

# **Wanpeng Tan**

225 Nieuwland Science Hall, Notre Dame, IN 46556  
Phone: 574-631-7715 Fax: 574-631-5952 Email: [wtan@nd.edu](mailto:wtan@nd.edu)

## **Education**

- 2002 Ph.D. Experimental Nuclear Physics, Michigan State University  
1997 M.S. Physics, Institute of Theoretical Physics, Chinese Academy of Sciences, Beijing, China  
1994 B.S. Physics, Beijing University, Beijing, China

## **Positions**

- 2014-present Research Associate Professor, Department of Physics, ISNAP, and JINA-CEE, University of Notre Dame  
2011-present Adjunct Faculty, Radiological Technologies University-VT, South Bend, Indiana  
2007-2013 Research Assistant Professor/Assistant Professional Specialist, Department of Physics, University of Notre Dame, and Joint Institute for Nuclear Astrophysics (JINA)  
2003-2006 Postdoctoral Research Associate, Department of Physics, University of Notre Dame  
1997-2002 Graduate Assistant, Department of Physics and National Superconducting Cyclotron Laboratory, Michigan State University  
1995-1997 Graduate Assistant, Institute of Theoretical Physics, Chinese Academy of Sciences, Beijing, China,  
1993-1994 Undergraduate research assistant, Beijing University, Beijing, China

## **Distinctions and Honors**

- 2003 Lectureship of Overseas Young Returning Scientists Program, China Center of Advanced Science and Technology (CCAST), Beijing  
1994 Ye Qi-Xun Experimental Physics Prize, Beijing University  
1994 Excellent Graduate of Colleges in Beijing, Beijing University

## **Service Activities**

- 2016 Coordinating the CloverShare Program at Notre Dame  
2013 Session Chair at the 2013 Fall Meeting of the APS Division of Nuclear Physics  
2007 Organizing Committee, JINA Frontiers 2007 conference  
2007- present User liaison of the Nuclear Science Laboratory at Notre Dame  
2006-present Managing the data acquisition systems of the Nuclear Science Laboratory at Notre Dame

## **Professional Memberships**

American Physical Society

## **Research Instrumentation Experiences**

- Developed and implemented a new digital DAQ system at NSL based on the new technology from Mesytec.
- Developed a 3He recovery and recirculation system for the HIS at Notre Dame.
- Renovated and improved ICEBALL for conversion electron spectroscopy acquired from Yale University.
- Developed large area Silicon-strip detector Array at Notre Dame (SAND).
- Implemented the ASIC electronics and associated data acquisition system at Notre Dame.
- Developed the pulsed low-energy neutron beam technique at Notre Dame for testing dark matter detectors.
- Improved A0 and CIGAR codes for the study of astrophysical p-process.
- Designed and developed a Neutron Time-Of-Flight Beam Line Facility at Notre Dame.
- Developed a Photo-Diode Charged Particle Detection Array for p-nuclei studies at Notre Dame.
- Implemented the NSCL data acquisition system and presented corresponding lectures at Notre Dame.
- Developed a low-energy silicon detection array (LESA) at Notre Dame for studies of low energy nuclear astrophysics.
- Developed an improved Doppler Shift Attenuation Method with realistic simulation technique at Notre Dame for nuclear lifetime studies.
- Developed an empirical statistical multifragmentation and secondary decay model at Michigan State University for heavy ion studies.
- Played the major role in developing the LASSA at Michigan State University, which consists of 432 Silicon channels and 36 CsI(Tl) channels for studies of heavy ion reactions

# Teaching/Supervising Experiences

**Co-supervised PhD students** (by leading and supervising experiments and data analysis):

Annalia Palumbo on *astrophysical p-process experiments*, graduated in 2009

Sergio Almaraz-Calderon on  *$^{14}O(\alpha,p)$  and  $^{26}Si(\alpha,p)$  reaction rates*, graduated in 2011

Richard James deBoer on  *$^{22}Ne(\alpha,n)$  related experiments*, graduated in 2011

Anthony Battaglia on *ICEBALL development*, graduated in 2015

Xiao Fang on *the Carbon/Oxygen fusion experiments*, graduated in 2016

Sabrina Strauss, on  *$Sm(a,2n)$  experiments*

Armen Gyurjyan, on  *$^{195}Au$  structures and the alpha-cluster states in  $^{16}O$*

Qian Liu, on  *$^{19}F(p,n)$  experiment for the  $^{18}F(p,a)$  rate*

Bryce Frentz, on *alpha-cluster states in  $^{16}O$  via  $^{13}C(4He,n)$  reaction and  $^{15}O$  lifetime measurements*

**Co-supervised undergraduate students (REU)** (by supervising experiments & data analysis):

Fred Jung on *beam bunching development* and poster presented at the 2009 APS DNP meeting

Patrick Copp on *alpha-cluster experiments* and poster presented at the 2010 APS DNP meeting

Andrew Arend on *PIXE and activation experiments* and poster presented at the 2011 APS DNP meeting

Ian Marsh and Mike Robbe on *ASIC readout system* and poster presented at the 2012 APS DNP meeting

Marcus S. Lowe on  *$Sm(a,2n)$  experiment* and poster presented at the 2014 APS DNP meeting

Patrick Fasano on *recommission of the PLUNGER device*, undergraduate thesis, 2015

Carter Hughes on *the development of the offline  $^3He$  purification and recirculation system* ( poster presented at the 2016 APS DNP meeting)

Ethan Sauer and Kevin Lee, on *the simulation of ICEBall*, 2017-2018

Jack Enright on *CeBr<sub>3</sub> timing tests*, 2019

Lexanne Weghorn on *implantation and beam tests of  $^{14}N$  targets*, 2019

Zarif Rahman on *characterization of Clover detectors for the fIREBall project*, 2019

**PHY403 - Fundamentals of Nuclear Physics**, 2011-present

This is a 3-credit online course at Radiological Technologies University-VT, South Bend, Indiana.

**PIXE-PAN 2007-2009** summer programs for high school students

This is a two-week resident science program each summer for high school seniors and juniors (~15 participants each summer). I guided the participants to perform a series of experiments using the particle accelerator and other state of art equipment in the Advanced Physics Teaching Laboratory at Notre Dame.

**School of Data Acquisition** at Notre Dame, 2006:

I taught this non-credit mini-course for an audience of about 20 people (mainly graduate students).

## **Oral Presentations:**

many short contributed conference talks + more than 20 invited lectures and seminars (see below).

