

Curriculum Vitae of Vincent Vivier

Address

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Education

Postdoctoral Fellow

Laboratoire Réactivité de Surface - Université P. et M. CURIE (PARIS VI)
September 2001 to August 2002
Research Area: "Electrochemical characterization of cobalt complexes"
Postdoctoral Advisor: Pr. M. Che

Postdoctoral Fellow

Laboratoire Interfaces et Système Electrochimiques - Université P. et M. CURIE (PARIS VI)
May 2000 to August 2001
Research Area: "Corrosion of zinc"
Postdoctoral Advisor: Dr. G. Maurin

Ph.D. in Electrochemistry

Laboratoire d'Electrochimie, Catalyse et Synthèse Organique
Université de Créteil (Paris XII), mai 2000.
Dissertation Title: "Cavity Microelectrode to Study Powder Materials"
Major Professor: Dr. L.T. Yu

Academic Position

2002-present : Full time researcher in the Laboratoire Interface et Système Electrochimique (LISE-UPR 15), Université Pierre et Marie CURIE (PARIS VI)

Research Interests

- Development of local electrochemical techniques (scanning electrochemical microscopy – SECM, local electrochemical impedance spectroscopy – LEIS). Development of coupled technique for the characterization of local reactivity: SECM and electrochemical quartz crystal microbalance (EQCM), SECM and electrolyte resistance...
- Characterization of local processes – Characterization of localized corrosion.
- Kinetics of electrochemical processes studied by electrochemical impedance spectroscopy (EIS).
- Characterization of powder materials by means of cavity microelectrode.

Publications and communications

90 reviewed articles - 4 book chapters
46 publications in meeting proceedings

102 oral presentations – 20 keynotes – 2 plenary lectures
98 poster presentations

Selected publications

C. CACHET, F. GANNE, S. JOIRET, G. MAURIN, J. PETITJEAN, V. VIVIER, R. WIART
EIS Investigation of zinc dissolution in aerated sulfate medium. Part II: zinc coatings. *Electrochim. Acta*, 47 (2002) pp3409-3422.

C. GABRIELLI, F. HUET, M. KEDDAM, P. ROUSSEAU, V. VIVIER
Scanning electrochemical microscopy imaging by means of high-frequency impedance measurements in feedback mode. *J. Phys. Chem. B.*, 108 (2004) pp11620-11626.

C. GABRIELLI, E. OSTERMANN, H. PERROT, V. VIVIER, L. BEITONE, C. MACE
Concentration Mapping Around Copper Microelectrodes Studied by Scanning Electrochemical Microscopy. *Electrochem. Com.*, 7 (2005) pp962-968.

V. M-W. HUANG, V. VIVIER, M. E. ORAZEM, N. PÉBÈRE, B. TRIBOLLET
The apparent constant-phase-element behavior of an ideally polarized blocking electrode: a global and local impedance analysis. *J. Electrochem. Soc.*, 154 (2007) ppC81-C88.

C. GABRIELLI, S. JOIRET, M. KEDDAM, H. PERROT, N. PORTAIL, P. ROUSSEAU, V. VIVIER
A SECM assisted EQCM study of iron pitting. *Electrochim. Acta*, 52 (2007) 7706-7714.

L. FREIRE, X.R. NÓVOA, G. PENA, V. VIVIER
On the corrosion mechanism of AISI 204 Cu Stainless Steel in chlorinated alkaline media. *Corrosion Science*, 50 (2008) 3205-3212.

M. KEDDAM, X.R. NÓVOA, V. VIVIER
The concept of floating electrode for contactless electrochemical measurements: Application to reinforcing steel-bar corrosion in concrete. *Corrosion Science*, 51 (2009) 1795-1801.

M. KEDDAM, N. PORTAIL, D. TRINH, V. VIVIER
Progress in Scanning Electrochemical Microscopy by coupling with electrochemical impedance and quartz crystal microbalance. *ChemPhysChem*, 10 (2009) 3175-3182.

M. SÁNCHEZ, J. GAMBY, H. PERROT, D. ROSE, V. VIVIER
Microelectrochemistry of copper in NaCl solution: Comparison between conventional microelectrode and microelectrochemical cell. *Electrochem. Com.*, 12 (2010) 1230-1232.

M. AOUINA, F. BALBAULD-CELERIER, F. HUET, S. JOIRET, H. PERROT, F. ROUILLARD, V. VIVIER
Single pit initiation on 316L austenitic stainless steel using scanning electrochemical microscopy. *Electrochim. Acta*, 56 (2011) 8589-8596.

D. TRINH, M. KEDDAM, X.R. NÓVOA, V. VIVIER
Alternating current measurements in scanning electrochemical microscopy: 1. Principle and theory. *ChemPhysChem*, 12 (2011) 2169-2176.

D. TRINH, M. KEDDAM, X.R. NÓVOA, V. VIVIER
Alternating current measurements in scanning electrochemical microscopy: 2. Detection of adsorbates. *ChemPhysChem*, 12 (2011) 2177-2183.

J.V. FERRARI, H.G. DE MELO, M. KEDDAM, M.E. ORAZEM, N. PÉBÈRE, B. TRIBOLLET, V. VIVIER
Influence of Normal and Radial Contributions of Local Current Density on Local Electrochemical Impedance Spectroscopy. *Electrochim. Acta*, 60 (2012) 244-252.

M. M. MENNUCCI, M. SANCHEZ-MORENO, I. V. AOKI, M-C. BERNARD, H. G. DE MELO, S. JOIRET, V. VIVIER
Local electrochemical investigation of copper patina. *J. Solid State Electrochem.*, 12 (2012) 109-116.