

**Brief Curriculum Vitae: Alessandro Fortunelli**

Education and Career

1978 – 1983	University of Pisa and Scuola Normale Superiore, studies of chemistry and physics
1983	MS thesis (110/110 cum laude) at University of Pisa and Scuola Normale Superiore: “Separate evaluation of core and valence contributions in complexes containing heavy metals”, supervisors: Prof. Oriano Salvetti and Prof. Roy McWeeny
1984 – 1998	Researcher of Italian CNR (National Research Council)
1999 – 2020	Senior Researcher of Italian CNR
2012	PhD at Scuola Normale Superiore: “Theory and simulations of free and supported metal nanoclusters and nanoalloys”
2012 – present	Visiting associate at the California Institute of Technology (Caltech, Pasadena, CA, USA) – collaboration with William A. Goddard III
2020 – present	Researcher Director of Italian CNR

<u>Fellowships:</u>	Italian Chemical Society (SCI) American Chemical Society (ACS)
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Selected funding

1986 – 2002	Various funding within Italian “Progetti Finalizzati” and MIUR Programmes
2003 – 2007	Coordinator and Unit leader in the SSATMN and GSOMEN European projects
2005 – 2008	Leader of the DG.RSTL.063.002 CNR project
2008 – 2016	Unit leader in the SEPON and HELM European projects
2010 – 2014	Member of the Management Committee of the COST Action MP0903
2019 – present	Unit leader in the QUEFORMAL European project
2019 – present	Work Package leader in the BIKE European project

Commission of Trust

2013/2019	– evaluator & PhD Committee member of 9 Thesis at universities: Birmingham, UK; Limerick, Ireland; Danish Technical University, Denmark; University of Aarhus, Denmark; Ecole Nationale Supérieure de Céramique Industrielle of Limoges, France; Jadavpur, India; Graz, Austria; Pisa & Naples, Italy; SISSA, Trieste, Italy
2013/2019	– evaluator of Research Proposal for: Swiss National Science Foundation Agency (SNSF, Switzerland); National Priorities Research Program Agency (QRNF, Qatar); Icelandic Research Fund Agency (IRN, Iceland); Estonian Research Council Agency (ETAg, Estonia); National Science Centre Agency (NCN, Poland); COST Switzerland Agency (COST, Switzerland); ERC-StG Programme of the EU (EU); Harish Chandra Research Institute of the Department of Atomic Energy of India (HRI, India); National research Agency (ANR, France); Frontier Research in Chemistry of Strasbourg University (FRC, Strasbourg, France); Panel Member and Rapporteur for the "Materials science and engineering" Panel of the Academy of Finland; Innovative Nuclear Research NEUP Agency (NEUP/NEET, DoE, USA); Advanced Research Projects Agency – Energy (ARPA-E, DoE, USA); Research Foundation Flanders Agency (FWO, Belgium); Panel Member and Rapporteur for the Romanian Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI, Romania)

Patents

US20170087538, “Subnanometer to nanometer transition metal CO oxidation catalysts” (U.S. Patent Application Serial No. 15/276,374), Inventors: Vajda S., Fortunelli A., Yasumatzu H.; filed: 26/09/2016; published: 30/03/2017 (World Coverage)

US20200168300, “Screening Methods and Related Catalysts, Materials, Compositions, Methods and Systems”, Inventors: Goddard W.A., Fortunelli A., An Q.; filed: 27/11/2019; published: 28/05/2020 (World Coverage) – from Provisional patent CIT File No.: CIT-8142-P “First-Principles Hierarchical High-Throughput-Screening (FP-HTTS) Invention For In Silico Design Of Novel High Performance Multicomponent Catalysts And Reactive Systems” filed: 27/11/2018 (World Coverage)

### Scientific Leadership Profile

Research achievements obtained via several competitively assessed research grants, of special importance those awarded by the European Community. 55 invited lectures delivered at international conferences, of which 8 plenary. List of publications containing 270+ entries, in addition to 6 book chapters and invited review articles. WOS H-index = 43, WOK 7700+ citations, 860+ in 2019. Coordinated research efforts involving wide ensembles of collaborators, both experimentalists and theoreticians, starting with the coordination of the GSOMEN project (<https://cordis.europa.eu/project/rcn/74323/factsheet/en>), involving 9 institutions and 12 research groups from 4 European countries, to latest publications involving 16-18 researchers, 7 institutions and 9 research groups from 5 countries [Negreiros et al. (2018) Ang. Chem. Int. Ed. 57, p. 1209-1213, doi: 10.1002/anie.201709784; Yin et al. (2017) J. Mat. Chem A, 5, p. 4923-4931, doi: 10.1039/c6ta10989f]