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主要研究方向

- 1) Correlate tribological, mechanical and electrochemical properties with the electron work function
- 2) Wear, corrosion and corrosive wear of materials
- 3) Computational materials science and tribological phenomena
- 4) Bacterial biofilm control through surface nanostructuring
- 5) Advanced photocatalytic materials and fundamentals

社会兼职

1. Editor-in-Chief, *International Journal of Nano and Biomaterials*
2. Member of editorial board of *Tribology – Surface, Interfaces and Materials*
3. Member of editorial board of *International J. of Corrosion*
4. Member of editorial board of *The Open Corrosion Journal*
5. Member of editorial board of *Journal of Biosensors & Bioelectronics*
6. Member of editorial board of *International J. of Nanotechnol. & Applications*

主要学术成果

- E. M., Davis, D.Y. Li, R.I.T. Irvin, Description and characterization of new bio-organic steel: nano-engineering lessons from nature, **Biomaterials**, 2011, in press (Impact factor - IF: 7.365).
- C.Y. Tang, D.Y. Li, G.W. Wen, Baushinger's Effect in Wear of Materials, **Tribology Lett.**, 41 (2011) 569 (IF: 1.66).
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- B. Yu, A. Lesiuk, E. Davis, R. Irvin, D.Y. Li, Surface nanocrystallization for bacterial control, **Langmuir**, 26 (2010) 10930 (IF: 4.01).
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- Q. Chen, D.Y. Li, K. Oiwa, Phenomenological Simulation of self-organization of microtubule driven by dynein C, **J. Chem. Physics**, 130, 214107 (2009); DOI: 10.1063/1.3139300 (IF: 3.15).
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- C. Chen, D. Y. Li, C. J. Shang, Nanocrystallization of aluminized surface of carbon steel for enhanced resistances to corrosion and corrosive wear, **Electrochimica Acta**, 55 (2009) 118 (IF: 3.325)..
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- W. Li and D.Y. Li, Influence of surface morphology on corrosion and electron behavior, **Acta Materialia**, 54 (2006) 445 (IF: 3.76).
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- D.Y. Li, Corrosive Wear, in **Encyclopedia of Tribology**, Springer, 2011.