Michael TÃ¼rk

List of Publications by Year
in descending order

81 papers	2,832 citations	172457 29 h-index	175258 52 g-index
89 all docs	89 docs citations	89 times ranked	2214 citing authors

#	Article	IF	Citations
1	Thermodynamics of adsorption of carbon dioxide on different metal oxides at temperatures from 313 to 353â€ K and pressures up to 25â€ MPa. Journal of Supercritical Fluids, 2022, 182, 105461.	3.2	5
2	Particle synthesis by rapid expansion of supercritical solutions (RESS): Current state, further perspectives and needs. Journal of Aerosol Science, 2022, 161, 105950.	3.8	13
3	Fundamental aspects of pure supercritical fluids. Supercritical Fluid Science and Technology, 2021, 8, 31-49.	0.5	2
4	Synthesis of nanostructured composites of metals by supercritical deposition (SCD). Supercritical Fluid Science and Technology, 2021, , 129-209.	0.5	4
5	Thermodynamics and transport properties of mixtures composed of metal complexes and supercritical fluids. Supercritical Fluid Science and Technology, 2021, , 51-71.	0.5	2
6	Modeling of particle formation in supercritical fluids (SCF). Supercritical Fluid Science and Technology, 2021, 8, 239-259.	0.5	1
7	Synthesis of metal oxide nanoparticles. Supercritical Fluid Science and Technology, 2021, , 211-238.	0.5	0
8	Synthesis of Metal Nanostructures Using Supercritical Carbon Dioxide: A Green and Upscalable Process. Small, 2020, 16, e2001972.	10.0	23
9	Cocrystallization of the anticancer drug 5-fluorouracil and coformers urea, thiourea or pyrazinamide using supercritical CO2 as an antisolvent (SAS) and as a solvent (CSS). Journal of Supercritical Fluids, 2020, 160, 104813.	3.2	28
10	Impact of Preparation Method and Hydrothermal Aging on Particle Size Distribution of Pt/Î³-Al₂O₃ and Its Performance in CO and NO Oxidation. Journal of Physical Chemistry C, 2019, 123, 5433-5446.	3.1	48
11	Selective Separation Using Fluid-Liquid Interfaces. Materials Science Forum, 2019, 959, 113-124.	0.3	1
12	Influence of temperature and high-pressure on the adsorption behavior of scCO2 on MCM-41 and SBA-15. Journal of Supercritical Fluids, 2019, 144, 122-133.	3.2	17
13	CO2 assisted deposition of R/S-ibuprofen on different porous carrier materials: Influence of carrier properties on loading and dissolution behavior. Journal of CO2 Utilization, 2018, 25, 216-225.	6.8	10
14	Synthesis of supported nanoparticles in supercritical fluids by supercritical fluid reactive deposition: Current state, further perspectives and needs. Journal of Supercritical Fluids, 2018, 134, 176-183.	3.2	66
15	Design of Metal Oxide Nanoparticles via Continuous Hydrothermal Synthesis. Chemie-Ingenieur-Technik, 2018, 90, 436-442.	0.8	4
16	Partikeltechnologie. Chemie-Ingenieur-Technik, 2018, 90, 407-407.	0.8	1
17	Influence of chemical nature of carrier materials on the dissolution behavior of racemic ibuprofen. Journal of Supercritical Fluids, 2018, 132, 91-98.	3.2	9
18	Exploiting Synergies in Catalysis and Gas Sensing using Noble Metalâ€Loaded Oxide Composites. ChemCatChem, 2018, 10, 864-880.	3.7	50

