



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Stefano Polizzi**
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E-mail(s) polizzi@unive.it
Nationality Italian
Date of birth 25/4/1956
Gender Male

Work experience

Dates 1/1/2005-to present
Occupation or position held Associate Professor
Main activities and responsibilities Teaching, researching, leading projects and other institutional duties
Courses: Introductory Quantum Physics, Physical Chemistry Lab, Materials Science Lab, Light and electron microscopy
Research Field: Materials Science
Name and address of employer Università Ca' Foscari di Venezia – Department for Molecular Science and Nanosystems
Type of business or sector University
Dates 01/10/1988 - 31/12/2004
Occupation or position held Researcher/Lecturer (permanent staff)
Main activities and responsibilities XRPD and SAXS data analysis.
Increasingly involved in teaching activity.
Name and address of employer Università Ca' Foscari di Venezia - Physical Chemistry Department
Dates January 1993 – December 1993
Occupation or position held Visiting scientist
Main activities and responsibilities Setting up the new UV-Visible beamline for time-resolved fluorescence and depolarisation measurements of the German Synchrotron Radiation Laboratory (DESY-Hasylab).
Name and address of employer DESY-Hasylab
Dates March 1992 - December 1992
Occupation or position held Post-Doc Fellowship
Main activities and responsibilities Research in polymer characterization
Name and address of employer European Union grant at the Physics Department, University of Shizuoka, Japan
Dates October 1986 - October 1987
Occupation or position held Post-Doc Fellowship

Main activities and responsibilities	Research
Name and address of employer	Università Ca' Foscari di Venezia, Physical Chemistry Department
Dates	October 1986 - October 1987
Occupation or position held	Post-Doc Fellowship
Main activities and responsibilities	Research on polymer science, especially using SAXS measurements
Name and address of employer	C.N.R. (National Research Council) grant at the Institute for Macromolecular Science, University of Hamburg, Germany
Dates	October 1982 - October 1983
Occupation or position held	Post-Doc Fellowship
Main activities and responsibilities	Research on XRPD and SAXS of catalysts
Name and address of employer	Università Ca' Foscari di Venezia, Department of Physical Chemistry
Education and training	
Dates	May 1986
Title of qualification awarded	Dottorato di Ricerca in Scienze Chimiche, sector Physical Chemistry
Principal subjects / occupational skills covered	Thesis title: "Structural studies of metal supported catalysts" Different techniques were used: XRPD, SAXS, XPS and others.
Name and type of organisation providing education and training	Università Ca' Foscari di Venezia, Physical Chemistry Department
Level in national or international classification	Ph. D.
Dates	July 1982
Title of qualification awarded	Laurea in Fisica
Principal subjects / occupational skills covered	Thesis title: "Investigation by electronic spectroscopy of the electronic and structural modification of metal surfaces induced by laser irradiation"
Name and type of organisation providing education and training	Università di Padova
Level in national or international classification	Physics Degree
Personal skills and competences	
Mother tongue(s)	Italian
Other language(s)	
Self-assessment	
European level (*)	
English	
German	
French	
Spanish	
Japanese	
Chinese	

	Understanding		Speaking		Writing	
	Listening	Reading	Spoken interaction	Spoken production		
English	C1	Proficient user	C2	Proficient user	C1	Proficient user
German	C2	Proficient user	C2	Proficient user	C1	Proficient user
French	C1	Proficient user	C1	Proficient user	B1	Independent user
Spanish	B2	Independent user	B1	Independent user	B1	Independent user
Japanese	A1	Basic User	A1	Basic User	A1	Basic User
Chinese	A1	Basic User	A1	Basic User	A2	Basic User
					A2	Basic User
					A1	Basic User
					A1	Basic User

