

# Ioannis Spanopoulos

## List of Publications by Year in descending order

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71  
papers

5,467  
citations

76326

40  
h-index

91884

69  
g-index

73  
all docs

73  
docs citations

73  
times ranked

6782  
citing authors

#	ARTICLE	IF	CITATIONS
1	Light-activated interlayer contraction in two-dimensional perovskites for high-efficiency solar cells. <i>Nature Nanotechnology</i> , 2022, 17, 45-52.	31.5	52
2	Understanding Instability in Formamidinium Lead Halide Perovskites: Kinetics of Transformative Reactions at Grain and Subgrain Boundaries. <i>ACS Energy Letters</i> , 2022, 7, 1534-1543.	17.4	45
3	Polariton Dynamics in Two-Dimensional Ruddlesden-Popper Perovskites Strongly Coupled with Plasmonic Lattices. <i>ACS Nano</i> , 2022, 16, 3917-3925.	14.6	17
4	Thick-Layer Lead Iodide Perovskites with Bifunctional Organic Spacers Allylammonium and Iodopropylammonium Exhibiting Trap-State Emission. <i>Journal of the American Chemical Society</i> , 2022, 144, 6390-6409.	13.7	13
5	Entropy Stabilization Effects and Ion Migration in 3D "Hollow" Halide Perovskites. <i>Journal of the American Chemical Society</i> , 2022, 144, 8223-8230.	13.7	18
6	2D Homologous Series Sr <sub>1-x</sub> F <sub>2</sub> Bi <sub>1-x/2</sub> (M = Pb, Tl)ETQq000rgBT / Overlock 10 Tf 50 552 Td (Ag) Sr <sub>2</sub> F <sub>2</sub> Bi <sub>2/3</sub> S <sub>2</sub> . <i>Inorganic Chemistry</i> , 2022, 61, 8233-8240.	4.0	2
7	In Quest of Environmentally Stable Perovskite Solar Cells: A Perspective. <i>Helvetica Chimica Acta</i> , 2021, 104, .	1.6	15
8	CsPbBr <sub>3</sub> perovskite detectors with 1.4% energy resolution for high-energy $\hat{I}^3$ -rays. <i>Nature Photonics</i> , 2021, 15, 36-42.	31.4	210
9	Strong Valence Band Convergence to Enhance Thermoelectric Performance in PbSe with Two Chemically Independent Controls. <i>Angewandte Chemie</i> , 2021, 133, 272-277.	2.0	7
10	Strong Valence Band Convergence to Enhance Thermoelectric Performance in PbSe with Two Chemically Independent Controls. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 268-273.	13.8	28
11	Tuning Ionic and Electronic Conductivities in the "Hollow" Perovskite {MAPb} <sub>3</sub> . <i>Chemistry of Materials</i> , 2021, 33, 719-726.	6.7	24
12	Triple-Cation and Mixed-Halide Perovskite Single Crystal for High-Performance X-ray Imaging. <i>Advanced Materials</i> , 2021, 33, e2006010.	21.0	163
13	Sn <sub>4</sub> B <sub>12</sub> Se <sub>12</sub> [Q <sub>x</sub> ], Q = Se, Te, a B <sub>12</sub> Cluster Tunnel Framework Hosting Neutral Chalcogen Chains. <i>Chemistry of Materials</i> , 2021, 33, 1723-1730.	6.7	6
14	Insight on the Stability of Thick Layers in 2D Ruddlesden-Popper and Dion-Jacobson Lead Iodide Perovskites. <i>Journal of the American Chemical Society</i> , 2021, 143, 2523-2536.	13.7	79
15	Tunable Broad Light Emission from 3D "Hollow" Bromide Perovskites through Defect Engineering. <i>Journal of the American Chemical Society</i> , 2021, 143, 7069-7080.	13.7	37
16	Polaron Plasma in Equilibrium with Bright Excitons in 2D and 3D Hybrid Perovskites. <i>Advanced Optical Materials</i> , 2021, 9, 2100295.	7.3	14
17	Shedding Light on the Stability and Structure-Property Relationships of Two-Dimensional Hybrid Lead Bromide Perovskites. <i>Chemistry of Materials</i> , 2021, 33, 5085-5107.	6.7	29
18	In-Plane Mechanical Properties of Two-Dimensional Hybrid Organic-Inorganic Perovskite Nanosheets: Structure-Property Relationships. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 31642-31649.	8.0	15

