
 $^{208}\text{Pb}(^{20}\text{Ne}, ^{19}\text{Ne})$ **1990Fo04**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. Chen # and F. G. Kondev		NDS 126, 373 (2015)	30-Sep-2013

E=500, 600 MeV ^{20}Ne beam was produced from the K500 superconducting cyclotron at Michigan State University. A 99.9% enriched $3.0 \mu\text{g}/\text{cm}^2$ thick ^{208}Pb target was used. Reaction products were momentum analyzed with the S320 broad range magnetic spectrograph, FWHM=1-2 MeV. Measured $\sigma(\text{fragment } E, \theta)$. Deduced structure characteristics from DWBA analysis. The spectra consist of broad peaks at ≈ 1.5 MeV and ≈ 10 MeV. On the basis of DWBA calculations, the authors suggest that the main components in the peak at 1.5 MeV are the $11/2^+$ state at 779, the $15/2^-$ state at 1423, and possibly the $9/2^+$ ground state. The authors suggest that the peak at 10 MeV is due mainly to neutron transfer to high-spin orbitals such as $1k_{17/2}$.