

Selected Publications

Andrew S. Voyles

June 6, 2023

- N. Burahmah, J.R. Griswold, L.H. Heilbronn, L.A. Bernstein, **A.S. Voyles**, J.T. Morrell, M. Zach, and R. Copping, *^{229}Pa cross section measurements via deuteron irradiation of ^{232}Th* . Physical Review C (submitted 2023).
- 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 Nuclear Data Covariances and Uncertainty Quantification for Users*. Technical Report LA-UR-22-32080 (2023). <https://doi.org/10.2172/1958970>
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- Andrew S. Voyles**, Morgan B. Fox, Jonathan T. Morrell, Michael P. Zach, Evan K. Still, Lee A. Bernstein, Wesley D. Frey, and Burton J. Mehciz, *Preparation and Characterization of Thin Arsenic Targets for Stacked-Target Experiments*. Nuclear Instruments and Methods in Physics Research B, (in preparation). <https://arxiv.org/abs/2106.05524>
- Jonathan T. Morrell, **Andrew S. Voyles**, Jon C. Batchelder, Joshua A. Brown, and Lee A. Bernstein, *Secondary Neutron Production from Thick Target Deuteron Breakup*. Physical Review C (submitted 2022). <https://arxiv.org/abs/2212.00218>
- 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 ^{166}Ho* . Physical Review C, **107** (2023) 034605. <https://doi.org/10.1103/PhysRevC.107.034605>
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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>
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- Karolina Kolos, Vladimir Sobes, Ramona Vogt, Catherine E. Romano, Michael S. Smith, Lee A. Bernstein, David A. Brown, Mary T. Burkey, Yaron Danon, Mohamed A. Elsayi, Bethany L. Goldblum, Lawrence H. Heilbronn, Susan L. Hogle, Jesson Hutchinson, Ben Loer, Elizabeth A. McCutchan, Matthew R. Mumpower, Ellen M. O'Brien, Catherine Percher, Patrick N. Peplowski, Jennifer J. Ressler, Nicolas Schunck, Nicholas W. Thompson, **Andrew S. Voyles**, William Wieselquist, and Michael Zerkle, *Current nuclear data needs for applications*. Physical Review Research, **4** (2022) 021001. <https://doi.org/10.1103/PhysRevResearch.4.021001>
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- 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 ^{86}Sr , with particular emphasis on the formation of isomeric states*

in ^{86}Y and ^{85}Y . 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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D. Gjestvang, S. Siem, F. Zeiser, J. Randrup, R. Vogt, J.N. Wilson, F. Bello-Garrote, L.A. Bernstein, D.L. Bleuel, M. Guttormsen, A. Görgen, A.C. Larsen, K.L. Malatji, E.F. Matthews, A. Oberstedt, S. Oberstedt, T. Torny, G.M. Tveten, and **A.S. Voyles**, *Excitation energy dependence of prompt fission γ -ray emission from $^{241}\text{Pu}^*$* . Physical Review C, **103** (2021) 034609. <https://doi.org/10.1103/PhysRevC.103.034609>

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Ryan K. Chapman, **Andrew S. Voyles**, Narek Gharibyan, Lee A. Bernstein, and James E. Bevins, *Measurement of the $^{160}\text{Gd}(p,n)^{160}\text{Tb}$ 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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D.L. Bleuel, L.A. Bernstein, R.A. Marsh, J.T. Morrell, B. Rusnak, and **A.S. Voyles**, *Precision measurement of relative γ -ray intensities from the decay of ^{61}Cu* . Applied Radiation and Isotopes, **170** (2021) 109625. <https://doi.org/10.1016/j.apradiso.2021.109625>

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- 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>
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- Jonathan T. Morrell, **Andrew S. Voyles**, M. S. Basunia, Jon C. Batchelder, Eric F. Matthews, and Lee A. Bernstein, *Measurement of $^{139}\text{La}(p,x)$ 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>
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