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19	Selective Capture Mechanism of Radioactive Thorium from Highly Acidic Solution by a Layered Metal Sulfide. ACS Applied Materials & Interfaces, 2021, 13, 37308-37315.	8.0	11
20	Hidden Complexity in the Chemistry of Ammonolysis-Derived $\alpha\text{-Ce}^{\text{IV}}\text{-Mo}^{\text{V}}\text{-Oxynitride Hydride}$ . Chemistry of Materials, 2021, 33, 6671-6684.	6.7	8
21	Nanotechnology for catalysis and solar energy conversion. Nanotechnology, 2021, 32, 042003.	2.6	44
22	High-phase purity two-dimensional perovskites with 17.3% efficiency enabled by interface engineering of hole transport layer. Cell Reports Physical Science, 2021, 2, 100601.	5.6	17
23	Narrow-Bandgap Mixed Lead/Tin-Based 2D Dionâ€“Jacobson Perovskites Boost the Performance of Solar Cells. Journal of the American Chemical Society, 2020, 142, 15049-15057.	13.7	103
24	Incorporated Guanidinium Expands the $\text{CH}_3\text{NH}_3\text{PbI}_3$ Lattice and Enhances Photovoltaic Performance. ACS Applied Materials & Interfaces, 2020, 12, 43885-43891.	8.0	31
25	Alternative Organic Spacers for More Efficient Perovskite Solar Cells Containing Ruddlesdenâ€“Popper Phases. Journal of the American Chemical Society, 2020, 142, 19705-19714.	13.7	83
26	Conventional Solvent Oxidizes Sn(II) in Perovskite Inks. ACS Energy Letters, 2020, 5, 1153-1155.	17.4	127
27	3D-printed lab-in-a-syringe voltammetric cell based on a working electrode modified with a highly efficient Ca-MOF sorbent for the determination of Hg(II). Sensors and Actuators B: Chemical, 2020, 321, 128508.	7.8	43
28	Cation Engineering in Two-Dimensional Ruddlesdenâ€“Popper Lead Iodide Perovskites with Mixed Large A-Site Cations in the Cages. Journal of the American Chemical Society, 2020, 142, 4008-4021.	13.7	101
29	Water-Stable 1D Hybrid Tin(II) Iodide Emits Broad Light with 36% Photoluminescence Quantum Efficiency. Journal of the American Chemical Society, 2020, 142, 9028-9038.	13.7	57
30	Exploring the Factors Affecting the Mechanical Properties of 2D Hybrid Organicâ€“Inorganic Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 20440-20447.	8.0	47
31	Organic Cation Alloying on Intralayer A and Interlayer A sites in 2D Hybrid Dionâ€“Jacobson Lead Bromide Perovskites $(\text{A}^{\text{TM}})_2(\text{A})\text{Pb}_2\text{Br}_7$ . Journal of the American Chemical Society, 2020, 142, 8342-8351.	13.7	64
32	A Microporous Co(II)-Based 3-D Metal Organic Framework Built from Magnetic Infinite Rod-Shaped Secondary Building Units. European Journal of Inorganic Chemistry, 2019, 2019, 4056-4062.	2.0	4
33	Conjugated Organic Cations Enable Efficient Self-Healing FASnI <sub>3</sub> Solar Cells. Joule, 2019, 3, 3072-3087.	24.0	190
34	A Microporous Co(II)-Based 3-D Metal Organic Framework Built from Magnetic Infinite Rod-Shaped Secondary Building Units. European Journal of Inorganic Chemistry, 2019, 2019, 4055-4055.	2.0	0
35	Benzodithiophene Hole-Transporting Materials for Efficient Tin-Based Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1905393.	14.9	49
36	High Figure of Merit in Gallium-Doped Nanostructured n-Type $\text{PbTe-xGeTe}$ with Midgap States. Journal of the American Chemical Society, 2019, 141, 16169-16177.	13.7	76

