Daniele Pergolesi – List of Publications

107 manuscripts (29 as corresponding author) published in international peer-reviewed journals

2026

1. Z. Pourmand Tehrani, K. J. Stephens, V. Roddatis, J. Stahn, A. Staykov, C. W. Schneider, D. Pergolesi, T. Lippert, *Characterization of Stable $NiO_x/SrTaO_xN_y$ Bilayers Boosting the Oxygen Evolution Reaction for Solar Water Splitting*, **Small Science**, 2026; 6:e202500638

2. S. Restelli, O. Cannelli, N. Colonna, C. Grova, P. Usai, M. Puppin, M. Mensi, F. Barantani, Y. Meng, J. Teyssier, M. Oppermann, F. Pennacchio, C. Bacellar, J. R. Rouxel, L. Diniz Leroy, O. Dogadov, N. Ohannessian, D. Pergolesi, P. Galinetto, P. Piekarz, A. Ptok, S. Chaudhary, G. A. Fiete, M. Chergui, E. Baldini, G. F. Mancini, *Ultrafast Formation of Jahn−Teller Polarons Revealed by State-Selective Excitation in Correlated Spinel Co_3O_4*, **J. Am. Chem. Soc.**, DOI: 10.1021/jacs.5c23346

3. M. Montazerian, K. J. Stephens, V. Roddatis, C. Vockenhuber, A. Müller, A. J. Barlow, T. Lippert, N. A. Shepelin, **D. Pergolesi**, *Enabling high-temperature processing of thin film Li-ion batteries using a LISICON based solid-state electrolyte*, **J. Mater. Chem. A**, 2026, 14, 2989

4. Kyle J. Stephens, E. Worobiej, Y. Streit, J. Bruneli Falqueto, C. Schneider, A. M. Müller, C. Vockenhuber, D. Yang, M. Watanabe, **D. Pergolesi**, T. Lippert, *Thin film Ta-oxynitride semiconductor architectures for fundamental investigations in photoelectrocatalytic water splitting*, **ChemPhotoChem**, 2026, 10:e202500417

5. S. Rameshbabu, D. Pergolesi, A. Müller, C. Vockenhuber, A. V. Pansare, T. Lippert, D. Bleiner, *Pulsed laser deposition of Ho_2O_3 thin films as Röntgen material for X-ray nano-photonics*, **Optical Materials**, 2026, 169, 117557

6. E. Burns, K. J. Stephens, F. Motti, **D. Pergolesi**, T. Lippert, *Tailored nickel oxide interfacial layers unlock enhanced charge dynamics in $LaTiO_xN_y$ thin film photoanodes*, **Advanced Materials Interfaces**, 2026; 13:e00922

2025

7. S. Rameshbabu, D. Pergolesi, A. Müller, C. Vockenhuber, T. Lippert, D. Bleiner, *Epitaxial and stoichiometric $La_{0.5}Sr_{0.5}CoO_3$ thin films with a mobile pulsed laser deposition system*, **Applied Physics A**, 2025, 131-667

8. D. Aegerter, E. Fabbri, Z. Novotny, M. Borlaf, N. S. Yüzbasi, N. Comini, J. T. Diulus, A. Boucly, D. Pergolesi, T. J. Schmidt, Evaluation of Dip-And-Pull Ambient Pressure X-ray Photoelectro Spectroscopy for Investigating Oxygen Evolution Reaction Electrocatalysts, **ACS Appl. Energy Mater.** 2025, 8, 14554−14567

2024

9. A. Hartl, J. Minár, P. Constantinou, V. Roddatis, F. Alarab, A. M. Müller, C. Vockenhuber, T. Schmitt, D. Pergolesi, T. Lippert, V. N. Strocov, N. A. Shepelin, *Anionic Disorder and Its Impact on the Surface Electronic Structure of Oxynitride Photoactive Semiconductors*, **Chem. Mater.**, 2024, 36, 11393−11403

2023

10. N. A. Shepelin, Z. P. Tehrani, N. Ohannessian, C. W. Schneider, D. Pergolesi, T. Lippert, *A practical guide to pulsed laser deposition*, **Chemical Society Reviews**, 2023 , 52(7), 2294-2321

11. C. Lawley, A. Arab, A. Hartl, A. Staykov, M. Döbeli, T. Schmitt, D. Pergolesi, T. Lippert, V. N. Strocov, *Momentum-resolved electronic structure of $LaTiO_2N$ photocatalysts by resonant Soft-X-ray ARPES*, **Communications Materials**, 2023, 4:15 *Commun Mater* **4**, 15 (2023).

