

Investigation of spectral properties of ^{11}Be in breakup reactions

We investigate the breakup of the ^{11}Be halo nuclei on a light target (^{12}C) within quantum-quasiclassical approach in a wide range of beam energy (5–67 MeV/nucleon) including bound states and low-lying resonances in different partial and spin states of ^{11}Be . The obtained results are in good agreement with existing experimental data at 67 MeV/nucleon. We also demonstrate that the developed computational scheme can be used for investigation of nuclei spectral properties in low-energy breakup experiments on different targets.

Section

Nuclear physics (Section 1)

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