

## Alfredo Estrade – List of Publications

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### Publications

“New mass measurement of neutron-rich isotopes in the Fe region by the time-of-flight technique”,  
**A. Estrade**, M. Matos, A. M. Amthor, D. Bazin, A. Becerril, T. Elliot, A. Gade, D. Galaviz, G. Lorusso, J. Pereira, M. Portillo, A. Rogers, H. Schatz, D. Shapira, E. Smith, A. Stolz, M. Wallace.  
*Article in preparation.*

“ $\beta$ -decay and  $\beta$ -delayed neutron emission probabilities of nuclei in the region  $A \leq 110$ , relevant for the r-process”,

J. Pereira, S. Hennrich, A. Aprahamian, O. Arndt, A. Becerril, T. Elliot, **A. Estrade**, D. Galaviz, R. Kessler, K.-L. Kratz, G. Lorusso, P.F. Mantica, M. Matos, P. Möller, F. Montes, B. Pfeiffer, M. Quinn, H. Schatz, F. Schertz, L. Schnorrenberger, E. Smith, A. Stolz, W.B. Walters, and A. Wöhr.  
[arXiv:0902.1705](#), *accepted for publication in Phys. Rev. C.*

“ $\beta$ -decay half-life of the rp-process waiting-point nucleus  $^{84}\text{Mo}$ ”,

J. B. Stoker, P. F. Mantica, D. Bazin, A. Becerril, J. S. Berryman, H. L. Crawford, **A. Estrade**, C. J. Guess, G. W. Hitt, G. Lorusso, M. Matos, K. Minamisono, F. Montes, J. Pereira, G. Perdikakis, H. Schatz, K. Smith, R. G. T. Zegers.  
*Phys. Rev. C* **79** (2009) 015803.

“Production and decay of rp-process nuclei  $^{96}\text{Cd}$ ,  $^{98}\text{In}$  and  $^{100}\text{Sn}$ ”,

D. Bazin, F. Montes, A. Becerril, G. Lorusso, A. Amthor, T. Baumann, H. Crawford, **A. Estrade**, A. Gade, T. Ginter, C. J. Guess, M. Hausmann, G. W. Hitt, P. Mantica, M. Matos, R. Meharchand, K. Minamisono, G. Perdikakis, J. Pereira, J. Pinter, M. Portillo, H. Schatz, K. Smith, J. Stoker, A. Stolz, and R. G. T. Zegers.  
*Phys. Rev. Lett.* **101**, (2008) 252501.

“A high efficiency, low background detector for measuring pair-decay branches in nuclear decay”,

C. Tur, A. H. Wuosmaa, S. M. Austin, K. Starosta, J. Yurkon, **A. Estrade**, N. Goodman, J. C. Lighthall, G. Lorusso, S. T. Marley and J. Snyder.  
*Nucl. Instr. Meth. A* **594** (2008) 66.

“ $\beta$ -decay half-lives and  $\beta$ -delayed neutron emission probabilities for neutron rich nuclei close to the N=82 r-process path”,

F. Montes, **A. Estrade**, P. T. Hosmer, S. N. Liddick, P. F. Mantica, A. C. Morton, W. F. Mueller, M. Ouellete, E. Pellegrini, P. Santi, H. Schatz, A. Stolz, B. E. Tomlin, O. Arndt, K.-L. Kratz, B. Pfeiffer, P. Reeder, W. B. Walters, A. Aprahamian, A. Wöhr.  
*Phys. Rev. C* **73** (2006) 035801.

“Half-Life of the Doubly Magic r-Process Nucleus  $^{78}\text{Ni}$ ”,

P. T. Hosmer, H. Schatz, A. Aprahamian, O. Arndt, R. R. Clement, **A. Estrade**, K.-L. Kratz, S. N. Liddick, P. F. Mantica, W. F. Mueller, F. Montes, A. C. Morton, M. Ouellette, E. Pellegrini, B. Pfeiffer, P. Reeder, P. Santi, M. Steiner, A. Stolz, B. E. Tomlin, W. B. Walters, A. Wöhr.  
*Phys. Rev. Lett.* **94** (2005) 112501.

“New Approach for Measuring Properties of rp-Process Nuclei”,

R. R. Clement, D. Bazin, W. Benenson, A. Brown, A. L. Cole, M. W. Cooper, P. A. Deyoung, **A. Estrade**, M. A. Famiano, N. H. Frank, A. Gade, T. Glasmacher, P. T. Hosmer, W. G. Lynch, F. Montes, W. F. Mueller, G. F. Peaslee, P. Santi, H. Schatz, B. M. Sherrill, M.-J. van Goethem.  
*Phys. Rev. Lett.* **92**, (2004) 172502.

