Curriculum Vitae

Lorenzo Maserati

Helms Research Group - Materials Science Division - Lawrence Berkeley National Laboratory
Berkeley CA 94705 – Mobile (510) 365-8441 – lmaserati@lbl.gov

Work experience

January 2015 to present
Postdoctoral Fellow
New synthesis and assembly of metal-organic-frameworks membranes for CO_2/N_2 separation.
LBNL – The Molecular Foundry – Organic and Macromolecular Synthesis Facility
1 Cyclotron Road, Berkeley, CA United States
Scientific Research / Nanotechnology

April 2014 to December 2014
Research Fellow
Thermoelectric measurements on semiconducting nanocrystal films for characterizing novel materials plasmonic behavior; study of the organometallic perovskite lattice deformation under an external electric field using x-rays diffraction.
ISTITUTO ITALIANO DI TECNOLOGIA – Nano-Chemistry Department
Via Morego 30, Genova, Italy
Scientific Research / Nanotechnology

March 2010 to December 2010
Business Analyst
Strategic Consulting, Marketing, Sales Monitoring and Pricing, applied to the following industries: Pharmaceutical, Retail Products and Appliances.
ACCENTURE MANAGEMENT CONSULTING – Strategy Service Line
Via Quadrio 17, Milano, Italy
Management Consultancy

June 2005 to July 2005
Website manager
VIAGGI DELLO ZODIACO SCRL
Via Vittorio Veneto, 6, Piacenza, Italy
Travel Agency

Education and trainings

January 2011 to April 2014
PhD in Nanosciences
Colloidal nanocrystals films deposition, chemical treatments and characterization for optoelectronic applications (solar cells, photodetectors, and gas sensors). Collaboration with NOKIA and Cambridge Univ. (UK) for novel graphene/ nanocrystals devices design and fabrication.
UNIVERSITA' DEGLI STUDI DI GENOVA / ISTITUTO ITALIANO DI TECNOLOGIA
Nano-Chemistry Department - Via Morego 30, Genova, Italy

May 2009 to December 2009
Internship with title of Research Scholar
Graphene production via Chemical Vapor Deposition on copper. Raman and SEM characterization, sample preparation for STM applications.
UNIVERSITY OF CALIFORNIA at BERKELEY
DEPARTMENT OF PHYSICS, 366 Le Conte Hall, Berkeley, CA 94720, United States

September 2007 to December 2009
Master of Science in Physics Engineering for Nano-technology - Final grade: 110/110
Thesis title: "Growth and characterization of large area free-standing monolayer graphene"
- Solid State Physics
- Low Dimensional Physics
- Photonics
- Nonlinear Dynamic Systems

I also attended an international course of Nuclear Engineering and Plasma Physics in Madrid at UPM (14 - 22 November 2008)
POLITECNICO DI MILANO - Piazza Leonardo Da Vinci 32, Milano, Italy

September 2007 to March 2008
Master of Science in Physics Engineering for Nano-Technology (Erasmus Project)
CZECH TECHNICAL UNIVERSITY IN PRAGUE - Zikova 4, Prague, Czech Republic

September 2004 to July 2007	**Bachelor in Physics Engineering** - Final grade: 99/110 Thesis title: "Magnetic Microscopy of $BaFe_2O_3$" - Quantum Physics - Photonics - Laser Applications - Telecommunication Systems - Biomedical Optics POLITECNICO DI MILANO - Piazza Leonardo Da Vinci 32, Milano, Italy
September 1999 to July 2004	**Scientific High School Diploma** - Final grade: 94/100 Mathematics, Physics, Chemistry, Biology, Languages (English, Latin), Philosophy LICEO M. GIOIA - Viale Risorgimento 1, Piacenza, Italy

Publications

2016 Lorenzo Maserati, Stephen M. Meckler, Changyi Li and Brett A. Helms, "Minute-MOFs: Ultrafast Synthesis of M_2(dobpdc) Metal-Organic Frameworks from Divalent Metal Oxide Colloidal Nanocrystals" ***Chemistry of Materials***, Just Accepted.

2015 Luca De Trizio, Roberto Gaspari, Giovanni Bertoni, Ilka Kriegel, Luca Moretti, Francesco Scotognella, Lorenzo Maserati, Yang Zhang, Gabriele C. Messina, Mirko Prato, Sergio Marras, Andrea Cavalli, Liberato Manna, "$Cu_{3-x}P$ Nanocrystals as a Material Platform for Near-Infrared Plasmonics and Cation Exchange Reactions", ***Chemistry of Materials***, 01/2015; 27(3).

