

## Veröffentlichungen und Vorträge der Mitarbeiter der berichterstattenden Arbeitsgruppen

### Veröffentlichungen

U.C. Bergmann, C.Aa. Diget, K. Riisager, L. Weissman, G. Auböck, J. Cederkäll, L.M. Fraile, H.O.U. Fynbo, H. Gausemel, H. Jeppesen, U. Köster, K.-L. Kratz, T. Nilsson, B. Pfeiffer, H. Simon, K. Van de Vel, J. Äystö, and the ISOLDE-Collaboration  
Beta-decay Properties of the Neutron-rich  $^{94-99}\text{Kr}$  and  $^{142-147}\text{Xe}$  Isotopes  
Nucl. Phys. A714, 21 (2003)

K. Boretzky, A. Grünschoß, S. Ilievski, T. Aumann, C.A. Bertulani, J. Cub, W. Dostal, B. Eberlein, Th.W. Elze, H. Emling, M. Fallot, J. Holeczek, R. Holzmann, C. Kozhuharov, J.V. Kratz, R. Kulesa, Y. Leifels, A. Leistenschneider, E. Lubkiewicz, S. Mordechai, T. Ohtsuki, P. Reiter, H. Simon, K. Stelzer, J. Stroth, K. Sümmerer, A. Surowiec, E. Wajda, W. Walus  
Two-Phonon Giant Resonances in  $^{136}\text{Xe}$ ,  $^{208}\text{Pb}$ , and  $^{238}\text{U}$   
Phys. Rev. C68, 024317 (2003)

H.G. Buchholz, H. Herzog, G.J. Förster, H. Reber, O. Nickel, F. Rösch, P. Bartenstein  
PET Imaging with Yttrium-86: Comparison of Phantom Measurements Acquired with Different PET Scanners before and after Applying Background Subtraction  
Eur. J. Nucl. Med. 30, 716 (2003)

J.O. Denschlag  
Nuclear Fission  
in: Handbook of Nuclear Chemistry (A. Vertés, S. Nagy, Z. Klencsár, eds.), Vol. 1 p. 191-255  
Kluwer Academic Publ., Dordrecht 2003

J.O. Denschlag  
Technical Application of Nuclear Fission  
in: Handbook of Nuclear Chemistry (A. Vertés, S. Nagy, Z. Klencsár, eds.), Vol. 1 p. 127-176  
Kluwer Academic Publ., Dordrecht 2003

I. Dillmann, K.-L. Kratz, A. Wöhr, A.N. Ostrowski, O. Arndt, B.A. Brown, V. Fedoseyev, L. Fraile, H. Fynbo, P. Hoff, U. Köster, B. Pfeiffer, H.L. Ravn, M.D. Seliverstov, J. Shergur, and W.B. Walters  
Gamma-spectroscopic Study of the R-process Waiting-point Nuclide  $^{130}\text{Cd}$   
Proc. 11<sup>th</sup> Int. Symp. on *Capture Gamma Ray Spectroscopy and Related Topics - CGS11*, Pruhonice, Czech Rep., September 2 - 6, 2002; eds. J. Kvasil, P. Cejnar and M. Kricka, World Scientific (2003), 350-356

I. Dillmann, K.-L. Kratz, A. Wöhr, O. Arndt, B.A. Brown, P. Hoff, M. Hjorth-Jensen, U. Köster, A.N. Ostrowski, B. Pfeiffer, D. Seweryniak, J. Shergur, W.B. Walters, and the ISOLDE Collaboration  
N=82 Shell-quenching of the Classical R-process „Waiting-point“  $^{130}\text{Cd}$   
Phys. Rev. Lett. 91, 163503 (2003)

Ch. E. Düllman, R. Dressler, B. Eichler, H.W. Gäggeler, F. Glaus, D.T. Jost, D. Piguet, S. Soverna, A. Türler, W. Bröchle, R. Eichler, E. Jäger, V. Pershina, M. Schädel, B. Schausten, E. Schimpf, H.-J. Schött, G. Wirth, K. Eberhardt, P. Thörle, N. Trautmann, T.N. Ginter, K.E. Gregorich, D.C. Hoffman, U.W. Kirbach, D.M. Lee, H. Nitsche, J.B. Patin, R. Sudowe, P.M. Zielinski, S.N. Timokhin, A.B. Yakushev, A. Vahle, Z. Qin  
First Chemical Investigation of Hassium (Hs, Z = 108)  
Czech J. Phys. 53, A291 (2003)

