

# Yunchao Li

## List of Publications by Year in descending order

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100  
papers

8,123  
citations

70961

41  
h-index

48187

88  
g-index

107  
all docs

107  
docs citations

107  
times ranked

9125  
citing authors

#	ARTICLE	IF	CITATIONS
1	Engineering triangular carbon quantum dots with unprecedented narrow bandwidth emission for multicolored LEDs. <i>Nature Communications</i> , 2018, 9, 2249.	5.8	676
2	Bright Multicolor Bandgap Fluorescent Carbon Quantum Dots for Electroluminescent Light-Emitting Diodes. <i>Advanced Materials</i> , 2017, 29, 1604436.	11.1	643
3	53% Efficient Red Emissive Carbon Quantum Dots for High Color Rendering and Stable Warm White-Light-Emitting Diodes. <i>Advanced Materials</i> , 2017, 29, 1702910.	11.1	563
4	Sulfur-Doped Graphene Quantum Dots as a Novel Fluorescent Probe for Highly Selective and Sensitive Detection of Fe <sup>3+</sup> . <i>Analytical Chemistry</i> , 2014, 86, 10201-10207.	3.2	519
5	Noninjection Gram-Scale Synthesis of Monodisperse Pyramidal CuInS <sub>2</sub> Nanocrystals and Their Size-Dependent Properties. <i>ACS Nano</i> , 2010, 4, 5253-5262.	7.3	386
6	Electrochemical synthesis of small-sized red fluorescent graphene quantum dots as a bioimaging platform. <i>Chemical Communications</i> , 2015, 51, 2544-2546.	2.2	297
7	Targeted tumour theranostics in mice via carbon quantum dots structurally mimicking large amino acids. <i>Nature Biomedical Engineering</i> , 2020, 4, 704-716.	11.6	243
8	Surrounding media sensitive photoluminescence of boron-doped graphene quantum dots for highly fluorescent dyed crystals, chemical sensing and bioimaging. <i>Carbon</i> , 2014, 70, 149-156.	5.4	232
9	Carbon quantum dots: an emerging material for optoelectronic applications. <i>Journal of Materials Chemistry C</i> , 2019, 7, 6820-6835.	2.7	225
10	High-Yield Fabrication and Electrochemical Characterization of Tetrapodal CdSe, CdTe, and CdSexTe <sub>1-x</sub> Nanocrystals. <i>Advanced Functional Materials</i> , 2006, 16, 1705-1716.	7.8	212
11	Multicolor fluorescent graphene quantum dots colorimetrically responsive to all-pH and a wide temperature range. <i>Nanoscale</i> , 2015, 7, 11727-11733.	2.8	187
12	Electroluminescent Warm White Light-Emitting Diodes Based on Passivation Enabled Bright Red Bandgap Emission Carbon Quantum Dots. <i>Advanced Science</i> , 2019, 6, 1900397.	5.6	174
13	Exceptionally High Payload of the IR780 Iodide on Folic Acid-Functionalized Graphene Quantum Dots for Targeted Photothermal Therapy. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 22332-22341.	4.0	167
14	Ligand-Controlling Synthesis and Ordered Assembly of ZnS Nanorods and Nanodots. <i>Journal of Physical Chemistry B</i> , 2004, 108, 16002-16011.	1.2	165
15	Rhodamine-Functionalized Graphene Quantum Dots for Detection of Fe <sup>3+</sup> in Cancer Stem Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 23958-23966.	4.0	163
16	Hybrid nanocrystal/polymer solar cells based on tetrapod-shaped CdSexTe <sub>1-x</sub> nanocrystals. <i>Nanotechnology</i> , 2006, 17, 4041-4047.	1.3	158
17	Carbon dots: a booming material for biomedical applications. <i>Materials Chemistry Frontiers</i> , 2020, 4, 821-836.	3.2	150
18	Controlled synthesis of CdS nanorods and hexagonal nanocrystals. <i>Journal of Materials Chemistry</i> , 2003, 13, 2641.	6.7	131

