y. Fan, **R. Golser**, Y. Hou, M. Jeskovsky, A.J.T. Jull, Q. Liu, M. Luo, P. Steier, W. Zhou;
Environ. Sci. Technol. 47 (2013) 3091--3098, 10.1021/es304460k .

101.

"Metastable states of (D₂)⁻ observed by foil-induced Coulomb explosion imaging";

P. Herwig, D. Schwalm, M. Cizek, **R. Golser**, M. Grieser, O. Heber, R. Repnow, A. Wolf, H. Kreckel;
Phys. Rev. A 87 (2013) 062513, 10.1103/PhysRevA.87.062513 .

102.

"Sequential Injection Method for Rapid and Simultaneous Determination of U-236, Np-237, and Pu Isotopes in Seawater";

JX. Qiao, XL. Hou, P. Steier, **R. Golser**;
Anal. Chem. 85 (2013) 11026--11033, 10.1021/ac402673p .

103.

"Metastable states of diatomic hydrogen anions";

H. Kreckel, P. Herwig, D. Schwalm, M. Cizek, **R. Golser**, O. Heber, B. Jordon-Thaden, A. Wolf;
Journal of Physics Conference Series 488/1 (2014) 012034; 10.1088/1742--6596/488/1/012034 .

104.

"Interlaboratory study of the ion source memory effect in ³⁶Cl accelerator mass spectrometry";

S. Pavetich, S. Akhmadaliev, M. Arnold, G. Aumaitre, D. Bourles, J. Buchriegler, **R. Golser**, K. Keddadouche, M. Martschini, S. Merchel, G. Rugel, P. Steier;
Nucl. Instr. and Meth. B 329 (2014) 22--29; <https://doi.org/10.1016/j.nimb.2014.02.130> .

105.

"Measurement of the Strong Interaction Induced Shift and Width of the 1s State of Kaonic Deuterium at J-PARC";

J. Zmeskal, ..., **R. Golser**, ..., J. Lachner, ..., (77 Co-Authors);
Acta Physica Polonica B 46 (2015) 101--112; 10.5506/APhysPolB.46.101).

106.

"On the effect of organic carbon on rehydroxylation (RHX) dating";

M. Numrich, W. Kutschera, P. Steier, J.H. Sterba, **R. Golser**;
Journal of Archaeological Science 57 (2015) 92--97; <https://doi.org/10.1016/j.jas.2015.01.016> .

107.

"Accelerator Mass Spectrometry of Actinides in Ground- and Seawater: An Innovative Method Allowing for the Simultaneous Analysis of U, Np, Pu, Am, and Cm Isotopes below ppq Levels";

F. Quinto, **R. Golser**, M. Lagos, M. Plaschke, T. Schaefer, P. Steier, H. Geckeis;
Anal. Chem. 87/11 (2015) 5766--5773; 10.1021/acs.analchem.5b00980 .

108.

"Method for ²³⁶U Determination in Seawater Using Flow Injection Extraction Chromatography and Accelerator Mass Spectrometry";

JX. Qiao, XL. Hou, P. Steier, S. Nielsen, **R. Golser**;
Anal. Chem. 87/14 (2015) 7411--7417; 10.1021/acs.analchem.5b01608 .

109.

"Retrospective study of ^{14}C concentration in the vicinity of NPP Jaslovske Bohunice using tree rings and the AMS technique";

M. Jeskovsky, P.P. Povinec, P. Steier, A. Sivo, M. Richtarikova, **R. Golser**;

Nucl. Instr. and Meth. B 361 (2015) 129--132; <https://doi.org/10.1016/j.nimb.2015.04.036> .

110.

"Preliminary AMS measurements of ^{10}Be at the CENTA facility";

M. Jeskovsky, P. Steier, A. Priller, R. Breier, P.P. Povinec, **R. Golser**;

Nucl. Instr. and Meth. B 361 (2015) 139--142; <https://doi.org/10.1016/j.nimb.2015.04.072> .

111.