Ch. E. Düllmann, B. Eichler, R. Eichler, H.W. Gäggeler, D.T. Jost, U. Kindler, D. Piguet, S. Soverna, P. Thörle, N. Trautmann, A. Türler  
Miss Piggy, a Californium-252 Fission Fragment Source as a Generator of Short-lived Radionuclides  
Nucl. Instr. Meth. Phys. Res. A512, 595 (2003)

K. Eberhardt, M. Schädel, E. Schimpf, P. Thörle, N. Trautmann  
Preparation of Targets by Electrodeposition for Heavy Element Studies  
Nucl. Instr. Meth. Phys. Res., im Druck

R. Eichler, S. Soverna, W. Bröchle, R. Dressler, C.E. Düllmann, B. Eichler, H.W. Gäggeler, E. Jäger, D. Piquet, M. Schädel, E. Schimpf, P. Thörle, N. Trautmann, A. Türler, A.B. Yakushev, Z. Qin

Perspective for the Determination of Chemical Properties of Element 112

Phys. Atomic Nuclei 66, 1146 (2003)

M. Fey, R. Kunz, J.W. Hammer, M. Jaeger, A. Mayer, E. Krmpotic, C. Bauer, C. Meyer, S. Harissopulos, T. Paradellis, G. Staudt, F. Haas, P. Papka, K.-L. Kratz, B. Pfeiffer

The Key Reactions in Stellar Helium Burning:  $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$  and  $^{22}\text{Ne}(\alpha,n)^{25}\text{Mg}$

Nucl. Phys. A718, 131c (2003)

G. Friedlander, G. Herrmann

History of Nuclear and Radiochemistry

in: Handbook of Nuclear Chemistry (A. Vertés, S. Nagy, Z. Klencsár, eds.), Vol. 1 p. 1-41 Kluwer Acad. Publ., Dordrecht 2003

H. Geissel, Yu.A. Litvinov, F. Attalah, K. Beckert, P. Beller, F. Bosch, D. Boutin, T. Fästermann, M. Falch, B. Franzke, M. Hausmann, M. Hellström, E. Kaza, Th. Kerscher, O. Klepper, H.-J. Kluge, C. Kozhuharov, K.-L. Kratz, S.A. Litvinov, K.E.G. Löbner, L. Maier, M. Matos, G. Münzenberg, F. Nolden, Yu.N. Novikov, T. Ohtsubo, A. Ostrowski, Z. Patyk, B. Pfeiffer, M. Portillo, T. Radon, C. Scheidenberger, V. Shishkin, J. Stadlmann, M. Steck, D.J. Viera, H. Weick, M. Winkler, H. Wollnik, T. Yamaguchi

New Results with Stored Exotic Nuclei at Relativistic Energies

Nucl. Phys. A, im Druck

S. Grévy, J. Mrazek, J.C. Angélique, P. Baumann, C. Borcea, A. Buta, G. Cachel, W. Catford, S. Courtin, J.M. Daugas, F. De Oliveira, P. Dessagne, Z. Dlouhy, A. Knipper, K.-L. Kratz, F.R. Lecolley, J.L. Lecouey, G. Lehrsouneau, M. Lewitowicz, E. Liénard, S. Lukianov, F. Maréchal, C. Miehé, F. Negoita, N.A. Orr, D. Pantelica, Y. Penionzhkevich, J. Péter, B. Pfeiffer, S. Pietri, E. Poirier, O. Sorlin, M. Stanoiu, C. Stodel, and C. Timis

Beta-decay Studies at the N=28 Shell Closure

Nucl. Phys. A722, 424c (2003)

G. Gründer, T. Siessmeier, M. Piel, I. Vernaleken, H.-G. Buchholz, Yun Zhou, Ch. Hiemke, D. Wong, F. Rösch, P. Bartenstein

Quantification of D2-like Dopamine Receptors in the Human Brain with [ $^{18}\text{F}$ ]desmethoxyfallypride

J. Nucl. Med. 44, 109 (2003)

A. Günther, G. Bernhard, G. Geipel, T. Reich, A. Roßberg, H. Nitsche

Uranium Speciation in Plants

Radiochim. Acta 91, 319 (2003)

A. Heinz, T. Siessmeier, J. Wrase, D. Hermann, S. Klein, S.M. Grüsser, H. Flor, D.F. Braus, H.G. Buchholz, G. Gründer, M. Scheckenberger, M. Smolka, F. Rösch, K. Mann, P. Bartenstein

