Marketa Zukalova

List of Publications by Year
in descending order

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103 papers	4,435 citations	159525 30 h-index	106281 65 g-index
105 all docs	105 docs citations	105 times ranked	6076 citing authors

#	Article	IF	Citations
1	Organized Mesoporous TiO2 Films Exhibiting Greatly Enhanced Performance in Dye-Sensitized Solar Cells. Nano Letters, 2005, 5, 1789-1792.	4.5	520
2	Pseudocapacitive Lithium Storage in TiO2(B). Chemistry of Materials, 2005, 17, 1248-1255.	3.2	467
3	Raman spectra of titanium dioxide (anatase, rutile) with identified oxygen isotopes (16, 17, 18). Physical Chemistry Chemical Physics, 2012, 14, 14567.	1.3	417
4	Lithium Storage in Nanostructured TiO2 Made by Hydrothermal Growth. Chemistry of Materials, 2004, 16, 477-485.	3.2	406
5	Li Insertion into Li[sub 4]Ti[sub 5]O[sub 12] (Spinel). Journal of the Electrochemical Society, 2003, 150, A1000.	1.3	269
6	Hydrocarbon synthesis from carbon monoxide and hydrogen on impregnated cobalt catalysts Part I. Physico-chemical properties of 10% cobalt/alumina and 10% cobalt/silica. Applied Catalysis, 1991, 73, 65-81.	1.1	169
7	Facile Conversion of Electrospun TiO₂ into Titanium Nitride/Oxynitride Fibers. Chemistry of Materials, 2010, 22, 4045-4055.	3.2	104
8	Probing high-pressure properties of single-wall carbon nanotubes through fullerene encapsulation. Physical Review B, 2008, 77, .	1.1	93
9	Capacitive contribution to Li-storage in TiO2 (B) and TiO2 (anatase). Journal of Power Sources, 2014, 246, 103-109.	4.0	86
10	Novel Synthesis of the TiO2(B) Multilayer Templated Films. Chemistry of Materials, 2009, 21, 1457-1464.	3.2	69
11	Multi-walled carbon nanotubes functionalized by carboxylic groups: Activation of TiO2 (anatase) and phosphate olivines (LiMnPO4; LiFePO4) for electrochemical Li-storage. Journal of Power Sources, 2010, 195, 5360-5369.	4.0	68
12	Lithium Insertion into Anatase Inverse Opal. Journal of the Electrochemical Society, 2004, 151, A1301.	1.3	65
13	Voltage enhancement in dye-sensitized solar cell using (001)-oriented anatase TiO2 nanosheets. Journal of Solid State Electrochemistry, 2012, 16, 2993-3001.	1.2	64
14	Multilayer Films from Templated TiO₂ and Structural Changes during their Thermal Treatment. Chemistry of Materials, 2008, 20, 2985-2993.	3.2	59
15	Electrochemical Doping of Chirality-Resolved Carbon Nanotubes. Journal of Physical Chemistry B, 2005, 109, 19613-19619.	1.2	57
16	Structural parameters controlling the performance of organized mesoporous TiO2 films in dye sensitized solar cells. Inorganica Chimica Acta, 2008, 361, 656-662.	1.2	52
17	Polycrystalline TiO[sub 2] Anatase with a Large Proportion of Crystal Facets (001): Lithium Insertion Electrochemistry. Journal of the Electrochemical Society, 2010, 157, A1108.	1.3	49
18	Two Positions of Potassium in Chemically Doped C60Peapods:Â An in situ Spectroelectrochemical Study. Journal of Physical Chemistry B, 2004, 108, 6275-6280.	1.2	48

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19	Phase-pure nanocrystalline Li 4 Ti 5 O 12 for a lithium-ion battery. Journal of Solid State Electrochemistry, 2003, 8, 2-6.	1.2	46
20	Oxygen-isotope labeled titania: Ti18O2. Physical Chemistry Chemical Physics, 2011, 13, 11583.	1.3	46
