

"CURRICULUM VITAE" di:

Emanuele Serra

Data/luogo di nascita: 25 Aprile 1964, Firenze.
Residenza: Vicolo degli Arcacci 29, Cap. 00061, Anguillara Sabazia (Roma).
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Curriculum studi

- 1999 **Post Dottorato di Ricerca:** conclusione della relativa attività di ricerca della durata di 2 anni presso il Politecnico di Torino, Dipartimento di Energetica.
- 1996 **Ph.D. (Dottorato di Ricerca) in Fisica** conseguito presso il Department of Pure and Applied Physics, University of Salford (England).
Titolo del lavoro: "*Hydrogen and tritium kinetics in fusion reactor materials*".
Relatore (Supervisor): Prof. D.K. Ross (Chairman of the department).
Data di inizio del Ph.D., luglio 1993, conseguimento ottobre 1996.
- 1992 **Laurea in Fisica** conseguita presso la Facoltà di Scienze Matematiche, Fisiche e Naturali dell'Università degli Studi di Milano con voto 105/110.
Titolo del lavoro: "*Proprieta' di interazione di isotopi di idrogeno con un materiale della prima parete di un reattore a fusione termonucleare*". Relatore: Prof. E. Sindoni.
Lavoro svolto presso il laboratorio "Tritium-material Interactions", Nuclear Fuel Cycle Division, del CCR Euratom - Commissione delle Comunità Europee - di Ispra.
- 1983 **Diploma di Maturità** conseguito presso il Liceo Scientifico Statale "Leonardo da Vinci" di Milano.

Attività lavorativa

- 2006: **Vincitore concorso ENEA** a tempo indeterminato. Livello Livello 9.0.
- 2003: **Vincitore concorso ENEA** a tempo determinato (2 + 1 anni). Livello 9.0.
- 1999: **Vincitore concorso ENEA** a tempo determinato (4 anni). Messa in opera e gestione di un laboratorio di metrologia e controlli non distruttivi (progetto CERTEM-Brindisi). Responsabile di una attività di ricerca (UTS MAT) per lo sviluppo e il testing di membrane per la separazione dei gas ad alta temperatura. Realizzazione di un impianto sperimentale atto allo studio della permeazione (assorbimento e desorbimento) dei gas (tra cui l'idrogeno e l'ossigeno) attraverso i materiali. L'apparato consente di misurare il flusso e tutte le grandezze fisiche associate di un gas attraverso un campione solido dalla temperatura ambiente fino a 1800 °C.
- 1997-1999: **Politecnico di Torino, Dipartimento di Energetica**
Vincitore di una borsa di studio per **post-dottorato**: attività di ricerca, di didattica e di divulgazione scientifica: lezioni, seminari, workshop, conferenze ecc..
- 1998-1999: **Legale rappresentante della società Advanced Service System s.a.s.**

Attività di ricerca presso l'ENEA (Brasimone), Divisione Fusione. Sviluppo di dispositivi sperimentali per lo sviluppo di barriere per la permeazione all'idrogeno anche in condizioni severe di esercizio (stress termomeccanici), studio delle problematiche dell'infragilimento provocato dagli isotopi dell'idrogeno negli acciai martensitici e studio dell'interazione (es. corrosione) del Pb e sue leghe con altri materiali per il programma "R&D TRASCO" (ENEA-INFN), dedicato allo sviluppo delle tecnologie necessarie alla realizzazione del reattore "ADS" (*Accelerator Driven System*).

- 1993-1996: **C C R Euratom di Ispra:**

Vincitore di una borsa di studio nell'ambito dei programmi della Comunità Europea relativi alla fusione termonucleare controllata per lo studio dell'interazione dell'idrogeno nei materiali.

Le tecniche sperimentali usate sono state:

permeation gas-phase technique, gas-release technique, plasma simulator facility, microgravimetric technique, (Intelligent Gravimetric Analyzer, IGA), sviluppata al Department of Pure and Applied Physics, University of Salford (England).

