

## Bibliography on applications of Scanning Probe Microscopy to characterization of metals and alloys

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### **A comparison of preparation methods of copper surfaces for in situ scanning force microscopy investigations**

M. Wadsak, M. Schreiner, T. Aastrup, C. Leygraf  
*Applied Surface Science*, 157 (2000), 1-2, 39-46

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### **A magnetic force microscopy and Kerr effect study of magnetic domains and cross-tie walls in magnetoresistive NiFe shapes**

H. Joisten, S. Lagnier, M.H. Vaudaine, L. Vieux-Rochaz, J.L. Porteseil  
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### **A Morphology Study of Magnetron-Sputtered Al Films by Atomic Force Microscopy**

Sun Yan, Yang De-Quan, Cui Jing-Zhong  
*Journal of Materials Science Letters*, 18 (1999), 5, 407-409

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### **AFM characterization of the evolution of surface deformation during fatigue in polycrystalline copper**

L. Cretegny, A. Saxena  
*Acta Materialia*, 49 (2001), 18, 3755-3765

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### **AFM characterization of the structure of Au-colloid monolayers and their chemical etching**

A. Doron, I. Willner, E. Joselevich, A. Schlittner  
*Thin Solid Films*, 340 (1999), 1-2, 183-188

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### **AFM microlithography of a thin chromium film covered with a thin resist Langmuir-Blodgett (LB) film**

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*Thin Solid Films*, 273 (1996), 1-2, 312-316

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### **AFM observation of a sulfate adlayer on Au(111) in sulfuric acid solution**

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*Surface Science*, 367 (1996), 3, 173-178

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### **AFM study of topographical changes on aluminum surfaces in sulfuric acid under low current anodic dissolution**

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*Journal of Electroanalytical Chemistry*, 501 (2001), 1-2, 33 - 40

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### **An AFM analysis of surface textures of metal sheets caused by sliding with bulk plastic deformation**

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*Wear*, 224 (1999), 1, 73-88

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**An AFM study of the properties of passive films on iron surfaces**

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*Journal of Electroanalytical Chemistry*, 454 (1998), 1-2, 53-58

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**An atomic force microscopy study of the corrosion and filming behaviour of aluminium**

K. Shimizu, K. Kobayashi, P. Skeldon, G.E. Thompson, G.C. Wood

*Corrosion Science*, 39 (1997), 4, 701-718

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**An electrochemical quartz crystal microbalance and in situ SFM study of Ti in sulphuric acid**

M. Herranen, J.-O. Carlsson

*Corrosion Science*, 43 (2001), 2, 365-379

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**An in situ scanning probe microscopy study of copper electrodeposition on conductive polypyrrole**

R.J. Nichols, D. Schroer, H. Meyer

*Electrochimica Acta*, 40 (1995), 10, 1479-1485

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**Analysis of the surface of lithium in organic electrolyte by atomic force microscopy, Fourier transform infrared spectroscopy and scanning auger electron microscopy**

A. Ohta, K.-i. Morigaki

*Journal of Power Sources*, 76 (1998), 2, 159-166

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**Application of atomic-force microscopy to metallography**

Z.-G. Yang, H.-S. Fang, Y.-K. Zheng, J.-J. Wang

*Materials Letters*, 25 (1995), 5-6, 209-212

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**Atomic force microscopy analysis of buckling phenomena in metallic thin films on substrates**

V. Branger, Ch. Coupeau, Ph. Goudeau, B. Boubeker, K. F. Badawi, J. Grilhe

*Journal of Materials Science Letters*, 19 (2000), 4, 353-355

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**Atomic force microscopy and X-ray diffraction study of surface and interface roughness in Nb/Cu multilayers**

K. Temst, M.J. Van Bael, B. Wuyts, C. Van Haesendonck, Y. Bruynseraede, D.G. De Groot, N.J. Koeman, R.P. Griessen

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**Atomic force microscopy imaging to measure precipitate volume fraction in nickel-based superalloys**

A. Bourhettar, M. Troyon, A. Hazotte

*Materials Characterization*, 34 (1995), 4, 265-270

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**Atomic force microscopy investigation of the surface topography and adhesion of nickel nanoparticles to submicrospherical silica**

D. Aurbach, S. Ramesh, A. Gedanken, Y. Cohen  
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**Atomic force microscopy observations of debonding in 304 L stainless steel thin films**