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37	Antiferromagnetic Semiconductor BaFMn <sub>0.5</sub> Te with Unique Mn Ordering and Red Photoluminescence. <i>Journal of the American Chemical Society</i> , 2019, 141, 17421-17430.	13.7	10
38	Compositional and Solvent Engineering in Dionâ€“Jacobson 2D Perovskites Boosts Solar Cell Efficiency and Stability. <i>Advanced Energy Materials</i> , 2019, 9, 1803384.	19.5	219
39	Improved Environmental Stability and Solar Cell Efficiency of (MA,FA)Pb <sub>3</sub> Perovskite Using a Wide-Band-Gap 1D Thiazolium Lead Iodide Capping Layer Strategy. <i>ACS Energy Letters</i> , 2019, 4, 1763-1769.	17.4	118
40	Ethylendiammonium-Based â€“Hollowâ€“Pb/Sn Perovskites with Ideal Band Gap Yield Solar Cells with Higher Efficiency and Stability. <i>Journal of the American Chemical Society</i> , 2019, 141, 8627-8637.	13.7	93
41	Amphoteric Indium Enables Carrier Engineering to Enhance the Power Factor and Thermoelectric Performance in n-Type Ag <sub>n</sub> Pb <sub>100</sub> In <sub>n</sub> Te <sub>100+2n</sub> (LIST). <i>Advanced Energy Materials</i> , 2019, 9, 1900414.	19.5	60
42	Uniaxial Expansion of the 2D Ruddlesdenâ€“Popper Perovskite Family for Improved Environmental Stability. <i>Journal of the American Chemical Society</i> , 2019, 141, 5518-5534.	13.7	193
43	Enhancement of Thermoelectric Performance for n-Type PbS through Synergy of Gap State and Fermi Level Pinning. <i>Journal of the American Chemical Society</i> , 2019, 141, 6403-6412.	13.7	67
44	Probing Strain-Induced Band Gap Modulation in 2D Hybrid Organicâ€“Inorganic Perovskites. <i>ACS Energy Letters</i> , 2019, 4, 796-802.	17.4	47
45	Unraveling the Chemical Nature of the 3D â€“Hollowâ€“Hybrid Halide Perovskites. <i>Journal of the American Chemical Society</i> , 2018, 140, 5728-5742.	13.7	132
46	Dopant-Free Tetrakis-Triphenylamine Hole Transporting Material for Efficient Tin-Based Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2018, 140, 388-393.	13.7	163
47	High-quality graphene sheets decorated with ZIF-8 nanocrystals. <i>Microporous and Mesoporous Materials</i> , 2018, 262, 68-76.	4.4	12
48	Exceptional TcO <sub>4</sub> <sup>+</sup> sorption capacity and highly efficient ReO <sub>4</sub> <sup>+</sup> luminescence sensing by Zr <sub>4+</sub> MOFs. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20813-20821.	10.3	54
49	Myths and reality of HPbI <sub>3</sub> in halide perovskite solar cells. <i>Nature Communications</i> , 2018, 9, 4785.	12.8	238
50	Stretching and Breaking of Ultrathin 2D Hybrid Organicâ€“Inorganic Perovskites. <i>ACS Nano</i> , 2018, 12, 10347-10354.	14.6	60
51	Diammonium Cations in the FASn <sub>3</sub> Perovskite Structure Lead to Lower Dark Currents and More Efficient Solar Cells. <i>ACS Energy Letters</i> , 2018, 3, 1470-1476.	17.4	114
52	Heterometallic In(III)â€“Pd(II) Porous Metalâ€“Organic Framework with Square-Octahedron Topology Displaying High CO <sub>2</sub> Uptake and Selectivity toward CH <sub>4</sub> and N <sub>2</sub> . <i>Inorganic Chemistry</i> , 2018, 57, 7244-7251.	4.0	37
53	Out-of-Plane Mechanical Properties of 2D Hybrid Organicâ€“Inorganic Perovskites by Nanoindentation. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 22167-22173.	8.0	64
54	Chalcogenide Aerogels as Sorbents for Noble Gases (Xe, Kr). <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 33389-33394.	8.0	25

