

Robert Schennach

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1185878/publications.pdf>

Version: 2024-02-01

98
papers

3,467
citations

236925
25
h-index

144013
57
g-index

98
all docs

98
docs citations

98
times ranked

4300
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrocoagulation (EC) – science and applications. Journal of Hazardous Materials, 2001, 84, 29-41.	12.4	1,069
2	A Fourier transform infrared spectroscopic investigation of the early hydration of Portland cement and the influence of sodium lignosulfonate. Cement and Concrete Research, 2000, 30, 267-273.	11.0	350
3	A review of cement – superplasticizer interactions and their models. Advances in Cement Research, 2000, 12, 153-161.	1.6	189
4	Growth and Surface Structure of Zinc Oxide Layers on a Pd(111) Surface. Journal of Physical Chemistry C, 2010, 114, 15432-15439.	3.1	153
5	UV – ozone treated Au for air-stable, low hole injection barrier electrodes in organic electronics. Journal of Applied Physics, 2006, 100, 053701.	2.5	99
6	Comprehensive analysis of individual pulp fiber bonds quantifies the mechanisms of fiber bonding in paper. Scientific Reports, 2015, 5, 10503.	3.3	91
7	In situ PM-IRRAS of a glassy carbon electrode/deep eutectic solvent interface. Physical Chemistry Chemical Physics, 2015, 17, 12870-12880.	2.8	82
8	Adsorption and Desorption of Methanol on Pd (111) and on a Pd/V Surface Alloy. Journal of Physical Chemistry B, 2003, 107, 2552-2558.	2.6	68
9	Cristobalite formation from thermal treatment of Texas lignite fly ash. Fuel, 1999, 78, 1277-1282.	6.4	64
10	CO adsorption and CO and O coadsorption on Rh(111) studied by reflection absorption infrared spectroscopy and density functional theory. Journal of Chemical Physics, 2006, 124, 144703.	3.0	62
11	The effect of the electrode material on the electrodeposition of zinc from deep eutectic solvents. Electrochimica Acta, 2016, 197, 344-352.	5.2	62
12	What holds paper together: Nanometre scale exploration of bonding between paper fibres. Scientific Reports, 2013, 3, 2432.	3.3	59
13	Plasma chemistry as a tool for green chemistry, environmental analysis and waste management. Journal of Hazardous Materials, 2000, 79, 301-320.	12.4	54
14	The low-temperature thermal oxidation of copper, Cu ₃ O ₂ , and its influence on past and future studies. Vacuum, 2005, 79, 71-83.	3.5	54
15	AFM nanoindentation of pulp fibers and thin cellulose films at varying relative humidity. Holzforschung, 2014, 68, 53-60.	1.9	49
16	Adhesion of cellulose fibers in paper. Journal of Physics Condensed Matter, 2013, 25, 045002.	1.8	42
17	A Study on the Formation and Thermal Stability of 11-MUA SAMs on Au(111)/Mica and on Polycrystalline Gold Foils. Langmuir, 2009, 25, 1427-1433.	3.5	39
18	Cellulose ternary photonic crystal created by solution processing. Cellulose, 2016, 23, 2853-2862.	4.9	37

