PROF. PAOLO FORNASIERO

COMPLETE LIST OF PUBLICATIONS AND PATENTS

Articles on Internation Journals

1. J. Kašpar, C. de Leitenburg, **P. Fornasiero**, A. Trovarelli, and M. Graziani, "NO reduction by CO over Rh/Al_2O_3. Effect of rhodium dispersion on the catalytic properties.", ***J.Catal***., 146 (1994) 136-143.
   Academic Press Inc., San Diego, USA.

2. **P. Fornasiero**, R. Di Monte, G. Ranga Rao, J. Kašpar, S. Meriani, A. Trovarelli, and M. Graziani, "Rh-loaded CeO_2-ZrO_2 solid solutions as highly efficient oxygen exchangers: dependence of the reduction behavior and the oxygen storage capacity on the structural properties.", ***J.Catal***., 151 (1995) 168-177.
   Academic Press Inc., San Diego, USA.

3. G. Ranga Rao, **P. Fornasiero**, J. Kašpar, S. Meriani, R. Di Monte, and M. Graziani, "NO decomposition over partially reduced metallized CeO_2 containing catalysts.", ***Stud.Surf.Sci.Catal*.,** 96 (1995) 631-643.
   Elsevier Science Publishers B.V., Amsterdam. Olanda.

4. G. Balducci, **P. Fornasiero**, R. Di Monte, J. Kašpar, S. Meriani, and M. Graziani, "An unusual promotion of the redox behaviour of CeO_2-ZrO_2 solid solutions upon sintering at high temperatures.", ***Catal.Lett***., 33 (1995) 193-200.
   J.C.Baltzer AG, Science Publishers, Amsterdam, Olanda.

5. G. Ranga Rao, **P. Fornasiero**, R. Di Monte, J. Kašpar, G. Vlaic, G. Balducci, S. Meriani, G. Gubitosa, A. Cremona, and M. Graziani, "Reduction of NO over partially reduced metal-loaded CeO_2-ZrO_2 solid solutions.", ***J.Catal***., 162 (1996) 1-9.
   Academic Press Inc., San Diego, USA.

6. **P. Fornasiero**, G. Balducci, R. Di Monte, J. Kašpar, V. Sergo, G. Gubitosa, A. Ferrero, and M. Graziani, "Modification of the redox behaviour of CeO_2 induced by structural doping with ZrO_2.", ***J.Catal*.,** 164 (1996) 173-183.
   Academic Press Inc., San Diego, USA.

7. **P. Fornasiero**, G. Balducci, J. Kašpar, S. Meriani, R. Di Monte, and M. Graziani, "Metal-loaded CeO_2-ZrO_2 solid solutions as innovative catalysts for automotive catalytic converters.", ***Catal.Today***, 29 (1996) 47-52.
   Elsevier Science Publishers B.V., Amsterdam. Olanda.

8. H.C. Long, M.L. Turner, **P. Fornasiero**, J. Kašpar, M. Graziani, and P.M. Maitlis, "Vinylic initiation of the Fisher-Tropsch reaction over ruthenium on silica catalysts.", ***J.Catal***., 167 (1997) 172-179.
   Academic Press Inc., San Diego, USA.

9. **P. Fornasiero**, J. Kašpar, and M. Graziani, "Redox behaviour of high surface area Rh-loaded $Ce_{0.5}Zr_{0.5}O_2$ mixed oxide.", ***J.Catal***., 167 (1997) 576-580.
   Academic Press Inc., San Diego, USA.

10. G. Vlaic, **P. Fornasiero**, S. Geremia, J. Kašpar, and M. Graziani, "Relationship between the zirconia-promoted reduction in the Rh-loaded $Ce_{0.5}Zr_{0.5}O_2$ mixed oxide and the Zr-O local structure.", ***J.Catal***., 168 (1997) 386-392.
Academic Press Inc., San Diego, USA.

11. G. Balducci, J. Kašpar, **P. Fornasiero**, M. Graziani, M.S. Islam, and J.D. Gale, "Computer simulation studies of bulk reduction and oxygen migration in $Ce_xZr_{(1-x)}O_2$ solid solutions.", ***J.Phys.Chem. B.***, 101 (1997) 1750-1753.
American Chemical Society, Washington D.C., USA.

