

EDUCATION

Ph.D. (Dr. rer. nat. Physics), 2001

University of Heidelberg, Faculty of Physics and Astronomy, Germany. Direct mass measurements of exotic Nuclei with SHIPTRAP and ISOLTRAP. Carried out at ISOLDE/CERN, Switzerland, and GSI Darmstadt, Germany. Supervisor Prof. Heinz-Jürgen Kluge.

Diplom (Physics), 1997

University of Heidelberg, Faculty of Physics and Astronomy, Germany. Investigations of the beta-decay of 37K and 38mK in a laser-trap for neutral atoms. Carried out at TISOL/TRIUMF, Canada. Supervisor Prof. Otto Häuser & Prof. Heinz-Jürgen Kluge.

EMPLOYMENT HISTORY

Oak Ridge National Lab., Director of Strategic Planning

2021 – Present

TRIUMF, Associate Laboratory Director Physical Sciences

2016 – 2021

TRIUMF, Associate Laboratory Director (Interim) Physical Sciences

2015 – 2016

TRIUMF, Deputy Head Science Division

2011 - 2015

TRIUMF, Head Dep. Nuclear Physics/ISAC Science

2009 – 2016

TRIUMF, Deputy Head Nuclear Physics/ISAC Science

2007 – 2009

University of British Columbia, Adjunct Professor, Department of Physics and Astronomy

2004 – Present

TRIUMF Science Division, Research Scientist IV, equiv. Full Professor

2009 – 2021

TRIUMF Science Division, Research Scientist III, equiv. Associate Professor

2003 – 2009

TRIUMF Science Division, Research Scientist II, equiv. Assistant Professor

2001 - 2003

DR. JENS DILLING

MEMBERSHIPS

Since 1997:
German Physical Society

Since 2002:
Canadian Association of Physicists

Since 2008:
American Physical Society

Since 2011:
Canadian Society for Mass Spectrometry

Since 2018:
AAAS American Association for the Advancement of Science



AWARDS AND HONORS

- **2012** – Invitation by the Nobel Foundation to the Nobel Symposium NS152 on Physics with Radioactive Beams
- **2013** – Fellow of the American Physical Society
- **2013** – Vogt Medal for Subatomic Physics of the Canadian Association of Physicists for Outstanding Contributions in Nuclear Physics
- **Aug. 2014 – Aug. 2015** – Visiting EMMI-Professor at the Max-Planck Institute for Nuclear Physics & University of Heidelberg, Germany
- **2015** – GENCO Scientific Achievement Award (Membership Award) of GSI Darmstadt and the European Exotic Nuclei Community
- **2016** – Canadian National Research Council (NRC) Outstanding Service Award Medal for contributions to international and national committees for the Union of International Pure and Applied Physics (IUPAP)
- **2016** – Francis Pipkin Award of the American Physical Society for '*Exceptional research accomplishments by a scientist in the interdisciplinary area of precision measurement and fundamental constants*'
- **2020** – Rutherford Memorial Medal of the Royal Society of Canada for '*Breakthrough discoveries in the field of experimental nuclear physics studying the fine details of the interactions of the atomic building blocks, the nucleons*'

BOARDS AND COMMITTEES

- **2004 – 2009** Member of the TRIUMF Experimental Evaluation Committee (EEC)
- **2005 – 2010** Member IUPAP (International Union of Pure and Applied Physics) C2 commission for Symbols, Units, Nomenclature, Atomic Masses & Fundamental Constants (SUNAMCO)
- **2011 – 2014** Secretary IUPAP (International Union of Pure and Applied Physics) C2 commission for Symbols, Units, Nomenclature, Atomic Masses & Fundamental Constants (SUNAMCO)
- **2005** TRIUMF user group chair (2005), elected
- **2005** Member of the NSERC Long range planning committee for SAP Canada: 'Perspectives on Subatomic Physics in Canada 2006-2016
- **2007 – 2010** Member of the SNOLAB Experimental Advisory Committee
- **2008 – 2014** Member of the Editorial Board of Hyperfine Interactions (Springer)
- **2009 – 2018** Member Experimental Systems Advisory Committee (ESAC) for the Facility for Rare Isotope Beams (FRIB) at Michigan State University.
- **2009 – 2012** Member of the Program Advisory Committee of the Holifield Radioactive Ion Beam Facility at Oak Ridge National Laboratory
- **2010** Chair of the international KEK-TRIUMF review for Ultra Cold Neutron-EDM
- **2011 – 2013** Chair of the CAP Division of Nuclear Physics
- **2009 – 2019** Board of Directors Canadian Institute of Nuclear Physics
- **2011 – 2014** Member of the U of Victoria Electron Linear Accelerator Scientific Steering Committee
- **2012** Member of the DOE review of ORISS at Oak Ridge National Laboratory
- **2013 – 2015** President Canadian Institute of Nuclear Physics
- **2012 – 2018** Chair SNOLAB Institute Scientific and Technical Review Committee
- **2013 – Present** Member Program Advisory Committee RISP Facility, South Korea
- **2013 – Present** Member FAIR Expert Committee Experiments (ECE)
- **2019 – Present** Chair of the FAIR Expert Committee Experiments (ECE)
- **2013 – Present** Member of the Editorial Board of Journal of Physics G: Nuclear and Particle Physics
- **2014 – 2019** Member of the Editorial Board of Nuclear Physics News International

- 2014 – 2018 Member of the Executive Board of the CAP, Director of International Affairs
- 2014 – 2018 Member of the Executive Board of the CAP, Director of International Affairs
- 2014 – 2018 Member APS DNP Program committee
- 2015 Member APS DNP Program committee
- 2015 Member NSF Review Committee MSU-National Superconducting Cyclotron Laboratory
- 2015 – 2021 Member of the Selection Committee for the CAP Erich Vogt Medal
- 2016 – 2021 Member of the Board of the Canadian Particle Astrophysics Research Centre, Queen's University
- 2016 – 2020 Member of the Selection Committee for the APS Francis Pipkin Award
- 2018 – 2020 Member of the Selection Panel for the DOE Quantum Information System Grant Awards in HEP
- 2020 – Present Member of the Editorial Board of APS Physical Review C: Nuclear Physics
- 2021 –Present Member Program Advisory Committee RIKEN Nuclear Physics Program

CONFERENCE AND WORKSHOP CHAIR

- 2006 Chair of the International Conference of Trapped Charged Particles and Fundamental Physics TCP06. (Sept. 2006 in Parksville, B.C., Canada)
- 2007 Co-Chair of the ECT* International Workshop on Experiment Theory Intersections in Modern Nuclear Structure (April 2007 in Trento, Italy)
- 2007 Co-Chair of the International Workshop of Electron drivers for Radioactive Beams eRIBs 2007. (Oct. 2007, Newport News, VA, USA)
- 2010 Co-Chair of the International Workshop of Stopping and Manipulation of Ions SMI-10 (April 2010, Stanford University, CA, USA)
- 2010 Chair of the International Nuclear Physics Conference INPC 2010 at UBC Vancouver, B.C., Canada (July 4-9, 2010, University of British Columbia, BC, Canada)
- 2016 Chair of the APS DNP Fall Meeting, Vancouver, BC, Canada
- 2018 Co-Chair of the International Conference of Trapped Charged Particles and Fundamental Physics. (Sept. 2018 in Traverse City, MI, USA)
- 2020 Co-Chair of the TRIUMF-UW-CENPA Developing New Directions Workshop (Moore Foundation), TRIUMF virtual workshop (Nov 4-6, 2020).

