

Nicolas Couvrat

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Order–Disorder Phase Transition between High- and Low- Z Crystal Structures of the $P1$ Space Group. <i>Crystal Growth and Design</i> , 2022, 22, 2230-2238.	3.0	5
2	The persistence and crystallization behavior of atorvastatin calcium amorphous dispersions in polyvinylpyrrolidone. <i>Journal of Drug Delivery Science and Technology</i> , 2022, 72, 103375.	3.0	5
3	Cocrystals of Praziquantel: Discovery by Network-Based Link Prediction. <i>Crystal Growth and Design</i> , 2021, 21, 3428-3437.	3.0	24
4	Impact of a Partial Solid Solution and Water Molecules on the Formation of Fibrous Crystals and Fluid Inclusions. <i>Crystals</i> , 2021, 11, 1188.	2.2	4
5	Solid-State Overview of R-Baclofen: Relative Stability of Forms A, B and C and Characterization of a New Heterosolvate. <i>Journal of Pharmaceutical Sciences</i> , 2021, 110, 3457-3463.	3.3	5
6	Impact of chirality on the amorphous state of conglomerate forming systems: a case study of N -acetyl- \pm -methylbenzylamine. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 24282-24293.	2.8	2
7	Optimization of an Antisolvent Method for RDX Recrystallization: Influence on Particle Size and Internal Defects. <i>Crystal Growth and Design</i> , 2020, 20, 130-138.	3.0	14
8	Temperature Cycling Induced Deracemization of $NaClO_3$ under the Influence of $Na_2S_2O_6$. <i>Crystal Growth and Design</i> , 2020, 20, 414-421.	3.0	12
9	Antisolvent Addition: An Effective Method of Controlled Fluid Inclusion Formation in RDX Crystals. <i>Crystal Growth and Design</i> , 2020, 20, 7120-7128.	3.0	7
10	Temperature cycle induced deracemization. <i>Mendeleev Communications</i> , 2020, 30, 395-405.	1.6	17
11	Spontaneous and Controlled Macroscopic Chiral Symmetry Breaking by Means of Crystallization. <i>Symmetry</i> , 2020, 12, 1796.	2.2	9
12	Resolution by Preferential Crystallization of Proxyphylline by Using Its Salicylic Acid Monohydrate Co-crystal. <i>Chemical Engineering and Technology</i> , 2020, 43, 1093-1098.	1.5	17
13	Evidence of Conglomerate with Partial Solid Solutions in Ethylammonium Chlocyphos. <i>Crystal Growth and Design</i> , 2020, 20, 2562-2569.	3.0	7
14	Discovery of New Proxyphylline-Based Chiral Cocrystals: Solid State Landscape and Dehydration Mechanism. <i>Crystal Growth and Design</i> , 2020, 20, 3842-3850.	3.0	16
15	Does the trihydrate of atorvastatin calcium possess a melting point?. <i>European Journal of Pharmaceutical Sciences</i> , 2020, 148, 105334.	4.0	5
16	Family of Conglomerate-Forming Systems Composed of Chlocyphos and Alkyl-amine. Assessment of Their Resolution Performances by Using Various Modes of Preferential Crystallization. <i>Crystal Growth and Design</i> , 2019, 19, 5173-5183.	3.0	9
17	Industrial Crystallization: Increasingly Unavoidable These Days. <i>Chemical Engineering and Technology</i> , 2019, 42, 1427-1427.	1.5	0
18	Resolution of Baclofenium Hydrogenomaleate By Using Preferential Crystallization. A First Case of Complete Solid Solution at High Temperature and a Large Miscibility Gap in the Solid State. <i>Crystal Growth and Design</i> , 2019, 19, 4793-4801.	3.0	23

