

| Brazilian time (CET-5) | 21 st July - Wednesday | | | | | |
|------------------------|---|--|---|---|---|--|
| | Room BRAZIL | | | | | |
| | Chairman: : V. S. Raja | | | | | |
| 8:00 - 8:50 | Plenary Lecture: Randa Abdel-Karim (Egypt) - <i>The Corrosion Resistance and Hydrophobic Properties of Electrodeposited Ni-Cu Foams Used as Electrodes for Supercapacitors</i> | | | | | |
| 8:50 - 9:40 | Plenary Lecture: Gerald S. Frankel (USA) - <i>A New Paradigm for Designing Corrosion Resistant Materials</i> | | | | | |
| | FINAL PROGRAM | | | | | |
| | Room AFRICA | Room ASIA | Room EUROPE | Room NORTH AMERICA | Room OCEANIA | Room LATIN AMERICA |
| | Sponsored by Vidya - video | Sponsored by WEG | Sponsored by SANDVIK - video | Sponsored by Brasmetal | Sponsored by GERDAU - video | Sponsored by APERAM - video |
| | Corrosion in Oil & Gas Industry | Organic Coatings | Electrochemistry | Metallic and Inorganic Coatings | Civil Engineering Structures | Corrosion of Archaeological and Historical Artefacts |
| 9:40 - 9:45 | Chairwoman: Merlin Bandeira (Brazil) | Chairman: Lorenzo Fedrizzi (Italy) Beginning at 10:15 (CET-5) | Chairman: João Salvador (Portugal) | Chairwoman: Maritza Paez (Chile) | Chairman: Mauricio Martins (Brazil) | Chairwoman: Emma Angelini (Italy) |
| | Cochairwoman: Tatiana Almeida (Brazil) | Cochairwoman: Denise Freitas (Brazil) Beginning at 10:15 (CET-5) | Cochairwoman: Idalina Aoki (Brazil) | Cochairwoman: Jane Zoppas (Brazil) | Cochairwoman: Adriana Araujo (Brazil) | Cochairwoman: Anna Ramus (Brazil) |
| 9:45 - 10:15 | Keynote: Transport and Injection of CO ₂ with Impurities - Corrosion Challenges. Arne Dugstad (Norway) | No presentation | Keynote: Electrochemical and Biological Response of Advanced Titanium Alloys in Physiologically-Relevant Environments. Vilupanur A. Ravi (USA) | Keynote: Insights into the Fabrication of Self-Ordered Titanium Dioxide Nanotube Layers and Electrodeposition of 1D Zinc Nanostructures using Deep Eutectic Solvents. Mário Ferreira (Portugal) | Keynote: Phosphates as inhibitors of steel corrosion in concrete. José Maria Bastidas (Spain) | Keynote: Tailored strategies against corrosion of metallic Cultural Heritage. Emma Angelini (Italy) |
| 10:15 - 10:35 | ICC 2021 - 443: Intergranular corrosion of surface cemented layer of supermartensitic stainless steel used for mandrels for chemical products injection in the wheel. Sérgio S. M. Tavares et al. | ICC 2021 - 105: Uncertainty Estimation in Paint Quality Control to Improve Paint Standards of the Brazilian Electrical Sector. Alberto P. Ordine et al. | ICC 2021 - 154: Characterization of the corrosion behavior of sintered parts obtained by powder metallurgy with different manganese sulfide concentrations. Camila B. Nascimento et al. | ICC 2021 - 155: Influence of hot-stamping process on the corrosion initiation and properties of corrosion products at the surface of 22MnB5 steel metallic coated with hot-dip Al-Si. Camila P. Couto et al. | ICC 2021 - 299: Corrosion control of reinforced concrete by acrylic resin injection Diogo Nicoletti, Juliana L. Cardoso | ICC 2021 - 319: Atmospheric corrosion of a bronze sculpture: the case study of an equestrian monument Leila Es Sebar et al. |