Nucleus Accumbens Dopamine D<sub>2</sub> Receptors and Alcohol Craving

J. Neuroscience, submitted (2003)

C. Hennig, G. Reck, T. Reich, A. Roßberg, W. Kraus, J. Sieler

EXAFS and XRD Investigations of Zeunerite and Meta-Neunerite

Z. Kristallogr. 218, 37 (2003)

G. Herrmann

Historical Reminiscence

in: The Chemistry of Superheavy Elements (M. Schädel, ed.), p. 291-318, Kluwer Acad. Publ., Dordrecht 2003

G. Huber, G. Passler, K. Wendt, J.V. Kratz, N. Trautmann

Radioisotope Mass Spectrometry

in: Handbook of Radioactivity Analysis, Second Edition (M.F. L'Annunziata, ed.), Academic Press, Elsevier Science, San Diego, 2003, 799-843

U. Köster, V.N. Fedoseyev, A.N. Andreyev, U.C. Bergmann, R. Catherall, J. Cederkäll, M. Dietrich, H. De Witte, D.V. Fedorov, L. Fraile, S. Franchoo, H. Fynbo, U. Georg, T. Giles, M. Gorska, M. Hannawald, M. Huyse, A. Joinet, O.C. Jonsson, K.-L. Kratz, K. Kruglov, Ch. Lau, J. Lettry, V.I. Mishin, M. Oinonen, K. Partes, K. Peräjärvi, B. Pfeiffer, H.L. Ravn, M.D. Seliverstov, P. Thirolf, K. Van de Vel, P. Van Duppen, J. Van Roosbroeck, L. Weissman for the IS365, IS387, IS393, and ISOLDE Collaborations

On-line Yields Obtained with the ISOLDE RILIS

Nucl. Instr. Meth. B204, 347 (2003)

U. Köster, G. Auböck, U.C. Bergmann, R. Catherall, J. Cerkäll, L.M. Fraile, S. Fanchoo, H. Fynbo, U. Georg, A. Joinet, O.C. Jonsson, J. Lettry, K. Peräjärvi, L. Weissman, O. Bajeat, R. Borcea, C. Bourgeois, C. Donzaud, M. Ducourtieux, S. Essabaa, D. Guillemaud-Mueller, F. Hosni, F. Ibrahim, C. Lau, H. Lefert, J. Obert, O. Perru, J.C. Poitier, B. Roussiere, B. Pfeiffer, E. Fioretti, G. Lhersonneau, G. Prete, L. Stroe, L. Tecchio, C.A.A. Diget, H. Jeppesen, K. Rissager, H. Gausemel, E. Hagebø, D. Ridikas

Fission Yield Measurements with the ISOL Method

World Scientific Publishers, ISBN 981-238-792-7, p. 83 (2004)

J.V. Kratz

Liquid-Phase Chemistry

in: The Chemistry of Superheavy Elements (M. Schädel, ed.), p. 159-203 Kluwer-Acad. Press, Dordrecht 2003

J.V. Kratz

Chemistry of Transactinides

in: Handbook of Nuclear Chemistry (A. Vértes, S. Nagy, Z. Klencsár, eds.) Vol 2 p. 323-395 Kluwer Acad. Publ., Dordrecht 2003

J.V. Kratz

Critical Evaluation of the Chemical Properties of the Transactinide Elements

Pure Appl. Chem. Vol. 75, No. 1, pp. 103-138 (2003)

J.V. Kratz, V. Pershina

Experimental and Theoretical Study of the Chemistry of the Heaviest Elements, in B.A. Hess (ed.), Relativistic Effects in Heavy-Element Chemistry and Physics, John Wiley & Sons (2003) pp. 219-244

J.V. Kratz, A. Nähler, U. Rieth, A. Kronenberg, B. Kuczewski, E. Strub, W. Bröchle, M. Schädel, B. Schausten, A. Türler, H.W. Gäggeler, D.T. Jost, K.E. Gregorich, H. Nitsche, C. Laue, R. Sudowe, P.A. Wilk

An EC-branch in the Decay of 27-s <sup>263</sup>Db: Evidence for the Isotope <sup>263</sup>Rf

Radiochim. Acta 91, 59 (2003)

K.-L. Kratz, B. Pfeiffer, J.J. Cowan, C. Sneden

R-Process Chronometers

New Astronomy Reviews 48/1-4, 109 (2004)

