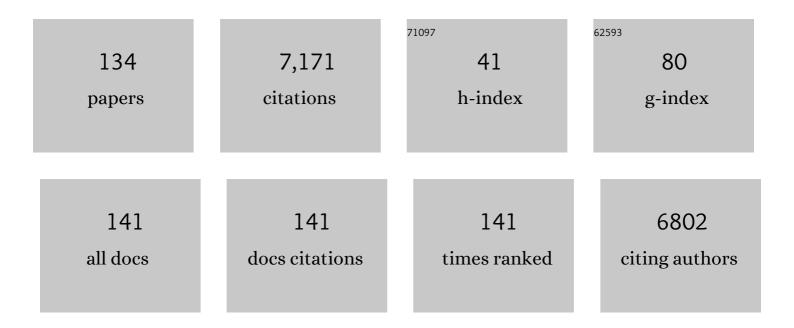
Jeffrey D Rimer

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Crystallization by particle attachment in synthetic, biogenic, and geologic environments. Science, 2015, 349, aaa6760.	12.6	1,467
2	In Situ Imaging of Silicalite-1 Surface Growth Reveals the Mechanism of Crystallization. Science, 2014, 344, 729-732.	12.6	304
3	Crystal Growth Inhibitors for the Prevention of <scp>l</scp> -Cystine Kidney Stones Through Molecular Design. Science, 2010, 330, 337-341.	12.6	212
4	SSZ-13 Crystallization by Particle Attachment and Deterministic Pathways to Crystal Size Control. Journal of the American Chemical Society, 2015, 137, 13007-13017.	13.7	191
5	Controlling Crystal Polymorphism in Organic-Free Synthesis of Na-Zeolites. Journal of the American Chemical Society, 2013, 135, 2641-2652.	13.7	177
6	Structure of the Silica Phase Extracted from Silica/(TPA)OH Solutions Containing Nanoparticles. Journal of Physical Chemistry B, 2003, 107, 10006-10016.	2.6	164
7	Molecular modifiers reveal a mechanism of pathological crystal growth inhibition. Nature, 2016, 536, 446-450.	27.8	156
8	Spontaneous Formation of Silica Nanoparticles in Basic Solutions of Small Tetraalkylammonium Cations. Journal of Physical Chemistry B, 2004, 108, 12271-12275.	2.6	136
9	Mechanisms of hematin crystallization and inhibition by the antimalarial drug chloroquine. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4946-4951.	7.1	135
10	Epitaxial Growth of ZSM-5@Silicalite-1: A Core–Shell Zeolite Designed with Passivated Surface Acidity. ACS Nano, 2015, 9, 4006-4016.	14.6	134
11	Physical Basis for the Formation and Stability of Silica Nanoparticles in Basic Solutions of Monovalent Cations. Langmuir, 2005, 21, 8960-8971.	3.5	120
12	A Facile Strategy To Design Zeolite L Crystals with Tunable Morphology and Surface Architecture. Journal of the American Chemical Society, 2013, 135, 6608-6617.	13.7	118
13	Finned zeolite catalysts. Nature Materials, 2020, 19, 1074-1080.	27.5	116
14	Engineering Crystal Modifiers: Bridging Classical and Nonclassical Crystallization. Chemistry of Materials, 2016, 28, 8453-8465.	6.7	107
15	Specificity of Growth Inhibitors and their Cooperative Effects in Calcium Oxalate Monohydrate Crystallization. Journal of the American Chemical Society, 2014, 136, 367-376.	13.7	105
16	Kinetic and Thermodynamic Studies of Silica Nanoparticle Dissolution. Chemistry of Materials, 2007, 19, 4189-4197.	6.7	104
17	Synthesis of zeolites in the absence of organic structure-directing agents: factors governing crystal selection and polymorphism. Reviews in Chemical Engineering, 2014, 30, 1-49.	4.4	98
18	Computational Assessment of the Dominant Factors Governing the Mechanism of Methanol Dehydration over H-ZSM-5 with Heterogeneous Aluminum Distribution. ACS Catalysis, 2016, 6, 2287-2298.	11.2	92

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19	Antimalarials inhibit hematin crystallization by unique drug–surface site interactions. Proceedings of the United States of America, 2017, 114, 7531-7536.	7.1	91
20	Nucleation of FAU and LTA Zeolites from Heterogeneous Aluminosilicate Precursors. Chemistry of Materials, 2016, 28, 4906-4916.	6.7	90
21	Implications of methanol disproportionation on catalyst lifetime for methanol-to-olefins conversion by HSSZ-13. Journal of Catalysis, 2017, 346, 154-160.	6.2	89
