

Supporting Information for:

High Frequency Fe–H and Fe–H₂ Modes in a *trans*-Fe(η^2 -H₂)(H) Complex
– A Speed Record for Nuclear Resonance Vibrational Spectroscopy

This archive folder contains animated GIF files for the normal modes containing

Fe ligand H(+H₂) nuclei PVDOS > 10% character for the DFT models **1_H^{H2}**, **1_H**, **1_H^{N2}** and

Fe ligand D(+D₂) nuclei PVDOS > 10% character for the DFT models **1_D^{D2}**, **1_D**, **1_D^{N2}**.

The filename nomenclature for the **1_x^y** model normal mode calculated at **z** cm⁻¹ is
1__x^y_z_cm-1.gif