K.-L. Kratz, B. Pfeiffer

R-process Signatures: Observations versus Model Predictions

Proc. 11<sup>th</sup> Int. Symp. on *Capture Gamma Ray Spectroscopy and Related Topics - CGS11*, Pruhonice, Czech Rep., September 2 - 6, 2002; eds. J. Kvasil, P. Cejnar and M. Krťicka, World Scientific (2003) 328 - 335

B. Kuczewski, C.M. Marquardt, A. Seibert, H. Geckeis, J.V. Kratz, N. Trautmann

Separation of Plutonium and Neptunium Species by Capillary Electrophoresis – Inductively Coupled Plasma-Mass Spectrometry and Application to Natural Groundwater Samples

Anal. Chem. 75, 6769 (2003)

P. Kunz, G. Huber, G. Passler, N. Trautmann

Efficient Three-step, Two-color Ionization of Plutonium Using a Resonance Enhanced 2-Photon Transition into an Autoionizing State

Eur. Phys. J., im Druck

Ch. Lau, F. Hosni, O. Perru, O. Bajeat, R. Borcea, Ch. Bourgeois, C. Donzaud, M. Ducourtieux, S. Essabaa, D. Guillemaud-Mueller, F. Ibrahim, H. Lefort, J. Obert, J.C. Potier, E. Fioretto, G. Lhersonneau, G. Prete, L. Stroe, L. Teccio, B. Pfeiffer, A. Joinet, U. Kösster, J. Lettry, K. Peräjärvi

Nucl. Instr. Meth. B204, 257 (2003)

A. Leistenschneider, T. Aumann, K. Boretzky, L.F. Canto, B.V. Carlson, D. Cortina, U. Datta Pramanik, Th. W. Elze, H. Emling, H. Geissel, A. Grünschloss, K. Helariutta, M. Hellström, M.S. Hussein, S. Ilievski, K. Jones, J.V. Kratz, R. Kulesa, Le Hong Khiem, E. Lubkiewicz, G. Münzenberg, R. Palit, P. Reiter, C. Scheidenberger, K.-H. Schmidt, H. Simon, K. Sümmerer, E. Wajda, W. Walus

Fragmentation of Exotic Oxygen Isotopes

Brazilian J. Phys. 33 (2003)

R.E. Lingenfelter, J.C. Higdon, K.-L. Kratz, B. Pfeiffer

Actinides and the Source of Cosmic Rays

Ap. J. 591, 228 (2003)

A. F. Novgorodov, F. Rösch, N. A. Korolev

Radiochemical Separations by Thermochromatography

in: Handbook of Nuclear Chemistry (A. Vértes, S. Nagy, Z. Klencsár, eds.) Vol. 5 p. 227-259 Kluwer Acad. Pub., Dordrecht 2003