21	Hydrocarbon synthesis from carbon monoxide and hydrogen on impregnated cobalt catalysts II. Applied Catalysis A: General, 1992, 80, 1-11.	2.2	45
22	In-Situ Vis-Near-Infrared and Raman Spectroelectrochemistry of Double-Walled Carbon Nanotubes. Advanced Functional Materials, 2005, 15, 418-426.	7.8	45
23	Electrochemical tuning of high energy phonon branches of double wall carbon nanotubes. Carbon, 2004, 42, 2915-2920.	5.4	41
24	Interaction of nanodiamond with in situ generated sp-carbon chains probed by Raman spectroscopy. Carbon, 2006, 44, 3113-3116.	5.4	39
25	Photochemistry and Gas-Phase FTIR Spectroscopy of Formic Acid Interaction with Anatase Ti¹⁸O₂ Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 11200-11205.	1.5	38
26	Solâ€“Gel Titanium Dioxide Blocking Layers for Dyeâ€Sensitized Solar Cells: Electrochemical Characterization. ChemPhysChem, 2014, 15, 1056-1061.	1.0	38
27	Mesoporous electrode material from alumina-stabilized anatase TiO2 for lithium ion batteries. Journal of Solid State Electrochemistry, 2005, 9, 138-145.	1.2	36
28	An in situ Raman spectroelectrochemical study of the controlled doping of single walled carbon nanotubes in a conducting polymer matrix. Carbon, 2007, 45, 1463-1470.	5.4	35
29	Oxygen-Isotope Exchange between CO2 and Solid Ti18O2. Journal of Physical Chemistry C, 2011, 115, 11156-11162.	1.5	35
30	Search for the form of fullerene C60 in aqueous medium. Physical Chemistry Chemical Physics, 2010, 12, 14095.	1.3	31
31	Electrochemical Doping of Double-Walled Carbon Nanotubes: An In Situ Raman Spectroelectrochemical Study. ChemPhysChem, 2004, 5, 274-277.	1.0	30
32	EPR study of 17O-enriched titania nanopowders under UV irradiation. Catalysis Today, 2014, 230, 112-118.	2.2	30
33	Synthesis and characterization of colloidal MCM-41. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2004, 241, 81-86.	2.3	27
34	The origin of methane and biomolecules from a CO2 cycle on terrestrial planets. Nature Astronomy, 2017, 1, 721-726.	4.2	27
35	Homogeneous Precipitation of Siliceous MCM-41 and Bimodal Silica. Collection of Czechoslovak Chemical Communications, 1998, 63, 1893-1906.	1.0	26
36	Influence of an Extended Fullerene Cage:â€‰ Study of Chemical and Electrochemical Doping of C70 Peapods by in Situ Raman Spectroelectrochemistry. Journal of Physical Chemistry C, 2007, 111, 1079-1085.	1.5	26

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37	Organized Mesoporous TiO[sub 2] Films Stabilized by Phosphorus: Application for Dye-Sensitized Solar Cells. Journal of the Electrochemical Society, 2010, 157, H99.	1.3	26
38	The Intermediate Frequency Modes of Single- and Double-Walled Carbon Nanotubes: A Raman Spectroscopic and In Situ Raman Spectroelectrochemical Study. Chemistry - A European Journal, 2006, 12, 4451-4457.	1.7	25
39	Electrochemical Doping of Compact TiO₂ Thin Layers. Journal of Physical Chemistry C, 2014, 118, 25970-25977.	1.5	24
40	In situ Raman spectroelectrochemistry as a useful tool for detection of TiO2(anatase) impurities in TiO2(B) and TiO2(rutile). Monatshefte FÃ¼r Chemie, 2016, 147, 951-959.	0.9	24
41	Formation of Methane and (Per)Chlorates on Mars. ACS Earth and Space Chemistry, 2019, 3, 221-232.	1.2	24
42	Transformation of fullerene peapods to double-walled carbon nanotubes induced by UV radiation. Carbon, 2005, 43, 1610-1616.	5.4	23
