

Prof. Eng. Stefano Rossi PhD

PROFILE

Full professor of Materials Science and Engineering. Teacher of Product Design and Protection of Materials and Structures courses. The research took place in science and engineering of materials in particular considering the interaction between materials and environment. In particular, the corrosion behaviour and mechanical degradation of materials are considered. The methods to improve the surface properties were evaluated. The main topics are the following: - Study of the electrochemical behaviour of materials and their surfaces considering different treatments; - Study of surface treatments to improve surface characteristics, in particular considering the adhesion of organic coatings; - Protective properties (corrosion and degradation produced by mechanical action) and methods to improve the resistance properties: metallic, ceramic and organic coatings; - natural and accelerated weathering of materials surface; - The relationship between materials and design considering the aesthetical – perception properties.

WORK EXPERIENCE

Current position: full professor (area 09 SSD ING IND 22 - materials science and technology); from 4/2021 head of the Coatings and Industrial Anticorrosion laboratory. Department of Industrial Engineering, University of Trento, Trento, Italy

Academic career

1992- 1994	Scientific collaborator Materials Engineering Department of University of Trento.
1993/94- 1995/96	PhD student in “materials science and technology” University of Florence.
1996- 1997	Scientific collaborator Materials Engineering Department of University of Trento
1997-1999	Post-doctoral Materials Engineering Department of University of Trento
01/2000 - 01/2005	Researcher (RTD) Materials Engineering Department of University of Trento.
01/2005 -09/2014	Assistant Professor Department of industrial engineering.
10/2014– 2023	Ass. Professor Department of Industrial Engineering, University of Trento, Trento, Italy
2024 – present	full professor Department of Industrial Engineering, University of Trento, Trento, Italy
2000-2007	Adjunct Professor Polytechnic of Turin and Free University of Bozen, Bozen, Italy
2008-present	Adjunct Professor Free University of Bozen, Bozen, Italy
2007 and 2009	Adjunct Professor Accademia delle Belle Arti (art collage) Cignaroli, Verona, Italy
1999-2001	Visiting Professor Aix Marseille Université, CNRS UMR 7246, Marseille – France
2002	Visiting Professor Depto Ingenieria de Materiais, ETS Enxenoires Indust., Universidade de Vigo, Vigo, Spain

2003-2008

Visiting Professor Aix Marseille Université CNRS UMR 7246, Marseille – France

EDUCATION AND TRAINING

Materials Engineering (5-year degree)

University of Trento [1986 – 1991]

PhD in “materials science and technology” University of Florence.

University of Florence [years 1993/94- 1995/96]

LANGUAGE & COMMUNICATION SKILLS

Language

first language (s): **italian**

English

LISTENING: fairly good **SPOKEN INTERACTION:** fairly good **WRITING:** good

French

LISTENING: very good **SPOKEN INTERACTION:** very good **WRITING:** --

RESEARCH ACTIVITY AND SCIENTIFIC PUBLICATIONS

Topics

- The research activity is in the field of materials science and engineering with particular attention to their durability. Materials damage due to corrosive phenomena and mechanical actions was one of the main topic. The methods for improving these surface qualities have therefore been considered. Research work used a wide range of experimental techniques, from industrial corrosion tests to electrochemical characterization, from optical and electronic microstructural to X ray and FTIR diffraction techniques. The main topics are comprised in the following classification:
- Electrochemical behavior of materials and their surfaces as a function of different treatments;
- Evaluation of surface treatments to improve surface characteristics (adhesion of organic coatings);
- Protective capacities (both towards corrosion and degradation by mechanical action) of different types of coatings deposited by different technologies: metallic, ceramic and organic coatings;
- Site more than 10 years, part of the research has focused on the relationship between materials and design, considering, in addition to the technical design, the aesthetic-perceptive aspects, in particular the study of color and the aspects connected to the surface.

Bibliometric data (from Scopus database, 10/01/2024)

- Total documents: 215;
- Books number: 4
- Book chapters: 15
- Citations number: 4424
- HI 37...

Rossi, Stefano

Università di Trento, Trento, Italy 56258173800 <https://orcid.org/0000-0001-7214-4634> [View more](#)

4,447

Citations by 3,422 documents

215

Documents

37

h-index [View h-graph](#)

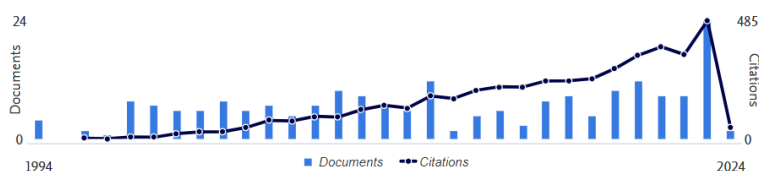
[View all metrics >](#)

[Set alert](#)

[Edit profile](#)

[More](#)

Document & citation trends



[Analyze author output](#)

[Citation overview](#)

Most contributed Topics 2018–2022

Heat Islands; Reflective Coatings; Roofs

6 documents

Enamels; Steel; Kovar (Trademark)

6 documents

Graphene Oxide; Nanofiltration Membranes; Graphite

5 documents

[View all Topics](#)

Publications on international journals, books and books chapters

2024

- A. Cristoforetti, J. Izquierdo, R. M. Souto, F. Deflorian, M. Fedel, S. Rossi "In-situ measurement of electrochemical activity related to filiform corrosion in organic coated steel by scanning vibrating electrode technique and scanning micropotentiometry", *Corrosion Science* 227 (2024) 1116 doi.org/10.1016/j.corsci.2023.11166969

2023

- A. Cristoforetti, F. Deflorian, M. Fedel, S. Rossi, "On the occurrence of filiform corrosion on organic coated carbon steel exposed to cyclic aging test", *Corrosion*, vol 79 paper 4443, 2023. doi.org/10.5006/4443
- M. Calovi, S. Rossi, "Eco-Friendly Multilayer Coating Harnessing the Functional Features of Curcuma-Based Pigment and Rice BranWax as a Hydrophobic Filler" *Materials* 2023, 16, 7086. doi.org/10.3390/ma16227086
- A. Zanardi, M. Calovi, S. Rossi, Porcelain Enamel Coatings for Building Façades, *Applied Sciences Appl. Sci.* 2023, 13, 9952. doi.org/10.3390/app13179952
- A. Condini, V. Morozov, C. Trentalange, S. Rossi "Modeling LEDs radiation patterns for curing UV coatings inside of pipes" *Optical Materials* 144 (2023) 114275 doi: 10.1016/j.optmat.2023.114275
- M. Calovi, V. Coroneo, S. Rossi "Antibacterial efficiency over time and barrier properties of wood coatings with colloidal silver" *Applied Microbiology and Biotechnology*, 2023 Doi: 10.1007/s00253-023-12710-1
- M. Calovi, A. Zanardi, S. Rossi, "Improvement of the thermal efficiency of organic roof-coatings through design aimed at increasing the durability of thermochromic pigments" *Progress in Organic Coatings* 185 (2023) 107928, doi: 10.1016/j.porgcoat.2023.107928 IF 6.6,
- M. Calovi, S. Rossi, "Comparative Analysis of the Advantages and Disadvantages of Utilizing Spirulina-Derived Pigment as a Bio-Based Colorant for Wood Impregnator, *Coatings* 2023, 13, 1158, doi: 10.3390/coatings13071158
- A. Cristoforetti, S. Rossi, F. Deflorian, M. Fedel "Comparative study between natural and artificial weathering of acrylic-coated steel, aluminum, and galvanized steel" *Materials and Corrosion*" Wiley 2023, DOI:10.1002/maco.202313858
- M. Calovi, S. Rossi "Synergistic contribution of bio-based additives in wood paint: The combined effect of pigment deriving from spirulina and multifunctional filler based on carnauba wax" *Progress in Organic Coatings*; Volume 182, September 2023, 107713; doi.org/10.1016/j.porgcoat.2023.107713;
- M. Fedel, A. Rosati, M. Bertasini, S. Rossi "Cu doped YInO₃-ZnO green colored NIR reflective pigments: synthesis and application in PMMA based cool-roof coatings" *Progress in Organic Coatings* 182 (2023) 107708; doi.org/10.1016/j.porgcoat.2023.107708

