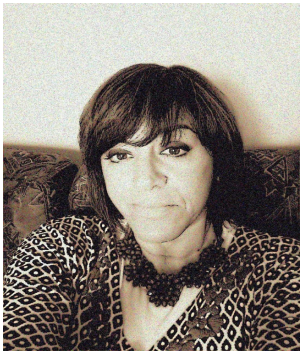
CURRICULUM VITAE

EUROPEAN FORMAT



PERSONAL INFORMATION

Name, Surname	Mariarosa Raimondo
Address House number, street name, postcode, city, country	CNR ISSMC Via Granarolo, 64 48018 Faenza, Italy
E-mail	**mariarosa.raimondo@issmc.cnr.it**
Website	**www.issmc.cnr.it**
Nationality	**Italian**

WORK EXPERIENCE

CNR position	**SENIOR RESEARCHER (LEVEL II)**
01 February 2020 – to date	Senior Researcher at ISSMC CNR (Institute of Science, Technology and Sustainability for Ceramic Materials_National Research Council, Faenza-Italy). Group and project leader in *Smart Surfaces for Industrial Applications*
From 2001 – to 2020	Researcher at ISTEC CNR (Institute of Science and Technology for Ceramics, National Research Council, Faenza-Italy). Group and project leader in Project Leader into the *Design and Processing* of *Smart Surfaces. Development of Innovative Industrial Materials and Systems*
From 1997 to 2001	Temporary researcher at ISTEC CNR. Group leader on the development of materials, methods and procedures specifically dedicated to the traditional ceramic sector. Recycling of waste products. Development and characterization of inks, glasses, glass-ceramic systems.
From 1995 to 1997	Temporary research at IC CNR (Institute of Chromatography, National Research Council Area della Ricerca di Roma-Italy) on pyrolysis gas-chromatography (Py-GC) as tool to control industrial processes catalyzed by pillared clays and zeolites. Design of innovative stationary phase for GC.
May-July 1997	Temporary researcher (Short Term Mobility) at the Institute of Physical Chemistry-Polish Science Academy, Warsaw (Poland). on the development of new chromatographic matrix.

February – April 1996	Temporary researcher at Chemistry Institute University of Exeter (UK) on the development of inorganic LDH (Layered Double Hydroxides) containing bi- and tri-valent metals as chromatographic matrix.
Name and address of employer	Consiglio Nazionale delle Ricerche, Istituto di Scienza e Tecnologia dei Materiali Ceramici CNR ISTEC di Faenza (Italy)
Type of business or sector	Materials Science and Technology
Occupation or position held	Senior Researcher, Group leader
Main activities and responsibilities	Research and development. Group leader in the field of innovative, multifunctional industrial materials, design of coatings with a controlled wetting behavior for industrial uses. Materials and systems engineering by deposition of fully inorganic or hybrid coatings on glass, metals, alloys, composites.and natural fibers.Tuning and development of methodologies with easy industrial transferability..

EDUCATION AND TRAINING

Year	1993
Name and type of organisation providing education and training	University of Roma “La Sapienza”
Principal subjects occupational skills covered	Industrial chemistry
Title of qualification awarded	M. Sc. graduation in Industrial Chemistry
Level in National classification	M. Sc D egree

