

PAPERS PUBLISHED

April 1, 2019– March 31, 2020

First beams produced by the Texas A&M University radioactive-beam upgrade, D.P. May, F.P. Abegglen, J. Ärje, H. Clark, G. J. Kim, B.T. Roeder, A. Saastamoinen, and G. Tabacaru, Proc. of the 22nd International Conference on Cyclotrons and their Applications, Cape Town, South Africa, Sept. 2019.

Decay properties of $^{22}\text{Ne}+\alpha$ resonances and their impact on ss-process nucleosynthesis, S. Ota, G. Christian, G. Lotay, W.N. Catford, E.A. Bennett, S. Dede, D.T. Doherty, S. Hallam, J. Hooker, C. Hunt, H. Jayatissa, A. Matta, M. Moukaddam, G.V. Rogachev, A. Saastamoinen, J.A. Tostevin, S. Upadhyayula, and R. Wilkinson, Phys. Lett. B **802**, 135256 (2020).

Constraining the $^{22}\text{Ne}(\alpha,\gamma)^{26}\text{Mg}$ and $^{22}\text{Ne}(\alpha,n)^{25}\text{Mg}$ reaction rates using sub-Coulomb $\alpha\alpha$ -transfer reactions, H. Jayatissa, G.V. Rogachev, V.Z. Goldberg, E. Koshchiy, G. Christian, J. Hooker, S. Ota, B.T. Roeder, A. Saastamoinen, O. Trippella, S. Upadhyayula, and E. Uberseder, Phys. Lett. B **802**, 135267 (2020).

Alpha-capture reaction rate for $^{22}\text{Ne}(\alpha, n)$ via sub-Coulomb α -transfer and its effect on final abundances of s-Process isotopes, H. Jayatissa, G.V. Rogachev, V.Z. Goldberg, E. Koshchiy, B.T. Roeder, O. Trippella, J. Hooker, S. Upadhyayula, E. Uberseder, A. Saastamoinen, and C. Hunt, Proc. XV Int. Symp. on Nuclei in the Cosmos, Lab.Naz.del Gran Sasso L'Aquila, Assergi, Italy, June 24-29 2019, p.377 (2019).

High-resolution radioactive beam study of the $^{26}\text{Al}(\text{d},\text{p})$ reaction and measurements of single-particle spectroscopic factors, G. Lotay, P.J. Woods, M. Moukaddam, M. Aliotta, G. Christian, B. Davids, T. Davinson, D.T. Doherty, D. Howell, V. Margerin, and C. Ruiz, Eur. Phys. J. A **56**, 3 (2020).

Indium and thallium extraction into betainium bis(trifluoromethylsulfonyl)imide ionic liquid from aqueous hydrochloric acid media, M.F. Volia, E.E. Tereshatov, M. Boltoeva, and C.M. Folden III, J. Chem. **44**, 2527 (2020).

Hydrophobic polymerized ionic liquids for trace metal solid phase extraction: thallium transfer from hydrochloric acid media, E.E. Tereshatov, M. Boltoeva, V. Mazan, C. Baley, and C.M. Folden III, J. Chem. **43**, 8958 (2019).

Experimental validation of a nuclear forensics methodology for source reactor-type discrimination of chemically separated plutonium, J.M. Osborn, K.J. Glennon, E.D. Kitcher, J.D. Burns, C.M. Folden III, and S.S. Chirayath, Nucl. Eng. Tech. **51**, 384 (2019).

Measuring key Sm isotope ratios in irradiated UO₂ for use in plutonium discrimination nuclear forensics, K.J. Glennon, J.M. Osborn, J.D. Burns, E.D. Kitcher, S.S. Chirayath, and C.M. Folden III, J. Radioanal. Nucl. Ch. **320**, 405 (2019).

New precise half-life measurement for the superallowed β^+ emitter ^{34}Ar , V.E. Iacob, J.C. Hardy, H.I. Park, M. Bencomo, L. Chen, V. Horvat, N. Nica, B.T. Roeder, and A. Saastamoinen, *Phys. Rev. C* **101**, 015504 (2020).