## **Invited Lectures and Seminars**

- *Neutron lifetime anomaly and consistent origin of dark matter and baryon asymmetry*, seminar at Indiana University, Bloomington, IN, Nov. 1, 2019
- *New Physics from the extended Standard Model with Mirror Matter*, web seminar at Laval University, Canada, Oct. 21, 2019
- *Carbon Burning in Stars*, seminar at Ohio University, Mar. 5, 2019
- *How do we talk to a mirror world?*, seminar at Peking University, Beijing, China, Feb. 28, 2019
- *How do we talk to a mirror world?*, seminar at Institute of Modern Physics, Chinese Academy of Sciences, Feb. 27, 2019
- *How do we talk to a mirror world?*, seminar at Institute of Physics, Chinese Academy of Sciences, Feb. 26, 2019
- *Carbon and Oxygen Burning in Stars*, seminar at University of Notre Dame, Feb. 11, 2019
- *Carbon Burning in Stars*, invited presentation at 42th Symposium on Nuclear Physics, Cocoyoc, Mexico, Jan. 7-10, 2019
- *Carbon and Oxygen Burning in Stars*, seminar at Peking University, Beijing, China, Sep. 25, 2017
- *How to Study Stars with Laboratory Nuclear Experiments*, seminar at Radiological Technologies University-VT, June, 2016
- *Experimental Progress on Nuclear Astrophysics at Notre Dame*, seminar at Institute of Modern Physics, Lanzhou, China, Mar. 31, 2014
- *Understanding stars with laboratory nuclear experiments*, seminar at Beijing Normal University, Beijing, China, Mar. 25, 2014
- *Experiments with VANDLE at Notre Dame*, invited presentation at the VANDLE transfer reaction workshop, Knoxville, Tennessee, Nov. 6-7, 2013

- *Transform Particle Detection Technology in the Nuclear Science Laboratory at Notre Dame*, seminar at the NSCL, Michigan State University, May 16, 2013
- *Nuclear reaction rates for accreting neutron stars*, invited talk at the 22nd International Conference on the Application of Accelerators in Research and Industry (CAARI2012), Fort Worth, Texas, Aug. 6, 2012
- *Systematic study of  $\alpha$ -optical potential near the  $Z = 50$  region for  $p$ -process*, invited talk at the p-Process Workshop, Istanbul, Turkey, May 25, 2011
- *Nuclear reaction rates for accreting neutron stars*, seminar at the University of Manchester, UK, Sep. 16, 2010
- *Alpha-induced reactions for accreting neutron stars*, seminar at the University of Liverpool, UK, Sep. 14, 2010
- *Nuclear Physics of X-ray Bursts*, China Institute for Atomic Energy seminar, Beijing, China, Aug. 24, 2009
- *Alpha-induced reaction rates for accreting compact stars*, invited at the CRUST 2009 meeting, Santa Fe, NM, May 18-21, 2009
- *Nuclear Experiments for the Physics of X-ray Bursts*, at an invited session of the April 2008 Meeting of the American Physical Society, St. Louis, Missouri, Apr. 12-15, 2008
- *The nuclear trigger for X-ray bursts*, INPP seminar at the Ohio University, Athens, OH, Jan. 16, 2007
- *X-ray bursts and the  $^{15}\text{O}(\text{alpha},\text{gamma})$  reaction rate*, HRIBF Workshop - Nuclear Measurements for Astrophysics, October 23-24, 2006
- *X-ray bursts via the breakout from the CNO cycle*, JINA lunch research discussion at Michigan State University, East Lansing, MI, May 1, 2006
- *Nuclear Fireworks in Stars via the Breakout from the CNO cycle*, colloquium at University of Notre Dame, Notre Dame, IN, Apr. 19, 2006
- *Breakout from the CNO cycle and the  $^{15}\text{O}(\text{a,g})$  reaction rate*, nuclear seminar at University of Notre Dame, Notre Dame, IN, Mar. 27, 2006
- *Breakout from the CNO cycle via  $^{15}\text{O}(\text{a,g})$  in explosive stellar burning*, nuclear seminar at University of Tennessee, Knoxville, TN, Mar. 15, 2006

- *Lifetimes of the astrophysically important states in  $^{19}\text{Ne}$* , Frontiers 2005 JINA conference, East Lansing, Michigan, August 20-22, 2005
- *Isospin Effect in Multifragmentation and Its Application in Astrophysics*, seminar, School of Physics, Bejing University, China, Mar. 12, 2003
- Invited Serial Lectures on Isospin Effect and Approaching Equilibrium in Medium Energy Heavy Ion Collisions, CCAST workshop, Beijing, China, Mar. 3 - 7, 2003
- *Isospin Effects and Freeze-out Mechanism in Multifragmentation Processes*, nuclear seminar at Indiana University, Bloomington, September 13, 2002
- *Isospin Effects and Freeze-out Mechanism in Multifragmentation Processes*, nuclear seminar at University of Notre Dame, July 26, 2002
- *Isospin Dependence of the EOS from Fragmentation*, Notre Dame Workshop on Nuclear Incompressibility, Notre Dame, Indiana, Jan 30-31, 2001
- *The Statistical Multifragmentation Model (SMM) and Nuclear Isotope Thermometry*, nuclear science seminar at the NSCL, Michigan State University, April 19, 2000

## Refereed Publications

1. **Wanpeng Tan**, *Kaon Oscillations and Baryon Asymmetry of the Universe*, Phys. Rev. D 100, 063537 (2019)
2. **Wanpeng Tan**, *Neutron Oscillations for Solving Neutron Lifetime and Dark Matter Puzzles*, Phys. Lett. B 797, 134921 (2019)
3. X.-D. Tang, S.-B. Ma, X. Fang, B. Bucher, A. Alongi, C. Cahillane, **W.-P. Tan**, *An efficient method for mapping the  $^{12}\text{C}+^{12}\text{C}$ molecular resonances at low energies*. Nucl. Sci. Tech. 30, 126 (2019).
4. C. S. Reingold, O. Olivas-Gomez, A. Simon, J. Arroyo, M. Chamberlain, J. Wurzer, A. Spyrou, F. Naqvi, A. C. Dombos, A. Palmisano, T. Anderson, A. M. Clark, B. Frentz, M. R. Hall, S. L. Henderson, S. Moylan, D. Robertson, M. Skulski, E. Stech, S. Y. Strauss, **W. P. Tan**, B. Vande Kolk, *High Efficiency Total Absorption Spectrometer HECTOR for capture reaction measurements*, Eur. Phys. J. A 55, 77 (2019)
5. S. L. Henderson, T. Ahn, M. A. Caprio, P. J. Fasano, A. Simon, **W. Tan**, P. O'Malley, J. Allen, D. W. Bardayan, D. Blankstein, B. Frentz, M. R. Hall, J. J. Kolata, A. E. McCoy, S. Moylan, C. S. Reingold, S.

