Verbale dell'assemblea per l'elezione per la presentazione delle candidature alla carica di Coordinatore del Consiglio interclasse di Scienze Chimiche - Triennio 2016/2019 di cui al bando prot. n. 710/I/13 del 9/2/2017.

Il giorno 15/2/2017, alle ore 10.00, presso l'aula "ex aula di informatica" Edificio 17 del Dipartimento STEBICEF, con sede in Viale delle Scienze, si dà inizio all'Assemblea del corpo elettorale per la presentazione delle candidature per la Elezione del Coordinatore del Consiglio interclasse di Scienze Chimiche, per il triennio 2016-2019, di cui al bando prot. 710/I/13 del 9/2/2017

Il prof. Vincenzo Turco Liveri, Presidente della Commissione elettorale, comunica che sono pervenute per posta elettronica, con le modalità prevista dall' art. 4 del Bando, le seguenti candidature :

Prof Antonino Martorana

Chiede ai presenti se vi siano altri soggetti che intendono avanzare la propria candidatura.
Alle ore 11.00, non essendo state presentate altre candidature il Presidente dichiara chiusa la assemblea del corpo elettorale.

Successivamente la Commissione elettorale verifica il possesso dei requisiti di eleggibilità del candidato.
Fatte le opportune verifiche la Commissione elettorale redige l'elenco dei candidati ammessi alla competizione elettorale che risultano essere:

Prof. Antonino Martorana

Il presente verbale, corredato dal CV del candidato, viene trasmesso alla Presidenza della Scuola delle Scienze di Base e Applicate per la successiva pubblicazione sul sito WEB della Scuola.

La seduta si chiude alle ore 11.15

Il Segretario della Commissione Elettorale *Il Presidente della Commissione Elettorale*

F.to Maria Anna Callari *F.to Vincenzo Turco Liveri*

CV Antonino Martorana

- Degree in Physics at the University of Padua, 110/110 (1979).
- Researcher at the Department of Inorganic Chemistry of the University of Padua (1983-1987).
- Associate professor at the University of Palermo (1987-2001).
- Full Professor of Inorganic Chemistry at the University of Palermo(2001-)
- Teacher of:
- Chemistry (Degree in Physics)
- Chemistry 2 (Degree in Physics)
- Structural Chemistry (Master in Chemistry)
- Chemistry of Materials (Master in Chemistry)
- Solid state and inorganic materials chemistry(Master in Chemistry).
- Supervisor of thesis for the degrees in Chemistry, Physics, Chemical Engineering.
- Tutor of PHD students in Chemical Sciences.
- Tutor of PhD students in "Materials Science and Nanotechnology"
- Tutor of Post-Doc students
- Coordinator of the PHD course in "Chemical Sciences" of the University of Palermo (2006-2008)
- President of the Bachelor and Master degrees in Chemistry (2008-2013) .
- Member of the panel for the evaluation of the proposals of experiments of the Beamline BM08 of ESRF (European Synchrotron Radiation Facility).
- Member of the Scientific Board of the Meeting of the Italian Society of Synchrotron Light (SILS) (2000-2009)
- Member of the Scientific Board of the Meeting of the Italian Society of Crystallography (AIC) (2015)
- Invited speaker at research institutes in Italy and abroad
- Invited speaker at national and international meetings
- lecturer at the “VIII Scuola Nazionale Luce di Sincrotrone”, Frascati, October 2005,
- lecturer at the "IX International School of Synchrotron Light", Duino (TS), September 2007.
- lecturer at the "X International School of Synchrotron Light", Duino (TS), September 2009.
- lecturer at the "XI International School of Synchrotron Light", Duino (TS), September 2011.
- lecturer at the "XII International School of Synchrotron Light", Grado (GO), September 2013.
- lecturer at the "XIII International School of Synchrotron Light", Grado (GO), September 2015
- Referee of research projects: FIRB, SIR, PRIN, Local University research projects
- Referee CIVR, VQR
- Referee for international journals:
"Journal of Synchrotron Radiation"
"Journal of Applied Crystallography"
"Acta Crystallographica A"
"Journal of Solid State Chemistry"
"Solid State Ionics"
"Journal of Solid State Electrochemistry"
"Applied Catalysis A"
"Applied Catalysis B"
"Journal of Physical Chemistry B"
"Journal of Physical Chemistry C"
"Chemistry of Materials"
"Inorganic Chemistry"
- Main proposer and participant to several experiments at large facilities: NSLS Brookhaven, ESRF Grenoble, DESY Hamburg, ELETTRA Trieste, PSI Villigen (CH).
- Participant to the project “Celle a Combustibile (Fuel Cells)” of the Fondo Integrativo Speciale per la ricerca (FISR)

