



**Name:** Claudia Cantoni

**Affiliation** Oak Ridge National Laboratory

**Position:** Research Scientist, Materials Science and Technology Division

**Previous Positions:** Senior Scientist, Moscow State Pedagogical University (MSPU), Moscow, Russia

**Education** University of Salerno, Italy - Ph.D. 1999 Physics  
University of Naples "Federico II", Italy, Diploma di Laurea 1994, Physics

**Research Interests/Areas of Expertise:** Materials science of cuprate and iron-based high- $T_c$  superconductors, superconducting thin films, flux pinning and critical currents, self-assembled and artificial pinning center technology, superconducting wires and tapes, aberration-corrected scanning transmission electron microscopy and electron energy loss spectroscopy

**Publications:** Co-authored 4 books and more than 100 papers, 2098 citations, h index: 27

**Approximate Number of Years in Applied Superconductivity:** 18

**Membership in Professional Societies** American Physics Society, Materials Research Society, American Ceramic Association, American Microscopy Association

**Previous ASC Service** Program Committee Member of Applied Superconductivity Conference

**Service to Related Conferences** 2014 EMA symposium organizer, 2010 MRS Spring 2011 lead symposium organizer, 2006 MRS Spring symposium organizer

**Honors and Awards:**  
2012 R&D 100 Award for "High-Temperature Superconducting Wires with Double-Perovskite, Tantalate, Nano-Pinning Centers".  
2011 R&D 100 Award for "Self-assembled, Ferromagnetic-Insulator Nanocomposites for Ultrahigh-Density Data Storage".  
2011 National FLC Award for co-developing flexible thin-film solar photovoltaics on RABiTS.  
2010 R&D 100 Award for high-performance superconducting wires enabled via self-assembly of non-superconducting columnar defects.  
2009 R&D 100 Award for development of round superconducting wires.  
2009 ORNL Significant Event Award for development of round superconducting wires.  
2009 Listed among most cited authors worldwide during the decade 1999 – 2009 in the field of high-temperature superconductors in an analysis conducted by ScienceWatch.com.  
2008 ORNL Significant Event Award for development of IBAD-based second generation superconducting wires.  
2007 R&D100 Magazine's MICRO/NANO Newsletter top 25 technologies for "Nanocomposites via Epitaxial, 3-D Self-Assembly of Nanodots of One Complex Material within Another".  
2003 European Society for Applied Superconductivity Award for Best Scientific Contribution at the European Conference on Applied Superconductivity.  
2002 Superconductivity Peer Review recognition for outstanding contributions, accomplishment, and commitment in government-industry collaboration, from American Superconductor Corporation.  
2002 Finalist for Early Career Award for scientific accomplishment from ORNL for providing the scientific basis for controlling the reproducible deposition of high-quality crystalline-oriented oxide coating on metal surfaces for the development of high-temperature superconducting wires.  
2001 Energy100 Award from DOE.  
1999 R&D 100 Award for the development of Rolling Assisted Biaxially Textured Substrates (RABiTS).  
1999 AMSE American Museum of Science and Education, for technological achievement.