

# Jeffrey D Rimer

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/3494832/jeffrey-d-rimer-publications-by-year.pdf>

**Version:** 2024-04-29

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

121  
papers

4,897  
citations

35  
h-index

68  
g-index

141  
ext. papers

6,077  
ext. citations

9.5  
avg, IF

6.16  
L-index

#	Paper	IF	Citations
121	Core-shell and Egg-shell Zeolite Catalysts for Enhanced Hydrocarbon Processing. <i>Journal of Catalysis</i> , <b>2021</b> , 405, 664-664	7.3	4
120	Strontium Ions Function as Both an Accelerant and Structure-Directing Agent of Chabazite Crystallization <b>2021</b> , 3, 187-192		8
119	High-Index (Ni,Mg)O Crystallization during Molten Salt Synthesis. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 3155-3163	3.663	0
118	Spontaneous Pillaring of Pentasil Zeolites. <i>Advanced Materials</i> , <b>2021</b> , 33, e2100897	24	13
117	Zinc Ions Modify Calcium Oxalate Growth by Distinct Transformation of Crystal Surface Termination. <i>Crystal Growth and Design</i> , <b>2021</b> , 21, 3375-3383	3.5	4
116	Time-resolved dissolution elucidates the mechanism of zeolite MFI crystallization. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	6
115	A second mechanism employed by artemisinins to suppress Plasmodium falciparum hinges on inhibition of hemozoin crystallization. <i>Journal of Biological Chemistry</i> , <b>2021</b> , 296, 100123	5.4	7
114	Tuning selectivity in nickel oxide-catalyzed oxidative dehydrogenation of ethane through control over non-stoichiometric oxygen density. <i>Catalysis Science and Technology</i> , <b>2021</b> , 11, 531-541	5.5	3
113	Synthesis, Structure and Catalytic Properties of Faceted Oxide Crystals. <i>ChemCatChem</i> , <b>2021</b> , 13, 6-27	5.2	3
112	Few-Unit-Cell MFI Zeolite Synthesized using a Simple Di-quaternary Ammonium Structure-Directing Agent. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 19214-19221	16.4	4
111	Few-Unit-Cell MFI Zeolite Synthesized using a Simple Di-quaternary Ammonium Structure-Directing Agent. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 19363-19370	3.6	1
110	Suppressing Barium Sulfate Crystallization with Hydroxycitrate: A Dual Nucleation and Growth Inhibitor. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 6997-7007	9.6	1
109	Local Ordering of Molten Salts at NiO Crystal Interfaces Promotes High-Index Faceting. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 25391-25396	16.4	0
108	Alginate as a green inhibitor of barite nucleation and crystal growth. <i>Molecular Systems Design and Engineering</i> , <b>2021</b> , 6, 508-519	4.6	1
107	Factors controlling the molecular modification of one-dimensional zeolites. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 18610-18617	3.6	
106	Controlling Nucleation Pathways in Zeolite Crystallization: Seeding Conceptual Methodologies for Advanced Materials Design.. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 21446-21460	16.4	4
105	Low Dose Electron Microscopy of Ammonium Urates. <i>Microscopy and Microanalysis</i> , <b>2020</b> , 26, 2230-2231	0.5	

