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James C. McGroddy Prize for New Materials Lecture: New Superconductors and other Research in New Materials 1 ROBERT CAVA, Department of Chemistry, Princeton University

Superconductors and other electronic materials can often display subtle relationships between their structural characteristics and their electronic properties. Though the primary interest in these relationships is within the condensed matter physics community, often at their foundation are the concepts of bonding and structure familiar to inorganic and solid state chemists. Thus a hybridized view, combining physics and chemistry, is one way of approaching the discovery and characterization of new materials. In this talk I will describe some of our research in this context and comment on some broader aspects of interdisciplinary research in new materials.

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