Precise branching ratio measurement for the superallowed β^+ decay of ^{26}Si : Completion of a second mirror pair, M. Bencomo, J.C. Hardy, V.E. Iacob, H.I. Park, L. Chen, V. Horvat, N. Nica, B.T. Roeder, A. Saastamoinen, and I.S. Towner, *Phys. Rev. C* **100**, 015503 (2019).

Improved limits on Fierz interference using asymmetry measurements from the Ultracold Neutron Asymmetry (UCNA) experiment, X. Sun, E. Adamek, B. Allgeier, Y. Bagdasarova, D.B. Berguno, M. Blatnik, T.J. Bowles, L.J. Broussard, M.A. Brown, R. Carr, S. Clayton, C. Cude-Woods, S. Currie, E.B. Dees, X. Ding, B.W. Filippone, A. García, P. Geltenbort, S. Hasan, K.P. Hickerson, J. Hoagland, R. Hong, A.T. Holley, T.M. Ito, A. Knecht, C. Liu, J. Liu, M. Makela, R. Mammei, J.W. Martin, D. Melconian, M.P. Mendenhall, S.D. Moore, C.L. Morris, S. Nepal, N. Nouri, R.W. Pattie, A. Pérez Galván, D.G. Phillips, R. Picker, M.L. Pitt, B. Plaster, D.J. Salvat, A. Saunders, E.I. Sharapov, S. Sjue, S. Slutsky, W. Sondheim, C. Swank, E. Tatar, R.B. Vogelaar, B. VornDick, Z. Wang, W. Wei, J.W. Wexler, T. Womack, C. Wrede, A.R. Young, and B.A. Zeck, *Phys. Rev. C* **101**, 035503 (2020).

Ion-trap application: Fundamental weak interaction studies using ion traps, P.D. Shidling, V.S. Kolhinen, B. Schroeder, M. Nasser, A. Ozmetin, and D. Melconian, *AIP Conference Proceedings* **2160**, 070011 (2019).

TAMUTRAP facility: Penning trap facility for weak interaction studies, P.D. Shidling, V.S. Kolhinen, B. Schroeder, M. Nasser, A. Ozmetin, and D. Melconian, *Hyperfine Interactions* **240**, 40 (2019).

Neutron-proton asymmetry dependence of nuclear temperature with intermediate mass fragments, X. Liu, H. Zheng, R. Wada, W. Lin, M. Huang, P. Ren, G. Qu, J. Han, M.R.D. Rodrigues, S. Kowalski, T. Keutgen, K. Hagel, M. Barbui, A. Bonasera, and J.B. Natowitz, *Phys. Rev. C* **100**, 064601 (2019).

Texas Active Target (TexAT) detector for experiments with rare isotope beams, E. Koshchiy, G.V. Rogachev, E. Pollacco, S. Ahn, E. Uberseder, J. Hooker, J. Bishop, E. Aboud, M. Barbui, V.Z. Goldberg, C. Hunt, H. Jayatissa, C. Magana, R. O'Dwyer, B.T. Roeder, A. Saastamoinen, and S. Upadhyayula, *Nucl. Instrum. Methods Phys. Res.* **A957**, 163398 (2020).

Search for the high-spin members of the $\alpha:2n:\alpha$ band in ^{10}Be , S. Upadhyayula, G.V. Rogachev, J. Bishop, V.Z. Goldberg, J. Hooker, C. Hunt, H. Jayatissa, E. Koshchiy, E. Uberseder, A. Volya, B.T. Roeder, and A. Saastamoinen, *Phys. Rev. C* **101**, 034604 (2020).

Structure of ^9C through proton resonance scattering with the Texas Active Target detector, J. Hooker, G.V. Rogachev, E. Koshchiy, S. Ahn, M. Barbui, V.Z. Goldberg, C. Hunt, H. Jayatissa, E.C. Pollacco, B.T. Roeder, A. Saastamoinen, and S. Upadhyayula, *Phys. Rev. C* **100**, 054618 (2019).