PUBLICATION RECORD

Books and non-peer reviewed publications and contributions:

- Editor of (together with G. Gwinner, J. Thomson, and M. Comyn):
TCP 2006: Proceedings of the 4th International Conference on Trapped Charged Particles and Fundamental Physics (TCP 2006), Springer-Verlag Berlin and Heidelberg and special issue of Hyperfine Interaction
- Editor of:
IOP Journal of Physics: Conference Series Volume 312, 2011
Proceedings of the International Nuclear Physics Conference 2010 (INPC2010)
4–9 July 2010, University of British Columbia, Vancouver, Canada

- Editor of (together with L. Merminga and R. Kruecken)
Springer Hyperfine Interaction, Volume 225, Issue 1 (2014), Laboratory Portrait ISAC at TRIUMF.

INVITED CONFERENCE/WORKSHOP TALKS, SEMINARS, AND COLLOQUIA

- A total of over 150 invited talks and colloquia at international conference and universities.

PEER-REVIEWED PUBLICATIONS AND CONFERENCE PROCEEDINGS

A total of over 150 peer reviewed publications and conference proceedings, with a total citation of over 7100 and an h-index of 44 in June. 2022. The review article: **Precision atomic physics techniques for nuclear physics with radioactive beams (Physica Scripta, Volume 2013, T152)** has over 10.000 downloads.

1. Magneto-optic Trapping of beta -Decaying ^{38m}K , ^{37}K from an on-line Isotope Separator
Phys. Rev. Lett. 79, 375 (1997)
J. A. Behr; A. Gorelov; T. Swanson; O. Häusser; K. P. Jackson; M. Trinczek; U. Giesen; J. M. D'Auria; R. Hardy; T. Wilson; P. Choboter; F. Leblond; L. Buchmann; M.; Dombsky; C. D. P. Levy; G. Roy; B. A. Brown; and J. Dilling
2. Beta-decay experiments of neutral atoms in a magneto-optical trap
Hyperfine Interactions 115 159-164 (1998)
Dilling, J.; Behr, J.A.; Gorelov, A.; Swanson, T.; Häusser, O.; Melconian, D.; Jackson, K.P.; Trinczek, M.; Giesen, U.; D'Auria, J.M.
3. Mass measurements of radioactive isotopes using the ISOLTRAP spectrometer
World Scientific Conf.Proc. 'Electroweak Physics' 324-329 (1999)
J. Dilling; F. Herfurth; H.-J. Kluge; A. Kohl; E. Lamour; G. Marx; S. Schwarz; G. Bollen; A. Kellerbauer; and R.B. Moore
4. The SHIPTRAP project: A capture and storage facility at GSI for heavy radionuclides from SHIP
Hyperfine Interactions 127, 491-496 (2000)
Dilling, J.; Ackermann, D.; Bernard, J.; Hessberger, F.P.; Hofmann, S.; Hornung, W.; Kluge, H.-J.; Lamour, E.; Maier, M.; Mann, R.; Marx, G.; Moore, R.B.; Münzenberg, G.; Quint, W.; Rodriguez, D.; Schädel, M.; Schönfelder, J.; Sikler, G.; Toader, C.; Vermeeren, L.; Weber, C.; Bollen, G.; Engels, O.; Habs, D.; Thirolf, P.; Backe, H.; Dretzke, A.; Lauth, W.; Ludolfs, W.; Sewtz, M.
5. Beta-neutrino correlation experiments on laser trapped ^{38m}K , ^{37}K
Hyperfine Interactions 127, 373-380 (2000)
Gorelov, A.; Behr, J.A.; Melconian, D.; Trinczek, M.; Dubé, P.; Häusser, O.; Giesen, U.; Jackson, K.P.; Swanson, T.;

- D'Auria, J.M.; Domsky, M.; Ball, G.; Buchmann, L.; Jennings, B.; Dilling, J.; Schmid, J.; Ashery, D.; Deutsch, J.; Alford, W.P.; Asgeirsson, D.; Wong, W.; Lee, B.
6. Mass Measurements of $^{114-124,130}\text{Xe}$ with the ISOLTRAP Penning Trap Spectrometer
Hyperfine Interactions **132**, 329-333 (2001)
Dilling, J.; Audi, G.; Beck, D.; Bollen, G.; Herfurth, F.; Kellerbauer, A.; Kluge, H.-J.; Lunney, D.; Moore, R.B.; Scheidenberger, C.; Schwarz, S.; Sikler, G.; Szerypo, J
7. Status of the SHIPTRAP Project: A Capture and Storage Facility for Heavy Radionuclides from SHIP
Hyperfine Interactions **132**, 459-464 (2001)
Marx, G.; Ackermann, D.; Dilling, J.; Hessberger, F.P.; Hoffmann, S.; Kluge, H.-J.; Mann, R.; Münzenberg, G.; Qamhieh, Z.b; Quint, W.b; Rodriguez, D.b; Schädel, M.; Schönfelder, J.; Sikler, G.; Toader, C.; Weber, C.; Engels, O.; Habs, D.; Thirolf, P.; Backe, H.; Dretzke, A.; Lauth, W.; Ludolhs, W.; Sewtz, M.
8. Improvement of the Applicability, Efficiency, and Precision of the Penning Trap Mass Spectrometer ISOLTRAP
Hyperfine Interactions **132**, 507-511 (2001)
Kellerbauer, A.; Bollen, G.; Dilling, J.; Henry, S.; Herfurth, F.; Kluge, H.-J.; Lamour, E.; Lunney, D.; Moore, R.B.; Scheidenberger, C.; Schwarz, S.; Sikler, G.; Szerypo, J
9. A linear radiofrequency ion trap for accumulation, bunching, and emittance improvement of radioactive ion beams
Nuclear Instruments and Methods in Physics Research A **469** (2), 254-275 (2001)
Herfurth, F.; Dilling, J.; Kellerbauer, A.; Bollen, G.; Henry, S.; Kluge, H.-J.; Lamour, E.; Lunney, D.; Moore, R.B.; Scheidenberger, C.; Schwarz, S.; Sikler, G.; Szerypo, J
10. A Physics Case for SHIPTRAP: Measuring the Masses of Transuranium Elements
Hyperfine Interactions **132**, 491-495 (2001)
Dilling, J.; Ackermann, D.; Heßberger, F. P.; Hofmann, S.; Kluge, H.-J.; Marx, G.; Münzenberg, G.; Schönfelder, J.; Sikler, G.; Sobczewski, A.; Toader, C.; Weber, Chr.
11. Stopping, Trapping and Cooling of Radioactive Fission Fragments in an Ion Catcher Device
Hyperfine Interactions **132**, 517-521 (2001)
Maier, M.; Boudreau, C.; Buchinger, F.; Clark, J.A.; Crawford, J.E.; Dilling, J.; Fukutani, H.; Gulick, S.; Lee, J.K.P.; Moore, R.B.; Savard, G.; Schwartz, J.; Sharma, K.S
12. Direct mass measurements of neutron-deficient xenon isotopes with the ISOLTRAP mass spectrometer
Nuclear Physics A **701** (1-4), 520-523 (2002)
Dilling, J.; Audi, G.; Beck, D.; Bollen, G.; Henry, S.; Herfurth, F.; Kellerbauer, A.; Kluge,H.-J.; Lunney, D.; Moore, R.B.; Scheidenberger, C.; Schwarz, S.; Sikler, G.; Szerypo, J.
13. A linear radiofrequency quadrupole ion trap for the cooling and bunching of radioactive ion beams
Nuclear Physics A **701** (1-4), 565-569 (2002)
Kellerbauer, A.; Bollen, G.; Dilling, J.; Henry, S.; Herfurth, F.; Kluge, H.-J.; Lamour, E.; Moore, R.B.; Scheidenberger, C.; Schwarz, S.; Sikler, G.; Szerypo, J.
14. Extension of Penning-trap mass measurements to very short-lived nuclides
Nuclear Physics A **701** (1-4) 516-519 (2002)
Herfurth, F.; Audi, G.; Beck, D.; Bollen, G.; Dilling, J.; Henry,S.; Kellerbauer, A.; Kluge, H.-J.; Kolhinen, V.; Lunney, D.;Moore, R.B.; Scheidenberger, C.; Schwarz, S.; Sikler,G.; Szerypo, J.
15. Accurate masses of neutron-deficient nuclides close to Z=82
Nuclear Physics A **701** (1-4) 533-545 (2002)
Schwarz, S.; Ames, F.; Audi, G.; Beck, D.; Bollen, G.;De Coster, C.; Dilling, J.; Engels, O.; Fossion, R.;Garcia Ramos, J.-E.; Henry, S.; Herfurth, F.; Heyde, K.; Kellerbauer, A.; Kluge, H.-J.; Kohl, A.; Lamour, E.; Lunney, D.; Martel, I.; Moore, R.B.; Oinonen, M.; Raimbault-Hartmann, H.; Scheidenberger, C.; Sikler, G.; Szerypo, J.; Weber, C.

