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工学博士

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主要研究方向

1. 新颖表面工程技术的发展
2. 生物医学及能源材料的表面处理
3. 基于多尺寸表面模拟的表面设计及性能测试
4. 微纳米表面制造及表征

社会兼职

1. 英国材料、矿石和地质学会 (IOM3) 注册工程师及会员
2. 英国表面工程协会常务理事
3. 国际《表面工程》杂志编委
4. 《国际表面科学与工程》杂志编委
5. 中国《表面工程》杂志副主编
6. 中国自然科学基金会海外评委

主要学术成果

主要原创性科研成果包括钛合金表面陶瓷转化及深层硬化技术; 不锈钢、钴-铬合金及镍-铬合金 S-相处理技术; 活化屏等离子体间隙及置换元素共渗技术; 新颖环境条件下纳米压入设备及技术的发展等。

近十年来先后承担和主持包括英国政府、欧共体、中英政府合作项目等 20 余项科研项目, 累计科研基金达 500 万欧元; 获得英国、欧共体及美国专利 4 项; 发表学术论文 180 多篇 (SCI 收录 110 多篇), SCI 引用达 1222 次 (h-index:18); 2004 年荣获英国材料学会 'Harvey Flower' 钛合金科学奖。

主编学术专著 *Surface Engineering of Light Alloys: Aluminum, Magnesium and Titanium Alloys*

参加编写学术著作《中国材料工程大典—表面工程卷》和《Materials in Sports Equipment》

近期学术论文:

1. Y. Dong, X. Li, L. Tian, T. Bell, R.L. Sammons, H. Dong (2011): 'Towards long-lasting antibacterial stainless steel surfaces by combining double glow plasma silvering with active screen plasma nitriding', *Acta Biomaterialia*, 7(1), 447-457 (doi:10.1016/j.actbio.2010.08.009).
2. X. Li and H. Dong (2011): 'Microstructural characterisation of carbon doped CrAlTiN coatings', *Surface and Coatings Technology*, 205(10), 3251-3259 (doi:10.1016/j.surfcoat.2010.11.046).
3. S. Corujeira Gallo and H. Dong (2011): Corrosion behaviour of DC and AS plasma carburised 316 ASS in boiling H₂SO₄ solutions, *Corrosion Engineering, Science and Technology*, 46, 8-16 (DOI 10.1179/147842208X356866).
4. Jian Chen, Gerard Bell, Ben Beake and Hanshan Dong (2010): 'Nano-mechanical & tribological properties of a-C:H/TiCN/TiN coating under sub-ambient temperatures', *International Journal of Engineering Systems Modelling and Simulation*, 2, 199-203.
5. H. Dong (2010): 'Guest editorial: in memory of Tom Bell', *Surface Engineering*, 26, 1-10.
6. X. Y. Li, J. Buhagiar and H. Dong (2010), 'Characterisation of dual S phase layer on plasma carbonitrided biomedical austenitic stainless steels', *Surface Engineering*, 26, 67-73.
7. R.Ji, X. Li and H. Dong (2010), 'Ceramic conversion treatment of Zr702 and Zr705 to combat wear', *Surface Engineering*, 26, 30-36.
8. H. Dong (2010): 'S-phase surface engineering of Fe-Cr, Co-Cr and Ni-Cr alloys', *International Materials Review*, 55, 65-98 (DOI 10.1179/095066009X12572530170589).
9. Y.C. Dong, X. Li, R. Simon and H. Dong (2010), 'The generation of wear-resistant antimicrobial stainless steel surfaces by active screen plasma alloying with N and nanocrystalline Ag', *Journal of Biomedical Materials Research Part B*, 93B, 185-193 (DOI: 10.1002/jbm.b.31573).
10. B Yu, L. Qian, Z. Zhou, J Yu, H. Dong and Z. Zhou (2010), 'Friction-induced hillocks on monocrystalline silicon in atmosphere and in vacuum', *Wear*, 268, 1095-1102 (DOI:10.1016/j.wear.2010.01.007)
11. Jian Chen, Xiaoying Li and Hanshan Dong (2010), 'Formation and characterisations of S-Phase in plasma carburised high-carbon Stellite 21 CoCr alloy', *Surface Engineering*, 26, 233-241 (DOI:10.1179/026708409X12490360426007).
12. J. Buhagiar, H. Dong (2010), Low temperature plasma carbonitriding of ASTM F138 and ASTM F1586 biomedical stainless steels, *Surface Engineering*, 26, 256-264 (DOI: 10.1179/174329409X455368).
13. Y. Dong, X. Li, T. Bell, R. Sammons, H. Dong: 'Surface microstructure and antibacterial property of active-screen plasma alloyed austenitic stainless steel surface with Cu and N', *Biomedical Materials*, 5 (2010) 054105 (8pp) [doi:10.1088/1748-6041/5/5/054105].
14. Georgia Kaklamani, Nazia Mehrban, Jien Chen, James Bowen, Hanshan Dong, Liam Grover and Artemis Stamboulis: 'Effect of plasma surface modification on the biocompatibility of UHMWPE', *Biomedical Materials*, 5 (2010) 054102 (10pp) [doi:10.1088/1748-6041/5/5/054102].
15. R.H.U. Khan, A.L. Yerokhin, X. Li, H. Dong and A. Matthews (2010): 'Microstructural and residual stress characterisation of DC PEO treated Al6082 alloy', *Surface and Coatings Technology*, 205, 1679-1688 (doi: 10.1016/j.surfcoat.2010.04.052).