104	Seed-Assisted zeolite synthesis: The impact of seeding conditions and interzeolite transformations on crystal structure and morphology. <i>Microporous and Mesoporous Materials</i> , <b>2020</b> , 300, 110174	5.3	12
103	Minerals from colloidal assembly. <i>Nature Materials</i> , <b>2020</b> , 19, 375-376	27	1
102	Tracking Zeolite Crystallization by Elemental Mapping. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 3278-3287	9.6	7
101	Enhanced Selective Oxidation of Ammonia in a Pt/Al <sub>2</sub> O <sub>3</sub> @Cu/ZSM-5 Core-Shell Catalyst. <i>ACS Catalysis</i> , <b>2020</b> , 10, 3604-3617	13.1	19
100	Antagonistic cooperativity between crystal growth modifiers. <i>Nature</i> , <b>2020</b> , 577, 497-501	50.4	17
99	Inorganic ions regulate amorphous-to-crystal shape preservation in biomineralization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 3360-3362	11.5	12
98	Synthesis of NiO Crystals Exposing Stable High-Index Facets. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 15231-15235	35	2
97	Time-Resolved Dynamics of Struvite Crystallization: Insights from the Macroscopic to Molecular Scale. <i>Chemistry - A European Journal</i> , <b>2020</b> , 26, 3555-3563	4.8	8
96	Acidic Polysaccharides as Green Alternatives for Barite Scale Dissolution. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 55434-55443	9.5	2
95	Finned zeolite catalysts. <i>Nature Materials</i> , <b>2020</b> , 19, 1074-1080	27	45
94	Ethylene Dehydroaromatization over Ga-ZSM-5 Catalysts: Nature and Role of Gallium Speciation. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 19592-19601	16.4	14
93	Impact of acid site speciation and spatial gradients on zeolite catalysis. <i>Journal of Catalysis</i> , <b>2020</b> , 391, 56-68	7.3	28
92	In situ imaging of two-dimensional surface growth reveals the prevalence and role of defects in zeolite crystallization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 28632-28639	11.5	13
91	Understanding initial zeolite oligomerization steps with first principles calculations. <i>AIChE Journal</i> , <b>2020</b> , 66, e17107	3.6	2
90	Ethylene Dehydroaromatization over Ga-ZSM-5 Catalysts: Nature and Role of Gallium Speciation. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 19760-19769	3.6	
89	Engaging a Battle on Two Fronts: Dual Role of Polyphosphates as Potent Inhibitors of Struvite Nucleation and Crystal Growth. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 8672-8682	9.6	7
88	Synthesis of NiO Crystals Exposing Stable High-Index Facets. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 15119-15123	16.4	10
87	Enhanced Surface Activity of MWW Zeolite Nanosheets Prepared via a One-Step Synthesis. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 8211-8222	16.4	24

86	Crystallization of Hierarchical Ammonium Urate: Insight into the Formation of Cetacean Renal Stones. <i>Crystal Growth and Design</i> , <b>2019</b> , 19, 6727-6735	3.5	3
85	A microfluidic approach for probing hydrodynamic effects in barite scale formation. <i>Lab on A Chip</i> , <b>2019</b> , 19, 1534-1544	7.2	10
84	Hydroxycitrate: a potential new therapy for calcium urolithiasis. <i>Urolithiasis</i> , <b>2019</b> , 47, 311-320	3.2	15
83	Organic-Free Interzeolite Transformation in the Absence of Common Building Units. <i>Chemistry - A European Journal</i> , <b>2019</b> , 25, 5893-5898	4.8	21
82	Molecular Modifiers Suppress Nonclassical Pathways of Zeolite Crystallization. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 3228-3238	9.6	22
81	Time-Resolved Dynamics of Intracrystalline Mesoporosity Generation in USY Zeolite. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 5005-5013	9.6	11
80	Bridging the Gap between Structurally Distinct 2D Lamellar Zeolitic Precursors through a 3D Germanosilicate Intermediate. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 14529-14533	16.4	4
79	Quantification and Statistical Analysis of Errors Related to the Approximate Description of Active Site Models in Metal-Exchanged Zeolites. <i>ChemCatChem</i> , <b>2019</b> , 11, 5055-5067	5.2	3
78	Deleterious effects of non-framework Al species on the catalytic performance of ZSM-5 crystals synthesized at low temperature. <i>Reaction Chemistry and Engineering</i> , <b>2019</b> , 4, 1957-1968	4.9	7
77	Regulating Nonclassical Pathways of Silicalite-1 Crystallization through Controlled Evolution of Amorphous Precursors. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 15859-15863	3.6	12
76	Regulating Nonclassical Pathways of Silicalite-1 Crystallization through Controlled Evolution of Amorphous Precursors. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 15712-15716	16.4	16
75	Bridging the Gap between Structurally Distinct 2D Lamellar Zeolitic Precursors through a 3D Germanosilicate Intermediate. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 14671-14675	3.6	1
74	Citrate therapy for calcium phosphate stones. <i>Current Opinion in Nephrology and Hypertension</i> , <b>2019</b> , 28, 130-139	3.5	10
73	Crystallization of Mordenite Platelets using Cooperative Organic Structure-Directing Agents. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 20155-20165	16.4	20
72	Effects of diffusional constraints on lifetime and selectivity in methanol-to-olefins catalysis on HSAPO-34. <i>Journal of Catalysis</i> , <b>2019</b> , 369, 122-132	7.3	24
71	Factors Governing MgO(111) Faceting in the Thermal Decomposition of Oxide Precursors. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 2641-2650	9.6	25
70	Crystal Engineering for Catalysis. <i>Annual Review of Chemical and Biomolecular Engineering</i> , <b>2018</b> , 9, 283-309	30.9	25
69	Optimized Synthesis of ZSM-11 Catalysts using 1,8-Diaminooctane as a Structure-Directing Agent. <i>ChemPhysChem</i> , <b>2018</b> , 19, 529-537	3.2	19