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55	Directed assembly of a high surface area 2D metal-organic framework displaying the augmented $\text{H}_2$ and $\text{CO}_2$ uptake. <i>Inorganic Chemistry Frontiers</i> , 2017, 4, 825-832.	6.0	8
56	Liquid phase epitaxial growth of heterostructured hierarchical MOF thin films. <i>Chemical Communications</i> , 2017, 53, 6191-6194.	4.1	53
57	Efficient Lead-Free Solar Cells Based on Hollow $\text{MASn}_3$ Perovskites. <i>Journal of the American Chemical Society</i> , 2017, 139, 14800-14806.	13.7	230
58	Enhanced photovoltaic performance and stability with a new type of hollow 3D perovskite $\text{FASn}_3$ . <i>Science Advances</i> , 2017, 3, e1701293.	10.3	325
59	Reticular Chemistry and the Discovery of a New Family of Rare Earth (4, 8)-Connected Metal-Organic Frameworks with $\text{csq}$ Topology Based on $\text{RE}_4(\text{H}_3\text{O})_2(\text{COO})_8$ Clusters. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 44560-44566.	8.0	25
60	Reticular Chemistry at Its Best: Directed Assembly of Hexagonal Building Units into the Awaited Metal-Organic Framework with the Intricate Polybenzene Topology, pbz-MOF. <i>Journal of the American Chemical Society</i> , 2016, 138, 12767-12770.	13.7	101
61	Exceptional gravimetric and volumetric $\text{CO}_2$ uptake in a palladated NbO-type MOF utilizing cooperative acidic and basic, metal- $\text{CO}_2$ interactions. <i>Chemical Communications</i> , 2016, 52, 10559-10562.	4.1	40
62	A microporous $\text{Cu}^{2+}$ MOF based on a pyridyl isophthalic acid Schiff base ligand with high $\text{CO}_2$ uptake. <i>Inorganic Chemistry Frontiers</i> , 2016, 3, 1527-1535.	6.0	22
63	Reticular Synthesis of HKUST-like tbo-MOFs with Enhanced $\text{CH}_4$ Storage. <i>Journal of the American Chemical Society</i> , 2016, 138, 1568-1574.	13.7	193
64	A Microporous $\text{Co}^{2+}$ Metal Organic Framework with Single-Crystal to Single-Crystal Transformation Properties and High $\text{CO}_2$ Uptake. <i>Crystal Growth and Design</i> , 2015, 15, 185-193.	3.0	24
65	MOF Crystal Chemistry Paving the Way to Gas Storage Needs: Aluminum-Based $\text{soc}$ -MOF for $\text{CH}_4$ , $\text{O}_2$ , and $\text{CO}_2$ Storage. <i>Journal of the American Chemical Society</i> , 2015, 137, 13308-13318.	13.7	632
66	Enhanced gas-sorption properties of a high surface area, ultramicroporous magnesium formate. <i>CrystEngComm</i> , 2015, 17, 532-539.	2.6	32
67	Drastic Enhancement of the $\text{CO}_2$ Adsorption Properties in Sulfone-Functionalized Zr- and Hf-UiO-67 MOFs with Hierarchical Mesopores. <i>Inorganic Chemistry</i> , 2014, 53, 679-681.	4.0	87
68	Understanding the adsorption mechanism of noble gases Kr and Xe in CPO-27-Ni, CPO-27-Mg, and ZIF-8. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 23908-23914.	2.8	43
69	A $\text{turn-on}$ $\text{turn-to-ratiometric}$ sensor for zinc(II) ions in aqueous media. <i>RSC Advances</i> , 2014, 4, 693-696.	3.6	10
70	A Straight Forward Route for the Development of Metal-Organic Frameworks Functionalized with Aromatic $\text{OH}$ Groups: Synthesis, Characterization, and Gas ( $\text{N}_2$ , Ar, $\text{H}_2$ ) Adsorption. <i>Chemical Communications</i> , 2014, 10, 855-862.	4.0	107
71	Understanding morphology, microstructure, and stability of photovoltaic materials using solid-state NMR spectroscopy. , 0, , .		0