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19	Origin of the Normal and Inverse Hysteresis Behavior during CO Oxidation over Pt/Al₂O₃. ACS Catalysis, 2017, 7, 343-355.	11.2	65
20	Herstellung von Wirkstoffnanosuspensionen inÂBlasensÃulen bei gleichzeitiger Partikelâ€Abscheidung und Agglomeration. Chemie-Ingenieur-Technik, 2016, 88, 971-983.	0.8	2
21	Impact of rapid expansion of supercritical solution process conditions on the crystallinity of poly(vinylidene fluoride) nanoparticles. Journal of Supercritical Fluids, 2016, 117, 18-25.	3.2	15
22	Polymorphic properties of micronized mefenamic acid, nabumetone, paracetamol and tolbutamide produced by rapid expansion of supercritical solutions (RESS). Journal of Supercritical Fluids, 2016, 116, 239-250.	3.2	52
23	Adsorption of N₂ and CO₂ on Activated Carbon, AlO(OH) Nanoparticles, and AlO(OH) Hollow Spheres. Chemical Engineering and Technology, 2015, 38, 2261-2269.	1.5	3
24	Crystal phase transformation of Î± into Î² phase poly(vinylidene fluoride) via particle formation caused by rapid expansion of supercritical solutions. RSC Advances, 2015, 5, 66644-66649.	3.6	26
25	Production of supported gold and goldâ€“silver nanoparticles by supercritical fluid reactive deposition: Effect of substrate properties. Journal of Supercritical Fluids, 2015, 96, 287-297.	3.2	30
26	Perspectives in Future Trends and Research Needs. Supercritical Fluid Science and Technology, 2014, 6, 127-130.	0.5	0
27	Formation of Inorganic Particles Using a Supercritical Fluid as Reaction Media. Supercritical Fluid Science and Technology, 2014, 6, 97-109.	0.5	0
28	Formation of Organic Particles Using a Supercritical Fluid as Antisolvent. Supercritical Fluid Science and Technology, 2014, 6, 77-86.	0.5	1
29	Basics of Particle Formation Processes. Supercritical Fluid Science and Technology, 2014, 6, 45-55.	0.5	0
30	Formation of Organic Particles Using a Supercritical Fluid asÂSolute. Supercritical Fluid Science and Technology, 2014, 6, 87-96.	0.5	0
31	State of the Art Modeling ofÂParticle Formation in Supercritical Fluids. Supercritical Fluid Science and Technology, 2014, 6, 111-126.	0.5	1
32	Adsorption von CO2und racemischen Wirkstoffen an nanoskaligen TrÃgern. Chemie-Ingenieur-Technik, 2014, 86, 375-379.	0.8	1
33	Solubility of Supercritical Fluids in Ionic Liquids. Chemie-Ingenieur-Technik, 2014, 86, 630-639.	0.8	0
34	Formation of Organic Particles Using a Supercritical Fluid asÂSolvent. Supercritical Fluid Science and Technology, 2014, , 57-75.	0.5	2
35	Continuous supercritical hydrothermal synthesis of iron oxide nanoparticle dispersions and their characterization. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	9
36	Preparation of supported Pt nanoparticles by supercritical fluid reactive deposition: Influence of precursor, substrate and pressure on product properties. Journal of Supercritical Fluids, 2014, 95, 588-596.	3.2	32