- Y. Strauss, R. O. Torres-Isea, *First measurement of the  $B(E2; 3/2^- \rightarrow 1/2^-)$  transition strength in  ${}^7\text{Be}$ : Testing ab initio predictions for  $A=7$  nuclei*. Phys. Rev. C. 99, 064320 (2019).
6. M. R. Hall, D. W. Bardayan, T. Baugher, A. Lepailleur, S. D. Pain, A. Ratkiewicz, S. Ahn, J. M. Allen, J. T. Anderson, A. D. Ayangeakaa, J. C. Blackmon, S. Burcher, M. P. Carpenter, S. M. Cha, K. Y. Chae, K. A. Chipps, J. A. Cizewski, M. Febbraro, O. Hall, J. Hu, C. L. Jiang, K. L. Jones, E. J. Lee, P. D. O'Malley, S. Ota, B. C. Rasco, D. Santiago-Gonzalez, D. Seweryniak, H. Sims, K. Smith, **W. P. Tan**, P. Thompson, C. Thornsberry, R. L. Varner, D. Walter, G. L. Wilson, S. Zhu, *New gamma-ray transitions observed in  ${}^{19}\text{Ne}$  with implications for the  ${}^{15}\text{O}(\alpha, \gamma){}^{19}\text{Ne}$  reaction rate*. Phys. Rev. C. 99, 035805 (2019).
  7. M. R. Hall, D. W. Bardayan, T. Baugher, A. Lepailleur, S. D. Pain, A. Ratkiewicz, S. Ahn, J. M. Allen, J. T. Anderson, A. D. Ayangeakaa, J. C. Blackmon, S. Burcher, M. P. Carpenter, S. M. Cha, K. Y. Chae, K. A. Chipps, J. A. Cizewski, M. Febbraro, O. Hall, J. Hu, C. L. Jiang, K. L. Jones, E. J. Lee, P. D. O'Malley, S. Ota, B. C. Rasco, D. Santiago-Gonzalez, D. Seweryniak, H. Sims, K. Smith, **W. P. Tan**, P. Thompson, C. Thornsberry, R. L. Varner, D. Walter, G. L. Wilson, S. Zhu, *Key  ${}^{19}\text{Ne}$  States Identified Affecting gamma-Ray Emission from  ${}^{18}\text{F}$  in Novae*. Phys. Rev. Lett. 122, 052701 (2019).
  8. T. Ahn, S. Henderson, A. Simon, **W. Tan**, J. Allen, D.W. Bardayan, B. Frentz, J.J. Kolota, X. Li, P.O. Malley, M.R. Hall, C. Reingold, J. Riggins, S. Strauss, and R. Torres-Isea, *First measurement of the  $B(E2; 3/2^- \rightarrow 1/2^-)$  in  ${}^7\text{Be}$* , AIP Conference Proceedings 2038, 020005 (2018)
  9. K.L. Jones, C. Thornsberry, J. Allen, A. Atencio, D.W. Bardayan, D. Blankstein, S. Burcher, A.B. Carter, K.A. Chipps, J.A. Cizewski, I. Cox, Z. Elledge, M. Febbraro, A. Fijalkowska, R. Grzywacz, M.R. Hall, T.T. King, A. Lepailleur, M. Madurga, S.T. Marley, P.D. O'Malley, S.V. Paulauskas, S.D. Pain, W.A. Peters, C. Reingold, K. Smith, S. Taylor, **W. Tan**, M. Vostinar and D. Walter, *Development of the  $(d,n)$  Proton-transfer Reaction in Inverse Kinematics for Structure Studies*, Acta Physica Polonica B, 49, 365 (2018)
  10. R. Smith, M. Freer, C. Wheldon, N. Curtis, S. Almaraz-Calderon, A. Aprahamian, N.I. Ashwood, M. Barr, B. Bucher, P. Copp, M. Couder, X. Fang, G. Goldring, F. Jung, Tz Kokalova, S.R. Lesher, W. Lu, J.D. Malcolm, A. Roberts, **W.P. Tan**, and V.A. Ziman, *Disentangling unclear nuclear breakup channels of beryllium-9 using the three-axis Dalitz plot*, Journal of Physics: Conf. Series, 863 (2017)
  11. N. Özkan, R. T. Güray, C. Yalçın, **W. P. Tan**, A. Aprahamian, M. Beard, R. J. deBoer, S. Almaraz-Calderon, S. Falahat, J. Görres, Q. Li, A. Sauerwein, K. Sonnabend, M. Wiescher, Zs. Fülöp, Gy. Gyürky, E. Somorjai, and J. Greene, *Proton capture reaction cross section measurements on  ${}^{162}\text{Er}$  as a probe of statistical model calculations*, Phys. Rev. C 96, 045805 (2017)
  12. X. Fang, **W. P. Tan**, M. Beard, R. J. deBoer, G. Gilardy, H. Jung, Q. Liu, S. Lyons, D. Robertson, K. Setoodehnia, C. Seymour, E. Stech, B. Vande Kolk, M. Wiescher, R. T. deSouza, S. Hudan, V. Singh, X.

- D. Tang, and E. Uberseder, *Experimental measurement of  $^{12}C+^{16}O$  fusion at stellar energies*, Phys. Rev. C 96, 045804 (2017)
13. S. Westerdale, J. Xu, E. Shields, F. Froborg, F. Calaprice, T. Alexander, A. Aprahamian, H.O. Back, C. Casarella, X. Fang, Y.K. Gupta, E. Lamere, Q. Liu, S. Lyons, M. Smith, and **W. Tan**, *Quenching measurements and modeling of a boron-loaded organic liquid scintillator*, Journal of Instrumentation 12, 08002 (2017)
14. F. Izraelevitch, D. Amidei, A. Aprahamian, R. Arcos-Olalla, G. Cancelo, C. Casarella, A.E. Chavarria, P. Collon, J. Estrada, G. Fernández Moroni, Y. Guardincerri, G. Gutiérrez, A. Gyurjinyan, A. Kavner, B. Kilminster, J. Liao, Q. Liu, M. López, J. Molina, P. Privitera, M.A. Reyes, V. Scarpine, K. Siegl, M. Smith, S. Strauss, **W. Tan**, J. Tiffenberg, and L. Villanueva, *A measurement of the ionization efficiency of nuclear recoils in silicon*, Journal of Instrumentation 12, 06017 (2017)
15. N. Curtis, S. Almaraz-Calderon, A. Aprahamian, N. I. Ashwood, M. Barr, B. Bucher, P. Copp, M. Couder, X. Fang, M. Freer, G. Goldring, F. Jung, S. R. Lesher, W. Lu, J. D. Malcolm, A. Roberts, **W. P. Tan**, C. Wheldon, and V. A. Ziman,  *$^{8}Be+^{8}Be$  and  $^{12}C+a$  breakup states in  $^{16}O$  populated via the  $^{13}C(4He,4a)n$  reaction*, Phys. Rev. C 94, 034313 (2016)
16. A. Battaglia, **W. Tan**, R. Avetisyan, C. Casarella, A. Gyurjinyan, K.V. Manukyan, S.T. Marley, A. Nystrom, N. Paul, K. Siegl, K. Smith, M.K. Smith, S.Y. Strauss, and A. Aprahamian, *Measurements of conversion electrons in the s-process branching point nucleus  $^{176}Lu$* , Eur. Phys. J. A 52: 126 (May 2016)
17. R. Smith, C. Wheldon, M. Freer, N. Curtis, Tz. Kokalova, S. Almaraz-Calderon, A. Aprahamian, N. I. Ashwood, M. Barr, B. Bucher, P. Copp, M. Couder, X. Fang, G. Goldring, F. Jung, S. R. Lesher, W. Lu, J. D. Malcolm, A. Roberts, **W. P. Tan**, and V. A. Ziman, *Evidence for a 3.8 MeV state in  $^{9}Be$* , Phys. Rev. C 94, 014320 (2016)
18. W.P. Liu...**W.P. Tan**...et al., *Progress of Jinping Underground laboratory for Nuclear Astrophysics (JUNA)*, Sci. China Phys. Mech. Astron. 59, 642001 (2016)
19. Z. Meisel, S. George, S. Ahn, D. Bazin, B.A. Brown, J. Browne, J.F. Carpino, H. Chung, R.H. Cyburt, A. Estradé, M. Famiano, A. Gade, C. Langer, M. Matos, W. Mittig, F. Montes, D.J. Morrissey, J. Pereira, H. Schatz, J. Schatz, M. Scott, D. Shapira, K. Siega, K. Smith, J. Stevens, **W. Tan**, O. Tarasov, S. Towers, K. Wimmer, J.R. Winkelbauer, J. Yurkon, and R.G.T. Zegers, *Time-of-flight mass measurements of neutron-rich chromium isotopes up to  $N=40$  and implications for the accreted neutron star crust*, Phys. Rev. C 93, 035805 (2016)
20. S. J. Quinn, A. Spyrou, A. Simon, A. Battaglia, M. Bowers, B. Bucher, C. Casarella, M. Couder, P. A. DeYoung, A. C. Dombos, J. Görres, A. Kontos, Q. Li, A. Long, M. Moran, N. Paul, J. Pereira, D. Robertson, K. Smith, M. K. Smith, E. Stech, R. Talwar, **W. P. Tan**, and M. Wiescher,  $(\alpha,\gamma)$  cross section measurements in the region of light p nuclei, Phys. Rev. C 92, 045805 (2015)

