

$\Omega+\Omega \rightarrow (\Omega\Omega)_{J\pi=0^{++}}X$ Cross Section Calculation

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Abstract: The cross sections of $\Omega+\Omega \rightarrow (\Omega\Omega)_{J\pi=0^{++}}X$ are studied by using an effective Hamiltonian method. The results are $\sigma_{\Omega+\Omega \rightarrow (\Omega\Omega)_{0^{++}}\gamma} = 0.03 \sim 0.16 \times 10^{-29} \text{ cm}^2$ for $p_{\Omega} = 100 \sim 400 \text{ MeV}$, and the cross sections of η production are about 10^{-28} cm^2 for $p_{\Omega} > 880 \text{ MeV}$.

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Key words: dibaryon, quark model, reaction cross section

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