12. P. Vidmar, **P. Fornasiero**, J. Kašpar, G. Gubitosa, and M. Graziani, "Effects of trivalent dopants on the redox properties of $Ce_{0.6}Zr_{0.4}O_2$ mixed oxide.", ***J.Catal***., 171 (1997) 160-168.
Academic Press Inc., San Diego, USA.

13. G. Vlaic, R. Di Monte, **P. Fornasiero**, E. Fonda, J. Kašpar, and M. Graziani, "The CeO_2-ZrO_2 system: redox properties and structural relationships.", **Stu*d.Surf.Sci.Catal.,*** 116 (1998) 185-195.
Elsevier Science Publishers B.V., Amsterdam, Olanda.

14. R. Di Monte, J. Kašpar, **P. Fornasiero**, A. Ferrero, G. Gubitosa, and M. Graziani, "NO reduction by CO over Pd/CeO_2-ZrO_2-Al_2O_3.", ***Stud.Surf.Sci.Catal.,*** 116 (1998) 559-569.
Elsevier Science Publishers B.V., Amsterdam, Olanda.

15. R. Di Monte, **P. Fornasiero**, M. Graziani, and J. Kašpar, "Oxygen Storage and catalytic NO removal promoted by CeO_2-containing mixed oxides.", ***J.All.Compound.,*** 275-277 (1998) 877-885.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

16. G. Balducci, J. Kašpar, P. Fornasiero, M. Graziani, and M.S. Islam, "Surface and reduction energetics of the CeO_2-ZrO_2 catalysts.", ***J.Phys.Chem. B***., 102 (1998) 557-561.
American Chemical Society, Washington D.C., USA.

17. **P. Fornasiero**, G. Ranga Rao, J. Kašpar, F. L'Erario, and M. Graziani, "Reduction of NO by CO over Rh/CeO_2-ZrO_2 catalysts: Evidence for a support promoted catalytic activity."***, J. Catal***., 175 (1998) 269-279.
Academic Press Inc., San Diego, USA.

18. E. Bekyarova, **P. Fornasiero**, J. Kašpar, and M. Graziani, "CO oxidation on Pd/CeO_2-ZrO_2 catalysts.", ***Cat.Today***, 45 (1998) 179-183.
Elsevier Science Publishers B.V., Amsterdam, Olanda.

19. R. Burch, **P. Fornasiero**, T.C. Watling, "Kinetic and mechanism of the reduction of NO by n-octane over Pt/Al_2O_3 under lean burn conditions.", ***J. Catal***., 176 (1998) 204-214.
Academic Press Inc., San Diego, USA.

20. R. Burch, **P. Fornasiero,** B.L.W. Southward, "Particle size and support effects on the activity and deactivation of the Pt-based catalyst for the reduction of NO by n-octane under lean conditions.", ***Chem. Commun.*** (1998) 625-626.
The Royal Society of Chemistry, Cambridge, Gran Bretagna.

21. R. Burch, **P. Fornasiero,** B.L.W. Southward, "A method for obtaining stable, high activity for NOx reduction at low temperatures.", ***Chem. Commun***. (1998) 739-740.
The Royal Society of Chemistry, Cambridge, Gran Bretagna.

22. **P. Fornasiero**, J. Kašpar, V. Sergo, and M. Graziani, "Redox behaviour of high surface area Rh, Pt, Pd-loaded $Ce_{0.5}Zr_{0.5}O_2$ mixed oxide.", ***J.Catal***., 182 (1999) 56-69.

Academic Press Inc., San Diego, USA.

23. R. Burch, **P. Fornasiero,** and B.L.W. Southward, “An investigation into the reactivity, deactivation, and in situ regeneration of Pt-based catalysts for the selective reduction of NOx under lean burn conditions.", ***J.Catal***. 182 (1999) 234-243.
Academic Press Inc., San Diego, USA.

24. G. Vlaic, R. Di Monte, **P. Fornasiero**, E. Fonda, J. Kašpar, and M. Graziani, "Redox properties-local structure relationships in the Rh-loaded CeO_2-ZrO_2 mixed oxides.", ***J.Catal***. 182 (1999) 378-389.
Academic Press Inc., San Diego, USA.

