

Electrochemistry of electrodes with *fractal* surfaces:

- L. Nyikos and T. Pajkossy: Fractal dimension and fractional power frequency dependent impedance of blocking electrodes,
Electrochim. Acta **30**(11), 1533-1540 (1985), doi: [10.1016/0013-4686\(85\)80016-5](https://doi.org/10.1016/0013-4686(85)80016-5)
- T. Pajkossy and L. Nyikos: Scaling-law analysis to describe the impedance behaviour of fractal electrodes,
Phys. Rev. **B42** (1), 709-719 (1990), doi: [10.1103/PhysRevB.42.709](https://doi.org/10.1103/PhysRevB.42.709)
- T Pajkossy, Electrochemistry of Fractal Surfaces, *Encyclopedia of Interfacial Chemistry: Surface Science and Electrochemistry*, (2018) 121-124,
doi: [10.1016/B978-0-12-409547-2.13306-2](https://doi.org/10.1016/B978-0-12-409547-2.13306-2)

Electrochemistry of electrodes of *rough* surfaces:

- T. Pajkossy: Impedance of rough capacitive electrodes,
J. Electroanal. Chem. **364**, 111-125 (1994), doi: [10.1016/0022-0728\(93\)02949-I](https://doi.org/10.1016/0022-0728(93)02949-I)
- Z. Kerner and T. Pajkossy: Impedance of rough capacitive electrodes - the role of surface disorder,
J. Electroanal. Chem. **448**, 139-142 (1998), doi: [10.1016/S0022-0728\(98\)00025-4](https://doi.org/10.1016/S0022-0728(98)00025-4)
- T. Pajkossy: Impedance spectroscopy at interfaces of metals and aqueous solutions - surface roughness, CPE and related issues,
Solid State Ionics **176** (25-28), 1997-2003 (2005), doi: [10.1016/j.ssi.2004.06.023](https://doi.org/10.1016/j.ssi.2004.06.023)

Double layer and anion adsorption studies in aqueous solutions and in ionic liquids:

- T. Pajkossy, Th. Wandlowski, and D.M. Kolb: Impedance aspects of the anion adsorption on gold single crystal electrodes,
J. Electroanal. Chem. **414**, 209-220 (1996), doi: [10.1016/0022-0728\(96\)04700-6](https://doi.org/10.1016/0022-0728(96)04700-6)
- T. Pajkossy and D.M. Kolb: Double layer capacitance of Pt(111) single crystal electrodes,
Electrochim. Acta **46**(20-21) 3063-3071 (2001), doi: [10.1016/S0013-4686\(01\)00597-7](https://doi.org/10.1016/S0013-4686(01)00597-7)
- Z. Kerner and T. Pajkossy: Measurement of adsorption rates of anions on Au(111) electrodes by impedance spectroscopy,
Electrochim. Acta, **47** (13-14) 2055-2063 (2002), doi: [10.1016/S0013-4686\(02\)00073-7](https://doi.org/10.1016/S0013-4686(02)00073-7)
- T. Pajkossy and D.M. Kolb: Double layer capacitance of the platinum group metals in the double layer region,
Electrochem. Comm., **9**, 1171-1174 (2007), doi: [10.1016/j.elecom.2007.01.002](https://doi.org/10.1016/j.elecom.2007.01.002)
- T. Pajkossy: Impedance spectra of Pt(100) in aqueous H₂SO₄ and HCl solutions around the hydrogen adsorption-desorption peak,
Z. Phys.Chem., **226** (2012) 935-943, doi :[10.1524/zpch.2012.0243](https://doi.org/10.1524/zpch.2012.0243)
- Tamás Pajkossy, Claus Müller and Timo Jacob, The metal–ionic liquid interface as characterized by impedance spectroscopy and in situ scanning tunneling microscopy,
Phys.Chem.Chem.Phys., **20** (2018) 21241-21250, doi:[10.1039/c8cp02074d](https://doi.org/10.1039/c8cp02074d)

List of Tamás Pajkossy's representative publications - 18 November 2023

Semiintegration & voltammetry:

