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Nonequilibrium response of a molecular Bose-Einstein condensate near a Feshbach resonance. MASUDUL HAQUE, Utrecht University, the Netherlands, HENK STOOF, Utrecht University, the Netherlands — We investigate the response of a molecular Bose-Einstein condensate near a Feshbach resonance to magnetic-field sweeps and resonant laser probes. For magnetic-field sweeps across the resonance, we study the process of dissociation and determine the energy distribution of the atoms produced after the sweep. We present both exact and numerical results. For laser couplings to excited molecular states, we explore the possibility of probing features of the molecular density of states that would not be accessible in equilibrium or in linear-response situations.

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