25. J. Kašpar, **P. Fornasiero**, and M. Graziani, "Use of CeO_2-based oxides in the three way catalysis." ***Cat.Today****,* 50 (1999) 285-298.
Elsevier Science Publishers B.V., Amsterdam, Olanda.

26. **P. Fornasiero,** J. Kašpar, and M. Graziani, “On the rate determining step in the reduction of CeO_2-ZrO_2 mixed oxides.", ***Appl.Catal.B: Environmental,*** 22 (1999) L11-L14.
Elsevier Science Publishers B.V., Amsterdam, Olanda.

27. **P. Fornasiero**, E. Fonda**,** R. Di Monte, G. Vlaic, J. Kašpar, and M. Graziani, "Relationships between structural/textural properties and redox behaviour in $Ce_{0.6}Zr_{0.4}O_2$ mixed oxides.", ***J.Catal*.**, 187 (1999) 177-185.
Academic Press Inc., San Diego, USA.

28. **P. Fornasiero**, N. Hickey, J. Kašpar, C. Dossi, D. Gava, and M. Graziani, "Redox and chemisorptive properties of ex-chloride and ex-nitrate $Rh/Ce_{0.6}Zr_{0.4}O_2$ catalysts Part 1: Effect of low temperature redox cycling.", ***J.Catal*.,** 189 (2000) 326-338.
Academic Press Inc., San Diego, USA.

29. **P. Fornasiero**, N. Hickey, J. Kašpar, T. Montini, and M. Graziani, "Redox and chemisorptive properties of ex-chloride and ex-nitrate $Rh/Ce_{0.6}Zr_{0.4}O_2$ catalysts Part 2: Effect of high temperature redox cycling.", ***J.Catal***., 189 (2000) 339-348.
Academic Press Inc., San Diego, USA.

30. **P. Fornasiero**, J. Kašpar, S. Fagotto, and M. Graziani, "Nitric oxide promoted partial oxidation of methane under strongly oxidising conditions.", ***J.Catal****.*, 189 (2000) 463-466.
Academic Press Inc., San Diego, USA.

31. G. Balducci, M.S. Islam, J. Kašpar, **P. Fornasiero**, and M. Graziani, "Bulk reduction and oxygen migration in the ceria-based oxides.", ***Chem.Mater****.*, 12 (2000) 677-681.
American Chemical Society, Washington D.C., USA.

32. G. Vlaic, **P. Fornasiero**, G. Martra, E. Fonda, J. Kašpar, L. Marchese, E. Tomat, S. Coluccia, and M. Graziani, “Morphology of rhodium particles in ex-chloride $Rh/Ce_{0.5}Zr_{0.5}O_2$ catalysts.", ***J.Catal****.*, 190 (2000) 182-190.
Academic Press Inc., San Diego, USA.

33. R. Di Monte, **P. Fornasiero**, J. Kašpar, P. Rumori, G. Gubitosa, and M. Graziani, “$Pd/Ce_{0.6}Zr_{0.4}O_2/Al_2O_3$ as advanced materials for three-way catalysts. Part 1. Catalyst characterisation, thermal stability and catalytic activity in the reduction of NO by CO.“, ***Appl.Catal.B: Environmental****,* 24 (2000) 157-167.
Elsevier Science Publishers B.V., Amsterdam, Olanda.

34. **P. Fornasiero**, R. Di Monte, T. Montini, J. Kašpar, and M. Graziani, "Thermal stability and oxygen storage capacity of noble metal/ceria-zirconia catalysts for the automotive converters with the on-board-diagnostics (OBD).", ***Stud.Surf.Sci.Catal.,*** 130 (2000) 1355-1360.
Elsevier Science Publishers B.V., Amsterdam, Olanda.

35. J.M Gatica, R.T. Baker, **P. Fornasiero**, S. Bernal, G. Blanco, and J. Kašpar, "Rhodium dispersion in a $Rh/Ce_{0.68}Zr_{0.32}O_2$ catalyst investigated by HRTEM and H_2 chemisorption.", ***J.Phys.Chem.B.***, 104 (2000) 4667-4672.
American Chemical Society, Washington D.C., USA.