68	Factors Differentiating the Effectiveness of Polyprotic Acids as Inhibitors of Calcium Oxalate Crystallization in Kidney Stone Disease. <i>Crystal Growth and Design</i> , <b>2018</b> , 18, 5617-5627	3.5	17
67	Structuring of Organic Solvents at Solid Interfaces and Ramifications for Antimalarial Adsorption on Hematin Crystals. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 29288-29298	9.5	5
66	Diverse Physical States of Amorphous Precursors in Zeolite Synthesis. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2018</b> , 57, 8460-8471	3.9	29
65	Ultrasmall Zeolite L Crystals Prepared from Highly Interdispersed Alkali-Silicate Precursors. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 11283-11288	16.4	38
64	Ultrasmall Zeolite L Crystals Prepared from Highly Interdispersed Alkali-Silicate Precursors. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 11453-11458	3.6	4
63	Cooperative effects of inorganic and organic structure-directing agents in ZSM-5 crystallization. <i>Molecular Systems Design and Engineering</i> , <b>2018</b> , 3, 159-170	4.6	35
62	Deconvoluting the Competing Effects of Zeolite Framework Topology and Diffusion Path Length on Methanol to Hydrocarbons Reaction. <i>ACS Catalysis</i> , <b>2018</b> , 8, 11042-11053	13.1	35
61	Transient modes of zeolite surface growth from 3D gel-like islands to 2D single layers. <i>Nature Communications</i> , <b>2018</b> , 9, 2129	17.4	48
60	Titelbild: Nanoscale Control of Homoepitaxial Growth on a Two-Dimensional Zeolite (Angew. Chem. 2/2017). <i>Angewandte Chemie</i> , <b>2017</b> , 129, 431-431	3.6	
59	Implications of methanol disproportionation on catalyst lifetime for methanol-to-olefins conversion by HSSZ-13. <i>Journal of Catalysis</i> , <b>2017</b> , 346, 154-160	7.3	71
58	Silver-Promoted Dehydroaromatization of Ethylene over ZSM-5 Catalysts. <i>ChemCatChem</i> , <b>2017</b> , 9, 1675-1682	16.8	23
57	Molecular modifiers of kidney stones. <i>Current Opinion in Nephrology and Hypertension</i> , <b>2017</b> , 26, 256-265	3.5	14
56	Antimalarials inhibit hematin crystallization by unique drug-surface site interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 7531-7536	11.5	56
55	The role of macromolecules in the formation of kidney stones. <i>Urolithiasis</i> , <b>2017</b> , 45, 57-74	3.2	35
54	Nanoscale Control of Homoepitaxial Growth on a Two-Dimensional Zeolite. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 535-539	16.4	42
53	Nanoscale Control of Homoepitaxial Growth on a Two-Dimensional Zeolite. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 550-554	3.6	15
52	Designed Peptoids as Tunable Modifiers of Zeolite Crystallization. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 9536-9546	9.5	22
51	Rücktitelbild: Organic-Free Synthesis of a Highly Siliceous Faujasite Zeolite with Spatially Biased Q4(nAl) Si Speciation (Angew. Chem. 43/2017). <i>Angewandte Chemie</i> , <b>2017</b> , 129, 13718-13718	3.6	