- Responsible for the research unit UNIPA of the PRIN 2006 project "Protonic ceramics for fuel cells" with the program "Structural and computational studies on protonic conductors: Influence of the short range and long range structure on the mechanism of proton conduction"
- Responsible for the research unit UNIPA of the PRIN 2008 project "PC-SOFCs (Protonic Conductors Solid Oxide Fuel Cells)-PC-SOFCs, Protonic Conductors Solid Oxide Fuel Cells based on nanostructured proton conductors: from materials synthesis to prototype fabrication" with the program: "PC-SOFC: analysis of chemical reactivity at electrodes e of electrolyte protonic conduction by an integrated experimental-computational approach"
- Responsible for the research unit UNIPA of the PRIN 2010-2011 project "Solid oxide Fuel Cells at Intermediate Temperatures Fuelled with Biofuels (BIOITSOFC).
- Responsible for the research unit of UNIPA of the PON02_00153_2939517 project "High Efficiency Technologies for On-board Enviromental and Sustainable Energy Use"
- Participant to the FIRB-Futuro in ricerca project "INCYPIT - INnovative Ceramic and hYbrid materials for Proton conducting fuel cells at Intermediate Temperature"
- Responsible of the project ID132 "Photophysics and Photochemistry of metal complexes: biomedicine applications" of the MIUR program "Messaggeri della conoscenza"
- Responsible of the project ID324 "Models and simulation methods in the field of renewable energy sources" of the MIUR program "Messaggeri della conoscenza"

Skills and research activity in:
Structural characterization and structure-properties correlations in heterogeneous catalysts. Structural characterization of nanomaterials. Structural disorder in finely dispersed solids. Structure of polymeric materials. Oxide and polymeric electrolyte and electrode materials for fuel cells. Wide-Angle and Small-Angle X-ray Scattering. Simulation and fitting of WAXS and SAXS patterns. Use of synchrotron light: X-ray absorption spectroscopy, X-ray diffraction, grazing-incidence small-angle scattering, anomalous scattering, time-resolved experiments for x-ray absorption and x-ray scattering techniques.

Papers 2000-2017

1. F. Giannici, A. Mossuto Marculescu, A. S. Cattaneo, C. Tealdi, P. Mustarelli, A. Longo, A. Martorana (2017). Covalent and Ionic Functionalization of HLN Layered Perovskite by Sonochemical Methods. Inorganic Chemistry 56, 645–653.

2. A. Martorana, F. Giannici, A. Longo (2016). "The Local Structure of SOFC Materials Investigated by X-ray Absorption Spectroscopy", in Structural Characterization Techniques: Advances and Applications in Clean Energy, L. Malavasi (Ed.), ISBN: 978-981-4669-34-4 Pan Stanford Publishing Pte. Ltd. (Singapore).

3. C. Aliotta, L.F. Liotta, V. La Parola, A. Martorana, E.N.S Muccillo, R. Muccillo, F. Deganello (2016). Ceria-based electrolytes prepared by solution combustion synthesis: The role of fuel on the materials properties. Applied Catalysis B: Environmental 197, 14-22.

4. C Aliotta, LF Liotta, F Deganello, V La Parola, A Martorana (2016). Direct methane oxidation on $La_{1-x}Sr_xCr_{1-y}Fe_yO_{3-\delta}$ perovskite-type oxides as potential anode for intermediate temperature solid oxide fuel cells. Applied Catalysis B: Environmental 180, 424-433.