Evidence for α -cluster structure in ^{21}Ne in the first measurement of resonant $^{17}\text{O}+\alpha$ elastic scattering, A.K. Nurmukhanbetova, V.Z. Goldberg, D.K. Nauruzbayev, M.S. Golovkov, and A. Volya, Phys. Rev. C **100**, 062802 (2019).

State of the art measurements with TexAT, J. Bishop, G.V. Rogachev, E. Aboud, S. Ahn, M. Assunção, M. Barbui, A. Bosh, V. Guimaraes, J. Hooker, C. Hunt, H. Jayatissa, E. Koshchiy, S. Lukyanov, R. O'Dwyer, Y. Penionzhkevich, E. Pollacco, C. Pruitt, B.T. Roeder, A. Saastamoinen, L. Sobotka, E. Uberseder, S. Upadhyayula, and J. Zamora, J. Phys. Conf. Series **1308**, 012006 (2019).

Measurement of $d+^7\text{Be}$ cross sections for big-bang nucleosynthesis, N. Rijal, I. Wiedenhöver, J.C. Blackmon, M. Anastasiou, L.T. Baby, D.D. Caussyn, P. Höflich, K.W. Kemper, E. Koshchiy, and G.V. Rogachev, Phys. Rev. Lett. **122**, 182701 (2019).

Studies of systematic effects of the AstroBox2 detector in online conditions, A. Saastamoinen, E. Pollacco, B.T. Roeder, R. Chyzh, L. Trache, and R.E. Tribble, Nucl. Instrum. Methods Phys. Res. **B463**, 251 (2020).

Isoscaling and nuclear reaction dynamics, A. Hannaman, A.B. McIntosh, A. Jedele, A. Abbott, J. Gauthier, K. Hagel, B. Harvey, Z. Kohley, Y. Lui, L.A. McIntosh, A.R. Manso, M. Sorensen, Z. Tobin, R. Wada, M. Youngs, and S.J. Yennello, Phys. Rev. C **101**, 034605 (2020).

Extending the dynamic range of electronics in a Time Projection Chamber, J. Estee, W.G. Lynch, J. Barney, G. Cerizza, G. Jhang, J.W. Lee, R. Wang, T. Isobe, M. Kaneko, M. Kurata-Nishimura, T. Murakami, R. Shane, S. Tangwancharoen, C.Y. Tsang, M.B. Tsang, B. Hong, P. Lasko, J. Łukasik, A.B. McIntosh, P. Pawłowski, K. Pelczar, H. Sakurai, C. Santamaria, D. Suzuki, S.J. Yennello, and Y. Zhang, Nucl. Instrum. Methods Phys. Res. **A944**, 162509 (2019).

Dynamical ternary decays of excited projectile-like fragments, A.R. Manso, A.B. McIntosh, J. Gauthier, K. Hagel, L. Heilborn, A. Jedele, Z. Kohley, A. Wakhle, A. Zarrella, and S.J. Yennello, Phys. Rev. C **100**, 044612 (2019).

Interplay of neutron-proton equilibration and nuclear dynamics, A.B. McIntosh and S.J. Yennello, Prog. Part. Nucl. Phys. **108**, 103707 (2019).

Strongly resonating bosons in hot nuclei, S. Zhang, A. Bonasera, M. Huang, H. Zheng, D.X. Wang, J.C. Wang, L. Lu, G. Zhang, Z. Kohley, Y.G. Ma, and S.J. Yennello, Phys. Rev. C **99**, 044605 (2019).

Simulation of fusion and quasi-fission in nuclear reactions leading to production of superheavy elements using the Constrained Molecular Dynamics model, J. Klimo, M. Veselsky, G.A. Souliotis, and A. Bonasera, Nucl. Phys. **A992**, 121640 (2019).

Yield ratio of neutrons to protons in $^{12}\text{C}(\text{d},\text{n})^{13}\text{N}$ and $^{12}\text{C}(\text{d},\text{p})^{13}\text{C}$ from 0.6 to 3~MeV W. Li, Y. Ma, G. Zhang, X. Deng, M. Huang, A. Bonasera, D. Fang, J. Cao, Q. Deng, Y. Wang, and Q. Lei, Nucl. Sci. Tech. **30**, 180 (2019).

