Dr. Gary L. Doll
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Professional Preparation

Marshall University	Huntington WV	Physics B.S.	1981
University of Kentucky	Lexington KY	Physics M.S.	1983
University of Kentucky	Lexington KY	Physics Ph.D.	1986
Massachusetts Institute of Technology	Cambridge MA	Physics PostD	1989

Appointments

2011 – Present, **Professor, Civil Engineering Department, Mechanical Engineering Department, & Director, Timken Engineered Surfaces Laboratories**, The University of Akron, Akron, OH,

1996 – 2011, **Chief Technologist, Tribology & Advanced Materials,** The Timken Company, Canton, OH

1989 – 1996, **Staff Scientist,** General Motors Research Laboratories, Warren, MI,

Products

(i) Five most closely related to the proposed project

1. Strahin, B. L., Shreeram, D. D., & Doll, G. L. (2017). Properties and tribological performance of vanadium carbide coatings on AISI 52100 steel deposited by thermoreactive diffusion. JOM, 69(7), 1160-1164.
2. Strahin, B. L., & Doll, G. L. (2018). Tribological coatings for improving cutting tool performance. Surface and coatings technology, 336, 117-122.
3. Liu, J., Suslov, S., Li, S., Qin, H., Ren, Z., Doll, G. L., ... & Ye, C. (2018). Electrically assisted ultrasonic nanocrystal surface modification of Ti6Al4V alloy. Advanced Engineering Materials, 20(1), 1700470.
4. Tang, W., Policastro, G. M., Hua, G., Guo, K., Zhou, J., Wesdemiotis, C., ... & Becker, M. L. (2014). Bioactive surface modification of metal oxides via catechol-bearing modular peptides: multivalent-binding, surface retention, and peptide bioactivity. Journal of the American Chemical Society, 136(46), 16357-16367.
5. Strahin, B. L., Shreeram, D. D., & Doll, G. L. (2017). Properties and tribological performance of vanadium carbide coatings on AISI 52100 steel deposited by thermoreactive diffusion. JOM, 69(7), 1160-1164.

(ii) Five other significant publications

1. Shreeram, D. D., Bedekar, V., Li, S., Jagtap, R., Cong, H., & Doll, G. L. (2017). Effect of Reverse Pulse Current Duration on the Corrosion and Wear Performance of Ni-W Nanolaminate Coatings. JOM, 69(11), 2192-2198. .
2. Shreeram, D. D., Bedekar, V., Li, S., Cong, H., & Doll, G. L. (2018). Corrosion-and Wear-Resistant Pulse Reverse Current (PRC)-Based Electrodeposited Ni-W Coating. JOM, 70(11), 2603-2610.
3. Zhang, H., Chiang, R., Qin, H., Ren, Z., Hou, X., Lin, D., ... & Ye, C. (2017). The effects of ultrasonic nanocrystal surface modification on the fatigue performance of 3D-printed Ti64. International Journal of Fatigue, 103, 136-146.
4. Ye, Chang, Xianfeng Zhou, Abhishek Telang, Hongyu Gao, Zhencheng Ren, Haifeng Qin, Sergey Suslov et al. "Surface amorphization of NiTi alloy induced by Ultrasonic Nanocrystal Surface Modification for improved mechanical properties." journal of the mechanical behavior of biomedical materials 53 (2016): 455-462.
5. Zhang, R., Zhou, X., Gao, H., Mankoci, S., Liu, Y., Sang, X., ... & Martini, A. (2018). The effects of laser shock peening on the mechanical properties and biomedical behavior of AZ31B magnesium alloy. Surface and Coatings Technology, 339, 48-56.

Synergistic Activities

- Symposium Chair - "Surface Engineering", TMS 2000, MRS 2001, MRS 2002.
- President – “STLE Surface Engineering Committee”, 2003-2004.
- Chair – “SVC Tribological and Wear Coatings Committee”, 2000-2008.
- Symposium Chair – “Aerospace Surface Engineering”, ICMCTF 2006, 2007
- Elected Fellow ASM, October 27, 2009
- Elected Fellow STLE, March 2016
- Chair – “ASME Wind Energy Tribology Committee”, 2010
- Associate Editor – Tribology Transactions, 2013 – 2019
- Associated Editor – J. Tribology, 2019 – present.
- Elected Director – Society of Vacuum Coaters, 2015