Durga Prasad Karothu

List of Publications by Year
in descending order

64 papers	2,947 citations	186265 28 h-index	175258 52 g-index
64 all docs	64 docs citations	64 times ranked	2036 citing authors

#	Article	IF	Citations
1	The Rise of the Dynamic Crystals. Journal of the American Chemical Society, 2020, 142, 13256-13272.	13.7	229
2	Crystal Adaptronics: Mechanically Reconfigurable Elastic and Superelastic Molecular Crystals. Angewandte Chemie - International Edition, 2018, 57, 8837-8846.	13.8	214
3	Dualâ€Mode Light Transduction through a Plastically Bendable Organic Crystal as an Optical Waveguide. Angewandte Chemie - International Edition, 2018, 57, 17254-17258.	13.8	169
4	Crystals on the move: mechanical effects in dynamic solids. Chemical Communications, 2016, 52, 13941-13954.	4.1	166
5	Thermally Twistable, Photobendable, Elastically Deformable, and Selfâ€Healable Soft Crystals. Angewandte Chemie - International Edition, 2018, 57, 8498-8502.	13.8	154
6	Shape-Memory and Self-Healing Effects in Mechanosalient Molecular Crystals. Journal of the American Chemical Society, 2016, 138, 13298-13306.	13.7	141
7	Micromanipulation of Mechanically Compliant Organic Singleâ€Crystal Optical Microwaveguides. Angewandte Chemie - International Edition, 2020, 59, 13821-13830.	13.8	129
8	Halogen bonding in fluorine: experimental charge density study on intermolecular Fâ‹¯F and Fâ‹¯S donorâ€“acceptor contacts. Chemical Communications, 2013, 49, 7558.	4.1	117
9	Spatial Photocontrol of the Optical Output from an Organic Crystal Waveguide. Journal of the American Chemical Society, 2019, 141, 14966-14970.	13.7	106
10	Is a Bent Crystal Still a Single Crystal?. Angewandte Chemie - International Edition, 2019, 58, 10052-10060.	13.8	95
11	Shape-memory effects in molecular crystals. Nature Communications, 2019, 10, 3723.	12.8	85
12	Thermosalient Amphidynamic Molecular Machines: Motion at the Molecular and Macroscopic Scales. Matter, 2019, 1, 1033-1046.	10.0	81
13	Mechanically robust amino acid crystals as fiber-optic transducers and wide bandpass filters for optical communication in the near-infrared. Nature Communications, 2021, 12, 1326.	12.8	67
14	Global Performance Indices for Dynamic Crystals as Organic Thermal Actuators. Advanced Materials, 2020, 32, e1906216.	21.0	59
15	Herringbone to cofacial solid state packing via H-bonding in diketopyrrolopyrrole (DPP) based molecular crystals: influence on charge transport. Chemical Communications, 2015, 51, 97-100.	4.1	56
16	Global Analysis of the Mechanical Properties of Organic Crystals. Angewandte Chemie - International Edition, 2022, 61, .	13.8	55
17	Geometrically Reconfigurable, 2D, Allâ€Organic Photonic Integrated Circuits Made from Two Mechanically and Optically Dissimilar Crystals. Advanced Functional Materials, 2021, 31, 2105415.	14.9	54
18	Thermally Twistable, Photobendable, Elastically Deformable, and Selfâ€Healable Soft Crystals. Angewandte Chemie, 2018, 130, 8634-8638.	2.0	50