50	Deconstructing Quinoline-Class Antimalarials to Identify Fundamental Physicochemical Properties of Beta-Hematin Crystal Growth Inhibitors. <i>Chemistry - A European Journal</i> , <b>2017</b> , 23, 13638-13647	4.8	8
49	Organic-Free Synthesis of a Highly Siliceous Faujasite Zeolite with Spatially Biased Q4(nAl) Si Speciation. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 13551-13556	3.6	20
48	Organic-Free Synthesis of a Highly Siliceous Faujasite Zeolite with Spatially Biased Q (nAl) Si Speciation. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 13366-13371	16.4	42
47	Early Onset of Kinetic Roughening due to a Finite Step Width in Hematin Crystallization. <i>Physical Review Letters</i> , <b>2017</b> , 119, 198101	7.4	10
46	Elucidating the Effects of Polyprotic Acid Speciation in Calcium Oxalate Crystallization. <i>Crystal Growth and Design</i> , <b>2017</b> , 17, 4280-4288	3.5	14
45	Biomimetic Assay for Hematin Crystallization Inhibitors: A New Platform To Screen Antimalarial Drugs. <i>Crystal Growth and Design</i> , <b>2017</b> , 17, 197-206	3.5	7
44	Synthesis Strategies for Ultrastable Zeolite GIS Polymorphs as Sorbents for Selective Separations. <i>Chemistry - A European Journal</i> , <b>2016</b> , 22, 15961-15961	4.8	2
43	Tuning Zeolite Precursor Interactions by Switching the Valence of Polyamine Modifiers. <i>Langmuir</i> , <b>2016</b> , 32, 11888-11898	4	17
42	Engineering Crystal Modifiers: Bridging Classical and Nonclassical Crystallization. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 8453-8465	9.6	74
41	Nucleation of FAU and LTA Zeolites from Heterogeneous Aluminosilicate Precursors. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 4906-4916	9.6	62
40	Assembly and Evolution of Amorphous Precursors in Zeolite L Crystallization. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 1714-1727	9.6	48
39	Computational Assessment of the Dominant Factors Governing the Mechanism of Methanol Dehydration over H-ZSM-5 with Heterogeneous Aluminum Distribution. <i>ACS Catalysis</i> , <b>2016</b> , 6, 2287-2298	13.1	68
38	Nucleation of open framework materials: Navigating the voids. <i>MRS Bulletin</i> , <b>2016</b> , 41, 393-398	3.2	35
37	Synthesis Strategies for Ultrastable Zeolite GIS Polymorphs as Sorbents for Selective Separations. <i>Chemistry - A European Journal</i> , <b>2016</b> , 22, 16078-16088	4.8	15
36	Molecular modifiers reveal a mechanism of pathological crystal growth inhibition. <i>Nature</i> , <b>2016</b> , 536, 446-50	50.4	107
35	A high-throughput assay for screening modifiers of calcium oxalate crystallization. <i>AIChE Journal</i> , <b>2016</b> , 62, 3538-3546	3.6	10
34	CRYSTAL GROWTH. Crystallization by particle attachment in synthetic, biogenic, and geologic environments. <i>Science</i> , <b>2015</b> , 349, aaa6760	33.3	1035
33	Mechanisms of hematin crystallization and inhibition by the antimalarial drug chloroquine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 4946-51	11.5	93

