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Anisotropic Haldane-gap chains in a magnetic field

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We consider quasi one dimensional spin-1 Heisenberg chains with crystal field anisotropy in a uniform magnetic field. We determine the dynamical structure factor in various limits and obtain a fairly complete qualitative picture of how it changes with the applied field. In particular, we discuss how the width of the higher energy single magnon modes depends on the field. We consider the effects of a weak interchain coupling. We discuss the relevance of our results for neutron scattering experiments on the quasi-1D Haldane-gap compound NDMAP.