2014 Lorenzo Maserati, Iwan Moreels, Mirko Prato, Roman Krahne, Liberato Manna, Yang Zhang, "Oxygen sensitivity of atomically passivated CdS nanocrystal films", ***ACS Applied Materials & Interfaces***, 05/2014; 6(12).

2013 Enrico Dilena, Yi Xie, Rosaria Brescia, Mirko Prato, Lorenzo Maserati, Roman Krahne, Andrea Paolella, Giovanni Bertoni, Mauro Povia, Iwan Moreels, Liberato Manna "$CuIn_xGa_{1-x}S_2$ Nanocrystals with Tunable Composition and Band Gap Synthesized via a Phosphine-Free and Scalable Procedure", ***Chemistry of Materials***, 07/2013; 25(15).

2013 Marco Zanella, Lorenzo Maserati, Manuel Pernia Leal, Mirko Prato, Romain Lavieville, Mauro Povia, Roman Krahne, Liberato Manna "Atomic Ligand Passivation of Colloidal Nanocrystal Films via their Reaction with Propyltrichlorosilane", ***Chemistry of Materials***, 01/2013; 25(8).

2010 Victor W. Brar, Decker, Hans-Michael Solowan, Yang Wang, Lorenzo Maserati, Kevin T. Chan, Hoonkyung Lee, O. Girit, Alex Zettl, Steven G. Louie, Marvin L. Cohen, Michael F. Crommie "Gate-controlled ionization and screening of cobalt adatoms on a graphene surface", ***Nature Physics***, 10/2010; 7(1):43-47.

2010 Benjamín Alemán, William Regan, Shaul Aloni, Virginia Altoe, Nasim Alem, Caglar Girit, Baisong Geng, Lorenzo Maserati, Michael Crommie, Feng Wang, Alex Zettl "Transfer-Free Batch Fabrication of Large-Area Suspended Graphene Membranes", ***ACS Nano***, 08/2010; 4(8):4762-8.

2010 William Regan, Nasim Alem, Benjamín Alemán, Baisong Geng, Caglar Girit, Lorenzo Maserati, Feng Wang, Michael Crommie, A. Zettl "A direct transfer of layer-area graphene", ***Applied Physics Letters***, 04/2010; 96(11-96):113102 - 113102-3.

Personal skills and competences

Mother tongue **Italian**

Self-assessment European level (*)	Understanding				Speaking				Writing	
	Listening		Reading		Interaction		Production			
English	C2	Proficient	C2	Proficient	C2	Proficient	C2	Proficient	C2	Proficient
French	B2	Independent	B2	Independent	B1	Independent	B1	Independent	A1	Basic

(*) Common European Framework of Reference for Languages

Computer skills and competences	Expert in Microsoft Office tools (Excel, PowerPoint, Word, Access), Photoshop Suite, Origin, IGOR, Matlab. Good knowledge of Linux. Basic knowledge of C++, Labview and COMSOL.
Technical skills and competences	Metal-organic-frameworks synthesis, porosimetry measurements. CVD technique, Raman spectroscopy, FTIR, SEM, TEM, AFM/EFM, STM, XRD, thermal evaporation and sputtering of metals and oxides, optical lithography, making of nanocrystal films through several deposition techniques, wire bonding, optical and electrical measurements on films. Gas sensing measurements. Preparation and testing of solar cells. Skilled in clean room and glovebox work.
Schools and Conferences attended	IEEE PV Specialists Conference, Seattle, 20-25/06/2010; European Summer School on Nanoscience and Nanotechnologies (ESONN) Grenoble, 20/08-11/09/2011; International School of Solid State Physics "Materials for Renewable Energy", Erice, 18-28/07/2012; E-MRS Conferences (Strasbourg 24-28/06/2013; Lille 26-30/05/2014); NaNaX6 Conference, Bad Hofgastein, 18-23/05/2014. EFRC PI meeting, Washington D.C. 26-27/10/2015 – finalist in Postdoctoral Researcher Competition.
Other skills and competences	I think teamwork is crucial. Through years I put focus on social skills in order to improve communication with people I work with and thus increase my performance. I am an easy going but determined person. Exploring new cultures and living in different countries is important in my life.