Special Issue

Exploration of Novel Quantum Spin Liquid Materials

Message from the Guest Editor

Since the term of resonating valence-bond (RVB) was first introduced by P. W. Anderson to explain the superconductor in 1987, the quatum spin liquid (QSL) states and related low-energy physics have been a long-sought goal in condensed matter physics and are believed to cause many exotic behaviors, such as the significant magnetocaloric effect produced in the spin frustration system and the topological protection of long-range quantum entanglement. Although different models have been proposed by theorists, the progress of experimental research is relatively slow due to the limited QSL materials. In the past decade, with the development of material design, growth technology, and characterizing instruments, breakthroughs have been made in experiments. However, novel multi-body effects and urgent scientific problems have emerged in theoretical calculation, material exploration, and physical property characterization. This Special Issue will compile recent developments in the field of QSL. The articles will cover various topics, ranging from but not limited to theoretical simulation, sample synthesis, bulk properties characterization, and dynamics measurements.

Guest Editor

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Deadline for manuscript submissions

closed (10 January 2023)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
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mdpi.com/si/84560

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