
Jishan Wu

Phone: (65) 65162677

Email: chmwuj@nus.edu.sg

ORCID: 0000-0002-8231-0437

Researcher ID: J-5898-2013

Full Professor | Chemistry

EDUCATION	Doctor of Philosophy in Chemistry / Max-Planck Institute for Polymer Research , with Professor Klaus Müllen	2004
	Master of Science in Polymer Chemistry / Changchun Institute of Applied Chemistry, CAS , with Professor Xianhong Wang & Professor Fosong Wang	2000
	Bachelor of Science in Chemistry / Wuhan University	1997

CAREER	Provost's Chair Professor	2024–Now
	Department of Chemistry / National University of Singapore	
	Full Professor	2017–Now
	Department of Chemistry / National University of Singapore	
	Dean's Chair Professor	2014–2017
	Department of Chemistry / National University of Singapore	
	Associate Professor	2012–2014
	Department of Chemistry / National University of Singapore	
	Senior Scientist I/II (joint appointment)	2010–2018
Institute of Materials Research and Engineering, A*STAR		
Assistant Professor	2007–2011	
Department of Chemistry / National University of Singapore		
Research Associate	2005–2007	
Department of Chemistry and Biochemistry / UCLA with Sir Fraser Stoddart		
Project Leader	2004–2005	
Max-Planck Institute for Polymer Research with Professor Klaus Müllen		

SELECTED AWARDS AND HONORS	Yoshida Prize	2025
	From the International Organic Chemistry Foundation, to honor distinguished achievements in the field of organic chemistry	
	Provost's Chair Professorship	2024
	For NUS tenured Professors with international recognition in the field and superior performance to other faculty members at the rank of Professor	
	Andrews Lectureship from the University of New South Wales, Australia	2024
	The lectures began in 1960 to bring eminent lecturers to UNSW to deliver a series of talks.	
	National Research Foundation Investigatorship	2019
	For outstanding mid-career investigators with 2.8 million S\$ grant for 5 years	
	Outstanding Scientist Award	
	For outstanding researchers in NUS Faculty of Science	
BASF-Singapore National Institute of Chemistry Award in Materials Science	2012	
An industry-sponsored award for outstanding researchers in Singapore		
NUS Young Researcher Award	2012	
For outstanding young researchers in the National University of Singapore		
Singapore Young Scientist Award	2011	
Singapore presidential award for outstanding young scientists in Singapore		