Social skills and competences	Good ability to adapt to multicultural environments, gained through my work experience abroad
Organisational skills and competences	Good experience in project management, gained during several projects like a european LIFE project, where I was coordinator of four different partners, or a National Project with secondary schools where I coordinated two University and more than 100 schools.
Technical skills and competences	Since 20 years I'm responsible for the Electron Microscopy Laboratory of my University. Before that I worked with X-ray powder diffraction and small-angle scattering also using synchrotron radiation (mainly in Hamburg)
Institutional Responsibility	Responsible for the Electron Microscopy Laboratory of the University of Venice. Dean's delegate for orientation activities (2012). Chair of the PhD Program on Science and Technology of Bio and Nanomaterials (2019).
Computer skills and competences	I am familiar with Word, Excel, Power Point, Front Page, Origin, MatchCad. I used to program in Fortran, Basic and C.
Leading projects	<p>I participated to different projects of the Ministry of Education (MIUR, once MURST) and of the National Research Council (C.N.R.). From 1996 I regularly receive funds from my University thanks to the positive evaluation of my research activity. I was responsible for three EU-Human Capital and Mobility Program (Access to Large-Scale Facilities) for the synchrotron HäsyLab (Hamburg) and ESRF (Grenoble) laboratories. Furthermore, I was:</p> <ul style="list-style-type: none"> * Coordinator (beneficiary) of the MICE/ICE/CRUI project "Improving the efficiency of silicon solar cells by modification of the solar spectrum" 2010 – 18 month project * Coordinator (beneficiary) of the EU-LIFE (ENV/IT/323) project "Filtering of asbestos fibers in leachates from hazardous landfills", 1/10/2003- 1/1/2007. * Responsible for TEM analysis of the ARPAV project "Realizzazione di una ricerca su aspetti di interesse comune relativi ai rischi ambientali e sanitari in aree con la presenza di inceneritori", 2009, 12 months * Responsible for the University of Venice of a MIUR national project (PRIN2003) "Nanostructured lanthanide-doped materials with luminescent properties" (2003-2004) * Responsible for the University of Venice of a MIUR project for the Dissemination of Scientific Culture at secondary schools (2004 and 2005) * Responsible for the University of Venice of a MIUR-Confindustria project "Lauree Scientifiche" concerning activities aiming to overcome the present scientific vocational crisis (2005-present)

Publications

Scaramuzza, S.; Polizzi, S.; Amendola, V. *Magnetic tuning of SERS hot spots in polymer-coated magnetic-plasmonic iron-silver nanoparticles* in NANOSCALE ADVANCES, vol. 1, pp. 2681-2689 (2019)

Marson, D.; Guida, F.; Sologan, M.; Boccardo, S.; Pengo, P.; Perissinotto, F.; Iacuzzi, V.; Pellizzoni, E.; Polizzi, S.; Casalis, L.; Pasquato, L.; Pacor, S.; Tossi, A.; Posocco, P. *Mixed Fluorinated/Hydrogenated Self-Assembled Monolayer-Protected Gold Nanoparticles: In Silico and In Vitro Behavior* in SMALL, vol. N/D, pp. e1900323 (2019)

Negro, E.; Nale, A.; Vezzù, K.; Pagot, G.; Herve, B.; Polizzi, S.; Colombo, M.; Prato, M.; Crociani, L.; Bonaccorso, F.; Di Noto, V. *(Co, Ni)Sn0.5Nanoparticles Supported on Hierarchical Carbon Nitride-Graphene-Based Electrocatalysts for the Oxygen Reduction Reaction* in CHEMSELECTROCHEM, vol. 5, pp. 2029-2040 (2018)

Negro, E.; Nale, A.; Vezzù, K.; Pagot, G.; Polizzi, S.; Bertoncello, R.; Ansaldi, A.; Prato, M.; Bonaccorso, F.; Rutkowska, I. A.; Kulesza, P. J.; Di Noto, V. *Hierarchical oxygen reduction reaction electrocatalysts based on FeSn0.5species embedded in carbon nitride-graphene based supports* in ELECTROCHIMICA ACTA, vol. 280, pp. 149-162 (2018)

Vassalini, I.; Borgese, L.; Matiz, M.; Polizzi, S.; Aquilanti, G.; Ghigna, P.; Sartorel, A.; Amendola, V.; Alessandri, I. *Enhanced Electrocatalytic Oxygen Evolution in Au-Fe Nanoalloys* in ANGEWANDTE CHEMIE. INTERNATIONAL EDITION, vol. 56, pp. 6589-6593 (2017)