21. Khachatur V. Manukyan, **Wanpeng Tan**, Richard J. deBoer, Edward J. Stech, Ani Aprahamian, Michael Wiescher, Sergei Rouvimov, Kyle R. Overdeep, Christopher E. Shuck, Timothy P. Weihs, and Alexander S. Mukasyan, *Irradiation-Enhanced Reactivity of Multilayer Al/Ni Nanomaterials*, ACS Appl. Mater. Interfaces, 7 (21), pp 11272 (2015)
22. Z. Meisel, S. George, S. Ahn, D. Bazin, B.A. Brown, J. Browne, J.F. Carpino, H. Chung, A.L. Cole, R.H. Cyburt, A. Estradé, M. Famiano, A. Gade, C. Langer, M. Matos, W. Mittig, F. Montes, D.J. Morrissey, J. Pereira, H. Schatz, J. Schatz, M. Scott, D. Shapira, K. Smith, J. Stevens, **W. Tan**, O. Tarasov, S. Towers, K. Wimmer, J.R. Winkelbauer, J. Yurkon, and R.G.T. Zegers, *Mass Measurement of  $^{56}\text{Sc}$  Reveals a Small  $A=56$  Odd-Even Mass Staggering, Implying a Cooler Accreted Neutron Star Crust*, Phys. Rev. Lett. 115, 162501 (2015)
23. B. Bucher, X. D. Tang, X. Fang, A. Heger, S. Almaraz-Calderon, A. Alongi, A. D. Ayangeakaa, M. Beard, A. Best, J. Browne, C. Cahillane, M. Couder, R. J. deBoer, A. Kontos, L. Lamm, Y. J. Li, A. Long, W. Lu, S. Lyons, M. Notani, D. Patel, N. Paul, M. Pignatari, A. Roberts, D. Robertson, K. Smith, E. Stech, R. Talwar, **W. P. Tan**, M. Wiescher, and S. E. Woosley, *First Direct Measurement of  $\text{C}^{12}(C^{12},n)\text{Mg}^{23}$  at Stellar Energies*, Phys. Rev. Lett. 114, 251102 (2015)
24. A. Simon, M. Beard, A. Spyrou, S. J. Quinn, B. Bucher, M. Couder, P. A. DeYoung, A. C. Dombos, J. Görres, A. Kontos, A. Long, M. T. Moran, N. Paul, J. Pereira, D. Robertson, K. Smith, E. Stech, R. Talwar, **W. P. Tan**, and M. Wiescher, *Systematic study of  $(\alpha,\gamma)$  reactions for stable nickel isotopes*, Phys. Rev. C 92, 025806 (2015)
25. F. Naqvi, S. J. Quinn, A. Spyrou, A. Battaglia, M. Couder, P. A. DeYoung, A. C. Dombos, X. Fang, J. Görres, A. Kontos, Q. Li, S. Lyons, D. Robertson, A. Simon, K. Smith, M. K. Smith, E. Stech, **W. P. Tan**, and M. Wiescher, *Proton capture cross section of  $\text{Ge}^{72}$  and astrophysical implications*, Phys. Rev. C 92, 025804 (2015)
26. Jingke Xu, Emily Shields, Frank Calaprice, Shawn Westerdale, Francis Froborg, Burkhardt Suerfu, Thomas Alexander, Ani Aprahamian, Henning O. Back, Clark Casarella, Xiao Fang, Yogesh K. Gupta, Aldo Ianni, Edward Lamere, W. Hugh Lippincott, Qian Liu, Stephanie Lyons, Kevin Siegl, Mallory Smith, **Wanpeng Tan**, and Bryant Vande Kolk, *Scintillation efficiency measurement of Na recoils in  $\text{NaI(Tl)}$  below the DAMA/LIBRA energy threshold*, Phys. Rev. C 92, 015807 (2015)
27. M. L. Sergi, C. Spitaleri, M. La Cognata, L. Lamia, R. G. Pizzone, G. G. Rapisarda, X. D. Tang, B. Bucher, M. Couder, P. Davies, R. deBoer, X. Fang, L. Lamm, C. Ma, M. Notani, S. O'Brien, D. Roberson, **W. Tan**, M. Wiescher, B. Irgaziev, A. Mukhamedzhanov, J. Mrazek, and V. Kroha, *Improvement of the high-accuracy  $^{17}\text{O}(p,\alpha)^{14}\text{N}$  reaction-rate measurement via the Trojan Horse method for application to  $^{17}\text{O}$  nucleosynthesis*, Phys. Rev. C 91, 065803 (2015)

