

## Selected Publications

Andrew S. Voyles

June 8, 2022

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  $^{86}\text{Sr}$ , with particular emphasis on the formation of isomeric states in  $^{86}\text{Y}$  and  $^{85}\text{Y}$* . Physical Review C, **58** (2022) 67.

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Morgan B. Fox, **Andrew S. Voyles**, Jonathan T. Morrell, Lee A. Bernstein, Jon C. Batchelder, Eva R. Birnbaum, Cathy S. Cutler, Arjan J. Koning, Amanda M. Lewis, Dmitri G. Medvedev, Francois M. Nortier, Ellen M. O'Brien, and Christiaan Vermeulen, *Measurement and modeling of proton-induced reactions on arsenic from 35 to 200 MeV*. Physical Review C, **104** (2021) 064615.

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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. Tornyi, G.M. Tveten, and **A.S. Voyles**, *Excitation energy dependence of prompt fission  $\gamma$ -ray emission from  $^{241}\text{Pu}^*$* . Physical Review C, **103** (2021) 034609.

<https://doi.org/10.1103/PhysRevC.103.034609>

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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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Morgan B. Fox, **Andrew S. Voyles**, Jonathan T. Morrell, Lee A. Bernstein, Amanda M. Lewis, Arjan J. Koning, Jon C. Batchelder, Eva R. Birnbaum, Cathy S. Cutler, Dmitri G. Medvedev, Francois M. Nortier, Ellen M. O'Brien, and Christiaan Vermeulen, *Investigating high-energy proton-induced reactions*

on spherical nuclei: Implications for the preequilibrium exciton model. *Physical Review C*, **103** (2021) 034601. <https://doi.org/10.1103/PhysRevC.103.034601>

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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  $\gamma$ -ray intensities from the decay of  $^{61}\text{Cu}$* . *Applied Radiation and Isotopes*, **170** (2021) 109625. <https://doi.org/10.1016/j.apradiso.2021.109625>

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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  $^{86}\text{Y}$  via the  $^{86}\text{Sr}(p,n)$ -Reaction*. *Radiochimica Acta*, **108** (2020) 747-756. <https://doi.org/10.1515/ract-2020-0021>

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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  $\gamma$ -ray emission probability from the  $\beta$  decay of  $^{137}\text{Ce}^g$* . *Physical Review C*, **101** (2020) 064619. <https://doi.org/10.1103/PhysRevC.101.064619>

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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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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>

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**Andrew S. Voyles**, Lee A. Bernstein, Eva R. Birnbaum, Jonathan W. Engle, Stephen A. Graves, Toshihiko Kawano, Amanda M. Lewis, and Francois M. Nortier, *Excitation functions for  $(p,x)$  reactions of niobium in the energy range of  $E_p = 40\text{--}90$  MeV*. *Nuclear Instruments and Methods in Physics Research B*, **429** (2018) 53–74. <https://doi.org/10.1016/j.nimb.2018.05.028>

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Paul R. Renne, Andrew M. Rogers, Daniel Rutte, **Andrew S. Voyles**, Karl Van Bibber, and Cory S. Waltz, *Design, construction, and characterization of a compact DD neutron generator designed for  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology*. Nuclear Instruments and Methods in Physics Research A, **903** (2018) 193–203. <https://doi.org/10.1016/j.nima.2018.04.020>

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**A.S. Voyles**, M.S. Basunia, J.C. Batchelder, J.D. Bauer, T.A. Becker, L.A. Bernstein, E.F. Matthews, P.R. Renne, D. Rutte, M.A. Unzueta, and K.A. van Bibber, *Measurement of the  $^{64}\text{Zn}, ^{47}\text{Ti}(n,p)$  Cross Sections using a DD Neutron Generator for Medical Isotope Studies*. Nuclear Instruments and Methods in Physics Research B, **410** (2017) 230–239. <https://doi.org/10.1016/j.nimb.2017.08.021>

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