

# Robert Schennach

## List of Publications by Year in descending order

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98  
papers

3,467  
citations

236612

25  
h-index

143772

57  
g-index

98  
all docs

98  
docs citations

98  
times ranked

4300  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrocoagulation (EC) – science and applications. <i>Journal of Hazardous Materials</i> , 2001, 84, 29-41.	6.5	1,069
2	A Fourier transform infrared spectroscopic investigation of the early hydration of Portland cement and the influence of sodium lignosulfonate. <i>Cement and Concrete Research</i> , 2000, 30, 267-273.	4.6	350
3	A review of cement – superplasticizer interactions and their models. <i>Advances in Cement Research</i> , 2000, 12, 153-161.	0.7	189
4	Growth and Surface Structure of Zinc Oxide Layers on a Pd(111) Surface. <i>Journal of Physical Chemistry C</i> , 2010, 114, 15432-15439.	1.5	153
5	UV – ozone treated Au for air-stable, low hole injection barrier electrodes in organic electronics. <i>Journal of Applied Physics</i> , 2006, 100, 053701.	1.1	99
6	Comprehensive analysis of individual pulp fiber bonds quantifies the mechanisms of fiber bonding in paper. <i>Scientific Reports</i> , 2015, 5, 10503.	1.6	91
7	In situ PM-IRRAS of a glassy carbon electrode/deep eutectic solvent interface. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 12870-12880.	1.3	82
8	Adsorption and Desorption of Methanol on Pd (111) and on a Pd/V Surface Alloy. <i>Journal of Physical Chemistry B</i> , 2003, 107, 2552-2558.	1.2	68
9	Cristobalite formation from thermal treatment of Texas lignite fly ash. <i>Fuel</i> , 1999, 78, 1277-1282.	3.4	64
10	CO adsorption and CO and O coadsorption on Rh(111) studied by reflection absorption infrared spectroscopy and density functional theory. <i>Journal of Chemical Physics</i> , 2006, 124, 144703.	1.2	62
11	The effect of the electrode material on the electrodeposition of zinc from deep eutectic solvents. <i>Electrochimica Acta</i> , 2016, 197, 344-352.	2.6	62
12	What holds paper together: Nanometre scale exploration of bonding between paper fibres. <i>Scientific Reports</i> , 2013, 3, 2432.	1.6	59
13	Plasma chemistry as a tool for green chemistry, environmental analysis and waste management. <i>Journal of Hazardous Materials</i> , 2000, 79, 301-320.	6.5	54
14	The low-temperature thermal oxidation of copper, Cu <sub>3</sub> O <sub>2</sub> , and its influence on past and future studies. <i>Vacuum</i> , 2005, 79, 71-83.	1.6	54
15	AFM nanoindentation of pulp fibers and thin cellulose films at varying relative humidity. <i>Holzforschung</i> , 2014, 68, 53-60.	0.9	49
16	Adhesion of cellulose fibers in paper. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 045002.	0.7	42
17	A Study on the Formation and Thermal Stability of 11-MUA SAMs on Au(111)/Mica and on Polycrystalline Gold Foils. <i>Langmuir</i> , 2009, 25, 1427-1433.	1.6	39
18	Cellulose ternary photonic crystal created by solution processing. <i>Cellulose</i> , 2016, 23, 2853-2862.	2.4	37