"Isobar separation of ^{93}Zr and ^{93}Nb at 24 MeV with a new multi-anode ionization chamber";

M. Martschini, J. Buchriegler, P. Collon, W. Kutschera, J. Lachner, W. Lu, A. Priller, P. Steier, **R. Golser**;

Nucl. Instr. and Meth. B 361 (2015) 201--206; <https://doi.org/10.1016/j.nimb.2015.03.061>

112.

"The ILIAS project for selective isobar suppression by laser photodetachment";

O. Forstner, P. Andersson, D. Hanstorp, J. Lahner, M. Martschini, J. Pitters, A. Priller, P. Steier, **R. Golser**;

Nucl. Instr. and Meth. B 361 (2015) 217--221; <https://doi.org/10.1016/j.nimb.2015.04.021> .

113.

"Developments towards detection of Cs-135 at VERA";

J. Lachner, M. Kasberger, M. Martschini, A. Priller, P. Steier, **R. Golser**;

Nucl. Instr. and Meth. B 361 (2015) 440--444; [10.1016/j.nimb.2015.01.032](https://doi.org/10.1016/j.nimb.2015.01.032) .

114.

"He stripping for AMS of ^{236}U and other actinides using a 3 MV tandem accelerator";

S.R. Winkler, P. Steier, J. Buchriegler, J. Lachner, J. Pitters, A. Priller, **R. Golser**;

Nucl. Instr. and Meth. B 361 (2015) 458--464; [10.1016/j.nimb.2015.04.029](https://doi.org/10.1016/j.nimb.2015.04.029) .

115.

"Using the nuclear activation AMS method for determining chlorine in solids at ppb-levels and below";

S.R. Winkler, R. Eigl, O. Forstner, M. Martschini, P. Steier, J.H. Sterba, **R. Golser**;

Nucl. Instr. and Meth. B 361 (2015) 649--653; <https://doi.org/10.1016/j.nimb.2015.06.003> .

115+1. Gloser in WoS

"Temporal and vertical distributions of anthropogenic ^{236}U in the Japan Sea using a coral core and seawater samples";

A. Sakaguchi, T. Nomura, P. Steier, **R. Gloser**, K. Sasaki, T. Watanabe, T. Nakakuki, Y. Takahashi, H. Yamano;

J. Geophys. Res.: Oceans 121 (2016) 4-13; <https://doi.org/10.1002/2015JC011109> .

116.

Recent near-Earth supernovae probed by global deposition of interstellar radioactive ^{60}Fe ;

A. Wallner, J. Feige, N. Kinoshita, M. Paul, L.K. Fifield, **R. Golser**, M. Honda, U. Linnemann, H. Matsuzaki, S. Merchel, G. Rugel, S.G. Tims, P. Steier, T. Yamagata, S. Winkler;

Nature 532 (2016) 69--72; [10.1038/nature17196](https://doi.org/10.1038/nature17196) .

117.

"Formation probability of metastable molecular hydrogen anions $H_mD_n^-$ ($m, n=0-3$ and m plus $n=2, 3$) in sputtering";

H. Gnaser, **R. Golser**;

Int. J. Mass Spectr. 410 (2016) 52--56; 10.1016/j.ijms.2016.11.004 .

118.

"Plutonium Isotopes ($^{239-241}Pu$) Dissolved in Pacific Ocean Waters Detected by Accelerator Mass Spectrometry: No Effects of the Fukushima Accident Observed";

K. Hain, T. Faestermann, L. Fimiani, **R. Golser**, J.M. Gomez-Guzman, G. Korschinek, F. Kortmann, C.L. von Gostomski, P. Ludwig, P. Steier, H. Tazoe, M. Yamada;

Environ. Sci. Technol. 51 (2017) 2031--2037; 10.1021/acs.est.6b05605 .

119.