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19	Red-Emissive Carbon Quantum Dots for Nuclear Drug Delivery in Cancer Stem Cells. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 1357-1363.	2.1	127
20	Composition- and Shape-Controlled Synthesis and Optical Properties of ZnxCd1-xS Alloyed Nanocrystals. <i>Advanced Functional Materials</i> , 2005, 15, 433-441.	7.8	121
21	Graphene quantum dots as smart probes for biosensing. <i>Analytical Methods</i> , 2016, 8, 4001-4016.	1.3	116
22	Fluorescence-phosphorescence dual emissive carbon nitride quantum dots show 25% white emission efficiency enabling single-component WLEDs. <i>Chemical Science</i> , 2019, 10, 9801-9806.	3.7	115
23	A facile route to synthesize chalcopyrite CuInSe <sub>2</sub> nanocrystals in non-coordinating solvent. <i>Nanotechnology</i> , 2007, 18, 025602.	1.3	113
24	Highly efficient and stable white LEDs based on pure red narrow bandwidth emission triangular carbon quantum dots for wide-color gamut backlight displays. <i>Nano Research</i> , 2019, 12, 1669-1674.	5.8	107
25	Recent advances in white light-emitting diodes of carbon quantum dots. <i>Nanoscale</i> , 2020, 12, 4826-4832.	2.8	98
26	DNA Detection on Plastic: A Surface Activation Protocol To Convert Polycarbonate Substrates to Biochip Platforms. <i>Analytical Chemistry</i> , 2007, 79, 426-433.	3.2	91
27	Gram-scale Synthesis of Highly Efficient Rare-Earth-Element-Free Red/Green/Blue Solid-State Bandgap Fluorescent Carbon Quantum Rings for White Light-Emitting Diodes. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16343-16348.	7.2	70
28	Self-Assembly of Gold Nanoparticles Prepared with 3,4-Ethylenedioxythiophene as Reductant. <i>Journal of Physical Chemistry B</i> , 2004, 108, 5192-5199.	1.2	69
29	Cobalt-based metal organic frameworks: a highly active oxidase-mimicking nanozyme for fluorescence turn-on assays of biothiol. <i>Chemical Communications</i> , 2020, 56, 659-662.	2.2	68
30	Ultrastable and Low-Threshold Random Lasing from Narrow-Bandwidth Emission Triangular Carbon Quantum Dots. <i>Advanced Optical Materials</i> , 2019, 7, 1801202.	3.6	67
31	Electrochemical studies of the effects of the size, ligand and composition on the band structures of CdSe, CdTe and their alloy nanocrystals. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 4778.	1.3	65
32	Ultrabroad-band, red sufficient, solid white emission from carbon quantum dot aggregation for single component warm white light emitting diodes with a 91 high color rendering index. <i>Chemical Communications</i> , 2019, 55, 6531-6534.	2.2	62
33	Angiopoietin-like proteins 3, 4 and 8: regulating lipid metabolism and providing new hope for metabolic syndrome. <i>Journal of Drug Targeting</i> , 2014, 22, 679-687.	2.1	60
34	Digitized Molecular Diagnostics: Reading Disk-Based Bioassays with Standard Computer Drives. <i>Analytical Chemistry</i> , 2008, 80, 8216-8223.	3.2	54
35	Electrochemical controlled synthesis and characterization of well-aligned IrO <sub>2</sub> nanotube arrays with enhanced electrocatalytic activity toward oxygen evolution reaction. <i>Journal of Electroanalytical Chemistry</i> , 2013, 688, 269-274.	1.9	54
36	Red Phosphorescent Carbon Quantum Dot Organic Framework-Based Electroluminescent Light-Emitting Diodes Exceeding 5% External Quantum Efficiency. <i>Journal of the American Chemical Society</i> , 2021, 143, 18941-18951.	6.6	54