22	Evolution of Self-Assembled Silicaâ^'Tetrapropylammonium Nanoparticles at Elevated Temperatures. Journal of Physical Chemistry B, 2005, 109, 12762-12771.	2.6	86
23	Tailoring Silicaliteâ€1 Crystal Morphology with Molecular Modifiers. Angewandte Chemie - International Edition, 2012, 51, 3345-3349.	13.8	86
24	Silica Self-Assembly and Synthesis of Microporous and Mesoporous Silicates. Chemistry - A European Journal, 2006, 12, 2926-2934.	3.3	79
25	Periodic, vdW-corrected density functional theory investigation of the effect of Al siting in H-ZSM-5 on chemisorption properties and site-specific acidity. Catalysis Communications, 2014, 52, 98-102.	3.3	77
26	Natural Promoters of Calcium Oxalate Monohydrate Crystallization. Journal of the American Chemical Society, 2014, 136, 12648-12657.	13.7	72
27	Deconvoluting the Competing Effects of Zeolite Framework Topology and Diffusion Path Length on Methanol to Hydrocarbons Reaction. ACS Catalysis, 2018, 8, 11042-11053.	11.2	69
28	Transient modes of zeolite surface growth from 3D gel-like islands to 2D single layers. Nature Communications, 2018, 9, 2129.	12.8	69
29	Impact of acid site speciation and spatial gradients on zeolite catalysis. Journal of Catalysis, 2020, 391, 56-68.	6.2	66
30	Assembly and Evolution of Amorphous Precursors in Zeolite L Crystallization. Chemistry of Materials, 2016, 28, 1714-1727.	6.7	63
31	Organicâ€Free Synthesis of a Highly Siliceous Faujasite Zeolite with Spatially Biased Q ⁴ (<i>n</i> Al) Si Speciation. Angewandte Chemie - International Edition, 2017, 56, 13366-13371.	13.8	62
32	Ultrasmall Zeoliteâ€L Crystals Prepared from Highly Interdispersed Alkali‧ilicate Precursors. Angewandte Chemie - International Edition, 2018, 57, 11283-11288.	13.8	60
33	Calcium oxalate monohydrate aggregation induced by aggregation of desialylated Tamm-Horsfall protein. Urological Research, 2011, 39, 269-282.	1.5	57
34	Enhanced Surface Activity of MWW Zeolite Nanosheets Prepared via a One-Step Synthesis. Journal of the American Chemical Society, 2020, 142, 8211-8222.	13.7	57
35	Controlling Nucleation Pathways in Zeolite Crystallization: Seeding Conceptual Methodologies for Advanced Materials Design. Journal of the American Chemical Society, 2021, 143, 21446-21460.	13.7	56
36	The role of macromolecules in the formation of kidney stones. Urolithiasis, 2017, 45, 57-74.	2.0	52

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37	Cooperative effects of inorganic and organic structure-directing agents in ZSM-5 crystallization. Molecular Systems Design and Engineering, 2018, 3, 159-170.	3.4	51
38	Nanoscale Control of Homoepitaxial Growth on a Twoâ€Dimensional Zeolite. Angewandte Chemie - International Edition, 2017, 56, 535-539.	13.8	50
39	Sweep Flocculation and Adsorption of Viruses on Aluminum Flocs during Electrochemical Treatment Prior to Surface Water Microfiltration. Environmental Science & Technology, 2013, 47, 4612-4618.	10.0	47
40	Diverse Physical States of Amorphous Precursors in Zeolite Synthesis. Industrial & Engineering Chemistry Research, 2018, 57, 8460-8471.	3.7	45
41	Seed-Assisted zeolite synthesis: The impact of seeding conditions and interzeolite transformations on crystal structure and morphology. Microporous and Mesoporous Materials, 2020, 300, 110174.	4.4	45
42	Enhanced Selective Oxidation of Ammonia in a Pt/Al ₂ O ₃ @Cu/ZSM-5 Core–Shell Catalyst. ACS Catalysis, 2020, 10, 3604-3617.	11.2	43