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19	Growth and Desorption Kinetics of Ultrathin Zn Layers on Pd(111). <i>Journal of Physical Chemistry C</i> , 2009, 113, 9788-9796.	1.5	36
20	A RAIRS, TPD, and DFT Study of Carbon Monoxide Adsorption on Stepped Rh(553). <i>Journal of Physical Chemistry C</i> , 2008, 112, 806-812.	1.5	30
21	Testing of individual fiber-fiber joints under biaxial load and simultaneous analysis of deformation. <i>Nordic Pulp and Paper Research Journal</i> , 2012, 27, 237-244.	0.3	30
22	DFT and RAIRS Investigations of Methanol on Cu(110) and on Oxygen-Modified Cu(110). <i>Journal of Physical Chemistry C</i> , 2008, 112, 14034-14040.	1.5	29
23	Joint strength measurements of individual fiber-fiber bonds: An atomic force microscopy based method. <i>Review of Scientific Instruments</i> , 2012, 83, 073902.	0.6	29
24	Imaging of the formerly bonded area of individual fibre to fibre joints with SEM and AFM. <i>Cellulose</i> , 2014, 21, 251-260.	2.4	28
25	Vacancy formation on C60/Pt (111): unraveling the complex atomistic mechanism. <i>Nanotechnology</i> , 2014, 25, 385602.	1.3	25
26	Thin cellulose films as a model system for paper fibre bonds. <i>Cellulose</i> , 2014, 21, 237-249.	2.4	24
27	Adsorption of hydrogen and carbon monoxide on Rh(111)/V surface alloys. <i>Surface Science</i> , 2003, 540, 237-245.	0.8	22
28	On the surface analysis of copper oxides: the difficulty in detecting Cu <sub>3</sub> O <sub>2</sub> . <i>Vacuum</i> , 2004, 77, 27-35.	1.6	21
29	The effects of water uptake on mechanical properties of viscose fibers. <i>Cellulose</i> , 2015, 22, 2777-2786.	2.4	21
30	Paper physics. <i>Nordic Pulp and Paper Research Journal</i> , 2009, 24, 199-205.	0.3	20
31	Preparation and calibration of ultrathin Zn layers on Pd(111). <i>Applied Surface Science</i> , 2009, 255, 5755-5759.	3.1	19
32	Passive film breakdown during anodic oxidation of zirconium in pH 8 buffer containing chloride and sulfate. <i>Electrochimica Acta</i> , 2001, 46, 3343-3350.	2.6	18
33	Adsorption and reaction of methanol on clean and oxygen modified rhodium/vanadium surface alloys. <i>Journal of Chemical Physics</i> , 2004, 120, 5729-5735.	1.2	17
34	Analysis of lignin precipitates on ozone treated kraft pulp by FTIR and AFM. <i>Cellulose</i> , 2012, 19, 249-256.	2.4	17
35	A theoretical study of Zn adsorption and desorption on a Pd(111) substrate. <i>Surface Science</i> , 2010, 604, 926-931.	0.8	16
36	The surface charge of regenerated cellulose fibres. <i>Cellulose</i> , 2013, 20, 2719-2729.	2.4	16

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37	Regenerated cellulose fiber solar cell. <i>Flexible and Printed Electronics</i> , 2017, 2, 014002.	1.5	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. <i>Polymer-Plastics Technology and Engineering</i> , 1999, 38, 849-868.	1.9	15
39	Synthesis of a Photosensitive Thiocyanate-Functionalized Trialkoxysilane and Its Application in Patterned Surface Modifications. <i>Chemistry of Materials</i> , 2008, 20, 2009-2015.	3.2	15
40	A New Method for Performing Polarization Modulation Infrared Reflection-Adsorption Spectroscopy of Surfaces. <i>Applied Spectroscopy</i> , 2009, 63, 369-372.	1.2	14
41	Thickness Dependence of Reflection~Absorption Infrared Spectra of Supported Thin Polymer Films. <i>Macromolecules</i> , 2011, 44, 1775-1778.	2.2	14
42	Analysis of CMC attachment onto cellulosic fibers by infrared spectroscopy. <i>Cellulose</i> , 2009, 16, 825-832.	2.4	13
43	Revisiting polarized light microscopy for fiber-fiber bond area measurement - Part II: Proving the applicability. <i>Nordic Pulp and Paper Research Journal</i> , 2010, 25, 71-75.	0.3	13
44	Analysis of precipitated lignin on kraft pulp fibers using atomic force microscopy. <i>Cellulose</i> , 2012, 19, 1013-1021.	2.4	13
45	Pore space extraction and characterization of sack paper using $\hat{1}/4\hat{a}^{\text{CT}}$ . <i>Journal of Microscopy</i> , 2018, 272, 35-46.	0.8	13
46	Metal-oxide boundary effects in vanadium oxide $\hat{a}^{\text{Rh(111)}}$ inverse model catalysts: a RAIRS, STM and TPD study. <i>Topics in Catalysis</i> , 2007, 46, 231-238.	1.3	12
47	Photoreactive molecular layers containing aryl ester units: Preparation, UV patterning and post-exposure modification. <i>Materials Chemistry and Physics</i> , 2010, 119, 287-293.	2.0	12
48	Revisiting polarized light microscopy for fiber-fiber bond area measurement - Part I: Theoretical fundamentals. <i>Nordic Pulp and Paper Research Journal</i> , 2010, 25, 65-70.	0.3	12
49	Adsorption Studies of Organophosphonic Acids on Differently Activated Gold Surfaces. <i>Langmuir</i> , 2016, 32, 1550-1559.	1.6	12
50	Microstructure and mechanical properties of free and restrained dried paper: a comprehensive investigation. <i>Cellulose</i> , 2020, 27, 8567-8583.	2.4	12
51	Title is missing!. <i>Oxidation of Metals</i> , 2001, 55, 523-541.	1.0	11
52	Methanol adsorption on Cu(110) and the angular distribution of the reaction products. <i>Journal of Chemical Physics</i> , 2007, 126, 164710.	1.2	11
53	Adsorption of small molecules on a (2 $\hat{A}$ -1) PdZn surface alloy on Pd(111). <i>Surface Science</i> , 2010, 604, 596-608.	0.8	11
54	Modifying cellulose fibers by adsorption/precipitation of xylan. <i>Cellulose</i> , 2015, 22, 189-201.	2.4	11