- P. Martin, M. Ripert, T. Petit, T. Reich, C. Hennig, F. D'Acapito, J.L. Hazemann, O. Proux  
A XAS Study of the Local Environment of Cations in (U,Ce)O<sub>2</sub>  
J. Nuclear Materials 312, 103 (2003)
- E. Mauerhofer, K. Zhernosekov, F. Rösch  
Limiting Transport Properties of Lanthanide and Actinide Ions in Pure Water  
Radiochim. Acta 91, 473 (2003)
- M. Meister, L.V. Chulkov, H. Simon, T. Aumann, M.J.G. Borge, Th.W. Elze, H. Emling, H. Geissel, M. Hellström, B. Jonson, J.V. Kratz, R. Kulesa, Y. Leifels, K. Markenroth, G. Münzenberg, F. Nickel, T. Nilsson, G. Nyman, V. Pribora, A. Richter, K. Rissager, C. Scheidenberger, G. Schrieder, O. Tengblad  
Searching for the <sup>5</sup>H Resonance in the t + n + n System  
Nucl. Phys. A723, 13 (2003)
- M. Meister, L.V. Chulkov, H. Simon, T. Aumann, M.J.G. Borge, Th.W. Elze, H. Emling, H. Geissel, M. Hellström, B. Jonson, J.V. Kratz, R. Kulesa, Y. Leifels, K. Markenroth, G. Münzenberg, F. Nickel, T. Nilsson, G. Nyman, V. Pribora, A. Richter, K. Rissager, C. Scheidenberger, G. Schrieder, O. Tengblad, and M.V. Zhukov  
The t + n + n System and <sup>5</sup>H  
Phys. Rev. Lett. 91, 162504-1 (2003)
- M. Merroun, C. Hennig, A. Rossberg, T. Reich, S. Selenska-Pobell  
Characterization of U(VI)-*Acidithiobacillus ferrooxidans* Complexes Using EXAFS, Transmission Electron Microscopy, and Energy-dispersive X-ray Analysis  
Radiochim. Acta 91, 583 (2003)
- P. Möller, B. Pfeiffer, K.-L. Kratz  
New Calculations of Gross  $\beta$ -decay Properties for Astrophysical Applications: Speeding-up the Classical R-process  
Phys. Rev. C67, 055802 (2003)
- H. Moll, G. Geipel, T. Reich, G. Bernhard, T. Fanghänel, I. Grenthe  
Uranyl(VI) Complexes with Alpha-substituted Carboxylic Acids in Aqueous Solution  
Radiochim. Acta 91, 11 (2003)
- Y. Nagame, H. Haba, K. Tsukada, M. Asai, K. Akiyama, M. Hirata, I. Nishinaka, S. Ichikawa, H. Nakahara, S. Goto, T. Kaneko, H. Kudo, A. Toyoshima, A. Sinohara, M. Schädel, J.V. Kratz, H.W. Gäggeler, A. Türler  
Transactinide Nuclear Chemistry at JAERI  
Czechoslovak Journal of Physics, Vol. 53, A299 (2003)
- G.R.K. Naidu, N. Trautmann, S. Zauner, T. Balaji, K.S. Rao  
Multielemental Analysis of Soils by Instrumental Neutron Activation Analysis  
J. Radioanaly. Nucl. Chem. 258, 421 (2003)
- R. Palit, P. Adrich, T. Aumann, K. Boretzky, B.V. Carlson, D. Cortina, Th.W. Elze, H. Emling, H. Geissel, M. Hellström, K.L. Jones, J.V. Kratz, R. Kulesa, Y. Leifels, A. Leistenschneider, G. Münzenberg, C. Nociforo, P. Reiter, H. Simon, K. Sümmerer, W. Walus  
Exclusive Measurement of Breakup Reactions with the One-Neutron Halo Nucleus <sup>11</sup>Be  
Phys. Rev. C68, 034318 (2003)
- I.V. Panov, B. Pfeiffer, K.-L. Kratz, E. Kolbe, T. Rauscher, F.-K. Thielemann  
Fission Barriers: How do they affect the r-Process?  
World Scientific Publishers, ISBN 981-238-792-7, p. 3 (2004)
- B. Pfeiffer, K.-L. Kratz, R.E. Lingenfelter, J.C. Higdon  
Actinides and the Sources of Cosmic Rays  
New Astronomy Reviews 48/1-4, 113 (2004)
- B. Pfeiffer, K.-L. Kratz  
Neutron-induced Nucleosynthesis in the R-process  
World Scientific Publishers, ISBN 981-238-792-7, p. 29 (2004)
- M. Piel, R. Schirmacher, S. Höhnemann, W. Hamkens, B. Kohl, M. Jansen, U. Schmitt, H. Lüddens, G. Dannhardt, F. Rösch  
Synthesis and Evaluation of 5,7-dichloro-4-(3-{4-[4-(2-[<sup>18</sup>F]fluoroethyl)-piperazin-1-yl]-phenyl}-ureido)-1,2,3,4-tetrahydroquinoline-2-carboxylic Acid as a Potential NMDA Ligand to Study Glutamergic Neurotransmission *in vivo*  
J. Labelled Cpd Radiopharm. 46, 645 (2003)
- U.D. Pramanik, T. Aumann, K. Boretzky, B.V. Carlson, D. Cortina, Th.W. Elze, H. Emling, H. Geissel, A. Grünschoß, M. Hellström, S. Ilievski, J.V. Kratz, R. Kulesa, Y. Leifels, A. Leistenschneider, E. Lubkiewicz, G. Münzenberg, P. Reiter, H. Simon, K. Sümmerer, E. Wajda, W. Walus  
Coulomb Breakup of Neutron-rich <sup>15,17</sup>C Isotopes  
Phys. Lett. B551, 63 (2003)
- F. Rösch, F. F. (Russ) Knapp  
Radionuclide Generators  
in: Handbook of Nuclear Chemistry (A. Vértes, S. Nagy, Z. Klencsár, eds.) Vol. 4, p. 81-118 Kluwer Acad. Pub., Dordrecht 2003