RESEARCH INTEREST	<p>π-Conjugated macrocycles and molecular cages</p> <p>Topological molecular carbons</p> <p>2D and 3D aromaticity</p> <p>Synesthetic organic spin chemistry</p> <p>Magnetism and magnetic materials</p> <p>Organic near infrared dyes and bioimaging</p> <p>Organic electronics, photonics, spintronics and quantum information processing</p>
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MAJOR RESEARCH GRANTS	<p>MOE Tier 3 programme 2025–2030</p> <p>Synthetic carbon allotropes and topological molecular carbons (TPV: 9 million S\$)</p> <p>A*STAR MTC IRG grant 2023–2026</p> <p>Twisted carbon nanobelts with persistent chiroptical properties for photonics and electronics (TPV: 841,000 S\$)</p> <p>MOE Tier 2 grant 2023–2026</p> <p>Toward 3D global aromaticity rules (TPV: 480,519S\$)</p> <p>A*STAR AME grant 2020–2023</p> <p>Solution-processed nanographene based distributed feedback lasers (TPV: 674,000 S\$)</p> <p>MOE Tier 2 grant 2019–2022</p> <p>Metal organic radical frameworks (TPV: 700,000 S\$)</p> <p>MOE Tier 2 grant 2019–2022</p> <p>Bottom-up synthesis of post-graphene organic Dirac materials (TPV: 900,000 S\$)</p> <p>NRF Investigatorship 2019–2024</p> <p>Toward carbon-base magnets (TPV: 2.8 million S\$)</p> <p>AMAT-NUS Corp Lab 2018–2023</p> <p>Atomic layer deposition of carbons (TPV: 498,000 S\$)</p> <p>MOE Tier 3 programme 2015–2020</p> <p>Open-shell polycyclic hydrocarbons for electronics, photonics and spintronics (TPV: 10 million S\$)</p> <p>MOE Tier 2 grant 2014–2017</p> <p>Stable π-radicals as new charge and spin transporting materials (TPV: 782,000 S\$)</p> <p>MOE Tier 2 grant 2012–2015</p> <p>Porphyrin-based NIR dyes for high-efficient solar cells (TPV: 490,000 S\$)</p> <p>A*STAR BMRC-NMRC joint program 2011–2014</p> <p>Stable near infrared dye based fluorescent probe-library for biolabelling, biosensing and bioimaging (TPV: 532,000 S\$)</p> <p>Defence Science and Technology Agency, DIRP 2009–2011</p> <p>Soluble and stable laser absorbing dyes (TPV: 556,000 S\$)</p> <p>A*STAR SERC TSRP 2009–2012</p> <p>Graphene-based composites and thin-films for electrical applications (TPV: 764,000 S\$)</p> <p>NUS Young Investigator Award 2008–2011</p> <p>Nano-sized graphene, graphyne and graphdiyne as potential materials for electronics (TPV: 500,000 S\$)</p>
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SUMMARY OF OUTPUTS	1 monograph (" <i>Diradicaloids</i> ") and 380+ articles including <i>Nat. Chem.</i> (×5) <i>Chem</i> (×8) <i>Nat. Synth.</i> (×5) <i>Nat. Commun.</i> (×8) <i>Sci. Adv.</i> (×3) <i>J. Am. Chem. Soc.</i> (×44) <i>Angew. Chem. Int. Ed.</i> (×51) <i>Adv. Mater.</i> (×7) <i>Chem. Soc. Rev.</i> (×3) <i>Acc. Chem. Res.</i> (×2)	
SUPERVISION	Current group: 10 PDFs / 15 PhD Students Alumni: 35 PDFs, 32 PhD Students, 8 MSc Students, 20 Undergraduate Students; 30 Alumni have become Professors/Lecturers in academia	
ESTEEM AND ACADEMIC ACTIVITIES	Invited Seminars Over 80 Invited/Keynote/Plenary Lectures Organization of Scientific Meetings Chair of the 10 th Singapore International Chemistry Conference Organizers/Co-organizers of symposia at ICPP series and ICMAT series several times Editor and Editorial Board Members Advisory board member of <i>Chem</i> (Cell Press, IF: 22.804; 2020-) Associate Editor of <i>Materials Today Chemistry</i> (Elsevier, IF: 8.301; 2021-2022) Advisory board member of <i>JACS</i> (ACS, IF: 15.0, 2024-)	
TEACHING	Polymer Chemistry I/II	UG-L3
	Advanced Polymer Science	UG-L4
	Advanced Organic Synthesis	PG
	Advanced Organic Materials	PG
SELECTED SERVICE ROLES (at NUS)	University Promotion and Tenure Committee Member	2023–2024
	Deputy Head (Research) of the Department of Chemistry, NUS	2018–2021
	Member of the Faculty Promotion and Tenure Committee	2017–2021
FULL LIST OF AWARDS, PRIZES AND FELLOWSHIPS	Yoshida Prize from International Organic Chemistry Foundation	2025
	Outstanding PhD Advisor Award, Faculty of Science, NUS	2025
	Lead PI of an MOE Tier 3 program	2025
	Provost's Chair Professorship	2024
	Andrews Lectureship from the University of New South Wales, Australia	2024
	Singapore National Institute of Chemistry (SNIC) Fellow	2020
	NRF Investigatorship Award	2019
	Highly Cited Researchers (Cross Field) list from Clarivate Analytics	2018
	Asian Core Program Lectureship Award from Korea	2017
	Asian Core Program Lectureship Award from Japan	2017
	Asian Core Program Lectureship Award from Thailand	2016
	Asian Core Program Lectureship Award from Taiwan	2016
	NUS Faculty of Science Outstanding Scientist Award	2015
	Lead PI of an MOE Tier 3 programme	2015
	Dean's Chair Professorship	2014
	Outstanding Chemist Award / Department of Chemistry / NUS	2013
	Distinguished Lectureship Award from the Chemical Society of Japan	2013
	Asian Core Program Lectureship Award from Hong Kong	2012
	Invited Lecturer of Asian Excellence from the Japanese Society of Polymer Science	2012
	BASF-Singapore National Institute of Chemistry Award in Materials Science	2012
	NUS Young Researcher Award	2012
	Young Scientist Award, Faculty of Science / NUS	2011
	Young Chemist Award / Department of Chemistry / NUS	2011