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37	Synthesis of in situ functionalized iron oxide nanoparticles presenting alkyne groups via a continuous process using near-critical and supercritical water. Journal of Supercritical Fluids, 2013, 82, 83-95.	3.2	17
38	Influence of Perfluorinated End Groups on the SFRD of [Pt(cod)Me(C_nF_{2n+1})] onto Porous Al₂O₃ in CO₂ under Reductive Conditions. Chemistry - A European Journal, 2013, 19, 12794-12799.	3.3	26
39	Solubility of Ibuprofen, Phytosterol, Salicylic Acid, and Naproxen in Aqueous Solutions. Chemical Engineering and Technology, 2013, 36, 426-434.	1.5	16
40	Continuous Hydrothermal Synthesis of In Situ Functionalized Iron Oxide Nanoparticles: AÂGeneral Strategy to Produce Metal Oxide NanoparticlesÂWith Clickable Anchors. Particle and Particle Systems Characterization, 2013, 30, 229-234.	2.3	22
41	Dietary crystalline common-, micro-, nanoscale and emulsified nanoscale sitosterol reduce equally the cholesterol pool in guinea pigs, but varying nanosystems result in different sterol concentrations in serosal jejunum. Nanomedicine: Nanotechnology, Biology, and Medicine, 2013, 9, 1027-1035.	3.3	8
42	Demonstration of NIR inline monitoring for hops extraction and micronization of benzoic acid in supercritical CO2. Journal of Supercritical Fluids, 2013, 79, 330-336.	3.2	14
43	Stabilization of Waterâ€Insoluble Drugs by Aqueous Solutions Containing a Stabilizing Agent. Chemie-Ingenieur-Technik, 2012, 84, 235-243.	0.8	5
44	Novel PtCuO/CeO2/Î±-Al2O3 sponge catalysts for the preferential oxidation of CO (PROX) prepared by means of supercritical fluid reactive deposition (SFRD). Journal of Catalysis, 2012, 286, 78-87.	6.2	42
45	Micronisation of carbamazepine through rapid expansion of supercritical solution (RESS). Journal of Supercritical Fluids, 2012, 62, 32-40.	3.2	53
46	Micronisation of carbamazepine through rapid expansion of supercritical solution (RESS). Journal of Supercritical Fluids, 2012, 66, 389-397.	3.2	17
47	Experimental Study on the Surface Tension, Density, and Viscosity of Aqueous Poly(vinylpyrrolidone) Solutions. Journal of Chemical & Engineering Data, 2011, 56, 582-588.	1.9	43
48	Platinum nanoparticles and their cellular uptake and DNA platination at non-cytotoxic concentrations. Archives of Toxicology, 2011, 85, 799-812.	4.2	125
49	Effect of gas pressure on the phase behaviour of organometallic compounds. Journal of Supercritical Fluids, 2011, 58, 1-6.	3.2	23
50	A comparison between models based on equations of state and density-based models for describing the solubility of solutes in CO2. Journal of Supercritical Fluids, 2010, 55, 462-471.	3.2	18
51	Formation of submicron poorly water-soluble drugs by rapid expansion of supercritical solution (RESS): Results for Naproxen. Journal of Supercritical Fluids, 2010, 55, 778-785.	3.2	87
52	Untersuchungen zur Stabilisierung von Naproxen in unterschiedlichen SchutzkolloidlÃ¶sungen. Chemie-Ingenieur-Technik, 2009, 81, 817-823.	0.8	3
53	Manufacture of submicron drug particles with enhanced dissolution behaviour by rapid expansion processes. Journal of Supercritical Fluids, 2009, 47, 537-545.	3.2	108
54	Effect of polymer properties on poly(vinylidene fluoride) particles produced by rapid expansion of CO2+polymer mixtures. Journal of Supercritical Fluids, 2009, 48, 48-55.	3.2	18