Fusion hindrance effects in laser-induced non-neutral plasmas, S.S. Perrotta and A. Bonasera, Nucl. Phys. **A989**, 168 (2019).

A novel approach to medical radioisotope production using inverse kinematics: A successful production test of the theranostic radionuclide ^{67}Cu , G.A. Souliotis, M.R.D. Rodrigues, K. Wang, V.E. Jacob, N. Nica, B. Roeder, G. Tabacaru, M. Yu, P. Zanotti-Fregonara, and A. Bonasera, Appl. Radiat. Isot. **149**, 89 (2019)

Experimental liquid-gas phase transition signals and reaction dynamics, R. Wada, W. Lin, P. Ren, H. Zheng, X. Liu, M. Huang, K. Yang, and K. Hagel, Phys. Rev. C **99**, 024616 (2019).

Nuclear probes of an out-of-equilibrium plasma at the highest compression, G. Zhang, M. Huang, A. Bonasera, Y.G. Ma, B.F. Shen, H.W. Wang, W.P. Wang, J.C. Xu, G.T. Fan, H. Xu, H. Xue, H. Zheng, L.X. Liu, S. Zhang, W.J. Li, X.G. Cao, X.G. Deng, X.Y. Li, Y.C. Liu, Y. Yu, Y. Zhang, C.B. Fu, and X.P. Zhang, Phys. Lett. A **383**, 2285 (2019).

Nuclear Astrophysics with Lasers, M. Huang, H.J. Quevedo, G. Zhang and A. Bonasera, Nucl. Phys. News **29**, 9 (2019).

The role of the Heisenberg principle in constrained molecular dynamics model, K. Wang, A. Bonasera, H. Zheng, G. Zhang, Y.G. Ma and W.Q. Shen, ", Int. J. Mod. Phys E **28**, 1950039 (2019).

Status on $^{12}\text{C}+^{12}\text{C}$ fusion at deep subbarrier energies: impact of resonances on astrophysical S* factors, C. Beck, A.M. Mukhamedzhanov, and X. Tang, Eur. Phys. J. A **56**, 2 (2020).

New method of analytic continuation of elastic-scattering data to the negative-energy region, and asymptotic normalization coefficients for ^{17}O and ^{13}C , L.D. Blokhintsev, A.S. Kadyrov, A.M. Mukhamedzhanov, and D.A. Savin, Phys. Rev. C **100**, 024627 (2019).

Astrophysical factors of $^{12}\text{C}+^{12}\text{C}$ fusion extracted using the Trojan horse method, A.M. Mukhamedzhanov, D.Y. Pang, and A.S. Kadyrov, Phys. Rev. C **99**, 064618 (2019).

Proton-beam stopping in hydrogen, J.J. Bailey, I.B. Abdurakhmanov, A.S. Kadyrov, I. Bray, and A.M. Mukhamedzhanov, Phys. Rev. A **99**, 042701 (2019).

Theory of surrogate nuclear and atomic reactions with three charged particles in the final state proceeding through a resonance in the intermediate subsystem, A.M. Mukhamedzhanov and A.S. Kadyrov, *Few-Body Syst.* **60**, 9 (2019).

Isoscalar and isovector giant resonances in $^{92,94,96,98,100}\text{Mo}$ and $^{90,92,94}\text{Zr}$, G. Bonasera, S. Shlomo, D.H. Youngblood, Y. Lui, Krishichayan, and J. Button, *Nucl. Phys.* **A992**, 121612 (2019).

Isoscalar E0, E1, and E2 strength in ^{54}Fe and $^{64,68}\text{Zn}$, J. Button, Y.-W. Lui, D.H. Youngblood, X. Chen, G. Bonasera, and S. Shlomo, *Phys. Rev. C* **100**, 064318 (2019).

Giant resonances in $^{40,48}\text{Ca}$, ^{68}Ni , ^{90}Zr , ^{116}Sn , ^{144}Sm and ^{208}Pb and properties of nuclear matter, S. Shlomo, G. Bonasera, and M.R. Anders, *AIP Conference Proceedings* **2150**, 030011 (2019).