12. S. D. Lacey, E. Gilerdi, E. Müller, C. Merckling, G. Saint-Girons, C. Botella, R. Bachelet, D. Pergolesi, M. El Kazzi, *Integration of $Li_4Ti_5O_{12}$ Crystalline Films on Silicon Toward High-Rate Performance Lithionic Devices*, **ACS Appl. Mater. Interfaces**, 2023, 15, 1, 1535–1544

2022

13. **D. Pergolesi**, C. Lawley, T. Lippert, *Thin-Film oxynitride photocatalysts for solar hydrogen generation: Separating surface and bulk effects using synchrotron X-ray and neutron-based techniques*, **Solar RRL**, 2022, 2200286.

14. C. Lawley, Z. Pourmand Tehrani, A. H. Clark, O. V. Safonova, Max Doebeli, V. N. Strocov, T. J. Schmidt, T. Lippert, M. Nachtegaal, **D. Pergolesi**, *Protagonists and spectators during photocatalytic solar water splitting with $SrTaO_xN_y$ oxynitride*, **J. Mater. Chem. A**, 2022, 10, 2374–2387

15. Boucly L. Artiglia, E. Fabbri, D. Palagin, D. Aegerter, D. Pergolesi, Z. Novotny, Nicolo Comini, J. Trey Diulus, T. Huthwelker, M. Amman, T. J. Schmidt, *Direct evidence of cobalt oxyhydroxide formation on a $La_{0.2}Sr_{0.8}CoO_3$ perovskite water splitting catalyst*, **J. Mater. Chem. A**, 2022, 10, 2434–2444

16. J. Belhadi, Z. Hanani, U. Trstenjak, N. A. Shepelin, V. Bobnar, G. Koster, J. Hlinka, D. Pergolesi, T. Lippert, M. El Marssi, M. Spreitzer, *Large imprint in epitaxial $0.67Pb(Mg_{1/3}Nb_{2/3})O_3$-$0.33PbTiO_3$ thin films for piezoelectric energy harvesting applications*, **Appl. Phys. Lett.**, 2022, 121, 182903

2021

17. S. Luo, G. F. Harrington, K. Wu, D. Pergolesi, T. Lippert, *Heteroepitaxial Hexagonal (00.1) $CuFeO_2$ Thin Film Grown on Cubic (001) SrTiO3 Substrate Through Translational and Rotational Domain Matching*, (2021) **Phys. Status Solidi**, 15(6), 2100002-6

18. L. Indrizzi, N. Ohannessian, D. Pergolesi, T. Lippert, E. Gilardi, *Pulsed Laser Deposition as a Tool for the Development of All Solid-State Microbatteries,* (2021) **Helv. Chim. Acta**, 104 e2000203

2020

19. K. K. Ghuman, E. Gilardi, D. Pergolesi, J. A. Kilner, T. Lippert, *Microstructural and Electronic Properties of the YSZ/CeO_2 Interface: a Multiscale Modeling,* (2020) **J. Phys. Chem. C**, 124, 29, 15680–15687

20. S. Luo, A. Fluri, S. Zhang, X. Liu, M. Dobeli, G. F. Harrington, R. Tu, D. Pergolesi, T. Ishihara, T. Lippert, *Thickness-dependent microstructural properties of heteroepitaxial (00.1) $CuFeO_2$ thin films on (00.1) sapphire by pulsed laser deposition*, (2020) **J. Appl. Phys.** 127, 065301

21. T. C. Rossi, D. Grolimund, O. Cannelli, G. F. Mancini, C.a Bacellar, D. Kinschel, J. R. Rouxel, N. Ohannessian, D. Pergolesi, M. Chergui, *X-ray absorption linear dichroism at the Ti K-edge of rutile TiO_2 (001) single crystal*, (2020) **Journal of Synchrotron Radiation**, 27, 425–435

22. L. Kahle, X. Cheng, T. Binninger, S. D. Lacey, A. Marcolongo, F. Zipoli, M. El Kazzi, E. Gilardi, N. Marzari, **D. Pergolesi**, *Li_7TaO_6 a novel solid-state Li-ion conductor characterized by simulation and experiment*, (2020) **Solid State Ionics**, 347, 115226

