Cross sections for proton-induced reactions on Pd isotopes at energies relevant for the gamma process

I. Dillmann, L. Coquard, C. Domingo-Pardo, F. Käppeler, J. Marganiec, E. Uberseder, U. Giesen, A. Heiske, G. Feinberg, D. Hentschel, S. Hilpp, H. Leiste, T. Rauscher, F.-K. Thielemann

(Submitted on 14 Jun 2011)

Proton-activation reactions on natural and enriched palladium samples were investigated via the activation technique in the energy range of E_p=2.75 MeV to 9 MeV, close to the upper end of the respective Gamow window of the gamma process. We have determined cross sections for 102Pd (p,gamma)103Ag, 104Pd(p,gamma)105Ag, and 105Pd(p,n)105Ag, as well as partial cross sections of 104Pd(p,n)104Ag^g, 105Pd(p,gamma)106Ag^m, 106Pd(p,n)106Ag^m, and 110Pd(p,n)110Ag^m with uncertainties between 3% and 15% for constraining theoretical Hauser-Feshbach rates and for direct use in gamma-process calculations.

Comments:	12 pages, accepted for publication in Phys. Rev. C (2011)
Subjects:	**Solar and Stellar Astrophysics (astro-ph.SR)**; Nuclear Experiment (nucl-ex)
Journal reference:	Phys.Rev.C84:015802,2011
DOI:	10.1103/PhysRevC.84.015802
Cite as:	**arXiv:1106.2624 [astro-ph.SR]**
	(or **arXiv:1106.2624v1 [astro-ph.SR]** for this version)

Submission history

From: Iris Dillmann [view email]
[v1] Tue, 14 Jun 2011 07:14:49 GMT (503kb)

Which authors of this paper are endorsers?