Bidoggia, S.; Milocco, F.; Polizzi, S.; Canton, P.; Saccani, A.; Sanavio, B.; Krol, S.; Stellacci, F.; Pengo, P.; Pasquato, L. *Fluorinated and Charged Hydrogenated Alkanethiolates Grafted on Gold: Expanding the Diversity of Mixed-Monolayer Nanoparticles for Biological Applications* in BIOCONJUGATE CHEMISTRY, vol. 28, pp. 43-52 (2017)

D'Arienzo, M.; Redaelli, M.; Callone, E.; Conzatti, L.; Di Credico, B.; Dirè, S.; Giannini, L.; Polizzi, S.; Schizzi, I.; Scotti, R.; Tadiello, L.; Morazzoni, F. *Hybrid SiO2@POSS nanofiller: a promising reinforcing system for rubber nanocomposites* in MATERIALS CHEMISTRY FRONTIERS, vol. 1, pp. 1441-1452 (2017)

Moretti, E.; Pizzol, G.; Fantin, M.; Enrichi, F.; Scopece, P.; Ocaña, M.; Polizzi, S. *Luminescent Eu-doped GdVO4 nanocrystals as optical markers for anti-counterfeiting purposes* in CHEMICAL PAPERS, vol. 71, pp. 149-159 (2017)

Longoni, G.; Pena, C.; Rosita, L.; Polizzi, S.; D'Arienzo, M.; Mari, C. M.; Cui, Y.; Ruffo, R. *Shape-Controlled TiO₂ Nanocrystals for Na-Ion Battery Electrodes: The Role of Different Exposed Crystal Facets on the Electrochemical Properties* in NANO LETTERS, vol. 17, pp. 992-1000 (2017)

Moretti, E.; Aversa, M.; Scrivanti, A.; Storaro, L.; Talon, A.; Marin, R.; Cecilia, J. A.; Rodríguez-Castellón, E.; Polizzi, S. *A novel triphenylamine-based dye sensitizer supported on titania nanoparticles and the effect of titania fabrication on its optical properties* in CHEMICAL PAPERS, vol. 70, pp. 218-230 (2016)

Moretti, E.; Pizzol, G.; Fantin, M.; Enrichi, F.; Scopece, P.; Nufiez, N. O.; Ocaña, M.; Benedetti, A.; Polizzi, S. *Deposition of silica protected luminescent layers of Eu:GdVO4 nanoparticles assisted by atmospheric pressure plasma jet in THIN SOLID FILMS*, vol. 598, pp. 88-94 (2016)

Back, M.; Marin, R.; Franceschin, M.; Sfar Hancha, N.; Enrichi, F.; Trave, E.; Polizzi, S. *Energy transfer in color-tunable water-dispersible Tb-Eu codoped CaF₂ nanocrystals* in JOURNAL OF MATERIALS CHEMISTRY C, vol. 4, pp. 1906-1913 (2016)

Vezzù, K.; Bach, D. A.; Negro, E.; Polizzi, S.; Nawn, G.; Bertasi, F.; Pagot, G.; Artyushkova, K.; Atanassov, P.; Di Noto, V. *Fe-carbon nitride "Core-shell" electrocatalysts for the oxygen reduction reaction* in ELECTROCHIMICA ACTA, vol. 222, pp. 1778-1791 (2016)

Publications

D'Arienzo, Massimiliano; Redaelli, Matteo; Di Credico, Barbara; Polizzi, Stefano; Scotti, Roberto; Morazzoni, Franca *New insights into the sensing mechanism of shape controlled ZnO particles* in RSC ADVANCES, vol. 6, pp. 52987-52997 (2016) t

Sologan, Maria; Marson, Domenico; Polizzi, Stefano; Pengo, Paolo; Boccardo, Silvia; Prici, Sabrina; Posocco, Paola; Pasquato, Lucia *Patchy and Janus Nanoparticles by Self-Organization of Mixtures of Fluorinated and Hydrogenated Alkanethiolates on the Surface of a Gold Core* in ACS NANO, vol. 10, pp. 9316-9325 (2016)

Sologan, Maria; Cantarutti, Cristina; Bidoggia, Silvia; Polizzi, Stefano; Pengo, Paolo; Pasquato, Lucia *Routes to the preparation of mixed monolayers of fluorinated and hydrogenated alkanethiolates grafted on the surface of gold nanoparticles* in FARADAY DISCUSSIONS, vol. 191, pp. 527-543 (2016)

