Adopted Levels

	Type	Author	History Citation	Literature Cutoff Date
	Full Evaluation	N. Nica	NDS 176, 1 (2021)	1-May-2021

Q(β^-)=7338.5 28; S(n)=4412 10; S(p)=10460 30; Q(α)=−3870.2 23 2021Wa16
S(2n)=9931.1 22, S(2p)=23320 300 (syst), Q(β^-n)=1242 6 (2021Wa16).

2017Wu04 compiled for the XUNDL database by F.G. Kondev (ANL).

2020Or03 compiled for the XUNDL database by E.A. McCutchan (NNDC,BNL).

2012Ku26: ^{160}Pm produced and identified in ^{9}Be(^{238}U,F), E=1 GeV/nucleon reaction using SIS-18 synchrotron facility at GSI. Target=1.6 g/cm^2 ^{9}Be placed at the entrance of projectile Fragment Separator (FRS). Particle identification was achieved by event-by-event in-flight analysis of time-of-flight, energy loss measurement, and magnetic rigidity (tof-ΔE′-Bρ). Time-of-flight measured using two plastic scintillation detectors, energy loss or deposit by ionization chambers (MUSIC), and magnetic rigidity by four time-projection chambers (TPC), which also provided energy deposit information. Isomer tagging method for known μs isomers was used to verify event-by-event identification and in-flight separation of new isotopes. Gamma rays from the known isomers were recorded in coincidence with the incoming ions using either the RISING array of Ge detectors at GSI or only two Ge detectors, a stopper foil and a scintillator for veto signal. Measured production cross section. Comparison of measured σ with predictions from ABRABLA model and EPAX-3 model.

2017Wu04: ^{9}Be(^{238}U,F), E=345 MeV/nucleon, measured in-flight fission fragments separated and identified by BigRIPS separator and ZeroDegree Spectrometer (ZDS); measured delayed Eγ, Iγ using WAS3ABi active stopper and EURICA γ-ray spectrometer and extracted T$_{1/2}$'s; deduced Gamow-Teller strength functions and r-process abundance pattern in the solar system; theoretical calculations using FRDM+QRPA, KTUY+GT2, and RHB+pn-RQRPA models. Positively identified and measured T$_{1/2}$ for 94 n-rich nuclides.

2020Or03: ^{160}Pm produced at CARIBU facility (ANL) from ^{252}Cf fission source. Ions in charge state 2$^+$ were mass separated, collected in rf quadrupole cooler/buncher and purified in multireflection time-of-flight mass separator (δ-tof). Measured cyclotron frequencies using Canadian Penning Trap (CPT) with phase-imaging ion-cyclotron-resonance (PI-ICR) technique and deduced masses and excitation energies of isomers.

^{160}Pm Levels

E(level)	T$_{1/2}$	Comments
0.0	725 ms 57	%β^-=100; %β^-n=?
		Mainly β^- decay mode is expected.
		E(level): the observed ^{160}Pm fragments assumed to correspond to the g.s. However the assignment to the ground state is ambiguous, given the possible existence of an isomeric state.
		J$^\pi$: (6$^-$) can be assigned from systematics of known quasiparticle states in neighboring nuclei and the proposed configuration (by the evaluator). However the assignment is very tentative and not adopted in the data field.
		Additional information 1.
		T$_{1/2}$: from 2017Wu04 (fit of the time distribution of electrons detected after the implantation of an ion, correlated to them in position and time employing the least-squared and unbinned maximum likelihood methods in a parallel analysis that included contributions from the methods in decays of parent, daughters, granddaughters, as well as a constant background). See also 0.44 s from theoretical calculations (2019Mo01).
		configuration: In this mass region the π5/2[532] and ν7/2[633] Nilsson orbitals are expected near the proton and neutron Fermi surfaces, respectively. Thus, using the Gallagher-Moszkowski rule, one may expect the K$^\pi$=6$^-$, π5/2[532]⊗ν7/2[633] configuration for the ground state. The existence of a low-spin, K$^\pi$=0$^-$ isomer, arising from the same configuration, is also possible. The assignment proposed by 2020Or03.
		Production σ=518 nb 36 (2012Ku26) (at 1 GeV/nucleon).
191 11		E(level): deduced from measured mass excess using PI-ICR technique (2020Or03).
		J$^\pi$: (1$^-$) proposed by 2020Or03 based on π5/2[532]⊗ν7/2[633] assigned configuration.