5. A. S. Cattaneo, C. Ferrara, A. Mossuto Marculescu, F. Giannici, A. Martorana, P. Mustarelli, C. Tealdi (2016). Solid-state NMR characterization of the structure and thermal stability of hybrid organic–inorganic compounds based on a $HLaNb_2O_7$ Dion–Jacobson layered perovskite. Physical Chemistry Chemical Physics 18, 21903-21912.

6. M. Gambino, F. Giannici, A. Longo, S. Di Tommaso, F. Labat, A. Martorana (2015). Dopant Clusterization and Oxygen Coordination in Ta-Doped Bismuth Oxide: A Structural and Computational Insight into the Mechanism of Anion Conduction. Journal of Physical Chemistry C, 119, 26367-26373.

7. F Giannici, G Canu, M Gambino, A Longo, M Salomé, M Viviani, A. Martorana (2015).Electrode–Electrolyte Compatibility in Solid-Oxide Fuel Cells: Investigation of the LSM–LNC Interface with X-ray Microspectroscopy. Chemistry of Materials 27 (8), 2763-2766.

8. A Martorana, F Giannici, A Longo (2015). Synchrotron Radiation and Chemistry: Studies of Materials for Renewable Energy Sources. in "Synchrotron Radiation" edited by S. Mobilio, F. Boscherini, C. Meneghini, pp. 697-715, Springer 2015.

9. F Giannici, G Gregori, C Aliotta, A Longo, J Maier, A Martorana (2014). Structure and oxide ion conductivity: local order, defect interactions and grain boundary effects in acceptor-doped ceria. Chemistry of Materials 26 (20), 5994-6006.

10. Alessandro Longo, Luisa Sciortino, Francesco Giannici, A. Martorana (2014). Crossing the boundary between face-centred cubic and hexagonal close packed: the structure of nanosized cobalt is unraveled by a model accounting for shape, size distribution and stacking faults, allowing simulation of XRD, XANES and EXAFS. Applied Crystallography 47 (5), 1562-1568.

11. S Di Tommaso, F Giannici, AM Marculescu, A Martorana, C Adamo, F. Labat (2014). Toward tailorable surfaces: A combined theoretical and experimental study of lanthanum niobate layered perovskites. The Journal of chemical physics 141 (2), 024704.

12. F Puleo, LF Liotta, V La Parola, D Banerjee, A Martorana, A Longo (2014). Palladium local structure of $La_{1-x}Sr_xCo_{1-y}Fe_{y-0.03}Pd_{0.03}O_{3-\delta}$ perovskites synthesized using a one pot citrate method. Physical chemistry chemical physics 16 (41), 22677-22686.

13. G Portale, L Sciortino, C Albonetti, F Giannici, A Martorana, W Bras, F. Biscarini, A. Longo (2014). Influence of metal–support interaction on the surface structure of gold nanoclusters deposited on native SiO x/Si substrates. Physical Chemistry Chemical Physics 16 (14), 6649-6656.

14. Di Bartolomeo E, D'Epifanio A, Pugnalini C, Giannici F, Longo A, Martorana A, Licoccia S (2012). Structural analysis, phase stability and electrochemical characterization of Nb doped BaCe0.9Y0.1O3-x electrolyte for IT-SOFCs. JOURNAL OF POWER SOURCES, vol. 199, 201-206.

15. Lupetin P, Giannici F, Gregori G, Martorana A, Maier J (2012). Effects of Grain Boundary Decoration on the Electrical Conduction of Nanocrystalline CeO2. JOURNAL OF THE ELECTROCHEMICAL SOCIETY, 159 (4), B417-B425

16. Longo A, Liotta LF, Pantaleo G, Giannici F, Venezia AM, Martorana A (2012). Structure of the Metal-Support Interface and Oxidation State of Gold Nanoparticles Supported on Ceria. JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES, vol. 116, p. 2960-2966.

