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	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
2	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
3	Formation of small organic particles by RESS: experimental and theoretical investigations. Journal of Supercritical Fluids, 1999, 15, 79-89.	3.2	132
4	Platinum nanoparticles and their cellular uptake and DNA platination at non-cytotoxic concentrations. Archives of Toxicology, 2011, 85, 799-812.	4.2	125
5	Influence of thermodynamic behaviour and solute properties on homogeneous nucleation in supercritical solutions. Journal of Supercritical Fluids, 2000, 18, 169-184.	3.2	108
6	Manufacture of submicron drug particles with enhanced dissolution behaviour by rapid expansion processes. Journal of Supercritical Fluids, 2009, 47, 537-545.	3.2	108
7	Hydrodynamic and aerosol modelling of the rapid expansion of supercritical solutions (RESS-process). Journal of Supercritical Fluids, 2003, 26, 225-242.	3.2	95
8	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
9	Stabilized nanoparticles of phytosterol by rapid expansion from supercritical solution into aqueous solution. AAPS PharmSciTech, 2004, 5, 36-45.	3.3	88
10	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
11	Simulation of particle formation during the rapid expansion of supercritical solutions. Journal of Aerosol Science, 2001, 32, 295-319.	3.8	84
12	Formation and stabilization of submicron particles via rapid expansion processes. Journal of Supercritical Fluids, 2008, 45, 346-355.	3.2	80
13	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
14	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
15	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
16	Origin of the Normal and Inverse Hysteresis Behavior during CO Oxidation over Pt/Al₂O₃. ACS Catalysis, 2017, 7, 343-355.	11.2	65
17	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
18	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

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19	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
20	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
21	Micronisation of carbamazepine through rapid expansion of supercritical solution (RESS). Journal of Supercritical Fluids, 2012, 62, 32-40.	3.2	53
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	Exploiting Synergies in Catalysis and Gas Sensing using Noble Metalâ€Loaded Oxide Composites. ChemCatChem, 2018, 10, 864-880.	3.7	50
24	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
25	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
26	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
27	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
28	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
29	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
30	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
31	Critical properties of CO2, CHF3, SF6, (CO2+ CHF3), and (CHF3+ SF6). Journal of Chemical Thermodynamics, 1998, 30, 481-496.	2.0	28
32	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
33	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
34	Influence of Perfluorinated End Groups on the SFRD of [Pt(cod)Me(C_{<i>n</i>}F_{2<i>n</i>+1})] onto Porous Al₂O₃ in CO₂ under Reductive Conditions. Chemistry - A European Journal, 2013, 19, 12794-12799.	3.3	26
35	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
36	Critical properties (pc, Tc, and Ï‰) and phase equilibria of binary mixtures of CO2, CHF3, CH2F2, and SF6. Fluid Phase Equilibria, 2001, 182, 121-131.	2.5	24

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37	Effect of gas pressure on the phase behaviour of organometallic compounds. Journal of Supercritical Fluids, 2011, 58, 1-6.	3.2	23
38	Synthesis of Metal Nanostructures Using Supercritical Carbon Dioxide: A Green and Upscalable Process. Small, 2020, 16, e2001972.	10.0	23
39	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
40	Critical (p , ÏⅆT) 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
41	(Vapour+liquid) Equilibria of binary mixtures of CO2, CH2F2, CHF3, and SF6. Journal of Chemical Thermodynamics, 2002, 34, 1361-1375.	2.0	18
42	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
43	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
44	Micronisation of carbamazepine through rapid expansion of supercritical solution (RESS). Journal of Supercritical Fluids, 2012, 66, 389-397.	3.2	17
45	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
46	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
47	Solubility of Ibuprofen, Phytosterol, Salicylic Acid, and Naproxen in Aqueous Solutions. Chemical Engineering and Technology, 2013, 36, 426-434.	1.5	16
48	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
49	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
50	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
51	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
52	Herstellung organischer Nanopartikel und deren Stabilisierung in wÃssrigen LÃ¶sungen (RESSAS). Chemie-Ingenieur-Technik, 2003, 75, 792-795.	0.8	11
53	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
54	Continuous supercritical hydrothermal synthesis of iron oxide nanoparticle dispersions and their characterization. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	9