- Massimo Calovi, Stefano Rossi “Impact of high concentrations of cellulose fibers on the morphology, durability and protective properties of wood paint” *Coatings* 2023, 13, 721. doi.org/10.3390/coatings13040721
- Massimo Calovi, Stefano Rossi, “From wood waste to wood protection: new application of black bio renewable water-based dispersions as pigment for bio-based wood paint” *Progress in Organic Coatings* 180 (2023) 107577, doi.org/10.1016/j.porgcoat.2023.107577
- Massimo Calovi, Stefano Rossi, “Durability and thermal behavior of functional paints formulated with recycled-glass hollow microspheres of different size” *Materials* 2023, 16, 2678, doi.org/10.3390/ma16072678
- Andrea Cristoforetti, Stefano Rossi, Flavio Deflorian, Michele Fedel, “On the limits of the EIS low-frequency impedance modulus as a tool to describe the protection properties of organic coatings exposed to accelerated aging tests” *Coatings* 2023, 13(3), 598; doi.org/10.3390/coatings13030598
- Andrea Cristoforetti, Michele Fedel, Stefano Rossi, An electrochemical study on the mechanism of filiform corrosion on acrylic-coated carbon steel. *Progress in Organic Coatings* Volume 179, June 2023, 107525, doi.org/10.1016/j.porgcoat.2023.107525;
- F. Russo, V. Fontanari, E. Rustighi, M. Lekka, L. Hernandez, S. Rossi “Composite vitreous enamel coatings with the addition of 316L stainless steel flakes: novel insights on their behaviour under mechanical stresses” *Surface & Coatings Technology* 459 (2023) 129393 doi.org/10.1016/j.surfcoat.2023.129393
- Massimo Calovi, Stefano Rossi, “Functional Olive Pit Powders: The Role of the Bio-Based Filler in Reducing the Water Uptake Phenomena of the Waterborne paint” *Coatings* 2023, 13, 442. Doi: 10.3390/coatings13020442
- Massimo Calovi, Stefano Rossi, “Olive pit powder as multifunctional pigment for waterborne paint: influence of the bio-based filler on the aesthetics, durability and mechanical features of the polymer matrix” *Industrial Crops & Products* 194 (2023) 116326; doi: 10.1016/j.indcrop.2023.116326
- H.U. Rehman, F. Russo, M. Calovi, O. Massidda, S. Rossi, “Antimicrobial Performance of Innovative Functionalized Surfaces Based on Enamel Coatings: The Effect of Silver-Based Additives on the Antibacterial and Antifungal Activity” *International Journal of Molecular Sciences*, 2023, 24(3), 2364, doi 10.3390/ijms24032364
- M. Calovi, V. Coroneo, S. Palanti, S. Rossi, “Colloidal silver as innovative multifunctional pigment: the effect of Ag concentration on the durability and biocidal activity of wood paints” *Progress in Organic Coatings* 175 (2023) 107354, https://doi.org/10.1016/j.porgcoat.2022.107354
- M. Benedetti, M. Orempuller, F. Russo, V. Fontanari, S. Rossi, “Fatigue corrosion behavior of friction-welded stainless and carbon steel dissimilar joint” *Fatigue & Fracture of Engineering Materials & Structures (FFEMS)* 2023;(46) 555–573. DOI: 10.1111/ffe.13884
- T. Ramdé, S. Rossi, M. Fedel, L. Bonou; Low temperature curing polyorganosilazane coatings for copper corrosion protection: effect of precursor concentration and relative humidity (R.H.) *Journal of Applied Electrochemistry* (2023) 53:797–809 https://doi.org/10.1007/s10800-022-01801-y;
- S. Rossi, A. Rosati, M. Fedel, L. Benedetti; “Study of Cool Roof Paints with the Comparison of Different Artificial Illuminants with Natural Exposure” *Environmental Science and Engineering, Book Series; International Conference on Building Energy and Environment; COBEE 2022: Proceedings of the 5th International Conference on Building Energy and Environment* pp 2835–2838 n 302, Springer, Singapore. doi.org/10.1007/978-981-19-9822-5_302; Editor Wang L. L.; Ge H. ; Zhai Z.J.; Qi D.; Ouf M.; Sun C.; Wang D., Springer Nature; ISSN 1863-5520
- M. Fedel, A. Rosati, S. Rossi, “YIn0.9 M (Mn, Cu, Fe) 0.1O3-ZnO smart nano-pigments for cool-roof application: structure/performance correlations” *Environmental Science and Engineering, Book Series, International Conference on Building Energy and Environment , COBEE 2022: Proceedings of the 5th International Conference on Building Energy and Environment* pp 2881–2884, n. 307 Springer, Singapore. doi.org/10.1007/978-981-19-9822-5_307, Editor Wang L. L.; Ge H. ; Zhai Z.J.; Qi D.; Ouf M.; Sun C.; Wang D., Springer Nature -; ISSN 1863-5520
2022
- Tambi Ramdé, Stefano Rossi, Michele Fedel, Lucien Bonou, “Low temperature curing polyorganosilazane coatings for copper corrosion protection: effect of RH and precursor concentration” *Journal of Applied Electrochemistry (JACH)* in press dic 2022; DOI: 10.1007/s10800-022-01801-y
- Matteo Benedetti, Mattia Orempuller, Francesca Russo, Vigilio Fontanari, Stefano Rossi, “Fatigue corrosion behavior of friction-welded stainless and carbon steel dissimilar joint” *Fatigue & Fracture of Engineering Materials & Structures (FFEMS)* 2022;1–19. DOI: 10.1111/ffe.13884

- Calovi Massimo; Meschini Stefania; Condello Maria; Rossi Stefano "Innovative co-deposition of Ag-Al₂O₃ layer: an attractive combination of high durability and no cytotoxicity for public space applications" ACS Omega; 7 (2022) 25650-25662; doi.org/10.1021/acsomega.2c02872

Francesca Russo Berenice Furlan; Massimo Calovi; Orietta Massidda, Stefano Rossi, "Silver-based vitreous enamel coatings: assessment of their antimicrobial activity towards Escherichia coli and Staphylococcus aureus before and after surface degradation" Surface & Coatings Technology 445 (2022) 128702; IF 4.865;

<https://doi.org/10.1016/j.surfcoat.2022.128702>

- S Rossi, M. Pinamonti M. Calovi, "Influence of soil chemical characteristics on corrosion behaviour of galvanized steel" Case Studies in Construction Materials. Case Studies in Construction Materials 17 (2022) e01257. doi.org/10.1016/j.cscm.2022.e01257

Francesca Russo, Vigilio Fontanari, Stefano Rossi, "Abrasion behavior and functional properties of composite vitreous enamel coatings fabricated with the addition of 316L stainless steel flakes" Ceramics International 48 (2022) 23666–23677 doi.org/10.1016/j.ceramint.2022.05.015

Stefano Rossi "Powder and High-Solid Coatings"; Editorial, Coatings MDPI 2022, 12, 786

doi.org/10.3390/coatings12060786

- A. Cristoforetti, M. Fedel, F. Deflorian, S. Rossi, "Influence of deposition parameters on the behavior of nitro-cobalt-based and Ti-hexafluoride-based pretreatments", Journal of Coatings Technology and Research, 19 (3) 859–873, 2022 doi.org/10.1007/s11998-021-00563-0

• Massimo Calovi, Berenice Furlan, Valentina Coroneo, Orietta Massidda, Stefano Rossi, "Facile route to effective antimicrobial aluminum oxide layer realized by co-deposition with silver nitrate" Coatings MDPI 2022, 12(1), 28; <https://doi.org/10.3390/coatings12010028>

• Massimo Calovi and Stefano Rossi, "Durability of Acrylic Cataphoretic Coatings Additivated with Colloidal Silver" Coatings 2022, 12, 486. doi.org/10.3390/coatings12040486,

• Stefano Rossi, Federico Valdrè, Massimo Calovi, "Validation of adhesion characterization methods for anti-stick coatings applied in cooking systems". Journal of Coatings Technology and Research 19, (2022) 1287–1301 doi.org/10.1007/s11998-022-00611-3, p 1-15

2021

• Francesca Russo, Stefano Rossi, Attilio Monzio Compagnoni,– Porcelain Enamel coatings, Smalto Porcellanato dic 2021 vol 63 n2/21 p. 15- 33