16. Breakdown of the Isobaric Multiplet Mass Equation at A = 33, T = 3/2
Phys. Rev. Lett. **87**, 142501 (2002)
F. Herfurth; J. Dilling; A. Kellerbauer; G. Audi; D. Beck; G. Bollen; H.-J. Kluge; D. Lunney; R. B. Moore; C. Scheidenberger; S. Schwarz; G. Sikler; J. Szerypo
17. Novel Search for Heavy nu Mixing from the beta Decay of K Confined in an Atom Trap
Phys. Rev. Lett. **90**, 012501 (2003)
M. Trinczek, A. Gorelov, D. Melconian, W. P. Alford, D. Asgeirsson, D. Ashery, J. A. Behr, P.G. Bricault, J.M. D'Auria, J. Deutsch, J. Dilling, M. Dombsky, P. Dube, S. Eaton, J. Fingler, U. Giesen, S. Gu, O. Hausser, K. P. Jackson, B. Lee, J. H. Schmid, T. J. Stocki, T. B. Swanson, and W.Wong
18. First on-line test of SHIPTRAP
Nuclear Instruments and Methods in Physics Research **204**, 482-486 (2003)
Sikler G, Ackermann D, Attallah F, Beck D, Dilling J, Elisseev SA, Geissel H, Habs D, Habs D, Heinz S, Herfurth F, Hessberger F, Hofmann S, Kluge HJ, Kozhuharov C, Marx G, Mukherjee M, Neumayr J, Plass WR, Quint W, Rahaman S, Rodriguez D, Scheidenberger C, Tarisien M, Thirolf P, Varentsov
19. The proposed TITAN facility at ISAC for very precise mass measurements on highly charged short-lived isotopes
Nuclear Instruments and Methods in Physics Research B **204**, 492-496 (2003)
J.Dilling; P. Bricault; M. Smith; H. -J. Kluge and the TITAN collaboration
20. The Mass of ^{22}Mg
Phys. Rev. Lett. **93**, 150801 (2004)
M. Mukherjee, A. Kellerbauer, D. Beck, K. Blaum, G. Bollen, F. Carrel, P. Delahaye, J. Dilling, S. George, C. Gue'naut, F. Herfurth, A. Herlert, H.-J. Kluge, U. Koster, D. Lunney, S. Schwarz, L. Schweikhard, and C. Yazidjian
21. Direct mass measurements of neutron-deficient xenon isotopes using the ISOLTRAP mass spectrometer
European Physical Journal A **22**, 163-171 (2004)
J. Dilling, F. Herfurth, A. Kellerbauer, G. Audi, D. Beck, G. Bollen, H.-J. Kluge, R.B. Moore, C. Scheidenberger, S. Schwarz, G. Sikler, and the ISOLDE Collaboration
22. Scalar Interaction Limits from the beta-nu Correlation of Trapped Radioactive Atoms
Phys. Rev. Lett. **94**, 142501 (2005)
A. Gorelov, D. Melconian, W. P. Alford, D. Ashery, G. Ball, J. A. Behr, P. G. Bricault, J. M. D'Auria, J. Deutsch, J. Dilling, M. Dombsky, P. Dube', J. Fingler, U. Giesen, F. Gluck, S. Gu,O. Hausser, K. P. Jackson, B. K. Jennings, M. R. Pearson,T. J. Stocki, T. B. Swanson, and M. Trinczek
23. A high frequency MOSFET driver for the TITAN facility at TRIUMF
Proc. 15th IEEE Int. Pulsed Power Conf., Monterey, CA, June 13–17, 2005 (IEEE, DOI 10.1109 / PPC.2005.300554, 2005) p.178
M.J. Barnes, G.D. Wait, J. Dilling, J.V. Vaz, L. Blomeley, O. Hadary and M.J. Smith
24. A high-current EBIT for charge-breeding of radionuclides for the TITAN spectrometer
European Phys. Journal A **25** (2005) 1.63
G. Sikler, J. R. Crespo López-Urrutia, J. Dilling, S. Epp, C. J. Osborne and J. Ullrich
25. Nuclear Charge Radius of ^{11}Li : Halo Neutron – Core Interactions
Phys. Rev. Lett. **96**, 033002 (2006)
R. Sanchez, W. Nortershauser, G. Ewald, D. Albers J. Behr, P. Bricault, B.A. Bushaw, A. Dax, J. Dilling, M. Dombsky, G.W.F. Drake, S. G"otte, R. Kirchner, H.-J. Kluge, Th. Kuhl, J. Lassen, C.D.P. Levy, M. Pearson, E. Prime, V. Ryjkov, A. Wojtaszek, Z.-C. Yan, and C. Zimmermann
26. Weak interaction symmetries with atom traps
European Phys. Journal A **25** (2005) 1.685
J. A. Behr, A. Gorelov, D. Melconian, M. Trinczek, W. P. Alford, D. Ashery, P. G. Bricault, L. Courneyea, J. M. D'Auria, J. Deutsch, J. Dilling, M. Dombsky, P. Dubé, F. Glück, S. Gryb, S. Gu, O. Häusser, K. P. Jackson, B. Lee, A. Mills, E. Paradis, M. Pearson, R. Pitcairn, E. Prime, D. Roberge and T. B. Swanson