Singapore Young Scientist Award	2011
Asian Core Program Lectureship Award from Japan	2009
NUS Young Investigator Award	2008

FULL LIST OF PUBLICATIONS (as of December 31st, 2025 / Citations: 33,000 / h-index: 91 Based on Google Scholar; *: Corresponding author)

Year 2025

389. T. Jiao, C.-H. Wu, Y.-S. Zhang, X. Miao, S. Wu, S.-D. Jiang*, and **J. Wu***, “Solution-phase synthesis of Clar’s goblet and elucidation of its spin properties”, *Nat. Chem.* **2025**, *17*, 924–932 (Highlighted in [ChemistryWorld](#)).
388. Y. Sui, J. Hao, S. Wu, L. Ren, Z. Zeng*, **J. Wu***, and Y. Ni*, “[2]Catenanes comprising two globally electron-delocalized octaphyrinoid rings: Synthesis, aromaticity and through-space electronic coupling”, *Nat. Synth.* **2025**, DOI: /10.1038/s44160-025-00918-0.
387. D. Fu, J. Zhu*, L. Wang, R. Liu, L. Jiao, Z. Li, X. Zhang, L. Yang*, P. Ou*, **J. Wu***, “Biradical-mediated synergistic electrocatalysis using metal-free redox molecular catalysts”, *Nat. Commun.* **2025**, DOI: 10.1038/s41467-025-66495-0.
386. L. Jiao, Y. Zou, W. Fan, Y. Han, Q. Zhou, J. Shao, **J. Wu***, “Aggregation-Free, Highly Soluble CN-Terminated Dicyclopentadiene-Fused Rylenes”, *J. Am. Chem. Soc.* **2025**, *147*, 9415–9423.
385. Z. Sun, R. Liu, W. Fan, Y. Han, Q. Zhou, T. Shen, T. Jiao, X. Li, Y. Zou*, **J. Wu***, “Alternately Twisted, Electron-Rich Rylenes and Their Stable Cations”, *Angew. Chem. Int. Ed.* accepted.
384. X. Zhang, Y. Tang, C. Yang, Z. Li, D. Fu, Wang, H. Phan, L. Yang*, **J. Wu***, J. Zhu*, “Nickel-Mediated Synthesis of Fused Heterocycle-Linked Covalent Organic Frameworks for Self-Sensitized Photocatalysis”, *Angew. Chem. Int. Ed.* **2025**, e18983.
383. E. Li, M. Kumar, X. Peng, T. Shen, D. Soler-Polo, Y. Wang, Y. Teng, H. Zhang, S. Song, **J. Wu***, P. Jelinek*, J. Lu*, “Rationally designed polyradical nanographenes with strong spin entanglement and perturbation resilience via Clar’s goblet extension”, *Nat. Synth.* **2025**, accepted; preprint was posted in arXiv:2506.05181.
382. Q. Zhou, L.-T. Bao, R. Liu, Z. Sun, Z. Ye, L. Jiao, W. Fan, Y. Zou*, H.-B. Yang*, **J. Wu***, “Aggregation-Free, Fused Perylene Pentamers: One-pot Synthesis, Narrowband Near-Infrared Emission, and Enhanced Circularly Polarized Luminescence”, submitted.
381. G.-F. Huo, Y. Ding, W. Fan, L. Jiao, S. Wu, H.-B. Yang*, **J. Wu***, “Aromaticity in A Cross-Conjugated, Perylenediimide-Bridged Thiophene-Based Macrocycle at Different Redox States”, submitted.
380. M. Díaz-Fernández, Á. Farrando Pérez, F. Gordillo Gámez, P. G. Boj, J. M. Villalvilla, J. A. Quintana, Y. Wan, D. Aranda, J. M. Marín-Beloqui, **J. Wu***, Z. Zeng*, M. A. Díaz-García*, J. Casado*, “Ladder-Type Benzene-Perylene Dyes with Efficient Laser Properties in the Near-IR by Detracting/Activating Low/High Frequency Vibronic Modes”, *Adv. Funct. Mater.* **2025**, DOI: 10.1002/adfm.202506356.
379. G. Huo, Y. Han, Wei Fan, Y. Zou, and **J. Wu***, “Aggregation-Free, Perylene-Containing π -Extended Kekulene with Improved Photoluminescence Quantum Yield.” *Chem. Asian J.* **2025**, e00442.
378. J. Zeng, W. Yu, H. Xu, X. Zhang, Q. Xu, J. Lu, K. P. Loh, and **J. Wu***, “Benzophenone-Based Polymers and Covalent Organic Framework for Photocatalytic Molecular Oxygen Activation”, *ACS Appl. Mater. & Interfaces* **2025**, *17*, 27275-27288.
377. T. Y. Gopalakrishna, A. Basavarajappa, H. S. Udaya, K. Furukawa*, **J. Wu***, V. G. Anand*, “Reversible Ring Oxidation of 48 π Planar Nonaphyrins to Open Shell 46 π Dications”, *Chem. Eur. J.* **2025**, *31*, e202500555.
376. X. Hou, T. Xu, J. Zhu, S. Wu and **J. Wu***, “Stable Fluorenyl Radicals Showing Tunable Doublet Emission”, *Chemistry* **2025**, *7*, 21.
375. Y. Zou, **J. Wu***, “Nanographenes with Multiple Zigzag Edges”, chapter in the book “**Molecular Nanographenes: Synthesis, Properties, and Applications**”, Wiley-VCH, **2025**, edited by Nazario Martín and Colin P. Nuckolls.
374. J. Lión-Villar, J.M. Fernández-García, S. Medina Rivero, J. Perles, S. Wu, D. Aranda, **J. Wu**, S. Seki, J. Casado*, N. Martín*, “Synthesis of zwitterionic open-shell bilayer spironanographenes”, *Nat. Chem.* **2025**, *17*, 1099–1106.
373. W. Ji, Y. Zou, L. Guo, W. Niu, T. Jiao, H. Phan, **J. Wu**, G. Li*, “Stable Iminium Singlet and Triplet Diradical(oid)s with Intense NIR-II Absorptions”, *Angew. Chem. Int.* **2025**, e202512663.