Enrichi, F.; Armellini, C.; Battaglin, G.; Belluomo, F.; Belmokhtar, S.; Bouajaj, A.; Cattaruzza, E.; Ferrari, M.; Gonella, F.; Lukowiak, A.; Mardegan, M.; Polizzi, S.; Pontoglio, E.; Righini, G.C.; Sada, C.; Travé, E.; Zur, L. *Silver doping of silica-hafnia waveguides containing Tb³⁺/Yb³⁺ rare earths for downconversion in PV solar cells* in OPTICAL MATERIALS, vol. 60, pp. 264-269 (2016)

Bouajaj, A.; Belmokhtar, S.; Britel, M.R.; Armellini, C.; Boulard, B.; Belluomo, F.; Di Stefano, A.; Polizzi, S.; Lukowiak, A.; Ferrari, M.; Enrichi, F. *Tb³⁺/Yb³⁺ codoped silica-hafnia glass and glass-ceramic waveguides to improve the efficiency of photovoltaic solar cells* in OPTICAL MATERIALS, vol. 52, pp. 62-68 (2016)

Liu, Lian Yun; Zhang, Ting Ting; Zhang, Hui; Bai, Xia Xia; Polizzi, Stefano *Synthesis of silicon microspheres* in Liu L.Y., Zhang T.T., Zhang H., Bai X.X., Polizzi S., Chinese Materials Congress on Functional and Functionally Structured Materials, Trans Tech Publications Ltd, vol. 848, pp. 505-518 (2016)

Polizzi, S.; Spinazzi, F. *Small angle x-ray scattering (SAXS) with synchrotron radiation sources*, Springer Berlin Heidelberg, pp. 337-359 (2015)

D'Arienzo, Massimiliano; Dozzi, Maria Vittoria; Redaelli, Matteo; Credico, Barbara Di; Morazzoni, Franca; Scotti, Roberto; Polizzi, Stefano *Crystal Surfaces and Fate of Photogenerated Defects in Shape-Controlled Anatase Nanocrystals: Drawing Useful Relations to Improve the H₂ Yield in Methanol Photosteam Reforming* in JOURNAL OF PHYSICAL CHEMISTRY C, vol. 119, pp. 12385-12393 (2015)

Pagot, Gioele; Bertasi, Federico; Nawn, Graeme; Negro, Enrico; Carraro, Giorgio; Barreca, Davide; Maccato, Chiara; Polizzi, Stefano; Di Noto, Vito *High-Performance Olivine for Lithium Batteries: Effects of Ni/Co Doping on the Properties of LiFe_{0.8}Ni_{0.2}Co_{0.1}PO₄ Cathodes* in ADVANCED FUNCTIONAL MATERIALS, vol. 25, pp. 4032-4037 (2015)

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Amendola, Vincenzo; Scaramuzza, Stefano; Agnoli, Stefano; Granozzi, Gaetano; Meneghetti, Moreno; Campo, Giulio; Bonanni, Valentina; Pineider, Francesco; Sangregorio, Claudio; Ghigna, Paolo; Polizzi, Stefano; Riello, Pietro; Fiameni, Stefania; Nodari, Luca *Laser generation of iron-doped silver nanotruffles with magnetic and plasmonic properties* in NANO RESEARCH, vol. 8, pp. 4007-4023 (2015)

Nawn, Graeme; Pace, Giuseppe; Lavina, Sandra; Vezzù, Ketè; Negro, Enrico; Bertasi, Federico; Polizzi, Stefano; Di Noto, Vito *Nanocomposite membranes based on polybenzimidazole and ZrO₂ for high-temperature proton exchange membrane fuel cells* in CHEMSUSCHEM, vol. 8, pp. 1381-1393 (2015)

Zhang, Huimin; Lin, Hong; Liang, Chunjun; Liu, Hong; Liang, Jingjing; Zhao, Yong; Zhang, Wenguan; Sun, Mengjie; Xiao, Weikang; Li, Han; Polizzi, Stefano; Li, Dan; Zhang, Fujun; He, Zhiqun; Choy, Wallace C. H. *Organic-Inorganic Perovskite Light-Emitting Electrochemical Cells with a Large Capacitance* in ADVANCED FUNCTIONAL MATERIALS, vol. 25, pp. 7226-7232 (2015)