23. E. W. Burns, U. Aschauer, M. Doebeli, C. W. Schneider, **D. Pergolesi**, T. Lippert, *$LaTiO_2N$ crystallographic orientation control significantly increases visible-light induced charge extraction*, (2020) **J. Mater. Chem. A**, 8, 22867–22873

24. E. W. Burns, **D. Pergolesi**, T. J. Schmidt, T. Lippert, V. Daramalla. *$TiNb_2O_7$: as a model wide-bandgap photoanode material for light-assisted solar water splitting,* (2020) **Chemistry - A European Journal**, 26, 7065 – 7073

25. C. Lawley, M. Nachtegaal, J. Stahn, V. Roddatis, M. Döbeli, T. J. Schmidt, **D. Pergolesi**, T. Lippert, *Examining the surface evolution of $LaTiO_xN_y$ an oxynitride solar water splitting photocatalyst*, (2020) **Nature Communications**, 11:1728

26. D. P. Linklater, F. Haydous, X. Cheng, D. Pergolesi, J. Hu, E. P. Ivanova, S. Juodkazis, T. Lippert, J. Juodkazyte, *Black-Si as a Photoelectrode*, (2020) **Nanomaterials**, 10, 873

27. L. Mazzei, D. Rukser, F. Biebl, B. Grimm-Lebsanft, D. Pergolesi, L. Börjesson, M. A. Rübhausen, J. Andreasson, M. Karlsson, *Phonon spectra of pure and acceptor doped $BaZrO_3$ investigated with visible and UV Raman spectroscopy*, (2020) **Journal of Physics: Condensed Matter**, 23, 405403

28. L. Wang, W. Si, Y. Tong, F. Hou, D. Pergolesi, J. Hou, T. Lippert, S. X. Dou, J. Liang, *Graphitic carbon nitride (g-C_3N_4)-based nanosized heteroarrays: Promising materials for photoelectrochemical water splitting*, (2020) **Carbon Energy**,1–28

29. A. Boucly, E. Fabbri, L. Artiglia, X. Cheng, D. Pergolesi, M. Ammann, T. J. Schmidt, *Surface segregation acts as surface engineering for the oxygen evolution reaction on perovskite oxides in alkaline media*, (2020) **Chemistry of Materials**, 32, 5256−5263

30. E. Gilardi, G. Materzanini, L. Khale, M. Döbeli, X. Cheng, N. Marzari, D. Pergolesi, A. Hintennach, T. Lippert, *$Li_{4-x}Ge_{1-x}P_xO_4$ a potential solid-state electrolyte for all-oxide microbatteries*, (2020) **ACS Appl. Energy Mater.**, 3 (10), 9910-9917

2019

31. F. Haydous, M. Döbeli, W. Si, F. Waag, F. Li, E. Pomjakushina, A. Wokaun, B. Gökce, **D. Pergolesi**, T. Lippert, *Solar Water Splitting Oxynitride Thin Films versus Particle-Based Photoanodes: A Comparative Study for Photoelectrochemical Solar Water Splitting*, (2019) **ACS Appl. Energy Mater.**, 2, 754−763

32. W. Si, F. Haydous, U. Babic, D. Pergolesi, T. Lippert, *Suppressed charge recombination in hematite photoanode via protonation and annealing*, (2019) **ACS Appl. Energy Mater.**, 2, 5438−5445

33. Y. Shi, A. Fluri, I. Garbayo, J.J. Schwiedrzik, J. Michler, D. Pergolesi, T. Lippert, J.L.M. Rupp, *Zigzag or Spiral-shaped Nanostructures Improve Mechanical Stability in Yttria-Stabilized Zirconia Membranes for Micro-Energy Conversion Devices,* (2019) **Nano Energy**, 59, 674-682

34. E. Gilardi, A. Fluri, T. Lippert, **D. Pergolesi**, *Real-time monitoring of stress evolution during thin film growth by in situ substrate curvature measurement*, (2019) **J. Appl. Phys.**, 125(8), 082513

35. F. Haydous, W. Si, V. A. Guzenko, F. Waag, E. Pomjakushina, M. El Kazzi, L. Severy, A. Wokaun, **D. Pergolesi**, T. Lippert, *Improved photoelectrochemical water Splitting of $CaNbO_2N$ photoanodes by CoPi photodeposition and surface passivation*, (2019) **J. Phys. Chem. C**, 123, 1059−1068