36. N. Hickey, **P. Fornasiero**, J. Kašpar, M. Graziani, G. Blanco, and S. Bernal, "Significant room temperature oxygen storage over 0.58% $Pt/Ce_{0.68}Zr_{0.32}O_2$ when H_2 is used as a reducing agent.", ***Chem.Commun.***, (2000) 357-358.
The Royal Society of Chemistry, Cambridge, Gran Bretagna.

37. R. Di Monte, **P. Fornasiero**, J. Kašpar, M. Graziani, J.M. Gatica, S. Bernal, and A. Gomez-Herrero, "Stabilisation of nanostructured $Ce_{0.2}Zr_{0.8}O_2$ solid solution by impregnation of Al_2O_3: a suitable method for the production of thermally stable oxygen storage/release promoters for three-way catalysts.", ***Chem.Commun***., (2000) 2167-2168.
The Royal Society of Chemistry, Cambridge, Gran Bretagna.

38. N. Hickey, **P. Fornasiero**, J. Kašpar, J.M Gatica, and S. Bernal, "Effects of the nature of the reducing agent on the transient redox behaviour of $NM/Ce_{0.68}Zr_{0.32}O_2$ (NM = Pt, Pd and Rh).", ***J.Catal.*** 200 (2001) 181-193.
Academic Press Inc., San Diego, USA.

39. R. Di Monte, **P. Fornasiero**, J. Kašpar, and M. Graziani, "Stabilisation of nanostructured CeO_2-ZrO_2 solid solutions by addition of Al_2O_3: a suitable way for production of thermally stable oxygen storage/release promoters for three-way catalysts.", ***Stud.Surf.Sci.Catal.,*** 140 (2001) 229-234.
Elsevier Science Publishers B.V., Amsterdam, Olanda.

40. N. Hickey, **P. Fornasiero**, R. Di Monte, J. Kašpar, M. Graziani, and G. Dolcetti, "A comparative study of oxygen storage capacity over $Ce_{0.6}Zr_{0.4}O_2$ mixed oxides investigated by temperature programmed reduction and dynamic-OSC Measurements.", ***Cat.Lett***., 72 (2001) 45-50.
J.C.Baltzer AG, Science Publishers, Amsterdam, Olanda.

41. J.M Gatica, R. Baker, **P. Fornasiero**, S. Bernal, and J. Kašpar, "Characterisation of the metal phase in $NM/Ce_{0.68}Zr_{0.32}O_2$ (NM: Pt and Pd) catalysts by hydrogen chemisorption and HRTEM microscopy: a comparative study.", ***J.Phys.Chem. B***., 105 (2001) 1191-1199.
American Chemical Society, Washington D.C., USA.

42. G. Centi, **P. Fornasiero**, M. Graziani, J. Kašpar, and F. Vazzana, "Enhancement of the low temperature activity in NO reduction in lean conditions by SMSI effect in Pt/CeO_2-ZrO_2 on alumina catalyst.", ***Top. Catal.,*** 16/17 (2001) 173-180.
Plenum Publishing Corporation/ Kluwer Academic Publishers, New York, USA.

43. J. Kašpar, R. Di Monte, **P. Fornasiero**, M. Graziani, H. Bradshaw, and C. Norman, "Dependency of the oxygen storage capacity in zirconia-ceria solid solutions upon textural properties." ***Top. Catal.,*** 16/17 (2001) 83-87.
Plenum Publishing Corporation/ Kluwer Academic Publishers, New York, USA.

44. **P. Fornasiero**, and J. Kašpar, "Infrared study of nitric oxide (NO) adsorption and conversion on CeO_2-ZrO_2 mixed oxide." ***Coll.Czek.Chem.Comun***., 66 (2001) 1287-1298.

Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, Praga, Reppublica Ceca.

45. **P. Fornasiero**, T. Montini, M. Graziani, J. Kašpar, A.B. Humgría, A. Martínez-Arias, and J.C. Conesa, "Effects of thermal pre-treatment on redox behaviour of $Ce_{0.5}Zr_{0.5}O_2$: isotopic and spectroscopic studies." ***Phys.Chem.Chem.Phys***., 4 (2002) 149-159.
The Royal Society of Chemistry, Cambridge, Gran Bretagna.