Publications

S. Polizzi; F. Spinozzi *Small Angle X-Ray Scattering with Synchrotron Radiation Sources*, synchrotron Radiation, Basic, Methods and Applications, Heidelberg, © Springer-Verlag Berlin Heidelberg, pp. 337-359 (2015)

E. Moretti; A. Talon; L. Storaro; A. Le Donne; S. Binetti; A. Benedetti; S. Polizzi *Concentration quenching and photostability in Eu(dbm)3phen embedded in mesoporous silica nanoparticles* in JOURNAL OF LUMINESCENCE, vol. 146, pp. 178-185 (2014)

E. Negro; K. Vezzu; F. Bertasi; P. Schiavuta; L. Toniolo; S. Polizzi; V. Di Noto *Interplay between Nitrogen Concentration, Structure, Morphology, and Electrochemical Performance of PdCoNi "Core-Shell" Carbon Nitride Electrocatalysts for the Oxygen Reduction Reaction* in CHEMSELECTROCHEM, vol. 1, pp. 1359-1369 (2014)

E. Negro; S. Polizzi; K. Vezzu; L. Toniolo; G. Cavinato; V. Di Noto *Interplay between morphology and electrochemical performance of "core-shell" electrocatalysts for oxygen reduction reaction based on a PtNix carbon nitride "shell" and a pyrolyzed polyketone nanoball "core"* in INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol. 39, pp. 2828-2841 (2014)

A. Leto; F. Piccinelli; G. Pezzotti; A. Speghini; L. Nodari; S. Polizzi; M. Bettinelli *Single crystal and nanocrystalline Pr₃₊ doped LuPO₄: Synthesis, structural characterization, photo- and cathodoluminescence* in MATERIALS RESEARCH BULLETIN, vol. 51, pp. 24-27 (2014)

V. Amendola; S. Scaramuzza; S. Agnoli; S. Polizzi; M. Meneghetti *Strong dependence of surface plasmon resonance and surface enhanced Raman scattering on the composition of Au-Fe nanoalloys* in NANOSCALE, vol. 6, pp. 1423-1433 (2014)

M. D'Arieno; L. Arnelao; C.M. Mari; S. Polizzi; R. Ruffo; R. Scotti; F. Morazzoni *Surface interaction of WO₃ nanocrystals with NH₃. Role of the exposed crystal surfaces and porous structure in enhancing the electrical response* in RSC ADVANCES, vol. 4, pp. 11012-11022 (2014)

V. Di Noto; E. Negro; S. Polizzi; K. Vezzu; L. Toniolo; G. Cavinato *Synthesis, studies and fuel cell performance of "core-shell" electrocatalysis for oxygen reduction reaction based on a PtNix carbon nitride "shell" and a pyrolyzed polyketone nanoball "core"* in INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol. 39, pp. 2812-2827 (2014)

E. Moretti; M. Aversa; A. Scrivanti; L. Storaro; A. Talon; R. Marin; S. Polizzi; E. Rodriguez-Castellón *Tryphenylamine-based Dendronized Sensitizer on Mesoporous Anatase TiO₂ for Dye-sensitized Solar Cells* in PROCEEDINGS EU PVSEC, vol. 2014, pp. 1542-1544 (2014)

Amendola V.; Meneghetti M.; Bakr O.M.; Riello P.; Polizzi S.; Anjum D.H.; Fiameni S.; Arosio P.; Orlando T.; Fernandez C.D.; Pineider F.; Sangregorio C.; Lascialfari A. *Coexistence of plasmonic and magnetic properties in Au₈₉Fe₁₁ nanoalloys*, in NANOSCALE, vol. 5, pp. 5611-5619 (2013)

E. Moretti, L. Bellotto, M. Basile, C. Malba, F. Enrichi, A. Benedetti, S. Polizzi *Investigation on the effect of Tb(dbm)3phen on the luminescent properties of Eu(dbm)3phen-containing mesoporous silica nanoparticles*, in MATERIALS CHEMISTRY AND PHYSICS, vol. 142, pp. 445-452 (2013)

J. Bottazzzo, M. Guglielmi, S. Polizzi, G. Brusatin *Natural Rubber/cis-1,4-Polybutadiene Nanocomposites: Vulcanization Behavior, Mechanical Properties, and Thermal Stability*, in POLYMER ENGINEERING AND SCIENCE, vol. 53, pp. 671-678 (2013)

