



NAME Chen, Zhong (**Highly Cited Researcher by Clarivate; Top 2% Scientist by Standford University**) | [Personal Website](#) | [Google Scholar](#) |



CURRENT POSITION AND PAST EMPLOYMENT HISTORY

◇ Mar 2000 - present: Professor / Associate Professor / Assistant Professor, School of Materials Science & Engineering, Nanyang Technological University, Singapore.

◇ Apr 1997 - Mar 2000: Research Fellow / Research Associate, Institute of Materials Research and Engineering, Singapore.

◇ May 1992 - Sep 1993: Visiting Scholar, Department of Engineering, University of Reading, U.K.

◇ Jun 1987 - May 1992: Lecturer / Assistant Lecturer, Department of Materials Science and Engineering, Hefei University of Technology, China.

ACADEMIC QUALIFICATIONS

◇ Ph.D. in Fracture Mechanics of Materials (1993 - 1997), University of Reading, The United Kingdom

◇ M.Eng. in Materials Science & Engineering (1984 - 1987), Hefei University of Technology, China

◇ B.Eng. in Physical Metallurgy (1980 - 1984), China University of Mining and Technology, China

RESEARCH INTERESTS

◇ Thin Films & Nanostructured Materials: Thin films & engineered nanostructures for environmental and clean energy applications; Electronic thin films; Protective and functional surface coatings.

◇ Mechanical and Long-term Behaviours of Materials: Fracture, fatigue, and creep of bulk, composite, and thin film materials; Experimental and computational mechanics. Materials degradation & failure analysis.

SELECTED PUBLICATIONS (Google Scholar citations > 40,000 with h-index = 104)

1. Y. H. Deng, Z. Chen, et al. "Optimizing Dielectric, Mechanical, and Thermal Properties of Epoxy Resin through Molecular Design for Multifunctional Performance", *Materials Horizons*, 2025, Vol. 12, pp. 1323-1333
2. Z. Q. Li, Z. Chen, J. T. Oh, et al. "Improving the mechanical and magnetic properties of equiatomic FeCo-2V alloy through mild magnetic field annealing", *Metallurgical and Materials Transactions A*, 2024, Vol. 55, pp. 4061-4071
3. G. X. Yan, C. L. Gan, Z. Chen et al. "The study of Ni-Sn transient liquid phase bonded joints under high temperatures", *Materials Characterization*, 2023, Vol. 203, Article 113099
4. Y. Sun, R. S. Rawat, Z. Chen "Mechanically Robust Multifunctional Antifogging Coating on Transparent Plastic Substrates", *Applied Surface Science*, 2022, Vol. 580, 202101864
5. X. F. Cao, J. Hu, Z. Chen, et al. "Preparation of superhydrophobic nanoplate iron oxide surface on a carbon steel for anti-wetting applications", *Materials & Design*, 2021, Vol. 211, Article 110169
6. X. Zhao, Z. Chen, et al. "Elucidating the Sources of Activity and Stability of FeP Electrocatalyst for Hydrogen Evolution Reactions in Acidic and Alkaline Media", *Applied Catalysis B: Environmental*, 2020, Vol. 260, 11815
7. Y. Z. Shen, J. Tao, Z. Chen, et al. "Icephobic materials: fundamentals, performance evaluation, and applications", *Progress in Materials Science*, 2019, Vol. 103, pp. 509-577
8. X. H. Wu, Z. Chen "A Mechanically Robust Transparent Coating for Anti-icing and Self-cleaning Applications", *Journal of Materials Chemistry A*, 2018, Vol. 6, pp. 16043-16052
9. L. Shen, Z. Chen, et al. "Enhancing Creep Resistance of SnBi Solder Alloy with Non-reactive Nano Fillers: A Study Using Nanoindentation", *Journal Alloys and Compounds*, 2017, Vol. 729, pp. 498-506
10. C. Wang, Z. Chen, et al. "Strength Prediction for Bi-axial Braided Composites by A Multi-scale Modelling Approach", *Journal of Materials Science*, 2016, Vol. 51, pp. 6002-6018
11. A. B. Y. Lim, Z. Chen, et al. "Effect of Palladium on the Mechanical Properties of Cu-Al Intermetallic Compounds", *Journal of Alloys and Compounds*, 2015, Vol. 628, pp. 107-112
12. Q. T. Fu, Z. Chen, et al. "Development of sol-gel icephobic coatings: effect of surface roughness and surface energy", *ACS Applied Materials & Interfaces*, 2014, Vol. 6, pp. 20685-20692
13. Q. L. Tay, Z. Chen, et al. "Enhanced Photocatalytic Hydrogen Production with Synergistic Two-Phase Anatase/Brookite TiO₂ Nanostructures", *The Journal of Physical Chemistry C*, 2013, Vol. 117, pp. 14973-14982
14. H. Yan, Z. Chen, et al. "Copper Diffusion Barrier Performance of Amorphous Ta-Ni Thin Films", *Applied Surface Science*, 2012, Vol. 258, pp. 3158-3162
15. P. D. Kanhere, J. W. Zheng, Z. Chen "Site Specific Optical and Photocatalytic Properties of Bi Doped NaTaO₃", *The Journal of Physical Chemistry C*, 2011, Vol. 115, pp. 11846-11853
16. Y. X. Tang, Z. Chen, et al. "Ultrafast Synthesis of Layered Titanate Micro-Spherulite Particles by Electrochemical Spark Discharge Spallation", *Chemistry – A European Journal*, 2010, Vol. 16, pp. 7704-7708

POSTGRADUATE STUDENTS TRAINED TO DATE

- Graduated 39 PhD students and 6 MEng (by research) students at NTU.