• Francesca Russo, Berenice Furlan, Massimo Calovi, Attilio Compagnoni, Orietta Massidda, Stefano Rossi, Antibacterial properties of porcelain enamels: the application of ISO 22196:2011 standard" Smalto Porcellanato dic 2021 vol 63 n2/21 p. 57- 70

• Andrea Rosati, Michele Fedel, Stefano Rossi, "Laboratory scale characterization of cool roof paints: Comparison among different artificial radiation sources" Progress in Organic Coatings 161 (2021) 106464 IF 5.16; 10.1016/j.porgcoat.2021.106464

• Andrea Rosati, Michele Fedel, Stefano Rossi "NIR reflective pigments for cool roof applications: A comprehensive review" Journal of Cleaner Production 313 (2021) 127826

• Stefano Rossi, Francesca Russo, Massimo Calovi, Mònica del Rincòn, David Velez, The influence of the size of corundum particles on the preroperties of chemically resistant porcelain enamels Ceramics International 47 (2021) 11618–11627

• Massimo Calovi | Francesca Russo, Stefano Rossi "Esthetic performance of thermochromic pigments in cataphoretic and sprayed coatings for outdoor applications" J Appl Polym Sci. Volume138, Issue26, July 10, 2021, 50622;

• Michele Fedel, Janis Franch, Stefano Rossi; Effect of thickness and sealing treatments on the corrosion protection properties of anodic oxide coatings on AA5005; Surface & Coatings Technology 2021 Volume 408, 25 February 2021, 126761

• Massimo Calovi Francesca Russo Stefano Rossi "Synergic behavior of graphene-based filler and thermochromic pigments in cataphoretic coatings" Progress in Organic Coatings Volume 150, January 2021, 105978

• Stefano Rossi, Matteo Simeoni, Alberto Quaranta Behavior of chromogenic pigments and influence of binder in organic smart coatings"; Dyes and Pigments – Elsevier 2021, vol 184, 108879,

• Francesca Russo, Stefano Rossi, Attilio Monzio Compagnoni, Porcelain Enamel Coatings, Encyclopedia 2021, 1, 388–400, MDPI,

- Andrea Rosati, Michele Fedel, Stefano Rossi, $\text{YIn}_0.9\text{Mn}_0.1\text{O}_3\text{-ZnO}$ NIR reflective nano-pigment exhibiting three different colors: Ochre, cyan blue, and deep blue, *Journal of Solid State Chemistry* 299 (2021) 122176

- Stefano Rossi, Francesca Russo, Massimo Calovi, "Durability of vitreous enamel coatings and their resistance to abrasion, chemicals and corrosion: a review." *Journal of Coatings Technology and Research* 18, (2021) 39–52

2020

- Stefano Rossi, Hampus Lindmark, Michele Fedel, "Colored Paints Containing NIR-Reflective Pigments Exposed to Accelerated Ultraviolet Radiation Aging with Possible Application as Roof Coatings" ", *Coatings MDPI* 2020, 10(11), 1135;

- Massimo Calovi, Stefano Rossi, Flavio Deflorian, Sandra Dirè, Riccardo Ceccato, "Graphene-based reinforcing filler for double-layer acrylic coatings" *Materials MDPI*, Basel Switzerland 2020, 13,

- Stefano Rossi, Francesca Russo, Alberto Maria Lemmi, Matteo Benedetti, Vigilio Fontanari, Fatigue Corrosion Behavior of Friction Welded Dissimilar Joints in Different Testing Conditions", *Metals* 2020, 10, 1018;

- Stefano Rossi, Michele Fedel, Thermal behaviour and weathering resistance of coil coatings for energy-efficient buildings, *E3S Web of Conferences* 172, 23006 (2020) NSB 2020;

- Andrea Rosati, Michele Fedel, Stefano Rossi, NIR reflective pigments to mitigate the urban heat islands effect (UHIE), *E3S Web of Conferences* 172, 03006 (2020) NSB 2020;

- Massimo Calovi, Stefano Rossi, Flavio Deflorian, Sandra Dirè, Riccardo Ceccato, Xiaolei Guo, Gerald Frankel, "Effects of graphene-based fillers on cathodic delamination and abrasion resistance of cathaphoretic organic coatings", *Coatings* 2020, 10, 602;

- Stefano Rossi, Francesca Russo, N. Gasparre, V. Fontanari, "Influence of graphene addition on the mechanical and surface properties of vitreous enamel coatings" *Surface & Coatings Technology* 398 (2020) 126071

- Stefano Rossi, Luciana Volgare, Carine Perrin-Pellegrino, Carine Chassigneux, Erick Dousset, Marielle Eyraud "Dual Electrochemical Treatments to Improve Properties of Ti6Al4V Alloy" *Materials MDPI*, Basel Switzerland 2020, 13, 2479; 1-16;

- Stefano Rossi, Massimo Calovi, Domenico Dalpiaz, Michele Fedel, The Influence of NIR Pigments on Coil Coatings' Thermal Behaviors, *Coatings MDPI*, Basel Switzerland, 2020, 10, 514; 1-19;

- S. Rossi, F. Russo, "Pearlescent Pigments: history, properties and application in powder coatings" su *Encyclopedia*, MDPI, Basel Switzerland, pa. 1-6; 2020; *Encyclopedia* 2020

- S. Rossi, M. Calovi, "Recent advancements in cathaphoretic coatings with graphene as reinforcing filler" su *Encyclopedia*, MDPI, Basel Switzerland, pa. 1-7; 2020; *Encyclopedia* 2020

- S. Rossi, F. Russo "Porcelain enamel coatings, from the past to the future: solved and unsolved issues for the improvement of their mechanical properties" su *Encyclopedia*, MDPI, Basel Switzerland, pa. 1-9; 2020; *Encyclopedia* 2020

S. Rossi, F. Russo , A. Monzio Compagnoni "A brief history of porcelain enamel: from artistic enamel to technical Enameling" *Encyclopedia* 2020; p. 1-8 doi: 10.32545/encyclopedia202007.0019.v1

- Stefano Rossi, Massimo Calovi and Matteo Tonelli "Powder coating for healthcare aluminum packaging" " *Cosmetics* 2020, 7, (2) 20 p. 1-15

- Stefano Rossi, Francesca Russo, Lotfi Bouchakour Rahmani, "Study of the durability and aesthetical properties of powder coatings admixed with pearlescent pigments" *Coatings* (10)2020, 229,

- Massimo Calovi, Stefano Rossi, Flavio Deflorian, Sandra Dirè, Riccardo Ceccato, Effect of functionalized graphene oxide concentration on the corrosion resistance properties provided by cathaphoretic acrylic coatings, *Materials Chemistry and Physics* 239 (2020) 121984.

2019

- Stefano Rossi, Massimo Calovi, David Velez, Itziar Rodriguez, Monica del Rincon, Jose Maria Munoz, and Hans Juergen Grande, *Microstructural Analysis and Surface Modification of a Vitreous Enamel Modified with Corundum Particles. Advanced Engineering Materials*, Wiley-VCH Verlag GmbH, -2019, vol 21, 1900231 Weinheim

- Massimo Calvi, Sandra Dirè, Riccardo Ceccato, Flavio Deflorian, Stefano Rossi, "Corrosion protection properties of functionalised graphene-acrylate coatings produced via cathaphoretic deposition" *Progress in Organic Coatings*, 136, (2019), 105261

- M. Calovi, E. Callone, R. Ceccato, F. Deflorian, S. Rossi, S. Dirè, Effect of the Organic Functional Group on the Grafting Ability of Trialkoxysilanes onto Graphene Oxide: A Combined NMR, XRD, and ESR Study; *Materials MDPI* 2019, 12, 3828; p1-13.