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37	The influence of gold nanoparticle modified electrode on the structure of mercaptopropionic acid self-assembly monolayer. <i>Electrochimica Acta</i> , 2005, 51, 427-431.	2.6	53
38	Alumina/Phenolphthalein Polyetherketone Ceramic Composite Polypropylene Separator Film for Lithium Ion Power Batteries. <i>Electrochimica Acta</i> , 2015, 159, 61-65.	2.6	51
39	A novel colorimetric potassium sensor based on the substitution of lead from G-quadruplex. <i>Analyst, The</i> , 2013, 138, 856-862.	1.7	50
40	Na <sup>+</sup> -Induced Conformational Change of Pb <sup>2+</sup> -Stabilized G-Quadruplex and Its Influence on Pb <sup>2+</sup> Detection. <i>Analytical Chemistry</i> , 2016, 88, 9375-9380.	3.2	45
41	Solution Grown Single-Unit-Cell Quantum Wires Affording Self-Powered Solar-Blind UV Photodetectors with Ultrahigh Selectivity and Sensitivity. <i>Journal of the American Chemical Society</i> , 2019, 141, 3480-3488.	6.6	44
42	Reading Disc-Based Bioassays with Standard Computer Drives. <i>Accounts of Chemical Research</i> , 2013, 46, 258-268.	7.6	40
43	Electrochemical Preparation of N-Doped Cobalt Oxide Nanoparticles with High Electrocatalytic Activity for the Oxygen-Reduction Reaction. <i>Chemistry - A European Journal</i> , 2014, 20, 3457-3462.	1.7	39
44	Exonuclease I-Hydrolysis Assisted Electrochemical Quantitation of Surface-Immobilized DNA Hairpins and Improved HIV-1 Gene Detection. <i>Analytical Chemistry</i> , 2018, 90, 8147-8153.	3.2	38
45	Nitrogen-Rich D-Block Structural Carbon Quantum Dots with a Bright Two-Photon Fluorescence for Deep-Tissue Imaging. <i>ACS Applied Bio Materials</i> , 2018, 1, 853-858.	2.3	37
46	Controlled synthesis of 3D nanostructured Cd <sub>4</sub> Cl <sub>3</sub> (OH) <sub>5</sub> templates and their transformation into Cd(OH) <sub>2</sub> and CdS nanomaterials. <i>Nanotechnology</i> , 2006, 17, 772-777.	1.3	34
47	Ligand-Tuned Shape Control, Oriented Assembly, and Electrochemical Characterization of Colloidal ZnTe Nanocrystals. <i>Chemistry of Materials</i> , 2010, 22, 4632-4641.	3.2	33
48	Fe <sup>N</sup> /C single-atom nanozyme-based colorimetric sensor array for discriminating multiple biological antioxidants. <i>Analyst, The</i> , 2021, 146, 207-212.	1.7	32
49	Ultralong CdTe Nanowires: Catalyst-Free Synthesis and High-Yield Transformation into Core-Shell Heterostructures. <i>Advanced Functional Materials</i> , 2012, 22, 2402-2411.	7.8	31
50	Carbon dots: An innovative luminescent nanomaterial. <i>Aggregate</i> , 2022, 3, e108.	5.2	31
51	Thin-layer electrochemistry of ferrocenylbenzene derivatives: Intramolecular electronic communication. <i>Electrochimica Acta</i> , 2008, 53, 7720-7725.	2.6	30
52	DNA Molecular Beacon-Based Plastic Biochip: A Versatile and Sensitive Scanometric Detection Platform. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 21788-21797.	4.0	30
53	Applications of carbon dots on tumour theranostics. <i>View</i> , 2021, 2, 20200061.	2.7	30
54	Liposome Induced Self-Assembly of Gold Nanoparticles into Hollow Spheres. <i>Langmuir</i> , 2004, 20, 3734-3739.	1.6	29

