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Spatial modulation of immiscible ^{87}Rb hyperfine states¹ DANIEL CAMPBELL, RYAN PRICE, SUBHADEEP DE, University of Maryland, JQI, IAN SPIELMAN, NIST and University of Maryland, JQI — Using adiabatic rapid passage in the presence of RF dressing, atoms are transferred to an eigenstate with equal $m_f = -1$ and $m_f = +1$ components in the $F = 1$ ground state manifold of ^{87}Rb . There exists a critical coupling where the spin mixing term of the RF dressing competes with the energy gain of spin ordering due to the spin dependent interaction term. We investigate the relationship between the number of spin domains and the quench of RF dressing.

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