Direct neutron capture cross section on ^{80}Ge and probing shape coexistence in neutron-rich nuclei, S. Ahn, D.W. Bardayan, K.L. Jones, A.S. Adekola, G. Arbanas, J.C. Blackmon, K.Y. Chae, K.A. Chipps, J.A. Cizewski, S. Hardy, M.E. Howard, R.L. Kozub, B. Manning, M. Matos, C.D. Nesaraja, P.D. O'Malley, S.D. Pain, W.A. Peters, S.T. Pittman, B.C. Rasco, M.S. Smith, and I. Spassova, *Phys. Rev. C* **100**, 044613 (2019).

Constraining spectroscopic factors near the r-process path using combined measurements: $^{86}\text{Kr}(d,p)^{87}\text{Kr}$, D. Walter, S.D. Pain, J.A. Cizewski, F.M. Nunes, S. Ahn, T. Baugher, D.W. Bardayan, T. Baumann, D. Bazin, S. Burcher, K.A. Chipps, G. Cerizza, K.L. Jones, R.L. Kozub, S.J. Lonsdale, B. Manning, F. Montes, P.D. O'Malley, S. Ota, J. Pereira, A. Ratkiewicz, P. Thompson, C. Thornsberry, and S. Williams, *Phys. Rev. C* **99**, 054625 (2019).

Informing direct neutron capture on tin isotopes near the N=82 shell closure, B. Manning, G. Arbanas, J.A. Cizewski, R.L. Kozub, S. Ahn, J.M. Allmond, D.W. Bardayan, K.Y. Chae, K.A. Chipps, M.E. Howard, K.L. Jones, J.F. Liang, M. Matos, C.D. Nesaraja, F.M. Nunes, P.D. O'Malley, S.D. Pain, W.A. Peters, S.T. Pittman, A. Ratkiewicz, K.T. Schmitt, D. Shapira, M.S. Smith, and L. Titus, *Phys. Rev. C* **99**, 041302 (2019).

$^{12}\text{C}(^{15}\text{N},^{14}\text{C})^{13}\text{N}$ reaction at 81 MeV. Competition between one and two particle transfers, A.T. Rudchik, A.A. Rudchik, O.E. Kutsyk, K.W. Kemper, K. Rusek, E. Piasecki, A. Trzcińska, S. Kliczewski, E.I. Koshchy, V.M. Pirnak, O.A. Ponkratenko, I. Strojek, V.A. Plujko, S.B. Sakuta, R. Siudak, A.P. Ilyin, Y.M. Stepanenko, Y.O. Shyrma, and V.V. Uleshchenko, *Nucl. Phys.* **A992**, 121638 (2019).

Elastic and inelastic scattering of ^{15}N ions by ^{12}C at 81 MeV and the effect of transfer channels, A.T. Rudchik, A.A. Rudchik, O.E. Kutsyk, K.W. Kemper, S. Kliczewski, K. Rusek, E. Piasecki, A. Trzcińska, E.I. Koshchy, V.M. Pirnak, O.A. Ponkratenko, I. Strojek, V.A. Plujko, A. Stolarz, S.B. Sakuta, R. Siudak, O.V. Herashchenko, A.P. Ilyin, Y.M. Stepanenko, Y.O. Shyrma, and V.V. Uleshchenko, *Acta Physica Polonica B* **50**, 753 (2019).

Nuclear Data Sheets for A=155, N. Nica, Nucl. Data Sheets **160**, 1 (2019).

GADGET: a gaseous detector with Germanium tagging, M. Friedman, D. Pérez-Loureiro, T. Budner, E. Pollacco, C. Wrede, M. Cortesi, C. Fry, B. Glassman, M. Harris, J. Heideman, M. Janasik, B.T. Roeder, M. Roosa, A. Saastamoinen, J. Stomps, J. Surbrook, P. Tiwari and J. Yurkon, Nucl. Instrum. Methods Phys. Res. **A940**, 93 (2019).

Nuclear level densities and γ -ray strength functions in samarium isotopes, F. Naqvi, A. Simon, M. Guttormsen, R. Schwengner, S. Frauendorf, C.S. Reingold, J.T. Burke, N. Cooper, R.O. Hughes, S. Ota, and A. Saastamoinen, Phys. Rev. C **99**, 054331 (2019).