17. Giannici, F.; Shirpour, M.; Longo, A.; Martorana, A.; Merkle, R.; Maier, J. (2011). Long-Range and Short-Range Structure of Proton-Conducting Y:BaZrO3. Chemistry of Materials 23, 2994–3002.

18. Sciortino, L.; Giannici, F.; Martorana, A.; Ruggirello, A.M.; Turco Liveri, V.; Portale, G.; Casaletto, M.P.; Longo, A. (2011). Structural Characterization of Surfactant-Coated Bimetallic Cobalt/Nickel Nanoclusters by XPS, EXAFS, WAXS, and SAXS. Journal of Physical Chemistry C, 115, 6360-6366.

19. Cammarata, A; Emanuele, A; Martorana, A; Duca, D. (2011). Cation Environment of BaCeO3-Based Protonic Conductors II: New Computational Models. Journal of physical chemistry A, 115, 1676-1685.

20. Giannici, F., Messana, D., Longo, A., Martorana, A. (2011). Crystal structure and local dynamics in tetrahedral proton-conducting $La_{1-x}Ba_{1+x}GaO_4$. Journal of Physical Chemistry C 115, 298-304.

21. Longo, A., Liotta, L.F., Carlo, G.D., Giannici, F., Venezia, A.M., Martorana, A. (2010). Structure and the metal support interaction of the Au/Mn oxide catalysts. Chemistry of Materials 22, 3952-3960.

22. Giannici, F., Longo, A., Kreuer, K.-D., Balerna, A., Martorana, A. (2010). Dopants and defects: Local structure and dynamics in barium cerates and zirconates. Solid State Ionics 181, 122-125.

23. Sciortino, L., Longo, A., Giannici, F., Martorana, A. (2009). Effect of the capping agents on cobalt nanoparticles. Journal of Physics: Conference Series 190, art. no. 012125.

24. Giannici, F., Messana, D., Longo, A., Sciortino, L., Martorana, A. (2009). Local structure of gallate proton conductors. Journal of Physics: Conference Series 190, art. no. 012077.

25. Liotta, L.F., Longo, A., Pantaleo, G., Di Carlo, G., Martorana, A., Cimino, S., Russo, G., Deganello, G. (2009). Alumina supported $Pt(1\%)/Ce_{0.6}Zr_{0.4}O_2$ monolith: Remarkable stabilization of ceria-zirconia solution towards $CeAlO_3$ formation operated by Pt under redox conditions. Applied Catalysis B: Environmental 90, 470-477.

26. Giannici, F., Longo, A., Balerna, A., Kreuer, K.-D., Martorana, A. (2009). Proton Dynamics in $In:BaZrO_3$: Insights on the atomic and electronic structure from X-ray absorption spectroscopy. Chemistry of Materials 21, 2641-2649.

27. Longo, A., Giordano, F., Giannici, F., Martorana, A., Portale, G., Ruggirello, A., Turco Liveri, V. (2009). Combined small-angle x-ray scattering/extended x-ray absorption fine structure study of coated Co nanoclusters in bis(2-ethylhexyl)sulfosuccinate. Journal of Applied Physics 105, art. no. 114308.

28. Prestianni, A., Martorana, A., Labat, F., Ciofini, I., Adamo, C. (2009). A DFT investigation of CO oxidation over neutral and cationic gold clusters. Journal of Molecular Structure: THEOCHEM 903, 34-40.

29. Cammarata, A., Martorana, A., Duca, D. (2009). Cation environment of $BaCeO_3$-based protonic conductors: A computational study. Journal of Physical Chemistry A 113, 6381-6390.

30. Giannici, F., Longo, A., Balerna, A., Martorana, A. (2009). Dopant - Host oxide interaction and proton mobility in Gd:$BaCeO_3$. Chemistry of Materials 21, 597-603.

31. Prestianni, A., Martorana, A., Ciofini, I., Labat, F., Adamo, C. (2008). CO oxidation on cationic gold clusters: A theoretical study. Journal of Physical Chemistry C 112, 18061-18066.

