

EIS and Microstructural Characterization of Artificial Nitrate Patina Layers Produced at Room Temperature on Copper and Bronze

R. del P. Bendezú H., R. P. Gonçalves, A. C. Neiva and H. G. de Melo*

Departamento de Engenharia Química, Escola Politécnica, Universidade de São Paulo,
Av. Prof. Luciano Gualberto, Travessa 3, 380, Cidade Universitária "Armando de Salles Oliveira"
05508-900 São Paulo-SP, Brazil

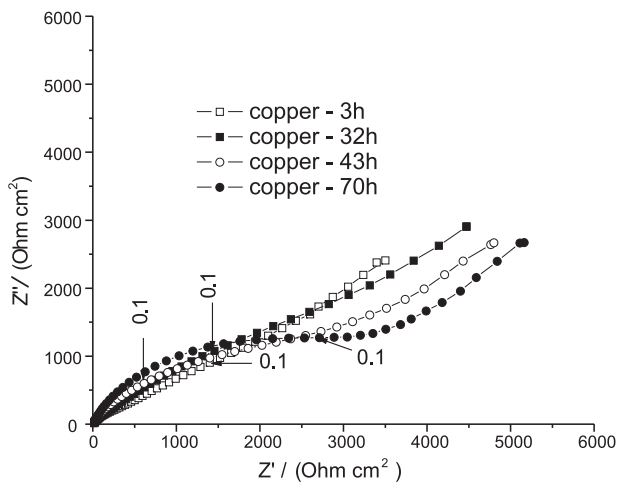


Figure S1. Nyquist diagrams for bare copper after different times of contact with 0.5 mol L^{-1} NaCl. Corresponding to Bode diagrams presented in Figure 7 of the main text.

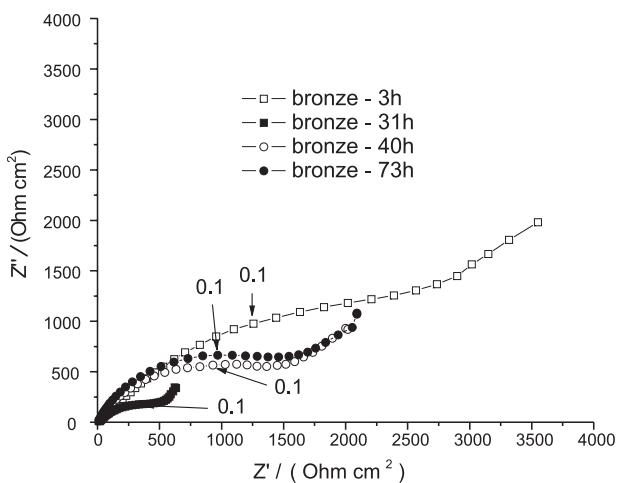


Figure S2. Nyquist diagrams for bare bronze after different times of contact with 0.5 mol L^{-1} NaCl. Corresponding to Bode diagrams presented in Figure 8 of the main text.

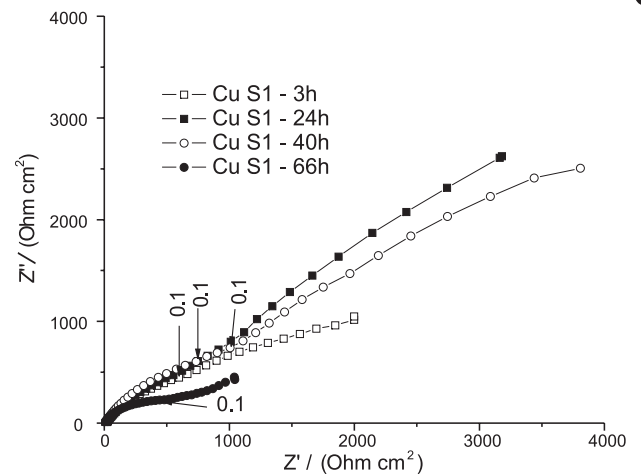


Figure S3. Nyquist diagrams for copper coated with the S1 patina after different times of contact with 0.5 mol L^{-1} NaCl solution. Corresponding to Bode diagrams presented in Figure 9 of the main text.