Expansion of the surrogate method to measure the prompt fission neutron multiplicity for ^{241}Pu , O.A. Akindele, B.S. Alan, J.T. Burke, R.J. Casperson, R.O. Hughes, J.D. Koglin, K. Kolos, E.B. Norman, S. Ota, and A. Saastamoinen, Phys. Rev. C **99**, 054601 (2019).

Doppler broadening in $^{20}\text{Mg}(\beta\text{p}\gamma)^{19}\text{Ne}$ decay, B.E. Glassman, D. Pérez-Loureiro, C. Wrede, J. Allen, D.W. Bardayan, M.B. Bennett, K.A. Chippis, M. Febraro, M. Friedman, C. Fry, M.R. Hall, O. Hall, S.N. Liddick, P. O'Malley, W.J. Ong, S.D. Pain, S.B. Schwartz, P. Shidling, H. Sims, L.J. Sun, P. Thompson, and H. Zhang, Phys. Rev. C **99**, 065801 (2019).

γ -ray strength function for barium isotopes, H. Utsunomiya, T. Renstrøm, G.M. Tveten, S. Goriely, T. Ari-izumi, V.W. Ingeberg, B.V. Kheswa, Y.-W. Lui, S. Miyamoto, S. Hilaire, S. Péru, and A.J. Koning Phys. Rev. C **100**, 034605 (2019).

Erratum: Photoneutron cross-section measurements in the $^{209}\text{Bi}(\gamma, \text{xn})$ reaction with a new method of direct neutron-multiplicity sorting, I. Gheorghe, H. Utsunomiya, S. Katayama, D. Filipescu, S. Belyshev, K. Stopani, V. Orlin, V. Varlamov, T. Shima, S. Amano, S. Miyamoto, Y.-W. Lui, T. Kawano, and S. Goriely, Phys. Rev. C **99**, 059901 (2019).

Fusion reaction $^{48}\text{Ca}+^{249}\text{Bk}$ leading to formation of the element Ts ($Z=117$), J. Khuyagbaatar, A. Yakushev, C.E. Düllmann, D. Ackermann, L. Andersson, M. Asai, M. Block, R.A. Boll, H. Brand, D.M. Cox, M. Dasgupta, X. Derkx, A. Di Nitto, K. Eberhardt, J. Even, M. Evers, C. Fahlander, U. Forsberg, J.M. Gates, N. Gharibyan, P. Golubev, K.E. Gregorich, J.H. Hamilton, W. Hartmann, R.-. Herzberg, F.P. Heßberger, D.J. Hinde, J. Hoffmann, R. Hollinger, A. Hübner, E. Jäger, B. Kindler, J.V. Kratz, J. Krier, N. Kurz, M. Laatiaoui, S. Lahiri, R. Lang, B. Lommel, M. Maiti, K. Miernik, S. Minami, A. Mistry, C. Mokry, H. Nitsche, J.P. Omtvedt, G.K. Pang, P. Papadakis, D. Renisch, J. Roberto, D. Rudolph, J. Runke, K.P. Rykaczewski, L.G. Sarmiento, M. Schädel, B. Schausten, A. Semchenkov, D.A. Shaughnessy, P. Steinegger, J. Steiner, E.E. Tereshatov, P. Thörle-Pospiech, K. Tinschert, T. Torres De Heidenreich, N. Trautmann, A. Türler, J. Uusitalo, D.E. Ward, M. Wegrzecki, N. Wiehl, S.M. Van Cleve, and V. Yakusheva, Phys. Rev. C **99**, 054306 (2019).

Measurement of leakage neutron spectra for zirconium with D-T neutrons and validation of evaluated nuclear data, S. Zhang, N. Song, J.C. Wang, Y. Nie, X. Ruan, J. Ren, D.X. Wang, M. Huang, L. Lu, Z. Chen, Y. Ding, K. Zhang, H. Chen, R. Wada, R. Han, and Q. Sun, *Fusion Eng. Des.* **149**, 111311 (2019).