- S Rossi, L Bergamo, M Calovi, V Fontanari, "Effect of enamel coatings on the mechanical properties of aluminium foams", *Mechanics of Advanced Materials and Structures* 2019, VOL. 26, N. 13, 1130–1139

- S. Rossi, N. Gasparre, V. Fontanari, A. Compagnoni, "Modification of the mechanical properties of vitreous enameled aluminium substrate adding graphene flakes." *Key Engineering Materials*, 2019 (volume 813), 49-54,
 - Rossi, S.; Deflorian, F.; Fedel, M.; Polysilazane-based coatings: corrosion protection and anti-graffiti properties, *Surf. Eng.* 2019, 35, 343-350.
 - S. Rossi, M. Calovi, D. Velez, J. Munoz, Influence of addition of hard particles on the mechanical and chemical behavior of vitreous enamel, *Surface & Coatings Technology* 357 (2019) 69–77
- M. Fedel, F.J. Rodríguez Gómez, S. Rossi, F. Deflorian. Characterization of Polyorganosilazane-Derived Hybrid Coatings for the Corrosion Protection of Mild Steel in Chloride Solution. *Coatings* 2019, 9, 680; p. 1-14
- Rossi, S., Bizzotto, M., Deflorian, F., Fedel, M., Study of anodizing process on aluminium foam to improve the corrosion behavior, *Surface and Interface Analysis* 2019, 51, 1194-1206
 - Fedel, M.; Rossi, S.; Deflorian, F.; Polymethyl (hydro)/polydimethylsilazane-derived coatings applied on AA1050: effect of the dilution in butyl acetate on the structural and electrochemical properties, *J. Coat. Technol. Res.* 2019, 16 (4) 1013–1019. 2018
- S. Rossi, M. Fedel, F. Deflorian, and A. Feriotti, The Corrosion Behavior of Anti-Graffiti Polyurethane Powder Coatings *CORROSION SCIENCE AND TECHNOLOGY- Korea*, vol 17 (2018), n 6 p 257-264
- L. G. Ecco, S. Rossi, F. Deflorian, M. Fedel; Electrochemical Behavior of AA5005 Aluminum Alloy in Acidic Chloride-Based Medium Containing CeO₂ Nanoparticles, *Journal of The Electrochemical Society*, 165 (2018) C933-C938
 - S. Rossi, M. Calovi; Addition of graphene oxide plates in cathoretic deposited organic coatings; *Progress in Organic Coatings* 125 (2018) 40–47; doi.org/10.1016/j.porgcoat.2018.08.023
 - S. Rossi, M. Fedel, F. Deflorian, M. Bizzotto, Studio del processo di anodizzazione per la protezione dalla corrosione di schiume metalliche, *La Metallurgia Italiana* 110 (2018) , n. 10; p.12-18
 - L.G. Ecco, M. Fedel, S. Rossi, F. Deflorian, "Colloidal cerium oxide nanoparticles: preparation and corrosion inhibition performance on AA5005 aluminum alloy", *Journal of Electrochemical Society*, 165, 2, (2018) volume 165, issue 2 C86-C93, 2017
 - S. Rossi, M. Fedel, F. Deflorian, A. Feriotti, Anti-graffiti properties of polyurethane powder coatings, *Journal of Testing and Evaluation* 45 (2017) 45 n .4
 - T. Ramdé, L.G. Ecco, S. Rossi, Visual appearance durability as function of natural and accelerated ageing of electrophoretic styrene-acrylic coatings: Influence of yellow pigment concentration, *Progress in Organic Coatings*, 103 (2017), Pages 23-32
 - S. Rossi, M. Calovi, M. Fedel, Corrosion protection of aluminum foams by cathoretic deposition of organic coatings, 2017, *Progress in Organic Coatings* 109, pp. 144-151
 - S. Rossi, M. Fedel, L. Da Col, F. Deflorian, S. Petrolli, Coatings to increase the corrosion behaviour of aluminium foam, *Surface Engineering* 2017, 33(6), pp. 405-409
 - L.G. Ecco, S. Rossi, M. Fedel, F. Deflorian, Color variation of electrophoretic styrene-acrylic paints under field and accelerated ultraviolet exposure, 2017, *Materials and Design* 116, pp. 554-564
 - S. Rossi, M. Fedel, S. Petrolli, F. Deflorian, Characterization of the Anti-Graffiti Properties of Powder Organic Coatings Applied in Train Field, *Coatings* 2017, 7, 67, MDPI
 - S. Rossi, L. Bergamo, V. Fontanari, Fire resistance and mechanical properties of enamelled aluminium foam, *Materials and Design* 132 (2017) 129–137
 - P. Russo Spena, S. Rossi, R. Wurzer, Effects of Welding Parameters on Strength and Corrosion Behavior of Dissimilar Galvanized Q&P and TRIP Spot Welds, *Metals* 2017, 7(12), 534 MDPI 2016
 - S. Rossi, Materials selection for a bio-inspired and symbolic product: The Trentino Winter Universiade 2013 torch 'Gentian of Alps', *Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology*, ISSN: 1754-3371, SagePub, Los Angeles, Washington DC, doi: 10.1177/1754337115583424, IF:0.885 (2016) 230 (3) 203-210
 - S. Rossi, M. Fedel, S. Petrolli, F. Deflorian "Behaviour of different removers on permanent anti-graffiti organic coatings" *Journal of Building Engineering* 5 (2016) 104–113. Elsevier, <http://dx.doi.org/10.1016/j.job.2015.12.004>
 - F. Deflorian, S. Rossi, M. Fedel, C. Zanella, D. Ambrosi, and E. Hlede, Crevice Corrosion Study of Materials for Propulsion Applications in the Marine Environment, *Corrosion Science and Technology*, 14, No.6 (2015), 288-295; DOI: <http://dx.doi.org/10.14773/cst.2015.14.6.288>

- F. Deflorian, M. Dalvit, S. Rossi, C. Zanella, M. Fedel, "Stress corrosion cracking (SCC) failure in marine areas of fixed guards for climbing", *Corrosion Engineering, Science and Technology* 50 (2015) 462-466 Taylor & Francis,
- S. Rossi, M. Fedel, F. Deflorian and N. Parziani, "Abrasion and chemical resistance of composite vitreous enamel coatings with hard particles" *Surface and Interface Analysis* (2016) 48, 827-837, wileyonlinelibrary.com) DOI 10.1002/sia.5849
- S. Rossi, M. Fedel, S. Petrolli, F. Deflorian, "Accelerated weathering and chemical resistance of polyurethane powder coatings" *Journal of Coatings Technology. And Research* (2016) 13 (3) 427-437
- S. Rossi, M. Fedel, F. Deflorian, A. Feriotti, Anti-graffiti properties of polyurethane powder coatings, *Journal of Testing and Evaluation* (2017, vol 45 issue 4; published on line); DOI: 10.1520/JTE20150379 2017
- C. Lavollée, M. Gressier, J. Garcia, J.M. Sobrino, J. Reby, M.J. Menu, S. Rossi, M. Fedel "New architected hybrid sol-gel coatings for wear and corrosion protection of low-carbon steel" *POC Progress in Organic Coatings* 99 (2016) 337-345
- T. Ramdé, S. Rossi, L. Bonou "Corrosion Inhibition Action of Sulfamethoxazole for Brass in Acidic Media" *Int. J. Electrochem. Sci.*, 11 (2016) 6819 – 6829.

2015

- S. Rossi, G. Gai, R. De Benedetto, M. Fedel, "Innovative Non-stick Ceramic Coatings for Aluminum Cookware in Comparison with Traditional PTFE Layer" *Surface Modification Technologies*, vol 28, ed. T.S. Sudarshan, P. Vuoristo, H. Koivuluoto, Valardocs, India, ISBN 9788192619613, 28 (2015) 441-451 Valardocs.com
- S. Rossi, N. Parziani, C. Zanella, "Abrasion behavior of vitreous enamel coatings in function of frit composition and particles presence", *Wear* 2015 (332-333) 702-709 IF 1.913
- F. Deflorian, S. Rossi, M. Fedel, C. Zanella, D. Ambrosi, E. Hlede, Crevice Corrosion Study of Materials for Propulsion Applications in the Marine Environment. *Corrosion Science and Technology – 14* (2015) pp. 288-295. ISSN: 1598-6462 vol. 2015 (14 n.6);

2014

- S. Rossi, G. Gai, R. De Benedetto, "Functional and perceptive aspects of non-stick coatings for cookware", *Materials & Design*, 53 (2014) 782-790
- M. Fedel, C. Zanella, S. Rossi, F. Deflorian, "Corrosion protection of silver coated reflectors by atomic layer deposited Al₂O₃", *Solar Energy* 101 (2014) 167-175
- S. Rossi, C. Zanella, R. Sommerhuber Influence of mill additives on vitreous enamel properties *Materials & Design* 55 (2014) 880-887
- S. Rossi, M. Fedel, F. Deflorian, "In situ ESEM investigation of the initial stages of corrosion phenomena on zinc and magnesium surfaces" *Materials and Corrosion*, 63 (2014) 466-475 IF 1.373
- Ramde, T., Rossi, S., Zanella, C. "Inhibition of the Cu₆₅/Zn₃₅ brass corrosion by natural extract of *Camellia sinensis*" *Applied Surface Science* 307 (2014) 209-216
- F. Deflorian, S. Rossi, M. Fedel, L.G. Ecco, R. Paganica, M. Bastarolo, "Study of the effect of corrosion inhibitors on powder coatings applied on steel", *Progress in Organic Coatings* 77 (2014) 2133-2139,