RESEARCH ACTIVITIES

Research sectors	Engineering of innovative materials, materials and processes for multifunctional surfaces, thin films and coatings.
Recent Scientific Activities.	Scientific activities currently deals with the functionalization of surfaces in order to control their wetting behavior, providing glass, ceramics, metals and alloys, composites and natural fibers of super-hydrophobic, amphiphobic, de-icing, anti-fouling, low-friction performances. Development of multifunctional materials for outdoor, indoor or underwater exposure, anti-reflective coated surfaces, etc. Combined based research actions and experimental development with study of the most suitable solution according to the required TRL level. Exploitation of friendly coatings compositions and more efficient processes in terms of reduction of energy consumption and environmental impact.
Main articles and Conference contributions	F. Veronesi, G. Boveri, J. Mora, A. Corozzi, M. Raimondo, Icephobic properties of anti-wetting coatings for aeronautical applications, Surface & Coatings Technology 421 (2021), 127363, DOI: 10.1016/j.surfcoat.2021.127419. M. Blosi, F. Veronesi, G. Boveri, G. Guarini, M. Raimondo, Highly durable amphiphobic coatings and surfaces: A comparative step-by-step exploration of the design variables, Surface & Coatings Technology 421 (2021), 127419, DOI: 10.1016/j.surfcoat.2021.127363. F. Veronesi, G. Guarini, A. Corozzi, M. Raimondo, Evaluation of the durability of Slippery, Liquid-Infused Porous Surfaces in different aggressive environments: Influence of the chemical-physical properties of lubricants, Coatings 11 (2021), 1170, DOI: 10.3390/coatings11101170. G. Boveri, A. Corozzi, F. Veronesi, M. Raimondo, Different approaches to low-wettable materials for freezing environments: design, performance and durability, Coatings 11 (2021), 77, DOI: 10.3390/coatings11010077. F. Veronesi, G. Boveri, M. Raimondo, Amphiphobic nanostructured coatings for industrial applications, Materials 12 (2019) 787, DOI: 10.3390/ma12050787 A. Cecere, D. De Cristofaro, R. Savino, G. Boveri, M. Raimondo, F. Veronesi, F. Oukara, R. Rioboo, Visualization of liquid distribution and dry-out in a single-channel heat pipes with different wettability, Experimental Thermal and Fluid Science 96 (2018) 234–242, DOI: 10.1016/j.expthermflusci.2018.03.012 M. Raimondo, F. Veronesi, G. Boveri, G. Guarini, A. Motta, R. Zanoni, Superhydrophobic properties induced by sol-gel routes on copper surfaces, Applied Surface Science 422 (2017) 1022–1029, DOI: 10.1016/j.apsusc.2017.05.257 I. Malavasi, F. Veronesi, A. Caldarelli, M. Zani, M. Raimondo, M. Marengo, Is a knowledge of surface topology and contact angles enough to define the drop impact outcome?, Langmuir 32 (2016) 6255 − 6262, DOI: 10.1021/acs.langmuir.6b01117 Alessandro Motta, O. Cannelli, A. Boccia, R. Zanoni, M. Raimondo, A. Caldarelli, F. Veronesi: A Mechanistic Explanation of the Peculiar Amphiphobic Properties of Hybrid Organic−Inorganic Coatings by Combining XPS Characterization and DFT Modeling. Applied Mat. Int. (2015) doi: 10.1021/acsami_5b04376; A. Caldarelli, M. Raimondo, F. Veronesi, G. Boveri, G. Guarini: Sol–gel route for the building up of superhydrophobic nanostructured hybrid-coatings on copper surfaces. Surf. Caot. Tech, 276 (2015) 408-415. M. Raimondo, M. Blosi, G. Guarini, A. Caldarelli, F. Veronesi. “Wetting behavior and remarkable durability of amphiphobic aluminum alloys surfaces in a wide range of environmental conditions”. Chemical Engineering Journal 258 (2014) 101-109. Raimondo M., Guarini G., Zanelli C., Marani F., Fossa L., Dondi M., Printing nano TiO2 on large-sized building materials: Technologies, surface modifications and functional behaviour. Ceramics International 38 (2012) 4685-4693. P. M. Cavalcante, M. Dondi, G. Guarini, M. Raimondo, Colour performance of ceramic nano-pigments. Dyes and Pigments, 80 (2) (2009) 226-232. Matteucci F., Cruciani G., Dondi M., Raimondo M., The Role of Counterions (Mo, Nb, Sb, W) in Cr-, Mn-, Ni- and V-doped Rutile Ceramic Pigments. Part 1. Crystal Structure and Phase Transformations. Ceramics International, 32 (2006) 385-392. Dondi M., Cruciani G., Guarini G., Matteucci F., Raimondo M., The Role of Counterions (Mo, Nb, Sb, W) in Cr, Mn-, Ni- and V-doped Rutile Ceramic Pigments. Part 2. Colour and Technological Properties. Ceramics International, 32 (2006) 393-405.

Keynote lecture, Raimondo M.: Nanotechnologies to control the wetting behaviour of different kind of materials. 10th Biennal Congress of the Iranian Ceramic Society, Teheran (IRAN) 4- May 2015

F. Veronesi, M. Raimondo, G. Boveri, G. Guarini: "Biomimetic, nanostructured coatings to achieve amphiphobicity on industrial materials". NANOSMAT Conference, 13-17 September 2015, Manchester (UK).

Invted lecture. M. Raimondo: "Superhydrophobic and superhydrophilic surfaces: the way for self-cleaning". Invited Lecture at CIMTEC Conference, 10-12 June 2014, Montecatini Terme (Italy).