27. Nuclear Charge Radius of ^{11}Li
Hyperfine Interactions **171** 181-188 2006
R. Sanchez, W. Nörtershäuser, G. Ewald, D. Albers J. Behr, P. Bricault, B.A. Bushaw, A. Dax, J. Dilling, M. Dombsky, G.W.F. Drake, S. Götte, R. Kirchner, H.-J. Kluge, Th. Kuhl, J. Lassen, C.D.P. Levy, M. Pearson, E. Prime, V. Ryjkov, A. Wojtaszek, Z.-C. Yan, and C. Zimmermann
28. Mass measurements on highly charged radioactive ions, a new approach to high precision with TITAN
International Journal of Mass Spectrometry, **251**, 198 (2006)
J. Dilling, R. Baartman, P. Bricault, M. Brodeur, L. Blomeley, F. Buchinger, J. Crawford, J.R. Crespo López-Urrutia, P. Delheij, M. Froese, G.P. Gwinner, Z. Ke, J.K.P. Lee, R.B. Moore, V. Ryjkov, G. Sikler, M. Smith, J. Ullrich, J. Vaz and the TITAN collaboration
29. The TITAN mass measurement facility at TRIUMF-ISAC
Hyperfine Interactions **173** (1-4) 123-132 2006
P. Delheij, L. Blomeley, M. Froese, G. Gwinner, V. Ryjkov, M. Smith and J. Dilling
30. First tests of the TITAN digital RFQ beam cooler and buncher
Hyperfine Interactions **173** (1-4) 171-180 2006
Mathew Smith, Laura Blomeley, Paul Delheij and Jens Dilling
31. A cooler ion trap for the TITAN on-line trapping facility at TRIUMF
Hyperfine Interactions **173** (1-4) 103-111 2006
Z. Ke, W. Shi, G. Gwinner, K. Sharma, S. Toews, J. Dilling, V. L. Ryjkov and the TITAN Collaboration
32. Electron capture branching ratios for the odd-odd intermediate nuclei in double-beta decay using the TITAN ion trap facility
Can. J. Phys. **85**, 57 (2007)
D. Frekers, J. Dilling and I. Tanihata
33. ISOLTRAP: an on-line Penning trap for mass spectrometry on short-lived nuclides
Eur. Phys. J. A **35**, 1-29 (2008)
M. Mukherjee, D. Beck, K. Blaum, G. Bollen, P. Delahaye, J. Dilling, S. George, C. Guenaut, F. Herfurth, A. Herlert, A. Kellerbauer, H.-J. Kluge, U. Koster, D. Lunney, S. Schwarz, L. Schweikhard, and C. Yazidjian
34. Direct mass measurement of the four-neutron halo nuclide ^8He
Phys. Rev. Lett. **101**, 012501 (2008)
V.L. Ryjkov, M. Brodeur, T. Brunner, M. Smith, R. Ringle, P. Delheij, F. Ames, P. Bricault, M. Dombsy, and J. Dilling
35. First Penning trap mass measurements of the exotic halo nucleus ^{11}Li
Phys. Rev. Lett. **101**, 202501 (2008)
M. Smith, M. Brodeur, T. Brunner, S. Ettenauer, A. Lapierre, R. Ringle, V. L., Ryjkov, F. Ames, P. Bricault, G. W. F. Drake, P. Delheij, D Lunney, and J. Dilling
36. An electron beam ion trap for the NSCL re-accelerator
Nuclear Instruments and Methods in Physics Research B **266**, 4466 (2008)
S. Schwarz, G. Bollen, J.R. Crespo López-Urrutia, J. Dilling, M. Johnson, O. Kester, M. Kostin, F. Marti, C. Wilson and P. Zavodszky
37. A high current electron ion beam ion trap as a charge breeder for the reacceleration of rare isotopes at the NSCL
Review of Scientific Instruments **79**, 02A706 (2008)
S. Schwarz, G. Bollen, J.R. Crespo López-Urrutia, J. Dilling, M. Johnson, O. Kester, M. Kostin, F. Marti, C. Wilson and P. Zavodszky
38. Electron capture branching ratio measurements in an ion trap for double beta decay experiments at TITAN
Nuclear Instruments and Methods in Physics Research B **266** 4643 (2008).

T. Brunner, M. Brodeur, C. Champagne, D. Frekers, R. Krucken, A. Lapierre, P. Delheij, R. Ringle, V. Ryjkov, M. Smith, I. Tanihata, and J. Dilling

39. High Precision Penning trap mass measurements of $^{9,10}\text{Be}$ and the one-neutron halo nuclide ^{11}Be .
Physics Letters B **675**, 170–174 (2009).
R. Ringle, M. Brodeur, T. Brunner, S. Ettenauer, M. Smith, A. Lapierre, V.L. Ryjkov, P. Delheij, G.W.F. Drake, J. Lassen, D. Lunney, and J. Dilling
40. New mass measurement of ^6Li and ppb-level systematic studies of the Penning trap mass spectrometer TITAN
Phys. Rev. C **80**, 044318 (2009).
M. Brodeur, T. Brunner, C. Champagne, S. Ettenauer, M. Smith, A. Lapierre, R. Ringle, V. L. Ryjkov, G. Audi, P. Delheij, D. Lunney, and J. Dilling
41. Report on recent activities at the TITAN mass spectrometer at ISAC/ TRIUMF
Hyperfine Interaction **196** 1 219-223 (2010).
Jens Dilling for the TITAN collaboration
42. Precision ground state mass of ^{12}Be and an isobaric multiplet mass equation (IMME) extrapolation for 2+ and 0+2 states in the $T = 2$, $A = 12$ multiplet
Phys. Rev. C **80**, 024314 (2010).
S. Ettenauer, M. Brodeur, T. Brunner, A. T. Gallant, A. Lapierre, R. Ringle, M. R. Pearson, P. Delheij, J. Lassen, D. Lunney, and J. Dilling
43. EBIS/T charge breeding for intense rare isotope beams at MSU
IOP Journal of Instrumentation **5** C10002 (2010).
Schwarz, S., Bollen, G., Kester, O., Kittimanapun, K., Lapierre, A., J. R. Crespo, Dilling, J., Ames, F., Ahle, L. E., Beiersdorfer, P., Marrs, R. E., Beene, J. R., Mendez, A. J., Stracener, D. W., Lindroos, M., Wenander, F.
44. MATS and LaSpec: High-precision experiments using ion traps and lasers at FAIR
European Physical Journal-Special Topics **183**, 1-123 (2010).
Rodriguez, D., Blaum, K., Nortershauser W., and Dilling J., and 99 others
45. The TITAN EBIT charge breeder for mass measurements on highly charged short-lived isotopes - First online operation
Nuclear Instruments and Methods A **624**, 54 (2010).
A. Lapierre, M. Brodeur, T. Brunner, S. Ettenauer, A.T. Gallant, V. Simon, M. Good, M.W., Froese, J.R. Crespo López-Urrutia, P. Delheij, S. Epp, R. Ringle, S. Schwarz, J. Ullrich and J. Dilling
46. TITAN EBIT- charge breeding of radioactive isotopes for high precision mass measurements
Journal of Instrumentation **9** C08009 (2011).
A.T. Gallant M. Brodeur T. Brunner S. Ettenauer M. Good A. Lapierre R. Ringle V.V. Simon P. Delheija and J. Dilling
47. In-trap decay spectroscopy for $2\nu\beta\beta$ decay experiments
Hyperfine Interactions **199** (1-3), 191-199 (2011).
T. Brunner, M. Brodeur, P. Delheij, S. Ettenauer, D. Frekers, A.T. Gallant, R. Krücken, A. Lapierre, D. Lunney, R. Ringle, V.V. Simon and J. Dilling
48. Precision mass measurements of neutron halo nuclei using the TITAN Penning trap
Hyperfine Interactions, **199** (1-3), 167-173 (2011).
M. Brodeur, T. Brunner, S. Ettenauer, A. Gallant, V. Simon, M. Smith, A. Lapierre, E. Mané, R. Ringle, V. Ryjkov, S. Bacca, P. Delheij, D. Lunney, M. Pearson, and J. Dilling
49. Design of a β -detector for TITAN-EC and the first electron-capture branching ratio measurement in a Penning trap
Journal of Physics: Conference Series **312**, 072006 (2011).
T. Brunner, M. Brodeur, S. Ettenauer, A. T. Gallant, A. Lapierre, R. Ringle, S. K. L. Sjue, P. Delheij, D. Frekers, R. Krücken, K. Zuber, and J. Dilling

