Selected Publications

Andrew S. Voyles

November 25, 2024

- Sinthia Binte Kholil, M. Shuza Uddin, M. Mehedi Hasan, A. Kumer Chakraborty, M. Asad Shariff, Andrew S. Voyles, and Ingo Spahn, Excitation functions of proton-induced nuclear reactions on titanium. Radiochimica Acta, aop (2024). https://doi.org/10.1515/ract-2024-0347
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- J.M. Gordon, J.A. Brown, B.L. Goldblum, T.A. Laplace, J.C. Batchelder, D.L. Bleuel, B. Buckley, A. Georgiadou, C. Henderson, T. Johnson, J.W. Lee, K. Myers, T. Nagel, J.R. Sebastian, **A.S. Voyles**, and L.A. Bernstein, $^{12}C(n, n'_1 \gamma)$ partial γ -ray cross section measured using the GENESIS array. Physical Review C, (submitted).
- Jonathan T. Morrell, Ellen M. O'Brien, Michael Skulski, **Andrew S. Voyles**, Dmitri G. Medvedev, Veronika Mocko, Lee A. Bernstein, and C. Etienne Vermeulen, *Measurement of Proton-Induced Reactions on Lanthanum from 55–200 MeV by Stacked-Foil Activation*. Physical Review C, (submitted).
- Md. Shuza Uddin, Sándor Sudár, M. Shamsuzzoha Basunia, Ingo Spahn, **Andrew S. Voyles**, Alex Hermanne, Lee A. Bernstein, Bernd Neumaier, and Syed. M. Qaim, Cross sections for the formation of ⁸⁴Rb^{m,g}, ⁸³Rb and ⁸²Rb^m in ⁸⁶Sr(d,x)-reactions up to deuteron energies of 49 MeV: competition between α-particle and multi-nucleon emission processes. Physical Review C, (submitted).
- Md. Shuza Uddin, Sándor Sudár, M. Shamsuzzoha Basunia, Bernhard Scholten, Stefan Spellerberg, Andrew S. Voyles, Jonathan T Morrell, Ingo Spahn, Alex Hermanne, Lee A. Bernstein, Bernd Neumaier, and Syed. M. Qaim, Excitation functions and isomeric cross-section ratios of (d,xn) reactions on ⁸⁶Sr. The European Physical Journal A, **60** (2024) 128. https://doi.org/10.1140/epja/s10050-024-01330-6

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- F. Pogliano, F. L. Bello Garrote, A. C. Larsen, H. C. Berg, D. Gjestvang, A. Görgen, M. Guttormsen, V. W. Ingeberg, T. W. Johansen, K. L. Malatji, E. F. Matthews, M. Markova, J. E. Midtbø, V. Modamio, L. G. Pedersen, E. Sahin, S. Siem, T. G. Tornyi, and A. S. Voyles, Observation of a candidate for the M1 scissors resonance in odd-odd ¹⁶⁶Ho. Physical Review C, 107 (2023) 034605. https://doi.org/10.1103/PhysRevC.107.034605
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- Denise Neudecker, C. Romano, Nathan A. Gibson, Robert C. Little, Lee Bernstein, R. Bostelmann, D. Brown, R.J. Casperson, Stephen Croft, S. Dewji, L. Greenwood, P. Griffin, L. Kyriazidis, A. Lewis, M. Pigni, B. Pritychenko, B. Rearden, J. Ressler, T. Slaba, M. Smith, V. Sobes, A. Sonzogni, Scott A. Vander Wiel, N. Vassh, A. Voyles, and K. Wendt, 5–10 Years Cross-cutting Priorities on the Topic of