43	Framework stabilization of Si-rich LTA zeolite prepared in organic-free media. Chemical Communications, 2015, 51, 269-272.	4.1	42
44	Nucleation of open framework materials: Navigating the voids. MRS Bulletin, 2016, 41, 393-398.	3.5	42
45	Crystallization of Mordenite Platelets using Cooperative Organic Structure-Directing Agents. Journal of the American Chemical Society, 2019, 141, 20155-20165.	13.7	42
46	Molecular Modifiers Suppress Nonclassical Pathways of Zeolite Crystallization. Chemistry of Materials, 2019, 31, 3228-3238.	6.7	39
47	Effects of diffusional constraints on lifetime and selectivity in methanol-to-olefins catalysis on HSAPO-34. Journal of Catalysis, 2019, 369, 122-132.	6.2	39
48	Organicâ€Free Interzeolite Transformation in the Absence of Common Building Units. Chemistry - A European Journal, 2019, 25, 5893-5898.	3.3	38
49	Ethylene Dehydroaromatization over Gaâ€ZSMâ€5 Catalysts: Nature and Role of Gallium Speciation. Angewandte Chemie - International Edition, 2020, 59, 19592-19601.	13.8	38
50	Crystal Engineering for Catalysis. Annual Review of Chemical and Biomolecular Engineering, 2018, 9, 283-309.	6.8	37
51	In situ imaging of two-dimensional surface growth reveals the prevalence and role of defects in zeolite crystallization. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28632-28639.	7.1	37
52	Antagonistic cooperativity between crystal growth modifiers. Nature, 2020, 577, 497-501.	27.8	37
53	Regulating Nonclassical Pathways of Silicaliteâ€1 Crystallization through Controlled Evolution of Amorphous Precursors. Angewandte Chemie - International Edition, 2019, 58, 15712-15716.	13.8	36
54	Spontaneous Pillaring of Pentasil Zeolites. Advanced Materials, 2021, 33, e2100897.	21.0	36

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55	Molecular Mechanisms of Hematin Crystallization from Organic Solvent. Crystal Growth and Design, 2015, 15, 5535-5542.	3.0	34
56	Designed Peptoids as Tunable Modifiers of Zeolite Crystallization. Chemistry of Materials, 2017, 29, 9536-9546.	6.7	34
57	Factors Governing MgO(111) Faceting in the Thermal Decomposition of Oxide Precursors. Chemistry of Materials, 2018, 30, 2641-2650.	6.7	34
58	High-throughput platform for design and screening of peptides as inhibitors of calcium oxalate monohydrate crystallization. Journal of Crystal Growth, 2013, 373, 13-19.	1.5	33
59	Rational design of zeolite catalysts. Nature Catalysis, 2018, 1, 488-489.	34.4	33
60	Synthesis strategies and design principles for nanosized and hierarchical zeolites. , 2022, 1, 521-534.		33
61	Hematin crystallization from aqueous and organic solvents. Journal of Chemical Physics, 2013, 139, 121911.	3.0	32
62	Synthesis Strategies for Ultrastable Zeolite GIS Polymorphs as Sorbents for Selective Separations. Chemistry - A European Journal, 2016, 22, 16078-16088.	3.3	31
63	Silverâ€Promoted Dehydroaromatization of Ethylene over ZSMâ€5 Catalysts. ChemCatChem, 2017, 9, 1675-1682.	3.7	31
64	Self-Assembly and Phase Behavior of Germanium Oxide Nanoparticles in Basic Aqueous Solutions. Langmuir, 2007, 23, 2784-2791.	3.5	30
65	Time-resolved dissolution elucidates the mechanism of zeolite MFI crystallization. Science Advances, 2021, 7, .	10.3	30
66	Core-shell and egg-shell zeolite catalysts for enhanced hydrocarbon processing. Journal of Catalysis, 2022, 405, 664-675.	6.2	29
67	Organicâ€Free Synthesis of a Highly Siliceous Faujasite Zeolite with Spatially Biased Q 4 (n Al) Si Speciation. Angewandte Chemie, 2017, 129, 13551-13556.	2.0	27
