

All publications of the Functional Interfaces Research Group members:

(Author search in the Hungarian Scientific Bibliography)

<https://m2.mtmt.hu/gui2/>

Selected publications:

Fundamental electrochemical processes and technologies

I. Felhősi, T. Pajkossy

Electrode kinetics of the ferrocyanide-ferricyanide couple

JOURNAL OF ELECTROANALYTICAL CHEMISTRY 1007 p. 119936 Paper: 119936, 9 p. (2026)

<https://doi.org/10.1016/j.jelechem.2026.119936>

T. Pajkossy

Diffusion-affected charge transfer: demonstration experiment for the linear relationship between current and its semiintegral

ELECTROCHEMISTRY COMMUNICATIONS 178 Paper: 107969 (2025)

<https://doi.org/10.1016/j.elecom.2025.107969>

J. Telegdi

Multifunctional Inhibitors: Additives to Control Corrosive Degradation and Microbial Adhesion

COATINGS 14 : 5 Paper: 617(2024)

<https://doi.org/10.3390/coatings14050617>

G. Vastag, I. Felhősi, M. Vraneš, A. Shaban

Impact of N-decyl-nicotineamide bromide on copper corrosion inhibition in acidic sulfate containing environment: Electrochemical and piezoelectrochemical insights

HELIYON 10 : 22 Paper: e40184 , (2024)

<https://doi.org/10.1016/j.heliyon.2024.e40184>

I. Felhősi, L. Molnárné Nagy, Sz. Horváth, T. Pozman, J. Bognár, T. Szabó, Z. Keresztes

Corrosion Protection and Heat Resistance of Paints for Outdoor Use

MATERIALS 16 : 7 Paper: 2753 , 16 p. (2023)

<https://doi.org/10.3390/ma16072753>

B. Medgyes, A. Gharaibeh G. Harsányi, B. Pécz, I. Felhősi

Electrochemical corrosion and electrochemical migration characteristics of SAC-1Bi-xMn solder alloys in NaCl solution

CORROSION SCIENCE 213 Paper: 110965 , 12 p. (2023)

<https://doi.org/10.1016/j.corsci.2023.110965>

T. Pajkossy, M. Ceblin, G. Mészáros

Dynamic electrochemical impedance spectroscopy for the charge transfer rate measurement of the ferro/ferricyanide redox couple on gold

JOURNAL OF ELECTROANALYTICAL CHEMISTRY 899, Paper No. 115655 (2021)

<https://doi.org/10.1016/j.jelechem.2021.115655>

T. Pajkossy

Transformation to potential-program invariant form of voltammograms and dynamic electrochemical impedance spectra of surface confined redox species

ELECTROCHEMICAL SCIENCE ADVANCES 2021 : 1 Paper: e2000039. (2021)

<https://doi.org/10.1002/elsa.202000039>

A. Shaban, Gy. Vastag, J. Telegdi

Metal corrosion and its inhibition mechanisms

In: Wilkerson, Raymond (szerk.) Corrosion inhibitors: An overview

New York (NY), USA : Nova Science Publishers 33-99. (2021)

ISBN: 9781685070120

T. Pajkossy

Analysis of adsorption-related voltammograms: Transformation to potential-program invariant form

ELECTROCHEMISTRY COMMUNICATIONS 118, 106810 (2020)

<https://doi.org/10.1016/j.elecom.2020.106810>

T. Pajkossy, G. Mészáros

Connection of CVs and impedance spectra of reversible redox systems, as used for the validation of a dynamic electrochemical impedance spectrum measurement system

JOURNAL OF SOLID STATE ELECTROCHEMISTRY 24, 2883-2889 (2020)

<https://doi.org/10.1007/s10008-020-04661-8>

T. Pajkossy

Voltammetry coupled with impedance spectroscopy

JOURNAL OF SOLID STATE ELECTROCHEMISTRY 24, 2157-2159 (2020)

<https://doi.org/10.1007/s10008-020-04689-w>

I. Felhősi, Z. Keresztes, T. Marek, T. Pajkossy

Properties of electrochemical double-layer capacitors with carbon-nanotubes-on-carbon-fiber-felt electrodes

ELECTROCHIMICA ACTA 334, 135548 (2020)

<https://doi.org/10.1016/j.electacta.2019.135548>

J. Telegdi

Formation of self-assembled anticorrosion films on different metals

MATERIALS 13(22), 5089 (2020)

<https://doi.org/10.3390/ma13225089>

J. Telegdi, A. Shaban, L. Trif

Review on the microbiologically influenced corrosion and the function of biofilms

INTERNATIONAL JOURNAL OF CORROSION AND SCALE INHIBITION, 9(1), 1–33 (2020)

<http://doi.org/10.17675/2305-6894-2020-9-1-1>

T. Pajkossy

Dynamic electrochemical impedance spectroscopy of quasi-reversible redox systems. Properties of the Faradaic impedance, and relations to those of voltammograms

ELECTROCHIMICA ACTA 308, 410-417 (2019)

<https://doi.org/10.1016/j.electacta.2019.03.197>

T. Pajkossy, C. Müller, T. Jacob*

The metal-ionic liquid interface as characterized by impedance spectroscopy and in situ scanning tunneling microscopy

PHYSICAL CHEMISTRY CHEMICAL PHYSICS 20:33, 21241-21250 (2018)

<https://doi.org/10.1039/C8CP02074D>

T. Pajkossy

Analysis of quasi-reversible cyclic voltammograms: Transformation to scan-rate independent form

ELECTROCHEMISTRY COMMUNICATIONS 90, 9-72 (2018)

<https://doi.org/10.1016/j.elecom.2018.04.004>

T. Pajkossy; R. Jurczakowski

Electrochemical impedance spectroscopy in interfacial studies

CURRENT OPINION IN ELECTROCHEMISTRY 1:1, 53-58 (2017)

<https://doi.org/10.1016/j.coelec.2017.01.006>

T. Pajkossy, G. Mészáros, I. Felhősi, T. Marek, L. Nyikos

A multisine perturbation EIS system for characterization of carbon nanotube layers

BULGARIAN CHEMICAL COMMUNICATIONS 49, 114-118 (2017)

É. Fekete, B. Lengyel, T. Cserfalvi, T. Pajkossy

Electrochemical dissolution of aluminium in electrocoagulation experiments

JOURNAL OF SOLID STATE ELECTROCHEMISTRY 20, 3107-3114 (2016)

<https://doi.org/10.1007/s10008-016-3195-6>