36. W. Si, Z. Pourmand Tehrani, F. Haydous, N. Marzari, I. E. Castelli, **D. Pergolesi**, T. Lippert, *Yttrium Tantalum Oxynitride Multiphases as Photoanodes for Water Oxidation*, (2019) **J. Phys. Chem. C**, 123, 43, 26211-2621

37. **E. Fabbri**, **D. Pergolesi**, **D. Ferri**, *Energy conversion processes with perovskite-type materials*, (2019) **Chimia**, 73, 913 – 921

38. T. C. Rossi, D. Grolimund, M. Nachtegaal, O. Cannelli, G. Mancini, C. Bacellar, D. Kinschel, J. Rouxel, N. Ohannessian, D. Pergolesi, T. Lippert, M. Chergui, *X-ray Absorption Linear Dichroism at the Ti K-edge of TiO_2 anatase single crystal,* (2019) **Phys. Rev. B**, 100, 245207

2018

39. A. Fluri, **D. Pergolesi**, A. Wokaun, T. Lippert, *Stress evolution in oxide epitaxy.* (2018) **Phys. Rev. B**, 97, 125412

40. **D. Pergolesi**, E. Gilardi, E. Fabbri, V. Roddatis, G. Harrington, T. Lippert, John A. Kilner, E. Traversa, *Interface effect on the ionic conductivity of doped ceria – yttria-stabilized zirconia heterostructure (2018)* **ACS Appl. Mater. Interfaces** 10, 16, 14160-14169

41. A. Fluri, C. W. Schneider, **D. Pergolesi**, *In situ Strain Measurement of Metal Oxide Thin Films*. To be published in 2017 in "Metal Oxide-based Thin Film Structures: Formation, Characterization and Application of Interface-based Phenomena", *Elsevier Science & Technology Books, Metal Oxides Series.*

42. *Photon-assisted synthesis and processing of materials in nano-microscale*, edited by D. Pergolesi, D. Grojo, E. Rebollar, M. Dinescu, **Appl. Surf. Sci.** Conference Proceedings Symposium X European Materials Research Society, Strasbourg June 2018

2017

43. A. Fluri, A. Marcolongo, V. Roddatis, A. Wokaun, **D. Pergolesi**, N. Marzari, T. Lippert, *Enhanced Proton Conductivity in Y doped $BaZrO_3$ via Strain Engineering*, (2017) **Advanced Science**, 4, 1700467

44. A. Fluri, E. Gilardi, M. Karlsson, V. Roddatis, M. Bettinelli, I. E. Castelli, T. Lippert, **D. Pergolesi**, *Anisotropic proton and oxygen ion conductivity in epitaxial Ba_2In_2O5 thin films.* (2017) **J. Phys. Chem. C**, 121(40), 21797-21805

45. W. Si, D. Pergolesi, F. Haydous, A. Fluri, A. Wokaun, T. Lippert, *Investigating the behavior of various cocatalysts on $LaTaON_2$ photoanode for visible light water splitting,* (2017) **Phys. Chem. Chem. Phys.**, 19(1), 656-662

46. E. Gilardi, E. Fabbri, L. Bi, J.L.M. Rupp, T. Lippert, **D. Pergolesi**, E. Traversa, *Effect of dopant-host ionic radii mismatch on acceptor doped barium zirconate microstructure and proton conductivity,* (2017) **J. Phys. Chem. C**, 121, 9739−9747

47. M. Pichler, J. Szlachetko, I. E. Castelli, N. Marzari, M. Döbeli, S. Ninova, U. Aschauer, A. Wokaun, **D. Pergolesi**, T. Lippert, *Determination of conduction and valence band electronic structure of $LaTiO_xN_y$ thin film,* (2017) **ChemSusChem**, 10, 2099-2106

48. M. Pichler, W. Si, F. Haydous, H. Téllez, J. Druce, E. Fabbri, M. El Kazzi, M. Döbeli, S. Ninova, U. Aschauer, A. Wokaun, **D. Pergolesi**, T. Lippert, *Oxynitride thin films as model systems for photocatalysis,* Invited Feature Article, (2017) **Advanced Functional Materials**, 27, 1605690

2016

49. A. Fluri, **D. Pergolesi**, V. Roddatis, A. Wokaun, T. Lippert, *In situ stress observation in oxide films and how tensile stress influences oxygen ion conduction*, (2016) **Nature Communications**, 7:10692