32	Epitaxial Growth of ZSM-5@Silicalite-1: A Core-Shell Zeolite Designed with Passivated Surface Acidity. <i>ACS Nano</i> , <b>2015</b> , 9, 4006-16	16.7	102
31	Molecular Mechanisms of Hematin Crystallization from Organic Solvent. <i>Crystal Growth and Design</i> , <b>2015</b> , 15, 5535-5542	3.5	24
30	SSZ-13 Crystallization by Particle Attachment and Deterministic Pathways to Crystal Size Control. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 13007-17	16.4	144
29	Identifying alkali metal inhibitors of crystal growth: a selection criterion based on ion pair hydration energy. <i>Chemical Communications</i> , <b>2015</b> , 51, 13964-7	5.8	18
28	Lipid or aqueous medium for hematin crystallization?. <i>CrystEngComm</i> , <b>2015</b> , 17, 7790-7800	3.3	11
27	Framework stabilization of Si-rich LTA zeolite prepared in organic-free media. <i>Chemical Communications</i> , <b>2015</b> , 51, 269-72	5.8	38
26	In situ imaging of silicalite-1 surface growth reveals the mechanism of crystallization. <i>Science</i> , <b>2014</b> , 344, 729-32	33.3	247
25	Specificity of growth inhibitors and their cooperative effects in calcium oxalate monohydrate crystallization. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 367-76	16.4	80
24	Growth of Large Hematin Crystals in Biomimetic Solutions. <i>Crystal Growth and Design</i> , <b>2014</b> , 14, 2123-2133	3.5	14
23	Natural promoters of calcium oxalate monohydrate crystallization. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 12648-57	16.4	49
22	Periodic, vdW-corrected density functional theory investigation of the effect of Al siting in H-ZSM-5 on chemisorption properties and site-specific acidity. <i>Catalysis Communications</i> , <b>2014</b> , 52, 98-102	3.2	60
21	Synthesis of zeolites in the absence of organic structure-directing agents: factors governing crystal selection and polymorphism. <i>Reviews in Chemical Engineering</i> , <b>2014</b> , 30, 1-49	5	71
20	Hematin crystallization from aqueous and organic solvents. <i>Journal of Chemical Physics</i> , <b>2013</b> , 139, 12191-19	3.1	22
19	High-throughput platform for design and screening of peptides as inhibitors of calcium oxalate monohydrate crystallization. <i>Journal of Crystal Growth</i> , <b>2013</b> , 373, 13-19	1.6	31
18	Controlling crystal polymorphism in organic-free synthesis of Na-zeolites. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 2641-52	16.4	131
17	A facile strategy to design zeolite L crystals with tunable morphology and surface architecture. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 6608-17	16.4	93
16	Sweep flocculation and adsorption of viruses on aluminum flocs during electrochemical treatment prior to surface water microfiltration. <i>Environmental Science &amp; Technology</i> , <b>2013</b> , 47, 4612-8	10.3	40
15	Tailoring Silicalite-1 Crystal Morphology with Molecular Modifiers. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 3401-3405	3.6	14

14	R&Ktitelbild: Tailoring Silicalite-1 Crystal Morphology with Molecular Modifiers (Angew. Chem. 14/2012). <i>Angewandte Chemie</i> , <b>2012</b> , 124, 3550-3550	3.6	
13	Tailoring silicalite-1 crystal morphology with molecular modifiers. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 3345-9	16.4	69
12	Back Cover: Tailoring Silicalite-1 Crystal Morphology with Molecular Modifiers (Angew. Chem. Int. Ed. 14/2012). <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 3492-3492	16.4	
11	Calcium oxalate monohydrate aggregation induced by aggregation of desialylated Tamm-Horsfall protein. <i>Urological Research</i> , <b>2011</b> , 39, 269-82		41
10	Crystal growth inhibitors for the prevention of L-cystine kidney stones through molecular design. <i>Science</i> , <b>2010</b> , 330, 337-341	33.3	179
9	Thermodynamics of Silica Nanoparticle Self-Assembly in Basic Solutions of Monovalent Cations. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 14754-14761	3.8	24
8	Kinetic and Thermodynamic Studies of Silica Nanoparticle Dissolution. <i>Chemistry of Materials</i> , <b>2007</b> , 19, 4189-4197	9.6	94
7	Self-assembly and phase behavior of germanium oxide nanoparticles in basic aqueous solutions. <i>Langmuir</i> , <b>2007</b> , 23, 2784-91	4	27
6	Silica self-assembly and synthesis of microporous and mesoporous silicates. <i>Chemistry - A European Journal</i> , <b>2006</b> , 12, 2926-34	4.8	69
5	Evolution of self-assembled silica-tetrapropylammonium nanoparticles at elevated temperatures. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 12762-71	3.4	80
4	Physical basis for the formation and stability of silica nanoparticles in basic solutions of monovalent cations. <i>Langmuir</i> , <b>2005</b> , 21, 8960-71	4	116
3	Spontaneous Formation of Silica Nanoparticles in Basic Solutions of Small Tetraalkylammonium Cations. <i>Journal of Physical Chemistry B</i> , <b>2004</b> , 108, 12271-12275	3.4	130
2	Structure of the Silica Phase Extracted from Silica/(TPA)OH Solutions Containing Nanoparticles. <i>Journal of Physical Chemistry B</i> , <b>2003</b> , 107, 10006-10016	3.4	153
1	Catalyst Deactivation Probed by Positron Annihilation Spectroscopy. <i>ACS Catalysis</i> , 14967-14976	13.1	2