"Reconstruction of the temporal distribution of U-236/U-238 in the Northwest Pacific Ocean using a coral core sample from the Kuroshio Current area";

T. Nomura, A. Sakaguchi, P. Steier, R. Eigl, A. Yamakawa, T. Watanabe, K. Sasaki, T. Watanabe, **R. Golser**, Y. Takahashi, H. Yamano;

Marine Chemistry 190 (2017) 28--34; <https://doi.org/10.1016/j.marchem.2016.12.008> .

120.

"Selective laser photodetachment of intense atomic and molecular negative ion beams with the ILIAS RFQ ion beam cooler";

M. Martschini, J. Pitters, T. Moreau, P. Andersson, O. Forstner, D. Hanstorp, J. Lachner, Y. Liu, A. Priller, P. Steier, **R. Golser**;

Int. J. Mass Spectr. 415 (2017) 9--17; 10.1016/j.ijms.2016.12.015 .

121.

"Preparation Methods of μg Carbon Samples for ^{14}C Measurements";

P. Steier, J. Liebl, W. Kutschera, E.M. Wild, **R. Golser**;

Radiocarbon 59 (2017) 803; 10.1017/RDC.2016.94 .

122.

"Anthropogenic U-236 in Danish Seawater: Global Fallout versus Reprocessing Discharge";

J.X. Qiao, P. Steier, S. Nielsen, X.L. Hou, P. Roos, **R. Golser**;

Environmental Science & Technology 51 (2017) 6867--6876; doi: 10.1021/acs.est.7b00504.

123.

"Multiactinide Analysis with Accelerator Mass Spectrometry for Ultratrace Determination in Small Samples: Application to an in Situ Radionuclide Tracer Test within the Colloid Formation and Migration Experiment at the Grimsel Test Site (Switzerland)";

F. Quinto, I. Blechschmidt, C.G. Perez, H. Geckeis, F. Geyer, **R. Golser**, F. Huber, M. Lagos, B. Lanyon, M. Plaschke, P. Steier, T. Schaefer;

Analytical Chemistry 89 (2017) 7182--7189; 10.1021/acs.analchem.7b01359 .

124.

"Radiocarbon concentration in tree-ring samples collected in the south-west Slovakia (1974-2013)";

I. Kontul, M. Jeskovsky, J. Kaizer, A. Sivo, M. Richtarikova, P.P. Povinec, P. Cech, P. Steier, **R. Golser**;

Applied Radiation and Isotopes 126 (2017) 58- 60; 10.1016/j.apradiso.2016.12.00 .

125.

"Precise measurement of the thermal and stellar Fe-54(n,γ) Fe-55 cross sections via accelerator mass spectrometry";

A. Wallner, K. Buczak, T. Belgya, M. Bichler, L. Coquard, I. Dillmann, **R. Golser**, F. Kaeppler, A. Karakas, W. Kutschera, C. Lederer, A. Mengoni, M. Pignatari, A. Priller, R. Reifarh, P. Steier, L. Szentmiklosi;

Phys. Rev. C 96 (2017) 025808; 10.1103/PhysRevC.96.025808 .

126.

"Limits on Supernova- Associated $^{60}\text{Fe}/^{26}\text{Al}$ Nucleosynthesis Ratios from Accelerator Mass Spectrometry Measurements of Deep-Sea Sediments";
 J. Feige, A. Wallner, R. Altmeyer, L.K. Fifield, **R. Golser**, S. Merchel, G. Rugel, P. Steier, S.G. Tims, S.R. Winkler;
 Phys. Rev. Lett. 121 (2018) 221103; 10.1103/PhysRevLett.121.221103 .

127.

"Stellar and thermal neutron capture cross section of Be-9";
 Wallner, A; Bichler, M; Coquard, L; Dillmann, I; Forstner, O; **Golser, R**; Heil, M; Kappeler, F; Kutschera, W; Lederer-Woods, C; Martschini, M; Mengoni, A; Merchel, S; Michlmayr, L; Priller, A; Steier, P; Wiescher, M;
 Phys. Rev. C 2469-9985 2469-9993 2019 99 015804 10.1103/PhysRevC.99.015804 .

128.