50. S. E. Temmel, E. Fabbri, D. Pergolesi, T. Lippert, T. J. Schmidt, *Investigating the Role of Strain toward the Oxygen Reduction Activity on Model Thin Film Pt Catalysts*, (2016) **ACS Catalysis**, 6, 7566−7576

51. S. E. Temmel, E. Fabbri, D. Pergolesi, T. Lippert, T. J. Schmidt, *Tuning the Surface Electrochemistry by Strained Epitaxial Pt Thin Film Model Electrodes Prepared by Pulsed Laser Deposition,* (2016) **Adv. Mater. Interfaces**, 1600222-32

52. L. Mazzei, M. Wolff, D. Pergolesi, J. A. Dura, L. Börjesson, P. Gutfreund, M. Bettinelli, T. Lippert, M. Karlsson, *Structure and Conductivity of Epitaxial Thin Films of In-Doped $BaZrO_3$ Based Proton Conductors*, (2016) **J. Phys. Chem. C**, 120, 28415−28422

53. M. Pichler, D. Pergolesi, S. Landsmann, V. Chawla, J. Michler, M. Döbeli, A. Wokaun, T. Lippert, *TiN- buffered substrates for photoelectrochemical measurements ofoxynitride thin films*, (2016) **Appl. Surf. Sci**., 369, 67-75

2015 – 2000

54. J. Chen, D. Stender, M. Pichler, M. Döbeli, D. Pergolesi, C. W. Schneider, A. Wokaun, T. Lippert, *Tracing the plasma interactions for pulsed reactive crossed-beam laser ablation*, (2015) **J. Appl. Phys.**, 118, 165306-6

55. F. Aguesse, V. Roddatis, J. Roqueta, P. García, D. Pergolesi, J. Santiso, J. A. Kilner, *Microstructure and ionic conductivity of LLTO thin films: influence of different substrates and excess lithium in the target,* (2015) **Solid State Ionics**, 272, 1-8

56. **D. Pergolesi**, V. Roddatis, E. Fabbri, T. Lippert, E. Traversa, J. A. Kilner, *Probing the bulk ionic conductivity by thin film hetero-epitaxial engineering.* (2015) **Sci. Technol. Adv. Mater.**, 16(1) 015001

57. N. H. Perry, D. Pergolesi, S. R. Bishop, H. L. Tuller, *Defect chemistry and surface oxygen exchange kinetics of La-doped Sr(Ti,Fe)$O_{3-\alpha}$ in oxygen-rich atmospheres*, (2015) **Solid State Ionics**, 273, 18-24

58. E. Fabbri, A. Magrasó, **D. Pergolesi**, *Low temperature solid oxide fuel cells based on proton conducting electrolytes*, (2014) **MRS Bulletin**, 39(09), 792-797 (invited)

59. J. Szlachetko, M. Pichler, D. Pergolesi, J. Sa, T. Lippert, *Determination of conduction and valence band electronic structure of $La_2Ti_2O_7$ thin film*, (2014) **RCS Advances**, 4, 11420–11422

60. N. H. Perry, D. Pergolesi, K. Sasaki, S. R. Bishop, H. L Tuller*, Influence of Donor Doping on Cathode Performance:(La, Sr)(Ti, Fe) $O_{3-\delta}$ Case Study, (2013)* **ECS Transactions** 57(1), 1719-1723

61. **D. Pergolesi**, M. Fronzi, E. Fabbri, A. Tebano, E. Traversa, *Growth mechanisms of ceria- and zirconia-based epitaxial thin films and hetero-structures grown by pulsed laser deposition,* (2013) **Mater. Renew. Sustain. Energy**, 2(6)

62. D. Pergolesi, E. Fabbri, S. Cook, V. Roddatis, E. Traversa, J. A. Kilner, *Tensile Lattice Distortion Does Not Affect Oxygen Transport in Yttria-Stabilized Zirconia-CeO_2 Heterointerfaces*. (2012) **ACS Nano**, 6(12), 10524-10534

63. A. Tebano, E. Fabbri, D. Pergolesi, G. Balestrino, E. Traversa, *Room Temperature Giant Persistent Photoconductivity in $SrTiO_3$/LaAlO3 Heterostructures.* (2012) **ACS Nano**, 6(2), 1278-1283

64. E. Fabbri, L. Bi, D. Pergolesi, E. Traversa, *Towards the next generation of solid oxide fuel cells operating below 600° C with chemically stable proton conducting electrolytes*, (2012) **Advanced Materials,** 24 (2), 195-208

65. J.L.M. Rupp, P. Reinhard, D. Pergolesi, T. Ryll, R. Tölke, E. Traversa, *Electric-field-induced current-voltage characteristics in electronic conducting perovskite thin films,* (2012) **Appl. Phys. Lett.**, (100) 1, 012101.