50. A cooler Penning trap for the TITAN on-line trapping facility
Journal of Physics: Conference Series **312**, 052024 (2011).
V.V. Simon, U. Chowdhury, P. Delheij, J. Dilling, B. Eberhardt, G. Gwinner
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125. Penning-Trap Mass Measurements in Atomic and Nuclear Physics

Annual Review of Nuclear and Particle Science 68, 45-74 (2018)

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127. Sensitivity and discovery potential of the proposed nEXO experiment to neutrinoless double-

Phys. Rev. C 9,06, 065503 (2018)

JB Albert, G Anton, IJ Arnquist, I Badhrees, P Barbeau, D Beck, V Belov, F Bourque, JP Brodsky, E Brown, T Brunner, A Burenkov, GF Cao, L Cao, WR Cen, C Chambers, SA Charlebois, M Chiu, B Cleveland, M Coon, A Craycraft, W Cree, M Côté, J Dalmasson, T Daniels, SJ Daugherty, J Daughhetee, S Delaquis, A Der Mesrobian-Kabakian, R DeVoe, T Didberidze, J Dilling, YY Ding, MJ Dolinski, A Dragone, L Fabris, W Fairbank, J Farine, S Feyzbakhsh, R Fontaine, D Fudenberg, G Giacomini, R Gornea, K Graham, G Gratta, EV Hansen, D Harris, M Hasan, M Heffner, EW Hoppe, A House, P Hufschmidt, M Hughes, J Hößl, Y Ito, A Iverson, A Jamil, M Jewell, XS Jiang, TN Johnson, S Johnston, A Karelina, LJ Kaufman, R Killick, Thomas Koffas, S Kravitz, R Krücke, A Kuchenkov, KS Kumar, Y Lan, DS Leonard, G Li, S Li, Z Li, C Licciardi, YH Lin, R MacLellan, T Michel, B Mong, D Moore, K Murray, RJ Newby, Z Ning, O Njoya, F Nolet, K Odgers, A Odian, M Oriunno, JL Orrell, I Ostrovskiy, CT Overman, GS Ortega, S Parent, A Piepke, A Pocar, J-F Pratte, D Qiu, V Radeka, E Raguzin, T Rao, S Rescia, F Retiere, A Robinson, T Rossignol, PC Rowson, N Roy, R Saldanha, S Sangiorgio, S Schmidt, J Schneider, A Schubert, D Sinclair, K Skarpaas, AK Soma, G St-Hilaire, V Stekhanov, T Stiegler, XL Sun, M Tarka, J Todd, T Tolba, R Tsang, T Tsang, F Vachon, V Veeraraghavan, G Visser, P Vogel, J-L Vuilleumier, M Wagenpfeil, Q Wang, M Weber, W Wei, LJ Wen, U Wicoski, G Wrede, SX Wu, WH Wu, Liang Yang, Y-R Yen, O Zeldovich, J Zettlemoyer, X Zhang, J Zhao, Y Zhou, T Ziegler, nEXO Collaboration

128. Isotope abundance measurement of the half-life of the $\beta\beta$ -decaying nucleus ^{96}Zr from a 2.68 Gyr zircon sample

Phys. Rev. C 98, 024617 (2018)

Adam J. Mayer, M. Wieser, M. Alanssari, D. Frekers, W. Matthews, J. Dilling, and R. I. Thompson

129. Design of a multiple-reflection time-of-flight mass spectrometer for barium-tagging

Hyperfine Interactions 240, 1, 297 (2019)

K Murray, J Dilling, R Gornea, Y Ito, T Koffas, AA Kwiatkowski, Y Lan, MP Reiter, V Varentsov, T Brunner, with the nEXO collaboration

130. Characterization of the Hamamatsu VUV4 MPPCs for nEXO

NIM A 940, 371-377 (2019)

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131. Recent upgrades of the multiple-reflection time-of-flight mass spectrometer at TITAN, TRIUMF

Hyperfine Interaction 240, 1, 82 (2019)

Timo Dickel, Samuel Ayet San Andrés, Sönke Beck, Julian Bergmann, Jens Dilling, Florian Greiner, Christine Hornung, Andrew Jacobs, Gabriella Kripko-Koncz, Ania Kwiatkowski, Erich Leistenschneider, Alexander Pikhtelev, Wolfgang R Plaß, Moritz P Reiter, Christoph Scheidenberger, Christian Will, TITAN collaboration

132. Search for Neutrinoless Double- β Decay with the Complete EXO-200 Dataset

Phys. Rev. Lett. 123, 161803 (2019)

G. Anton, I. Badhrees, P.S. Barbeau, D. Beck, V. Belov, T. Bhatta, M. Breidenbach, T. Brunner, G.F. Cao, W.R. Cen, C. Chambers, B. Cleveland, M. Coon, A. Craycraft, T. Daniels, M. Danilov, L. Darroch, S.J. Daugherty, J. Davis, S. Delaquis, A. Der Mesrobian-Kabakian, 1R. DeVoe, J. Dilling, A. Dolgolenko, M.J. Dolinski, 1J. Echevers, W. Fairbank, Jr., D. Fairbank, J. Farine, S. Feyzbakhsh, P. Fierlinger, D. Fudenberg, P. Gautam, R. Gornea, G. Gratta, C. Hall, E.V. Hansen, J. Hoessl, P. Hufschmidt, M. Hughes, A. Iverson, A. Jamil, C. Jessiman, M.J. Jewell, A. Johnson, A. Karelín, L.J. Kaufman, T. Koffas, 2 R. Krücke, A. Kuchenkov, K.S. Kumar, Y. Lan, A. Larson, B.G. Lenardo, D.S. Leonard, G.S. Li, O.Ya. Zeldovich, and T. Ziegler

133. Off-axis electron injection into a cooler Penning trap

Hyperfine Interaction 240, 1, 82 (2019)

SF Paul, B Kootte, D Lascar, AA Kwiatkowski, G Gwinner, J Dilling, TITAN collaboration