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372. L. Palomo, C. M. Cruz, A. G. Campaña, B. Jiang, **J. Wu**, J. Casado*, and F. J. Ramírez*, “Chiroptical Signature and Absolute Configuration of Tröger’s Base-Based Triangular Macrocycles”, **ACS Omega** **2025**, *10*, 6419-6426.
371. A. Cárdenas, Z. Jin, Y. Ni, J. Wu, Y. Xia*, F. J. Ramírez*, and J. Casado*, “Oxidation of [3]naphthylenes to cations and dications converts local paratropicity into global diatropicity”, **Beilstein J. Org. Chem.** **2025**, *21*, 277–285.

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370. S. Song, A. P. Solé, A. Matěj, G. Li, O. Stetsovych, D. Soler, H. Yang, M. Telychko, J. Li, M. Kumar, J. Brabec, L. Veis, **J. Wu***, P. Jelinek*, J. Lu*, “Highly-Entangled Polyradical Nanographene with Coexisting Strong Correlation and Topological Frustration”, **Nat. Chem.** **2024**, *16*, 938–944 (**Highlighted by ChemistryViews**).
369. Y. Zou, L. Jiao, Y. Han, L. Ren, Q. Zhou, **J. Wu***, “Peri-pentacene and Peri-hexacene Diradicaloids”, **J. Am. Chem. Soc.** **2024**, *146*, 27293–27298.
368. L. Ren, Y. Han, L. Jiao, Y. Zou and **J. Wu***, “Highly Strained, Fully π -Conjugated Porphyrin Cyclophanes: Template-free Synthesis and Global Aromaticity”, **Angew. Chem. Int. Ed.** **2024**, *63*, e202418532 (**VIP paper**).
367. Q. Zhou, W. Yuan, Y. Li, Y. Han, L. Bao, W. Fan, L. Jiao, Y. Zhao, Y. Ni, Y. Zou, H.-B. Yang and **J. Wu***, “[5]Helicene Based π -Conjugated Macrocycles with Persistent Figure-Eight and Möbius Shapes: Facile Synthesis, Chiral Resolution and Bright Circularly Polarized Luminescence”, **Angew. Chem. Int. Ed.** **2024**, *63*, e202417749.
366. W. Jiang, S. Wu, D. Xu, L. Tu, Y. Xie*, P. Pasqués-Gramage, P. G. Boj, M. A. Díaz-García, F. Li*, **J. Wu*** and Z. Li*, “Stable Xanthene Radicals and Their Heavy Chalcogen Analogues Showing Tunable Doublet Emission from Green to Near-infrared”, **Angew. Chem. Int. Ed.** **2024**, *63*, e202418762 (**VIP paper**).
365. G.-F. Huo, W.-T. Xu, J. Hu, Y. Han, W. Fan, W. Wang, Z. Sun*, H.-B. Yang*, and **J. Wu***, “Perylene-Embedded Helical Nanographenes with Emission up to 1010 nm: Synthesis, Structures, and Chiroptical Properties”, **Angew. Chem. Int. Ed.** **2024**, *63*, e202416707.
364. L. Wang, W. Niu, D. Tian*, T. Jiao, L. Zhang, X. Hou, Y. Han, Y. Zou, **J. Wu***, G. Li*, “Stable Mono-radical and Triplet Diradicals Based on Allylic Radical-Embedded All-benzenoid Polycyclic Hydrocarbons”, **Angew. Chem. Int. Ed.** **2024**, e202415746 (**Highlighted in Synfacts**).
363. X. Chen, Y. Zhu, Y. Xu, M. Rao, P. Pang, B. Zhang, C. Xu, W. Ni, G. Li*, **J. Wu***, M. Li*, Y. Chen, and Y. Geng, “Design of Ultra-Narrow Bandgap Polymer Acceptors for High-Sensitivity Flexible All-Polymer Short-Wavelength Infrared Photodetectors”, **Angew. Chem. Int. Ed.** **2024**, *63*, e202413965.