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55	How xylan effects the breaking load of individual fiberâ€“fiber joints and the single fiber tensile strength. <i>Cellulose</i> , 2015, 22, 849-859.	2.4	11
56	The influence of the translational energy of methanol during adsorption on Rh (111) and on a rhodium/vanadium surface alloy. <i>Vacuum</i> , 2003, 71, 89-93.	1.6	10
57	A reflection absorption infrared spectroscopy and density-functional theory investigation of methanol dehydrogenation on Rh(111)âˆ•V alloy surfaces. <i>Journal of Chemical Physics</i> , 2005, 122, 244720.	1.2	10
58	Characterizing Chemically Reactive Thin Layers:â€‰ Surface Reaction of [2-[4-(Chlorosulfonyl)phenyl]ethyl]trichlorosilane with Ammonia. <i>Journal of Physical Chemistry C</i> , 2007, 111, 12407-12413.	1.5	10
59	Capturing Centimeter-Scale Local Variations in Paper Pore Space via $\langle i \rangle^{1/4} \langle /i \rangle$ -CT: A Benchmark Study Using Calendered Paper. <i>Microscopy and Microanalysis</i> , 2021, 27, 1305-1315.	0.2	10
60	Topography effects in AFM force mapping experiments on xylan-decorated cellulose thin films. <i>Holzforschung</i> , 2016, 70, 1115-1123.	0.9	9
61	Simple method for the quantitative analysis of thin copolymer films on substrates by infrared spectroscopy using direct calibration. <i>Analytical Methods</i> , 2017, 9, 5266-5273.	1.3	9
62	Substrateâ€“Induced Phase of a Benzothiophene Derivative Detected by Midâ€“Infrared and Lattice Phonon Raman Spectroscopy. <i>ChemPhysChem</i> , 2018, 19, 993-1000.	1.0	8
63	Characterization of Surface and Structure of In Situ Doped Solâ€“Gelâ€“Derived Silicon Carbide. <i>Advanced Engineering Materials</i> , 2018, 20, 1701067.	1.6	8
64	Theoretical investigation of CO adsorption on Pd(111) and Pd(111) â€” Zn systems. <i>Journal of Physics: Conference Series</i> , 2008, 100, 052067.	0.3	7
65	An Optical Model for Polarization Microscopy Analysis of Pulp Fibre-to-Fibre Bonds. <i>Composite Interfaces</i> , 2009, 16, 901-922.	1.3	7
66	Evaluating the degree of molecular contact between cellulose fiber surfaces using FRET microscopy. <i>Cellulose</i> , 2019, 26, 7037-7050.	2.4	7
67	Surface reactivity studies of bimetallic complexes, $(\hat{i}-5-C5Me5)Re(NO)(PPh3)(C\hat{i}\dagger C)n(Ph3P)(ON)Re(\hat{i}-5-C5Me5)$ (n=2,4,6): candidates for molecular wires. <i>Vacuum</i> , 2000, 56, 115-121.	1.6	6
68	Electrochemical characterization and surface analysis of bulk amorphous alloys in aqueous solutions at different pH. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2001, 19, 1447-1453.	0.9	6
69	Adsorption dynamics and reactivity of Rh/V alloys. <i>Vacuum</i> , 2005, 80, 40-46.	1.6	6
70	A Two-Step Method to Covalently Bind Biomolecules to Group-IV Semiconductors: Si(111)/1,2-Epoxy-9-decene/Esterase. <i>Langmuir</i> , 2008, 24, 13957-13961.	1.6	6
71	Tuning hardness of swollen viscose fibers. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2014, 3, 131-138.	0.7	6
72	Copper Oxidation Studied by In Situ Raman Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 2003, 766, 321.	0.1	5

