

Robert J. Cava

Russell Wellman Moore Professor of Chemistry
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Education

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|------------|-------------------------------------------------|------|
| Ph.D. | Ceramics, Massachusetts Institute of Technology | 1978 |
| M.S., B.S. | Materials Science and Engineering, M.I.T | 1974 |

Positions Held

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|---------------------------------------------------|----------------------|--------------|
| Russell Wellman Moore Professor of Chemistry | Princeton University | 2006-present |
| Chair, Department of Chemistry | Princeton University | 2004-2010 |
| Acting Director, Princeton Materials Institute | Princeton University | 2001-2002 |
| Associate Director, Princeton Materials Institute | Princeton University | 1999-2001 |
| Professor of Chemistry and Materials | Princeton University | 1996-present |
| Distinguished Member of Technical Staff | Bell Laboratories | 1985-1996 |
| Member of Technical Staff | Bell Laboratories | 1979-1985 |
| National Research Council Postdoctoral Fellow | NIST | 1978 |
| Temporary Member of Technical Staff | Lincoln Laboratory | 1977 |

Member American Physical Society, Materials Research Society, American Chemical Society

Publications

670+ publications; 41,000+ citations; H index = 98. 25 patents.

51 publications in *Nature* and *Nature Journals*, 60 in *Physical Review Letters*, 18 in *Applied Physics Letters* and 10 in *Science*.

Visiting Scientist Positions

MPI for the Chemical Physics of Solids, Dresden Germany; Brookhaven National Laboratory; National Institute of Standards and Technology; Risoe National Laboratory, Denmark; Laboratory of Crystallography CNRS Grenoble, France; Institute for Chemical Research, Kyoto University Japan; National Magnet Laboratory.

Research

Emphasizing the relationships between chemistry, crystal structure, and electronic and magnetic properties of non-molecular solids. Synthesis, structure, and physical property characterization of new transition metal oxides, chalcogenides, intermetallics, and pnictides. Study of the properties and materials chemistry of superconductors, magnetic materials, transparent electronic conductors, dielectrics, thermoelectrics, topological insulators, geometrically frustrated magnets, and correlated electron systems.

Honors and Honorific Lectureships

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| Linus Pauling Award, American Chemical Society Northwest Section | 2012 |
| Stephanie Kwolek Award in Materials Chemistry, Royal Society of Chemistry, England | 2012 |
| Fellow, Neutron Scattering Society of America | 2012 |
| McGroddy Prize in New Materials, American Physical Society | 2012 |
| Humboldt Research Award, Germany | 2012 |
| Award in Inorganic Chemistry, American Chemical Society | 2011 |
| Villum Foundation Visiting Foreign Professorship, | |

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| Risø, Technical University of Denmark | 2010 |
| Medal of Remembrance, Gdansk Technical University | 2010 |
| American Physical Society Outstanding Referee, inaugural group | 2008 |
| Phi Beta Kappa Teaching Award, Princeton University | 2007 |
| John J. Carty Award for the Advancement of Science, National Academy of Sciences | 2005 |
| President's Award for Distinguished Teaching, Princeton University | 2005 |
| Excellence in Teaching Award, Princeton Engineering Council | 2003, 2006, 2007 |
| Fellow, American Ceramic Society | 2003 |
| Election to U.S. National Academy of Sciences | 2001 |
| Wulff Award in Materials Science | 2000 |
| American Chemical Society Award in the Chemistry of Materials | 1997 |
| Matthias Prize in New Superconducting Materials | 1996 |
| Honor Scroll of the American Institute of Chemists | 1990 |
| Fellow American Physical Society | 1988 |
| Czochralski Lectureship, Polish Society for Crystal Growth | 2010 |
| Quantum Magnetism Lectureship, Rice University | 2008 |
| Zernike Lecturer, University of Groningen | 2008 |
| Paul D. Bartlett Sr. Lecturer, Linda Hall Library | 2008 |
| De-Shalit Memorial Lecturer, Weizmann Institute | 2007 |
| Condensed Matter Distinguished Lecturer, Brookhaven Laboratory | 2006 |
| Debye Lecturer, Cornell University | 2006 |
| R.J.P. Williams Lecturer, Oxford University | 2005 |
| Joseph Kennedy Lecturer, Washington University St. Louis | 2005 |
| Welch Foundation Lectureship | 1998 |
| Spedding Lectureship, Ames Laboratory | 1998 |
| Electrochemical Society Lectureship | 1988 |
| Professional Activities | |
| Chair, NAS Committee for Award for Initiatives in Research | 2011 |
| International Committee for Evaluation of Chemistry in the Netherlands | 2010 |
| Editorial Board, Physical Review B | 2009- present |
| International Committee for Evaluation of Chemistry in Norway | 2008 |
| U.S. DOE Council on Materials Science and Engineering | 2008 |
| NAS Panel on Materials Synthesis and Crystal Growth | 2007 - 2008 |
| Associate Laboratory Director Search Committee Basic Energy Sciences, Brookhaven National Laboratory | 2007 |
| Scientific Advisory Board, Swiss National Centre of Competence in Materials with Novel Electronic Properties | 2007 – present |
| Scientific Advisory Board, X-ray Laboratory for Advanced Materials Stanford University | 2006 - 2009 |
| Interdisciplinary Research Group co-leader, Princeton MRSEC | 2003 – present |
| Chair, NSF Workshop on the Future of Solid State Chemistry | 2001 |
| Scientific Advisory Board, University of South Carolina Nanoscience Center | 2000 - 2005 |
| Chair, Gordon Conference in Solid State Chemistry | 2000 |
| NAS Panel on High Temperature Superconductivity | 1987 |