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Title:	Chemical and hydrostatic-pressure effects on the Kitaev honeycomb material Na ₂ IrO ₃
Authors:	Mehlawat, K. (/jspui/browse?type=author&value=Mehlawat%2C+K.)
Keywords:	Mott Insulators Spin-Orbit Coupling Combs (Social Insects)
Issue Date:	2018
Publisher:	American Physical Society
Citation:	Physical Review B, 98(10).
Abstract:	The low-temperature magnetic properties of polycrystalline Na ₂ IrO ₃ , a candidate material for the realization of a quantum spin-liquid state, were investigated by means of muon-spin relaxation and nuclear magnetic resonance methods under chemical and hydrostatic pressure. The Li-for-Na chemical substitution promotes an inhomogeneous magnetic order, whereas hydrostatic pressure (up to 3.9 GPa) results in an enhancement of the ordering temperature T _N . In the first case, the inhomogeneous magnetic order suggests either short- or long-range correlations of broadly distributed $j=\frac{1}{2}$ Ir ⁴⁺ magnetic moments, reflecting local disorder. The increase of T _N under applied pressure points at an increased strength of three-dimensional interactions arising from interlayer compression.
Description:	Only IISERM authors are available in the record.
URI:	https://journals.aps.org/prb/abstract/10.1103/PhysRevB.98.104421 (https://journals.aps.org/prb/abstract/10.1103/PhysRevB.98.104421) http://hdl.handle.net/123456789/1843 (http://hdl.handle.net/123456789/1843)
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