Lo studio ha implicato un'attiva partecipazione ai programmi interdisciplinari di definizione e produzione di films sottili e l'utilizzo di alcune tecniche di analisi superficiale quali:

SEM (Scanning Electron Microscopy), X-ray diffraction, XPS (X-ray Photoelectron Spectroscopy), AES (Auger Electron Spectroscopy).

- 1993: **Consulente per la società "Technoscience s.a.s"** con sede in Milano.

Per differenti configurazioni di lavoro di un reattore a fusione termonucleare sono stati studiati, a livello di modellistica con l'utilizzo di vari codici di calcolo, inventory, permeazione, riciclo del trizio su diversi materiali.

Varie

Brevetto No. RM2008A000119 del 4 marzo 2008 "Procedimento chimico-fisico per l'ottenimento di nanostrutture, in particolare nanopareti di polimetilmetacrilato in forma di ricoprimento"

Brevetto No. RM2005A000661 del 30 dicembre 2005 "Procedimento allo stato solido per la produzione di un materiale composito da utilizzare per l'accumulo di idrogeno"

Vincitore del premio BIOLOX 2002, conferito dalla CeramTec AG, Plochingen, Germany, con il lavoro E Serra, A Tucci, L Esposito, C Piconi "Volumetric Determination of the Wear of Ceramics for Hip Joints", *Biomaterials*, 23, (2002), 1131-1137.

Nell'ambito dell'iniziativa E₂ – Eccellenze ENEA 2008: Menzione Speciale per la ricerca in campo ambientale con il lavoro: **NASUS 1: Stazione sperimentale autonoma per il monitoraggio dell'aria con sensori miniaturizzati a nanotubi di carbonio**

Revisore di riviste scientifiche come: *Journal of the American Ceramic Society, Biomaterials, Journal of Alloys and Compounds, Journal of Nuclear Materials e Journal of Surface and Coatings Technology.*

Ottima conoscenza della lingua inglese parlata e scritta. Lettura documentazione scientifica in lingua russa.