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73	Growth and reactivity of Zn and ZnO on Pd(111). <i>Surface Engineering</i> , 2012, 28, 87-90.	1.1	5
74	Coating of glass substrates to prevent alkali ion diffusion into pharmaceutical solutions. <i>Surface and Coatings Technology</i> , 2014, 258, 1249-1255.	2.2	5
75	Photodiodes based on wood pulp fiber networks. <i>Cellulose</i> , 2015, 22, 3425-3434.	2.4	5
76	Oxide Film Formation on Metals and Alloys by Thermal, Electrochemical and Plasma Oxidation and Prediction of Resulting Structures. <i>Materials Research Society Symposia Proceedings</i> , 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. <i>Applied Spectroscopy</i> , 2010, 64, 669-681.	1.2	4
78	Application of the page-equation on flat shaped viscose fibre handsheets. <i>Cellulose</i> , 2014, 21, 3715-3724.	2.4	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. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2000, 18, 1478-1483.	0.9	3
80	Investigation of the Metalâ€™Oxide Buried Interfacial Zone with Linear Sweep Voltammetry. <i>Journal of Applied Electrochemistry</i> , 2004, 34, 919-927.	1.5	3
81	Characterization of 11-MUA SAM formation on gold surfaces. <i>Springer Proceedings in Physics</i> , 2009, , 101-105.	0.1	3
82	Optical arrangement and proof of concept prototype for mid infrared variable angle spectroscopic ellipsometry. <i>Infrared Physics and Technology</i> , 2012, 55, 84-92.	1.3	3
83	A Proposed Failure Mechanism for Pulp Fiber-Fiber Joints. <i>BioResources</i> , 2016, 11, .	0.5	3
84	Plasma oxidation as a tool to design oxide films at low temperatures. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2001, 19, 1965-1970.	0.9	2
85	Adsorption and desorption of CO on Ni decorated stepped Rh(553). <i>Vacuum</i> , 2011, 85, 761-767.	1.6	2
86	The need for new control strategies for particulate matter in parenterals. <i>Pharmaceutical Development and Technology</i> , 2019, 24, 739-750.	1.1	2
87	Quantification and Imaging of Nanoscale Contact with FÃ¶rster Resonance Energy Transfer. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 19521-19529.	4.0	2
88	Coadsorption of Chlorine and Carbon Monoxide on a Pt(100) Face. <i>Langmuir</i> , 1995, 11, 3815-3820.	1.6	1
89	Adsorption and Desorption of Organic Molecules From Thin Cellulose Films. <i>Frontiers in Materials</i> , 2019, 6, .	1.2	1
90	Spectroscopic Investigation of DCCH and FTSC as a potential pair for FÃ¶rster Resonance Energy Transfer in different solvents. <i>PLoS ONE</i> , 2020, 15, e0228543.	1.1	1

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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.	1.2	1
92	Water intake of cellulose materials monitored by positron annihilation lifetime spectroscopy. Cellulose, 2022, 29, 1357-1363.	2.4	1
93	Imaging ellipsometry based method and algorithm for the analysis of fiber-fiber bonds in a paper network. Applied Optics, 2012, 51, 273.	0.9	0
94	The Interaction of Cellulose Thin Films With Small Organic Molecules-Comparability of Two Inherently Different Methods. Frontiers in Chemistry, 2021, 9, 769022.	1.8	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