43	In situ EPR spectroelectrochemistry of single-walled carbon nanotubes and C60 fullerene peapods. Carbon, 2006, 44, 2147-2154.	5.4	23
44	The Change of the State of an Endohedral Fullerene by Encapsulation into SWCNT: A Raman Spectroelectrochemical Study of Dy₃N@C₈₀ Peapods. Chemistry - A European Journal, 2007, 13, 8811-8817.	1.7	23
45	Electrochemical and gas-phase photocatalytic performance of nanostructured TiO2(B) prepared by novel synthetic route. Progress in Solid State Chemistry, 2005, 33, 253-261.	3.9	21
46	Electrochemical and chemical redox doping of fullerene (C60) peapods. Carbon, 2006, 44, 99-106.	5.4	21
47	The application of high-resolution IR spectroscopy and isotope labeling for detailed investigation of TiO2/gas interface reactions. Optical Materials, 2013, 36, 159-162.	1.7	20
48	Synthesis of nanostructured TiO2 (anatase) and TiO2(B) in ionic liquids. Catalysis Today, 2014, 230, 85-90.	2.2	20
49	SPECTROELECTROCHEMICAL RECOGNITION OF CHEMICAL DOPANTS IN THE INNER SPACE OF CARBON NANOSTRUCTURES. Nano, 2006, 01, 219-227.	0.5	18
50	Spontaneous and Photoinduced Conversion of CO₂ on TiO₂ Anatase (001)/(101) Surfaces. Journal of Physical Chemistry C, 2014, 118, 26845-26850.	1.5	18
51	Oxygen Atom Exchange between Gaseous CO₂ and TiO₂ Nanoclusters. Journal of Physical Chemistry C, 2015, 119, 3605-3612.	1.5	18
52	Photocatalytic transformation of CO2 to CH4 and CO on acidic surface of TiO2 anatase. Optical Materials, 2016, 56, 80-83.	1.7	18
53	Synergetic Surface Sensitivity of Photoelectrochemical Water Oxidation on TiO₂ (Anatase) Electrodes. Journal of Physical Chemistry C, 2017, 121, 6024-6032.	1.5	18
54	Li insertion into Li4Ti5O12 spinel prepared by low temperature solid state route: Charge capability vs surface area. Electrochimica Acta, 2018, 265, 480-487.	2.6	18

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55	Structural properties and electrochemical behavior of CNTâ€TiO₂ nanocrystal heterostructures. Physica Status Solidi (B): Basic Research, 2007, 244, 4040-4045.	0.7	17
56	Lithium Insertion into Titanium Dioxide (Anatase): A Raman Study with ^{16/18}O and ^{6/7}Li Isotope Labeling. Chemistry of Materials, 2013, 25, 3710-3717.	3.2	17
57	Electrochemical properties of spinel Li4Ti5O12 nanoparticles prepared via a low-temperature solid route. Journal of Solid State Electrochemistry, 2016, 20, 2673-2683.	1.2	17
58	Raman spectroelectrochemistry of index-identified metallic carbon nanotubes: The resonance rule revisited. Physica Status Solidi (B): Basic Research, 2006, 243, 3130-3133.	0.7	16
59	Heterostructures from Single-Wall Carbon Nanotubes and TiO[sub 2] Nanocrystals. Journal of the Electrochemical Society, 2007, 154, K19.	1.3	15
60	Li Conductivity of Nanocrystalline Li₄Ti₅O₁₂ Prepared by a Sol-Gel Method and High-Energy Ball Milling. Defect and Diffusion Forum, 0, 289-292, 565-570.	0.4	15
61	Selected Electrochemical Properties of 4,4â€™-((1E,1â€™E)-((1,2,4-Thiadiazole-3,5-diyl)bis(azaneylylidene))bis(methaneylylidene))bis(N,N-di-p-tolylaniline) towards Perovskite Solar Cells with 14.4% Efficiency. Materials, 2020, 13, 2440.	1.3	15
62	Comparative SIFT-MS, GCâ€“MS and FTIR analysis of methane fuel produced in biogas stations and in artificial photosynthesis over acidic anatase TiO2 and montmorillonite. Journal of Molecular Spectroscopy, 2018, 348, 152-160.	0.4	14