"Cl-36 in a new light: AMS measurements assisted by ion-laser interaction";
 Lachner, J; Marek, C; Martschini, M; Priller, A; Steier, P; **Golser, R**;
 Nucl. Instr. and Meth. B OCT 1 2019 456 163 168 10.1016/j.nimb.2019.05.061 .

129.

"The ILIAMS project - An RFQ ion beam cooler for selective laser photodetachment at VERA";
 Martschini, M; Hanstorp, D; Lochner, J; Marek, C; Priller, A; Steier, P; Wasserburger, P; **Golser, R**;
 Nucl. Instr. and Meth. B OCT 1 2019 456 213 217 10.1016/j.nimb.2019.04.039 .

130.

"Comparison of methods for the detection of Be-10 with AMS and a new approach based on a silicon nitride foil stack";
 Steier, P; Martschini, M; Buchriegler, J; Feige, J; Lachner, J; Merchel, S; Michlmayr, L; Priller, A; Rugel, G; Schmidt, E; Wallner, A; Wild, EM; **Golser, R**;
 Int. J. Mass Spectr. OCT 2019 444 UNSP 116175 10.1016/j.ijms.2019.116175 .

131.

"The actinide beamline at VERA";
 Steier, P; Hain, K; Klotzli, U; Lachner, J; Priller, A; Winkler, S; **Golser, R**;
 Nucl. Instr. and Meth. B NOV 1 2019 458 82 89 10.1016/j.nimb.2019.07.031 .

132.

U-233/U-236 signature allows to distinguish environmental emissions of civil nuclear industry from weapons fallout; Hain, K; Steier, P; Froehlich, MB; **Golser, R**; Hou, X; Lachner, J; Nomura, T; Qiao, J; Quinto, F; Sakaguchi, A;
 Nature Comm. MAR 9 2020 11 1 1275 10.1038/s41467-020-15008-2 .

133.

"Pushing Limits of ICP-MS/MS for the Determination of Ultralow (236)U/U-238 Isotope Ratios";
 Jaegler, H; Gourgiotis, A; Steier, P; **Golser, R**; Diez, O; Cazala, C;
 Analytical Chemistry JUN 2 2020 92 11 7869 7876 10.1021/acs.analchem.0c01121 .

(134.)

"⁶⁰Fe deposition during the late Pleistocene and the Holocene echoes past supernova activity";
A. Wallner, J. Feige, L. K. Fifield, M. B. Froehlich, **R. Golser**, M. A. C. Hotchkis, D. Koll, G.
Leckenby, M. Martschini, S. Merchel, S. Panjkov, S. Pavetich, G. Rugel, S. G. Tims;
PNAS first published August 24, 2020, <https://doi.org/10.1073/pnas.1916769117> .

N O N P E E R - R E V I E W E D , P R O C E E D I N G S ,
E T C .

"Nuclear Data from AMS & Nuclear Data for AMS - some examples";

A. Wallner, M. Bichler, T. Belgya, K. Buczak, I. Dillmann, O. Forstner, **R. Golser**, F. Kaeppler,
A. Klis, G. Korschinek, A. Krasa, W. Kutschera, C. Lederer, A. Mengoni, M. Paul, A.J.M. Plompen,
A. Priller, V. Semkova, P. Steier
EPJ Web of Conferences 35 (2012) 01003; <https://doi.org/10.1051/epjconf/20123501003> .

"AMS measurements of cosmogenic and supernova-ejected radionuclides in deep-sea sediment
cores";

J. Feige, A. Wallner, L.K. Fifield, G. Korschinek, S. Merchel, G. Rugel, P. Steier, S.R. Winkler,
R. Golser;
EPJ Web of Conferences 63 (2013) 03003; <https://doi.org/10.1051/epjconf/20136303003> .

"Twenty Years of VERA: Toward a Universal Facility for Accelerator Mass Spectrometry";

R. Golser, W. Kutschera;
Nuclear Physics News 27 (2017) 29--34; <https://doi.org/10.1080/10619127.2017.1351183> .