46. J.M. Gatica, **P. Fornasiero**, J. Kašpar, T. Lesage, S. Aiello, and M. Daturi, "Hydrogen scrambling over $Rh/Ce_{0.68}Zr_{0.32}O_2$ and Rh/Al_2O_3 catalysts: Effects of support, metal precursor and redox aging." ***Phys.Chem.Chem.Phys***., 4 (2002) 381-388.
The Royal Society of Chemistry, Cambridge, Gran Bretagna.

47. N. Hickey, **P. Fornasiero**, J. Kašpar, M. Graziani, G. Martra, S. Coluccia, S. Biella, L. Prati, and M. Rossi, "Improvement of SO_x-resistance of silver lean-$DeNO_x$ catalysts by supporting on a CeO_2-containing zirconia.", ***J.Catal***. 209 (2002) 271-274.
Academic Press Inc., Elsevier Science, San Diego, USA.

48. R. Di Monte, J. Kašpar, **P. Fornasiero**, M. Graziani, C. Pazé, amd G. Gubitosa, "NO reduction by CO over $Pd/Ce_{0.6}Zr_{0.4}O_2/Al_2O_3$ catalysts: In situ FT-IR studies of NO and CO adsorption.", ***Inorg. Chim. Acta***, 334 (2002) 318-326.
Elsevier Science Publishers B.V., Amsterdam, Olanda.

49. J. Kašpar, **P. Fornasiero**, and N. Hickey, "Automotive catalytic converters: current status and some perspectives.", ***Catal. Today*** , 77 (2003) 419-449.
Elsevier Science Publishers B.V., Amsterdam, Olanda.

50. J. Kašpar , **P. Fornasiero**, G. Balducci, R. Di Monte, N. Hickey, and V. Sergo, "Effect of ZrO_2 content on textural and structural properties of CeO_2-ZrO_2 solid solutions made by citrate complexation route.", ***Inorg. Chim. Acta***, 334 (2003) 217-226.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

51. J. Kašpar and **P. Fornasiero**, "Nanostructured materials for advanced automotive de-pollution catalysts.", ***J.Solid.StateChem.***, 171 (2003) 19-29.
Academic Press Inc., San Diego, USA.

52. **P. Fornasiero**, J. Kašpar, T. Montini, M. Graziani, V. Del Santo, R. Psaro, and S. Recchia, "Interaction of molecular hydrogen with three-way catalysts model of $Pt/Ce_{0.6}Zr_{0.4}O_3/Al_2O_3$ type.", ***J.Mol.Catal. A: Chemical***., 204-205 (2003) 683-691.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

53. G. Balducci, M. Saiful Islam, J. Kašpar, **P. Fornasiero,** and M. Graziani, "Reduction process in CeO_2-MO and CeO_2-M_2O_3 mixed oxides: a computer simulation study.", ***Chem.Mater***. 15 (2003) 3781-3785.
American Chemical Society, Washington D.C., USA.

54. T. Montini, M.A. Bañares, N. Hickey, R. Di Monte, **P. Fornasiero**, J. Kašpar, and M. Graziani, "Promotion of reduction in $Ce_{0.5}Zr_{0.5}O_2$: the pyrochlore structure as effect rather than cause?", ***Phys.Chem.Chem.Phys.*** 6 (2004) 1-3.
The Royal Society of Chemistry, Cambridge, Gran Bretagna.

55. N. Hickey, **P. Fornasiero,** R. Di Monte, J. Kašpar, J.R. González-Velasco, M.A. Gutiérrez-Ortiz, M.P. González-Marcos, J.M. Gatica, S. Bernal, "Reactivation of aged model $Pd/Ce_{0.68}Zr_{0.32}O_2$ three-way catalyst by high temperature oxidising treatment.", ***Chem.Commun.***, (2004) 196-197.

The Royal Society of Chemistry, Cambridge, Gran Bretagna.

