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Research Interest

- Optimization of processing parameters
- Numerical heat and mass transfer
- Hybrid laser-arc welding of stainless steel
- Laser-arc-magnetic field welding of stainless steel

Education Background

Mar. 2017 - present Pennsylvania State University, Material Science and Engineering, State College, PA, USA

Sep. 2014 - present Huazhong University of Science & Technology, Mechanical Science and Engineering, Wuhan, China

Sep. 2010 - Jun. 2013 Xi'an Jiaotong University, Mechanical Science and Engineering, Xi'an, China

Sep. 2006 - Jun. 2010 Northwest A&F University, Mechanical Engineering, Yangling, China

Work Experiences

July 2013 - July 2014 Wuchang Shipbuilding Industry Group Co., Ltd, Wuhan, China

Publications and Academic Activities

- Gao, Z., Jiang, P., Mi, G., Cao, L., & Liu, W. (2018). Investigation on the weld bead profile transformation with the keyhole and molten pool dynamic behavior simulation in high power laser welding. *International Journal of Heat and Mass Transfer*, 116, 1304-1313.
- Gao, Z., Shao, X., Jiang, P., Wang, C., Zhou, Q., Cao, L., & Wang, Y. (2016). Multi-objective optimization of weld geometry in hybrid fiber laser-arc butt welding using Kriging model and NSGA-II. *Applied Physics A*, 122(6), 1-12.
- Gao, Z., Shao, X., Jiang, P., Cao, L., Zhou, Q., Yue, C., & Wang, C. (2016). Parameters optimization of hybrid fiber laser-arc butt welding on 316L stainless steel using Kriging model and GA. *Optics & Laser Technology*, 83, 153-162.
- Gao, Z., Jiang, P., Wang, C., Shao, X., Pang, S., Zhou, Q., & Wang, Y. (2016). Study on droplet transfer and weld quality in laser-MIG hybrid welding of 316L stainless steel. *The International Journal of Advanced Manufacturing Technology*, 1-11.
- Gao Z., Mi G., Jiang P., Cao L., Wang Y. (2016). Optimization of Welding Process Parameters in Laser Penetration Welding Under the Effect of External Magnetic Field. The 69th IIW Annual Assembly and International Conference 2016, was held on 10-15 July 2016, Melbourne, Australia.