Autorizzo al trattamento dei dati personali ai sensi della Legge 675/96

Elenco pubblicazioni

1. F. Reiter, S. Alberici, J. Camposilvan, E. Serra, K.S. Forcey and A. Perujo, "Diffusivity and Solubility of Hydrogen Isotopes in the Martensitic Steel DIN 1.4914 (MANET) after thermal exposure at 900 K". Presented at the Int. Symposium on Metal Hydrogen Systems, Uppsala (Sweden) Jun 8-12, 1992. *Z. f. Physik. Chemie. Bd. 181, S. 151-157* (1993), 693-699.
2. F. Reiter, S. Alberici, J. Camposilvan, G.B. Cueroni, K. Douglas, K.S. Forcey, G. Gervasini, P.L. Lolli-Ceroni, A. Perujo, E. Serra and S. Tominetti, "Hydrogen Isotopes-Material Interaction Studies at JRC-Ispra", report EUR 15269 En (1993).
3. A. Perujo, S. Alberici and E. Serra, "Surface Effects on Martensitic Stainless Steels". Presented at 2nd International Workshop on Tritium Effects on Plasma Facing Components. Nagoya University, Nagoya Japan, May 19-20, 1994, NIFS-PROC-19, 62-66, (1994).
4. G. Benamati, A. Perujo, A. Agostini, E. Serra and N. Antolotti, "Tritium Permeation Barrier Formation on DIN 1.4914 martensitic stainless steel (MANET) by Detonation Jet", proceedings of the 18th Symposium on Fusion Technology, August 22-26, Karlsruhe, Germany. *Fus. Tech. 1994, (1995), Vol. 2, 1341-1344.*
5. E. Serra and A. Perujo, "The Surface Rate Constants of Deuterium in the Martensitic Steel DIN 1.4914 (MANET)", *J. Nucl. Mater.*, 223 (1995), 157-162.
6. A. Perujo, K. Douglas and E. Serra, "Low pressure tritium interaction with Inconel 625 and 316 L stainless steel surfaces: an evaluation of the recombination and absorption constants", *Fusion Eng. Des.*, 31, (1996), 101-108.
7. H. Glasbrenner, A. Perujo and E. Serra, "Hydrogen permeation behaviour of hot-dip aluminized MANET steel", presented at the Fifth Topical Meeting on Tritium Technology in Fission, Fusion and Isotopic Applications, 28 May - 3 June 1995 Belgirate, Italy. *Fusion Technology*, 28, (1995) 1159-1164.
8. A. Perujo, T. Sample, E. Serra and H. Kolbe, "Low aluminium content permeation barrier coatings for DIN 1.4914 martensitic steel (MANET)", presented at the Fifth Topical Meeting on Tritium Technology in Fission, Fusion and Isotopic Applications, 28 May - 3 June 1995 Belgirate, Italy. *Fusion Technology*, 28, (1995), 1256-1261.
9. C. Racault, E. Serra and P. Fenici, "Reduction of deuterium permeation through SiC/SiC composites by plasma-spray deposited eutectic AL-SI", *J. Nucl. Mater.*, 227, (1995), 50-57.
10. A. Perujo, E. Serra, H. Kolbe and T. Sample, "Hydrogen permeation reduction by post-oxidation of aluminide coatings on DIN 1.4914 martensitic steel (MANET)". Presented at the Seventh International Conference on Fusion reactor materials, 25-29 September 1995 Obnisk, Kaluga Region, Russia. *J. Nucl. Mater.*, 233-237, (1996), 1102-1106.
11. C. Racault, E. Serra and P. Fenici, "Formation of permeation barriers on ceramic SiC/SiC composites". Presented at the Seventh International Conference on Fusion reactor materials, 25-29 September 1995 Obnisk, Kaluga Region, Russia. *J. Nucl. Mater.*, 233-237, (1996), 1262-1265.
12. C. Racault, E. Serra, P. Fenici and F. Brossa, "Deuterium permeation properties of plasma-sprayed eutectic AL-SI coated on ceramics SiC/SiC composites". Presented at the Fourth Conference of European Ceramic Society, 2-6 October 1995 Riccione, Italy, FOURTH EURO CERAMICS- Vol. 9 - pp. 335-342.
13. E. Serra, A. Perujo, E. Franconi and S. Casadio, "Tritium permeation barrier by pack cementation aluminization of steel tubes: nuclear (TRINE experiment) and non nuclear tests". Presented at the Fourth International Workshop on Ceramic Breeder Blanket Interactions, Kyoto, Japan, October 9-11, 1995.
14. C. Racault, P. Fenici, E. Serra, H. Kim, E.J. Nicol, "Effect of impurity scattering on a d + s wave superconductor: Low temperature behavior of penetration depth", *Journal of Physics and Chemistry of Solids*, (Impact Factor: 1.53). 01/1995; 56(12). DOI: 10.1016/0022-3697(95)00136-0
15. E. Serra, A. Perujo, K.S. Forcey, "Influence of traps on deuterium diffusion in the martensitic steel DIN 1.4914 MANET". Presented at XIII Congresso Nazionale sulla Scienza e Tecnologia del Vuoto, Milano, Italy, February 14-16, 1996, *Vuoto*, XXVI, N. 3 – Luglio-Settembre (1997), 18-23.

