

师资队伍

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马涛

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职务: 博士生导师

教育背景

学士 200007 清华大学 热能工程系
博士 200507 清华大学 热能工程系

工作经历

200509 - 200911 清华大学核能与新能源技术研究院 助理研究员
200912 - 201911 清华大学核能与新能源技术研究院 副研究员
201912 - 至今 清华大学核能与新能源技术研究院 研究员

学术兼职

201501 – 至今 国际原子能机构 国际核安保教育网络 (INSEN) 中国协调员
201411 – 至今 亚洲核合作论坛 (FNCA) 核安全管理系统项目中国协调员

研究领域

主要从事高温堆安全运行温度裕度、安全（相关）系统设计裕度和一回路关键设备材料性能等方面研究，探索降低高温堆核电站造价、提高高温堆经济竞争力的途径，并将其反馈到物理、热工和关键系统设备的工程设计中。

研究概况

201801 –201912 高温堆示范工程调试关键技术研究 国家能源局
201410 –201711 清华大学屏蔽实验反应堆某项目 国防科工局
201401 –201812 10MW高温气冷堆超高温运行技术前期研究 科技部
200801 –201712 国家科技重大专项子课题 “利用HTR-10对示范工程若干技术问题的实验验证”
(2008ZX06901-018) 国家能源局

学术成果

Hangbin Zhao, Yanhua Zheng, Xiaoming Chen, Tao Ma, Yujie Dong. A one-dimensional code of the passive residual heat removal system for the modular high temperature gas-cooled reactor .Progress in Nuclear Energy, 2019, 110: 374-383.

Yingchao Meng, Huaqiang Yin, Malin Liu, Tao Ma, Shengyao Jiang. Experimental study on the generation of carbonaceous dust formed by chemical vapor deposition in HTGR .Nuclear Engineering and Design, 2018, 335: 172-177.

Hangbin Zhao, Xiaoming Chen, Yanhua Zheng, Tao Ma, Yujie Dong. Three-dimensional numerical investigation of heat transfer process in the reactor cavity of HTR-10 .Annals of Nuclear Energy, 2018, 114: 551-560.

Hangbin Zhao, Yujie Dong, Yanhua Zheng, Tao Ma, Xiaoming Chen. Numerical simulation on heat transfer process in the reactor cavity of modular high temperature gas-cooled reactor .Applied Thermal Engineering, 2017, 125: 1015-1024.

Lihao Chen, Tao Ma, Yanhua Zheng, Hangbin Zhao, Fu Li, Xiaoming Chen, Yuzhuo Ma. Experimental verification on design model of the passive residual heat removal system of MHTGR .Progress in Nuclear Energy, 2017, 98: 23-28.

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- Zhaohu Fan, Tao Ma, Weiwei Li, Shubo Wang, Zhiming Mao, Xiaofeng Xie. A comparison of hydrogen-enriched natural gas (HCNG) and compressed natural gas (CNG): based on ANOVA models .International Journal of Hydrogen Energy, 2017, 42: 30029-30036.
- Sitong Chen, Xueke Wang, Weiwei Li, Shubo Wang, Yuanxin Qi, Xue Li, Yang Zhao, Tong Zhu, Tao Ma, Xiaofeng Xie. Experimental study on cooling performance of microencapsulated phase change suspension in a PEMFC .International Journal of Hydrogen Energy, 2017, 42: 30004-30012.
- Jianxin Pan, Mianyan Huang, Xue Li, Shubo Wang, Weihua Li, Tao Ma, Xiaofeng Xie, Ramani Vijay. The performance of all vanadium redox flow batteries at below-ambient temperatures .Energy, 2016, 107: 784-790.
- Lihao Chen, Yanhua Zheng, Tao Ma, Xiaoming Chen, Yuzhuo Ma. Modeling and computation of residual heat removal system of HTR-10 with experimental verification .Atomic Energy Science and Technology, 2016, 50: 1771-1775.
- Hangbin Zhao&, Huaqiang Yin, Yujie Dong, Tao Ma, Yanhua Zheng, Fu Li, Xiaoming Chen, Lihao Chen, Pengya Zhang. Design of dehumidification test of HTR-PM .International Topical Meeting on High Temperature Reactor Technology, HTR2016, 2016.
- JingBao Liu, ShengYao Jiang, Tao Ma, RiQiang Duan. Transient Thermodynamic Behaviors of Super-high Temperature Gas-carrying Duct under Rapid Depressurization .Procedia Engineering, 2015, 126: 574-578.
- Junling Wang, Xiaoming Chen, Tao Ma, Bing Xia, Peng Huang. Error analysis and experimental research of HTR-10 burnup measurement system .Atomic Energy Science and Technology, 2013, 47: 614-618.
- Hua Chang, Tao Ma, Ling Liu, Huaqiang Yin, Xuedong He. Experimental study of adsorption of carbon dioxide on 13X molecular sieve for coolant helium purification .Proceedings of the 2013 21st International Conference on Nuclear Engineering, 2013, 2.
- 马涛,谢锋,李文茜,姚峰,李富,董玉杰. 一种采用混气装置的碳-14取样系统: CN110702467A, 2020-01-17.
- 马涛,张佑杰,姜胜耀,李川,刘凌. 一种高温气冷堆内测温石墨球的复检方法及装置: 2017106725287, 2018-01-16.
- 马涛,张佑杰,姜胜耀,李川,刘凌. 一种高温气冷堆内测温石墨球的识别方法及装置: 2017106701687, 2017-12-22.
- 马涛. 球床型模块式高温气冷堆燃料元件燃耗深度在线测量方法: 2006100121459, 2006-11-22.

