

^8Be -DECAY OF THE ^{24}Mg 46.4 MeV RESONANCE

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$^8\text{Be}_{\text{gs}}$ coincidences with ^{12}C , $^8\text{Be}_{\text{gs}}$ and α -particles produced in the $^{12}\text{C} + ^{12}\text{C}$ interaction at 65 MeV have been measured in a wide in-plane angular range. The 3- $^8\text{Be}_{\text{gs}}$ final state is found to be produced, even if poor statistics prevent any identification of the ^{16}O states involved in the first stage of the process. The $^8\text{Be}_{\text{gs}} - \alpha$ and $^8\text{Be}_{\text{gs}} - ^{12}\text{C}$ coincidence yields are found to be to ^{12}C and ^{16}O excited states, decaying into the $^8\text{Be}_{\text{gs}} + \alpha$ and $^{12}\text{C} + \alpha$ system, respectively.