



## PUBLICATIONS

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### International Journal Articles:

1. R.Kazinczi, **E.Szócs**, E.Kálmán, P.Nagy, Novel methods for preparing EC-STM tips, *Applied Phys. A* 66 535 (1998)
2. **E.Szócs**, Gy.Vastag, A.Shaban, G.Konczos, E.Kálmán, Investigation of copper corrosion inhibition by STM and EQCM techniques, *J. Appl. Electrochem.* 29 1339 (1999)
3. Gy.Vastag, **E.Szócs**, A.Shaban, I.Bertóti, K.Popov-Pergal, E.Kálmán, Adsorption and corrosion protection behavior of thiazole derivatives on copper surfaces, *Solide State Ionics* 141-142 87 (2001)
4. Gy.Vastag, **E.Szócs**, A.Shaban, E.Kálmán, New inhibitors for copper corrosion, *Pure Appl. Chem.* 73 1861 (2001)
5. L.Sziráki, **E.Szócs**, Zs.Pilbáth, K.Papp, E.Kálmán, Study of initial stage of white rust formation on zinc single crystal by EIS, STM/AFM and SEM/EDS techniques, *Electrochim. Acta* 46, 3743 (2001)
6. A.Vértes, Gy.Vakó, Z.Németh, Z.Klencsár, E.Kuzmann, Z.Homonnay, F.H.Kármán, **E.Szócs**, E.Kálmán, Nanostructure of vapor-deposited <sup>57</sup>Fe thin films, *Langmuir* 18 (2002) 1206
7. **E.Szócs**, I.Felhősi, U.Schmidt, P.Nagy, J.Telegdi, E.Kálmán, Dynamic behavior of the inhibitor adsorption on Au(111) studied by in situ STM, *Werkstoffe und Korrosion* 53(9) (2002) 631
8. **E.Szócs**, I.Bakó, T.Kosztolányi, I Bertóti, E.Kálmán, EC-STM study of 5-mercapto-1-phenyl-tetrazole adsorption on Cu(111), *Electrochim. Acta* 498 (2004) 1371
9. **E.Szócs**, Gy.Vastag, A.Shaban, E.Kálmán, Electrochemical behaviour of an inhibitor film formed on copper surface, *Corrosion Sci.* 47 (2005) 893
10. **E.Szócs**, L.Durrer, R.Luginbühl, N.Simic, A.S.Viana, L.M.Abrantes, R.Keese, H.Siegenthaler, STM investigations of Au(111) electrodes coated with Vitamin B<sub>12</sub> derivatives, *Surf. Sci.* 600 (2006) 43
11. E.Delort, **E.Szócs**, R.Widmer, H.Siegenthaler, J.-L.Reymond, STM-Vizualization of Thiol-Containing Peptide Dendrimers on Au(111), *Macromol. Biosci.* 7 (2007) 1027
12. **E.Szócs**, S.Menard, F.Schwager, M.Toben, N.Brese, Indium Electrodeposition for Thermally Conductive Interconnection Technology, *Advance Packaging*, 2009, in press

### Hungarian Journal Articles:

13. Vastag Gy., **Szócs E.**, Shaban A., Konczos G., Kálmán E., 5-merkaptó-1-fenil-tetrazol inhibitor hatásának vizsgálata elektrogravimetriás és pásztázó alagútmikroszkópos módszerekkel, *Magyar Kémiai Folyóirat* 106 (2000) 110
14. Vastag Gy, **Szócs E.**, Shaban A., Kálmán E., Tiazolszármazékok mint rézkozzóiós inhibitorok savas közegben, *Korróziós Figyelő* (6) 42 (2002) 193
15. Pilbáth Zs., Sziráki L., **Szócs E.**, Papp K., A cink-oxid korróziós védőképessége a gyakorlati alkalmazások tükrében, *Korróziós Figyelő* 41 (1) 3 (2001)

## PRESENTATIONS

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### Conference Presentations:

1. R.Kazinczi, **E.Szócs**, E.Kálmán, P.Nagy, Novel methods for preparing EC-STM tips, *9<sup>th</sup> International Conference on Scanning Tunneling Microscopy/Spectroscopy and Related Techniques STM'97*, Hamburg, Germany, Abstract Tu PDP01 (1997) (poster)

2. **E.Szócs**, I.Felhósi, U.Schmidt, E.Kálmán, Dynamic behaviour of the inhibitor adsorption on Au(111) studied by in-situ Scanning Tunneling Microscopy, *193<sup>rd</sup> Meeting of Electrochemical Society*, San Diego, USA (1998) (poster)
3. I.Felhósi, P.Baradlai, G.Hirshberg, **E.Szócs**, E.Kálmán, In situ radiotracer and voltametric study of HEDP inhibitor adsorption on polycrystalline gold, *49<sup>th</sup> Annual meeting of ISE*, Kitakyushu, Japan (1998) (lecture)
4. Gy.Vastag, **E.Szócs**, A.Shaban, G.Konczos, E.Kálmán, Investigation of corrosion inhibition of Cu(111) by EC-STM and EQCM techniques, *Eurocorr'98*, Utrecht, Holland, Abstract 69 (1998) (lecture)
5. **E.Szócs**, E.Kálmán, Corrosion inhibition study of Cu(111) by STM, *2<sup>nd</sup> Hasliberg Workshop on Nanosciences*, Hasliberg, Switzerland (1998) (poster)
6. **E.Szócs**, A.Shaban, E.Kálmán, Investigation of copper corrosion inhibition in acidic solutions by 5-mercapto-1-phenyl-tetrazole, *50<sup>th</sup> Annual meeting of ISE*, Pavia, Italy, Abstract 844 (1999) (poster)
7. Gy.Vastag, **E.Szócs**, A.Shaban, K.Popov-Pergal, E.Kálmán, Inhibition of copper corrosion in acidic sulphate containing solution by thiazole derivatives, *Eurocorr'99*, Aachen, Germany, Abstract 21 (1999) (lecture)
8. Gy Vastag, **E.Szócs**, A.Shaban, E.Kálmán, Heterocyclic compounds as corrosion inhibitors for copper, *Fachgruppentagung 1999 der GDCh-Fachgruppe Angewandte Electrochemie, "Metalle in der Electrochemie – Gewinnung, Abscheidung, Korrosion"*, Freiburg, Germany, Abstract 25 (1999) (lecture)
9. **E.Szócs**, Gy.Vastag, A.Shaban, I.Bertóti, E.Kálmán, Adsorption and corrosion protection behavior of thiazole derivatives on copper surfaces, *14<sup>th</sup> International Symposion on the Reactivity of Solids*, Budapest, Hungary, Abstract 126 (2000) (poster)
10. A.Shaban, **E.Szócs**, Gy.Vastag, E.Kálmán, Investigation of copper corrosion inhibition at nanometer scale, *EMCR'2000, 7<sup>th</sup> International Symposium on Electrochemical Methods In Corrosion Research*, Budapest, Hungary, Abstract 128 (2000) (lecture)
11. L.Sziráki, **E.Szócs**, Zs.Pilbáth, K.Papp, E.Kálmán, Study of the initial stage of the white rust formation on single crystal zinc by EIS, STM/AFM and SEM/EDS techniques. *EMCR'2000, 7<sup>th</sup> International Symposium on Electrochemical Methods In Corrosion Research*, Budapest, Hungary, Abstract 138 (2000) (lecture)
12. I.Felhósi, E.Kálmán, P.Póczik, **E.Szócs**, Layer formation by self-assembling molecules – A study of the corrosion protection effect, *KCSC 200, 3<sup>rd</sup> Kurt Schwabe Corrosion Symposium "Novel Materials and Methods for Improvement of Corrosion Resistance"*, Zakopane, Poland, Proceeding 315 (2000) (lecture)
13. **E.Szócs**, A.Shaban, Gy.Vastag, E.Kálmán, Investigation of copper corrosion inhibition in acidic media at nanometer-scale, *KCSC 200, 3<sup>rd</sup> Kurt Schwabe Corrosion Symposium "Novel Materials and Methods for Improvement of Corrosion Resistance"*, Zakopane, Poland, Proceeding 325 (2000) (lecture)
14. I.Felhósi, P.Póczik, **E.Szócs**, E.Kálmán, Mechanism of corrosion inhibition of self-assembling molecules, *51<sup>st</sup> Annual Meeting of ISE*, Warsaw, Poland, Abstract 68 (2000) (lecture)
15. **E.Szócs**, A.Shaban, E.Kálmán, Investigation of nano-structured inhibitor layers on Cu(111) surface using EC-STM, *3<sup>rd</sup> Hasliberg Workshop On Nanoscience*, Hasliberg, Switzerland, Abstract 59 (2000) (poster)
16. **E.Szócs**, A.Shaban, Gy.Vastag, E.Kálmán, Electrochemical behavior of inhibitor film formed on copper surface, *Eurocorr'01*, Riva del Garda, Italy, Abstract 210 (2001) (lecture)
17. Gy.Vastag, **E.Szócs**, A.Shaban, E.Kálmán, Thiazole derivatives as corrosion inhibitors for copper, *Eurocorr'01*, Riva del Garda, Italy, Abstract 209 (2001) (poster)
18. Gy.Vastag, **E.Szócs**, A.Shaban, E.Kálmán, New chemicals as potential inhibitors for copper corrosion, *IUPAC Workshop „Electrochemistry and Interfacial Chemistry in environmental Clean-up and green chemical processes"*, Coimbra, Portugal, Abstract L-6 (2001) (lecture)
19. **E. Szócs**, Gy. Vastag, A. Shaban, E. Kálmán Electrochemical behavior of inhibitor film formed on copper surface, *201<sup>th</sup> Meeting of the Electrochemical Society*, Philadelphia, USA, Abstract 290 (2002) (lecture)