16. C. Labatut, D. Gilliland, C. Racault, E. Serra, F. Brossa and P. Fenici, "C.V.D. Coatings as Diffusion Barrier for Ceramics", *The Materials Challenge* 9, February 1996, page 29.
17. A. Perujo, E. Serra, S. Alberici, S. Tominetti and J. Camposilvan, "Hydrogen in the martensitic DIN 1.4914: a review", *J. Alloys Comp.*, 253-254, (1997), 152-155.
18. E. Serra, A. Perujo and G. Benamati, "Tic and surface oxidation as hydrogen permeation barrier in F82H: a comparison", proceedings of the 19th Symposium on Fusion Technology, September 16-20, Lisbon, Portugal. *Fus. Tech.* 1996, (1997), Vol. 2, 1439-1442.
19. E. Serra and A. Perujo, "Influence of the surface conditions on permeation in the deuterium-MANET system", *J. Nucl. Mater.*, 240, (1997), 215-220.
20. E. Serra and A. Perujo, "Hydrogen Isotopes Interaction with the unirradiated and He-irradiated Pd-25%Ag alloy", report EUR 16454 EN.
21. E. Serra, Ph.D. thesis, report EUR 16471 EN.
22. E. Serra, A. Perujo and G. Benamati, "Influence of traps on deuterium behaviour in the low activation martensitic steels F82H and Batman", *J. Nucl. Mater.*, 245, (1997), 108-114.
23. E. Serra, C. Racault and P. Fenici, "Formation of hydrogen permeation barriers on SiC/SiC: an overview", in *SiC/SiC Ceramic Composites for Fusion Structural Applications*, report EUR 17352 EN.
24. E. Serra, H. Glasbrenner and A. Perujo, "Hot-dip aluminium deposit as permeation barrier for MANET steel", presented at the Fourth International Symposium on Fusion Nuclear Technology, April 6-11, 1997, Tokyo Japan, *Fusion Eng. Des.*, 41, (1998), 149-155.
25. E. Serra and G. Benamati, "Hydrogen behaviour in the aged low activation martensitic steel F82H for fusion reactor applications", *Material Science and Technology*, 14, (1998), 573.
26. E. Serra and G. Benamati, "Hydrogen behaviour in the aged low activation martensitic steel F82H for fusion reactor applications" ENEA report RT/ERG/FUS/97/6, ISSN/0393-6317.
27. E. Serra, M. Kemali, A. Perujo and D.K. Ross, "Hydrogen and deuterium diffusion in the Pd-25%Ag alloy", *Metall. and Mat. Transactions A – Physical Metallurgy and Material Science*, Vol 29, Iss 3A, (1998), 1023-1028.
28. E. Serra and A. Perujo, "Hydrogen and deuterium transport and inventory parameters in a Cu-0.65Cr-0.08Zr alloy for fusion reactor applications", presented at the 8th ICFRM conference (October 26-31, 1997, Sendai, Japan), *J. Nucl. Mater.*, 258-263) (PART 1 A), (1998), 1028-1032.
29. E. Serra, G. Benamati and O.V. Ogorodnikova, "Hydrogen isotopes transport parameters in fusion reactor materials", *J. Nucl. Mater.*, 255 (2-3), (1998), 105-115.
30. E. Serra, G. Benamati, A. Casagrande, E. Filippini and M. Agostini, "Hydrogen permeation barrier for MANET steel by means of the Detonation Jet process". Proceedings of the First International Workshop on Liquid Metal Blanket Experimental Activities, September 16-18, 1997, CEA Headquarters, Paris, France, CEA report DMT 97/442, SERMA/LCA 2113, pag 191.
31. E. Serra, C. Fazio, A. Sabbioni, A. Laino, "ENEA activities on tritium permeation barrier development", ENEA annual report 1997, ERG FUS ISP CMAT 004.
32. G. Benamati, M. Beghini, L. Bertini, E. Serra, R. Valentini, "Hydrogen related problems in martensitic steels", ENEA report ERG FUS ISP CMAT 005.
33. E. Serra, P.J Kelly, D.K. Ross and R.D. Arnell, "Alumina sputtered on MANET as an effective deuterium permeation barrier", *J. Nucl. Mater.*, 257, (1998), 194-198.
34. A. Perujo, C. Housiadas, E. Serra, L. Sedano and J. Camposilvan, "ITER Task T227: Tritium Permeation and Inventory-H/D/T Gas and Ion-Driven Permeation", final report EUR 18078 EN.