2013

- M. Fedel, S. Rossi, F. Deflorian, "Comparison between natural and artificial weathering of e-coated galvanized steel panels" *Progress in Organic Coatings* 76 (2013) 194-203
- S. Rossi, M. Fedel, F. Deflorian, S. Zanol "Influence of different colour pigments on the properties of powder deposited organic coatings" *Materials and Design* 50 (2013) 332-341
- F. Deflorian, S. Rossi, E. Scrinzi, Self-healing supramolecular polyurethane coatings: preliminary study of the corrosion protective properties, *Corrosion Engineering, Science and Technology*, 48 (2013) n.2 p. 147- 154
- S. Rossi, E. Scrinzi "Evaluation of the abrasion resistance of enamel coatings" *Chemical Engineering and Processing* 68 (2013) 74- 80
- S. Rossi and M. Pellizzari "Applying the electroforming process to bio-inspired architecture: The case of Castelbuono Estate Winery ", *Frontiers of Architectural Research* 2 (2013), 435-444

From 2007 to 2012

- S. Rossi, F. Deflorian, J. Fiorenza "Environmental influences on the abrasion resistance of a coil coating system", *Surface & Coatings Technology* 201 (2007) 7416-7424.
- L. Fedrizzi, L. Valentinelli, S. Rossi, S. Segna, "Tribocorrosion behaviour of HVOF cermet coatings" *Corrosion Science* 49 (2007) 2781-2799.

- A.A. Diagne, M. Fall, M. Guene, M.M. Dieng, F. Deflorian, S. Rossi, P.L. Bonora, C. Della Volpe, "Electrochemical impedance spectroscopy of polybithiophene films in an aqueous LiClO₄ solution" *Comptes Rendus Chimie* 10 (2007) 558-563.
- F. Deflorian, S. Rossi, L. Fedrizzi, C. Zanella, "Comparison of organic coating accelerated tests and natural weathering considering meteorological data", *Progress in Organic Coatings* 59 (2007) 244–250.
- F. Andreatta, P. Aldighieri, L. Paussa, R. Di Maggio, S. Rossi, L. Fedrizzi, "Electrochemical behaviour of ZrO₂ sol–gel pre-treatments on AA6060 aluminium alloy" *Electrochimica Acta*, 52 (2007) 7545-7555.
- E. Gottardini, S. Rossi, F. Cristofolini, L. Benedetti, "Use of Fourier transform infrared (FT-IR) spectroscopy as a tool for pollen identification" *Aerobiologia* 23 (2007) 211-219.
- F. Deflorian, S. Rossi, L. Maines, G. Straffelini, "Industrial PVD coatings for improving corrosion protection of components for polymeric injection moulding" *Corrosion Engineering, Science and Technology*, 42 (2007) 266-271.
- S. Rossi, M. Eyraud, F. Vacandio, Y. Massiani, "Corrosivity of long-term fire retardant Fire Trol 931 and Fire Foam 103 on aluminium alloys and steel". *Materials chemistry and physics*, 105 (2007) 260-267.
- S. Rossi, F. Deflorian, A. Pegoretti, D. D'Orazio, S. Gialanella, "Chemical and mechanical treatments to improve the surface properties of shape memory NiTi wires". *Surface and coatings technology*, 202 (2008). 2214-2222.
- F. Deflorian, S. Rossi, L. Maines, M. Fedel, "Effect of metallic inclusions in the aluminum alloys anodising process / Effetti di inclusioni metalliche nei processi di anodizzazione di leghe di alluminio". *La Metallurgia Italiana*, 100 (3) (2008), 11-16
- F. Deflorian, S. Rossi, M. Fedel, "Organic coatings degradation: comparison between natural and artificial weathering" *Corrosion Science* 50 (2008) 2360-2366.
- S. Rossi, M. Fedel, F. Deflorian, M. del Carmen Vadillo, "Localized electrochemical techniques: theory and practical examples in corrosion studies" *Comptes Rendus Chimie* 11 (2008) 984-994.
- F. Deflorian, S. Rossi, L. Fedrizzi, M. Fedel, "Integrated electrochemical approach for the investigation of silane pre-treatments for painting copper" *Progress in Organic Coatings*, 63 (2008) 338–344.
- Y. Reyes-Mercado, S. Rossi, F. Deflorian, M. Fedel; "Comparison of different abrasion mechanisms on the barrier properties of organic coatings" *Wear* 265 (2008) 1820–1825.
- S. Rossi, F. Deflorian, E. Scrinzi, "Reduction of Aesthetical properties of organic coatings caused by mechanical damage" *Materials and Design* 30 (2009) 1511-1517.
- S. Gialanella, F. Deflorian, F. Girardi, I. Lonardelli, S. Rossi, "Kinetics and microstructural aspects of the allotropic transition in tin" *Journal of Alloys and Compounds* 474 (2009) 134–139.
- E. Scrinzi, S. Rossi, F. Deflorian, "Effect of slurry mechanical damage on the properties of an organic coating system" *Surface and Coatings Technology* 203 (2009) 2974–2981.
- S. Rossi, F. Deflorian, E. Scrinzi, "Comparison of different abrasion mechanisms on aesthetic properties of organic coatings", *Wear* 267 (2009) 1574–1580.
- M. Fedel, M. Olivier, M. Poelman, F. Deflorian, S. Rossi, M.-E. Druart, "Corrosion protection properties of silane pre-treated powder coated galvanized steel" *Progress in Organic Coatings* 66 (2009) 118–128.
- F. Deflorian, S. Rossi, M. del Carmen Vadillo, M. Fedel, "Electrochemical characterisation of protective organic coatings for food packaging", *Journal of Applied Electrochemistry* 39 (2009) 2151-2157.
- F. Deflorian, S. Rossi, M. Fedel, "Durability of aluminum cooling system in electric power plants" *Surface Interface Analysis* 42 (2010), 269–274.
- M. Fedel, F. Deflorian, S. Rossi, "Correlations between the Volta potential and filiform corrosion on painted AA2024 aluminum alloy", *Surface Interface Analysis* 42 (2010), 199–204.
- E. Scrinzi, S. Rossi, "The aesthetic and functional properties of enamel coatings on steel" *Materials and Design* 31 (2010) 4138–4146.
- M. Fedel, F. Deflorian, S. Rossi, "Service life evolution of painted galvanized steel: outdoor exposure and laboratory test" *Metallurgia Italiana* 102 (2010) (6) 3-12.
- F. Deflorian, S. Rossi, M. Fedel, C. Motte "Electrochemical investigation of high-performance silane sol–gel films containing clay nanoparticles" *Progress in Organic Coatings* 69 (2010) 158–166.
- M. Fedel, M.E. Druart, M. Olivier, M. Poelman, F. Deflorian, S. Rossi, "Compatibility between cathodic electro-coating and silane surface layer for the corrosion protection of galvanized steel" *Progress in Organic Coatings* 69 (2010) 118–125.
- E. Scrinzi, S. Rossi, P. Kamarchik, F. Deflorian, "Evaluation of durability of nano-silica containing clear coats for automotive applications" *Progress in Organic Coatings* 71 (2011) 384–390.