63	Comment on â€œDetermination of the Exciton Binding Energy in Single-Walled Carbon Nanotubesâ€. Physical Review Letters, 2007, 98, 019701; author reply 019702.	2.9	13
64	Inâ€…Situ Raman Spectroelectrochemical Study of13C-Labeled Fullerene Peapods and Carbon Nanotubes. Small, 2007, 3, 1746-1752.	5.2	13
65	Electron Kinetics in Dye Sensitized Solar Cells Employing Anatase with (101) and (001) Facets. Electrochimica Acta, 2015, 160, 296-305.	2.6	13
66	Electrochemical impedance spectroscopy of mesoporous Al-stabilized TiO2 (anatase) in aprotic medium. Journal of Solid State Electrochemistry, 2007, 11, 1163-1169.	1.2	12
67	Nanofibrous TiO2 improving performance of mesoporous TiO2 electrode in dye-sensitized solar cell. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	12
68	Dense TiO₂ films grown by solâ€“gel dip coating on glass, F-doped SnO₂, and silicon substrates. Journal of Materials Research, 2013, 28, 385-393.	1.2	12
69	The identification of dispersive and non-dispersive intermediate frequency modes of HiPco single walled carbon nanotubes by in situ Raman spectroelectrochemistry. Physica Status Solidi (B): Basic Research, 2006, 243, 3134-3137.	0.7	10
70	In situ optical spectroelectrochemistry of single-walled carbon nanotube thin films. Journal of Solid State Electrochemistry, 2008, 12, 1279-1284.	1.2	10
71	Na insertion into nanocrystalline Li4Ti5O12 spinel: An electrochemical study. Electrochimica Acta, 2017, 245, 505-511.	2.6	10
72	Inherent electrochemical activity of TiO2 (anatase, rutile) enhances the charge capacity of cathodes of lithium-sulfur batteries. Journal of Solid State Electrochemistry, 2022, 26, 639-647.	1.2	10

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73	Isolated Nanoribbons of Carbon Nanotubes and Peapods. ChemPhysChem, 2005, 6, 426-430.	1.0	9
74	Redox Doping of Doubleâ€Wall Carbon Nanotubes and C60Peapods. Fullerenes Nanotubes and Carbon Nanostructures, 2005, 13, 115-119.	1.0	9
75	Room temperature spontaneous conversion of OCS to CO2 on the anatase TiO2 surface. Chemical Communications, 2014, 50, 7712-7715.	2.2	9
76	Electrochemical performance of sol-gel-made Na2Ti3O7 anode material for Na-ion batteries. Journal of Solid State Electrochemistry, 2018, 22, 2545-2552.	1.2	9
77	Nanocrystalline TiO2/Carbon/Sulfur Composite Cathodes for Lithiumâ€“Sulfur Battery. Nanomaterials, 2021, 11, 541.	1.9	8
78	On the Stability of Fullerene C₆₀in Aqueous Medium. Fullerenes Nanotubes and Carbon Nanostructures, 2012, 20, 737-742.	1.0	7
79	Layered LiNi_{1/3}Mn_{1/3}Co_{1/3}O₂ (NMC) with Optimized Morphology for Li-Ion Batteries. ECS Transactions, 2018, 87, 67-75.	0.3	7
80	Doping of C₆₀ Fullerene Peapods with Lithium Vapor: Raman Spectroscopic and Spectroelectrochemical Studies. Chemistry - A European Journal, 2008, 14, 6231-6236.	1.7	6
81	A novel high entropy spinel-type aluminate MAl₂O₄ (MÂ=ÂZn, Mg, Cu, Co) and its lithiated oxyfluoride and oxychloride derivatives prepared by one-step mechanosynthesis. Zeitschrift Fur Physikalische Chemie, 2022, 236, 713-726.	1.4	6
82	Multicomponent Coî—¸MgOî—¸NaZSM-5 catalyst for hydrocarbon synthesis from CO + H2 mixtures containing CO2 and/or N2. Journal of Molecular Catalysis, 1992, 71, 183-197.	1.2	5
