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Decay of states near particle emission threshold in even 38,40-S isotopes populated by beta decay (+structure studies in the odd Sulfur isotopes 37,39 from beta decay of Phosphore)

GT beta-decay to 1^- states in 38^- and 40^- S can take place if the GS spin of the parent nuclei is 2^- . This is why the present proposal should be considered with the one concerning the measurements of GS spins with LASAGNE.

The Q-beta window for the decay of 38^- and 40^- P is 12.2 and 14.7 MeV, respectively, well above the neutron emission

threshold (Q-beta-n of 4.2 and 7 MeV, respectively). The beta-spectroscopy of 38 P is quite poorly known. For 40^- S, the

spectroscopy is reached, but spin and parities are uncertain. No gamma transition from states with possible 1^- spin and

parity to GS are measured.

This experiment is intended to complete the spectroscopy of beta decay with a particular attention eventual population of

high lying states decaying by dipole radiation to the GS or low excited 2^+ states.

(considering also structure studies in the sulfur isotopes from beta decay of odd A Phosphore)

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