35. C. Chabrol, F. Schuster, E. Serra, G. Le Marois, "Development of Fe-Al CVD coatings as tritium permeation barrier", proceedings of the 20th Symposium on Fusion Technology, September 7-11, 1998, Marseille, France, 1227-1230.
36. E. Serra, C. Fazio, G. Benamati, "Thermo-mechanical fatigue effects onto the tritium permeation barrier efficiency in liquid Pb-17Li: first results", proceedings of the 20th Symposium on Fusion Technology, September 7-11, 1998, Marseille, France, 1219-1222.
37. O. V. Ogorodnikova, M. A. Fütterer, E. Serra, G. Benamati, J.-F. Salavy, and G. Aiello, "Hydrogen isotope permeation through and inventory in the first wall of the water cooled Pb-17Li blanket for DEMO", J. Nucl. Mater., 273 (1), (1999), 66-78.
38. O. V. Ogorodnikova, M. A. Fütterer, E. Serra, and G. Benamati, "Calculations of tritium re-emission rate in the DEMO first wall", J. Nucl. Mater., 270 (3), (1999), 368-371.
39. E. Serra, C. Fazio, A. Sabbioni, G. Benamati, "ENEA Annual report of the tasks WPA 4.2.3 and Underlying technology", ENEA annual report 1998, ERG FUS ISP MAT LB-A-R-004.
40. C. Martini, E. Serra, C. Fazio, V. Imbeni, "Controllo della concentrazione di O₂ in Pb e Pb-Bi mediante insufflazione di miscele Ar/H₂", ERG FUS ISP MAT HS-A-N-001, 1999.
41. C. Fazio, L. Degli Esposti, M. Agostini, E. Serra, "ELTRA OH 900: TARATURA E MISURE", ERG FUS ISP MAT HS-A-N-003, 1999.
42. C. Fazio, V. Imbeni, C. Martini, E. Serra, M. Servadei, "MISURA DEL CONTENUTO DI OSSIGENO IN Pb, Pb-Bi E METODOLOGIA DI PREPARAZIONE DEI CAMPIONI", ERG FUS ISP MAT HS-A-N-002, 1999.
43. C. Fazio, K. Stein-Fechner, E. Serra, H. Glasbrenner, G. Benamati "Investigation on the suitability of plasma sprayed Fe-Cr-Al coatings as tritium permeation barrier", J. Nucl. Mater., 273 (3), (1999), 233-238.
44. E. Serra, E. Rigal, G. Benamati "Hydrogen and deuterium permeation measurements on the Double-Wall tubes material for the Water-Cooled Pb-17Li DEMO Blanket", Fusion Eng. Des., 49-50, (2000), 675-679.
45. G. Benamati, E. Serra and C.H. Wu "Hydrogen and deuterium transport and inventory parameters through W and W-alloys for fusion reactor applications", J. Nucl. Mater., 283-287, (2000), 1033-1037.
46. A. Aiello, C. Fazio, M. Chini, Z. Yao, D. Levtschouk, E. Serra, "Tritium Permeation Barrier qualification in Pb-17Li", Annual report on EU task WPA 4.2.1, ENEA annual report 1999, ERG FUS ISP MAT LB-A-R-008.
47. A. Aiello, G. Benamati, M. Chini, C. Fazio, E. Serra, Z. Yao, "HYDROGEN PERMEATION THROUGH TRITIUM PERMEATION BARRIER IN Pb-17Li", Fusion Eng. Des. 58-9, (2001), 737-742.
48. E. Serra "Caratterizzazione tridimensionale della superficie di campioni di materiale ceramico ottenuta con il profilometro ottico ZYGO NewView 5000" rapporto tecnico ENEA, 2000.
49. E. Serra, A. Tucci, L. Esposito, C. Piconi "Volumetric Determination of the Wear of Ceramics for Hip Joints", Biomaterials, 23, (2002), 1131-1137.
50. E. Serra "Caratterizzazione tridimensionale ottenuta con il profilometro ottico ZYGO NewView 5000 di superfici di resine composite sottoposte a varie tecniche di finitura e lucidatura" rapporto tecnico ENEA, 2000.
51. A. Bucci, G.P. Celata, E. Serra, G. Zummo, "Analisi microscopica tridimensionale della superficie interna e caratterizzazione termoidraulica di capillari in acciaio da 172, 290 e 520 micron" rapporto tecnico ENEA, ERG-ING, EIGE 01/017, 2001.
52. L. Falzetti, B. Sardella, E. Serra, "Progetto CERTEM – Strumentazione Speciale "Rugosimetro areare"" rapporto tecnico ENEA, ERG-ING, EIHE 01023, 2001.
53. E. Serra, "Apparecchiatura per lo studio della permeazione dei gas nei materiali dalla temperatura ambiente fino 1800 °C" rapporto tecnico ENEA, FS-CE-LA03, Luglio 2002.