Analyzing powers and the role of multistep processes in the $^{12}\text{C}(^7\text{Li}, \text{t})^{16}\text{O}$ reaction, W.D. Weintraub, N. Keeley, K.W. Kemper, K. Kravvaris, F. Marechal, D. Robson, B.T. Roeder, K. Rusek, and A. Volya, *Phys. Rev. C* **100**, 024604 (2019).

Isotopic cross-sections in proton induced spallation reactions based on the Bayesian neural network method, C. Ma, D. Peng, H. Wei, Z. Niu, Y. Wang, and R. Wada, *Chinese Phys. C* **44**, 014104 (2019).

Solidarity of signal of measures for the liquid-gas phase transition in the statistical multifragmentation model, W. Lin, P. Ren, H. Zheng, X. Liu, M. Huang, K. Yang, G. Qu, and R. Wada, *Phys. Rev. C* **99**, 054616 (2019).

Inverse odd-even staggering in nuclear charge radii and possible octupole collectivity in $^{217,218,219}\text{At}$ revealed by in-source laser spectroscopy, A.E. Barzakh, J.G. Cubiss, A.N. Andreyev, M.D. Seliverstov, B. Andel, S. Antalic, P. Ascher, D. Atanasov, D. Beck, J. Bieroń, K. Blaum, C. Borgmann, M. Breitenfeldt, L. Capponi, T.E. Cocolios, T. Day Goodacre, X. Derkx, H. De Witte, J. Elseviers, D.V. Fedorov, V.N. Fedosseev, S. Fritzsche, L.P. Gaffney, S. George, L. Ghys, F.P. Heßberger, M. Huyse, N. Imai, Z. Kalaninová, D. Kisler, U. Köster, M. Kowalska, S. Kreim, J.F.W. Lane, V. Liberati, D. Lunney, K.M. Lynch, V. Manea, B.A. Marsh, S. Mitsuoka, P.L. Molkanov, Y. Nagame, D. Neidherr, K. Nishio, S. Ota, D. Pauwels, L. Popescu, D. Radulov, E. Rapisarda, J.P. Revill, M. Rosenbusch, R.E. Rossel, S. Rothe, K. Sandhu, L. Schweikhard, S. Sels, V.L. Truesdale, C. Van Beveren, P. Van den Bergh, P. Van Duppen, Y. Wakabayashi, K.D.A. Wendt, F. Wienholtz, B.W. Whitmore, G.L. Wilson, R.N. Wolf, and K. Zuber, *Phys. Rev. C* **99**, 054317 (2019).

Underlying event measurements in p+pp+p collisions at $s\sqrt{=200\text{ GeVs}=200\text{ GeV}$ at RHIC, J. Adam, D.M. Anderson, C.A. Gagliardi, A. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), *Phys. Rev. D* **101**, 052004 (2020)

Measurement of the mass difference and the binding energy of hypertriton and antihypertriton, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), *Nature Phys.* **16**, 409 (2020).

Bulk properties of the system formed in Au+Au collisions at $\sqrt{s_{NN}} = 14.5\text{ GeV}$, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), *Phys. Rev. C* **101**, 024905 (2020).

Beam-energy dependence of identified two-particle angular correlations in Au+Au collisions at RHIC, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Rev. C **101**, 014916 (2020).

Charge-dependent pair correlations relative to a third particle in p +Au and d +Au collisions at RHIC, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Lett. B **798**, 134975 (2019).

Longitudinal double-spin asymmetry for inclusive jet and dijet production in pp collisions at $\sqrt{s} = 510$ GeV, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Rev. D **100**, 052005 (2019). (CAG and Zilong Chang, former graduate student, were two of four principal authors. Zilong Chang was also a member of the god-parent committee.)

Measurement of inclusive J/ψ suppression in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV through the dimuon channel at STAR, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Lett. B **797**, 134917 (2019).

Polarization of Λ (anti- Λ) Hyperons Along the Beam Direction in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ GeV, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Rev. Lett. **123**, 132301 (2019).

