

个人简历

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|--|---------------------|-----|---|-----|--------|---|
| (一) 基本信息 | | | | | |  |
| 姓 名 | 南文光 | 性 别 | 男 | 民 族 | 汉 | |
| 工作单位 | 南京工业大学机械与动力工程学院 | | | 职 称 | 副教授 | |
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| (二) 研究内容 | | | | | | |
| <p>1. 研究方向：数值模拟（DEM\CFD\MD\DFT 等）；机器/深度学习；粉体测量与表征；颗粒多相流动力学；气液两相流动与传热</p> <p>2. 研究领域：先进制造中颗粒/流体的流动与传热；双碳中新能源利用（储能/风电/核电）</p> | | | | | | |
| (三) 教育经历 | | | | | | |
| <p>1. 2015/10-2016/10, 英国利兹大学, 颗粒科学与技术研究所, 博士, 导师: Mojtaba Ghadiri 院士 (FREng, CEng, FICHEM, https://ghadiri-group.leeds.ac.uk/)</p> <p>2. 2011/09-2017/06, 西安交通大学, 动力工程及多相流国家重点实验室, 博士, 导师: 王跃社教授 (郭烈锦院士团队)</p> <p>3. 2007/09-2011/06, 河海大学, 热能与动力工程, 学士</p> | | | | | | |
| (四) 科研与学术工作经历 | | | | | | |
| <p>1. 2021/01-至今, 英国利兹大学, Virtual Visiting Researcher, Mojtaba Ghadiri 院士</p> <p>2. 2017/09-至今, 南京工业大学, 机械与动力工程学院, 助理教授/副教授</p> <p>3. 2018/06-2018/09, 利兹大学, 化学过程工程学院, 访问学者, Mojtaba Ghadiri 院士</p> | | | | | | |
| (五) 科研项目 (课题) 情况 | | | | | | |
| <p>1. 国家自然科学基金, 青年基金项目, 颗粒形状对颗粒物质流变特性的影响机制研究, 2019-01 至 2021-12, 主持, 完成</p> <p>2. 国际合作: 利兹大学 Mojtaba Ghadiri 院士主持的 HP 3D 打印粉体技术项目 & EPSRC Future Formulation Programme (EP/N025261/1), 参与, 完成</p> <p>3. 国家自然科学基金, 面上项目, 基于玻璃化转变理论的果粉“分子-颗粒-颗粒群”多尺度吸湿机制研究 (主持: 中国农科院), 2023-01 至 2026-12, 参与-负责 1/3 研究内容, 执行中</p> <p>4. 国家自然科学基金, 叶企孙联合基金项目, 高强铝合金同轴送粉搅拌摩擦固相增材制造宏/微观组织演变与形性协同调控研究, 2023-01 至 2026-12, 参与-负责颗粒物质流动与传热研究内容, 执行中</p> | | | | | | |

(六) 期刊论文 (一作 SCI 论文 14 篇, 中科院 2 区 Top)