362. S. Wu, Y. Han, Y. Ni, X. Hou, H. Wei, Z. Li* and **J. Wu***, “Unveiling Möbius/Hückel Topology and Aromaticity in A Core-Expanded [10]Annulene at Different Oxidation States.” **Angew. Chem. Int. Ed.** **2024**, *63*, e202320144.
361. G. Huo, W.-T. Xu, Y. Han, J. Zhu, X. Hou, W. Fan, Y. Ni, S. Wu, H.-B. Yang, * **J. Wu***, “Expanded Azahelicenes with Large Dissymmetry Factors.” **Angew. Chem. Int. Ed.** **2024**, *63*, e202403149 (**Highlighted by ChemistryViews**).
360. T. Shen, P. Pasqués-Gramage, J. M. Villalvilla, P. G. Boj, J. A. Quintana, Y. Zou, Y. Han, L. Jiao, L. Ren, M. A. Díaz-García* and **J. Wu***, “[4]Rhombene: Solution-Phase Synthesis and Application for Distributed Feedback Lasers With Emission Beyond 830 nm.” **Angew. Chem. Int. Ed.** **2024**, *63*, e202410828 (**Highlighted in Synfacts**).
359. L. Ren, Y. Han, X. Hou, Y. Zou, T. Jiao, and **J. Wu***, “Cyclooctatetrathiophene Annulated Multicyclic Macrocycles.” **CCS Chem.** **2024**, *6*, 2758–2769.
358. L. Ren, Y. Han, X. Hou, Y. Ni, and **J. Wu***, “[2,2]Paracyclophane Bridged, Thiophene Based Macrocycles: Synthesis and Electronic Properties in Different Redox States.” **Chem. Eur. J.** **2024**, e202304088.
357. S. Wu, J. Yang, Y. Ni, Y. Han, W. Chen*, and **J. Wu***, “Azatriangulenetrione as Anode Material for Sodium-Ion Batteries: Reversible Redox Chemistry Mediated by Lone Pair Electrons.” **ACS Appl. Mater. Interfaces** **2024**, *16*, 39349–39355.
356. Y. Zhao, Y. Zhang, J. Yang*, Y. Chen, G. Pu, Y. Wang, D. Li, W. Fan, M. Fang, **J. Wu*** and Z. Li*, “The Role of Locally Excited State and Charge Transfer State in Organic Room Temperature Phosphorescence and Corresponding Applications”, **Adv. Opt. Mater.** **2024**, *12*, 2400980.
355. S. Moles Quintero, J. C. Mira-Martínez, Y. Zou, M. Díaz-García, P. G Boj, **J. Wu***, M. A Díaz-García*, J. M Marín-Beloqui* and J. Casado*, “Triplet formation inhibits amplified spontaneous emission in perylene-based polycyclic aromatic hydrocarbons.” **J. Mater. Chem. C** **2024**, *12*, 5239-5246.
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354. Y. Wang, S.-C. Chen, S. Tai, D. Wang, Y. Ma, **J. Wu*** and M.-J. Lin*, “Improving the performance and stability of perovskite solar cells via surface passivation of phthalimide N-alkylammonium iodides.” **J. Mater. Chem. C** **2024**, *12*, 6540-6547.
353. H. Phan*, T. S. Heng, X. Hou, L. K. Nguyen, V. The La, C. D. Huynh, J. Ding, and **J. Wu***, “A high-spin s-triazine linked fluorenyl radical polymer”, **RSC Adv.** **2024**, *14*, 16945-16950.
352. J. Kim, D. C. Bain, V. Ding, K. Majumder, D. Windemuller, J. Feng, **J. Wu**, S. Patil, J. Anthony, W. Kim* and A. J. Musser*, “Coherent photoexcitation of entangled triplet pair states”, **Nat. Chem.** **2024**, *16*, 1680–1686.