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19	Kristallâ€Adaptronik: Mechanisch rekonfigurierbare elastische und superelastische molekulare Kristalle. Angewandte Chemie, 2018, 130, 8974-8984.	2.0	48
20	Unique Type II HalogenÂ·Â·Â·Halogen Interactions in Pentafluorophenyl-Appended 2,2â€²-Bithiazoles. Crystal Growth and Design, 2013, 13, 1045-1049.	3.0	46
21	Martensitic organic crystals as soft actuators. Chemical Science, 2019, 10, 7327-7332.	7.4	44
22	Efficiently self-healing boronic ester crystals. Chemical Science, 2020, 11, 2606-2613.	7.4	42
23	Dualmodusâ€Lichttransduktion durch einen plastisch biegbaren organischen Kristall als optischer Wellenleiter. Angewandte Chemie, 2018, 130, 17501-17505.	2.0	41
24	Extraordinary anisotropic thermal expansion in photosalient crystals. IUCrJ, 2020, 7, 83-89.	2.2	39
25	Effect of Crystal Packing on the Thermosalient Effect of the Pincerâ€Type Diester Naphthaleneâ€2,3â€diylâ€bis(4â€fluorobenzoate): Aâ€‰New Classâ€…II Thermosalient Solid. Chemistry - A European Journal, 2018, 24, 4133-4139.	3.8	32
26	Organic Molecular Crystals with Dual Stress-Induced Mechanical Response: Elastic and Plastic Flexibility. Crystal Growth and Design, 2021, 21, 1931-1938.	3.0	32
27	A filled organic crystal as a hybrid large-bandwidth optical waveguide. Chemical Communications, 2019, 55, 4921-4924.	4.1	31
28	Ist ein gebogener Kristall immer noch ein Einkristall?. Angewandte Chemie, 2019, 131, 10154-10163.	2.0	30
29	Direct Quantification of Rapid and Efficient Single-Stroke Actuation by a Martensitic Transition in a Thermosalient Crystal. Journal of the American Chemical Society, 2019, 141, 3371-3375.	13.7	30
30	Sequencing and Welding of Molecular Singleâ€Crystal Optical Waveguides. Advanced Functional Materials, 2020, 30, 2003443.	14.9	30
31	Micromanipulation of Mechanically Compliant Organic Singleâ€Crystal Optical Microwaveguides. Angewandte Chemie, 2020, 132, 13925-13934.	2.0	30
32	Mechanically Responsive Crystals: Analysis of Macroscopic Strain Reveals â€œHiddenâ€•Processes. Journal of Physical Chemistry A, 2020, 124, 300-310.	2.5	29
33	Effect of inductive effect on the formation of cocrystals and eutectics. CrystEngComm, 2014, 16, 9930-9938.	2.6	28
34	Efficient Screening for Ternary Molecular Ionic Cocrystals Using a Complementary Mechanosynthesis and Computational Structure Prediction Approach. Chemistry - A European Journal, 2020, 26, 4752-4765.	3.3	27
35	Multifunctional Deformable Organic Semiconductor Single Crystals. Angewandte Chemie - International Edition, 2021, 60, 26151-26157.	13.8	26
36	1,9-Pyrazoloanthrone as a Colorimetric and â€œTurn-Onâ€•Fluorometric Chemosensor: Structural Implications. Crystal Growth and Design, 2014, 14, 2118-2122.	3.0	24

