Towards ultracold ground-state NaRb molecule

MINGYANG GUO, BING ZHU, XIAOKE LI, BO LU, FUDONG WANG, XIN YE, DAJUN WANG, Department of Physics, the Chinese University of Hong Kong — The ground-state $^{23}\text{Na}^{87}\text{Rb}$ molecule is chemically stable and has a permanent electric dipole moment as large as 3.3 Debye. These properties make it a promising candidate for investigating dipolar quantum gases. Recently, we have realized weakly bound $^{23}\text{Na}^{87}\text{Rb}$ Feshbach molecules via magneto-association. Here, we will present our results on excited-state molecular spectroscopy investigation starting with these Feshbach molecules. The prospects of transferring $^{23}\text{Na}^{87}\text{Rb}$ to the absolute ground state will also be discussed.

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