134. Improved beam diagnostics and optimization at ISAC via TITAN's MR-TOF-MS

NIM B 34. 04 (2019)

MP Reiter, F Ames, C Andreoiu, S Ayet San Andrés, C Babcock, BR Barquest, J Bergmann, J Bollig, T Brunner, T Dickel, J Dilling, I Dillmann, E Dunling, A Finlay, G Gwinner, L Graham, C Hornung, B Kootte, R Klawitter, P Kunz, Y Lan, D Lascar, J Lassen, E Leistenschneider, R Li, JE McKay, M Mostamand, SF Paul, WR Plaß, C Scheidenberger, BE Schultz, R Steinbrügge, A Teigelhoefer, R Thompson, ME Wieser, C Will, AA Kwiatkowski

135. Vacuum requirements for Penning trap mass spectrometry with highly charged ions

NIM B 34.189 (2019)

E. Leisenschneider, A.A. Kwiatkowski, J. Dilling

136. The CANREB project for charge state breeding at TRIUMF

AIP Conference Proceedings 2011, 1 70010 (2019)

F. Ames, R. Baartman, B. Barquest, C. Blesseroh, M. López-Urrutia, J.R. Crespo, J. Dilling, S. Dobrodey, L. Graham, R. Kanungo, M. Marchetto, M. Pearson, R. Saminathan

137. Imaging individual barium atoms in solid xenon for barium tagging in nEXO

Nature 569, 203–207 (2019)

I. Badhrees, P. S. Barbeau, D. Beck, V. Belov, T. Bhatta, F. Bourque, J. P. Brodsky, E. Brown, T. Brunner, A. Burenkov, G. F. Cao, L. Cao, W. R. Cen, S. A. Charlebois, M. Chiu, B. Cleveland, M. Coon, M. Côté, W. Cree, J. Dalmasson, T. Daniels, L. Darroch, S. J. Daugherty, J. Daughhetee, S. Delaquis, A. Der Mesrobian-Kabakian, R. DeVoe, J. Dilling, Y. Y. Ding, M. J. Dolinski, A. Dragone, J. Echevers, L. Fabris, J. Farine, S. Feyzbakhsh, R. Fontaine, D. Fudenberg, G. Gallina, G. Giacomini, R. Gornea, G. Gratta, E. V. Hansen, M. Heffner, E. W. Hoppe, J. Hößl, A. House, P. Hufschmidt, M. Hughes, Y. Ito, A. Jamil, C. Jessiman, M. J. Jewell, X. S. Jiang, A. Karelín, L. J. Kaufman, D. Kodroff, T. Koffas, S. Kravitz, R. Krücke, A. Kuchenkov, K. S. Kumar, Y. Lan, A. Larson, D. S. Leonard, G. Li, S. Li, Z. Li, C. Licciardi, Y. H. Lin, P. Lv, R. MacLellan, T. Michel, B. Mong, D. C. Moore, K. Murray, R. J. Newby, Z. Ning, O. Njoya, F. Nolet, O. Nusair, K. Odgers, A. Odian, M. Oriunno, J. L. Orrell, G. S. Ortega, I. Ostrovskiy, C. T. Overman, S. Parent, A. Piepke, A. Pocar, J.-F. Pratte, D. Qiu, V. Radeka, E. Raguzin, T. Rao, S. Rescia, F. Retière, A. Robinson, T. Rossignol, P. C. Rowson, N. Roy, R. Saldanha, S. Sangiorgio, S. Schmidt, J. Schneider, A. Schubert, K. Skarpaas, A. K. Soma, G. St-Hilaire, V. Stekhanov, T. Stiegler, X. L. Sun, M. Tarka, T. Tolba, T. I. Totnev, R. Tsang, T. Tsang, F. Vachon, B. Veenstra, V. Veeraraghavan, G. Visser, J.-L. Vuilleumier, M. Wagenpfeil, Q. Wang, J. Watkins, M. Weber, W. Wei, L. J. Wen, U. Wichoński, G. Wrede, S. X. Wu, W. H. Wu, Q. Xia, L. Yang, Y.-R. Yen, O. Zeldovich, X. Zhang, J. Zhao, Y. Zhou & T. Ziegler

138. Diversifying Beam Species through Decay and Recapture Ion Trapping: A Demonstrative Experiment at TITAN

Journal of Physics G: Nuclear and Particle Physics 1088 1361 (2020)

Erich Leistenschneider, Renee Klawitter, Annika Lennarz, Milad Alanssari, Jeff Bale, Bradley Barquest, Usman Chowdhury, Andrew Finlay, Aaron T Gallant, Brian Kootte, Daniel Lascar, Kyle Leach, Adam J Mayer, Devin Short,

139. Mass Measurements of Neutron-Rich Gallium Isotopes Refine Production of Nuclei of the First r-Process Abundance Peak During GW170817

Phys. Rev. C 101 025803 (2020)

M.P. Reiter, S. Ayet San Andrés, J. Lippuner, S. Nikas, C. Andreoiu, C. Babcock, B.R. Barquest, J. Bollig, T. Brunner, T. Dickel, J. Dilling, I. Dillmann, E. Dunling, G. Gwinner, L. Graham, C. Hornung, R. Klawitter, B. Koote, A.A. Kwiatkowski, Y. Lan, D. Lascar, K.G. Leach, E. Leistenschneider, G. Martínez-Pinedo, J.E. McKay, S.F. Paul, W.R. Plaß, L. Roberts, H. Schatz, C. Scheidenberger, A. Sieverding, R. Steinbrügge, R. Thompson, M.E. Wieser, C. Will, D. Welch

140. Direct Measurement of the ${}^7\text{Be}$ L/K Capture Ratio in Ta-Based Superconducting Tunnel Junctions

Phys. Rev. Lett. 125 032701 (2020)

S. Fretwell, K.G. Leach, C. Bray, G.B. Kim, J. Dilling, A. Lennarz, X. Mougeot, F. Ponce, C. Ruiz, J. Stackhouse, S. Friedrich

141. Measurement of the Spectral Shape of the Decay of to the Ground State of in EXO-200 and Comparison with Theory

Phys. Rev. Lett. 124 232502 (2020)

S. Al Kharusi, G. Anton, I. Badhrees, P.S. Barbeau, D. Beck, V. Belov, T. Bhatta, M. Breidenbach, T. Brunner, G.F. Cao, W.R. Cen, C. Chambers, B. Cleveland, M. Coon, A. Craycraft, T. Daniels, L. Darroch, S.J. Daugherty, J. Davis, S. Delaquis, A. Der Mesrobian-Kabakian, R. DeVoe, J. Dilling, A. Dolgolenko, M.J. Dolinski, J. Echevers, W. Fairbank Jr, D. Fairbank, J. Farine, S. Feyzbakhsh, P. Fierlinger, D. Fudenberg, P. Gautam, R. Gornea, G. Gratta, C. Hall, E.V. Hansen, J. Hoessl, P. Hufschmidt, M. Hughes, A. Iverson, A. Jamil, C. Jessiman, M.J. Jewell, A. Johnson, A. Karelín, L.J. Kaufman, T. Koffas, J. Kostensalo, R. Krücken, A. Kuchenkov, K.S. Kumar, Y. Lan, A. Larson, B.G. Lenardo, D.S. Leonard, G.S. Li, S. Li, Z. Li, C. Licciardi, Y.H. Lin, R. MacLellan, T. McElroy, T. Michel, B. Mong, D.C. Moore, K. Murray, P. Nakarmi, O. Njoya, O. Nusair, A. Odian, I. Ostrovskiy, A. Piepke, A. Pocar, F. Retière, A.L. Robinson, P.C. Rowson, D. Ruddell, J. Runge, S. Schmidt, D. Sinclair, K. Skarpaas, A.K. Soma, V. Stekhanov, J. Suhonen, M. Tarka, S. Thibado, J. Todd, T. Tolba, T.I. Totev, R. Tsang, B. Veenstra, V. Veeraraghavan, P. Vogel, J-L. Vuilleumier, M. Wagenpfeil, J. Watkins, M. Weber, L.J. Wen, U. Wichoski, G. Wrede, S.X. Wu, Q. Xia, D.R. Yahne, L. Yang, Y-R. Yen, O. Ya Zeldovich, T. Ziegler, EXO-200 Collaboration