56. **P. Fornasiero**, A. Speghini, R. Di Monte, M. Bettinelli, J. Kašpar, A. Bigotto, V. Sergo and M. Graziani, " Laser-excited luminescence of trivalent lanthanide impurities and local structure in CeO_2-ZrO_2 mixed oxides.", ***Chem.Mater.*** 16 (2004) 1938-1944.
American Chemical Society, Washington D.C., USA.

57. R. Di Monte, **P. Fornasiero**, S. Desinan, J. Kaspar, J. M. Gatica, J.J. Calvino, E. Fonda, "Thermal stabilization of CexZr1-xO2 oxygen storage promoters by addition of Al2O3: effect of thermal ageing on textural, structural and morphological properties.", **Chem.Mater**. 16 (2004) 4273-4285.
American Chemical Society, Washington D.C., USA

58. A. Serpe, F. Bigoli, M.C. Cabras, **P. Fornasiero**, M. Graziani, M.L. Mercuri, T. Montini, L. Pilia, E.F. Trogu, P. Deplano, " Pd-Dissolution through a mild and effective one-step reaction and its application for Pd-recovery from spent catalytic converters." ***Chem.Commun***. (2005) 1040-1042.
The Royal Society of Chemistry, Cambridge, Gran Bretagna.

59. T. Montini, N. Hickey, **P. Fornasiero**, M. Graziani, M.A. Bañares, I. Alessandri, and L.E. Depero, "Variations in the extent of pyrochlore-type cation ordering in $Ce_2Zr_2O_8$: A t' - k pathway to low temperature reduction." ***Chem.Mater.*** 17 (2005) 1157-1166
American Chemical Society, Washington D.C., USA.

60. F.C. Gennari, C. Neyertz, G. Meyer, **P. Fornasiero**, M. Graziani, "Kinetics of hydrogen chemisorption on high surface area Pd/$Ce_{0.8}Zr_{0.2}O_2$" ***J.All.Compound*****.** 404 (2005) 317-322.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

61. F. Esch, S. Fabris, L. Zhou, T. Montini, C. Africh, **P. Fornasiero**, G. Comelli, R. Rosei, "Electron Localization Determines Defect Formation on Ceria Substrates", ***Science*** 309 (2005) 752-755.
Science/AAAS, Washington, USA.

62. F.C. Gennari, T. Montini, N. Hickey, **P. Fornasiero**, and M. Graziani, "Chloride ion induced modification of the interaction of $Ce_{0.6}Zr_{0.4}O_2$ with deuterium. " ***Appl.Surf.Sci.*** 252 (2006) 8456-8465.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

63. M. Bevilacqua, T. Montini, C. Tavagnacco, G. Vicario, **P. Fornasiero**, M. Graziani, "Influence of synthesis route on morphology and electrical properties of $LaNi_{0.6}Fe_{0.4}O_{3.}$", **Solid State Ionics**, 177 (2006) 2957-2965.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

64. F.C. Gennari, C. Neyertz, G. Meyer, T. Montini, P. Fornasiero, "Hydrogen adsorption kinetics on Pd/$Ce_{0.8}Zr_{0.2}O_2$", ***Phys.Chem.Chem.Phys.*** 8 (2006) 2385-2395.
The Royal Society of Chemistry, Cambridge, Gran Bretagna.

65. P.R.Shah, T.Kim, G.Zhou, P.Fornasiero and R.J.Gorte, "Evidence for entropy effects in the reduction of ceria-zirconia solutions.", ***Chem.Mater***., 18, (2006) 5363-5369.
American Chemical Society, Washington D.C., USA.

66. I. Alessandri, M.A. Bañares, M. Ferroni, L.E. Depero, **P. Fornasiero**, F.C. Gennari, N. Hickey, M.V. Martinez-Huerta and T. Montini, "Structural investigation of $Ce_2Zr_2O_8$ after redox treatments which lead to low temperature reduction.", ***Top.Catal.*** 41 (2006) 35-42.
Plenum Publishing Corporation/ Kluwer Academic Publishers, New York, USA.