- F. Rösch (ed)  
Radiochemistry and Radiopharmaceutical Chemistry in Life Sciences,  
in: Handbook of Nuclear Chemistry (A. Vértes, S. Nagy, Z. Klencsár, eds.) Vol. 4, Kluwer Acad. Pub., Dordrecht 2003
- F. Rösch, H.-J. Wester, S. M. Qaim  
In memoriam Gerhard Stöcklin  
in: Handbook of Nuclear Chemistry (A. Vértes, S. Nagy, Z. Klencsár, eds.) Vol. 4, p. xi-xiv Kluwer Acad. Pub., Dordrecht 2003
- A. Roßberg, T. Reich, G. Bernhard  
Complexation of Uranium(VI) with Protocatechuic Acid - Application of Iterative Transformation Factor Analysis to EXAFS Spectroscopy  
Anal. Bioanal. Chem. 376, 631 (2003)
- A. Schildan, R. Schirmmacher, E. Schirmmacher, M. Samochocki, C. Christner, A. Maelicke, F. Rösch  
Synthesis and Evaluation of Tritium Labelled 10-Methylgalanthamine Iodide: A Novel Compound to Examine the Mechanism of Interaction of Galanthamine Derivatives with Nicotinic Acetylcholine Receptors  
J. Labelled Cpd Radiopharm. 46, 1117 (2003)
- E. Schirmmacher, R. Schirmmacher, C. Beck, W. Mier, N. Trautmann, F. Rösch  
Synthesis of a Tyr<sup>3</sup>-Octreotate Conjugated Closo-Carborane [HC<sub>2</sub>B<sub>10</sub>H<sub>10</sub>]: a Potential Compound for Boron Neutron Capture Therapy  
Tetrahedron Lett. 44, 9143 (2003)
- E. Schirmmacher, R. Schirmmacher, O. Thews, W. Dillenburg, A. Helisch, I. Wessler, R. Buhl, S. Höhnemann, H.-G. Buchholz, P. Bartenstein, H.-J. Machulla, F. Rösch  
Synthesis and preliminary evaluation of (R,R)(S,S) 5-(2-(2-[4-(2-[<sup>18</sup>F]fluoroethoxy)phenyl]-1-methylethylamino)-1-hydroxyethyl)-benzene-1,3-diol([<sup>18</sup>F]FEFE) for the in vivo visualisation and quantification of the  $\beta$ 2-adrenergic receptor status in lung  
Tetrahedron Letters 44, 9143 (2003)
- E. Schirmmacher, R. Schirmmacher, A. Helisch, W. Dillenburg, O. Thews, I. Wessler, R. Buhl, S. Höhnemann, H.G. Buchholz, P. Bartenstein, H.J. Machulla, F. Rösch  
Synthesis and Preliminary Evaluation of (R,R)(S,S) -(2-(2-[4-(2-[F-18]fluoroethoxy)phenyl]-1-methylamino)-1-hydroxyethyl)benzene-1,3-diol ([F-18]FEFE) for the in vivo Visualisation and Quantification of the  $\beta$ 2-Adrenergic Receptor Status in Lung  
Biomed. Chem. Lett. 13/16, 2687 (2003)
- R. Schirmmacher, B. Mathiasch, E. Schirmmacher, D. Radnic, F. Rösch  
Syntheses of nNvel N-([<sup>18</sup>F]fluoroalkyl)-N-nitroso-4-methyl-benzensulfonamides and Decomposition Studies of Corresponding <sup>19</sup>F- and Bromo-analogues: Potential New Compounds for the <sup>18</sup>F-labelling of Radiopharmaceuticals  
J. Labelled Cpd Radiopharm. 46, 959 (2003)
- K. Schmeide, S. Sachs, M. Bubner, T. Reich, K.H. Heise, G. Bernhard  
Interaction of Uranium(VI) with Various Modified and Unmodified Natural and Synthetic Humic Substances Studied by EXAFS and FTIR Spectroscopy  
Inorg. Chim. Acta 351, 133 (2003)
- G. Schmidt  
Abundances of Re, Os, Ir, Ru, Rh, Pt, Pd and Au in Earth's Primitive Upper Mantle  
Berichte der Deutschen Mineralogischen Gesellschaft, Beih. z. Eur. J. Mineral. Vol. 15, No. 1, 177 (2003)
- G. Schmidt  
High-temperature Fractionations in the Solar Nebula Preserved in Highly Siderophile Element Systematics of Earth Primitive Upper Mantle.  
Workshop on Cometary Dust in Astrophysics Abstract #6029, LPI Contribution No. 1182, 67 (2003)
- G. Schmidt  
Composition of the Late Influx  
The Earth Meteoritics & Planetary Science 38, Nr 7, Supplement, A18 (2003)
- G. Schmidt  
Composition of the Late Influx  
The Earth Third International Conference on Large Meteorite Impacts Abstract #4006, Lunar and Planetary Institute, Houston (CD-ROM) (2003)
- G. Schmidt, B. Spettel, H. Palme  
Arsenic and Sb Abundances in the Earth Mantle  
In Lunar and Planet. Sci. XXXIV, Abstract #1581, Lunar and Planetary Institute, Houston (CD-ROM) (2003)
- G. Schmidt, G. Witt-Eickschen, H. Palme, H. Seck, B. Spettel, K.-L. Kratz  
Highly Siderophile Elements (PGE, Re and Au) in Mantle Xenoliths from the West Eifel Volcanic Field (Germany)  
Chemical Geology, 196/1-4, 77 (2003)