P. Haro-Gonzalez, L. Martinez Maestro, M. Trevisani, S. Polizzi, D. Jaque, J. Garcia Sole, M. Bettinelli *Evaluation of rare earth doped silica sub-micrometric spheres as optically controlled temperature sensors*, in JOURNAL OF APPLIED PHYSICS, vol. 112, pp. 054702-1-054702-7 (2012)

Publications

- Di Noto V., Boaretto N., Negro E., Giffin, G.A., Lavina S., Polizzi S. Inorganic-organic membranes based on Nafion, [(ZrO₂)center dot(HfO₂)(0.25)] and [(SiO₂)center dot(HfO₂)(0.28)]. Part I: Synthesis, thermal stability and performance in a single PEMFC, in INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol. 37, pp. 6199-6212 (2012)
- Amendola V.; Polizzi S.; Meneghetti M. Laser Ablation Synthesis of Silver Nanoparticles Embedded in Graphitic Carbon Matrix, in SCIENCE OF ADVANCED MATERIALS, vol. 4, pp. 497-500 (2012)
- D'Arienzo, R. Ruffo, R. Scotti, F. Morazzoni, C.M. Maria, S. Polizzi Layered Na_{0.71}CoO₂: a powerful candidate for viable and high performance Na-batteries, in PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol. 14, pp. 5945-5952 (2012)
- Ž. Antić, R. M. Kršmanović, M. G. Nikolla, M. Marinović-Cincović, M. Mitić, S. Polizzi, M. D. Dramicanin Multisite luminescence of rare earth doped TiO₂ anatase nanoparticles, in MATERIALS CHEMISTRY AND PHYSICS, vol. 135, pp. 1064-1069 (2012)
- T. Passuello, M. Pedroni, F. Piccinelli, S. Polizzi, P. Marzola, S. Tambalo, G. Conti, D. Benati, F. Vetrone, M. Bettinelli, A. Speghini PEG-capped, lanthanide-doped GdF₃ nanoparticles: luminescent and T-2 contrast agents for optical and MRI multimodal imaging, in NANOSCALE, vol. 4, pp. 7682-7689 (2012)
- Vito Di Noto, Enrico Negro, Stefano Polizzi, Pietro Riello, Plamen Atanassov Preparation, characterization and single-cell performance of a new class of Pd-carbon nitride electrocatalysts for oxygen reduction reaction in PEMFCs, in APPLIED CATALYSIS B, ENVIRONMENTAL, vol. 111-112, pp. 185-199 (2012)
- V. Di Noto, E. Negro, S. Polizzi, F. Agresti, G.A. Giffin Synthesis-Structure-Morphology Interplay of Bimetallic "Core-Shell" Carbon Nitride Nano-electrocatalysts, in CHEMSUSCHEM, vol. 5, pp. 2451-2459 (2012)
- M. Pedroni, F. Piccinelli, S. Polizzi, A. Speghini, M. Bettinelli, P. Haro-González Upconverting Ho-Yb doped titanate nanotubes, in MATERIALS LETTERS, vol. 80, pp. 81-83 (2012)
- Pedroni M., Piccinelli F., Passuello T., Glarola M., Mariotto G., Polizzi S., Bettinelli M., Speghini A. Lanthanide doped upconverting colloidal CaF₂ nanoparticles prepared by a single-step hydrothermal method: toward efficient materials with near infrared-to-near infrared upconversion emission, in NANOSCALE, vol. 3 (4), pp. 1456-1460 (2011)
- D'Arienzo M., Armelao L., Mari C.M., Polizzi S., Ruffo R., Scotti R., Morazzoni F. Macroporous WO₃ Thin Films Active in NH₃ Sensing: Role of the Hosted Cr Isolated Centers and Pt Nanoclusters, in JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 133 (14), pp. 5296-5304 (2011)
- Vincenzo Amendola, Pietro Riello, Stefano Polizzi, Stefania Flameri, Claudia Innocenti, Claudio Sangregorio, Moreno Meneghetti Magnetic iron oxide nanoparticles with tunable size and free surface obtained via a "green" approach based on laser irradiation in water, in JOURNAL OF MATERIALS CHEMISTRY, vol. 21, pp. 18665-18673 (2011)
- T. Passuello, F. Piccinelli, M. Pedroni, S. Polizzi, F. Mangiarini, F. Vetrone, M. Bettinelli, A. Speghini NIR-to-visible and NIR-to-NIR upconversion in lanthanide doped nanocrystalline GdOF with trigonal structure, in OPTICAL MATERIALS, vol. 33, pp. 1500-1505 (2011)
- Di Noto V., Piga M., Giffin G.A., Schuster M., Cavinato G., Tonolo L., Polizzi S. New Sulfonated Poly(p-phenylenesulfone)/Poly(1-oxotrimethylene) Nanocomposite Proton-Conducting Membranes for PEMFCs, in CHEMISTRY OF MATERIALS, vol. 23 (20), pp. 4452-4458 (2011)
- D'Arienzo M., Carballo J., Bahamonde A., Crippa M., Polizzi S., Scotti R., Wahba L., Morazzoni F. Photogenerated Defects in Shape-Controlled TiO₂ Anatase Nanocrystals: A Probe To Evaluate the Role of Crystal Facets in Photocatalytic Processes, in JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 133 (4), pp. 17652-17661 (2011)

