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## Soft dipole resonances in light neutron-rich and proton-rich nuclei

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We investigate the possibility of the soft dipole resonances in light unstable nuclei, in particular, neutron-rich  $^8\text{He}$  and proton-rich  $^8\text{C}$  nuclei. This exotic resonance is considered to be a collective oscillation of four valence neutrons/protons against the  $\alpha$  core. We also discuss the isospin symmetry in these mirror nuclei. We use the five-body cluster model and many-body resonances are described with the complex scaling. We obtain the  $1^-$  resonances in two nuclei with the similar excitation energies of around 13 MeV showing broad decay width and their structures are similar to each other such as the spatial properties. These results indicate a good isospin symmetry in the soft dipole resonances with collective excitations of multineutrons and multiprotons, while the ground states of two nuclei show different properties due to the Coulomb repulsion in  $^8\text{C}$ , leading to the symmetry breaking. In conclusion, the isospin symmetry is depending on the states of  $^8\text{He}$  and  $^8\text{C}$ .

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