



The Combustion Institute

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Angela Violi

2020 Candidate Profile: The Combustion Institute Board of Directors

Reasons for Nomination

My main motivation is to serve our international community offering time, ideas and persistence. Since 1996, I have experienced the CI environment, the climate, the opportunities and the challenges of a young researcher and the influence that the CI community has had on my professional development. I bring the experience of a woman who has lived the academic life in two very different worlds, studying in Italy and becoming a Faculty in US.



I hope to contribute to the mission of the CI in various ways, participating in committees, establishing new ones, and discussing opportunities to augment the engagement and recognition of young researchers. I would be very interested in a Committee on Diversity; there are currently 35 sections of the CI that bring different perspectives and realities to the table. Diversity provides insight into events taking place around the world, and it prompts us to continually reassess our views and opinions. At the CI, we should seek not only to reflect society, but also to serve as a model of how bringing people from a range of backgrounds together to do important work can make a vital difference. I would be interested in implementing recognitions and awards for young and mid-career researchers, as well as to discuss different possibilities for the symposium review process.

See the next page for the candidate's curriculum vitae.

BIOGRAPHICAL SKETCH

A. Professional Preparation

University of Naples “Federico II”	Chemical Engineering	B.S., 1994, <i>Cum laude</i>
University of Naples “Federico II”	Chemical Engineering	Ph.D., 1999
University of Utah	Chemical Engineering	Postdoctoral, 2001

B. Appointments

- Professor, Mechanical Engineering, Chemical Engineering, Macromolecular Science and Engineering, Biophysics, University of Michigan, 9/1/2015-present
- Associate Professor, Mechanical Engineering, Chemical Engineering, Biomedical Engineering, Macromolecular Science and Engineering, Biophysics, University of Michigan, 9/1/2009-present
- Assistant Professor, Mechanical Engineering, Chemical Engineering and Biomedical Engineering, University of Michigan, 1/1/2006-9/1/2009
- Research Assistant Professor, Dept. of Chemistry University of Utah, 7/2004-12/2005
- Research Associate, Dept. of Chemical Engineering University of Utah, 1/2002-12/2005
- Postdoctoral Research Assistant, Dept. of Chemical Engineering, University of Utah, 9/1999-12/2001

C. Products: Total peer-reviewed publications: 82. Examples include

1. K. O. Johansson, T. Dillstrom, M. F. Campbell, P. E. Schrader, D. M. Popolan-Vaida, N. K. Richards-Henderson, K. R. Wilson, A. Violi, H. A. Michelsen “Formation and emission of large furans and other oxygenated hydrocarbons from flames” PNAS 2016 113 (30) 8374-8379; doi:10.1073/pnas.1604772113
2. N. Suzuki, Y. Wang, P. Elvati, Z-B Qu, K. Kim, S. Jiang, E. Baumeister, J. Lee, B. Yeom, J H Bahng, J. Lee, A. Violi and N. A. Kotov, “Chiral Graphene Quantum Dots”, ACS Nano, 2016, 10, 1744–1755.
3. K.A. Russ, P. Elvati, T.L. Parsonage, A. Dews, J. A. Jarvis, M. Ray, B. Schneider, P.J.S. Smith, P.T.F. Williamson, A. Violi, and M.A. Philbert, C60 Fullerene Localization and Membrane Interactions in RAW 264.7 Immortalized Mouse Macrophages, Nanoscale 2016, 8, 4134-4144
4. A. Ahmed, P. Elvati, and A. Violi, “Size-and Phase-Dependent Structure of Copper (II) Oxide Nanoparticles,” RSC Advances, 2015, 5, 35033 – 35041
5. J.Y. Lai, P. Elvati, A. Violi, “Stochastic Atomistic Simulation of Polycyclic Aromatic Hydrocarbon Growth in Combustion”, Phys. Chem. Chem. Phys., 16 (17), 7969 – 7979 (2014).

Invited Presentations: Total of 63. Examples include:

1. *Plenary Talk* “Combustion-generated nanoparticle and their health effects” 21st MDEC 2015 Mining diesel emission council, Oct 7-9 2015, Toronto, Canada.
2. *Plenary Talk* “Combustion-generated nanoparticles: their formation mechanisms and cellular uptake”, PIC 2015 14th International Congress on Combustion By-Products and Their Health Effects June 14-17 2015, Umea, Sweden
3. Invited Talk “Chemical and Physical Properties of nanoparticles for their safe design” Gordon Conference 201, Mount Snow Resort in Vermont, June 21-26 2015.
4. *Keynote Lecture* “The known knowns and known unknowns about soot formation” Gordon Conference August 2013 August 11-16, 2013 Waterville Valley Resort, NH

D. Selected Synergistic Activities

1. Associate Editor Combustion Science and Technology Sep 2010 – present; 2) Thrust Leader for the Biofuels and Clean Combustion Area for the DOE Center – CERC-CV: U.S.-China Clean Energy Research Center for Clean Vehicles (Dir. H. Peng) from Oct 2010 until April 2016; 3) Organized and Chaired sections for various professional organizations, including American Chemical Society, American Institute of Chemical Engineering, International Combustion Institute.