Publications

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Amendola V., Meneghetti M., Flameni S., Polizzi S., Fracasso G., Boscaini A., Colombatti M. SERS labels for quantitative assays: application to the quantification of gold nanoparticles uptaken by macrophage cells, in ANALYTICAL METHODS, vol. 3 (4), pp. 849-856 ((2011))

D'Arienzo M.; Crippa M.; Gentile P.; Mari C.M.; Polizzi S.; Ruffo R.; Scotti R.; Wahba L.; Morazzoni F. Sol-gel derived mesoporous Pt and Cr-doped WO(3) thin films: the role played by mesoporosity and metal doping in enhancing the gas sensing properties, in JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, vol. 60 (3), pp. 378-387 (2011)

P. Haro-Gonzalez, M. Pedroni, F. Piccinelli, L.L. Martin, S. Polizzi, M. Giarola, G. Mariotto, A. Speghini, M. Bettinelli , I.R. Martin Synthesis, characterization and optical spectroscopy of Eu³⁺ doped titanate nanotubes, in JOURNAL OF LUMINESCENCE, vol. 131, pp. 2473-2477 ((2011))

Crippa M. Callone E., D'Arienzo M., Müller K., Polizzi S., Wahba L., Morazzoni F., Scotti R. TiO₂ nanocrystals grafted on macroporous silica: A novel hybrid organic-inorganic sol-gel approach for the synthesis of highly photoactive composite material, in APPLIED CATALYSIS. B, ENVIRONMENTAL, vol. 104 (3-4), pp. 282-290 (2011)

V. Amendola, M. Meneghetti, G. Granozzi, S. Agnoli, S. Polizzi, P. Riello, A. Boscalini, C. Anselmi, G. Fracasso, M. Colombatti, C. Innocenti, D. Gatteschi, C. Sangregorio Top-down synthesis of multifunctional iron oxide nanoparticles formacrophage labelling and manipulation, in JOURNAL OF MATERIALS CHEMISTRY, vol. 21, pp. 3803-3813 ((2011))

Cargnello M., Gentilini C., Montini T., Fonda E., Mehraseen S., Chi M.F., Herrera-Collado M., Browning N.D., Polizzi S., Pasquato L., ForNASIERO P. Active and Stable Embedded Au@CeO₂ Catalysts for Preferential Oxidation of CO, in CHEMISTRY OF MATERIALS, vol. 22 (14), pp. 4335-4345 ((2010))

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EUROPEAN LEVELS - SELF ASSESSMENT GRID