28. R. J. deBoer, D. W. Bardayan, J. Görres, P. J. LeBlanc, K. V. Manukyan, M. T. Moran, K. Smith, **W. Tan**, E. Uberseder, M. Wiescher, P. F. Bertone, A. E. Champagne, and M. S. Islam, *Low energy scattering cross section ratios of  $^{14}N(p,p)^{14}N$* , Phys. Rev. C 91, 045804 (2015)
29. Z. Meisel, S. George, S. Ahn, J. Browne , D. Bazin, B. A. Brown, J. F. Carpino, H. Chung, R. H. Cyburt, A. Estradé, M. Famiano, A. Gade, C. Langer, M. Matoš, W. Mittig, F. Montes, D. J. Morrissey, J. Pereira, H. Schatz, J. Schatz, M. Scott, D. Shapira, K. Smith, J. Stevens, **W. Tan**, O. Tarasov, S. Towers, K. Wimmer, J. R. Winkelbauer, J. Yurkon, and R. G. T. Zegers, *Mass Measurements Demonstrate a Strong  $N=28$  Shell Gap in Argon*, Phys. Rev. Lett. 114, 022501 (2015)
30. H. Cao, T. Alexander, A. Aprahamian, R. Avetisyan, H. O. Back, A. G. Cocco, F. DeJongh, G. Fiorillo, C. Galbiati, L. Grandi, Y. Guardincerri, C. Kendziora, W. H. Lippincott, C. Love, S. Lyons, L. Manenti, C. J. Martoff, Y. Meng, D. Montanari, P. Mosteiro, D. Olvitt, S. Pordes, H. Qian, B. Rossi, R. Saldanha, S. Sangiorgio, K. Siegl, S. Y. Strauss, **W. Tan**, J. Tatarowicz, S. Walker, H. Wang, A. W. Watson, S. Westerdale, and J. Yoo (SCENE Collaboration), *Measurement of scintillation and ionization yield and scintillation pulse shape from nuclear recoils in liquid argon*, Phys. Rev. D 91, 092007 (2015)
31. S.J. Quinn, A. Spyrou, A. Simon, A. Battaglia, M. Bowers, B. Bucher, C. Casarella, M. Couder, P.A. DeYoung, A.C. Dombos, J.P. Greene, J. Görres, A. Kontos, Q. Li, A. Long, M. Moran, N. Paul, J. Pereira, D. Robertson, K. Smith, M.K. Smith, E. Stech, R. Talwar, **W.P. Tan**, M. Wiescher, *First application of the  $\gamma$ -summing- $\gamma$ -summing technique in inverse kinematics*, Nucl. Instr. Meth. A 757, 62 (2014)
32. J. Glorius, K. Sonnabend, J. Görres, D. Robertson, M. Knörzer, A. Kontos, T. Rauscher, R. Reifarth, A. Sauerwein, E. Stech, **W. Tan**, T. Thomas, and M. Wiescher, *Experimental cross sections of  $Ho\,165(\alpha,n)Tm\,168$  and  $Er\,166(\alpha,n)Yb\,169$  for optical potential studies relevant for the astrophysical  $\gamma$  process*, Phys. Rev. C 89, 065808 (2014)
33. R. J. deBoer, A. Best, J. Görres, K. Smith, **W. Tan**, M. Wiescher, R. Raut, G. Rusev, A. P. Tonchev, and W. Tornow, *Photoneutron strengths in  $^{26}Mg$  at energies of astrophysical interest*, Phys. Rev. C 89, 055802 (2014)
34. S. J. Quinn, A. Spyrou, E. Bravo, T. Rauscher, A. Simon, A. Battaglia, M. Bowers, B. Bucher, C. Casarella, M. Couder, P. A. DeYoung, A. C. Dombos, J. Görres, A. Kontos, Q. Li, A. Long, M. Moran, N. Paul, J. Pereira, D. Robertson, K. Smith, M. K. Smith, E. Stech, R. Talwar, **W. P. Tan**, and M. Wiescher, *Measurement of the  $^{58}Ni(\alpha,\gamma)^{62}Zn$  reaction and its astrophysical impact*, Phys. Rev. C 89, 054611 (2014)
35. N. Curtis, S. Almaraz-Calderon, A. Aprahamian, N. I. Ashwood, M. Barr, B. Bucher, P. Copp, M. Couder, X. Fang, M. Freer, G. Goldring, F. Jung, S. R. Lesher, W. Lu, J. D. Malcolm, A. Roberts, **W. P. Tan**, C. Wheldon, and V. A. Ziman, *Investigation of the 4- $\alpha$  linear chain state in  $^{16}O$* , Phys. Rev. C 88, 064309 (2013)

36. T. Alexander, H. O. Back, H. Cao, A. G. Cocco, F. DeJongh, G. Fiorillo, C. Galbiati, L. Grandi, C. Kendziora, W. H. Lippincott, B. Loer, C. Love, L. Manenti, C. J. Martoff, Y. Meng, D. Montanari, P. Mosteiro, D. Olvitt, S. Pordes, H. Qian, B. Rossi, R. Saldanha, **W. Tan**, J. Tatarowicz, S. Walker, H. Wang, A. W. Watson, S. Westerdale, and J. Yoo (SCENE Collaboration), *Observation of the dependence on drift field of scintillation from nuclear recoils in liquid argon*, Phys. Rev. D 88, 092006 (2013)
37. A. Spyrou, S. J. Quinn, A. Simon, T. Rauscher, A. Battaglia, A. Best, B. Bucher, M. Couder, P. A. DeYoung, A. C. Dombos, X. Fang, J. Görres, A. Kontos, Q. Li, L. Y. Lin, A. Long, S. Lyons, B. S. Meyer, A. Roberts, D. Robertson, K. Smith, M. K. Smith, E. Stech, B. Stefanek, **W. P. Tan**, X. D. Tang, and M. Wiescher, *Measurement of the  $^{90,92}\text{Zr}(p,\gamma)^{91,93}\text{Nb}$  reactions for the nucleosynthesis of elements near  $A=90$* , Phys. Rev. C 88, 045802 (2013)
38. S. J. Quinn, A. Spyrou, A. Simon, A. Battaglia, M. Couder, P. A. DeYoung, A. C. Dombos, X. Fang, J. Görres, A. Kontos, Q. Li, S. Lyons, B. S. Meyer, G. F. Peaslee, D. Robertson, K. Smith, M. K. Smith, E. Stech, **W. P. Tan**, X. D. Tang, and M. Wiescher, *Probing the production mechanism of the light p-process nuclei*, Phys. Rev. C 88, 011603(R) (2013)
39. Tz. Kokalova, M. Freer, N. Curtis, N. I. Ashwood, M. Barr, J. D. Malcolm, C. Wheldon, V. A. Ziman, S. Almaraz-Calderon, A. Aprahamian, B. Bucher, M. Couder, X. Fang, F. Jung, W. Lu, A. Roberts, **W. P. Tan**, P. Copp, and S. R. Lesher, *Yield measurements for resonances above the multi- $\alpha$  threshold in  $^{20}\text{Ne}$* , Phys. Rev. C 87, 057309 (2013)
40. A. Simon, A. Spyrou, T. Rauscher, C. Fröhlich, S. J. Quinn, A. Battaglia, A. Best, B. Bucher, M. Couder, P. A. DeYoung, X. Fang, J. Görres, A. Kontos, Q. Li, L.-Y. Lin, A. Long, S. Lyons, A. Roberts, D. Robertson, K. Smith, M. K. Smith, E. Stech, B. Stefanek, **W. P. Tan**, X. D. Tang, and M. Wiescher, *Systematic study of  $(p,\gamma)$  reactions on Ni isotopes*, Phys. Rev. C 87, 055802 (2013)
41. A. Best, M. Beard, J. Görres, M. Couder, R. deBoer, S. Falahat, R. T. Güray, A. Kontos, K.-L. Kratz, P. J. LeBlanc, Q. Li, S. O'Brien, N. Özkan, M. Pignatari, K. Sonnabend, R. Talwar, **W. Tan**, E. Uberseder, and M. Wiescher, *Measurement of the reaction  $^{17}\text{O}(\alpha,n)^{20}\text{Ne}$  and its impact on the s process in massive stars*, Phys. Rev. C 87, 045805 (2013)
42. M. Gulino, C. Spitaleri, X. D. Tang, G. L. Guardo, L. Lamia, S. Cherubini, B. Bucher, V. Burjan, M. Couder, P. Davies, R. deBoer, X. Fang, V. Z. Goldberg, Z. Hons, V. Kroha, L. Lamm, M. La Cognata, C. Li, C. Ma, J. Mrazek, A. M. Mukhamedzhanov, M. Notani, S. O'Brien, R. G. Pizzone, G. G. Rapisarda, D. Roberson, M. L. Sergi, **W. Tan**, I. J. Thompson, and M. Wiescher, *Suppression of the centrifugal barrier effects in the off-energy-shell neutron+ $^{17}\text{O}$  interaction*, Phys. Rev. C 87, 012801(R) (2013)
43. A. Simon, S.J. Quinn, A. Spyrou, A. Battaglia, I. Beskin, A. Best, B. Bucher, M. Couder, P.A. DeYoung, X. Fang, J. Görres, A. Kontos, Q. Li, S.N. Liddick, A. Long, S. Lyons, K. Padmanabhan, J. Peace, A. Roberts, D. Robertson, K. Smith, M.K. Smith, E. Stech, B. Stefanek, **W.P. Tan**, X.D. Tang, and M.

