

## Curriculum Vitae

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### Education:

1976 - 1982: Physics, State University of Campinas, Brazil

08/1982 - 05/1985: MSc. in Physics, Institute of Physics, State University of Campinas Brazil, title: 'Study of catalytic palladium-gold alloys by means of photoelectron spectroscopy'

08/1985 - 02/1991; PhD in Physics, Institute of Physics, State University of Campinas Brazil and University of California at Berkeley, USA, title: 'HREELS and LEED analyses of molecular adsorption and ordering on palladium single crystal surfaces'

### Profession:

1992 - 2006: Assistant Professor, Federal University of Sao Carlos, Department of Materials Engineering

Since 2006: Associate Professor, Federal University of Sao Carlos, Department of Materials Engineering

President of the Brazilian Vacuum Society (since 07/2005)

Councillor da International Union for Vacuum Science, Technique and Applications (IUVSTA) (3 terms: 2001-4, 2004-7 and 2007-10)

### Recent Publications on Surface Science, Surface Analysis and Thin Films

1. I.H. Tan, M. Ueda, K. Kostov, P.A.P. Nascente, and N.R. Demarquette, *Polymer treatment by plasma immersion ion implantation of nitrogen for the formation of diamond like carbon film*, Japanese Journal of Applied Physics **43**, 6399-6404 (2004);
2. P.A.P. Nascente, *Materials characterization by X-ray photoelectron spectroscopy*, Journal of Molecular Catalysis A: Chemical **228**, 145-150 (2005);
3. R.T.S. Oliveira, M.C. Santos, B.B. Marcussi, P.A.P. Nascente, L.O.S. Bulhões, and E.C. Pereira, *The use of a metallic bilayer for the oxidation of small organic molecules*, Journal of Electroanalytical Chemistry **575**, 177-182 (2005);
4. R.M. Muñoz Riofano, L.C. Casteletti, and P.A.P. Nascente, *Study of the wear behavior of ion nitrided steels with different vanadium contents*, Surface and Coatings Technology **200**, 6101-6110 (2006);
5. J.S. Andresa, R.M. Reis, E.P. Gonzalez, L.S. Santos, M.N. Eberlin, P.A.P. Nascente, S.T. Tanimoto, S.A.S. Machado, and U.P. Rodrigues Filho, *Adsorption of silanes bearing nitrogenated Lewis bases on SiO<sub>2</sub>/Si(100) model surfaces*, Journal of Colloid and Interface Science **286**, 303-309 (2005);
6. F.O.F. Bergamaski, M.C. Santos, P.A.P. Nascente, L.O.S. Bulhões, E.C. Pereira, *Electrochemical behaviour of Ni particles modified polypyrrole films studied by EQCN technique*, J. Electroanal. Chem. **583**, 162-166 (2005);
7. J.E. May, P.A.P. Nascente, S.E. Kuri, *Corrosion processes and their influence on the magnetic flux density of FeNbCuSiB alloys*, Corrosion Science **48**, 1721-1732 (2006);

