

## NAN YAO'S PUBLICATIONS

### Books

2. “*Focused Ion Beam System: Basics and Applications*”, edited by N. Yao. (Cambridge University Press, 2007) 395 pp. [Link](#)
1. “*Handbook of Microscopy for Nanotechnology*”, edited by N. Yao and Z. L. Wang, Vol. I: Optical Microscopy, Scanning Probe Microscopy, Ion Microscopy, and Nanofabrication; Vol. II: Electron Microscopy, (Springer/Kluwer Academic Publishers, 2005) 731 pp. (Chinese edition, Tsinghua University Press, 2006), 743 pp. (Russian edition, Springer Science and Business Media, 2011) 711 pp. [Link](#)

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18. D. G. Gregory and N. Yao, The Advanced Microscopy of Colloids in Polymer Colloids. In *Polymer Colloids, Soft Matter Series*, edited by R. D. Priestley and R. K. Prud'homme, pp. 191-239 (The Royal Society of Chemistry, Cambridge, 2019). [Link](#)
17. X. Chen, N. Yao, and Y. Shi, Mechanical properties characterization of PZT nanofibers. In *Nanocantilever Beams: Modeling, Fabrication and Applications*, pp. 243-259 (Pan Stanford Publishing Pte. Ltd. 2016). [Link](#)
16. F. Wu and N. Yao, Fabrication and Nanoscale Electrical Characterization of Epitaxial Cu<sub>3</sub>Ge Film, in *Nanoelectronics and Materials Development*, ISBN 978-953-51-4734-3, edited by Abhijit Kar, pp. 67-80 (InTech Europe, 2016) ISBN 978-953-51-4734-3. [Link](#)
15. F. Wu and N. Yao, In-situ TEM studies in gas/liquid, in *Microscopy and Analysis*, edited by Stefan Stanciu, (InTech Europe, 2016) ISBN 978-953-51-4723-7. DOI: 10.5772/61531 [Link](#)
14. K. Parratt and N. Yao, Effective, Non-invasive, High-resolution Imaging of Biological Tissues, in *Microscopy: advances in scientific research and education*, edited by A. Mendez-Vilas, pp. 631-637 (Formatex, 2014). [Link](#)
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12. X. Chen, N. Yao, Y. Shi, Mechanical Energy Harvesting Based on PZT Nanofibers, in *Energy Efficiency and Renewable energy through Nanotechnology*, edited by L. Zhang Part 2, pp. 425-438 (Springer Series in Nanoscience and Technology, 2011). [Link](#)
11. J. N. Shan, N. Yao, Y. G. Ju, Ligand Effects and Synthesis of NaYF<sub>4</sub> Based Up and Down conversion Colloidal Nanophosphors, in *Fluorine-related Nanoscience with Energy Applications*, edited by D. Nelson, pp 71-85 (ACS books, 2011). [Link](#)
10. N. Yao and A. Epstein, Surface Nanofabrication Using Focused Ion Beam, in *Microscopy: Science, Technology, Application, and education*, edited by A. Méndez-Vilas and J. Díaz, Vol. 3, pp 2190-2199 (Formatex Book Series, Badajoz, Spain, 2010). [Link](#)
9. N. Yao, Introduction to the Focused Ion Beam System, in *Focused Ion Beam System: Basics and Applications*, edited by N. Yao, pp. 1-30 (Cambridge University Press, 2007). [Link](#)
8. D. Recht and N. Yao, Ion Beam Implantation of Surface Layers, in *Focused Ion Beam System: Basics and Applications*, edited by N. Yao, pp. 318-336 (Cambridge University Press, 2007). [Link](#)
7. K. Hou and N. Yao, Biological Materials Applications, in *Focused Ion Beam System: Basics and Applications*, edited by N. Yao, pp. 337-354 (Cambridge University Press, 2007). [Link](#)

6. E. H. Williamson and N. Yao, Tungsten Oxide Nanorods: Synthesis-Characterization-Application, in *Nanotechnology in Catalysis*, edited by B. Zhou, S. Hermans, and G. A. Somorjai, Vol. 3, pp. 115-137 (Springer, 2006). [Link](#)
5. N. Yao, Focused Ion Beam System: A Multifunction Tool for Nanotechnology, in *Handbook of Microscopy for Nanotechnology*, edited by N. Yao and Z. L. Wang, Vol. I, pp. 247-286 (Springer/Kluwer Academic Publishers 2005). [Link](#)
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3. N. Yao, R. Z. Wang, A. Y. Ku, D. A. Saville, and I. A. Aksay, Nanostructured Bio-inspired Materials, in *Nanophase and Nanostructured Materials*, edited by Z. L. Wang, Y. Liu and Z. Zhang Vol. 2, pp. 237-256 (Kluwer Academic Publishers-Tsinghua University Press, 2001). [Link](#)
2. X. Z. Bo, N. Yao, and J. C. Sturm, Si/Si<sub>1-x</sub>Ge<sub>x</sub>/Si Heterojunction Bipolar Transistors, in *Properties of Strained and Relaxed Silicon-Germanium*, *EMIS Data Review*, 2<sup>nd</sup> edition, E. Kasper, pp. 305-318 (IEE, U.K., 2000). [Link](#)
1. J. Lahiri, G. F. Xu, T. Lee, D. M. Dabbs, N. Yao, I. A. Aksay, J. T. Groves, Biomimetic fabrication of materials - The minimalist approach; edited by A. Crowson, Vol. 2716, pp. 317-323. (Spie - Int Soc Optical Engineering: Bellingham, 1996). [Link](#)

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316. J. W. Stiles, B. Hoff, S. B. Lee, F. Yuan, G. Cheng, C. J. Pollock, F. Katmer, J. Leeman, N. Yao, C. B. Arnold, and L. M. Schoop, "Role of Cr Redox and Dynamics in Electrochemical Cycling of HxCrS<sub>2-δ</sub>", *Chemistry of Materials*, 36, 9469 (2024). [Link](#)
315. G. V. Villalpando, J. Xie, N. Mathur, G. Cheng, N. Yao, L. M. Schoop, "Freestanding Monolayer CrOCl Through Chemical Exfoliation", *Nanoscale Horizons* 9, 1766 (2024). [Link](#)
314. M. Litskevich, M. Hossain<sup>1</sup>, Y. Fu, Y-X. Jiang, Q. Zhang, G. Cheng, H. Wang, J. G. Himenes, B. Casas, C-H. Hsu, S. Sen, Y. A. Gerasimenko, S. Zhang, X. Liu, S. S. Tsirkin, Z-J. Cheng, T. A. Cochran, X. P. Yang, D. Multer, H. Lei, N. Yao, W. Xie, L. Balicas, G. Chang, T. Neupert, M. Z. Hasan, "Boundary modes of a charge density wave state in a topological material", *Nature Physics* 20, 1253 (2024). [Link](#)
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309. G-M. Cheng, Y-W Yeh, S. Singh, S. Xu, N. Yao, “Differentiating the Bonding States in Calcium Carbonate Polymorphs by Low-loss Electron-energy-loss Spectroscopy”, *Microscopy and Microanalysis*, 30 (S1), 1157 (2024). [Link](#)
308. D. Ni, G. Cheng, C. Yang, L. Jin, N. Yao, R. J. Cava, “A Calcium Aluminum Rhenium Sodalite with Reducible Rhenium in the Sodalite Cage”, *MRS Communications*, 14, 372 (2024) [Link](#)
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