Wiescher, *SuN: Summing NaI(Tl) gamma-ray detector for capture reaction measurements*, Nucl. Instr. Meth. A **703**, 16 (2013)

44. S. Almaraz-Calderon, **W. P. Tan**, A. Aprahamian, et al., *Level structure of 30S and its importance in the  $^{26}Si(a,p)^{29}P$  and  $^{29}P(p,\gamma)^{30}S$  reaction rates*, Phys. Rev. C **86**, 065805 (2012)
45. S. Almaraz-Calderon, **W. P. Tan**, A. Aprahamian, B. Bucher, A. Roberts, M. Wiescher, C. R. Brune, T. N. Massey, N. Özkan, R.T. Güray, and H. Mach, *Level structure of 18Ne and its importance in the  $^{14}O(a,p)^{17}F$  reaction rate*, Phys. Rev. C **86**, 025801 (2012)
46. T. X. Liu, W. G. Lynch, R. H. Showalter, M. B. Tsang, X. D. Liu, **W. P. Tan**, M. J. van Goethem, G. Verde, A. Wagner, H. F. Xi, H. S. Xu, M. A. Famiano, R. T. de Souza, V. E. Viola, R. J. Charity, and L. G. Sobotka, *Isospin observables from fragment energy spectra*, Phys. Rev. C **86**, 024605 (2012)
47. A. Palumbo, **W. P. Tan**, J. Görres, A. Best, M. Couder, R. Crowter, R. J. deBoer, S. Falahat, P. J. LeBlanc, H. Y. Lee, S. O'Brien, E. Strandberg, M. Wiescher, J. P. Greene, Zs. Fülöp, G. G. Kiss, E. Somorjai, N. Özkan, G. Efe, and R.T. Güray, *Systematic study of the alpha-optical potential via elastic scattering near the  $Z = 50$  region for p-process nuclei*, Phys. Rev. C **85**, 035808 (2012)
48. A. Palumbo, **W. P. Tan**, J. Görres, M. Wiescher, N. Özkan, R.T. Güray, and C. Yalçın, *Measurement of  $^{120}Te(a,n)$  cross sections relevant to the astrophysical p-process*, Phys. Rev. C **85**, 028801 (2012)
49. M. Notani, H. Esbensen, X. Fang, B. Bucher, P. Davies, C. L. Jiang, L. Lamm, C. J. Lin, C. Ma, E. Martin, K. E. Rehm, **W. P. Tan**, S. Thomas, X. D. Tang, and E. Brown, *Correlation between the  $^{12}C+^{12}C$ ,  $^{12}C+^{13}C$ , and  $^{13}C+^{13}C$  fusion cross sections*, Phys. Rev. C **85**, 014607 (2012)
50. M. Freer, S. Almaraz-Calderon, A. Aprahamian, N. I. Ashwood, M. Barr, B. Bucher, P. Copp, M. Couder, N. Curtis, X. Fang, F. Jung, S. Lesher, W. Lu, J. D. Malcolm, A. Roberts, **W. P. Tan**, C. Wheldon, and V. A. Ziman, *Evidence for a new  $^{12}C$  state at 13.3 MeV*, Phys. Rev. C **83**, 034314 (2011)
51. P. J. LeBlanc, G. Imbriani J. Görres, M. Junker, R. Azuma, M. Beard, D. Bemmerer, A. Best, C. Broggini, A. Caciolli, P. Corvisiero, H. Costantini, M. Couder, R. deBoer, Z. Elekes, S. Falahat, A. Formicola, Zs. Fülöp, G. Gervino, A. Guglielmetti, C. Gustavino, Gy. Gyürky, F. Käppeler, A. Kontos, R. Kuntz, H. Leiste, A. Lemut, Q. Li, B. Limata, M. Marta, C. Mazzocchi, R. Menegazzo, S. O'Brien, A. Palumbo, P. Prati, V. Roca, C. Rolfs, C. Rossi Alvarez, E. Somorjai, E. Stech, O. Straniero, F. Strieder, **W. Tan**, F. Terrasi, H. P. Trautvetter, E. Uberseder, and M. Wiescher, *Constraining the S factor of  $^{15}N(p,\gamma)^{16}O$  at astrophysical energies*, Phys. Rev. C **82**, 055804 (2010)
52. H. Costantini, R. J. deBoer, R. E. Azuma, M. Couder, J. Görres, J. W. Hammer, P. J. LeBlanc, H. Y. Lee, S. O'Brien, A. Palumbo, E. C. Simpson, E. Stech, **W. Tan**, E. Uberseder, and M. Wiescher,  *$^{16}O(a,g)^{20}Ne$  S factor: Measurements and R-matrix analysis*, Phys. Rev. C **82**, 035802 (2010)