- E. Scrinzi, S. Rossi, F. Deflorian, C. Zanella "Evaluation of aesthetic durability of waterborne polyurethane coatings applied on wood for interior applications" *Progress in Organic Coatings* 72 (2011) 81– 87.
- F. Deflorian, S. Rossi, M. Fedel, "Aluminium components for marine applications protected against corrosion by organic coatings cycles with low environmental impact" in *Corrosion Engineering, Science and Technology*, 2011 46, (2011), 237-244.
- F. Deflorian, M. Fedel, S. Rossi, P. Kamarchik "Evaluation of mechanically treated cerium (IV) oxides as corrosion inhibitors for galvanized steel" *Electrochimica Acta* 56, (2011) 7833-7844 .
- C. Zanella, M. Lekka, S. Rossi, F. Deflorian, "Study of the influence of sonication during the electrodeposition of nickel matrix nanocomposite coatings on the protective properties" *Corrosion Reviews* 29 (2011): 253–260.
- M. Fedel, F. Deflorian, S. Rossi "On the real effectiveness of experimental silicon alkoxides based pre-treatment as adhesion promoter for different painted metals", *Corrosion Reviews* 29 (2011): 223–228.
- E. Scrinzi, S. Rossi and F. Deflorian, "Influence of natural and artificial weathering on aesthetic and protective properties of organic coatings" *Corrosion Reviews* 29 (2011): 275–285.
- M. Fedel, F. Deflorian, S. Rossi, P. Kamarchik "Study of the effect of mechanically treated CeO₂ and SiO₂ pigments on the corrosion protection of painted galvanized steel" *Progress in Organic Coatings* 74 (2012) 36– 42.
- F. Deflorian, M. Fedel, S. Rossi, "Artificial versus natural weathering tests" *European Coatings Journal Issue n10*, (2012) 18-23

From 2002 to 2006

- S. Rossi, L. Fedrizzi, F. Deflorian, "Corrosion Protection of P/M Parts by Hot Dipping". *International Journal of Powder Metallurgy*, 2002, Vol. 38, n. 3, pp. 61-69.
- L. Fedrizzi, A. Bianchi, F. Deflorian, S. Rossi, P.L. Bonora "Effect of chemical cleaning on the corrosion behaviour of painted aluminium alloys" *Electrochimica Acta* 47 (2002) 2159-2168.
- F. Deflorian, S. Rossi, "Premature corrosion failure of structural highway components made by weathering steel", *Engineering failure analysis*, 9 (2002) 541-551.
- S. Rossi, Y. Massiani, E. Bertassi, F. Torregrosa, L. Fedrizzi, "Low temperature plasma immersion ion implantation of nitrogen on a steel mould" *Thin Solid Films*, 416 (2002) 160-168.
- F. Deflorian, I. Felhosi, S. Rossi, L. Fedrizzi, P.L. Bonora, "Performance of Primers Containing Polyphosphate-Based Ion-Exchange Pigments for the Protection of Galvanised Steel" *Macromolecular Symposia* 187 (2002) 87-96.
- F. Deflorian, L. Fedrizzi, S. Rossi, P.L. Bonora, "Defects dimension evaluation in organic coated galvanised steel by electrochemical impedance spectroscopy", *Journal of Applied Electrochemistry* 32 (2002) 921-927.
- L. Fedrizzi, S. Rossi, F. Bellei, F. Deflorian, "Wear-Corrosion mechanism of hard chromium coatings" *Wear* 253 (2002) 1173-1181.
- F. Deflorian, S. Rossi, "Corrosion behaviour of steel ropes", *Materials Performance*, 41(2002) 12, 56-60.
- S. Rossi, L. Fedrizzi, T. Bacci, G. Pradelli, "Corrosion behaviour of glow discharge nitrated titanium alloys", *Corrosion Science* 45 (2003) 511-529.
- L. Fedrizzi, F.J. Rodriguez, S. Rossi, F. Deflorian, "Corrosion study of industrial painting cycles for garden furniture" *Progress in Organic Coatings* 46 (2003) 62-73.
- F. Deflorian, L. Fedrizzi, S. Rossi, P.L. Bonora, "Testing of Protective Organic Coatings on Metals: Comparison of Salt Spray and Electrochemical Impedance Spectroscopy" *Journal of Testing and Evaluation*, 31 (2003) 91-97.
- S. Rossi, F. Chini, G. Straffelini, P.L. Bonora, R. Moschini, A. Stampali, "Corrosion protection properties of electroless nickel/PTFE, phosphate/MoS₂ and bronze/PTFE coatings applied to improve the wear resistance of carbon steel", *Surface and Coatings Technology*, 173 (2003) 235-242.
- F. Deflorian, S. Rossi, P. Kamarchik, L. Fedrizzi, P.L. Bonora, "Degradation mechanism of electrodeposited coatings in alkaline solution" *Progress in Organic Coatings* 47 (2003) 103-111.
- F. Deflorian, S. Rossi, "The role of ions diffusion in the cathodic delamination rate of polyester coated phosphatized steel". *Journal of adhesion science and technology*, 17 (2003) 291-306.
- S. Rossi, F. Deflorian, F. Venturini, "Improvement of Surface Finishing and Corrosion Resistance of Prototypes Produced by Direct Metal Laser Sintering (DMLS)" *Journal of Materials Processing Technology* 148 (2004), 301-309.
- L. Fedrizzi, S. Rossi, R. Cristel, P.L. Bonora, "Corrosion and wear behaviour of HVOF cermet coatings used to replace hard chromium" *Electrochimica Acta* 49 (2004) 2803–2814.

- S. Rossi, L. Fedrizzi, F. Deflorian, "Characterisation of commercial metallic coatings for corrosion protection of P/M parts" *The Int. J. of Powder Metallurgy*, 40 (2004), 33-40.
 - F. Deflorian, S. Rossi, B. Tancon, P.L. Bonora, "Corrosion behaviour of steel ropes for snow and rockfall barriers" *Corrosion Engineering, Science and Technology* 39 (2004) 250-254.
 - S. Rossi, F. Deflorian, L. Fontanari, A. Cambuzzi, P.L. Bonora, "Electrochemical measurements to evaluate the damage due to abrasion on organic protective system" *Progress in Organic Coatings*, 52 (2005) 288–297.
 - F. Deflorian, S. Rossi, L. Fedrizzi, P.L. Bonora, "EIS study of organic coating on zinc surface pretreated with environmentally friendly products" *Progress in Organic Coatings* 52 (2005) 271–279.
 - A. Cambuzzi, S. Rossi, F. Deflorian, "Reduction on protective properties of organic coatings produced by abrasive particles" *Wear*, 258 (2005) 1696-1705.
 - P. Bourdet, F. Vacandio, L. Argeme, S. Rossi, Y. Massiani, "Anodisation of sputtered titanium films: an electrochemical and electrochemical quartz crystal microbalance study", *Thin Solid Films* 483 (2005) 205– 210.
 - M. Fall, A.A. Diagne, M.M. Dieng, F. Deflorian, S. Rossi, P.L. Bonora, C. Della Volpe, J.J. Aaron "Electrochemical impedance spectroscopy of poly(3-methoxythiophene) thin films in aqueous LiClO₄ solutions" *Synthetic Metals*, 155 (2005), 569-575.
 - F. Deflorian, S. Rossi, "An EIS study of ion diffusion through organic coatings" *Electrochimica Acta* 51 (2006) 1736–1744.
 - F. Deflorian, S. Rossi and S. Prosseda, "Improvement of corrosion protection system for aluminium body bus used in public transportation" *Materials & Design*, 27 (2006) 758-769.
 - F. Deflorian, S. Rossi, L. Fedrizzi, "Silane pre-treatments on copper and aluminium" *Electrochimica Acta* 51 (2006) 6097-6103.
 - S. Rossi, F. Deflorian, M. Risatti, "Modified Taber apparatus and new test geometry to evaluate the reduction of organic coatings corrosion protective properties induced by abrasive particles", *Surface and Coatings Technology* 201 (2006) 1173-1179.
 - M. Fall, A.A. Diagne, M. Guene, C. Della Volpe, P.L. Bonora, F. Deflorian, S. Rossi, "Electrochemical properties and electrochemical impedance spectroscopy of polypyrrole-coated platinum electrodes" *Bulletin .Chemical. Society of Ethiopia* 20 (2006) n.2, 279-293.
 - S. Rossi, F. Deflorian, M. Risatti, "Reduction of corrosion protection properties of organic coatings due to abrasive damage produced by natural sands" *Wear* 261 (2006) 922-931.
 - F. Deflorian, S. Rossi, L. Fedrizzi, C. Zanella, "Comparison of accelerated tests and natural weathering of protective organic coatings: use of meteorological data /Confronto fra invecchiamento accelerato e naturale di rivestimenti organici protettivi: uso di dati meteorologici" *La Metallurgia Italiana*, 98 (2006) n.6, 41-45.
- before 2002
- L. Fedrizzi, F. Deflorian, S. Rossi "Corrosion protection of sintered metal parts by coating deposition. Part I: microstructural characterization" *Werkstoffe und Korrosion*; vol.45-4-1994, p.222-231
 - L. Fedrizzi, F. Deflorian, S. Rossi "Corrosion protection of sintered metal parts by coating deposition. Part II: corrosion and electrochemical characterization"- *Werkstoffe und Korrosion*; vol.45-5-1994, p.264-271
 - R. Di Maggio, L. Fedrizzi, S. Rossi, P. Scardi "Dry and wet corrosion behaviour of AISI 304 stainless steel coated by sol-gel ZrO₂ -CeO₂ films" *Thin Solid Films (Oxford UK)* 286 (1996) 127-135
 - S. Rossi, P.L. Bonora, R. Pasinetti, L. Benedetti, M. Draghetti, E.Sacco; "Composite sacrificial anodes for offshore structures". *Materials Performance (Houston US)* 35 (2) (1996), 29-33.
 - R. Di Maggio, L. Fedrizzi, S. Rossi, P. Scardi. "ZrO₂ - CeO₂ films as protective coatings against dry and wet corrosion of metallic alloys ". *Surface and Coatings Technology*, 89 (1997) 292-298 (N.Y., U.S.).
 - S. Rossi, F. Deflorian, L. Fedrizzi, P.L. Bonora, M. Draghetti, "Corrosion protection of offshore structures for oil and gas extraction", *Metallurgia Italiana*, 90 (1998) 45-50.
 - F. Deflorian, L. Fedrizzi, S. Rossi, " Electrochemical Impedance Spectroscopy and Fourier transform infrared of natural and accelerated weathering of organic coatings ", *Corrosion*, 54 n. 8 (1998), 598-605
 - S. Rossi, P.L. Bonora, M. Draghetti, "Cathodic Protection Revamping Technology for Offshore Structures: The Agbara Platform", *Materials Performance*, vol. 37 (1998) n. 3, p. 1519.
 - F. Deflorian, L. Fedrizzi, S. Rossi, P.L. Bonora, "A Statistical Approach to the Determination by EIS of the Protecting Properties of Organic Coatings", *Materials Science Forum*, vol. 289-292 (1998) 337-346.

