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【165】 Uniaxial strain NMR probe

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In quantum magnets, simple degrees of freedom with short-range interactions lead to a plethora of emergent many-body phases with different exotic properties. Uniaxial pressure allows tuning these interactions selectively and engineer the underlying Hamiltonians. Hence, the properties of the emergent phases can be controlled on-demand.

One system where such selective tuning is very pertinent is a quantum spin ladder, where only two exchange constants are relevant. In this contribution, we will present our developments of integrating a uniaxial strain device into a Nuclear Magnetic Resonance (NMR) apparatus as well as preliminary measurements on a model ladder system.

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