53. **W.P. Tan**, S. Almaraz, A. Aprahamian, B. Bucher, J. Görres, H. Mach, M. Wiescher, C. Brune, Z. Heinen, T. Massey, *alpha-Induced Reaction Rates for Accreting Compact Stars*, Nucl. Phys. A 834, 679c (2010)
54. Masahiro Notani, P. Davies, B. Bucher, X. Fang, L. Lamm, C. Ma, E. Martin, **W. Tan**, X.D. Tang, S. Thomas, C.L. Jiang, *Study of the hindrance effect in sub-barrier fusion reactions*, Nucl. Phys. A 834, 192c (2010)
55. R. T. Güray, N. Özkan, C. Yalçın, A. Palumbo, R. deBoer, J. Görres, P. J. Leblanc, S. O'Brien, E. Strandberg, **W. P. Tan**, M. Wiescher, Zs. Fülöp, E. Somorjai, H. Y. Lee, and J. P. Greene, *Measurements of proton-induced reaction cross sections on  $^{120}\text{Te}$  for the astrophysical  $p$  process*, Phys. Rev. C **80**, 035804 (2009)
56. H. Y. Lee, M. Couder, A. Couture, S. Falahat, J. Görres, L. Lamm, P. J. LeBlanc, S. O'Brien, A. Palumbo, E. Stech, E. Strandberg, **W. Tan**, C. Ugalde, and M. Wiescher, *Cross-section measurement of the  $^{18}\text{F}(a,p)^{21}\text{Ne}$  reaction and possible implication for neutron production in explosive helium burning*, Phys. Rev. C **80**, 025805 (2009)
57. **W. P. Tan**, J. Görres, M. Beard, M. Couder, A. Couture, S. Falahat, J. L. Fisker, L. Lamm, P. J. LeBlanc, H. Y. Lee, S. O'Brien, A. Palumbo, E. Stech, E. Strandberg, and M. Wiescher, *Measurement of the decay branching ratios of the alpha-unbound states in  $^{19}\text{Ne}$  and the  $^{15}\text{O}(a,g)$  reaction rate*, Phys. Rev. C **79**, 055805 (2009)
58. E. Strandberg, M. Beard, M. Couder, A. Couture, S. Falahat, J. Görres, P. J. LeBlanc, H. Y. Lee, S. O'Brien, A. Palumbo, E. Stech, **W. P. Tan**, C. Ugalde, M. Wiescher, H. Costantini, K. Scheller, M. Pignatari, R. Azuma, and L. Buchmann,  *$^{24}\text{Mg}(a,\gamma)^{28}\text{Si}$  resonance parameters at low  $\alpha$ -particle energies*, Phys. Rev. C **77**, 055801 (2008)
59. John P. Greene, Annalia Palumbo, **Wanpeng Tan**, Joachim Görres, and Michael C. Wiescher, *Production of stable tellurium evaporated targets*, Nucl. Instr. Meth. A **590**, 76 (2008)
60. C. Ugalde, R. E. Azuma, A. Couture, J. Görres, H. Y. Lee, E. Stech, E. Strandberg, **W. Tan**, and M. Wiescher, *Thermonuclear rate for the  $^{19}\text{F}(a,p)^{22}\text{Ne}$  reaction at stellar temperatures*, Phys. Rev. C **77**, 035801 (2008)
61. A. Couture, M. Beard, M. Couder, J. Görres, L. Lamm, P. J. LeBlanc, H. Y. Lee, S. O'Brien, A. Palumbo, E. Stech, E. Strandberg, **W. Tan**, E. Uberseder, R. Azuma, C. Ugalde, and M. Wiescher, *Measurement of the  $^{19}\text{F}(p,g)^{20}\text{Ne}$  reaction and interference terms from  $E_{\text{c.m.}}=200--760 \text{ keV}$* , Phys. Rev. C **77**, 015802 (2008)
62. T. X. Liu, W. G. Lynch, M. B. Tsang, X. D. Liu, R. Shomin, **W. P. Tan**, G. Verde, A. Wagner, H. F. Xi, H. S. Xu, B. Davin, Y. Larochelle, R. T. de Souza, R. J. Charity, and L. G. Sobotka, *Isospin diffusion observables in heavy-ion reactions*, Phys. Rev. C **76**, 034603 (2007)

63. Jacob Lund Fisker, **Wanpeng Tan**, Joachim Goerres, Michael Wiescher, and Randall L. Cooper, *The  $^{15}O(\alpha, \gamma)^{19}Ne$  Reaction Rate and the Stability of Thermonuclear Burning on Accreting Neutron Stars*, *Astrophys. J.* **665**, 637-641 (2007)
64. M. Wiescher, G.P.A. Berg, M. Couder, J.L. Fisker, Y. Fujita, J. Görres, M.N. Harakeh, K. Hatanaka, A. Matic, **W. Tan** and A.M. van den Berg, *Astrophysical nuclear reactions and the break-out from the hot CNO cycles*, *Progress in Particle and Nuclear Physics* **59**, 51-65 (2007)
65. G. Verde, P. Danielewicz, W.G. Lynch, C.F. Chan, C.K. Gelbke, L.K. Kwong, T.X. Liu, X.D. Liu, D. Seymour, R. Shomin, **W.P. Tan**, M.B. Tsang, A. Wagner, H.S. Xu, D.A. Brown, B. Davin, Y. Laroche, R.T. de Souza, R. Yanez, R.J. Charity, and L.G. Sobotka, *d-alpha correlation functions and collective motion in Xe+Au collisions at E/A=50 MeV*, *Phys. Lett. B* **653**, 12 (2007)
66. **W. P. Tan**, J. L. Fisker, J. Görres, M. Couder, and M. Wiescher,  *$^{15}O(\alpha,\gamma)^{19}Ne$  Breakout Reaction and Impact on X-Ray Bursts*, *Phys. Rev. Lett.* **98**, 242503 (Editors' Suggestion) (2007)
67. T.X.Liu, W.G.Lynch, M.J.van Goethem, X.D.Liu, R.Shomin, **W.P.Tan**, M.B.Tsang, G.Verde, A.Wagner, H.F.Xi, H.S.Xu, W.A.Friedman, S.R.Souza, R.Donangelo, L.Beaulieu, B.Davin, Y.Laroche, T.Lefort, R.T.de Souza, R.Yanez, V.E.Viola, R.J.Charity, L.G.Sobotka, *Cooling dynamics in multi-fragmentation processes*, *Europhys. Lett.* **74**, 806 (2006)
68. **W. P. Tan**, J. Görres, J. Daly, M. Couder, A. Couture, H. Y. Lee, E. Stech, E. Strandberg, C. Ugalde, and M. Wiescher, *Lifetime of the astrophysically important 4.03 MeV state in  $^{19}Ne$* , *Phys. Rev. C* **72**, 041302 (Rapid Communications) (2005)
69. C. Ugalde, R. Azuma, A. Couture, J. Görres, M. Heil, K. Scheller, E. Stech, **W. Tan** and M. Wiescher, *The reaction rate for the destruction of fluorine in AGB stars*, *Nucl. Phys. A* **758**, 577 (2005)
70. S. Hudan, R. Alfaro, B. Davin, Y. Laroche, H. Xu, L. Beaulieu, T. Lefort, R. Yanez, R. T. de Souza, R. J. Charity, L. G. Sobotka, T. X. Liu, X. D. Liu, W. G. Lynch, R. Shomin, **W. P. Tan**, M. B. Tsang, A. V. Molen, A. Wagner, and H. F. Xi, *Comparison of midvelocity fragment formation with projectilelike decay*, *Phys. Rev. C* **71**, 054604 (2005)
71. S. Hudan, R. Alfaro, L. Beaulieu, B. Davin, Y. Laroche, T. Lefort, V. E. Viola, H. Xu, R. Yanez, R. T. de Souza, R. J. Charity, L. G. Sobotka, T. X. Liu, X. D. Liu, W. G. Lynch, R. Shomin, **W. P. Tan**, M. B. Tsang, A. Vander Molen, A. Wagner, and H. F. Xi, *Interplay of initial deformation and Coulomb proximity on nuclear decay*, *Phys. Rev. C* **70**, 031601 (Rapid Communications) (2004)
72. M. B. Tsang, T. X. Liu, L. Shi, P. Danielewicz, C. K. Gelbke, X. D. Liu, W. G. Lynch, **W. P. Tan**, G. Verde, A. Wagner, H. S. Xu, W. A. Friedman, L. Beaulieu, B. Davin, R. T. de Souza, Y. Laroche, T.