		A1	A2	B1	B2	C1	C2
U N D E R S T A N D I N G	Listening	I can understand familiar words and very basic phrases concerning myself, my family and immediate concrete surroundings when people speak slowly and clearly.	I can understand phrases and the highest frequency vocabulary related to areas of most immediate personal relevance (e.g. very basic personal and family information, shopping, local area, employment). I can catch the main point in short, clear, simple messages and announcements.	I can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure, etc. I can understand the main point of many radio or TV programmes on current affairs or topics of personal or professional interest when the delivery is relatively slow and clear.	I can understand extended speech and lectures and follow even complex lines of argument provided the topic is reasonably familiar, I can understand most TV news and current affairs programmes. I can understand the majority of films in standard dialect.	I can understand extended speech even when it is not clearly structured and when relationships are only implied and not signalled explicitly. I can understand television programmes and films without too much effort.	I have no difficulty in understanding any kind of spoken language, whether live or broadcast, even when delivered at fast native speed, provided I have some time to get familiar with the accent.
	Reading	I can understand familiar names, words and very simple sentences, for example on notices and posters or in catalogues.	I can read very short, simple texts. I can find specific, predictable information in simple everyday material such as advertisements, prospectuses, menus and timetables and I can understand short simple personal letters.	I can understand texts that consist mainly of high frequency everyday or job-related language. I can understand the description of events, feelings and wishes in personal letters.	I can read articles and reports concerned with contemporary problems in which the writers adopt particular attitudes or viewpoints. I can understand contemporary literary prose.	I can understand long and complex factual and literary texts, appreciating distinctions of style. I can understand specialised articles and longer technical instructions, even when they do not relate to my field.	I can read with ease virtually all forms of the written language, including abstract, structurally or linguistically complex texts such as manuals, specialised articles and literary works.
S P E A K I N G	Spoken Interaction	I can interact in a simple way provided the other person is prepared to repeat or rephrase things at a slower rate of speech and help me formulate what I'm trying to say. I can ask and answer simple questions in areas of immediate need or on very familiar topics.	I can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities. I can handle very short social exchanges, even though I can't usually understand enough to keep the conversation going myself.	I can deal with most situations likely to arise whilst travelling in an area where the language is spoken. I can enter unprepared into conversation on topics that are familiar, of personal interest or pertinent to everyday life (e.g. family, hobbies, work, travel and current events).	I can interact with a degree of fluency and spontaneously that makes regular interaction with native speakers quite possible. I can take an active part in discussion in familiar contexts, accounting for and sustaining my views.	I can express myself fluently and spontaneously without much obvious searching for expressions. I can use language flexibly and effectively for social and professional purposes. I can formulate ideas and opinions with precision and relate my contribution skilfully to those of other speakers.	I can take part effortlessly in any conversation or discussion and have a good familiarity with idiomatic expressions and colloquialisms. I can express myself fluently and convey finer shades of meaning precisely. If I do have a problem I can backtrack and restructure around the difficulty so smoothly that other people are hardly aware of it.
	Spoken production	I can use simple phrases and sentences to describe where I live and people I know.	I can use a series of phrases and sentences to describe in simple terms my family and other people, living conditions, my educational background and my present or most recent job.	I can connect phrases in a simple way in order to describe experiences and events, my dreams, hopes and ambitions. I can briefly give reasons and explanations for opinions and plans. I can narrate a story or relate the plot of a book or film and describe my reactions.	I can present clear, detailed descriptions on a wide range of subjects related to my field of interest. I can explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.	I can present clear, detailed descriptions of complex subjects integrating sub-themes, developing particular points and rounding off with an appropriate conclusion.	I can present a clear, smoothly-flowing description or argument in a style appropriate to the context and with an effective logical structure which helps the recipient to notice and remember significant points.
WRITING	Writing	I can write a short, simple postcard, for example sending holiday greetings. I can fill in forms with personal details, for example entering my name, nationality and address on a hotel registration form.	I can write short, simple notes and messages. I can write a very simple personal letter, for example thanking someone for something.	I can write simple connected text on topics which are familiar or of personal interest. I can write personal letters describing experiences and impressions.	I can write clear, detailed text on a wide range of subjects related to my interests. I can write an essay or report, passing on information or giving reasons in support of or against a particular point of view. I can write letters highlighting the personal significance of events and experiences.	I can express myself in clear, well-structured text, expressing points of view at some length. I can write about complex subjects in a letter, an essay or a report, underlining what I consider to be the salient issues. I can select a style appropriate to the reader in mind.	I can write clear, smoothly-flowing text in an appropriate style. I can write complex letters, reports or articles which present a case with an effective logical structure which helps the recipient to notice and remember significant points. I can write summaries and reviews of professional or literary works.