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19	A Novel Mechanism of Preferential Enrichment Phenomenon Observed for the Cocrystal of (RS) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Journal, 2019, 25, 16405-16413.	3.3	7
20	Enabling Direct Preferential Crystallization in a Stable Racemic Compound System. Molecular Pharmaceutics, 2019, 16, 4670-4676.	4.6	17
21	Synthesis and Characterization of Sodium Dithionate and its Dihydrate. Chemical Engineering and Technology, 2019, 42, 1446-1451.	1.5	3
22	Polymer inclusion membranes based on CTA/PBAT blend containing Aliquat 336 as extractant for removal of Cr(VI): Efficiency, stability and selectivity. Reactive and Functional Polymers, 2019, 139, 120-132.	4.1	79
23	Entrapment and stabilization of iron nanoparticles within APTES modified graphene oxide sheets for catalytic activity improvement. Journal of Alloys and Compounds, 2019, 771, 1090-1102.	5.5	30
24	Solvate Formation of Bis(demethoxy)curcumin: Crystal Structure Analyses and Stability Investigations. Crystal Growth and Design, 2019, 19, 854-867.	3.0	18
25	Molecular mobility of amorphous <i>N</i>-acetyl-1-methylbenzylamine and Debye relaxation evidenced by dielectric relaxation spectroscopy and molecular dynamics simulations. Physical Chemistry Chemical Physics, 2019, 21, 702-717.	2.8	23
26	Limitations during the Resolution of (Â±)-Epinephrine by Using Tartaric Acid. Chemical Engineering and Technology, 2018, 41, 1086-1092.	1.5	2
27	Impact of chirality on the Glass Forming Ability and the crystallization from the amorphous state of 5-ethyl-5-methylhydantoin, a chiral poor glass former. International Journal of Pharmaceutics, 2018, 540, 11-21.	5.2	8
28	Investigation of Drug-Excipient Interactions in Biclortymol Amorphous Solid Dispersions. Molecular Pharmaceutics, 2018, 15, 1112-1125.	4.6	13
29	Vitrification of two active pharmaceutical ingredients by fast scanning calorimetry: From structural relaxation to nucleation phenomena. International Journal of Pharmaceutics, 2018, 536, 426-433.	5.2	11
30	Enhancement of the Physical and Chemical Stability of Amorphous Drug-Polymer Mixtures via Cryogenic Comilling. Macromolecules, 2018, 51, 9382-9392.	4.8	15
31	Chirality impact on physical ageing: An original case of a small organic molecule. Materials Letters, 2018, 228, 141-144.	2.6	6
32	A Possible Infinite Number of Components in a Single Crystalline Phase: On the Isomorphism of Brivaracetam-Guest Molecules. Crystal Growth and Design, 2018, 18, 4807-4810.	3.0	3
33	Retention modeling and retention time prediction in gas chromatography and flow-modulation comprehensive two-dimensional gas chromatography: The contribution of pressure on solute partition. Journal of Chromatography A, 2017, 1485, 101-119.	3.7	19
34	Polymorphic Phase Transition in 4-Hydroxyacetophenone: Equilibrium Temperature, Kinetic Barrier, and the Relative Stability of <i>Z</i> = 1 and <i>Z</i> = 2 Forms. Crystal Growth and Design, 2017, 17, 1918-1932.	3.0	37
35	New Intermediate Polymorph of 1-Fluoro-adamantane and Its Second-Order-like Transition toward the Low Temperature Phase. Crystal Growth and Design, 2017, 17, 3395-3401.	3.0	16
36	Insights on the Physical State Reached by an Active Pharmaceutical Ingredient upon High-Energy Milling. Journal of Physical Chemistry B, 2017, 121, 5142-5150.	2.6	12

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37	Binary phase diagrams between phenanthrene and two of its impurities: 9,10-dihydroanthracene and carbazole. European Physical Journal: Special Topics, 2017, 226, 869-880.	2.6	6
38	Crystallization from the Amorphous State of a Pharmaceutical Compound: Impact of Chirality and Chemical Purity. Crystal Growth and Design, 2017, 17, 337-346.	3.0	10
39	Optimization of experimental conditions for the monitoring of nucleation and growth of racemic Diprophylline from the supercooled melt. Journal of Crystal Growth, 2017, 472, 11-17.	1.5	5
40	Molecular Mobility of an Amorphous Chiral Pharmaceutical Compound: Impact of Chirality and Chemical Purity. Journal of Physical Chemistry B, 2017, 121, 7729-7740.	2.6	8
41	Phase Diagrams for Process Design. NATO Science for Peace and Security Series A: Chemistry and Biology, 2017, , 215-233.	0.5	2
42	Molecular Relaxations in Supercooled Liquid and Glassy States of Amorphous Quinidine: Dielectric Spectroscopy and Density Functional Theory Approaches. Journal of Physical Chemistry B, 2016, 120, 7579-7592.	2.6	18
43	Impact of sodium chloride on the expansion of a liquid-liquid miscibility gap in an API/water system. Case study of Brivaracetam. International Journal of Pharmaceutics, 2016, 515, 702-707.	5.2	0
44	Partial Blockage of the Reversible Solid-Solid Transition of Strontium Succinate. Chemical Engineering and Technology, 2016, 39, 1224-1230.	1.5	1
45	Precise Urea/Water Eutectic Composition by Temperature-Resolved Second Harmonic Generation. Chemical Engineering and Technology, 2016, 39, 1326-1332.	1.5	11
46	Phenanthrene Purification: Comparison of Zone Melting and Co-Crystallization. Chemical Engineering and Technology, 2016, 39, 1317-1325.	1.5	8
47	Access to Several Polymorphic Forms of (±)-Modafinil by Using Various Solvation-Desolvation Processes. Crystal Growth and Design, 2016, 16, 396-405.	3.0	14
48	Transformation of an active pharmaceutical ingredient upon high-energy milling: A process-induced disorder in Biclotymol. International Journal of Pharmaceutics, 2016, 499, 67-73.	5.2	24
49	Structural Aspects of Solid Solutions of Enantiomers. Current Pharmaceutical Design, 2016, 22, 4929-4941.	1.9	30
50	Industrial Crystallization. Chemical Engineering and Technology, 2015, 38, 967-967.	1.5	2
51	Growth Rate Dispersion at the Single-Crystal Level. Chemical Engineering and Technology, 2015, 38, 1011-1016.	1.5	11
52	Relevance of the Second Harmonic Generation to Characterize Crystalline Samples. Chemical Engineering and Technology, 2015, 38, 971-983.	1.5	27
53	Crystallization kinetics and molecular mobility of an amorphous active pharmaceutical ingredient: A case study with Biclotymol. International Journal of Pharmaceutics, 2015, 490, 248-257.	5.2	27
54	Formation of new polymorphs without any nucleation step. Desolvation of the rimonabant monohydrate: directional crystallisation concomitant to smooth dehydration. Faraday Discussions, 2015, 179, 475-488.	3.2	26

