



Magnetically Driven Maser Effect in the Resonant Dynamics of V15 Molecular Nanomagnets

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Resonant dynamics of magnetic molecules with spin 1/2 ground state, such as V15, is theoretically studied. In our model calculation, crystals of this molecular nanomagnet are probed by time-dependent magnetic fields, which continuously invert populations of spin states. If the sample is placed in a resonant cavity, relaxation of excited states, via spin-photon interaction, allows for stimulated emission of radiation in the microwave range

at resonance.

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