- M. Sewtz, H. Backe, A. Dretzke, G. Kube, W. Lauth, P. Schwamb, K. Eberhardt, C. Grüning, P. Thörle, N. Trautmann, P. Kunz, J. Lassen, G. Passler, C.Z. Dong, S. Fritzsche, R.G. Haire  
First Observation of Atomic Levels for the Element Fermium ( $Z = 100$ )  
Phys. Rev. Lett. 90, 163002 (2003)
- M. Sewtz, H. Backe, C.Z. Dong, A. Dretzke, K. Eberhardt, S. Fritzsche, C. Grüning, R.G. Haire, G. Kube, P. Kunz, J. Lassen, W. Lauth, G. Passler, P. Schwamb, P. Thörle, N. Trautmann,  
Resonance Ionization Spectroscopy of Fermium ( $Z = 100$ )  
Spectrochim. Acta B58, 1077 (2003)
- J. Shergur, A. Wöhr, W.B. Walters, K.-L. Kratz, O. Arndt, B.A. Brown, I. Dillmann, P. Hoff, U. Köster, B. Pfeiffer, and the ISOLDE Collaboration  
Identification of Low-Energy Shell-Model States in  $^{134,135}\text{Sb}$   
Submitted to Phys. Rev. Lett.
- P. Siedlecki, R. G. Boy, S. Comagic, R. Schirmacher, M. Wiessler, P. Zielenkiewicz, S. Suhai, F. Lyko  
Establishment and Functional Validation of a Structural Homology Model for Human DNA Methyltransferase  
1. Biochem. Biophys. Res. Comm. 306, 558 (2003)
- C. Sneden, J.J. Cowan, J.E. Lawler, I.I. Ivans, S. Burles, T.C. Beers, J.W. Truran, F. Primas, V. Hill, G.M. Fuller, B. Pfeiffer, K.-L. Kratz  
The Chemical Composition of the Neutron-capture-rich, Very Metal-poor Giant Star CS 22892-052  
Ap. J. 591, 936 (2003)
- O. Sorlin, C. Donzaud, F. Nowacki, J.C. Angélique, F. Azaiez, C. Bourgeois, V. Chiste, Z. Dlouhy, S. Grévy, D. Guillemaud-Mueller, F. Ibrahim, K.-L. Kratz, M. Levitowicz, S.M. Lukyanov, J. Mrasek, Yu.-E. Penionzhkevich, F. de Oliveira Santos, B. Pfeiffer, F. Pougheon, A. Poves, M.G. Saint-Laurent, M. Stanoiu  
New Region of Deformation in Neutron-rich  $^{60}\text{Cr}_{36}$  and  $^{62}\text{Cr}_{38}$   
EPJ A16, 55 (2003)
- O. Sorlin, L. Gaudefroy, K.-L. Kratz, T. Rauscher  
The Origin of the Ca-Ti-Cr-Fe-Ni Isotopic Anomalies in the Inclusion EK-1-4-1 of the Allende Meteorite  
Comptes rendus – Physique 4/4-5, 541 (2003)
- O. Stetzer, M. Betti, J. van Geel, N. Erdmann, J.V. Kratz, R. Schenkel, N. Trautmann  
Determination of the U-235 Content in Uranium Oxide Particles by Fission Track Analysis  
Nucl. Instr. Meth. Phys. Res. A, im Druck
- A. Stolz, A. Estrade, A.D. Davies, T.N. Ginter, P.T. Hosmer, E. Kwan, S.N. Lidick, P.F. Mantica, T.J. Mertzimekis, F.A. Montes, D.J. Morrissey, A.C. Morton, M. Oullette, E. Pellegrini, P. Santi, H. Schatz, M. Steiner, A.E. Stuchberry, B.E. Tomlin, W.B. Walters, A. Wöhr, O. Arndt, K.-L. Kratz, B. Pfeiffer, P. Reeder  
Radioactive Ion Beams in the Region of  $^{100}\text{Sn}$  and  $^{78}\text{Ni}$  at the NSCL  
Nucl. Phys. A, im Druck
- F.-K. Thielemann, E. Kolbe, G. Martinez-Pinedo, I.V. Panov, T. Rauscher, K.-L. Kratz, B. Pfeiffer, S. Rosswog  
Nuclear Physics Issues of the R-process  
Proc. 11<sup>th</sup> Int. Symp. on *Capture Gamma Ray Spectroscopy and Related Topics - CGS11*, Pruhonice, Czech Rep., September 2 - 6, 2002; eds. J. Kvasil, P. Cejnar and M. Krlicka, World Scientific (2003) 311 - 317
- N. Trautmann, G. Passler, K.D.A. Wendt  
Ultratrace Analysis and Isotope Ratio Measurements of Long-lived Radioisotopes by Resonance Ionization Mass Spectrometry (RIMS)  
Anal. Bioanal. Chem. 378, 348 (2004)
- I. Tsekhanovich, Z. Büyükmumcu, M. Davi, H.O. Denschlag, F. Gönnerwein, S.F. Boulyga  
Ternary Particle Yields in  $^{249}\text{Cf}(\text{nth},\text{f})$   
Phy. Rev. C47, 034610 (2003)
- A. Türler, Ch.E. Düllmann, H.W. Gäggeler, U.W. Kirbach, A.B. Yakusehv, M. Schädel, W. Brüche, R. Dressler, K. Eberhardt, B. Eichler, R. Eichler, T.N. Ginter, F. Glaus, K.E. Gregorich, D.C. Hoffman, E. Jäger, D.T. Jost, D.M. Lee, H. Nitsche, J.B. Patin, V. Pershina, D. Piquet, Z. Qin, B. Schausten, E. Schimpf, H.-J. Schött, S. Soverna, R. Sudowe, P. Thörle, S.N. Timokhin, N. Trautmann, A. Vahle, G. Wirth, P. Zielinski  
On the Decay Properties of  $^{269}\text{Hs}$  and Indication for the New Nuclide  $^{270}\text{Hs}$   
Eur. Phys. J. A17, 505 (2003)