#	ARTICLE	IF	CITATIONS
19	Growth and Desorption Kinetics of Ultrathin Zn Layers on Pd(111). Journal of Physical Chemistry C, 2009, 113, 9788-9796.	3.1	36
20	A RAIRS, TPD, and DFT Study of Carbon Monoxide Adsorption on Stepped Rh(553). Journal of Physical Chemistry C, 2008, 112, 806-812.	3.1	30
21	Testing of individual fiber-fiber joints under biaxial load and simultaneous analysis of deformation. Nordic Pulp and Paper Research Journal, 2012, 27, 237-244.	0.7	30
22	DFT and RAIRS Investigations of Methanol on Cu(110) and on Oxygen-Modified Cu(110). Journal of Physical Chemistry C, 2008, 112, 14034-14040.	3.1	29
23	Joint strength measurements of individual fiber-fiber bonds: An atomic force microscopy based method. Review of Scientific Instruments, 2012, 83, 073902.	1.3	29
24	Imaging of the formerly bonded area of individual fibre to fibre joints with SEM and AFM. Cellulose, 2014, 21, 251-260.	4.9	28
25	Vacancy formation on C60/Pt (111): unraveling the complex atomistic mechanism. Nanotechnology, 2014, 25, 385602.	2.6	25
26	Thin cellulose films as a model system for paper fibre bonds. Cellulose, 2014, 21, 237-249.	4.9	24
27	Adsorption of hydrogen and carbon monoxide on Rh(111)/V surface alloys. Surface Science, 2003, 540, 237-245.	1.9	22
28	On the surface analysis of copper oxides: the difficulty in detecting Cu ₃ O ₂ . Vacuum, 2004, 77, 27-35.	3.5	21
29	The effects of water uptake on mechanical properties of viscose fibers. Cellulose, 2015, 22, 2777-2786.	4.9	21
30	Paper physics. Nordic Pulp and Paper Research Journal, 2009, 24, 199-205.	0.7	20
31	Preparation and calibration of ultrathin Zn layers on Pd(111). Applied Surface Science, 2009, 255, 5755-5759.	6.1	19
32	Passive film breakdown during anodic oxidation of zirconium in pH 8 buffer containing chloride and sulfate. Electrochimica Acta, 2001, 46, 3343-3350.	5.2	18
33	Adsorption and reaction of methanol on clean and oxygen modified rhodium/vanadium surface alloys. Journal of Chemical Physics, 2004, 120, 5729-5735.	3.0	17
34	Analysis of lignin precipitates on ozone treated kraft pulp by FTIR and AFM. Cellulose, 2012, 19, 249-256.	4.9	17
35	A theoretical study of Zn adsorption and desorption on a Pd(111) substrate. Surface Science, 2010, 604, 926-931.	1.9	16
36	The surface charge of regenerated cellulose fibres. Cellulose, 2013, 20, 2719-2729.	4.9	16

#	ARTICLE	IF	CITATIONS
37	Regenerated cellulose fiber solar cell. Flexible and Printed Electronics, 2017, 2, 014002.	2.7	16
38	An X-Ray Diffraction, Fourier-Transform Infrared Spectroscopy, and Scanning Electron Microscopy/Energy-Dispersive Spectroscopic Investigation of the Effect of Sodium Lignosulfonate Superplasticizer on the Hydration of Portland Cement Type V. Polymer-Plastics Technology and Engineering, 1999, 38, 849-868.	1.9	15
39	Synthesis of a Photosensitive Thiocyanate-Functionalized Trialkoxysilane and Its Application in Patterned Surface Modifications. Chemistry of Materials, 2008, 20, 2009-2015.	6.7	15
40	A New Method for Performing Polarization Modulation Infrared Reflection-Adsorption Spectroscopy of Surfaces. Applied Spectroscopy, 2009, 63, 369-372.	2.2	14
41	Thickness Dependence of Reflection~Absorption Infrared Spectra of Supported Thin Polymer Films. Macromolecules, 2011, 44, 1775-1778.	4.8	14
42	Analysis of CMC attachment onto cellulosic fibers by infrared spectroscopy. Cellulose, 2009, 16, 825-832.	4.9	13
43	Revisiting polarized light microscopy for fiber-fiber bond area measurement - Part II: Proving the applicability. Nordic Pulp and Paper Research Journal, 2010, 25, 71-75.	0.7	13
44	Analysis of precipitated lignin on kraft pulp fibers using atomic force microscopy. Cellulose, 2012, 19, 1013-1021.	4.9	13
45	Pore space extraction and characterization of sack paper using μ CT. Journal of Microscopy, 2018, 272, 35-46.	1.8	13
46	Metal-oxide boundary effects in vanadium oxide α -Rh(111) inverse model catalysts: a RAIRS, STM and TPD study. Topics in Catalysis, 2007, 46, 231-238.	2.8	12
47	Photoreactive molecular layers containing aryl ester units: Preparation, UV patterning and post-exposure modification. Materials Chemistry and Physics, 2010, 119, 287-293.	4.0	12
48	Revisiting polarized light microscopy for fiber-fiber bond area measurement - Part I: Theoretical fundamentals. Nordic Pulp and Paper Research Journal, 2010, 25, 65-70.	0.7	12
49	Adsorption Studies of Organophosphonic Acids on Differently Activated Gold Surfaces. Langmuir, 2016, 32, 1550-1559.	3.5	12
50	Microstructure and mechanical properties of free and restrained dried paper: a comprehensive investigation. Cellulose, 2020, 27, 8567-8583.	4.9	12
51	Title is missing!. Oxidation of Metals, 2001, 55, 523-541.	2.1	11
52	Methanol adsorption on Cu(110) and the angular distribution of the reaction products. Journal of Chemical Physics, 2007, 126, 164710.	3.0	11
53	Adsorption of small molecules on a (2 $\sqrt{3}$ -1) PdZn surface alloy on Pd(111). Surface Science, 2010, 604, 596-608.	1.9	11
54	Modifying cellulose fibers by adsorption/precipitation of xylan. Cellulose, 2015, 22, 189-201.	4.9	11

