

Opportunities in Resonant X-ray Diffraction Studies of Correlated Materials

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Resonant x-ray diffraction is an invaluable tool for studies of magnetic and orbital orders in strongly correlated materials. I discuss several new opportunities opened by stable beams with full polarization control, as well as by beam focusing capabilities. Examples discussed include spin/orbital order studies in CuIr_2S_4 , domain studies in multiferroics, and possibilities for new controlled sample environments.