68	Optimized Synthesis of ZSMâ€11 Catalysts using 1,8â€Diaminooctane as a Structureâ€Directing Agent. ChemPhysChem, 2018, 19, 529-537.	2.1	27
69	Thermodynamics of Silica Nanoparticle Self-Assembly in Basic Solutions of Monovalent Cations. Journal of Physical Chemistry C, 2008, 112, 14754-14761.	3.1	26
70	Identifying alkali metal inhibitors of crystal growth: a selection criterion based on ion pair hydration energy. Chemical Communications, 2015, 51, 13964-13967.	4.1	25
71	A second mechanism employed by artemisinins to suppress Plasmodium falciparum hinges on inhibition of hematin crystallization. Journal of Biological Chemistry, 2021, 296, 100123.	3.4	24
72	Tuning Zeolite Precursor Interactions by Switching the Valence of Polyamine Modifiers. Langmuir, 2016, 32, 11888-11898.	3.5	23

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73	Molecular modifiers of kidney stones. Current Opinion in Nephrology and Hypertension, 2017, 26, 256-265.	2.0	23
74	Hydroxycitrate: a potential new therapy for calcium urolithiasis. Urolithiasis, 2019, 47, 311-320.	2.0	23
75	Factors Differentiating the Effectiveness of Polyprotic Acids as Inhibitors of Calcium Oxalate Crystallization in Kidney Stone Disease. Crystal Growth and Design, 2018, 18, 5617-5627.	3.0	22
76	Citrate therapy for calcium phosphate stones. Current Opinion in Nephrology and Hypertension, 2019, 28, 130-139.	2.0	22
77	Synthesis of NiO Crystals Exposing Stable Highâ€Index Facets. Angewandte Chemie - International Edition, 2020, 59, 15119-15123.	13.8	22
78	Inorganic ions regulate amorphous-to-crystal shape preservation in biomineralization. Proceedings of the United States of America, 2020, 117, 3360-3362.	7.1	21
79	Strontium lons Function as Both an Accelerant and Structure-Directing Agent of Chabazite Crystallization. , 2021, 3, 187-192.		21
80	Early Onset of Kinetic Roughening due to a Finite Step Width in Hematin Crystallization. Physical Review Letters, 2017, 119, 198101.	7.8	20
81	Growth of Large Hematin Crystals in Biomimetic Solutions. Crystal Growth and Design, 2014, 14, 2123-2127.	3.0	19
82	Regulating Nonclassical Pathways of Silicaliteâ€1 Crystallization through Controlled Evolution of Amorphous Precursors. Angewandte Chemie, 2019, 131, 15859-15863.	2.0	19
83	Fewâ€Unitâ€Cell MFI Zeolite Synthesized using a Simple Diâ€quaternary Ammonium Structureâ€Directing Agent. Angewandte Chemie - International Edition, 2021, 60, 19214-19221.	13.8	19
84	Spatiotemporal Coke Coupling Enhances <i>para</i> -Xylene Selectivity in Highly Stable MCM-22 Catalysts. Journal of the American Chemical Society, 2022, 144, 7861-7870.	13.7	19
85	Lipid or aqueous medium for hematin crystallization?. CrystEngComm, 2015, 17, 7790-7800.	2.6	18
86	Engaging a Battle on Two Fronts: Dual Role of Polyphosphates as Potent Inhibitors of Struvite Nucleation and Crystal Growth. Chemistry of Materials, 2020, 32, 8672-8682.	6.7	18
87	Tracking Zeolite Crystallization by Elemental Mapping. Chemistry of Materials, 2020, 32, 3278-3287.	6.7	18
88	Time-Resolved Dynamics of Intracrystalline Mesoporosity Generation in USY Zeolite. Chemistry of Materials, 2019, 31, 5005-5013.	6.7	17
89	Timeâ€Resolved Dynamics of Struvite Crystallization: Insights from the Macroscopic to Molecular Scale. Chemistry - A European Journal, 2020, 26, 3555-3563.	3.3	17
