

Single weakly-bound NaCs molecule in optical tweezers

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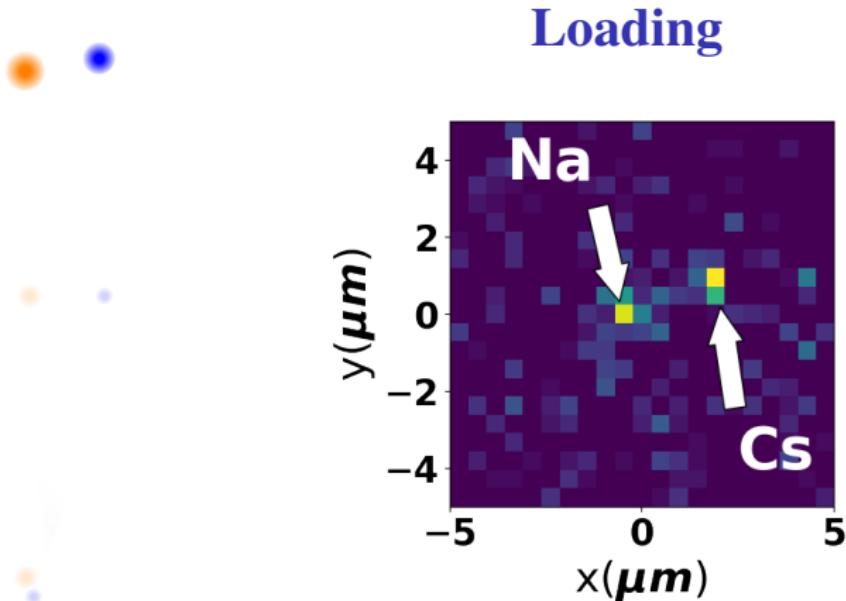
Kenneth Wang, Lewis Picard

Jessie T. Zhang, William Cairncross

Ni Group/Harvard

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From atoms to molecules

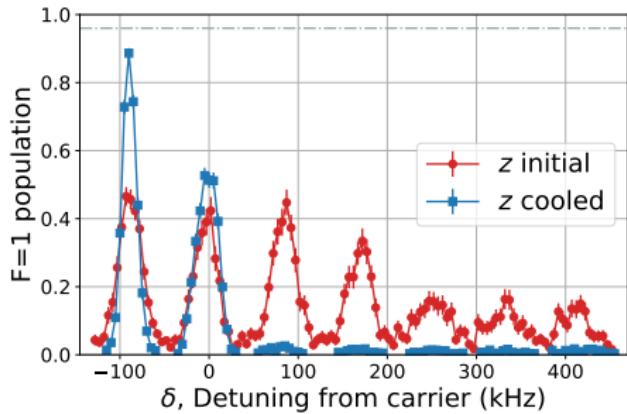


Loading probability per site: 60%
Post select on initial and final state.

From atoms to molecules



Cooling



Cs: 96% ground state¹

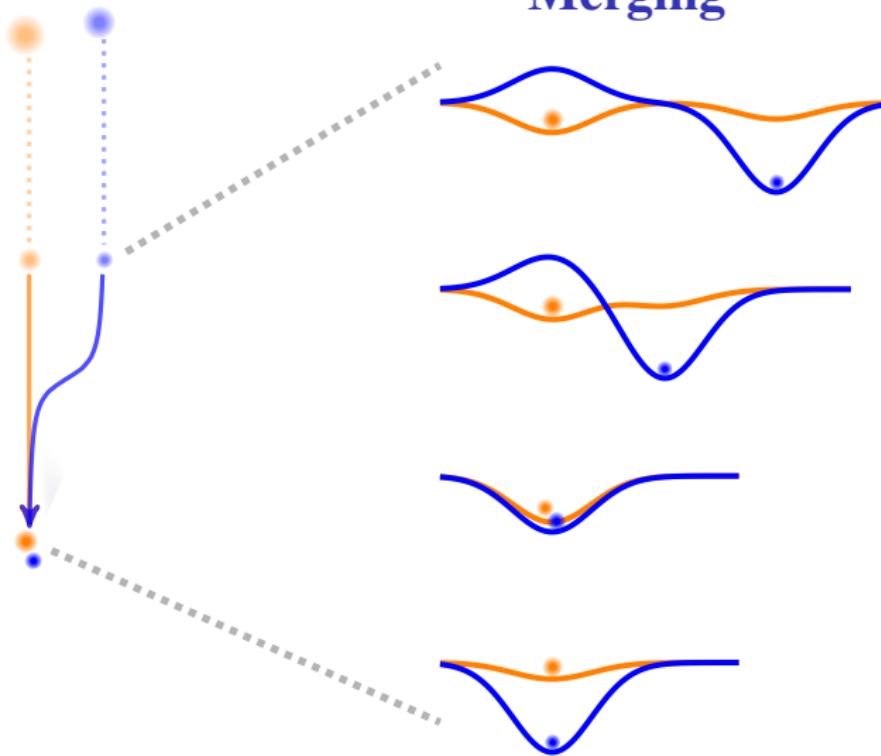
Na: 94% ground state²

¹Phys. Rev. X 9, 021039

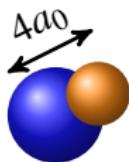
²Phys. Rev. A 97, 063423

From atoms to molecules

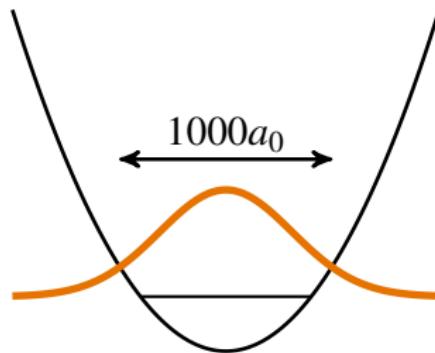
Merging



Wave function size mismatch



Molecule



Atom

Raman transfer

Experiment

Outlook