M. Raimondo, A. Caldarelli, M. Blosi, G. Guarini, F. Veronesi. Poster: "Amphiphobic thin films by sol-gel route: wetting performances, functional behavior and stability". MRS Fall Meeting, Novembre 2013, Boston (USA)

Keynote lecture, Raimondo M.: "Biomimetic nanostructured coatings: superhydrophobic performances and applications" at 13th ECerS conference Giugno 2013, Limoges (France)

Invited lecture. Raimondo M.: "Making super-hydrophobic building materials: static and dynamic behavior of nanostructured surface" 4th International Conference on Ceramics, July 15-19, 2012 Chicago (USA).

Invited lesson, Raimondo M.: "Wetting processes of nanostructured surfaces: design of superhydrophobic and superhydrophilic industrial materials" 3M Company July 20th , 2012 Minneapolis (USA).

F. Veronesi, M. Raimondo, E. Ciappi, B. Jacob, F. La Gala, SLIPSs with Reduced Skin-Friction Resistance. Oral contribute at Nature Inspired Surface Engineering N.I.S.E. Conference, 12-14 giugno 2019, Hoboken NJ (USA)

F. Veronesi, M. Raimondo, G. Boveri, Liquid-repellent coatings for friction and drag reduction in industrial applications. Oral contribute at N.I.C.E. 2018 Conference, 15-17 ottobre 2018, Nizza (France).

F. Veronesi, M. Raimondo, G. Boveri, E. Ciappi, C. Nicolai, F. La Gala, A. Conforti, F. Sayeva, Attenuation of turbulent boundary layer induced vibration using water-repellent coatings.. Oral contribute at NOVEM 2018, 7-9 maggio 2018, Ibiza (Spain)

F. Veronesi, M. Raimondo, G. Boveri, C. Nicolai, E. Ciappi, F. La Gala, Potential skin-friction drag reduction & vibration control in water-repellent surfaces fabricated with different biomimetic approaches. Poster at 2017 MRS Fall Meeting, 26 novembre – 1 dicembre 2017, Boston (USA)

A. Bonanno, M. Raimondo, F. Veronesi, G. P. Massarotti, Nanostructured coating used to reduce friction Poster ta 2017 MRS Fall Meeting, 26 novembre – 1 dicembre 2017, Boston (USA)

Patents

Raimondo M. Blosi M., Bezzi F., Mingazzini C. European patent (EP) EP2681347 (2014-01-08). Title: Method for the treatment of ceramic surfaces for bestowing thereon a high hydrophobicity and oleophobicity.

Raimondo M., Blosi M., Bezzi F., Mingazzini C European patent (EP) EP2864522 (2015-04-29). Title: Method for the treatment of metallic surfaces for bestowing thereon a high hydrophobicity and oleophobicity.

Raimondo M. Blosi M., Veronesi F., Boveri G., Mosele G. European patent (EP) EP18214805 (2018-12-20). Title: Amphiphobic cellulosic materials, production thereof and uses.

ADDITIONAL INFORMATION

National and international collaborations with York University (Canada), Birmingham (UK), Bologna (Italy), Bergamo (Italy), Modena and Reggio Emilia (Italy), La Sapienza (Italy) UFRJ-Rio de Janeiro (Brasil).

Scientific responsible of several contract with industries and co-ordinator of research programs at national and international level

Editorial Board Member of The Open Construction and Building Technology Journal. Reviewer of international, scientific journals: Ceramics International, Elsevier B.V., Journal of the American Ceramic Society, American Ceramic Society &Wiley-Blackwell, Journal of the European Ceramic Society, European Ceramic Society & Elsevier B.V., Waste Management, Elsevier B.V.

TRATTAMENTO DEI DATI PERSONALI, INFORMATIVA E CONSENSO

Il D.Lgs. 30/6/2003, n. 196 "*Codice in materia di protezione dei dati personali*" regola il trattamento dei dati personali, con particolare riferimento alla riservatezza, all'identità personale e al diritto di protezione dei dati personali; l'interessato deve essere previamente informato del trattamento .

La norma in considerazione intende come "trattamento" qualunque operazione o complesso di operazioni concernenti la raccolta, la registrazione, l'organizzazione, la conservazione, la consultazione, l'elaborazione, la modifica, la selezione, l'estrazione, il raffronto, l'utilizzo, l'interconnessione, il blocco, la comunicazione, la diffusione, la cancellazione e la distruzione di dati, anche se non registrati in una banca dati.

In relazione a quanto riportato, autorizzo il CNR al trattamento dei dati contenuti nel presente *curriculum vitae* e nella documentazione della quale fa parte integrante

(*barrare la casella*) × Si, acconsento

Faenza, 20 Gennaio 2025

Mariarosa Raimondo