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351. W. Fan, T. M. Fukunaga, S. Wu, Y. Han, Q. Zhou, J. Wang, Z. Li, X. Hou, H. Wei, Y. Ni, H. Isobe*, **J. Wu***, “Synthesis and chiral resolution of a triply twisted Möbius carbon nanobelt”, **Nat. Synth.** **2023**, *2*, 880–887 (see [News & Views: Q. Miao, J. Casado, “Paradromic molecules”, Nat. Synth. 2023, 2, 808–810](#)).
350. T. Jiao, Y. Ni, T. Xu, X. Hou, S. Wu, L. Ren, Z. Sun*, **J. Wu***, “Synthesis of monolayer and persistent bilayer graphene fragments via a radical-mediated coupling approach”, **Nat. Synth.** **2023**, *2*, 1104–1115.
349. G.-F. Huo, T. M. Fukunaga, X. Hou, Y. Han, W. Fan, S. Wu*, H. Isobe*, **J. Wu***, “Facile Synthesis and Chiral Resolution of Expanded Helicenes with up to 35 cata-Fused Benzene Rings”, **Angew. Chem. Int. Ed.** **2023**, *62*, e20221809 (selected as Hot Paper).
348. Y. Zou, X. Hou, H. Wei, J. Shao, Q. Jiang, L. Ren, **J. Wu***, “Circumcoronenes”, **Angew. Chem. Int. Ed.** **2023**, *62*, e202301041 (selected as a VIP paper, highlighted by *Nat. Rev. Mater.*: <https://www.nature.com/articles/s41578-023-00555-z> and featured in *Angew. Chem.* **2023**, e202305289).
347. Q. Zhou, X. Hou, J. Wang, Y. Ni, W. Fan, Z. Li, X. Wei, K. Li, W. Yuan, Z. Xu, M. Zhu, Y. Zhao, Z. Sun*, **J. Wu***, “A Fused [5]Helicene Dimer with a Figure-Eight Topology: Synthesis, Chiral Resolution, and Electronic Properties”, **Angew. Chem. Int. Ed.** **2023**, *62*, e202302266 (selected as Hot Paper).
346. T. Shen, D. Dijkstra, A. Farrando-Pérez, P. G. Boj, J. M. Villalvilla, J. A. Quintana, Y. Zou, X. Hou, H. Wei, Z. Li, Z. Sun*, M. A. Díaz-García*, **J. Wu***, “Fused Triangulene Dimers: Facile Synthesis by Intramolecular Radical-Radical Coupling and Application for Near Infrared Lasers”, **Angew. Chem. Int. Ed.** **2023**, *62*, e202304197 (selected as Hot Paper).
345. L. Ren, Y. Han, X. Hou, Y. Ni, Y. Zou, T. Jiao, **J. Wu***, “Aromaticity in 2D Fully π -Conjugated Multicyclic Macrocycles”, **J. Am. Chem. Soc.** **2023**, *145*, 12398–12406.
344. T. Shen, Y. Zou, X. Hou, H. Wei, L. Ren, L. Jiao, **J. Wu***, “Bis-*peri*-dinaphtho-rylenes: Facile Synthesis via Radical-Mediated Coupling Reactions and their Distinctive Electronic Structures”, **Angew. Chem. Int. Ed.** **2023**, *62*, e202311928 (selected as Hot Paper).