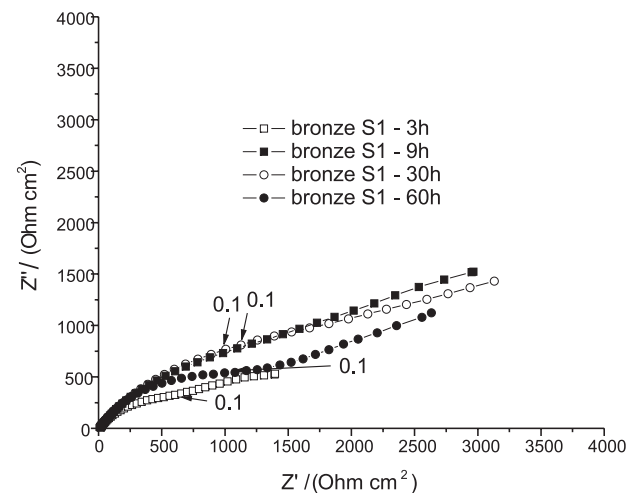


Figure S4. Nyquist diagrams for bronze coated with the S1 patina after different times of contact with 0.5 mol L^{-1} NaCl. Corresponding to Bode diagrams presented in Figure 11 of the main text.

*e-mail: hgdemelo@usp.br

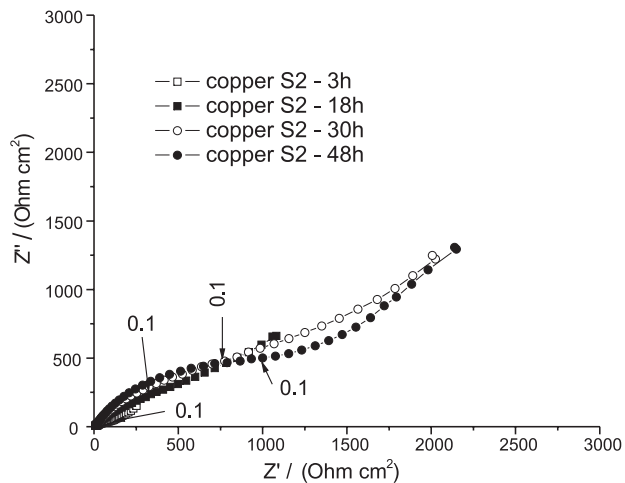


Figure S5. Nyquist diagrams for copper coated with the S2 patina diagrams after different times of contact with $0.5 \text{ mol L}^{-1} \text{ NaCl}$. Corresponding to Bode diagrams presented in Figure 12 of the main text.

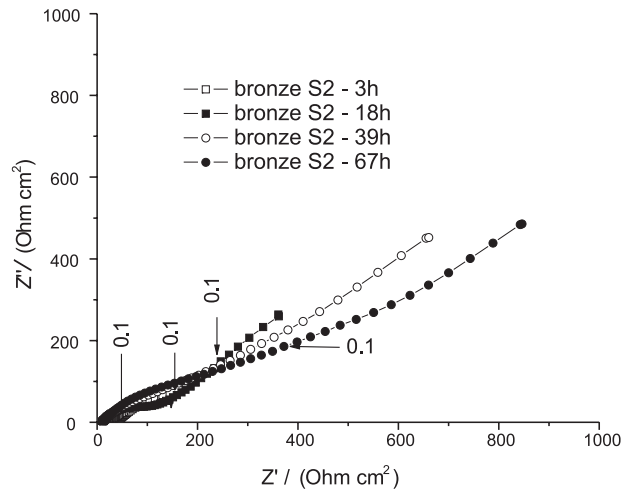


Figure S6. Nyquist diagrams for bronze coated with the S2 patina after different times of contact with $0.5 \text{ mol L}^{-1} \text{ NaCl}$. Corresponding to Bode diagrams presented in Figure 13 of the main text.