90	Elucidating the Effects of Polyprotic Acid Speciation in Calcium Oxalate Crystallization. Crystal Growth and Design, 2017, 17, 4280-4288.	3.0	16

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91	Deleterious effects of non-framework Al species on the catalytic performance of ZSM-5 crystals synthesized at low temperature. Reaction Chemistry and Engineering, 2019, 4, 1957-1968.	3.7	16
92	Nanoscale Control of Homoepitaxial Growth on a Twoâ€Đimensional Zeolite. Angewandte Chemie, 2017, 129, 550-554.	2.0	15
93	A microfluidic approach for probing hydrodynamic effects in barite scale formation. Lab on A Chip, 2019, 19, 1534-1544.	6.0	15
94	Ultrasmall Zeoliteâ€L Crystals Prepared from Highly Interdispersed Alkali‧ilicate Precursors. Angewandte Chemie, 2018, 130, 11453-11458.	2.0	14
95	Enhanced Selectivity and Stability of Finned Ferrierite Catalysts in Butene Isomerization. Angewandte Chemie - International Edition, 2022, 61, .	13.8	14
96	A highâ€ŧhroughput assay for screening modifiers of calcium oxalate crystallization. AICHE Journal, 2016, 62, 3538-3546.	3.6	12
97	Understanding initial zeolite oligomerization steps with first principles calculations. AICHE Journal, 2020, 66, e17107.	3.6	12
98	Zinc Ions Modify Calcium Oxalate Growth by Distinct Transformation of Crystal Surface Termination. Crystal Growth and Design, 2021, 21, 3375-3383.	3.0	12
99	Crystallization of potassium-zeolites in organic-free media. Microporous and Mesoporous Materials, 2022, 341, 112026.	4.4	12
100	Deconstructing Quinolineâ€Class Antimalarials to Identify Fundamental Physicochemical Properties of Betaâ€Hematin Crystal Growth Inhibitors. Chemistry - A European Journal, 2017, 23, 13638-13647.	3.3	11
101	Acidic Polysaccharides as Green Alternatives for Barite Scale Dissolution. ACS Applied Materials & Interfaces, 2020, 12, 55434-55443.	8.0	11
102	Synthesis, Structure and Catalytic Properties of Faceted Oxide Crystals. ChemCatChem, 2021, 13, 6-27.	3.7	10
103	Tuning selectivity in nickel oxide-catalyzed oxidative dehydrogenation of ethane through control over non-stoichiometric oxygen density. Catalysis Science and Technology, 2021, 11, 531-541.	4.1	9
104	Alginate as a green inhibitor of barite nucleation and crystal growth. Molecular Systems Design and Engineering, 2021, 6, 508-519.	3.4	9
105	Catalyst Deactivation Probed by Positron Annihilation Spectroscopy. ACS Catalysis, 2021, 11, 14967-14976.	11.2	9
106	Manipulation of amorphous precursors to enhance zeolite nucleation. Faraday Discussions, 2022, 235, 322-342.	3.2	9
107	Accelerating the Crystallization of Zeolite SSZâ€13 with Polyamines. Angewandte Chemie - International Edition, 2022, 61, .	13.8	9
108	Crystallization of Hierarchical Ammonium Urate: Insight into the Formation of Cetacean Renal Stones. Crystal Growth and Design, 2019, 19, 6727-6735.	3.0	8

#	Article	IF	CITATIONS
109	Fewâ€Unitâ€Cell MFI Zeolite Synthesized using a Simple Diâ€quaternary Ammonium Structureâ€Directing Agent. Angewandte Chemie, 2021, 133, 19363-19370.	2.0	8
110	Local Ordering of Molten Salts at NiO Crystal Interfaces Promotes Highâ€Index Faceting. Angewandte Chemie - International Edition, 2021, 60, 25391-25396.	13.8	8
111	Biomimetic Assay for Hematin Crystallization Inhibitors: A New Platform To Screen Antimalarial Drugs. Crystal Growth and Design, 2017, 17, 197-206.	3.0	7
112	High-Index (Ni,Mg)O Crystallization during Molten Salt Synthesis. Chemistry of Materials, 2021, 33, 3155-3163.	6.7	7