66. E. Fabbri, L. Bi, D. Pergolesi, E. Traversa, *High performance composite cathode with tailored mixed conductivity for intermediate temperature solid oxide fuel cells using proton conducting electrolytes*, (2011) **Energy and Environmental Science**, 4 (12), 4984-4993

67. E. Fabbri, L. Bi, H. Tanaka, D. Pergolesi, E. Traversa, *Chemically stable Pr and Y Co-doped barium zirconate electrolytes with high proton conductivity for intermediate-temperature solid oxide fuel cells*, (2011) **Advanced Functional Materials**, 21 (1), 158-166.

68. E. Fabbri, L. Bi, J.L.M. Rupp, D. Pergolesi, E. Traversa, *Electrode tailoring improves the intermediate temperature performance of solid oxide fuel cells based on a Y and Pr co-doped barium zirconate proton conducting electrolyte*, (2011) **RSC Advances**, 1 (7), 1183-1186.

69. E. Fabbri, I. Markus, D. Pergolesi, E. Traversa, *Tailoring mixed proton-electronic conductivity of $BaZrO_3$ by Y and Pr co-doping for cathode application in protonic SOFCs*, (2011) **Solid State Ionics,** 202 (1), 30-35.

70. E. Fabbri, D. Pergolesi, E. Traversa, "*Development of chemically-stable proton conducting BZY electrolytes for SOFC at WPI-MANA, NIMS"*, **Journal of fuel Cell Technology**, 10 (2011) 30-34.

71. D. Schaeffer, et al. *The MARE project: A new ^{187}Re neutrino mass experiment with sub eV sensitivity.* (2011) **Nuclear Physics B** - Proceedings Supplements 221, 394.

72. D. Pergolesi, A. Tebano, E. Fabbri, S. Licoccia, G. Balestrino, E. Traversa, *Pulsed laser deposition of superlettices based on ceria and zirconia*. (2011) **ECS Transaction**, 35 (1) 1125-1130.

73. E. Fabbri, I. Markus, L. Bi, D. Pergolesi, E. Traversa, *Exploring mixed protonic/electronic conducting oxides as cathode materials for intermediate temperature SOFCs based on proton conducting electrolytes.* (2011) **ECS Transaction** 35 (1) 2305-2311.

74. E. Fabbri, D. Pergolesi, E. Traversa, *Materials challenges toward proton-conducting oxide fuel cells: A critical review*, (2010) **Chemical Society Reviews**, 39 (11), 4355-4369.

75. D. Pergolesi, E. Fabbri, A. D'Epifanio, E. Di Bartolomeo, A. Tebano, S. Sanna, S. Licoccia, G. Balestrino, E. Traversa, *High proton conduction in grain-boundary-free yttrium-doped barium zirconate films grown by pulsed laser deposition*. (2010) **Nature Materials**, 9 (10), 846-852.

76. **D. Pergolesi**, E. Fabbri, E. Traversa, *Chemically stable anode-supported solid oxide fuel cells based on Y-doped barium zirconate thin films having improved performance*. (2010) **Electrochemistry Communications,** 12 (7), 977-980.

77. E. Fabbri, D. Pergolesi, E. Traversa, *Ionic conductivity in oxide heterostructures: The role of interfaces*, (2010) **Sci. Technol. Adv. Mater.**, 11 (5), 054503-054512

78. E. Fabbri, D. Pergolesi, E. Traversa, *Electrode materials: A challenge for the exploitation of protonic solid oxide fuel cells*. (2010) **Sci. Technol. Adv. Mater.**, 11 (4) 044301-044310

79. E. Fabbri, D. Pergolesi, S. Licoccia, E. Traversa, *Does the increase in Y-dopant concentration improves the proton conductivity of $BaZr_{1-x}Y_xO_{3-\delta}$ fuel cell electrolytes?* (2010) **Solid State Ionics**, 181 (21-22), 1043-1051.