- L. Fedrizzi, F. Deflorian, S. Rossi, P.L. Bonora, "Study of Aluminium Filiform Corrosion by using Electrochemical Techniques", *Materials Science Forum*, vol. 289-292 (1998) 485-498.
- S. Rossi, L. Fedrizzi, Y. Massiani, F. Vacandio, P.L. Bonora, "Corrosion and Wear-Corrosion Studies of Nitrides Coatings obtained by Reactive Sputtering", *Materials Science Forum*, vol. 289-292 (1998) 729-738.
- S. Rossi, "Failure of welded stainless steel evaporator tubes", *Materials Performance*, 37 (1998) n.9 p. 62-63.
- S. Rossi, P.L. Bonora, R. Pasinetti, L. Benedetti, M. Draghetti, E. Sacco; "Laboratory and field characterization of a new sacrificial anode for the cathodic protection of offshore structures", *Corrosion*, 54 (1998) (12) 1018-1025.
- M. Leoni, P. Scardi, S. Rossi, L. Fedrizzi, Y. Massiani, "(Ti,Cr)N and TiN/Ti PVD coating on 304 stainless steel substrate: texture and residual stress", *Thin Solid Films*, 345 (1999) 263-269.
- F. Deflorian, L. Fedrizzi, S. Rossi, "Organic Coating Capacitance Measurement by EIS: ideal and actual trends", *Electrochimica Acta* 44, (1999) 4243-4249.
- S. Rossi, L. Fedrizzi, M. Leoni, P. Scardi, Y. Massiani, "(Ti,Cr)N and TiN/Ti PVD coating on 304 stainless steel substrates: wear-corrosion behaviour", *Thin Solid Films*, 350 (1999), 161-167.
- F. Deflorian, S. Rossi, L. Fedrizzi, P.L. Bonora, "Statistical analysis of salt spray and EIS testing data concerning organic coated metals" *JCSE The Journal of Corrosion Science and Engineering* Vol. 2 paper n.11.
- F.J. Rodriguez, L. Fedrizzi, R. Di Maggio, S. Rossi "Amorphous Zirconia Films as Adhesion Promoter for Organic Coating" *JCSE The Journal of Corrosion Science and Engineering* Vol. 2 (1999) n.2.
- F. Deflorian, L. Fedrizzi, S. Rossi "Degradation of protective organic coatings after cupping test", *Corrosion*, 55 (1999), 1003-1011.
- F. Deflorian, L. Fedrizzi, S. Rossi, L. Benedetti, P.L. Bonora, "Effect of mechanical deformations on the degradation of coil coated stainless steel /Effetto delle deformazioni meccaniche sul degrado di acciaio inossidabile priverivestito", *La Metallurgia Italiana*, vol. 91, (1999) 55-59.
- S. Rossi, F. Deflorian, P.L. Bonora, S. Bottacin, R. Moschini, "Corrosion behaviour of PM components for gasoline injectors", *The Int. J. of Powder Metallurgy*, 36 (2000), 39-47.
- F. Deflorian, L. Fedrizzi, S. Rossi, "Effects of mechanical deformation on the protection properties of coil coating products", *Corrosion Science* 42 (2000), 1283-1301.
- F. Deflorian, L. Fedrizzi, S. Rossi, F. Buratti, P.L. Bonora, "Electrochemical characterisation of organic coatings for the automotive industry", *Progress in Organic Coatings* 39 (2000) 9-13.
- F. Deflorian, L. Fedrizzi, S. Rossi, P.L. Bonora, "Properties of painted stainless steel", *A.C.H. Models in Chemistry* 137 (2-3), (2000) 341-359.
- S. Rossi, L. Fedrizzi, F. Deflorian, M. Zen "Wear-corrosion of nitrided steel: corrosion potential monitoring to evaluate the effect of test parameters" *Werkstoffe und Korrosion* 51 (2000) 552-556.
- F. Deflorian, S. Rossi, P.L. Bonora, L. Fedrizzi, "Advanced Testing Procedures for high performance coatings", *Journal of Coating Technology*, vol 72, n 908, (2000) 81-87.
- F. Vacandio, Y. Massiani, E. Eyraud, S. Rossi, L. Fedrizzi, "Influence of Various nickel under-layers on the corrosion behaviour of AlN films deposited by reactive sputtering" *Surface and Coatings Technology* 137 (2001) 284-292.
- L. Fedrizzi F. Deflorian, S. Rossi, L. Fambri, P.L. Bonora, "Study of the corrosion behaviour of phosphatized and painted industrial water heaters", *Progress in Organic Coatings*, 42 (2001) 65-74.
- R. Di Maggio, L. Fedrizzi, S. Rossi, "Effect of the chemical modification of the precursor of ZrO₂ films on the adhesion of organic coatings". *Journal of Adhesion Science and Technology*, 2001, Vol. 15, n.7, pp. 793-808
- F. Vacandio, Y. Massiani, P. Gravier, S. Rossi, P.L. Bonora, L. Fedrizzi, "Improvement of the electrochemical behaviour of AlN films produced by reactive sputtering using various under-layer", *Electrochimica Acta*, 46 (2001) 3641-3650.
- L. Fedrizzi, F.J. Rodriguez, S. Rossi, F. Deflorian, R. Di Maggio, P.L. Bonora "The use of electrochemical techniques to study the corrosion behaviour of organic coating on steel pretreated with sol-gel zirconia films" *Electrochimica Acta* 46 (2001) 3755-3766.

Books

- S. Rossi; "Gocce distillate di product design", Logo Fausto Lupetti Editore, Bologna, (2018; prited april 2019); ISBN 9788868742409 Collana: Design e Comunicazione. Total pages 265

- S. Rossi, E. Scrinzi, A. Compagnoni, A. Gallucci, Y. Gjata; "Il design non perde lo smalto – Le potenzialità dei materiali smaltati" a cura di S. Rossi, Logo Fausto Lupetti Editore, Bologna, Settember 2011, (versione bilingue italiano/inglese); ISBN-13: 9788895962832.

Recensione su: "Glass on Metal" feb 2012, p.17 a cura di Erika Speel.