32. Longo, A., Martorana, A. (2008). Distorted f.c.c. arrangement of gold nanoclusters: A model of spherical particles with microstrains and stacking faults. Journal of Applied Crystallography 41, 446-455.

33. Giannici, F., Longo, A., Balerna, A., Kreuer, K.-D., Martorana, A. (2007). Indium doping in barium cerate: The relation between local symmetry and the formation and mobility of protonic defects. Chemistry of Materials 19, 5714-5720.

34. Giannici, F., Longo, A., Deganello, F., Balerna, A., Arico, A.S., Martorana, A. (2007). Local environment of Barium, Cerium and Yttrium in $BaCe_{1-x}Y_xO_{3-\delta}$ ceramic protonic conductors. Solid State Ionics 178, 587-591.

35. Longo, A., Giannici, F., Balerna, A., Ingrao, C., Deganello, F., Martorana, A. (2006). Local environment of yttrium in Y-doped barium cerate compounds. Chemistry of Materials 18, 5782-5788.

36. Saccà, A., Carbone, A., Pedicini, R., Portale, G., D'Ilario, L., Longo, A., Martorana, A., Passalacqua, E. (2006). Structural and electrochemical investigation on re-cast Nafion membranes for polymer electrolyte fuel cells (PEFCs) application. Journal of Membrane Science 278, 105-113.

37. Prestianni, A., Martorana, A., Labat, F., Ciofini, I., Adamo, C. (2006). Theoretical insights on O_2 and CO adsorption on neutral and positively charged gold clusters. Journal of Physical Chemistry B 110, 12240-12248.

38. Deganello, G., Giannici, F., Martorana, A., Pantaleo, G., Prestianni, A., Balerna, A., Liotta, L.F., Longo, A. (2006). Metal - Support interaction and redox behavior of Pt(1 wt %)/Ce 0.6Zr0.4O2. Journal of Physical Chemistry B 110, 8731-8739.

39. Casaletto, M.P., Longo, A., Venezia, A.M., Martorana, A., Prestianni, A. (2006). Metal-support and preparation influence on the structural and electronic properties of gold catalysts. Applied Catalysis A: General 302, 309-316.

40. Casaletto, M.P., Longo, A., Martorana, A., Prestianni, A., Venezia, A.M. (2006). XPS study of supported gold catalysts: The role of Au0 and Au+δ species as active sites. Surface and Interface Analysis 38, 215-218.

41. Longo, A., Balerna, A., D'Acapito, F., D'Anca, F., Giannici, F., Liotta, L.F., Pantaleo, G., Martorana, A. (2005). A new cell for the study of in situ chemical reactions using X-ray absorption spectroscopy. Journal of Synchrotron Radiation 12, 499-505.

42. Liotta, L.F., Di Carlo, G., Longo, A., Pantaleo, G., Deganello, G., Marcì, G., Martorana, A. (2004). Structural and morphological properties of Co-La catalysts supported on alumina/lanthana for hydrocarbon oxidation. Journal of Non-Crystalline Solids 345-346, 620-623.

43. D'Acapito, F., Maurizio, C., Gonella, F., Cattaruzza, E., Mattei, G., Mondelli, C., Longo, A., Martorana, A.(2004). On the use of grazing-incidence small-angle X-ray scattering (GISAXS) in the morphological study of ion-implanted materials. Journal of Synchrotron Radiation 11, 272-277.

44. Martorana, A., Deganello, G., Longo, A., Prestianni, A., Liotta, L., Macaluso, A., Pantaleo, G., Balerna, A., Mobilio, S. (2004). Structural evolution of Pt/ceria-zirconia TWC catalysts during the oxidation of carbon monoxide. Journal of Solid State Chemistry 177, 1268-1275.

45. Liotta, L.F., Longo, A., Macaluso, A., Martorana, A., Pantaleo, G., Venezia, A.M., Deganello, G. (2004). Influence of the SMSI effect on the catalytic activity of a Pt(1%)/Ce 0.6Zr0.4O2 catalyst: SAXS, XRD, XPS and TPR investigations Applied Catalysis B: Environmental 48, 133-149.