67. T. Montini, A.M. Condó, N. Hickey, F. Lovey, L. De. Rogatis, **P. Fornasiero** , M. Graziani, "Embedded Rh (1 wt %)@Al_2O_3: Effects of high temperature and prolonged aging under methane partial oxidation conditions.", ***Appl.Catal.B: Environmental.*** 73 (2007) 84-97.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

68. T. Montini, L. De. Rogatis, V. Gombac, **P. Fornasiero** , M. Graziani, "Rh(1%)@$Ce_xZr_{1-x}O_2$-Al_2O_3 nanocomposites: active and stable catalysts for Ethanol Steam Reforming.", ***Appl.Catal.B: Environmental.*** 71 (2007) 125-134.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

69. N. Hickey, P. Arneodo Larochette, C. Gentilini, L. Sordelli, L. Olivi, S. Polizzi, T. Montini, **P. Fornasiero**, L. Pasquato, and M. Graziani, "Monolayer protected gold nanoparticles on ceria for an efficient CO oxidation catalyst." ***Chem. Mater***. 19, (2007) 650-651.
American Chemical Society, Washington D.C., USA.

70. G. Zhou, P.R. Shah, T. Kim, **P. Fornasiero**, and R.J. Gorte, Oxidation entropies and enthalpies of ceria-zirconia solid solutions, ***Cat.Today*** 123 (2007) 86-93.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

71. G. Zhou, P.R. Shah, T. Montini, **P. Fornasiero**, and R.J. Gorte, Oxidation enthalpies for reduction of ceria surfaces, ***Surface Science*** 601 (2007) 2512.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

72. M. Bevilacqua, T. Montini, C. Tavagnacco, E. Fonda, **P. Fornasiero**, M. Graziani, "Preparation, characterization and electrochemical properties of pure and composite $LaNi_{0.6}Fe_{0.4}O_3$ – based cathodes for IT-SOFC." ***Chem. Mater***. 19 (2007) 5926-5936.
American Chemical Society, Washington D.C., USA.

73. M. Bettinelli, V. Dallacasa, D. Falcomer, **P. Fornasiero**, V. Gombac, T. Montini, L. Romanò, A. Speghini, "Photocatalytic activity of B and V doped TiO_2", ***J.Haz. Mater***.146 (2007) 529-534.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

74. V. Gombac; L. De Rogatis; A. Gasparotto; G. Vicario; T. Montini; D. Barreca; G. Balducci; **P. Fornasiero**, E. Tondello; M. Graziani, "TiO_2 nanopowders doped with boron and nitrogen for photocatalytic applications", ***Chem.Phys***, 339 (2007) 111-123.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

75. X. Ding, L. De Rogatis, E. Vesselli, A. Baraldi, G. Comelli, R. Rosei, L. Savio, L. Vattuone, M. Rocca, **P. Fornasiero**, F. Ancilotto, A. Baldereschi, M. Peressi, "Interaction of carbon dioxide with Ni(110): A combined experimental and theoretical study", ***Phys. Rew. B***, 76 (2007) 195425.

76. L. De Rogatis, T. Montini, M.F. Casula, and **P.Fornasiero**, "Design of Rh@$Ce_{0.2}Zr_{0.8}O_2$-Al_2O_3 nanocomposite for ethanol steam reforming,", ***J.All.Compound***., 451 (2008) 516-520.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

77. T. Montini, A. Speghini, **P. Fornasiero**, M. Bettinelli, and M. Graziani, **"**Effect of the thermal pretreatments on ceria – zirconia redox properties: an Eu^{3+} luminescence study"**.,** ***J.All.Compound****.,* 451 (2008) 617-620.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

78. M. M. Natile, F. Poletto, A. Galenda, A. Glisenti, T. Montini, L. De Rogatis and **P. Fornasiero**, "$La_{0.6}Sr_{0.4}Co_{1-y}Fe_yO_{3-d}$ perovskites: influence of the Co/Fe atomic ratio on

properties and catalytic activity towards alcohol steam-reforming.", ***Chem. Mater*** , 20 (2008) 2314-2327.
American Chemical Society, Washington D.C., USA.

