C(^{32}Ne,^{32}Ne$'\gamma$)   **2009Do10**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 201,1 (2025)	31-Oct-2024

Includes C(^{33}Na,^{32}Neγ) in 2009Do10.

2009Do10: E=226 MeV/nucleon ^{32}Ne and E=245 MeV/nucleon ^{33}Na beams were produced from fragmentation of ^{48}Ca primary beam at 345 MeV/nucleon on a ^{9}Be production target at RIKEN. Fragments were separated with the BigRIPS fragment separator by the ΔE-Bρ-tof method. Secondary target was 2.54 g/cm^2 natural carbon. γ rays were detected with the DALI2 array of 180 NaI(Tl) detectors and reaction products were momentum-analyzed with the Zero Degree Spectrometer (ZDS). Measured Eγ, Iγ, ^{32}Ne-γ coin. Deduced levels. Comparison with shell-model calculations. Relevance to "island of inversion".
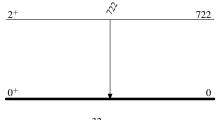
^{32}Ne Levels

E(level)	J$^{\pi}$
0	0$^+$
722 9	2$^+$

γ(^{32}Ne)

E$_{\gamma}$	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$
722 9	722	2$^+$	0	0$^+$

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Level Scheme

$^{32}_{10}$Ne$_{22}$