83	The Intermediate Frequency Modes of Single- and Double-Walled Carbon Nanotubes: A Raman Spectroscopic and In Situ Raman Spectroelectrochemical Study. Chemistry - A European Journal, 2006, 12, 5415-5415.	1.7	5
84	The TiO₂-Modified Separator Improving the Electrochemical Performance of Lithium-Sulfur Battery. ECS Transactions, 2021, 105, 183-189.	0.3	4
85	The Effects of Processing Parameters on the Synthesis of Siliceous MCM-41 from Colloidal Silicas. Collection of Czechoslovak Chemical Communications, 1998, 63, 271-282.	1.0	3
86	Raman spectroscopy and spectroelectrochemistry of the chemically nâ€doped DWCNT. Physica Status Solidi (B): Basic Research, 2007, 244, 4086-4091.	0.7	3
87	Spontaneous oxygen isotope exchange between carbon dioxide and natural clays: Refined rate constants referenced to TiO2 (anatase/rutile). Applied Clay Science, 2017, 137, 6-10.	2.6	3
88	Titania Containing Cathodes for Lithium-Sulfur Batteries: Case Studies by Electrochemical Impedance Spectroscopy. ECS Transactions, 2021, 105, 169-176.	0.3	3
89	Lithium Storage in Nanostructured TiO2 Made by Hydrothermal Growth.. ChemInform, 2004, 35, no.	0.1	2
90	Molecular wiring of LiMnPO4 (olivine) by ruthenium(II)-bipyridine complexes. Electrochemistry Communications, 2009, 11, 2137-2140.	2.3	2

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91	Surface Sensitivity of Hydrogen Evolution and Formaldehyde Reduction on Differently Oriented TiO2 Anatase Nanocrystals. Electrocatalysis, 2021, 12, 15-25.	1.5	2
92	Preparation of Organized Mesoporous Silica from Sodium Metasilicate Solutions in Alkaline Medium Using Nonionic Surfactants. Collection of Czechoslovak Chemical Communications, 2003, 68, 2019-2031.	1.0	2
93	Nanocrystalline TiO₂ and Li₄Ti₅O₁₂ as Novel Inorganic Host Materials for Li-S Batteries. ECS Transactions, 2020, 99, 151-159.	0.3	2
94	Anatase Inverse Opal: Preparation and Electrochemical Properties. Materials Research Society Symposia Proceedings, 2004, 820, 19.	0.1	1
95	Electrochemical Performance of LiNixMnyCozO2 (NMC) Materials with Hollow Spheres Morphology. ECS Transactions, 2019, 95, 55-63.	0.3	1
96	<scp> LiNi ₁ </scp> _/ <scp> ₃ Mn ₁ </scp> _/ <scp> ₃ Co ₁ </scp> _/ <scp> ₃ O ₂ </scp> with morphology optimized for n. International Journal of Energy Research, 2020, 44, 9082-9092.	2.2	1
97	Investigation of a Co-MgO-ZSM catalyst by temperature-programmed reduction, temperature-programmed desorption, and IR spectroscopy. Bulletin of the Russian Academy of Sciences Division of Chemical Science, 1992, 41, 41-45.	0.0	0
98	Distinct Redox Doping of Core/Shell Nanostructures: Double Wall Carbon Nanotubes. AIP Conference Proceedings, 2004, , .	0.3	0
99	Isolation of Carbon Nanostructures. AIP Conference Proceedings, 2005, , .	0.3	0
100	Redox n-Doping of Fullerene C60 Peapods. AIP Conference Proceedings, 2005, , .	0.3	0
101	OPTICAL AND RAMAN SPECTROELECTROCHEMISTRY OF CARBON NANOSTRUCTURES. , 2005, , .		0
102	HE3DA Lithium Battery 3-D Technology - Essential Element for Smart Grid. ECS Meeting Abstracts, 2020, MA2020-01, 82-82.	0.0	0
103	Robust Performance and Safety Advantages of Large Cells for Energy Storage Based on HE3DA (3D) Electrode Concept - from a Lab Sample to a Gigafactory. ECS Meeting Abstracts, 2020, MA2020-02, 1061-1061.	0.0	0