



Registration Form for WFC Scientific Committee

Personal Info.

Name: Fan Zitian

Title: Professor

Affiliation: Huazhong University of Science and Technology



Education Background

Huazhong University of Science and Technology 1996.09-1999.06
Major in: Material Processing Engineering
Degree: Doctor

Huazhong University of Science and Technology 1985.09-1988.06
Major in: Material Processing Engineering
Degree: Master

Nanchang Hangkong University 1978.90-1981.11
Major in: Material Processing Engineering
Degree: Bachelor

Working Experience

Professor (1999-present); School of Materials Science and Engineering, Huazhong University of Science and Technology, Wuhan, China;

Associate Professor (1988-1999); School of Mechanical and Electrical Engineering, Nanchang University, Nanchang, China.

Project experience

1. National Natural Science Foundation of China: 52275334, Key technologies foundation of precision casting integrated forming metal/ceramic hollow blade, 2023/01-2026/12. (540,000 yuan)
2. National Natural Science Foundation of China: 51775204, Study on layered deposition extrusion of complex ceramic casting mold with core and its precision control, 2018/01—2021/12. (680,000 yuan)
3. National Natural Science Foundation of China: 51375187, Control mechanism of formability and collapsibility of complex sand cores for magnesium alloy aviation castings, 2014/01-2017/12. (800,000 yuan)
4. National Natural Science Foundation of China: 51075163, Microwave heating hardening sodium



silicate sand green casting Build key technology foundation, 2011/01-2013/12. (400,000 yuan)

5. Liujing Technology Group (Changzhou) Co., LTD: Development of foundry solid waste recycling technology, 2021/03-2025/03. (1,000,000 yuan)

Representative Publications

1. Gong X, Hu S, Liu X*, Yang M, Jiang W, Fan Z*. Flotation separation of coal dust from foundry dust enhanced by pre-soaking assisted mechanical stirring[J]. Journal of Environmental Management, 2023, 339, 117899. (IF=8.910)
2. Ling Q, Yang L*, Tang S, Fan Z*, Liu X, Jiang W. Direct ink writing of hierarchically porous Al₂O₃ matrix composites with enhanced wettability of Al[J]. Journal of Manufacturing Processes, 2022, 84, 1526-6125. (IF=5.684)
3. Gong X, Jiang W*, Hu S, Yang Z, Liu X, Fan Z*. Comprehensive utilization of foundry dust: Coal powder and clay minerals separation by ultrasonic-assisted flotation[J]. Journal of Hazardous Materials, 2021, 402: 124124. (IF=14.224)
4. Tang S, Yang L, Liu X*, Li G, Jiang W, Fan Z*. Direct ink writing additive manufacturing of porous alumina-based ceramic cores modified with nanosized MgO[J]. Journal of the European Ceramic Society, 2020, 40(15): 5758-5766. (IF=6.346)
5. Tang S, Yang L, Li G, Liu X, Fan Z*. 3D printing of highly-loaded slurries via layered extrusion forming: Parameters optimization and control[J]. Additive Manufacturing 2019, 28: 546-553. (IF=11.632)
6. Yang L, Tang S, Li G, Liu F, Liu X, Jiang W, Fan Z*. Performance characteristics of collapsible CaO-SiO₂ based ceramic core material via layered extrusion forming[J]. Ceramics International 2019, 45(6): 7681-7689. (IF=5.532)
7. Li G, Tang S, Yang L, Qian L, Liu F, Fan Z*, Zuo K, Wei Q, Jiang W*. Fabrication of soluble salt-based support for suspended ceramic structure by layered extrusion forming method[J]. Materials & Design, 2019, 183: 108173. (IF=9.417)
8. Yang L, Tang S, Li G, Qian L, Mei J, Jiang W, Fan Z*. Layered extrusion forming of complex ceramic structures using starch as removable support[J]. Ceramics International, 2019, 45(17): 21843-21850. (IF=5.532)
9. Fan Zitian, et al. Material forming equipment and automation[M]. Beijing: China Machine Press, 2018.
10. Fan Zitian, Zhu Yisong, Dong Xuanpu, et al. Process principle and application technology of sodium silicate sand[M]. Beijing: China Machine Press, 2016.
11. Fan Zitian, Jiang Wenming, Wei Qingsong, et al. Advanced metal material forming technology and theory[M]. Wuhan: Huazhong University of Science and Technology Press, 2019.

Awards

1. Expert on the State Council's special allowance in 2020.
2. Teaching Achievement in Hubei Province in 2018 (First Prize): Establishment and Practice of Leading Talent Cultivation System for Material Forming and Control Engineering Major.
3. National Bao-steel Excellent Teacher Award in 2016.



The 75th World Foundry Congress

Developing Foundry

Oct.25-30, 2024
Deyang, China

4. Famous Teacher of Huazhong University of Science and Technology in 2016.
5. 2012 Science and Technology Progress in China Machinery Industry Federation (Second Prize):
Key Technology and Equipment for Recycling Waste Sand of Sodium Silicate Sand Mold Casting.
6. 2009 Science and Technology Progress in Hubei Province (First Prize): Development and
Application of Green Casting Technology Based on Sodium Silicate Sand and Lost Foam.