142. Measurement of the scintillation and ionization response of liquid xenon at MeV energies in the EXO-200 experiment

Phys. Rev. C 1010, 065501 (2020)

G. Anton, I. Badhrees, P.S. Barbeau, D. Beck, V. Belov, T. Bhatta, M. Breidenbach, T. Brunner, G.F. Cao, W.R. Cen, C. Chambers, B. Cleveland, M. Coon, A. Craycraft, T. Daniels, L. Darroch, S.J. Daugherty, J. Davis, S. Delaquis, A. Der Mesrobian-Kabakian, R. DeVoe, J. Dilling, A. Dolgolenko, M.J. Dolinski, J. Echevers, W. Fairbank Jr, D. Fairbank, J. Farine, S. Feyzbakhsh, P. Fierlinger, D. Fudenberg, P. Gautam, R. Gornea, G. Gratta, C. Hall, E.V. Hansen, J. Hoessl, P. Hufschmidt, M. Hughes, A. Iverson, A. Jamil, C. Jessiman, M.J. Jewell, A. Johnson, A. Karelín, L.J. Kaufman, T. Koffas, J. Kostensalo, R. Krücken, A. Kuchenkov, K.S. Kumar, Y. Lan, A. Larson, B.G. Lenardo, D.S. Leonard, G.S. Li, S. Li, Z. Li, C. Licciardi, Y.H. Lin, R. MacLellan, T. McElroy, T. Michel, B. Mong, D.C. Moore, K. Murray, P. Nakarmi, O. Njoya, O. Nusair, A. Odian, I. Ostrovskiy, A. Piepke, A. Pocar, F. Retière, A.L. Robinson, P.C. Rowson, D. Ruddell, J. Runge, S. Schmidt, D. Sinclair, K. Skarpaas, A.K. Soma, V. Stekhanov, J. Suhonen, M. Tarka, S. Thibado, J. Todd, T. Tolba, T.I. Totev, R. Tsang, B. Veenstra, V. Veeraraghavan, P. Vogel, J-L. Vuilleumier, M. Wagenpfeil, J. Watkins, M. Weber, L.J. Wen, U. Wichoski, G. Wrede, S.X. Wu, Q. Xia, D.R. Yahne, L. Yang, Y-R. Yen, O. Ya Zeldovich, T. Ziegler, EXO-200 Collaboration

143. Towards high precision mass measurements of Highly Charged Ions using the Phase-Imaging Ion-Cyclotron-Resonance technique at TITAN

Hyperfine Interaction 24, 241 (2020)

Eleni Marina Lykiardopoulou, Christopher Izzo, Erich Leistenschneider, Anna A. Kwiatkowski & Jens Dilling

144. High-precision mass measurement of neutron-rich ${}^{96}\text{Kr}$

Hyperfine Interaction 8, 241 (2020)

Matthew B Smith, Tobias Murböck, Eleanor Dunling, Andrew Jacobs, Brian Kootte, Yang Lan, Erich Leistenschneider, David Lunney, Eleni Marina Lykiardopoulou, Ish Mukul, Stefan F Paul, Moritz P Reiter, Christian Will, Jens Dilling, Anna A Kwiatkowski

145.Precision mass measurements of neutron-rich scandium isotopes refine the evolution of N=32 and N=34 shell closures

Phys. Rev. Lett. **126** (4), 042501 (2020)

E. Leistenschneider, E. Dunling, G. Bollen, B. A. Brown, J. Dilling, A. Hamaker, J. D. Holt, A. Jacobs, A. A. Kwiatkowski, T. Miyagi, W. S. Porter, D. Puentes, M. Redshaw, M. P. Reiter, R. Ringle, R. Sandler, C. S. Sumithrarachchi, A. A. Valverde, and I. T. Yandow

146.Limits on the existence of sub-MeV sterile neutrinos from the decay of ${}^7\text{Be}$ in superconducting quantum sensors

Phys. Rev. Lett. **126** (2), 021803 (2020)

S. Friedrich, G. B. Kim, C. Bray, R. Cantor, J. Dilling, S. Fretwell, J. A. Hall, A. Lennarz, V. Lordi, P. Machule, D. McKeen, X. Mougeot, F. Ponce, C. Ruiz, A. Samanta, W. K. Warburton, and K. G. Leach

147.Event reconstruction in a liquid xenon Time Projection Chamber with an optically-open field cage

NIM A **1000**, 165239 (2021)

T Stiegler, S Sangiorgio, JP Brodsky, M Heffner, S Al Kharusi, G Anton, IJ Arnquist, I Badhrees, PS Barbeau, D Beck, V Belov, T Bhatta, A Bolotnikov, PA Breur, E Brown, T Brunner, E Caden, GF Cao, L Cao, C Chambers, B Chana, SA Charlebois, M Chiu, B Cleveland, M Coon, A Craycraft, J Dalmasson, T Daniels, L Darroch, A De St Croix, Der Mesrobian-Kabakian, K Deslandes, R DeVoe, ML Di Vacri, J Dilling, YY Ding, MJ Dolinski, A Dragone, J Echevers, F Edalatfar, M Elbeltagi, L Fabris, D Fairbank, W Fairbank, J Farine, S Ferrara, S Feyzbakhsh, G Gallina, P Gautam, G Giacomini, D Goeldi, R Gornea, G Gratta, EV Hansen, EW Hoppe, J Hößl, A House, M Hughes, A Iverson, A Jamil, MJ Jewell, XS Jiang, A Karelin, LJ Kaufman, T Koffas, R Krücken, A Kuchenkov, KS Kumar, Y Lan, A Larson, KG Leach, BG Lenardo, DS Leonard, G Li, S Li, Z Li, C Licciardi, P Lv, R MacLellan, N Massacret, T McElroy, M Medina-Peregrina, T Michel, B Mong, DC Moore, K Murray, P Nakarmi, CR Natzke, RJ Newby, K Ni, Z Ning, O Njoya, F Nolet, O Nusair, K Odgers, A Odian, M Oriunno, JL Orrell, GS Ortega, I Ostrovskiy, CT Overman, S Parent, A Piepke, A Pocar, J-F Pratte, V Radeka, E Raguzin, H Rasiwala, S Rescia, F Retière, M Richman, A Robinson, T Rossignol, PC Rowson, N Roy, R Saldanha, K Skarpaas VIII, AK Soma, G St-Hilaire, V Stekhanov, XL Sun, M Tarka, S Thibado, A Tidball, J Todd, TI Totev, R Tsang, T Tsang, F Vachon, V Veeraraghavan, S Viel, G Visser, C Vivo-Vilches, J-L Vuilleumier, M Wagenpfeil, T Wager, M Walent, Q Wang, W Wei, LJ Wen, U Wichoski, M Worcester, SX Wu, WH Wu, X Wu, Q Xia, H Yang, L Yang, O Zeldovich, J Zhao