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- Sarah Stevenson, Andrew Dong, Yujun Xie, Jon Morrell, **Andrew S. Voyles**, Jeff Bickel, Lee Bernstein, S.A. Maloy, and Peter Hosemann, *The effects of high energy deuteron ion beam irradiation on the tensile behavior of HT-9.* Nuclear Instruments and Methods in Physics Research B, **531** (2022) 65–73. https://doi.org/10.1016/j.nimb.2022.09.001
- M. S. Uddin, M. S. Basunia, S. Sudár, B. Scholten, S. Spellerberg, A. S. Voyles, J. T. Morrell, M. B. Fox, I. Spahn, O. Felden, R. Gebel, L. A. Bernstein, B. Neumaier, and S. M. Qaim, Excitation functions of proton-induced nuclear reactions on ⁸⁶Sr, with particular emphasis on the formation of isomeric states in ⁸⁶Y and ⁸⁵Y. The European Physical Journal A, 58 (2022) 67. https://doi.org/10.1140/epja/s10050-022-00714-w

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Stephan Friedrich, Geon-Bo Kim, Dongwon Lee, J. Ad Hall, Robin Cantor, **Andrew Voyles**, Ruslan Hummatov, and Stephen P.T. Boyd, *Ultra-High Resolution Magnetic Microcalorimeter Gamma-Ray Detectors for Non-Destructive Assay of Uranium and Plutonium*. Journal of Nuclear Materials Management, **49** (2021), 114–122.

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Ryan K. Chapman, **Andrew S. Voyles**, Narek Gharibyan, Lee A. Bernstein, and James E. Bevins, *Measurement of the* ¹⁶⁰Gd(p,n)¹⁶⁰Tb excitation function from 4–18 MeV using stacked-target activation. Applied Radiation and Isotopes, **171** (2021) 109647. https://doi.org/10.1016/j.apradiso.2021. 109647

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- Andrew S. Voyles, Amanda M. Lewis, Jonathan T. Morrell, M. Shamsuzzoha Basunia, Lee A. Bernstein, Jonathan W. Engle, Stephen A. Graves, and Eric F. Matthews, *Proton-induced reactions on Fe, Cu, & Ti from threshold to 55 MeV.* The European Physical Journal A, 57 (2021) 94. https://doi.org/10.1140/epja/s10050-021-00401-2
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- M. Shuza Uddin, Bernhard Scholten, M. Shamsuzzhoha Basunia, Sandor Sudár, Stefan Spellerberg, **Andrew S. Voyles**, Jonathan T. Morrell, Haleema Zaneb, Jesus A. Rios, Ingo Spahn, Lee A. Bernstein, Bernd Neumaier, and Syed M. Qaim, *Accurate Determination of Production Data of the Non-Standard Positron Emitter* ⁸⁶ Y via the ⁸⁶ Sr(p,n)-Reaction. Radiochimica Acta, **108** (2020) 747-756. https://doi.org/10.1515/ract-2020-0021 PDF
- M.S. Basunia, J.T. Morrell, M.S. Uddin, **A.S. Voyles**, C.D. Nesaraja, L.A. Bernstein, E. Browne, M.J. Martin, and S.M. Qaim, *Resolution of a discrepancy in the γ-ray emission probability from the β decay of* ¹³⁷Ce^g. Physical Review C, **101** (2020) 064619. https://doi.org/10.1103/PhysRevC.101.064619 PDF
- G.B. Kim, S.T.P. Boyd, R.H. Cantor, **A.S. Voyles**, J.T. Morrell, L.A. Bernstein, and S. Friedrich, *A New Measurement of the 60 keV Emission from Am-241 Using Metallic Magnetic Calorimeters*. Journal of Low Temperature Physics, (2020) 1-7. https://doi.org/10.1007/s10909-020-02412-7
- Jonathan T. Morrell, **Andrew S. Voyles**, M. S. Basunia, Jon C. Batchelder, Eric F. Matthews, and Lee A. Bernstein, *Measurement of* ¹³⁹La(p,x) cross sections from 35–60 MeV by stacked-target activation. The European Physical Journal A, **56** (2020) 13. https://doi.org/10.1140/epja/s10050-019-00010-0 PDF
- Lee A. Bernstein, David A. Brown, Arjan J. Koning, Bradley T. Rearden, Catherine E. Romano, Alejandro A. Sonzogni, **Andrew S. Voyles**, and Walid Younes, *Our Future Nuclear Data Needs*. Annual Review of Nuclear and Particle Science, **69.1** (2019) 109–136. https://doi.org/10.1146/annurev-nucl-101918-023708 PDF
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