46. Deganello, F., Longo, A., Martorana, A. (2003). EXAFS study of ceria-lanthana-based TWC promoters prepared by sol-gel routes. Journal of Solid State Chemistry 175, 289-298.

47. Maurizio, C., Longo, A., Martorana, A., Cattaruzza, E., D'Acapito, F., Gonella, F., De Julian, C., Boesecke, P. (2003). Grazing-incidence small-angle X-ray scattering and X-ray diffraction from magnetic clusters obtained by Co + Ni sequential ion implantation in silica. Journal of Applied Crystallography 36 (3 I), pp. 732-735.

48. Martorana, A., Deganello, G., Longo, A., Deganello, F., Liotta, L., Macaluso, A., Pantaleo, G., Mobilio, S. (2003). Time-resolved X-ray powder diffraction on a three-way catalyst at the GILDA beamline. Journal of Synchrotron Radiation 10, 177-182.

49. Liotta, L.F., Macaluso, A., Longo, A., Pantaleo, G., Martorana, A., Deganello, G. (2003). Effects of redox treatments on the structural composition of a ceria-zirconia oxide for application in the three-way catalysis. Applied Catalysis A: General 240, 295-307.

50. Liotta, L.F., Macaluso, A., Pantaleo, G., Longo, A., Martorana, A., Deganello, G., Marcì, G., Gialanella, S. (2003). Structural and morphological investigation of Ce0.6Zr0.4O2 oxides synthesized by sol-gel method: Influence of calcination and redox treatments. Journal of Sol-Gel Science and Technology 26, 235-240.

51. Cammarata, M., Levantino, M., Cupane, A., Longo, A., Martorana, A., & Bruni, F. (2003). Structure and dynamics of water confined in silica hydrogels: X-ray scattering and dielectric spectroscopy studies. The European Physical Journal. E, Soft Matter 12, 63-66.

52. Deganello, F., Martorana, A. (2002). Phase analysis and oxygen storage capacity of ceria-lanthana-based TWC promoters prepared by sol-gel routes. Journal of Solid State Chemistry 163 (2), pp. 527-533.

53. Venezia, A.M., La Parola, V., Longo, A., Martorana, A. (2001). Effect of alkali ions on the amorphous to crystalline phase transition of silica. Journal of Solid State Chemistry 161, 373-378.

54. Balerna, A., Deganello, G., Liotta, L., Longo, A., Martorana, A., Meneghini, C., Mobilio, S., Venezia, A.M. (2001). EXAFS and XRD study of Pd-Ag bimetallic catalysts supported on pumice from organometallic precursors. Journal of Non-Crystalline Solids 293-295, 682-687.

55. Martorana, A., Longo, A., D'Acapito, F., Maurizio, C., Cattaruzza, E., Gonella, F. (2001). Treatment of grazing-incidence small-angle X-ray scattering data taken above the critical angle. Journal of Applied Crystallography 34, 152-156.

56. Liotta, L.F., Venezia, A.M., Deganello, G., Longo, A., Martorana, A., Schay, Z., Guczi, L. (2001). Liquid phase selective oxidation of benzyl alcohol over Pd-Ag catalysts supported on pumice. Catalysis Today 66, 271-276.

57. Gonella, F., Cattaruzza, E., Battaglin, G., D'Acapito, F., Sada, C., Mazzoldi, P., Maurizio, C., G. Mattei, A. Martorana, A. Longo, Zontone, F. (2001). Double implantation in silica glass for metal cluster composite formation: A study by synchrotron radiation techniques. Journal of Non-Crystalline Solids 280, 241-248.

58. Sapoundjieva, D., Piccarolo, S., Martorana, A. (2000). Structural and morphological rearrangements in quenched poly(ethylene) by simultaneous SAXS/WAXS. Macromolecular Chemistry and Physics 201, 2747-2750.

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