54. A. Bucci, G.P. Celata, M. Cumo, E. Serra, G. Zummo, "Water single-phase fluid flow and heat transfer in capillary tubes", 1st Int. Conf. On Microchannels and Minichannels, April 24-25, 2003, Rochester, New York USA, ICM2003-1037, 319-326.
55. A. Bucci, G.P. Celata, M. Cumo, E. Serra, G. Zummo, "Water single-phase fluid flow and heat transfer in capillary tubes", Thermal Science and Engineering, Vol. 11, n.6, pp. 81-89, 2003.
56. L. Esposito, E. Serra, A. Tucci, E. Rastelli, "Surface abrasion of glazed ceramic tiles: a new investigation technique", presented at Eighth Conference & Exhibition of the European Ceramic Society, 29 June - 03 July 2003, Istanbul, Turkey, Key Engineering Materials, 264-268 (II), (2004) 1515-1518.
57. E. Serra, A. Calza Bini, G. Cosoli, L. Pilloni, "HYDROGEN PERMEATION MEASUREMENTS ON ALUMINA", Journal of the American Ceramic Society, 88 (1), (January 2005), 15-18.
58. A. Assettati, A. Grasso, V. Lombardi, B. Sardella, E. Serra, E. Cordano, C. Mao, M. Bet, "Materiali per alte temperature", rapporto tecnico ENEA, ENE-IMP, EHE 04004, 2004.
59. A. Rizzo, M. A. Signore, M. Penza, M. A. Tagliente, F. De Riccardis, E. Serra, "RF sputtering deposition of alternate TiN/ZrN multilayers hard coatings", Thin Solid Films, Vol. 515, Spec. Issue 2, (October 2006), 500-504.
60. Alvisi, G. Galtieri, L. Giorgi, R. Giorgi, E. Serra, M.A. Signore, "Sputter Deposition of Pt Nanocluster and Thin Film on PEM Fuel Cell Electrodes", presentato all'ICMCTF (The International Conference On Metallurgical Coatings And Thin Films), 2005 May 2-6, San Diego, California, USA, Surface and Coatings Technology, 200 (5-6) (2005) 1325-1329.
61. L. Giorgi, L. Pilloni, R. Giorgi, E. Serra, Alvisi, G. Galtieri, A. Cemmi, C. Paoletti, M. Pasquali, "Electrodeposition and Sputter Deposition of Platinum Nanoparticles on Gas Diffusion Electrodes", proceedings del 3rd European Forum on PEFC (Polymer Electrolyte Fuel Cell Forum), 2005 July 4-8, Lucerne Switzerland, PA36-143.
62. A. Rizzo, M. A. Signore, L. Mirengi, E. Serra, "Properties of ZrN_x films x>1 deposited by reactive R.F. magnetron sputtering", Thin Solid Films, Vol. 515, 4, (October 2006), 1307-1313.
63. "Rapporto di avanzamento sulle attività di ricerca sulle membrane ceramiche compatte denominate SFC2 con trasporto selettivo di ossigeno", RT MAT-TS(2004)01
64. F. Antolini, T. Di Luccio, E. Serra, P. Aversa, L. Tapfer, S. Sangiorgi, "Deposition and Characterization of Langmuir-Blodgett films of cadmium arachidate/SWCNTs composites", Surface and Interface Analysis, 38 (2006) 1285-1290.
65. E. Serra, M. Alvisi, E. Casagrande, G. Bezzi, C. Mingazzini, A. La Barbera, "Oxygen- and hydrogen-permeation measurements on-mixed conducting SrFeCo_{0.5}O_y ceramic membrane material", Renewable Energy 33 (2008) 241-247. Presented at EMRs 2006.
66. R. Rossi, M. Alvisi, G. Galtieri, R. Giorgi, R. Pentassuglia, A. Rizzo, E. Serra, M. A. Signore, "Low temperature growth of carbon nanotubes / carbon nanowalls by RF-PECVD", presented at E-MRS IUMRS ICEM 2006 Spring Meeting Nice, France, May 29 – June 2, 2006.
67. F. Fabbri, E. Borsella, M. Carpanese, R. Fantoni, R. Caterino, R. D'Amato, M. Falconieri and E. Serra, "Size and Surface Control of Optical Properties in Silicon Nanoparticles", presented at CIMTEC 2006, Advanced in Science and Technology, 45, (2006), 2620-2626.
68. M. Alvisi, G. Galtieri, L. Giorgi, E. Serra, T. Di Luccio and R. Giorgi, "Evolution of Pt nanoclusters morphology on PEMFC electrode due to methanol oxidation reaction studied by electron microscopy and synchrotron grazing incidence x-ray diffraction", presented at CIMTEC 2006, Advanced in Science and Technology, 51, (2006), 181-186.
69. M. Alvisi, T. Di Luccio, G. Galtieri, L. Giorgi, E. Piscopiello, E. Serra and R. Giorgi "ULTRA-LOW LOADING OF SPUTTERED PT AND PT-AU NANOCLUSTERS AS CATALYST FOR PEM FUEL CELL ELECTRODES", presented at VIII Italian Meeting on "NANOPHASE MATERIALS" – Rome, October 3-4, 2006