A. v. Zweidorf, R. Angert, W. Bröchle, S. Bürger, K. Eberhardt, R. Eichler, H. Hummrich, E. Jäger, H.-O. Kling, J.V. Kratz, B. Kuczewski, G. Langrock, M. Mendel, U. Rieth, M. Schädel, B. Schausten, E. Schimpf, P. Thörle, N. Trautmann, K. Tsukada, N. Wiehl, G. Wirth  
Evidence for the Formation of Sodium Has-sate(VIII)  
Radiochim. Acta, eingereicht

M. Walter, T. Arnold, T. Reich, G. Bernhard  
Sorption of Uranium(VI) Onto Ferric Oxides in Sulfate-rich Acid Waters  
Environ. Sci. Technol. 37, 2898 (2003)

L. Weissman, U. Bergmann, J. Cederkall, L. Fraile, S. Franchoo, H. Fynbo, H. Gausemel, H. Jeppesen, U. Köster, K.-L. Kratz, T. Nilsson, B. Pfeiffer, K. Van del Val, and the ISOLDE Collaboration  
Beta-decay of  $^{49,50}\text{Ar}$   
Phys. Rev. C67, 054314(2003)

K.D.A. Wendt, K. Blaum, Ch. Geppert, R. Horn, G. Passler, N. Trautmann, B.A. Bushaw  
Laser Resonance Ionization for Efficient and Selective Ionization of Rare Species  
Nucl. Instr. Meth. Phys. Res. B204, 325 (2003)

E.F. Worden, J. Blaise, M. Fred, N. Trautmann, J.-F. Wyart  
Spectra and Electronic Structures of Free Actinide Atoms and Ions  
in: The Chemistry of the Actinide and Transactinide Elements, 3<sup>rd</sup> Edition (J.J. Katz, L.R. Morss, N. Edelstein, J. Fuger, eds.), Kluwer Academic Publishers, im Druck

K. P. Zhernosekov, E. Mauerhofer, G. Gethun, P. Warwick, F. Rösch  
Complex Formation of  $\text{Tb}^{3+}$  with Glycolate, D-Gluconate and  $\alpha$ -Isosaccharinate in Neutral Aqueous Perchlorate Electrolytes  
Radiochim. Acta 91, 599 (2003)