| 10:35 - 10:55 | ICC 2021 - 133: Influence of tempering heat treatment on corrosion susceptibility of supermartensitic stainless steels 13 Cr. Pâmela T. L. Santos et al. | ICC 2021 - 107: The effect of wet abrasive blasting parameters on the anticorrosive performance of a coating system used in buried structures Cristina C. Amorim et al. | ICC 2021 - 195: Electrochemical behavior of UNS S41003 and Endur 300 in different concentrations of Brine. Davi A. Marques et al. | ICC 2021 - 327: The effect of Zr-based conversion nanoceramic treatments on the electrochemical behavior of 2024 e 7475 aluminum alloys. Lisete Cristine Scienza et al. | ICC 2021 - 220: Structural Covering with Self-healing Cement Erica Magnago | ICC 2021 - 427: Electrochemical analysis of the protective capability of a SiO ₂ nanolayer over a copper sulphate patina as an alternative of conservation of historical metallic heritage. Ricardo Orozco Cruz et al. |
| 10:55 - 11:15 | ICC 2021 - 137: Electrochemical investigation of the electrolyte renewal effect on API X65 corrosion in sweet and sour environments. Bernardo A. F. Santos et al. | ICC 2021 - 223: Selection of vegetable drying oils as active agents to produce a self-healing effect in anticorrosive coatings. Felipe G. Nunes et al. | ICC 2021 - 329: Electrochemical property of the Pd ₂₀ Pt ₂₀ Cu ₂₀ Ni ₂₀ P ₂₀ metallic glasses in sulfuric acid Yangzheng Li, Junlei Tang, Jichao Chao | ICC 2021 - 113: 2D pit growth in Mg thin films Aline D. Gabbardo, G. S. Frankel | ICC 2021 - 300: Interpretation of potential measurements of three embedded rebars in prismatic concrete test specimen. Juliana L. Cardoso et al. | ICC 2021 - 249 |
| | | | | | | ICC 2021 - 476 |
| | | | | | | ICC 2021 - 426 |
| 11:15 - 11:35 | ICC 2021 - 201: Stress corrosion cracking analysis of a carbon steel used for tensile armors of flexible pipes in confined environment containing dissolved CO ₂ Dimas J. Resende Júnior et al. | ICC 2021 - 226: Self-healing properties and anticorrosive performance of a shape-memory epoxy coating. Fernando C. Melges, Brunela P. da Silva, Idalina V. Aoki | ICC 2021 - 390: Potentiostats and electrodes: use, compounds, disadvantages and function for Electrochemical Corrosion Research Nyccolas E. de Souza | ICC 2021 - 119 | ICC 2021 - 184 | ICC 2021 - 331 Environmental monitoring for corrosion assessment: the Colombian case studies. Luca Lombardo et al. |
| | | | | ICC 2021 - 469 | ICC 2021 - 191 | |
| | | | | ICC 2021 - 129 | ICC 2021 - 464 | |
| | | | | ICC 2021 - 164 | ICC 2021 - 102 | |
| 11:35 - 11:55 | BREAK | | | | | |

| | Room AFRICA | Room ASIA | Room EUROPE | Room NORTH AMERICA | Room OCEANIA | Room LATIN AMERICA |
|---------------|--|--|--|--|---|--|
| | Sponsored by Vidya - video | Sponsored by WEG | Sponsored by SANDVIK - video | Sponsored by Brasmetal | Sponsored by GERDAU - video | Sponsored by APERAM - video |
| | Corrosion in Oil & Gas Industry | Organic Coatings | Electrochemistry | Metallic and Inorganic Coatings | Civil Engineering Structures | Atmospheric Corrosion |
| 11:55 - 12:00 | Chairwoman: Merlin Bandeira (Brazil) | Chairwoman: Denise Freitas (Brazil) | Chairman: João Salvador (Portugal) | Chairwoman: Maritza Paez (Chile) | Chairman: Mauricio Martins (Brazil) | Chairman: Daniel de la Fuente (Spain) |
| | Cochairwoman: Tatiana Almeida (Brazil) | Cochairman: Gabriel Leoni (Brazil) | Cochairwoman: Idalina Aoki (Brazil) | Cochairwoman: Jane Zoppas (Brazil) | Cochairwoman: Adriana Araujo (Brazil) | Cochairman: Walney Silva (Brazil) |
| 12:00 - 12:20 | ICC 2021 - 138: The electrolyte renewal effect on corrosion and scales formation of API X65 carbon steel immersed in condensed water environments. Bernardo A. F. Santos et al. | ICC 2021 - 260: Carbon nanotubes in zinc rich weldable shop primer Isabel Cristina P. M. Mattos et al. | ICC 2021 - 425: Contributions of scanning electrochemical microscopy to the characterization of metal-inhibitor and metal-coating systems for corrosion protection Ricardo M. Souto, Javier Izquierdo, Juan J. Santana. | ICC 2021 - 498: Corrosion and corrosion protection properties of binary Fe-Al alloys-intermetallics. Burcu Eroglu; Mustafa Ürgen | ICC 2021 - 301: Open circuit potential of zinc and zinc/steel galvanic couples in concrete-pore simulated solution. Juliana L. Cardoso; Rafael Ribeiro Urano Alvesa; Zehbour Panossian | ICC 2021 - 369: Corrosion prediction of steel in atmospheric environment by applying data science. Masataka Omoda, Kazuhiro Nakatsuji, Daisuke Mizuno |