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37	Cracking under Internal Pressure: Photodynamic Behavior of Vinyl Azide Crystals through N₂ Release. Journal of the American Chemical Society, 2020, 142, 18565-18575.	13.7	23
38	Modulation of Electronic and Self-Assembly Properties of a Donorâ€“Acceptorâ€“Donor-Based Molecular Materials via Atomistic Approach. ACS Applied Materials & Interfaces, 2015, 7, 670-681.	8.0	22
39	Global Analysis of the Mechanical Properties of Organic Crystals. Angewandte Chemie, 2022, 134, .	2.0	19
40	Differential Cocrystallization Behavior of Isomeric Pyridine Carboxamides toward Antitubercular Drug Pyrazinoic Acid. Crystal Growth and Design, 2015, 15, 858-866.	3.0	18
41	Reversible Multicolor Photochromism of Dihydroazulene Crystals. Chemistry - A European Journal, 2019, 25, 373-378.	3.3	18
42	Quantifying Mechanical Properties of Molecular Crystals: A Critical Overview of Experimental Elastic Tensors. Angewandte Chemie - International Edition, 2022, 61, .	13.8	18
43	Mechanistic investigations of the 2-coumaranone chemiluminescence. Physical Chemistry Chemical Physics, 2017, 19, 22852-22859.	2.8	17
44	Thermochemiluminescent peroxide crystals. Nature Communications, 2019, 10, 997.	12.8	16
45	From Mechanical Effects to Mechanochemistry: Softening and Depression of the Melting Point of Deformed Plastic Crystals. Journal of the American Chemical Society, 2020, 142, 11219-11231.	13.7	16
46	Using crystal structure prediction to rationalize the hydration propensities of substituted adamantane hydrochloride salts. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2016, 72, 551-561.	1.1	15
47	Exceptionally high work density of a ferroelectric dynamic organic crystal around room temperature. Nature Communications, 2022, 13, .	12.8	15
48	Mechanical and Crystallographic Analysis of Cholesterol Crystals Puncturing Biological Membranes. Chemistry - A European Journal, 2018, 24, 11493-11497.	3.3	14
49	Mechanical Flexibility of Molecular Crystals Achieved by Exchanging Hydrogen Bonding Synthons. Crystal Growth and Design, 2020, 20, 2847-2852.	3.0	12
50	Autonomous Reconstitution of Fractured Hybrid Perovskite Single Crystals. Advanced Materials, 2022, 34, e2109374.	21.0	11
51	Ionic cocrystals of molecular saccharin. CrystEngComm, 2017, 19, 4338-4344.	2.6	9
52	Thermosalience of 1,2,4,5â€Tetrachlorobenzene. Israel Journal of Chemistry, 2021, 61, 557-562.	2.3	9
53	Mechanically Assisted Bioluminescence with Natural Luciferase. Angewandte Chemie - International Edition, 2020, 59, 16485-16489.	13.8	8
54	N-Alkyl derivative of 1,9-pyrazoloanthrone as a sensor for picric acid. RSC Advances, 2014, 4, 45306-45310.	3.6	7

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55	Quantifying Mechanical Properties of Molecular Crystals: A Critical Overview of Experimental Elastic Tensors. Angewandte Chemie, 2022, 134, .	2.0	7
56	Ultrafast, Light, Soft Martensitic Materials. Advanced Functional Materials, 2022, 32, .	14.9	7
57	Anthrapyrazolone analogues intercept inflammatory JNK signals to moderate endotoxin induced septic shock. Scientific Reports, 2014, 4, 7214.	3.3	6
58	Reversible Photolysis of Nitrosobenzene cis-Dimer Monitored In Situ by Single Crystal Photocrystallography. Crystal Growth and Design, 2018, 18, 1293-1296.	3.0	6
59	Turning on Solidâ€State Fluorescence with Light. Angewandte Chemie - International Edition, 2018, 57, 9538-9542.	13.8	6
60	Alkyl chain substituted 1,9-pyrazoloanthrones exhibit prominent inhibitory effect on c-Jun N-terminal kinase (JNK). Organic and Biomolecular Chemistry, 2014, 12, 4656-4662.	2.8	5
61	Structural and biological evaluation of halogen derivatives of 1,9-pyrazoloanthrones towards the design of a specific potent inhibitor of c-Jun-N-terminal kinase (JNK). New Journal of Chemistry, 2018, 42, 10651-10660.	2.8	3
62	Mechanically Assisted Bioluminescence with Natural Luciferase. Angewandte Chemie, 2020, 132, 16627.	2.0	3
63	Anschalten von FestkÃ¶rperfluoreszenz mit Licht. Angewandte Chemie, 2018, 130, 9683-9687.	2.0	1
64	Multifunctional Deformable Organic Semiconductor Single Crystals. Angewandte Chemie, 0, , .	2.0	0