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55	Enhanced Second Harmonic Generation from an Organic Self-Assembled Eutectic Binary Mixture: A Case Study with 3-Nitrobenzoic and 3,5-Dinitrobenzoic Acids. <i>Crystal Growth and Design</i> , 2015, 15, 946-960.	3.0	18
56	Naproxen–Nicotinamide Cocrystals: Racemic and Conglomerate Structures Generated by CO ₂ Antisolvent Crystallization. <i>Crystal Growth and Design</i> , 2015, 15, 4616-4626.	3.0	40
57	Solubility of chiral species as function of the enantiomeric excess. <i>Journal of Pharmacy and Pharmacology</i> , 2015, 67, 869-878.	2.4	23
58	Crystallization of Terutroban Sodium Salt Hydrate from the Deliquescent State. <i>Chemical Engineering and Technology</i> , 2015, 38, 999-1005.	1.5	4
59	Mechanisms of Reversible Phase Transitions in Molecular Crystals: Case of Ciclopirox. <i>Chemistry of Materials</i> , 2015, 27, 6360-6373.	6.7	29
60	Crystallization of Chiral Molecules. , 2015, , 951-1002.		20
61	High-Density Octadecyl Chemically Bonded Core–Shell Silica Phases for HPLC: Comparison of Microwave-Assisted and Classical Synthetic Routes, Structural Characterization and Chromatographic Evaluation. <i>Chromatographia</i> , 2014, 77, 1577-1588.	1.3	9
62	Crystallization of molecular systems from solution: phase diagrams, supersaturation and other basic concepts. <i>Chemical Society Reviews</i> , 2014, 43, 2286-2300.	38.1	114
63	Crystal Growth, Structure, and Polymorphic Behavior of an Ionic Liquid: Phthalate Derivative of <i>N</i> -Butyl- <i>N</i> -methylimidazolium Hexafluorophosphate. <i>Chemistry of Materials</i> , 2014, 26, 4151-4162.	6.7	10
64	Combining zone melting and preparative chromatography to purify Phenanthrene. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 112, 293-300.	3.6	9
65	Monotropic Transition Mechanism of <i>m</i> -Hydroxybenzoic Acid Investigated by Temperature-Resolved Second Harmonic Generation. <i>Crystal Growth and Design</i> , 2013, 13, 3697-3704.	3.0	28
66	Impact of Molecular Flexibility on Double Polymorphism, Solid Solutions and Chiral Discrimination during Crystallization of Diprophylline Enantiomers. <i>Molecular Pharmaceutics</i> , 2013, 10, 3850-3861.	4.6	55
67	Second harmonic generation: applications in phase diagram investigations. <i>MATEC Web of Conferences</i> , 2013, 3, 01011.	0.2	1
68	Stability of solid phases in the dexamethasone acetate/water system. <i>MATEC Web of Conferences</i> , 2013, 3, 01036.	0.2	4
69	Re-investigation of the binary system Phenanthrene/Anthracene. <i>MATEC Web of Conferences</i> , 2013, 3, 01035.	0.2	0
70	Incidence of crystal growth conditions on the formation of macroscopic liquid inclusions in ciclopirox crystals. <i>Journal of Crystal Growth</i> , 2012, 342, 72-79.	1.5	20
71	Spotting a Conglomerate Is Just Halfway to Achieving a Preparative Resolution by Preferential Crystallization. <i>Organic Process Research and Development</i> , 2012, 16, 286-293.	2.7	23
72	Structural investigation on sodium-2-keto-L-gulonate-monohydrate. <i>Journal of Molecular Structure</i> , 2012, 1020, 121-126.	3.6	2