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55	Aggregation-induced preparation of ultrastable zinc sulfide colloidal nanospheres and their photocatalytic degradation of multiple organic dyes. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 14532-14541.	1.3	29
56	Ultrathin ZnSe nanowires: one-pot synthesis via a heat-triggered precursor slow releasing route, controllable Mn doping and application in UV and near-visible light detection. <i>Nanoscale</i> , 2017, 9, 15044-15055.	2.8	27
57	Exonuclease I-Assisted General Strategy to Convert Aptamer-Based Electrochemical Biosensors from "Signal-Off" to "Signal-On". <i>Analytical Chemistry</i> , 2020, 92, 6229-6234.	3.2	25
58	Recent Advance in Carbon Dots: From Properties to Applications. <i>Chinese Journal of Chemistry</i> , 2021, 39, 1364-1388.	2.6	24
59	Glucose oxidase decorated fluorescent metal-organic frameworks as biomimetic cascade nanozymes for glucose detection through the inner filter effect. <i>Analyst, The</i> , 2021, 146, 4188-4194.	1.7	24
60	Highly dispersible and charge-tunable magnetic Fe <sub>3</sub> O <sub>4</sub> nanoparticles: facile fabrication and reversible binding to GO for efficient removal of dye pollutants. <i>Journal of Materials Chemistry A</i> , 2014, 2, 15763-15767.	5.2	23
61	Toward phosphorescent and delayed fluorescent carbon quantum dots for next-generation electroluminescent displays. <i>Journal of Materials Chemistry C</i> , 2022, 10, 2333-2348.	2.7	23
62	Novel plastic biochips for colorimetric detection of biomolecules. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 404, 1935-1944.	1.9	22
63	Aptamer-Based K <sup>+</sup> Sensor: Process of Aptamer Transforming into G-Quadruplex. <i>Journal of Physical Chemistry B</i> , 2016, 120, 6606-6611.	1.2	22
64	Indirect Competitive Assays on DVD for Direct Multiplex Detection of Drugs of Abuse in Oral Fluids. <i>Analytical Chemistry</i> , 2015, 87, 1896-1902.	3.2	21
65	Detection and Quantitation of Heavy Metal Ions on Bona Fide DVDs Using DNA Molecular Beacon Probes. <i>Analytical Chemistry</i> , 2015, 87, 5062-5067.	3.2	21
66	Binary DNA hairpin-based colorimetric biochip for simultaneous detection of Pb <sup>2+</sup> and Hg <sup>2+</sup> in real-world samples. <i>Analyst, The</i> , 2015, 140, 2608-2612.	1.7	20
67	Investigation of Na <sup>+</sup> and K <sup>+</sup> Competitively Binding with a G-Quadruplex and Discovery of a Stable K <sup>+</sup> -Na <sup>+</sup> -Quadruplex. <i>Journal of Physical Chemistry B</i> , 2019, 123, 5405-5411.	1.2	20
68	Metal-organic framework assisted and in situ synthesis of hollow CdS nanostructures with highly efficient photocatalytic hydrogen evolution. <i>Dalton Transactions</i> , 2019, 48, 5649-5655.	1.6	20
69	Rational design and performance testing of aptamer-based electrochemical biosensors for adenosine. <i>Journal of Electroanalytical Chemistry</i> , 2009, 635, 75-82.	1.9	18
70	Buffer species-dependent catalytic activity of Cu-Adenine as a laccase mimic for constructing sensor array to identify multiple phenols. <i>Analytica Chimica Acta</i> , 2022, 1204, 339725.	2.6	18
71	Controlled calcination of ZnSe and ZnTe nanospheres to prepare visible-light catalysts with enhanced photostability and photoactivity. <i>Journal of Materials Science</i> , 2016, 51, 11021-11037.	1.7	16
72	Systematic truncating of aptamers to create high-performance graphene oxide (GO)-based aptasensors for the multiplex detection of mycotoxins. <i>Analyst, The</i> , 2019, 144, 3826-3835.	1.7	16