- T. Pajkossy and L. Nyikos: Fast algorithm for differintegration, *J. Electroanal. Chem.* **179**, 65-69 (1984), doi: [10.1016/S0022-0728\(84\)80275-2](https://doi.org/10.1016/S0022-0728(84)80275-2)
- T. Pajkossy: Potential program invariant representation of voltammetric measurement results of reversible redox couples, *J. Electroanal. Chem.* **422**, 13-19 (1997), doi: [10.1016/S0022-0728\(96\)04883-8](https://doi.org/10.1016/S0022-0728(96)04883-8)
- T. Pajkossy, S. Vesztergom, Analysis of voltammograms of quasi-reversible redox systems: Transformation to potential program invariant form, *Electrochim. Acta* **297** (2019) 1121-1129, doi: [10.1016/j.electacta.2018.12.023](https://doi.org/10.1016/j.electacta.2018.12.023)
- T. Pajkossy, Voltammetry coupled with impedance spectroscopy, *J. Solid St. Electrochem.* **24** (2020) 2157–2159, doi: [10.1007/s10008-020-04689-w](https://doi.org/10.1007/s10008-020-04689-w)
- T. Pajkossy, Determination of Electrode Kinetics Parameters from Dynamic Electrochemical Impedance Spectroscopy Measurements via Potential-Program Invariant Function, *J. Phys. Chem. Lett.*, **14** (2023) 10599, doi: [10.1021/acs.jpcclett.3c02810](https://doi.org/10.1021/acs.jpcclett.3c02810)

Miscellaneous studies of physical chemistry:

- T. Pajkossy: Mechanism of hole injection on ferric oxide photoelectrodes, *J. Electrochem. Soc.* **130** (3), 632-635 (1983), doi: [10.1149/1.2119769](https://doi.org/10.1149/1.2119769)
- E.W. Tsai, T. Pajkossy, K. Rajeshwar, and J.R. Reynolds: Anion exchange behaviour of polypyrrole membranes, *J. Phys. Chem.* **92** (12), 3560-3565 (1988), doi: [10.1021/j100323a047](https://doi.org/10.1021/j100323a047)
- G. Nagy, Z. Kerner, and T. Pajkossy: In situ electrochemical impedance spectroscopy of Zr-1%Nb under VVER primary circuit conditions, *J. Nucl. Mater.* **300**, 230-236 (2002), doi: [10.1016/S0022-3115\(01\)00735-8](https://doi.org/10.1016/S0022-3115(01)00735-8)
- G. Lendvay-Győrik, T. Pajkossy, and B. Lengyel: Water uptake of water-borne paint resin films as studied by impedance spectroscopy and gravimetry, *Progress in Organic Coatings* **59**, 95-99 (2007), doi: [10.1016/j.porgcoat.2007.01.015](https://doi.org/10.1016/j.porgcoat.2007.01.015)
- I. Bakos, S. Szabó, and T. Pajkossy: Deposition of platinum monolayers on gold, *J. Solid State Electrochem.*, **15** (2011) 2453-2459, doi: [10.1007/s10008-011-1444-2](https://doi.org/10.1007/s10008-011-1444-2)
- É. Fekete, B. Lengyel, T. Cserfalvi, and T. Pajkossy, Electrochemical dissolution of aluminium in electrocoagulation experiments, *J. Solid State Electrochem.*, (2016) **20**:3107–3114; doi: [10.1007/s10008-016-3195-6](https://doi.org/10.1007/s10008-016-3195-6)
- I. Felhősi, Z. Keresztes, T. Marek, and T. Pajkossy, Properties of electrochemical double-layer capacitors with carbon-nanotubes-on-carbon-fiber-felt electrodes *Electrochim. Acta* **334** (2020) 135548, doi: [10.1016/j.electacta.2019.135548](https://doi.org/10.1016/j.electacta.2019.135548)
- T. Pajkossy, M.U. Cebelin, G. Mészáros, Dynamic electrochemical impedance spectroscopy for the charge transfer rate measurement of the ferro/ferricyanide redox couple on gold, *J. Electroanal. Chem.*, **899** (2021) 115655, doi: [10.1016/j.jelechem.2021.115655](https://doi.org/10.1016/j.jelechem.2021.115655)