**Spin-locking** the magnetization scales the chemical shift to near-zero (in Hz), producing strong coupling.

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Figure 8.24
Spin-locking the magnetization scales the chemical shift to near-zero (in Hz), producing strong coupling.

Strongly coupled protons exchange magnetization once every $\sim 1/2J$. 

Claridge Figure 5.62 A schematic illustration of events during spin-lock mixing. All chemical shift differences between spins are eliminated yet all spin-spin couplings between them remain. This forces the strong-coupling condition on all spins (see text).