#	ARTICLE	IF	CITATIONS
55	How xylan effects the breaking load of individual fiberâ€“fiber joints and the single fiber tensile strength. Cellulose, 2015, 22, 849-859.	4.9	11
56	The influence of the translational energy of methanol during adsorption on Rh (111) and on a rhodium/vanadium surface alloy. Vacuum, 2003, 71, 89-93.	3.5	10
57	A reflection absorption infrared spectroscopy and density-functional theory investigation of methanol dehydrogenation on Rh(111)âˆ•V alloy surfaces. Journal of Chemical Physics, 2005, 122, 244720.	3.0	10
58	Characterizing Chemically Reactive Thin Layers:â€‰ Surface Reaction of [2-[4-(Chlorosulfonyl)phenyl]ethyl]trichlorosilane with Ammonia. Journal of Physical Chemistry C, 2007, 111, 12407-12413.	3.1	10
59	Capturing Centimeter-Scale Local Variations in Paper Pore Space via CT : A Benchmark Study Using Calendered Paper. Microscopy and Microanalysis, 2021, 27, 1305-1315.	0.4	10
60	Topography effects in AFM force mapping experiments on xylan-decorated cellulose thin films. Holzforschung, 2016, 70, 1115-1123.	1.9	9
61	Simple method for the quantitative analysis of thin copolymer films on substrates by infrared spectroscopy using direct calibration. Analytical Methods, 2017, 9, 5266-5273.	2.7	9
62	Substrateâ€“Induced Phase of a Benzothiophene Derivative Detected by Midâ€“Infrared and Lattice Phonon Raman Spectroscopy. ChemPhysChem, 2018, 19, 993-1000.	2.1	8
63	Characterization of Surface and Structure of In Situ Doped Solâ€“Gelâ€“Derived Silicon Carbide. Advanced Engineering Materials, 2018, 20, 1701067.	3.5	8
64	Theoretical investigation of CO adsorption on Pd(111) and Pd(111) â€” Zn systems. Journal of Physics: Conference Series, 2008, 100, 052067.	0.4	7
65	An Optical Model for Polarization Microscopy Analysis of Pulp Fibre-to-Fibre Bonds. Composite Interfaces, 2009, 16, 901-922.	2.3	7
66	Evaluating the degree of molecular contact between cellulose fiber surfaces using FRET microscopy. Cellulose, 2019, 26, 7037-7050.	4.9	7
67	Surface reactivity studies of bimetallic complexes, $(\text{I}^5\text{-C}_5\text{Me}_5)\text{Re}(\text{NO})(\text{PPh}_3)(\text{C}\equiv\text{C})_n(\text{Ph}_3\text{P})(\text{ON})\text{Re}(\text{I}^5\text{-C}_5\text{Me}_5)$ ($n=2,4,6$): candidates for molecular wires. Vacuum, 2000, 56, 115-121.	3.5	6
68	Electrochemical characterization and surface analysis of bulk amorphous alloys in aqueous solutions at different pH. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 1447-1453.	2.1	6
69	Adsorption dynamics and reactivity of Rh/V alloys. Vacuum, 2005, 80, 40-46.	3.5	6
70	A Two-Step Method to Covalently Bind Biomolecules to Group-IV Semiconductors: Si(111)/1,2-Epoxy-9-decene/Esterase. Langmuir, 2008, 24, 13957-13961.	3.5	6
71	Tuning hardness of swollen viscose fibers. Bioinspired, Biomimetic and Nanobiomaterials, 2014, 3, 131-138.	0.9	6
72	Copper Oxidation Studied by In Situ Raman Spectroscopy. Materials Research Society Symposia Proceedings, 2003, 766, 321.	0.1	5

