This paper reported electron spin resonance measurements, including hyperfine interactions, on ethyl sulphates of the lanthanons. Of particular interest were novel formulae for the "enhancement" of the nuclear Zeeman interaction through interactions with excited states. Enhanced magnetic cooling uses such substances with singlet ground states. The enhancement factor of over 150; as predicted from the NMR measurements, it enters an enhanced nuclear antiferromagnetic state below 5 millikelvin. Holmium vanadate has been used for dynamic nuclear polarisation, and both substances have been investigated by means of enhanced nuclear acoustic resonance. Laser spectroscopy has detected many similar nuclear effects in optically excited states. An exceptional case where the enhancement is only 3 parts in 10,000 was used to make a precise measurement of the nuclear magnetic moment of the stable isotope (mass 141) of praseodymium. For a recent general review of electron spin resonance, hyperfine interactions and enhanced effects, see reference 6.