80. J.S. Ahn, M.A. Camaratta, D. Pergolesi, K.T. Lee, H. Yoon, D.W. Jung, E. Traversa, E.D., Wachsman, *Development of high performance ceria/bismuth oxide bilayered electrolyte SOFCs for lower temperature operation*. (2010) **Journal of the Electrochemical Society**, 157 (3), B376-382.

81. E. Fabbri, D. Pergolesi, A. D'Epifanio, E. Di Bartolomeo, G. Balestrino, S. Licoccia, E. Traversa, *Improving the performance of high temperature protonic conductor (HTPC) electrolytes for solid oxide fuel cell (SOFC) applications*. (2010) **Key Engineering Materials**, 421-422, 336-339.

82. S. Sanna, V. Esposito, D. Pergolesi, A. Orsini, A. Tebano, S. Licoccia, G. Balestrino, E. Traversa, *Fabrication and electrochemical properties of epitaxial samarium-doped ceria films on SrTiO3-buffered MgO substrates*. (2009) **Advanced Functional Materials**, 19 (11), 1713-1719.

83. J.S. Ahn, D. Pergolesi, M.A. Camaratta, J. Yoon, B.W. Lee, K.T. Lee, D.W. Jung, E. Traversa, E.D. Wachsman, *High-performance bilayered electrolyte intermediate temperature solid oxide fuel cells*. (2009) **Electrochemistry Communications**, 11 (7), 1504-1507.

84. E. Fabbri, D. Pergolesi, S. Licoccia, E. Traversa, E., *Exploring highly yttrium doped barium zirconate proton conductor electrolytes for application in intermediate temperature solid oxide fuel cells (IT-SOFCs)*, (2009) **ECS Transactions**, 25 (2 PART 2), 1745-1752.

85. E. Fabbri, D. Pergolesi, A. D'Epifanio, E. Di Bartolomeo, G. Balestrino, S. Licoccia, E. Traversa, *Design and fabrication of a chemically-stable proton conductor bilayer electrolyte for intermediate temperature solid oxide fuel cells (IT-SOFCs)*. (2008) **Energy and Environmental Science**, 1 (3), 355-359.

86. L Ferrari, F. Gatti, D. Pergolesi, M. Gomes, D. Bagliani, R. Valle, S. Dussoni, L. Piro, L. Colasanti, C. Macculi, C., Barbera, M., Perinati, E., *Study of microcalorimeters for astrophysics applications*. (2008) **Journal of Low Temperature Physics**, 151 (1-2 PART 1), 271-276.

87. **D. Pergolesi**, V. Esposito, A. Tebano, P.G. Medaglia, S. Sanna, S. Licoccia, G. Balestrino, E. Traversa, *Ceria-based thin film hetero-structure growth and characterization for SOFC applications*. (2007) **ECS Transactions**, 7 (1 PART 1), 891-898.

88. E. Andreotti, et al*., MARE, Microcalorimeter Arrays for a Rhenium Experiment: A detector overview*. (2007) **Nuclear Instruments and Methods in Physics Research A**, 572 (1), 208-210.

89. L. Ferrari, S. Dussoni, F. Gatti, D. Pergolesi, M. Gomes, R. Valle, L. Piro, L. Colasanti, M.F. Toniolo, G. Torrioli, P. Bastia, *Development of TES microcalorimeters for future X-ray missions*, (2006) **Proceedings of SPIE**, 6266 II, art. no.62662M.

90. D. Pergolesi, L. Gastaldo, F. Gatti, M. Ribeiro Gomes, P. Repetto, S. Dussoni, R. Valle, *MANU-2: A second generation experiment for calorimetric neutrino mass determination with superconducting Re*, (2006) **Nuclear Instruments and Methods in Physics Research A**, 559 (2), 349-351.

91. F. Gatti, L. Piro, D. Pergolesi, L. Colasanti, L. Gastaldo, M. Gomes, P. Repetto, *TES microcalorimeter development for future Italian X-ray astronomy missions*, (2006) **Nuclear Instruments and Methods in Physics Research A**, 559 (2), 605-607.

92. L. Gastaldo, G. Gallinaro, F. Gatti, D. Pergolesi, M. Gomes, P. Repetto, S. Dussoni, R. Valle, P. Manfrinetti, A. Chincarini, *Study of the δ-Al/Ag superconducting alloy for TES applications*, (2006) **Nuclear Instruments and Methods in Physics Research A**, 559 (2), 465-467.

