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High Resolution Two Proton Stripping reactions with the AFRODITE/WAFANA2 setup

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Abstract content
 (Max 300 words)

The challenge of achieving high resolution in binary reactions involving an outgoing high energy neutron is solved by detecting the γ -ray decay of populated excited states in an array of escape suppressed HPGe detectors in coincidence with fast neutrons. The selectivity of the arrangement is of the order of 1 in 1000 and is demonstrated by L=0 two proton stripping using ^{27}Al , ^{59}Co , $^{160}\text{Gd}(^3\text{He},n\gamma)$ reactions at 22.5 MeV.

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