148.Mass measurements of neutron-rich indium isotopes for r-process studies

Phys. Rev. C **103**, 025811 (2021)

C Izzo, J Bergmann, KA Dietrich, E Dunling, D Fusco, A Jacobs, B Kootte, G Kripkó-Koncz, Y Lan, E Leistenschneider, EM Lykiardopoulou, I Mukul, SF Paul, MP Reiter, JL Tracy Jr, C Andreoiu, T Brunner, T Dickel, J Dilling, I Dillmann, G Gwinner, D Lascar, KG Leach, WR Plaß, C Scheidenberger, ME Wieser, AA Kwiatkowski

149.Examining the nuclear mass surface of Rb and Sr isotopes in the A~ 104 region via precision mass measurements

Phys. Rev. C **103**, 144320 (2021)

I Mukul, C Andreoiu, J Bergmann, M Brodeur, T Brunner, KA Dietrich, T Dickel, I Dillmann, E Dunling, D Fusco, G Gwinner, C Izzo, A Jacobs, B Kootte, Y Lan, E Leistenschneider, EM Lykiardopoulou, SF Paul, MP Reiter, JL Tracy Jr, J Dilling, AA Kwiatkowski

150.Commissioning of a multi-purpose offline ion source at the TITAN experiment

NIM A **1005** 165399 (2021)

Jake AD Flowerdew, Ish Mukul, Anna A Kwiatkowski, Michael E Wieser, Robert I Thompson, Jens Dilling

151.Mass Measurements of Neutron-Deficient Yb Isotopes and Nuclear Structure at the Extreme Proton-Rich Side of the N=82 Shell

Phys. Rev. Lett 127, 112501 (2021)

Sönke Beck, Brian Kootte, Irene Dedes, Timo Dickel, AA Kwiatkowski, Eleni Marina Lykiardopoulou, Wolfgang R Plaß, Moritz P Reiter, Corina Andreoiu, Julian Bergmann, Thomas Brunner, Dominique Curien, Jens Dilling, Jerzy Dudek, Eleanor Dunling, Jake Flowerdew, Abdelghafar Gaamouci, Leigh Graham, Gerald Gwinner, Andrew Jacobs, Renee Klawitter, Yang Lan, Erich Leistenschneider, Nikolay Minkov, Victor Monier, Ish Mukul, Stefan F Paul, Christoph Scheidenberger, Robert I Thompson, James L Tracy Jr, Michael Vansteenkiste, Hua-Lei Wang, Michael E Wieser, Christian Will, Jie Yang

152.Commissioning and performance of TITAN's Multiple-Reflection Time-of-Flight Mass-Spectrometer and isobar separator

NIM A 1018, 165823 (2021)

MP Reiter, S Ayet San Andres, J Bergmann, T Dickel, J Dilling, A Jacobs, AA Kwiatkowski, WR Plaß, C Scheidenberger, D Short, C Will, C Babcock, E Dunling, A Finlay, C Hornung, C Jesch, Renee Klawitter, B Kootte, D Lascar, E Leistenschneider, T Murböck, SF Paul, M Yavor

153.nEXO: neutrinoless double beta decay search beyond 1028 year half-life sensitivity

Journal of Physics G: Nuclear and Particle Physics 49, 15104 (2021)

Govinda Adhikari, S Al Kharusi, E Angelico, G Anton, IJ Arnquist, I Badhrees, J Bane, V Belov, EP Bernard, T Bhatta, A Bolotnikov, PA Breur, JP Brodsky, E Brown, T Brunner, E Caden, GF Cao, L Cao, C Chambers, B Chana, SA Charlebois, D Chernyak, M Chiu, B Cleveland, R Collister, SA Czyz, J Dalmasson, T Daniels, L Darroch, R DeVoe, ML Di Vacri, J Dilling, YY Ding, A Dolgolenko, MJ Dolinski, A Dragone, J Echevers, M Elbeltagi, L Fabris, D Fairbank, W Fairbank, J Farine, S Ferrara, S Feyzbakhsh, YS Fu, G Gallina, P Gautam, G Giacomini, W Gillis, C Gingras, D Goeldi, R Gornea, G Gratta, CA Hardy, K Harouaka, M Heffner, EW Hoppe, A House, A Iverson, A Jamil, M Jewell, XS Jiang, A Kareljin, LJ Kaufman, I Kotov, R Krücken, A Kuchenkov, KS Kumar, Y Lan, A Larson, KG Leach, BG Lenardo, DS Leonard, G Li, S Li, Z Li, C Licciardi, R Lindsay, R MacLellan, M Mahtab, P Martel-Dion, J Masbou, N Massacret, T McElroy, K McMichael, M Medina Peregrina, T Michel, B Mong, DC Moore, K Murray, J Nattress, CR Natzke, RJ Newby, K Ni, F Nolet, O Nusair, JC Nzobadila Ondze, K Odgers, A Odian, JL Orrell, GS Ortega, CT Overman, S Parent, A Perna, A Piepke, A Pocar, JF Pratte, N Priel, V Radeka, E Raguzin, GJ Ramonnye, T Rao, H Rasiwala, S Rescia, F Retière, J Ringuelette, V Riot, T Rossignol, PC Rowson, N Roy, R Saldanha, S Sangiorgio, X Shang, AK Soma, F Spadoni, V Stekhanov, XL Sun, M Tarka, S Thibado, A Tidball, J Todd, T Totev, S Triambak, RHM Tsang, T Tsang, F Vachon, V Veeraraghavan, S Viel, C Vivo-Vilches, P Vogel, JL Vuilleumier, M Wagenpfeil, T Wager, M Walent, K Wamba, Q Wang, W Wei, LJ Wen, U Wichojski, S Wilde

154.Search for Majoron-emitting modes of double beta decay with the complete EXO-200 dataset

Phys. Rev. D 104, 112002 (2021)

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155.Mass measurements of reduce x-ray burst model uncertainties and extend the evaluated isobaric multiplet mass equation

Phys. Rev. C 104, 65803 (2021)

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156.Characterization of a Spatially resolved multi-element laser ablation ion source

IntJMassSpec 472, 116763 (2021)

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157.Examining the nuclear mass surface of Rb and Sr isotopes in the A~ 104 region via precision mass measurements

Phys. Rev. C 103, 144320 (2021)

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158.The EXO-200 detector, part II: auxiliary systems

Journal of Instrumentation 17, P02015 (2022)

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159.Simulations of a new electron gun for the TITAN EBIT

Journal of Physics: Conference Series 2244 (1), 012075 (2022)

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160.Mapping the island of inversion: Precision mass measurements of neutron-rich Fe isotopes

Phys. Rev. C 105, L041301 (2022)

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