- S. Rossi, "I Rivestimenti - la pelle del design" Alinea Editrice – Firenze; aprile 2008; ISBN 978-88-6055-254-9
- S. Rossi, "I Rivestimenti metallici per la protezione contro la corrosione", ed. ASSIM Associazione Italiana Ingegneri dei Materiali, Amorth, Trento 2003 pagine 101; suppl. al n. di dicembre 2002 di "Materiali e ingegneria" ISBN: IT\ICCU\PUV\0922088),

Books chapters

from 2007

- Stefano Rossi, Alberto Quaranta, Linda Tavella, Flavio Deflorian, Attilio M. Compagnoni, cap 7 "Innovative Luminescent Vitreous Enameled Coatings" in "Intelligent Coatings for Corrosion Control" edited by Atul Tiwari, Lloyd Hihara, James Rawlins. Publisher Elsevier 2014 ISBN-9780124114678, p. 251-282
- S. Rossi "Indagini e prove sui materiali" appendice in Alessandro Titone "I segreti degli strumenti di scrittura" Bu,press, Bolzano 2013 ISBN 978-88-6046-050-9 Pp 300-323
- C. Zanella, S. Rossi, F. Deflorian, "Metal-Matrix Nanocomposite Coatings Produced by Electrodeposition", cap 10 pp. 297-317, in "Green Corrosion Chemistry and Engineering" ed. S. K. Sharma, Wiley-VCH, Weinheim, Germany, 2011, ISBN 9783527329304
- M. Fedel, F. Deflorian, S. Rossi "Innovative Silanes – Based Pretreatment to Improve the Adhesion of Organic Coatings", cap 7 pp. 181-209, in "Green Corrosion Chemistry and Engineering" ed. S. K. Sharma, Wiley-VCH, Weinheim, Germany 2011, ISBN 9783527329304
- M. Fedel, F. Deflorian, S. Rossi, M. Olivier, M. Poelman, M.-E. Druart, "Silane Pre-treatments for Galvanised Steel: Deposition, Adhesion and Corrosion Protection Properties" in "Special Topics on Materials Science and Technology –The Italian Panorama" a cura di D. Acierno, A. d'Amore, D. Caputo, R. Cioffi; Brill, Leiden, (NL), ISBN 978 90 04 17224 1,2009, pag. 203-212.
- F. Deflorian, S. Rossi, M. Fedel, G. Pilzer, L. Fedrizzi, "Characterisation of silane pretreatment for organic coatings on copper" in "Silanes and Other Coupling Agents", vol. 5, K.L. Mittal (ed) VSP / Brill Academic Publishers, Leiden (NL) 2009, ISBN: 978 900416591 5, pag. 65-85
- S. Rossi, F. Deflorian, "Mechanical degradation of organic paint coatings" cap.7 in "High-performance organic coatings" edited by A. S. Khanna, Woodhead Publishing in materials, 2008; ISBN: 978-1-84569-265-0
- S. Rossi, et al "Vernici. Materiali tecnologie proprietà" a cura di Stefano Turri; Case Editrice Ambrosiana, Milano 2007, ISBN 88-408-1384-6 capitolo 8 – proprietà meccaniche- (in collaborazione con R. Frassine) pag. 235-262 e capitolo 10 – durabilità e degrado - (in collaborazione con S. Turri) p.299-340.
- S. Rossi, F. Deflorian, M. Fedel, L. Fedrizzi, "Silane pre-treatments on copper to improve the adhesion of organic coatings" cap.14 pag.174- 183, in "Innovative pre-treatment techniques to prevent corrosion of metallic surfaces" edited by L. Fedrizzi, H. Terryn, A. Simoes; Woodhead Publishing Limited, Cambridge – England ISBN 978-84569-365-7, 2007
- R. Di Maggio, S. Rossi, P. Aldighieri, L. Fedrizzi, "Deposition of zirconia as an adhesion promoter on Al 1050 alloy: two preparation routes" cap.3 pag.35-51, in "Innovative pre-treatment techniques to prevent corrosion of metallic surfaces" edited by L. Fedrizzi, H. Terryn, A. Simoes; Woodhead Publishing Limited, Cambridge – England ISBN 978-84569-365-7, 2007

Academic conferences

More than 160 presentations at national and international conferences including the following most important invitations:

- Rompaint'2001-Pintumed; Bucarest (Romania) 17-18/05/'01
- XXVII FATIPEC CONGRESS 19-21, Aprile 2004, Aix-en-Provence, France
- "2nd German-French Summer School" Lozari, Corsica 2-7 September 2007
- PPG Seminar 10 October 2008 Pittsburgh US
- Eurocoat2013, Piacenza, 22/24 October 2013, Urban requalification

- International Symposium on Corrosion & Materials Degradation ISCMD2014 in 9th International Materials Technology Conference and Exhibition (IMTCE) 2014, 13-16 May 2014 Kuala Lumpur Malaysia
- Corrosion 2017 NACE, RIP New Orleans USA, 26-30/03/2017 (invited keynote); award-winning work
- International Conference on PROCESSING & MANUFACTURING OF ADVANCED MATERIALS Processing, Fabrication, Properties, Applications July 8-13, 2018, Paris – FRANCE
- 4th Topical Meeting of the International Society of Electrochemistry, Mar del Plata, Argentina 19/22 March 2023
- 12° Aluminium Two Thousand; Bologna 19-23 September 2023

Most important academic prizes/awards

- 1993 Luigi Grifone 1993 prize by SCI (Italian Chemical Society, Electrochemistry Division);
- 2008 prize AIZ Italian Association Galvanizing) and ACAI (Association of Italian Constructors Steel), for “Possible influence of the hot DIP galvanizing process on mechanical properties of steel” (student L. Redolfi; tutor S. Rossi, V. Fontanari, M. Benedetti)
- 2010-2011 best PhD University of Trento “Service life of organic coatings: strategies for improving aesthetic and protective durability” (student E. Scrinzi, tutor: S. Rossi)
- Award 2017 RIP Coatings Corrosion 2017 NACE International; New Orleans 26-30/03/2017
- 3rd prize among the oral presentations at ETCC2022 European Technical Coatings Congress Krakow (Poland) 12–14 July 2022.

Expert positions

- Material Expert of ETA-Danmark A/S (Göteborg Plads 1 DK-2150 Nordhavn; www.etadanmark.dk; European Union institution (Technical Assessment Body – TAB - in charge of the technical assessment of construction products and is entitled to issue European Technical Assessments - ETAs) year 2017-present.
- Reference laboratory for CISP (Centro Italiano Smalti Porcellanati) from 2021.

Most important memberships in academic organizations

- Member of AMMP (NACE International) (Houston US) since 2016.
- ADI (Associazione per il Disegno Industriale) member since 2015.
- Member of AIM (Italian Association of Metallurgy) since 2019.
- Member ISE international Society of Electrochemistry since 2019
- Member of AIMAT Associazione *Italiana* di Ingegneria dei Materiali

Names and institutions of key international cooperation partners in the last 5 years

- prof. M. Olivier, Faculté Polytechnique de Mons, Université de Mons, Belgium
- dr. M. Poelman, Materia Nova, Mons, Belgium
- dr. F. Vacandio, dr. M. Eyraud, Aix Marseille Université, CNRS UMR 7246, Marseille – France.
- dr. T. Ramde, Université de Ouagadougou, Ouagadougou, Burkina Faso
- prof. Florence Ansart and prof. Marie-Joëlle Menu, Université Toulouse III - Paul Sabatier – Toulouse, France

- Prof. Francisco Xavier Rodriguez, UNAM Mexico City DC; Mexico
Fontana Corrosion Centre at The Ohio State University (prof. Gerald Frankel)
Prof. Ricardo Souto - Universidad de La Laguna, La Laguna – Tenerife – Spain
Prof. Marcela Vazquez and prof. Beatriz Valcarce; Universidad Nacional de Mar del Plata, Mar del Plata, Argentina.

Most important editorships

2006 – present Member of the Editorial Board of “Galvanotecnica e Finiture Superficiali” Editore A.I.F.M. Milano
2005 – present Member of the Editorial Board “European Coatings” Edizioni GPB Milano
2018- present guest editor of special issue Coatings MDPI (Open Access)
2019- 2020 guest editor of special issue Metals MDPI (Open Access)
2020 –present editorial board of Coatings MDPI (Open Access)
2019 – present editorial board of Cosmetics MDPI (Open Access)

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Trento 20/01/2024