#	ARTICLE	IF	CITATIONS
73	Growth and reactivity of Zn and ZnO on Pd(111). Surface Engineering, 2012, 28, 87-90.	2.2	5
74	Coating of glass substrates to prevent alkali ion diffusion into pharmaceutical solutions. Surface and Coatings Technology, 2014, 258, 1249-1255.	4.8	5
75	Photodiodes based on wood pulp fiber networks. Cellulose, 2015, 22, 3425-3434.	4.9	5
76	Oxide Film Formation on Metals and Alloys by Thermal, Electrochemical and Plasma Oxidation and Prediction of Resulting Structures. Materials Research Society Symposia Proceedings, 1999, 574, 125.	0.1	4
77	Determination of Noise-Free Optical Constants in the Infrared by Kramersâ€™Kronig Transformation of the Reflectance Ratio in s- and p-Polarization. Applied Spectroscopy, 2010, 64, 669-681.	2.2	4
78	Application of the page-equation on flat shaped viscose fibre handsheets. Cellulose, 2014, 21, 3715-3724.	4.9	4
79	Cyclic voltammetry, x-ray photoelectron spectroscopy, secondary-ion-mass spectrometry, and ion-scattering spectrometry examination of zirconium passive film breakdown in the presence of sulfate. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 1478-1483.	2.1	3
80	Investigation of the Metalâ€™Oxide Buried Interfacial Zone with Linear Sweep Voltammetry. Journal of Applied Electrochemistry, 2004, 34, 919-927.	2.9	3
81	Characterization of 11-MUA SAM formation on gold surfaces. Springer Proceedings in Physics, 2009, , 101-105.	0.2	3
82	Optical arrangement and proof of concept prototype for mid infrared variable angle spectroscopic ellipsometry. Infrared Physics and Technology, 2012, 55, 84-92.	2.9	3
83	A Proposed Failure Mechanism for Pulp Fiber-Fiber Joints. BioResources, 2016, 11, .	1.0	3
84	Plasma oxidation as a tool to design oxide films at low temperatures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 1965-1970.	2.1	2
85	Adsorption and desorption of CO on Ni decorated stepped Rh(553). Vacuum, 2011, 85, 761-767.	3.5	2
86	The need for new control strategies for particulate matter in parenterals. Pharmaceutical Development and Technology, 2019, 24, 739-750.	2.4	2
87	Quantification and Imaging of Nanoscale Contact with FÃ¶rster Resonance Energy Transfer. ACS Applied Materials & Interfaces, 2021, 13, 19521-19529.	8.0	2
88	Coadsorption of Chlorine and Carbon Monoxide on a Pt(100) Face. Langmuir, 1995, 11, 3815-3820.	3.5	1
89	Adsorption and Desorption of Organic Molecules From Thin Cellulose Films. Frontiers in Materials, 2019, 6, .	2.4	1
90	Spectroscopic Investigation of DCCH and FTSC as a potential pair for FÃ¶rster Resonance Energy Transfer in different solvents. PLoS ONE, 2020, 15, e0228543.	2.5	1

#	ARTICLE	IF	CITATIONS
91	X-ray imaging: A potential enabler of automated particulate detection and cake-structure analysis in lyophilized products?. International Journal of Pharmaceutics: X, 2021, 3, 100101.	1.6	1
92	Water intake of cellulose materials monitored by positron annihilation lifetime spectroscopy. Cellulose, 2022, 29, 1357-1363.	4.9	1
93	Imaging ellipsometry based method and algorithm for the analysis of fiberâ€“fiber bonds in a paper network. Applied Optics, 2012, 51, 273.	1.8	0
94	The Interaction of Cellulose Thin Films With Small Organic Moleculesâ€”Comparability of Two Inherently Different Methods. Frontiers in Chemistry, 2021, 9, 769022.	3.6	0
95	Title is missing!., 2020, 15, e0228543.		0
96	Title is missing!., 2020, 15, e0228543.		0
97	Title is missing!., 2020, 15, e0228543.		0
98	Title is missing!., 2020, 15, e0228543.		0