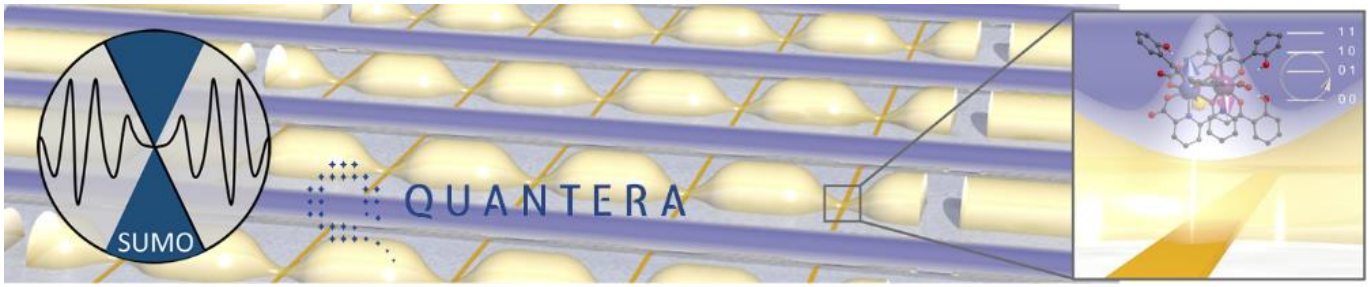

Open data management. Description of available data and metadata related to a publication	
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Paper citation	Physical Review Letters **122**, 037202 (2019); **arXiv:1805.05256**
Language	English
Dataset ID	SUMO_UOXF_Liu_PRL2019-1_v1
List of data files available	Cr7Mn.mat, Cr7Mn_field_dep.mat, Cr7Ni.mat, Cu3.mat
Methodology	We made ESR measurements using a commercial Bruker Elexsys 580 X-band pulsed ESR spectrometer, equipped with a ^{4}He flow cryostat for temperature control. The dissolved samples are contained in standard 3 mm diameter quartz ESR tubes equipped with a pair of electrode wires separated by about 1.8 mm and oriented parallel to the microwave magnetic field, in order to minimize the perturbation to the resonator. To aid impedance matching to the Avtech AVR-4-B voltage pulse generator, the electrodes are shorted above the microwave resonator by a 50 Ω load, permitting square voltage pulses of up to 180 V with approximately 15 ns rise and fall times, durations up to 30 µs in 200 ns steps, and a duty cycle of 0.5%. This electrode geometry, immersed in the sample solution, generates an inhomogeneous *E* field mostly perpendicular to the microwave magnetic field.
Data processing and software needed	1. Electron Spin Resonance: These data were processed and plotted using Matlab (version 2018b). The necessary information is inserted into the relevant file
Access to the data	Contact Junjie Liu at junjie.liu@physics.ox.ac.uk or Arzhang Ardavan at arzhang.ardavan@physics.ox.ac.uk