| 12:20 - 12:40 | ICC 2021 - 221: Failure of 304 Austenitic Stainless Steel Pipes. Faraj Hammad Omer | ICC 2021 - 122: Automation painting scheme application for large surface, paint robot. André Koebsch, André M. Zanatta, Ariel P. Rezende | ICC 2021 - 202: Application of Bipolar Electrochemistry for Corrosion Research. Dirk L. Engelberg, Yiqi Zhou | ICC 2021 - 499: Study of the effect of complexing agent as a chelating agent in the copper from non-cyanide electrolytes. Fabián Andree Cerda Pastrían et al. | ICC 2021 - 370: Literature review of low-chromium steels as reinforcement for cementitious matrices cured by carbonation Matheus Henrique A. Santiago et al. | ICC 2021 - 414: Effect of process cleanliness on the corrosion reliability of electronics. Rajan Ambat, Kamila Piotrowska |
| 12:40 - 13:00 | ICC 2021 - 235: Influence of the salt on CO ₂ corrosion of Martensitic Carbon Steel in packer fluid. Gabriela G. P. Souza et al. | ICC 2021 - 363: Evaluation of graphene's influence over an anticorrosive polymer coating applied on carbon steel. Mario N. B. Junior et al. | ICC 2021 - 461: Austenitic Stainless Steel behavior on pitting corrosion resistance due to different levels of strain hardening. Tiago S. Lima, Willian S. Labiapari, Lucio Bailo | ICC 2021 - 130 | ICC 2021 - 303: Corrosion behavior of Dual-Coated (Zinc/Epoxy) Rebars in Pore-Simulated Solution with and without Chloride. Mayara S. Pacheco, Juliana L. Cardoso, Zehbour Panossian | |
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| 13:00 - 13:20 | ICC 2021 - 424: The influence of rotating cage geometry and baffles on the wall shear stress equation in sweet/sour corrosion. Rhuan C. Souza et al. | ICC 2021 - 374: Corrosion barrier properties of PMMA-silica coatings for protection of reinforcing steel Mayara C. Uvida et al. | ICC 2021 - 161 | ICC 2021 - 109 | ICC 2021 - 372: Technical and economic feasibility to use alloyed steel bars and hot-dip zinc coated bars in reinforced concrete structures with carbonation-induced corrosion. Mauricio S. Martins, Zehbour Panossian | |
| | | | ICC 2021 - 273 | ICC 2021 - 264 | | |
| 13:20 - 13:40 | ICC 2021 - 132: Flexible pipes - Corrosion of Armour Wires in Annulus Arne Dugstad | | | | ICC 2021 - 471: Corrosion time initiation modelling in nonhomogeneous concrete structures using the transient Boundary Element approach Vinicius B. Souza, Edson D. Leonel | |
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| | | | | ICC 2021 - 399 | | |
| 13:40 - 14:00 | ICC 2021 - 281: Corrosion and Protection of Pipe in Carbon Capture and Storage Operation and Oil & Gas Industry. Chong Sun, Jing Liu, Jing-Li Luo. | | | | ICC 2021 - 501 | |
| | | | | ICC 2021 - 447 | | |
| | | ICC 2021 - 365 | | | | |

| POSTER | TITLE / AUTHORS |
|----------------|---|
| ICC 2021 - 102 | Inspection of the apparent concrete façades of Vilanova Artigas, modern Brazilian heritage building with 50 years of service life. Adriana Araujo et al. |
| ICC 2021 - 109 | Incorporation of niobate ions into oxide layers on aluminum by a two-step anodizing process. Alessandra Konrath , Luís F. P. Dick. |
| ICC 2021 - 119 | Study of the hydrophobicity of coatings based on niobium pentoxide(Nb ₂ O ₅). Ana Laura D. M. Campista , Ladimir J. de Carvalho, Simone Louise D. C. Brasil. |