- Lefort, R. Yanez, V. E. Viola, Jr., R. J. Charity, and L. G. Sobotka, *Isospin Diffusion and the Nuclear Symmetry Energy in Heavy Ion Reactions*, Phys. Rev. Lett. **92**, 062701 (2004)
73. **W. P. Tan**, W. G. Lynch, T. X. Liu, X. D. Liu, M. B. Tsang, G. Verde, A. Wagner, H. S. Xu, B. Davin, R. T. de Souza, Y. Larochelle, R. Yanez, R. J. Charity and L. G. Sobotka, *Spin determination of particle unstable levels with particle correlations*, Phys. Rev. C **69**, 061304 (Rapid Communications) (2004)
74. S. R. Souza, R. Donangelo, W. G. Lynch, **W. P. Tan**, and M. B. Tsang, *Isoscaling bearing information on the nuclear caloric curve*, Phys. Rev. C **69**, 031607 (Rapid Communications) (2004)
75. T. X. Liu, M. J. van Goethem, X. D. Liu, W. G. Lynch, R. Shomin, **W. P. Tan**, M. B. Tsang, G. Verde, A. Wagner, H. F. Xi, H. S. Xu, M. Colonna, M. Di Toro, M. Zielinska-Pfabe, H.H. Wolter, L. Beaulieu, B. Davin, Y. Larochelle, T. Lefort, R.T. de Souza, R. Yanez, V.E. Viola, R.J. Charity, L.G. Sobotka, *Isotope yields from central  $^{112,124}\text{Sn} + ^{112,124}\text{Sn}$  collisions: Dynamical emission?*, Phys. Rev. C **69**, 014603 (2004)
76. **W. P. Tan**, S. R. Souza, R. J. Charity, R. Donangelo, W. G. Lynch, and M. B. Tsang, *Isospin effects in nuclear multifragmentation*, Phys. Rev. C **68**, 034609 (2003)
77. R. Yanez, S. Hudan, R. Alfaro, B. Davin, Y. Larochelle, H. Xu, L. Beaulieu, T. Lefort, V. E. Viola, R. T. de Souza, T. X. Liu, X. D. Liu, W. G. Lynch, R. Shomin, **W.P.Tan**, M. B. Tsang, A. Vander Molen, A. Wagner, H. F. Xi, R. J. Charity, L. G. Sobotka, *Excitation and decay of projectilelike fragments formed in dissipative peripheral collisions at intermediate energies*, Phys. Rev. C **68**, 011602 (Rapid Communications) (2003)
78. S.R.Souza, P.Danielewicz, S.Das Gupta, R.Donangelo, W.A.Friedman, W.G.Lynch, **W.P.Tan**, M.B.Tsang, *Mass parametrizations and predictions of isotopic observables*, Phys. Rev. C **67**, 051602 (Rapid Communications) (2003)
79. B. Davin, R. Alfaro, H. Xu, L. Beaulieu, Y. Larochelle, T. Lefort, R. Yanez, S. Hudan, A. L. Caraley, and R. T. de Souza; T. X. Liu, X. D. Liu, W. G. Lynch, R. Shomin, **W. P. Tan**, M. B. Tsang, A. Vander Molen, A. Wagner, H. F. Xi, and C. K. Gelbke; R. J. Charity and L. G. Sobotka, *Fragment production in noncentral collisions of intermediate-energy heavy ions*, Phys. Rev. C **65**, 064614 (2002)
80. H. Xu, R. Alfaro, B. Davin, L. Beaulieu, Y. Larochelle, T. Lefort, R. Yanez, S. Hudan, and R. T. de Souza; T. X. Liu, X. D. Liu, W. G. Lynch, R. Shomin, **W. P. Tan**, M. B. Tsang, A. Vander Molen, A. Wagner, H. F. Xi, and C. K. Gelbke; R. J. Charity and L. G. Sobotka; A. S. Botvina, *Fragment isospin as a probe of heavy-ion collisions*, Phys. Rev. C **65**, 061602 (Rapid Communications) (2002)
81. M. B. Tsang, C. K. Gelbke, X. D. Liu, W. G. Lynch, **W. P. Tan**, G. Verde, H. S. Xu, W. A. Friedman, R. Donangelo, S. R. Souza, C. B. Das, S. Das Gupta, and D. Zhabinsky, *Isoscaling in statistical models*, Phys. Rev. C **64**, 054615 (2001)

82. **W. P. Tan**, B.-A. Li, R. Donangelo, C. K. Gelbke, M.-J. van Goethem, X. D. Liu, W. G. Lynch, S. Souza, M. B. Tsang, G. Verde, A. Wagner, and H. S. Xu, *Fragment isotope distributions and the isospin dependent equation of state*, Phys. Rev. C **64**, 051901 (Rapid Communications) (2001)
83. B. Davin, R.T. de Souza, R. Yanez, Y. Larochelle, R. Alfaro, H.S. Xu, A. Alexander, K. Bastin, L. Beaulieu, J. Dorsett, G. Fleener, L. Gelovani, T. Lefort, J. Poehlman, R.J. Charity, L.G. Sobotka, J. Elson, A. Wagner, T.X. Liu, X.D. Liu, W.G. Lynch, L. Morris, R. Shomin, **W.P. Tan**, M.B. Tsang, G. Verde and J. Yukon, *LASSA: a large area silicon strip array for isotopic identification of charged particles*, Nucl. Instr. Meth. A **473**, 302 (2001)
84. G. Verde, H.S. Xu, T.X. Liu, X.D. Liu, W.G. Lynch, **W.P. Tan**, M.B. Tsang, A. VanderMolen, A. Wagner, H.F. Xi, C.K. Gelbke, L. Beaulieu, B. Davin, Y. Larochelle, T. Lefort, R.T. de Souza, R. Yanez, V. Viola, R.J. Charity and L.G. Sobotka, *Isospin fractionation in nuclear fragmentation*, Nucl. Phys. A **681**, 299 (2001)
85. A. Wagner, **W.P. Tan**, K. Chalut, R.J. Charity, B. Davin, Y. Larochelle, M.D. Lennek, T.X. Liu, X.D. Liu, W.G. Lynch, A.M. Ramos, R. Shomin, L.G. Sobotka, R.T. de Souza, M.B. Tsang, G. Verde and H.S. Xu, *Energy resolution and energy-light response of CsI(Tl) scintillators for charged particle detection*, Nucl. Instr. Meth. A **456**, 290 (2001)
86. S. R. Souza, **W. P. Tan**, R. Donangelo, C. K. Gelbke, W. G. Lynch, and M. B. Tsang, *Nuclear isotope thermometry*, Phys. Rev. C **62**, 064607 (2000)
87. H. S. Xu, M. B. Tsang, T. X. Liu, X. D. Liu, W. G. Lynch, **W. P. Tan**, A. Vander Molen, G. Verde, A. Wagner, H. F. Xi, C. K. Gelbke, L. Beaulieu, B. Davin, Y. Larochelle, T. Lefort, R. T. de Souza, R. Yanez, V. E. Viola, R. J. Charity and L. G. Sobotka, *Isospin Fractionation in Nuclear Multifragmentation*, Phys. Rev. Lett. **85**, 716 (2000)
88. Yue Yu and **Wan-Peng Tan**, *Phase structures of magnetic impurity models with two-body hybridization*, Phys. Rev. B **57**, 5879 (1998)

## Other Conference Proceedings and Abstracts

Available upon request (50+)