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Towards a Dual-Species Bose-Einstein Condensate of $^7\mathrm{Li}$ and $^{133}\mathrm{Cs}$ YI-DONG CHEN, WEI-XUAN LI, CHIA-SHAN LI, MIN-EN CHOU, SHIH-KUANG TUNG, National Tsing Hua University — Quantum degenerate mixtures of atomic gases are the subject of intensive study. Intriguing quantum phenomena flourish because of the extra complexity brought in by a second species. Being able to create a dual-species Bose-Einstein condensate is crucial to study these quantum effects. Here, we present technical progress towards creating a dual-species BEC of $^7\mathrm{Li}$ and $^{133}\mathrm{Cs}$. The combination of heavy and light can open up new possibilities to probe and simulate disordered many-body systems.

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