BIOGRAPHICAL SKETCH **C. Barry CARTER**

Professional Preparation

Cambridge Univ.	Natural Sciences (Theoretical Physics)	B.A., M.A., 1970, 1974
Imperial College	Materials Science (Chemical Engineering) London	M.Sc., 1971
Oxford Univ.	Metallurgy & Science of Materials	D.Phil., 1975/6
Cambridge Univ.	Natural Sciences	Sc.D., 2005
Oxford Univ.	Metallurgy & Science of Materials	Postdoc (1974-77)
Cornell Univ.	Materials Science & Engineering	Postdoc (1977-79)

Appointments

2013-	Professor, Depts of CBE and MSE, University of Connecticut (UConn)
	Dept. Chemical & Biomolecular Eng,; Dept Materials Sci. &Eng.
2012-	CINT Distinguished Affiliate Scientist, Sandia National Lab, NM
2007-2013	Professor, Dept. of CMBE, University of Connecticut (UConn)
2007-2012	Head, Dept. of CMBE, University of Connecticut (UConn)
2005 (6 mnths)	Visiting Fellow, Peterhouse, University of Cambridge, UK
2005 (2 mnths)	Advisor, ICYS, Tsukuba, Japan
2004 (4 mnths)	2005 Jubilee Professor, Chalmers University, Sweden
1994-2008	Consultant/Visiting Researcher, Sandia NL, Livermore, CA
1992-1995	Associate Director, Center for Interfacial Engineering, U of Minnesota
1991-1992	Director, the High-Resolution Microscopy Center, U of Minnesota
1991-2007	Professor & 3M Endowed Chair, Dept Chem. Eng & Mat. Sci, U of Minnesota
1988-1991	Professor, Dept. of MS&E., Cornell University
1987 (3 mnths)	Consultant, Xerox PARC, Palo Alto, CA
1985-1986	Visiting Professor, Bristol University, UK
1979-1988	Assistant/Associate Professor *(Tenure 1983),* Dept. of MS&E., Cornell University

Narrative

C. Barry CARTER is a Professor at the University of Connecticut in Storrs, CT. He holds a B.A., M.A. and Sc.D. from Cambridge University, an M.Sc. from Imperial College, London, and a D. Phil. From Oxford University. After 6 years in Oxford (3 as a postdoc.) he moved to Cornell where he spent 14 years leaving as a full Professor. He then spent 16 years as Professor and the 3M Endowed Multidisciplinary Chair in the Department of Chemical Engineering and Materials Science at the University of Minnesota and 5 years as Head of UConn's Department of Chemical, Materials and Biomolecular Engineering. He is a *CINT Distinguished Affiliate Scientist* at Sandia National Lab (1 of 4). He had earlier held visiting positions at LANL (as the *Bernd T. Matthias Scholar*), Chalmers (as the *2004 Jubilee Professor*), NIMS in Tsukuba, Bristol University, Max Planck Institute in Stuttgart, the Institute for Physical Chemistry in Hannover and the Ernst Ruska Center in Julich. He has been awarded a **Guggenheim Fellowship** and the **Alexander von Humboldt Senior Award**. Other awards include the Ceramic Education Council (ACerS) *Outstanding Educator Award* Oct. 2014, a *JSPS Fellowship* (May 2014), the MSA *Distinguished Physical Scientist* (August 2013) and the *ACerS Roland B Snow Award* (1989, 1993, 1995, 2000-2002). He is a Fellow of AAAS, MRS. MSA, ACerS and RMS and an elected Member of CASE (the Connecticut Academy of Science & Engineering). He served as the 1997 President of MSA, as the 2003-2010 General Secretary of the IFSM, as the (2011-2014) President of IFSM (he is the current Vice-President (2015-2018). He is the co-author of two textbooks ***Transmission Electron Microscopy: A Textbook for Materials Science,*** with Dave Williams and ***Ceramic Materials; Science and Engineering*** with Grant Norton and the **Editor-in-Chief** of the **Journal of Materials Science** (IF=2.371), a journal that was cited >36,000 times in 2014. ***Transmission Electron Microscopy: Diffraction, Imaging, and Spectrometry,*** Edited with Dave Williams has been published in 2016. His research interests focus on the application of different microscopies to understand how the structure and chemistry of materials determine their properties and behavior. He is currently working on several projects including a study of the deformation of Ta and its growth in thin-film form, electrospinning of TiO_2, lithiation of nanomaterials, especially Sn whiskers and MoS_2, for battery applications, and how the crystallization dynamics control the properties of phase-change materials.