93. A. Monfardini, et al., *The microcalorimeter arrays for a rhenium experiment (MARE): A next-generation calorimetric neutrino mass experiment*, (2006) **Nuclear Instruments and Methods in Physics Research A**, 559 (2), 346-348.

94. G. Gatti, G. Gallinaro, D. Pergolesi, L. Gastaldo, S. Dussoni, R.Valle, *A second generation experiment for direct neutrino mass measurement via ^{187}Re β-decay*, (2005) **Nuclear Physics B** - Proceedings Supplements, 143 (1-3 SPEC. ISS.), 541.

95. C. Maurizio, D. Pergolesi, F. Gatti, F. D'Acapito, M. Razeti, A. Balerna, S. Mobilio, *Application of a TES micro-calorimeter as high-energy resolution detector for hard X-rays at a synchrotron beam line*, (2004) **Nuclear Instruments and Methods in Physics Research A**, 520 (1-3), 610-612.

96. L. Piro, et al., *X-ray survey with microcalorimeters: From GRB in the far universe to diffuse emission in our Galaxy*, (2004) **Nuclear Instruments and Methods in Physics Research A**, 520 (1-3), 376-378.

97. L Gastaldo, P. Manfrinetti, F. Gatti, G. Gallinaro, D. Pergolesi, M. Gomes, M. Razeti, S. Dussoni, P. Repetto, R. Valle, *Superconducting absorber for ^{163}Ho electron capture decay measurement*, (2004) **Nuclear Instruments and Methods in Physics Research A**, 520 (1-3), 224-226.

98. **D. Pergolesi**, F. Gatti, L. Gastaldo, M. Gomes, S. Dussoni, R. Valle, P. Repetto, D. Marré, E. Bellingeri, *Development of iridium TES by pulsed laser deposition with a Nd:YAG laser* (2004) **Nuclear Instruments and Methods in Physics Research A**, 520 (1-3), 311-313.

99. P. Repetto, S. Dussoni, F. Gatti, D. Pergolesi, L. Gastaldo, R. Valle, M. Gomes, *Fabrication of field effect transistor based on carbon nanotubes*, (2004) **Nuclear Instruments and Methods in Physics Research A**, 520 (1-3), 599-601.

100. F. Gatti, D. Pergolesi, M. Razeti, F. d'Acapito, C. Maurizio, A. Balerna, S. Mobilio, (2003) *Using superconducting Transition Edge Sensor microcalorimeters as high-energy resolution detectors for hard X-rays*, **Syncrotron Radiation News**, 16(4), 46.

101. L. Colasanti, et al., *High resolution spectroscopy of the X-ray emission of Gamma Ray Bursts by IMBOSS on the ISS*, GAMMA-RAY BURST AND AFTERGLOW ASTRONOMY *Book Series:* **AIP Conf. Proc.** (2003) 605, 551-554.

102. D. Pergolesi, F. Gatti, M. Razeti, F. D'Acapito, S. Mobilio, F. Gonella, and C. Maurizio, *Comparison between BEFS and EXAFS analysis for microcrystalline study of rhenium metal, LOW TEMPERATURE DETECTORS Book Series:* **AIP Conf. Proc.** (2002) 605, pp. 367-370.

103. M. Razeti, F. Gatti, D. Pergolesi, *Development of rhenium microcalorimeter for neutrino mass measurements with sensitivity in the sub-eV range*, *LOW TEMPERATURE DETECTORS Book Series:* **AIP Conf. Proc.** (2002) 605, 457-460.

104. L. Piro, et al., *High resolution spectroscopy of the X-ray emission of GRBs by IMXS-BOSS on the ISS*, *LOW TEMPERATURE DETECTORS Book Series:* **AIP Conf. Proc.** (2002) 605, 551-554.

105. W. Seidel, et al., *The CRESST Dark Matter Search*, (2000) **Physics of Atomic Nuclei**, 63 (7), 1242- 1248.

106. M. Sisti, et al., *CRESST dark matter experiment: Status and perspectives* (2000) **Nuclear Instruments and Methods in Physics Research A**, 444 (1), 312-314.

107. M. Bravin, t al., *Simultaneous measurement of phonons and scintillation light for active background rejection in the CRESST experiment*. (2000) **Nuclear Instruments and Methods in Physics Research A**, 444 (1), 323-326.