113	Suppressing Barium Sulfate Crystallization with Hydroxycitrate: A Dual Nucleation and Growth Inhibitor. Chemistry of Materials, 2021, 33, 6997-7007.	6.7	7
114	Enhanced Selectivity and Stability of Finned Ferrierite Catalysts in Butene Isomerization. Angewandte Chemie, 2022, 134, .	2.0	7
115	Structuring of Organic Solvents at Solid Interfaces and Ramifications for Antimalarial Adsorption on β-Hematin Crystals. ACS Applied Materials & Interfaces, 2018, 10, 29288-29298.	8.0	6
116	Bridging the Gap between Structurally Distinct 2D Lamellar Zeolitic Precursors through a 3D Germanosilicate Intermediate. Angewandte Chemie - International Edition, 2019, 58, 14529-14533.	13.8	5
117	Synthesis of NiO Crystals Exposing Stable Highâ€Index Facets. Angewandte Chemie, 2020, 132, 15231-15235.	2.0	5
118	Factors controlling the molecular modification of one-dimensional zeolites. Physical Chemistry Chemical Physics, 2021, 23, 18610-18617.	2.8	5
119	Minerals from colloidal assembly. Nature Materials, 2020, 19, 375-376.	27.5	4
120	A Comparative Analysis of In Vitro Toxicity of Synthetic Zeolites on IMR-90 Human Lung Fibroblast Cells. Molecules, 2021, 26, 3194.	3.8	4
121	Quantification and Statistical Analysis of Errors Related to the Approximate Description of Active Site Models in Metalâ€Exchanged Zeolites. ChemCatChem, 2019, 11, 5055-5067.	3.7	3
122	Synthesis Strategies for Ultrastable Zeolite GIS Polymorphs as Sorbents for Selective Separations. Chemistry - A European Journal, 2016, 22, 15961-15961.	3.3	2
123	Bridging the Gap between Structurally Distinct 2D Lamellar Zeolitic Precursors through a 3D Germanosilicate Intermediate. Angewandte Chemie, 2019, 131, 14671-14675.	2.0	2
124	Local Ordering of Molten Salts at NiO Crystal Interfaces Promotes Highâ€Index Faceting. Angewandte Chemie, 2021, 133, 25595-25600.	2.0	1
125	Suppressing barite crystallization with organophosphorus compounds. CrystEngComm, 0, , .	2.6	1

126 RÃ1/4 cktitelbild: Tailoring Silicalite-1 Crystal Morphology with Molecular Modifiers (Angew. Chem.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50

#	Article	IF	CITATIONS
127	Back Cover: Tailoring Silicalite-1 Crystal Morphology with Molecular Modifiers (Angew. Chem. Int. Ed.) Tj ETQq1	0,784314	1 rgBT /Overl
128	Titelbild: Nanoscale Control of Homoepitaxial Growth on a Twoâ€Dimensional Zeolite (Angew. Chem.) Tj ETQq0 (0 0 rgBT /0 2 :6 BT /0	Overlock 10 T
129	Frontispiece: Deconstructing Quinolineâ€Class Antimalarials to Identify Fundamental Physicochemical Properties of Betaâ€Hematin Crystal Growth Inhibitors. Chemistry - A European Journal, 2017, 23, .	3.3	0
130	Rücktitelbild: Organicâ€Free Synthesis of a Highly Siliceous Faujasite Zeolite with Spatially Biased Q ⁴ (<i>n</i> Al) Si Speciation (Angew. Chem. 43/2017). Angewandte Chemie, 2017, 129, 13718-13718.	2.0	0
131	Ethylene Dehydroaromatization over Gaâ€ZSMâ€5 Catalysts: Nature and Role of Gallium Speciation. Angewandte Chemie, 2020, 132, 19760-19769.	2.0	0
132	Low Dose Electron Microscopy of Amonium Urates. Microscopy and Microanalysis, 2020, 26, 2230-2231.	0.4	0
133	Innentitelbild: Local Ordering of Molten Salts at NiO Crystal Interfaces Promotes Highâ€Index Faceting (Angew. Chem. 48/2021). Angewandte Chemie, 2021, 133, 25370-25370.	2.0	0

Accelerating the Crystallization of Zeolite SSZâ $\in 13$ with Polyamines. Angewandte Chemie, 0, , . 2.0 0