M. Talea, B. Boubeker, P. Goudeau, C. Coupeau, F. Cleymand, J. Grilhe  
*Materials Letters*, 41 (1999), 4, 181-185

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**Atomic force microscopy observations of pitting corrosion and inhibition on 7075-T651 aluminum alloy in hydrochloric acid solutions**

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**Atomic force microscopy of Au deposition from aqueous HF onto Si(111)**

C. Rossiter, I.I. Suni  
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**Atomic force microscopy of Au/Hg alloy formation on thin Au films**

R. Nowakowski, Z. Wolfram, T. Kobiela, R. Dus  
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**Atomic force microscopy of dislocation locking effects at gold film LiF substrate interface**

C. Coupeau, F. Cleymand, J. Grilhe  
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**Atomic force microscopy of in situ deformed nickel thin films**

F. Cleymand, P. Goudeau, J.F. Naud, J. Grilhe, C. Coupeau  
*Thin Solid Films*, 353 (1999), 1-2, 194-200

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**Atomic force microscopy study of the morphology of polythiophene films grafted onto the surface of a Pt microelectrode array**

Y. Cohen, E. Vieil, D. Aurbach, M.D. Levi, M. Lapkowski, J. Serose  
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**Atomic force microscopy, electronic and vibrational spectroscopy of Au colloids formed by ion implantation in muscovite mica**

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**Atomic force microscopy, scanning electron microscopy and electrochemical characterization of Al alloys, conversion coatings, and primers used for aircraft**

G.P. Bierwagen, R. Twite, G. Chen, D.E. Tallman  
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**Atomic structures and growth morphologies of electrodeposited Te film on Au(100) and Au(111) observed by in situ atomic force microscopy**

N. Ikemiya, D. Iwai, K. Yamada, R. Vidu, S. Hara  
*Surface Science*, 369 (1996), 1-3, 199-208

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*Journal of Magnetism and Magnetic Materials*, 198-199 (1999), 644-646**450****Characterization of TRIP-assisted multiphase steel surface topography by atomic force microscopy**

T. Ros-Yanez, Y. Houbaert, A. Mertens

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*Surface Science*, 335 (1995), 110-119**454****C-Ni amorphous multilayers studied by atomic force microscopy**

M. Ulmeanu, A. Serghei, I.N. Mihailescu, P. Budau, M. Enachescu

*Applied Surface Science*, 165 (2000), 2-3, 109-115**455****Coating and active surface of Ni-Zn alloys studied by atomic force microscopy**

J. Ebothe, M. Hiane

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Y. Yamaguchi, M. Shiota, Y. Nakayama, N. Hirai, S. Hara

*Journal of Power Sources*, 93 (2001), 1-2, 104-111**1016****Combined in situ SPM and EIS studies of Pb UPD on Ag(111) and Ag(100)**

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*Electrochimica Acta*, 43 (1998), 19-20, 2863-2873**74****Comparison of AFM and HRTEM to determine the metal particle morphology and loading of an Au/TiO<sub>2</sub> catalyst**

Eleni Dokou, Eric E. Stangland, Ronald P. Andres, W. Nicholas Delgass, Mark A. Barteau

*Catalysis Letters*, 70 (2000), 1/2, 1-7**460****Conductance distribution in granular metal films: a combined study by conducting atomic force microscopy and computer simulation**

X. Yan, J.B. Xu, I.H. Wilson, E.Z. Luo, A.B. Pakhomov, Z.Q.Z.-Q. Zhang, M.-C. Chan

*Physica B: Condensed Matter*, 279 (2000), 1-3, 98-101**471****Determination of the surface area of annealed continuous gold film and pyrex glass in situ by the BET adsorption isotherm and ex situ by Atomic Force Microscopy in air**

L. Stobinski, L. Zommer

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A. Gil, J. Colchero, J. Gomez-Herrero, A.M. Baro

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J.P. Bearinger, C.A. Orme, J.L. Gilbert

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A.N. Correia, S.A.S. Machado, L.A. Avaca

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H. Alus, Y. Katz, W.W. Gerberich, A. Bussiba

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J. M. Mao, J. B. Xu, Q. C. Peng, S. P. Wong, I. H. Wilson

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P. Gorostiza, J. Servat, F. Sanz

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I. Lee, D.L. Phillips, K.-Y. Chan

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M. Goken, M. Kempf, W.D. Nix

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**Highly resolved electric force microscopy of metal-filled anodic alumina**