Measurements of the transverse-momentum-dependent cross sections of J/ψ production at mid-rapidity in proton+proton collisions at $\sqrt{s} = 510$ and 500 GeV with the STAR detector, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Rev. D **100**, 052009 (2019).

First Observation of the directed flow of D^0 and anti- D^0 in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Rev. Lett. **123**, 162301 (2019).

Observation of excess J/ψ yield at very low transverse momenta in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV and U+U collisions at $\sqrt{s_{NN}} = 193$ GeV, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Rev. Lett. **123**, 132302 (2019).

Collision-energy dependence of second-order off-diagonal and diagonal cumulants of net-charge, net-proton and net-kaon multiplicity distributions in Au+Au collisions, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Rev. C **100**, 014902 (2019).

Beam energy dependence of (anti-)deuteron production in Au+Au collisions at the BNL Relativistic Heavy Ion Collider, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Rev. C **99**, 064905 (2019).

Azimuthal harmonics in small and large collision systems at RHIC top energies, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Rev. Lett. **122**, 172301 (2019).

Collision-energy dependence of p_t correlations in Au+Au collisions at energies available at the BNL Relativistic Heavy Ion Collider, J. Adam, D.M. Anderson, C.A. Gagliardi, A.M. Hamed, T. Lin, X. Liu, Y. Liu, S. Mioduszewski, N.R. Sahoo, and R.E. Tribble (STAR Collaboration), Phys. Rev. C **99**, 044918 (2019).

Comparison of heavy-ion transport simulations: Collision integral with pions and Δ resonances in a Box, A. Ono, J. Xu, M. Colonna, P. Danielewicz, C.M. Ko, M.B. Tsang, Y.J. Wang, H. Wolter, Y.X. Zhang, L.W. Chen, D. Cozma, H. Elfner, Z.Q. Feng, N. Ikeno, B.A. Li, S. Mallik, Y. Nara, T. Ogawa, A. Ohnishi, D. Oliinychenko, J. Su, T. Song, F.S. Zhang, and Z. Zhang, Phys. Rev. C **100**, 044617 (2019).

Nuclear matter properties at finite temperatures from effective interactions, J. Xu, A. Carbone, Z. Zhang, and C.M. Ko, Phys. Rev. C **100**, 024618 (2019).

Charmed hadron production in an improved quark coalescence model, S. T. Cho, K.J. Sun, C.M. Ko, S.H. Lee, and Y.S. Oh, Phys. Rev. C **101**, 024909 (2019).

Isospin splitting of pion elliptic flow in relativistic heavy-ion collisions, H. Liu, F.T. Wang, K.J. Sun, J. Xu, and C.M. Ko, Phys. Lett. B **798**, 135002 (2019).

Properties of strange quark stars with isovector interactions, H. Liu, J. Xu, and C.M. Ko, Phys. Lett. B **803**, 135343 (2020).

Probing QCD critical fluctuations from the yield ratio of strange hadrons in relativistic heavy-ion collisions, T.H. Shao, J.H. Chen, C.M. Ko, and K.J. Sun, Phys. Lett. B **801**, 135177 (2020).

Implementing chiral three-body forces in terms of medium-dependent two-body forces, Jeremy W. Holt, Mamiya Kawaguchi, and Norbert Kaiser, Front. Phys. **8**, 100 (2020).

Bayesian modeling of the nuclear equation of state for neutron star tidal deformabilities and GW170817, Y. Lim and J.W. Holt, Eur. Phys. J. A **55**, 209 (2019).

Proton elastic scattering on calcium isotopes from chiral nuclear optical potentials, T.R. Whitehead, Y. Lim, and J.W. Holt, Phys. Rev. C **100**, 014601 (2019).

Predicting the moment of inertia of pulsar J0737-3039A from Bayesian modeling of the nuclear equation of state, Yeunhwan Lim, Jeremy W. Holt, and Robert J. Stahulak, Phys. Rev. C **100**, 035802 (2019).

The Hoyle family: break-up measurements to probe α -condensation in light nuclei, R. Smith, J. Bishop, J. Hirst, T. Kokalova, and C. Wheldon, SciPost Phys. Proc. **3**, 30 (2020).