^{64}Zn(^{16}O,^{16}O′),(^{12}C,^{12}C′)

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 178, 41 (2021).	12-Nov-2021

Includes (^{9}Be,^{9}Be′), (^{7}Li,^{7}Li), (^{6}Li,^{6}Li), (^{6}He,^{6}He), (^{16}O,^{16}O), (^{18}O,^{18}O), (^{18}O,^{18}O′).

2019Cr07: (^{18}O,^{18}O),(^{18}O,^{18}O′),E=30-45 MeV; measured σ(E) at the Pelletron laboratory of the University of Sao Paulo. ^{64}Zn(^{16}O,^{16}O′), E=30-45 MeV; analyzed quasielastic σ(E) and barrier distributions. Coupled reaction channel calculations.

2005Go09: (^{16}O,^{16}O) E=40-64 MeV; (^{9}Be,^{9}Be) E=17-28 MeV. Measured $\sigma(\theta)$, coupled-channel analysis.

2004Di07 (also 2003Di14): (^{6}He,^{6}He) E=9.1, 12.4 MeV. Measured $\sigma(\theta)$, optical model parameters.

2001Lu08: (^{9}Be,^{9}Be′) E=20-30 MeV. Analyzed data, coupled-channel analysis.

2000Mo15 (also 2000Go50): (^{9}Be,^{9}Be) and (^{9}Be,xnypzα) E=17-28 MeV, measured σ for fusion reactions and $\sigma(\theta)$ for elastic scattering.

1996Te02: (^{16}O,^{16}O′) E=41.6-51.2 MeV. Measured $\sigma(\theta)$, optical-model parameters.

1994Sa29: (^{16}O,^{16}O′), (^{18}O,^{18}O′) E=29-46 MeV, measured $\sigma(\theta)$.

1982Be15: (^{12}C,^{12}C) E=45, 54 MeV. $\sigma(\theta)$, deduced optical-model parameters.

1982Co18: (^{7}Li,^{7}Li) E=34 MeV. Analysis of $\sigma(\theta)$ data.

1980TaZZ: (^{16}O,^{16}O′) E=30-60 MeV, $\sigma(\theta)$.

1979Bo24: (^{12}C,^{12}C′) E=65 MeV, $\sigma(\theta)$. Excitation of first 2$^+$ state in ^{12}C.

1977HuZV: (^{6}Li,^{6}Li), (^{7}Li,^{7}Li) E(^{6}Li)=28 MeV, E(^{7}Li)=34 MeV. $\sigma(\theta)$, deduced optical-model parameters.

^{64}Zn Levels

E(level)	J$^{\pi}$[†]
0	0$^+$
992	2$^+$

[†] From the Adopted Levels.