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Title:	Spin waves and revised crystal structure of honeycomb iridate Na ₂ IrO ₃
Authors:	Singh, Yogesh (/jspui/browse?type=author&value=Singh%2C+Yogesh)
Keywords:	Honeycomb lattices Inelastic neutrons Long range magnetic order
Issue Date:	2012
Publisher:	American Physical Society.
Citation:	Physical Review Letters, 108 (12), art. no. 127204, .
Abstract:	We report inelastic neutron scattering measurements on Na ₂ IrO ₃ , a candidate for the Kitaev spin model on the honeycomb lattice. We observe spin-wave excitations below 5meV with a dispersion that can be accounted for by including substantial further-neighbor exchanges that stabilize zigzag magnetic order. The onset of long-range magnetic order below T _N =15.3K is confirmed via the observation of oscillations in zero-field muon-spin rotation experiments. Combining single-crystal diffraction and density functional calculations we propose a revised crystal structure model with significant departures from the ideal 90° Ir-O-Ir bonds required for dominant Kitaev exchange.
Description:	Only IISERM authors are available in the record.
URI:	http://prl.aps.org/abstract/PRL/v108/i12/e127204 (http://prl.aps.org/abstract/PRL/v108/i12/e127204)
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