79. F. C. Gennari, T. Montini, **P. Fornasiero** and J. J. Andrade Gamboa, "Reduction behavior of nanoparticles of $Ce_{0.8}Zr_{0.2}O_2$ produced by different approaches.", ***Internation Journal of Hydrogen Energy*** (2008), doi:10.1016/j.ijhydene.2007.12.006.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

80. M. Fittipaldi, V. Gombac, T. Montini, P. Fornasiero and M. Graziani, "A high-frequency (95 GHz) Electron Paramagnetic Resonance study of B-doped TiO_2 photocatalysts.", ***Inorganica Chimica Acta*** (2008), accepted for publication.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

81. P. Fornasiero, T. Montini, M. Graziani, S. Zillio and M. Succi, "Development of functionalized Fe-Al-Cr alloy fibers as innovative catalytic oxidation devices.", ***Cat.Today*** (2008), doi:10.1016/j.cattod.2007.12.097.
Elsevier Science Publishers B.V., Amsterdam. Olanda.

82. E. Vesselli, L. De Rogatis, X-L. Xun-Lei; A. Baraldi, L. Savio, L. Vattuone, M. Rocca, P. Fornasiero, M. Peressi, A. Baldereschi, R. Rosei, G. Comelli, "Carbon dioxide hydrogenation on Ni(110)", J.Am.Chem.Soc. (2008) in press.
American Chemical Society, Washington D.C., USA.

Book Chapters

83. J. Kašpar, M. Graziani, and **P. Fornasiero**, "Ceria-Containing Three Way Catalysts", "***Handbook on the Physics and Chemistry of Rare Earths***", K.A. Gschneidner, Jr. and L. Eyring, eds, Elsevier Science B.V., Amsterdam, Olanda, vol. 29, ch. 184, pp. 159-267 (2000). **Con referee**

84. J. Kašpar and **P. Fornasiero**, "Structural properties and thermal stability of ceria-zirconia and related materials", in " ***Catalysis by Ceria and Related Materials***", A.Trovarelli, ed., in "Catalytic Science Series" (G.J. Hutchkings, ed.), Imperial College Press, London, (UK), ch.6, pp.217-241, (2002)

85. N. Hickey, **P. Fornasiero** and M. Graziani, "Hydrogen based technologies for mobile applications", in ***Renewable Resources and Renewable Energy: A Global Challenge***, M. Graziani and P. Fornasiero Eds, Taylor & Francis, New York 2006), ch. 11 pgg 225-272.

86. **P. Fornasiero**, "Catalysis for the protection of environment and quality of life.", in 6.190. Catalysis., Chemical sciences, engeeniring, and technology resources, edited by Gabriele Centi, in Encyclopedia of Life Support Systems (EOLSS), Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford (UK). 2008 (http://www.eolss.net/)

87. **P. Fornasiero**, T. Montini and L. De Rogatis, "Catalyst design for hydrogen production: embedded rhodium nanoparticles", in "Diffusion and Reactivity of Solids, NOVA Publisher, 2007.

Patents

1.a) P. Deplano, M.L. Mercuri, E.F. Trogu, A. Serpe, **P. Fornasiero**, M. Graziani, "Metodo per il recupero del Palladio", Brevetto n° PD**2004**A000096
1.b) P. Deplano, M.L. Mercuri, E.F. Trogu, A. Serpe, P. Fornasiero, M. Graziani, "Method for Palladium recovery" PCT/EP2005/051607, WO2005/100621.

2.a) P. Bert, C. Bianchini, **P. Fornasiero**, M. Graziani, T. Montini, R. Psaro, V. Del Santo, A. Tampucci, F. Vizza, “Uso di catalizzatori metallici nanostrutturati per la produzione di gas di sintesi e miscele gassose ricche in H_2.” n° FI**2004**A0000220.
2.b) P. Bert, C. Bianchini, P. Fornasiero, M. Graziani, T. Montini, R. Psaro, V. Del Santo, A. Tampucci, F. Vizza, “Use of nanostructured metal catalysts for the production of syn gas and gas misture reach in H2.e PCT/EP2005/054619.

3.a) P. Bert, S. Catanorchi, P. Fornasiero, M. Graziani, B. Lorenzut, H. Miller, T. Montini, M. Ragnoli, A. Scaffidi, A. Tampucci, “Catalizzatori per la produzione di gas di sintesi da reforming di idrocarburi o alcoli comprendenti un supporto in ZnO e loro uso.”, Italian Patent FI2007A0000179.