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Title:	Models and materials for generalized Kitaev magnetism
Authors:	Singh, Yogesh (/jspui/browse?type=author&value=Singh%2C+Yogesh)
Keywords:	Solvable Kitaev Attention Honeycomb Enormous
Issue Date:	2017
Publisher:	IOP Publishing
Citation:	Journal of Physics Condensed Matter,29(49).
Abstract:	The exactly solvable Kitaev model on the honeycomb lattice has recently received enormous attention linked to the hope of achieving novel spin-liquid states with fractionalized Majorana-like excitations. In this review, we analyze the mechanism proposed by Jackeli and Khaliullin to identify Kitaev materials based on spin-orbital dependent bond interactions and provide a comprehensive overview of its implications in real materials. We set the focus on experimental results and current theoretical understanding of planar honeycomb systems (Na ₂ IrO ₃ , α -Li ₂ IrO ₃ , and α -RuCl ₃), three-dimensional Kitaev materials (β - and γ -Li ₂ IrO ₃), and other potential candidates, completing the review with the list of open questions awaiting new insights.
Description:	Only IISERM authors are available in the record.
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