F. Muller, A.-D. Muller, M. Kroll, G. Schmid

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N. Ikemiya, T. Kubo, S. Hara

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**In situ AFM, XRD and Resistivity Studies of the Agglomeration of Sputtered Silver Nanolayers**

J. Mizsei, V. Lantto

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**In situ atomic force microscopy observation of lithium deposition at an elevated temperature**

R. Mogi, M. Inaba, T. Abe, Z. Ogumi

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A.A. Gewirth, M. Ge

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S. Hara, R. Vidu

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N. Ikemiya, S. Miyaoka, S. Hara

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**Initial stages of the anodic etching of aluminum foils studied by atomic force microscopy**

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G. Bertrand, E. Rocca, C. Savall, C. Rapin, J.-C. Labrune, P. Steinmetz

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**Jerky motion of grain boundaries in NiAl: an atomic force microscopy study**

E. Rabkin, V. Semenov, T. Izyumova  
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**Low-frequency Raman modes and atomic force microscopy for the size determination of catalytic gold clusters supported on iron oxide**

R.S. Cataliotti, G. Compagnini, C. Crisafulli, S. Minico, B. Pignataro, P. Sassi, S. Scire  
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H. Miyajima, A. Hirohata, T. Ono  
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**Measurement of surface defects on thin steel wires by atomic force microscopy**

E. Bernabeu, L.M. Sanchez-Brea, J.A. Gomez-Pedrero  
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K.R. McNee, G.W. Greenwood, H. Jones  
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C. Polaczyk, E. Santner, T. Schneider, J. Schofer  
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M. Katagiri, R.M. Lynden-Bell, D.L. Patrick  
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D. Desjardins, J.M. Olive, V. Genton, J.C. Roux, V. Vignal



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**Morphological change in the degradation of Al electrode surfaces of electroluminescent devices by fluorescence microscopy and AFM**

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**Nano/picoindentation measurements on single-crystal aluminum using modified atomic force microscopy**

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P. O. Vaccaro, S. Sakata, S. Yamaoka, I. Umezu, A. Sugimura  
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**Nanosopic imaging of mechanical properties of metal films with magnetic-force-controlled AFM**

S.-I. Yamamoto, H. Yamada, K. Matsushige, T. Ishida, W. Mizutani, H. Tokumoto  
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M. Troyon, V. Darrort, J. Ebothe, C. Bissieux, C. Nicollin  
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**Ratchet effect in surface electromigration detected with scanning force microscopy in gold micro-strips**

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**Relation between microstructural aspects of AA2024 and its corrosion behaviour investigated using AFM scanning potential technique**

P. Campestrini, E.P.M. van Westing, H.W. van Rooijen, J.H.W. de Wit



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**Scanning probe microscopy and X-ray studies of confined metal films**

S. Hazra, S. Pal, S. Kundu, M.K. Sanyal

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**Scanning probe microscopy study of the interface roughness dependence of the magnetism of metallic multilayers**

K. Mukasa, M. Matsui, Y. Yamada, G. Eilers

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**Scanning thermal microscopy and atomic force microscopy studies of laser-induced deposited metal lines**

P.C. Zhang, P.K.H. Ho, W.J. Wang, K.D. Ye, Y.F. Lu, G.Q. Xu, L. Zhou, S.F.Y. Li

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J. Grilhe, B. Matterstock, J.-L. Martin, J. Bonneville, C. Coupeau

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**Spectroscopic study of the surface oxidation of a thin epitaxial Co layer**

R. Mamy

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**STM and STS of bulk electron scattering by subsurface objects**

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**Stress-modified electrochemical reactivity of metallic surfaces: atomic force microscopy imaging studies of nickel and alloyed aluminum**

J. Hahm, S.J. Sibener

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**Studies using AFM and STM of the correlated effects of the deposition parameters on the topography of gold on mica**

Z.H. Liu, N.M.D. Brown

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Y. Yamaguchi, M. Shiota, M. Hosokawa, Y. Nakayama, N. Hirai, S. Hara

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L.Sziraki, E. Szocs, Z. Pilbath, K. Papp, E. Kalman

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D. Ronnow, T. Lindstrom, J. Isidorsson, C.-G. Ribbing  
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D. Sarid

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T. Waitz, H.P. Karnthaler

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S. Lalbahadoersing, M.H. Siekman, J.P.J. Groenland, S.B. Luitjens, J.C. Lodder

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