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55	Experimental and Theoretical Investigation of the Phase Behavior of Naproxen in Supercritical CO2. Journal of Chemical & Engineering Data, 2009, 54, 1592-1597.	1.9	32
56	Cellular Uptake of Platinum Nanoparticles in Human Colon Carcinoma Cells and Their Impact on Cellular Redox Systems and DNA Integrity. Chemical Research in Toxicology, 2009, 22, 649-659.	3.3	146
57	Direct Drug Loading into Preformed Porous Solid Dosage Units by the Controlled Particle Deposition (CPD), a New Concept for Improved Dissolution Using SCF-Technology. Journal of Pharmaceutical Sciences, 2008, 97, 4416-4424.	3.3	12
58	Supercritical deposition of Pt on SnO2-coated Al2O3 foams: Phase behaviour and catalytic performance. Applied Catalysis A: General, 2008, 338, 58-65.	4.3	59
59	Formation and stabilization of submicron particles via rapid expansion processes. Journal of Supercritical Fluids, 2008, 45, 346-355.	3.2	80
60	Drug loading into Î²-cyclodextrin granules using a supercritical fluid process for improved drug dissolution. European Journal of Pharmaceutical Sciences, 2008, 33, 306-312.	4.0	26
61	Complex formation of Ibuprofen and Î²-Cyclodextrin by controlled particle deposition (CPD) using SC-CO2. Journal of Supercritical Fluids, 2007, 39, 435-443.	3.2	55
62	Comparative Evaluation of Ibuprofen/Î²-Cyclodextrin Complexes Obtained by Supercritical Carbon Dioxide and Other Conventional Methods. Pharmaceutical Research, 2007, 24, 585-592.	3.5	61
63	Formation of composite drugâ€“polymer particles by co-precipitation during the rapid expansion of supercritical fluids. Journal of Supercritical Fluids, 2006, 39, 253-263.	3.2	79
64	Comparison of Different Methods for Enhancing the Dissolution Rate of Poorly Soluble Drugs: Case of Griseofulvin. Engineering in Life Sciences, 2005, 5, 277-280.	3.6	40
65	Stabilized nanoparticles of phytosterol by rapid expansion from supercritical solution into aqueous solution. AAPS PharmSciTech, 2004, 5, 36-45.	3.3	88
66	Herstellung organischer Nanopartikel und deren Stabilisierung in wÃssrigen LÃ¶sungen (RESSAS). Chemie-Ingenieur-Technik, 2003, 75, 792-795.	0.8	11
67	Hydrodynamic and aerosol modelling of the rapid expansion of supercritical solutions (RESS-process). Journal of Supercritical Fluids, 2003, 26, 225-242.	3.2	95
68	Micronization of Pharmaceutical Substances by Rapid Expansion of Supercritical Solutions (RESS): Experiments and Modeling. Particle and Particle Systems Characterization, 2002, 19, 327-335.	2.3	62
69	Micronization of pharmaceutical substances by the Rapid Expansion of Supercritical Solutions (RESS): a promising method to improve bioavailability of poorly soluble pharmaceutical agents. Journal of Supercritical Fluids, 2002, 22, 75-84.	3.2	221
70	Phase equilibria of organic solid solutes and supercritical fluids with respect to the RESS process. Journal of Supercritical Fluids, 2002, 22, 175-184.	3.2	88
71	(Vapour+liquid) Equilibria of binary mixtures of CO2, CH2F2, CHF3, and SF6. Journal of Chemical Thermodynamics, 2002, 34, 1361-1375.	2.0	18
72	Simulation of particle formation during the rapid expansion of supercritical solutions. Journal of Aerosol Science, 2001, 32, 295-319.	3.8	84

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73	Critical properties (pc, Tc, and Ïc) and phase equilibria of binary mixtures of CO2, CHF3, CH2F2, and SF6. Fluid Phase Equilibria, 2001, 182, 121-131.	2.5	24
74	Influence of thermodynamic behaviour and solute properties on homogeneous nucleation in supercritical solutions. Journal of Supercritical Fluids, 2000, 18, 169-184.	3.2	108
75	Theoretical and experimental investigations of the micronization of organic solids by rapid expansion of supercritical solutions. Powder Technology, 2000, 110, 22-28.	4.2	73
76	Formation of small organic particles by RESS: experimental and theoretical investigations. Journal of Supercritical Fluids, 1999, 15, 79-89.	3.2	132
77	Critical (p , Ï•, T) properties of CH2F2, {xCO2+(1â^'x) SF6}, {xSF6+(1â^'x) CH2F2}, and {xCHF3+(1â^'x) CH2F2}. Journal of Chemical Thermodynamics, 1999, 31, 905-919.	2.0	21
78	Critical properties of CO2, CHF3, SF6, (CO2+ CHF3), and (CHF3+ SF6). Journal of Chemical Thermodynamics, 1998, 30, 481-496.	2.0	28
79	Mixing behaviour of a mixture of equal amounts of substance of 1,1,1,2-tetrafluoroethane and 1,1-difluoroethane. II. Representation of thermal properties by equations of state. Journal of Chemical Thermodynamics, 1997, 29, 369-383.	2.0	1
80	Mixing behaviour of a mixture of equal amounts of substance of 1,1,1,2-tetrafluoroethane and 1,1-difluoroethane I. Results of calorimetric measurements. Journal of Chemical Thermodynamics, 1996, 28, 1179-1194.	2.0	8
81	Ãœberwachung der kontinuierlichen hydrothermalen Synthese mittels Impedanzspektroskopie. Chemie-Ingenieur-Technik, 0, , .	0.8	1