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“Probing the sustainability of the N=82 and Z=50 shell closures for neutron-rich nuclides: Decay of  $^{120}\text{Rh}_{75}$  to levels of  $^{120}\text{Pd}_{74}$ ”,

W. B. Walters, B. E. Tomlin, P. F. Mantica, B. A. Brown, J. Rikovska Stone, A. D. Davies, **A. Estrade**, P. T. Hosmer, N. Hoteling, S. N. Liddick, T. Mertzimekis, F. Montes, A. C. Morton, W. F. Mueller, M. Ouellette, E. Pellegrini, P. Santi, D. Seweryniak, H. Schatz, J. Shergur, A. Stolz. *Phys. Rev. C* **70** (2004) 034314.

### Conference Proceedings

“Time-of-Flight Mass Measurements of Neutron Rich Nuclides”,

**A. Estrade**, M. Matos, A. M. Amthor, D. Bazin, A. Becerril, T. Elliot, A. Gade, D. Galaviz, G. Lorusso, J. Pereira, M. Portillo, A. Rogers, H. Schatz, D. Shapira, E. Smith, A. Stolz, M. Wallace. *PoS(NIC X)184*, International Symposium Nuclei in the Cosmos X (2008).

“ $\beta$ -Decay Study of the rp-Process Nucleus  $^{96}\text{Cd}$ ”,

A. D. Becerril, A. M. Amthor, T. Baumann, D. Bazin, J. S. Berryman, H. Crawford, **A. Estrade**, A. Gade, T. Ginter, C. J. Guess, M. Hausmann, G. W. Hitt, G. Lorusso, P. F. Mantica, M. Matos, R. Meharchand, K. Minamisono, F. Montes, J. Pereira, G. Perdikakis, M. Portillo, H. Schatz, K. Smith, J. Stoker, R. Zegers.

*PoS(NIC X)167*, International Symposium Nuclei in the Cosmos X (2008).

“Half-life of the rp-process waiting point nucleus  $^{84}\text{Mo}$ ”,

J. B. Stoker, P. F. Mantica, D. Bazin, A. Becerril, J. S. Berryman, H. L. Crawford, **A. Estrade**, C. J. Guess, G. W. Hitt, G. Lorusso, M. Matos, K. Minamisono, F. Montes, J. Pereira, G. Perdikakis, H. Schatz, K. Smith, R. G. T. Zegers.

*PoS(NIC X)179*, International Symposium Nuclei in the Cosmos X (2008).

“Spectroscopy of exotic  $^{121,123,125}\text{Ag}$  produced in fragmentation reactions”,

I. Stefanescu, W.B. Walters, P.F. Mantica, B.A. Brown, A.D. Davies, **A. Estrade**, P.T. Hosmer, N. Hoteling, S.N. Liddick, W.D.M. Rae, T.J. Mertzimekis, F. Montes, A.C. Morton, W.F. Mueller, M. Ouellette, E. Pellegrini, P. Santi, D. Seweryniak, H. Schatz, J. Shergur, A. Stolz, J. R. Stone, and B.E. Tomlin.

*To be published in Eur. Phys. J. A*, 5<sup>th</sup> International Conference on Exotic Nuclei and Atomic Masses (ENAM 2008).

“ $\beta$ -decay studies of r-process nuclei at NSCL”,

J. Pereira, A. Aprahamian, O. Arndt, A. Becerril, T. Elliot, **A. Estrade**, D. Galaviz, S. Hennrich, P. Hosmer, L. Schnorrenberger, R. Kessler, K.-L. Kratz, G. Lorusso, P.F. Mantica, M. Matos, F. Montes, B. Pfeiffer, M. Quinn, P. Santi, H. Schatz, F. Schertz, E. Smith, B.E. Tomlin, W.B. Walters, and A. Wöhr.

*Nucl. Phys. A* **805** (2008) 470, 23<sup>rd</sup> International Nuclear Physics Conference.

“TOF-B $\rho$  mass measurement of very exotic nuclides for astrophysical calculations at the NSCL”,

M. Matoš, **A. Estrade**, A. M. Amthor, A. Aprahamian, D. Bazin, A. Becerril, T. Elliot, A. Gade, S. Gupta, D. Galaviz, G. Lorusso, J. Pereira, M. Portillo, A. Rogers, H. Schatz, D. Shapira, E. Smith, A. Stolz, M. Wallace.

*J. Phys. G: Nucl. Part. Phys.* **35** (2008) 014045, Nuclear Physics in Astrophysics III.

“New experimental efforts along the rp-process path”,

D. Galaviz, M. Amthor, D. Bazin, B. A. Brown, A. Cole, T. Elliot, **A. Estrade**, Zs. Fülöp, A. Gade, T. Glasmacher, R. Kessler, G. Lorusso, M. Matos, F. Montes, W. Müller, J. Pereira, H. Schatz, B. Sherrill, F. Schertz, Y. Shimbara, E. Smith, A. Tamii, M. Wallace, R. Zegers.

*J. Phys. G: Nucl. Part. Phys.* **35** (2008) 014030, Nuclear Physics in Astrophysics III.