8. Y. Mosqueda, E. Pérez-Cappe, J. Arana, E. Longo, A. Ries, M. Cilense, P.A.P. Nascente, P. Aranda, E. Ruiz-Hitzky, *Preparation and characterization of  $\text{LiNi}_{0.8}\text{Co}_{0.2}\text{O}_2/\text{PANI}$  microcomposite electrode materials under assisted ultrasonic irradiation*, *Journal of Solid State Chemistry* **179**, 308-314 (2006);
9. N.T.C. Oliveira, S.R. Biaggio, P.A.P. Nascente, R.C. Rocha-Filho, N. Bocchi, *Investigation of passive films grown on biocompatible Ti-50Zr and Ti-13Zr-13Nb alloys by XPS*, *Surf. Interface Anal.* **38**, 410-412 (2006);
10. E.A. Ferreira, N.T.C. Oliveira, S.R. Biaggio, P.A.P. Nascente, R.C. Rocha-Filho, N. Bocchi, *XPS characterization of anodic oxides grown on biocompatible Ti-50Zr alloy in different acid electrolytes*, *Surf. Interface Anal.* **38**, 417-421 (2006);
11. N.T.C. Oliveira, S.R. Biaggio, P.A.P. Nascente, S. Piazza, C. Sunseri, F. Di Quarto, *The effect of thickness on the composition of passive films on a Ti-50Zr at% alloy*, *Electrochimica Acta* **51**, 3506-3515 (2006).
12. G.R. Salazar-Banda, L.S. Andrade, P.A.P. Nascente, P.S. Pizani, R.C. Rocha-Filho, L.A. Avaca, *On the changing electrochemical behaviour of boron-doped diamond surfaces with time after cathodic pre-treatments*, *Electrochimica Acta* **51**, 4612-4619 (2006).
13. L.M.P. Pinheiro, S.S. Maluf, A.L. Gobbi, P.I. Paulin-Filho, M.C.A. Fantini, P.A.P. Nascente, *Structure, morphology, and composition of thin Pd and Ni films deposited by DC magnetron sputtering on polycrystalline Ni and Pd foils*, *Journal of Physics D: Applied Physics* **38**, 4241-4244 (2005);
14. K.Q. Ferreira, J.F. Schneider, P.A.P. Nascente, U.R. Rodrigues-Filho, E. Tfouni, *Design of an NO photoinduced releaser xerogel based on the controlled nitric oxide donor  $\text{trans-[Ru(NO)Cl(cyclam)(PF}_6)_2$  (cyclam= 11,4,8,11-tetraazacyclotetradecane)*, *Journal of Colloid and Interface Science* **300**, 543-552 (2006);
15. L.C. Gontijo, R. Machado, E.J. Miola, L.C. Casteletti, N.G. Alcântara, P.A.P. Nascente, *Study of the S Phase Formed on Plasma-Nitrided AISI 316L Stainless Steel*, *Materials Science and Engineering A: Structural Materials – Properties, Microstructures and Processing* **431**, 315-321 (2006);
16. M.F. Carazzolle, S.S. Maluf, A. de Siervo, P.A.P. Nascente, R. Landers, G.G. Kleiman, *Surface composition and structure of palladium ultra-thin films deposited on Ni(111)*, *Surface Science* **600**, 2268-2274 (2006);
17. N. Anselmo, J.E. May, N.A. Mariano, P.A.P. Nascente, S.E. Kuri, *Corrosion behavior of supermartensitic stainless steel in aerated and  $\text{CO}_2$ -saturated synthetic seawater*, *Materials Science and Engineering A: Structural Materials – Properties, Microstructures and Processing* **428**, 73-79 (2006);
18. J.E. May, P.A.P. Nascente, S.E. Kuri, *XPS characterization of oxide layers on FeCo-based nanocrystalline alloys*, *Materials Science and Engineering A: Structural Materials – Properties, Microstructures and Processing* **428**, 1721-1732 (2006);
19. C.C. de Paula, P.A.P. Nascente, J.A. Eiras, D. Garcia, R.H.G.A. Kiminami, *Surface and microstructural characterization of lanthanum modified lead titanate obtained by combustion synthesis*, *Ferroelectrics* **334**, (2006);
20. P.A.P. Nascente, S.S. Maluf, L.M.P. Pinheiro, A.L. Gobbi, P.I. Paulin-Filho, M.C.A. Fantini, N.G. Alcântara, *Structure, morphology, and composition of nanometric Pd films deposited by DC magnetron sputtering on Cu, Ag, and Au foils*, *Materials Science and Engineering A: Structural Materials – Properties, Microstructures and Processing* **432**, 303-307 (2006).
21. L.C. Gontijo, R. Machado, S.E. Kuri, L.C. Casteletti, and P.A.P. Nascente, *Corrosion resistance of the layers formed on the surface of plasma-nitrided AISI 304L steel*, *Thin Solid Films* **515**, 1093-1096 (2006);

22. H.M. Villullas, F.I. Mattos-Costa, P.A.P. Nascente, and L.O.S. Bulhões, *Sol-gel prepared Pt-modified oxide layers: synthesis, characterization, and electrocatalytic activity*, Chemistry of Materials 18, 5563-5570 (2006);
23. S.G. Lemos, R.T.S. Oliveira, M.C. Santos, P.A.P. Nascente, L.O.S. Bulhões, E.C. Pereira, *Electrocatalysis of methanol, ethanol and formic acid using a Ru/Pt metallic bilayer*, Journal of Power Sources 163, 695-701 (2007);
24. M.F. Carazzolle, S.S. Maluf, A. de Siervo, P.A.P. Nascente, R. Landers, G.G. Kleiman, *Surface composition and structure of nickel ultra-thin films deposited on Pd(111)*, Journal of Electron Spectroscopy and Related Phenomena 156-158, 405-408 (2007);
25. V.R. Mastelaro, P.N. Lisboa-Filho, P.P. Neves, W.H. Schreiner, P.A.P. Nascente, J.A. Eiras, *X-ray photoelectron spectroscopy study on sintered  $Pb_{1-x}La_xTiO_3$  ferroelectric ceramics*, Journal of Electron Spectroscopy and Related Phenomena 156-158, 476-481 (2007);
26. E.S. Gonçalves, C. Damolin, S.R. Biaggio, P.A.P. Nascente, M.C. Rezende, N.G. Ferreira, *Influence of heat treatment temperature on the morphological and structural aspects of reticulated vitreous carbon used in polyaniline electrosynthesis*, Applied Surface Science (In Press, Accepted Manuscript, Available online 15 February 2007).