| ICC 2021 - 129 | The role of roughness of inorganic conversion coatings on the stability of alumina film in saline medium. Antonio V. C. Braga , Dalva C. B. Lago, Lilian F. Senna. |
| ICC 2021 - 130 | Production and characterization of anticorrosive alumina film/inorganic conversion coatings 304L stainless steel systems for biomedical application. Antonio Vitor C. Braga et al. |
| ICC 2021 - 160 | Study of the effects of solution pH in the corrosion resistance of Endur 300 and UNS S41003 alloys. Carlos Henrique B. Queiroz et al. |
| ICC 2021 - 161 | Study of the corrosion resistance of Endur 300 and UNS S41003 alloys in different pH electrolytes. Carlos Henrique B. Queiroz et al. |
| ICC 2021 - 164 | Evaluation of different galvanization methods. Caroline C. Rodine et al. |
| ICC 2021 - 184 | Integrity of reinforced concrete structures of old buildings located in the coastal region of Fortaleza city exposed to the chloride ion action. Daniel C. Girão et al. |
| ICC 2021 - 191 | Microencapsulation of methylmethacrylate to reinforced concrete addition for achieving self-healing and anticorrosive properties. Daniel Valério , Idalina V. Aoki |
| ICC 2021 - 232 | Evaluation of structure, heterogeneities, thickness and corrosion protection of electrodeposited sol-gel superhydrophobic coatings. Gabriel B. Leoni et al. |
| ICC 2021 - 238 | Influence of pH and concentration on zirconium-based coating in T6-7076 aluminum alloy. Germano C. Rosa , Jane Zoppas-Ferreira, Jessica P. Salles. |
| ICC 2021 - 249 | Characterization of patinas on recent bronze sculptures in Zagreb city centre. Helena O. Curkovic , Dajana Mikić, Angela Kapitanović |
| ICC 2021 - 264 | Influence of anodizing parameters on roughness of aluminum alloy 2024. Israel L.M. Gonçalves et al. |
| ICC 2021 - 273 | Effect of pulsed and spray multipass MAG welding on the corrosion resistance of 316L stainless steel. Jefferson S. P. Santos et al. |
| ICC 2021 - 286 | Enhance of the corrosion resistance of Niobium by PEO coating. David Quintero, Walney S. Araujo, Jorge A. Calderón . |
| ICC 2021 - 357 | Development of PMMA-CeO ₂ anticorrosive hybrid coatings with self-healing property. Mariana Selvaggio Rodrigues et al. |
| ICC 2021 - 361 | Incorporation of alternative conductive particles in zinc rich paints and its influence on mechanical properties and corrosion protection. Marília Santos Menossi Mortari et al. |
| ICC 2021 - 365 | A smart protocol to protect AA2024 against corrosion. Maritza Paez et al. |
| ICC 2021 - 399 | Improving zinc-rich epoxy primer performance with lamellar zinc incorporation. Paloma Vieira dos Santos et al. |
| ICC 2021 - 426 | Innovation of conservation treatment in metallic cultural heritage: SiO ₂ -rust converted hybrid film. Ricardo Orozco Cruz et al. |
| ICC 2021 - 447 | Development of new qualification standards for painting schemes for Sabesp, a state water and waste management company. Sidney Oswaldo Pagotto Júnior et al. |
| ICC 2021 - 464 | Corrosion inhibition of carbon steel by oil palm fiber powder in carbonated concrete pore solution in presence of chloride ions. Vanessa F. C. Lins . |
| ICC 2021 - 469 | Experimental design for improvement of electrodeposited silane/zinc coating. Victor Hugo C. A. Rego , Gabriel B. Leoni, Simone L. D. C. Brasil. |
| ICC 2021 - 476 | Voltammetry of Microparticles (VMP) in the analysis of metals and alloys. Ytória H. F. Menezes , Hercílio G. de Melo |
| ICC 2021 - 501 | Evaluation of an Organic Green Corrosion Inhibitor in Synthetic Concrete Pore Solution to Protect Steel Rebars. Loreto J. Pamatmat Dacio et al. |