“TOF- $B\rho$  mass measurement of neutron rich nuclides at the NSCL”,  
**A. Estrade**, M. Matos, A. M. Amthor, D. Bazin, A. Becerril, T. Elliot, A. Gade, D. Galaviz, G. Lorusso, J. Pereira, M. Portillo, A. Rogers, H. Schatz, D. Shapira, E. Smith, A. Stolz, M. Wallace. *AIP Conf. Proc.* 947 (2007) 383, VII Latin American Symposium on Nuclear Physics.

“Time of flight mass measurements of neutron rich nuclides relevant to astrophysical processes”,  
**A. Estrade**, M. Matos, A. M. Amthor, D. Bazin, A. Becerril, T. Elliot, A. Gade, D. Galaviz, G. Lorusso, J. Pereira, M. Portillo, A. Rogers, H. Schatz, A. Stolz, D. Shapira, E. Smith, M. Wallace. *PoS(NIC-IX)092*, International Symposium Nuclei in the Cosmos IX (2006).

“New experiments on neutron rich r-process Ge Br isotopes at the NSCL”  
M. Quinn, A. Aprahamian, S. Almaraz, B.B. Skorodumov, A. Wöhr, J. Pereira, A. Becerril, T. Elliot, **A. Estrade**, D. Galaviz, L. Kern, G. Lorusso, P. Mantica, M. Matos, F. Montes, H. Schatz, S. Hennrich, K. L. Kratz, B. Pfeiffer, E. Smith. *PoS(NIC-IX)168*, International Symposium Nuclei in the Cosmos IX (2006).

“Decay studies at the end of the rp-process”  
E. E. Smith, M. E. Howard, B. Mercurio, S. D. Reitzner, **A. Estrade**, P. T. Hosmer, E. Kwan, S. N. Liddick, P. F. Mantica, F. Montes, A. C. Morton, H. Schatz, A. Stolz, B. E. Tomlin. *PoS(NIC-IX)178*, International Symposium Nuclei in the Cosmos IX (2006).

“The half-life of the doubly-magic r-process nucleus  $^{78}\text{Ni}$ ”  
H. Schatz, P. T. Hosmer, A. Aprahamian, O. Arndt, R. R. C. Clement, **A. Estrade**, K.-L. Kratz, S. N. Liddick, P. F. Mantica, W. F. Mueller, F. Montes, A. C. Morton, M. Ouellette, E. Pellegrini, B. Pfeiffer, P. Reeder, P. Santi, M. Steiner, A. Stolz, B. E. Tomlin, W. B. Walters, A. Wöhr. *Eur. Phys. J. A* 25 (2005) 639, 4<sup>th</sup> International Conference on Exotic Nuclei and Atomic Masses (ENAM 2004).

“ $\beta$ -Decay Studies Close to the  $N=82$  r-process Path”  
F. Montes, H. Schatz, A. Aprahamian, O. Arndt, **A. Estrade**, K.-L. Kratz, S. N. Liddick, P. F. Mantica, W. F. Mueller, P. Hosmer, A. C. Morton, M. Ouellette, E. Pellegrini, B. Pfeiffer, P. Reeder, P. Santi, A. Stolz, B. E. Tomlin, W. B. Walters, A. Wöhr. *Nucl. Phys. A* 758 (2005) 643, International Symposium Nuclei in the Cosmos VIII (2004).

“Radioactive ion beams in the region of  $^{100}\text{Sn}$  and  $^{78}\text{Ni}$  at the NSCL”,  
A. Stolz, **A. Estrade**, A. D. Davies, T. N. Ginter, P. T. Hosmer, E. Kwan, S. N. Liddick, P. F. Mantica, T. J. Mertzimekis, F. Montes, D. J. Morrissey, A. C. Morton, M. Ouellette, E. Pellegrini, P. Santi, H. Schatz, M. Steiner, A. E. Stuchberry, B. E. Tomlin, W. B. Walters, A. Wöhr, O. Arndt, K.-L. Kratz, B. Pfeiffer, P. Reeder. *Nucl. Phys. A* 746 (2004) 54, Sixth International Conference on Radioactive Nuclear Beams.

## Conference Presentations

Oral presentation: “Time-of-Flight Mass Measurements of Neutron Rich Nuclides”.  
A. Estrade, et al.; American Physical Society, 2008 Meeting of the Division of Nuclear Physics.

Poster presentation: “Time-of-Flight Mass Measurements of Neutron Rich Nuclides”.  
A. Estrade, et al.; 12th Nuclear Structure Conference, 2008.

Oral presentation: “New mass measurements of neutron rich nuclides at the NSCL”.  
A. Estrade, et al.; American Physical Society, 2007 Meeting of the Division of Nuclear Physics.

Poster presentation: “Monte Carlo simulation of the transport of projectile fragment beams through the A1900-S800 beamline at the NSCL”  
A. Estrade, et al.; American Physical Society, 2003 Meeting of the Division of Nuclear Physics.