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73	Impact of Gas Composition in the Mother Liquor on the Formation of Macroscopic Inclusions and Crystal Growth Rates. Case Study with Ciclopirox Crystals. Crystal Growth and Design, 2011, 11, 2463-2470.	3.0	26
74	About Aged Heterogeneous Liquid Inclusions Inside Organic Crystals in Relation to Crystal Formation, Structure, and Morphology. Crystal Growth and Design, 2011, 11, 2580-2587.	3.0	16
75	Chapter 13. Limits of the Co-crystal Concept and Beyond. RSC Drug Discovery Series, 2011, , 300-317.	0.3	3
76	Binary phase diagram between phenanthrene and its main impurity: dibenzothiophene. , 2011, , .		3
77	Pitfalls and rewards of preferential crystallization. CrystEngComm, 2010, 12, 1983.	2.6	106
78	Concomitant dehydration mechanisms in single crystals of α,α' -trehalose. Carbohydrate Research, 2009, 344, 2539-2546.	2.3	5
79	Spotting Conglomerates by Second Harmonic Generation. Crystal Growth and Design, 2009, 9, 2713-2718.	3.0	65
80	Characterization of Defects Inside Single Crystals of Ciclopirox. Crystal Growth and Design, 2009, 9, 2719-2724.	3.0	12
81	Structural and Physicochemical Characterization of a Solid Solution Produced by Antisolvent Crystallization of a New Phosphoantigen. Crystal Growth and Design, 2009, 9, 3910-3917.	3.0	8
82	Mechanism of Hydration and Dehydration of Ciclopirox Ethanolamine (1:1). Crystal Growth and Design, 2009, 9, 3918-3927.	3.0	15
83	Two Concomitant Polymorphs of 1,2-Naphthoquinone-2-semicarbazone. Crystal Growth and Design, 2009, 9, 3438-3443.	3.0	8
84	Influence of solid/vapour equilibria on the stability of organic solids. , 2009, , .		3
85	Chiral Discrimination at the Solid State of Methyl 2-(Diphenylmethylsulfinyl)acetate. Crystal Growth and Design, 2007, 7, 1599-1607.	3.0	33
86	Preferential crystallization in an unusual case of conglomerate with partial solid solutions. Tetrahedron: Asymmetry, 2007, 18, 821-831.	1.8	51
87	Preferential Crystallization. Topics in Current Chemistry, 2006, 269, 1-51.	4.0	99
88	The "structural purity"™ of molecular solids"An elusive concept?. Chemical Engineering and Processing: Process Intensification, 2006, 45, 857-862.	3.6	35
89	Diastereomeric resolution rationalized by phase diagrams under the actual conditions of the experimental process. Tetrahedron: Asymmetry, 2004, 15, 2455-2465.	1.8	53
90	Pleconaril Polymorphs: Crystal Structures of Form I and Form III, Evidence of the Enantiotropy, and Assessment of the Structural Purity. Crystal Growth and Design, 2004, 4, 1237-1244.	3.0	17

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91	Oscillating Crystallization in Solution between (+)- and (âˆ™)-5-Ethyl-5-methylhydantoin under the Influence of Stirring. Journal of Physical Chemistry B, 2002, 106, 646-652.	2.6	53
92	Influence of supersaturation and structurally related additives on the crystal growth of Î±-lactose monohydrate. Journal of Crystal Growth, 2002, 234, 207-219.	1.5	56
93	Preferential crystallisation and comparative crystal growth study between pure enantiomer and racemic mixture of a chiral molecule: 5-ethyl-5-methylhydantoin. Chemical Engineering Science, 2001, 56, 2281-2294.	3.8	51
94	Mechanism of Several Solidâˆ”Solid Transformations between Dihydrated and Anhydrous Copper(II) 8-Hydroxyquinolates. Proposition for a Unified Model for the Dehydration of Molecular Crystals. Chemistry of Materials, 1996, 8, 2247-2258.	6.7	138