70. R. Rossi, M. Alvisi, G. Galtieri, R. Giorgi, R. Pentassuglia, A. Rizzo, E. Serra, M. A. Signore, "Low temperature growth of carbon nanotubes / carbon nanowalls by RF-PECVD", presented at VIII Italian Meeting on "NANOPHASE MATERIALS" – Rome, October 3-4, 2006
71. M. Penza, G. Cassano, R. Rossi, A. Rizzo, M. A. Signore, M. Alvisi, T. Dikonimos, E. Serra, and R. Giorgi, "Effect of growth-catalysts on gas sensitivity in carbon nanotube films-based chemiresistive sensors", *Applied Physics Letters*, 90 103101 (2007)
72. M. Penza, G. Cassano, R. Rossi, M. Alvisi, A. Rizzo, M. A. Signore, Th. Dikonimos, E. Serra, R. Giorgi "Enhancement of sensitivity in gas chemiresistors based on carbon nanotube surface functionalized with noble metal (Au, Pt) nanoclusters" *Appl. Phys. Lett.* 90, 173123 (2007)
73. M. Penza, M. Alvisi, G. Cassano, T. Dikonimos, N. Lisi, A. Rizzo, R. Rossi, E. Serra, M.A. Signore, and R. Giorgi, "Nanosized metal clusters PVD-deposited for carbon nanotube films growth and as surface-catalysts for enhanced gas sensing applications", will be presented at NANOMECC06 Symposium on Materials Science & Materials Mechanics at the Nanoscale 19-23 November 2006, Politecnico di Bari, Bari, Italy
74. M. Penza, G. Cassano, R. Rossi, M. Alvisi, M.A. Signore, A. Rizzo, Th. Dikonimos, N. Lisi, E. Salernitano, E. Serra, R. Giorgi "Metal functionalised carbon nanotubes thin films gas chemiresistors", presented at AISEM, Associazione Italiana Sensori e Microsistemi, Napoli, 12-14 febbraio 2007, Proceedings AISEM 2007, G. Di Francia, P. Maddalena, I. Rendina, C. Di Natale, A. D'Amico Editors, World Scientific, Singapore, pp. 177-184.
75. G. Maddaluno, M. Di Fino, F. Orsitto, A. Rufoloni, M. Montecchi, E. Nichelatti, E. Serra, A. Litnovsky, G. Sergienko, G. De Temmerman, L. Marot, "Tests of rhodium -coated molybdenum first mirrors for ITER diagnostics", presented at the 34th European Physical Society on Controlled Fusion and Plasma Physics (EPS2007), 02 - 06 July 2007, Warsaw, Poland, Volume 31, Issue 1, 2007, Pages 379-382.
76. F. Bezzi, M. Montecchi, L. Pilloni, E. Serra, "Preparazione di rivestimenti antiriflesso per l'impianto solare termodinamico" rapporto tecnico ENEA, ING-P931-R-001
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