343. Z. Sun, W. Fan, Y. Han, W. Yuan, Y. Ni, J. Wang, H. Wei, Y. Zhao, Z. Sun*, **J. Wu***, “Helical fused 1,2:8,9-dibenzozethrene oligomers with up to 201° end-to-end twist: “One-pot” synthesis and chiral resolution.” **Chem. Sci.** **2023**, *14*, 7922-7927.
342. J. Lawrence, Y. He, H. Wei, J. Su, S. Song, A. W. Rodrigues, D. Miravet, P. Hawrylak, J. Zhao, **J. Wu***, J. Lu*, “Topological Design and Synthesis of High-Spin Aza-triangulenes without Jahn–Teller Distortions”, **ACS Nano** **2023**, *17*, 20237–20245.
341. M.-W. Wang, W. Fan, X. Li, Y. Liu, Z. Li, W. Jiang, **J. Wu***, Z. Wang*, “Molecular Carbons: How Far Can We Go?”, **ACS Nano** **2023**, *17*, 20734-20752.
340. S. Qiu, Y. Zhao, L. Zhang, Y. Ni, Y. Wu, H. Cong, D. Qu, W. Jiang, **J. Wu**, H. Tian, Z. Wang*, “Axially N-Embedded Quasi-Carbon Nanohoops with Multioxidation States”, **CCS Chem.** **2023**, *5*, 1763-1772.
339. G. Merino*, M. Solà*, I. Fernández*, C. Foroutan-Nejad*, P. Lazzeretti*, G. Frenking*, H. L. Anderson, D. Sundholm, F. P. Cossío, M. A. Petrukhina, **J. Wu**, J. I. Wu, A. Restrepo, “Aromaticity: Quo Vadis”, **Chem. Sci.** **2023**, *14*, 5569-5576.
338. X. Zhu, C. Gao, Y. Ren, X. Zhang, E. Li, C. Wang, F. Yang, **J. Wu**, W. Hu, and H. Chen*, “High-Contrast Bidirectional Optoelectronic Synapses based on 2D Molecular Crystal Heterojunctions for Motion Detection”, **Adv. Mater.** **2023**, *35*, 2301468.
337. Z. Wang, M. Wang, J. Song*, **J. Wu***, Zhen Li *, “Activating photocatalytic hydrogen evolution by constructing Ni-based organic layers and tailoring its crystal facets”, **Mater. Chem. Front.** **2023**, *7*, 2651-2660.

Year 2022

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336. J. Wu* (eds.), monograph “*Diradicaloids*” by Jenny Stanford Publishing (2022) (<https://www.routledge.com/Diradicaloids/Wu/p/book/9789814968089>).
335. B. Zhang, S. Wu, X. Hou, G. Li, Y. Ni, Q. Zhang, J. Zhu, P. Wang, Z. Sun* and J. Wu*, “A Graphyne Spoked Wheel”, *Chem* **2022**, *8*, 2831-2842 (Highlighted in [Synfacts](#); also see [Previews by J. M. Gottfried: Chem 8, 2571–2593](#)).
334. S. Wu, Y. Ni, Y. Han, S. Xin, X. Hou, J. Zhu, Z. Li, J. Wu*, “Aromaticity in Fully π -Conjugated Open-Cage Molecules”, *J. Am. Chem. Soc.* **2022**, *144*, 23158-23167.
333. S. Wu, Y. Ni, Y. Han, X. Hou, C. Wang, W. Hu, J. Wu*, “Hückel- and Baird-type Global Aromaticity in a 3D Fully Conjugated Molecular Cage”. *Angew. Chem. Int. Ed.* **2022**, *61*, e202115571.
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