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73	Thin-layer electrochemistry of 1,3,5-triferrocenylbenzene: A unique two-step, three-electron redox process. <i>Electrochemistry Communications</i> , 2006, 8, 951-955.	2.3	15
74	Highly Water-soluble and Surface Charge-tunable Fluorescent Fullerene Nanoparticles: Facile Fabrication and Cellular Imaging. <i>Electrochimica Acta</i> , 2016, 201, 220-227.	2.6	15
75	Thin-film voltammetry and its analytical applications: A review. <i>Analytica Chimica Acta</i> , 2015, 855, 1-12.	2.6	14
76	Revealing and Resolving the Restrained Enzymatic Cleavage of DNA Self-Assembled Monolayers on Gold: Electrochemical Quantitation and ESI-MS Confirmation. <i>Analytical Chemistry</i> , 2017, 89, 2464-2471.	3.2	14
77	Plasmonic Hot Hole Extraction from CuS Nanodisks Enables Significant Acceleration of Oxygen Evolution Reactions. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 7988-7996.	2.1	14
78	Insights into the Competition between $K^{+}$ and $Pb^{2+}$ Binding to a G-Quadruplex and Discovery of a Novel $K^{+} \cdot Pb^{2+}$ Quadruplex Intermediate. <i>Journal of Physical Chemistry B</i> , 2018, 122, 9382-9388.	1.2	13
79	Precursor reactivity differentiation for single-step preparation of $Ag_2Se@Ag_2S$ core-shell nanocrystals with distinct absorption and emission properties enabling sensitive near-infrared photodetection. <i>Journal of Materials Science</i> , 2018, 53, 11355-11366.	1.7	13
80	Liquid Level Measurement Model Outside of Closed Containers Based on Continuous Sound Wave Amplitude. <i>Sensors</i> , 2018, 18, 2516.	2.1	12
81	Diameter- and Length-controlled Synthesis of Ultrathin ZnS Nanowires and Their Size-Dependent UV Absorption Properties, Photocatalytical Activities and Band-Edge Energy Levels. <i>Nanomaterials</i> , 2019, 9, 220.	1.9	12
82	One-pot and high-yield preparation of ultrathin $PbO$ nanowires and nanosheets for high-capacity positive electrodes in lead-acid batteries. <i>Journal of Alloys and Compounds</i> , 2020, 831, 154845.	2.8	12
83	Inkjet Printed Electrode Arrays for Potential Modulation of DNA Self-Assembled Monolayers on Gold. <i>Analytical Chemistry</i> , 2008, 80, 8814-8821.	3.2	11
84	Electrochemical detection of benzo(a)pyrene in acetonitrile-water binary medium. <i>Talanta</i> , 2015, 138, 46-51.	2.9	11
85	Gram-scale Synthesis of Highly Efficient Rare-Earth-Free Red/Green/Blue Solid-State Bandgap Fluorescent Carbon Quantum Rings for White Light-Emitting Diodes. <i>Angewandte Chemie</i> , 2021, 133, 16479-16484.	1.6	11
86	A gold nanoparticle-based colorimetric probe for rapid detection of 1-hydroxypyrene in urine. <i>Analyst</i> , 2015, 140, 4662-4667.	1.7	10
87	$Ag@SiO_2$ nanoparticles performing as a nanoprobe for selective analysis of 2-aminoanthracene in wastewater samples via metal-enhanced fluorescence. <i>Talanta</i> , 2019, 200, 242-248.	2.9	10
88	Thioflavin T specifically brightening $\epsilon$ -Guanine Island in duplex-DNA: a novel fluorescent probe for single-nucleotide mutation. <i>Analyst</i> , 2019, 144, 2284-2290.	1.7	10
89	Synergistic tuning of oxygen vacancies and d-band centers of ultrathin cobaltous dihydroxycarbonate nanowires for enhanced electrocatalytic oxygen evolution. <i>Nanoscale</i> , 2020, 12, 11735-11745.	2.8	10
90	Colloidal $CdM_{1-x}Te$ Nanowires from the Visible to the Near Infrared Region: $N,N$ -Dimethylformamide-Mediated Precise Cation Exchange. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 7-13.	2.1	9

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91	Light-Emitting Diodes: Bright Multicolor Bandgap Fluorescent Carbon Quantum Dots for Electroluminescent Light-Emitting Diodes (Adv. Mater. 3/2017). Advanced Materials, 2017, 29, .	11.1	5
92	A colorimetric immuno-microarray for the quantitation and direct visualization of illicit drugs in body fluids. Analyst, The, 2021, 146, 538-546.	1.7	3
93	Synthesis of Sb <sub>2</sub> E <sub>3</sub> (E = S, Se) Nanorods with a Flat Cross Section by a Rapid Hot Injection Method. Journal of Nanoscience and Nanotechnology, 2010, 10, 7778-7782.	0.9	2
94	Optical disc technology-enabled analytical devices: from hardware modification to digitized molecular detection. Analyst, The, 2016, 141, 6190-6201.	1.7	2
95	Quantitative comparison of three representative staining methods for the development of multichannel colorimetric biochips. Analytical Methods, 2018, 10, 1715-1724.	1.3	2
96	A versatile fluorometric <i>in situ</i> hybridization method for the quantitation of hairpin conformations in DNA self-assembled monolayers. Analyst, The, 2020, 145, 4522-4531.	1.7	1
97	“ $\frac{1}{2}$ ” $\frac{1}{2}$ ” $\frac{1}{2}$ ”. Chinese Science Bulletin, 2022, , .	0.4	1
98	“ $\frac{1}{4}$ ” $\frac{1}{2}$ ” $\frac{1}{2}$ ”. Chinese Science Bulletin, 2022, , .	0.4	1
99	ONE-POT SYNTHESIS OF Sb <sub>2</sub> Se <sub>3</sub> NANOWIRES USING SELENIUM DIOXIDE AS THE SELENIUM PRECURSOR IN AIR AND THEIR CHARACTERIZATION. International Journal of Nanoscience, 2013, 12, 1350040.	0.4	0
100	“ $\frac{1}{2}$ ” $\frac{1}{2}$ ” $\frac{1}{2}$ ”. Chinese Science Bulletin, 2013, 58, 777-782.	0.4	0