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55	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
56	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
57	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
58	Stabilization of Waterâ€Insoluble Drugs by Aqueous Solutions Containing a Stabilizing Agent. Chemie-Ingenieur-Technik, 2012, 84, 235-243.	0.8	5
59	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
60	Design of Metal Oxide Nanoparticles via Continuous Hydrothermal Synthesis. Chemie-Ingenieur-Technik, 2018, 90, 436-442.	0.8	4
61	Synthesis of nanostructured composites of metals by supercritical deposition (SCD). Supercritical Fluid Science and Technology, 2021, , 129-209.	0.5	4
62	Untersuchungen zur Stabilisierung von Naproxen in unterschiedlichen SchutzkolloidlÃ¶sungen. Chemie-Ingenieur-Technik, 2009, 81, 817-823.	0.8	3
63	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
64	Formation of Organic Particles Using a Supercritical Fluid asÂSolvent. Supercritical Fluid Science and Technology, 2014, , 57-75.	0.5	2
65	Herstellung von Wirkstoffnanosuspensionen inÂBlasensÃulen bei gleichzeitiger Partikelâ€Abscheidung und Agglomeration. Chemie-Ingenieur-Technik, 2016, 88, 971-983.	0.8	2
66	Fundamental aspects of pure supercritical fluids. Supercritical Fluid Science and Technology, 2021, 8, 31-49.	0.5	2
67	Thermodynamics and transport properties of mixtures composed of metal complexes and supercritical fluids. Supercritical Fluid Science and Technology, 2021, , 51-71.	0.5	2
68	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
69	Formation of Organic Particles Using a Supercritical Fluid as Antisolvent. Supercritical Fluid Science and Technology, 2014, 6, 77-86.	0.5	1
70	State of the Art Modeling ofÂParticle Formation in Supercritical Fluids. Supercritical Fluid Science and Technology, 2014, 6, 111-126.	0.5	1
71	Adsorption von CO2und racemischen Wirkstoffen an nanoskaligen TrÃgern. Chemie-Ingenieur-Technik, 2014, 86, 375-379.	0.8	1
72	Partikeltechnologie. Chemie-Ingenieur-Technik, 2018, 90, 407-407.	0.8	1

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73	Selective Separation Using Fluid-Liquid Interfaces. Materials Science Forum, 2019, 959, 113-124.	0.3	1
74	Ãœberwachung der kontinuierlichen hydrothermalen Synthese mittels Impedanzspektroskopie. Chemie-Ingenieur-Technik, 0, , .	0.8	1
75	Modeling of particle formation in supercritical fluids (SCF). Supercritical Fluid Science and Technology, 2021, 8, 239-259.	0.5	1
76	Perspectives in Future Trends and Research Needs. Supercritical Fluid Science and Technology, 2014, 6, 127-130.	0.5	0
77	Formation of Inorganic Particles Using a Supercritical Fluid as Reaction Media. Supercritical Fluid Science and Technology, 2014, 6, 97-109.	0.5	0
78	Basics of Particle Formation Processes. Supercritical Fluid Science and Technology, 2014, 6, 45-55.	0.5	0
79	Formation of Organic Particles Using a Supercritical Fluid asÂSolute. Supercritical Fluid Science and Technology, 2014, 6, 87-96.	0.5	0
80	Solubility of Supercritical Fluids in Ionic Liquids. Chemie-Ingenieur-Technik, 2014, 86, 630-639.	0.8	0
81	Synthesis of metal oxide nanoparticles. Supercritical Fluid Science and Technology, 2021, , 211-238.	0.5	0