20. Gy.Vastag, **E.Szócs**, A.Shaban, E.Kálmán, Adsorption and corrosion inhibitive properties of some thiazole derivatives on copper surface in acidic solutions, *4<sup>th</sup> International Conference of the Chemical Societies of the South-East European Countries*, Belgrade, Serbia&Montenegro (2003) (poster)
21. Gy.Vastag, **E.Szócs**, , A.Shaban, E.Kálmán, Corrosion Inhibitive properties of some thiazole derivatives on copper in acidic solutions, *Eurocorr 2003*, Budapest, Hungary (2003) (lecture)
22. E.Delort, R.Widmer, **E.Szócs**, H.Siegenthaler, J.-L.Reymond, STM-visualization of peptide dendrimers on Au(111), *3<sup>rd</sup> International Dendrimer Symposium*, Berlin, Germany (2003) (poster)
23. C.R.Bradbury, M.Carrara, S.Huclova, **E.Szócs**, H.Siegenthaler, D.J.Fermín, Electrostatic assemblies of metal nanoparticles on modified electrodes. Organisation and electronic coupling, Spa, Belgium (2004) (poster)
24. T.Darbe, L.Durrer, R.Luginbühl, N.Simic, **E.Szócs** R.Keese, H.Siegenthaler Electrochemical and STM investigations of electrodes coated with Vitamin B<sub>12</sub> derivatives, *55<sup>th</sup> International ISE Meeting*, Tesseloniki, Greece (2004) (poster)
25. **E.Szócs**, F. Schwager, M. Toben, N. Brese, High-speed Indium Electrodeposition: Efficient, Reliable TIM Technology, ESTC 2008, Greenwich, England
26. **E. Szócs**, F.Schwager, M.Toben, N.Brese , High-speed Indium Electrodeposition: Efficient, Reliable TIM Technology, IMAPS 2008, Province, USA
27. **E. Szócs**, Nachbehandlung: Organischer Korrosionsschutz von Zinnoberflächen, Seminar, 24 June 2009, Pforzheim, Deutschland
28. **E. Szócs**, M.Clauss, F.Schwager, Neuer organischer Korrosionsschutz für Zinn-Oberflächen, ZVO Oberflächentage, Sept-2009, Bremen, Deutschland