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CDCC analysis of breakup reactions of ¹¹Be on ²⁰⁸Pb TAKUMA MATSUMOTO, RIKEN, KAZUYUKI OGATA, Kyushu University, MASANOBU YAHIRO, Kyushu University, YASUNORI ISERI, Chiba-Keizai College, TO-MOAKI EGAMI, Kyushu University — ¹¹Be is a typical example of one-neutron halo nuclei, where the valence neutron has a large spatial extension with respect to the core nucleus. In the present work, we analyze breakup reactions of ¹¹Be on ²⁰⁸Pb at energies around 70 MeV/nucleon with the method of continuum-discretized coupled-channels (CDCC). As the internal state of ¹¹Be, we take s-, p-wave states including the ground $1/2^+$ state and the first excited $1/2^-$ state and breakup continuum states. In the CDCC calculation, effects of the Coulomb excitation to the first excited $1/2^-$ state on the breakup processes. Also, we discuss effects of the nuclear interaction on the breakup processes.

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