- [1] **Nan Wenguang**, Goh Wei Pin, Rahman Mohammad Tarequr. Elasto-plastic and adhesive contact: An improved linear model and its application. *Powder Technology*, 2022, 407: 117634.
URL: <https://doi.org/10.1016/j.powtec.2022.117634>
- [2] **Nan Wenguang**, Gu Yiqing. Experimental investigation on the spreadability of cohesive and frictional powder. *Advanced Powder Technology*, 2022, 33:103466. URL: <https://doi.org/10.1016/j.appt.2022.103466>
- [3] **Nan Wenguang**, Pasha Mehrdad, Ghadiri Mojtaba. Rheology of a dense granular bed penetrated by a rotating impeller. *Powder Technology*, 2021, 386: 60-69. URL: <https://doi.org/10.1016/j.powtec.2021.03.029>
- [4] **Nan Wenguang**, Gu Yiqing. Stress analysis of blade rheometry by DEM simulations. *Powder Technology*, 2020, 376: 332-341. URL: <https://doi.org/10.1016/j.powtec.2020.08.026>
- [5] **Nan Wenguang**, Pasha Mehrdad, Ghadiri Mojtaba. Effect of gas-particle interaction on roller spreading process in additive manufacturing. *Powder Technology*, 2020, 372: 466-476.
URL: <https://doi.org/10.1016/j.powtec.2020.05.119>
- [6] Ahmed Moustafa, Pasha Mehrdad, **Nan Wenguang**, Ghadiri Mojtaba. A simple method for assessing powder spreadability for additive manufacturing. *Powder Technology*, 2020, 367: 671-679.
URL: <https://doi.org/10.1016/j.powtec.2020.04.033>
- [7] **Nan Wenguang**, Pasha Mehrdad, Ghadiri Mojtaba. Numerical simulation of particle flow and segregation during roller spreading process in additive manufacturing. *Powder Technology*, 2020, 364: 811-821.
URL: <https://doi.org/10.1016/j.powtec.2019.12.023>
- [8] Ghadiri Mojtaba, Pasha Mehrdad, **Nan Wenguang**, Hare Colin, Vivacqua Vincenzino, Zafar Umair, Nezamabadi Saeid, Lopez Alejandro, Pasha Massih, Nadimi Sadegh. Cohesive powder flow: Trends and challenges in characterisation and analysis. *KONA Powder and Particle Journal*, 2020, 37: 3-18.
URL: <https://doi.org/10.14356/kona.2020018>
- [9] **Nan Wenguang**, Wang Yueshe, Sun Houhuan. Experimental investigation on the packed bed of rodlike particles. *Advanced Powder Technology*, 2019, 30: 2541-2547. URL: <https://doi.org/10.1016/j.appt.2019.07.034>
- [10] **Nan Wenguang**, Ghadiri Mojtaba. Numerical simulation of powder flow during spreading in additive manufacturing. *Powder Technology*, 2019, 342: 801-807. URL: <https://doi.org/10.1016/j.powtec.2018.10.056>
- [11] **Nan Wenguang**, Pasha Mehrdad, Bonakdar Tina, Lopez Alejandro, Zafar Umair, Nadimi Sadegh, Ghadiri Mojtaba. Jamming during particle spreading in additive manufacturing. *Powder Technology*, 2018, 338: 253-262.
Google Scholar 被引次数超过 100. URL: <https://doi.org/10.1016/j.powtec.2018.07.030>
- [12] **Nan Wenguang**, Ghadiri Mojtaba, Wang Yueshe. Analysis of powder rheometry of FT4: Effect of particle shape. *Chemical Engineering Science*, 2017, 173: 374-383. URL: <https://doi.org/10.1016/j.ces.2017.08.004>
- [13] **Nan Wenguang**, Ghadiri Mojtaba, Wang Yueshe. Analysis of powder rheometry of FT4: Effect of air flow. *Chemical Engineering Science*, 2017, 162: 141-151. URL: <https://doi.org/10.1016/j.ces.2017.01.002>
- [14] **Nan Wenguang**, Vivacqua Vincenzino, Ghadiri Mojtaba, Wang Yueshe. Numerical analysis of air effect on the powder flow dynamics in the FT4 powder rheometer. *EPJ Web of Conferences*, 2017, 140: 03036.
URL: <https://doi.org/10.1051/epjconf/201714003036>
- [15] **Nan Wenguang**, Wang Yueshe, Wang Jianzhong. Numerical analysis on the fluidization dynamics of rodlike particles. *Advanced Powder Technology*, 2016, 27: 2265-2276. URL: <https://doi.org/10.1016/j.appt.2016.08.015>
- [16] **Nan Wenguang**, Wang Yueshe, Tang Huiping. A viscoelastic model for flexible fibers with material damping. *Powder Technology*, 2015, 276: 175-182. URL: <https://doi.org/10.1016/j.powtec.2015.02.037>
- [17] **Nan Wenguang**, Wang Yueshe, Liu Yingwen, Tang Huiping. DEM simulation of the packing of rodlike particles. *Advanced Powder Technology*, 2015, 26: 527-536. URL: <https://doi.org/10.1016/j.appt.2014.12.012>
- [18] **Nan Wenguang**, Wang Yueshe, Ge Yuan, Wang Jianzhong. Effect of shape parameters of fiber on the packing

structure. *Powder Technology*, 2014, 261: 210-218. URL: <https://doi.org/10.1016/j.powtec.2014.04.048>

[19] 南文光, 顾益青. 基于离散元方法的金属粉末铺粉动力学研究. *过程工程学报*, 2020, 20(11): 1313-1320.

[20] 南文光, 王跃社, 汤慧萍. 杆状颗粒流化特性的 DEM-CFD 数值模拟研究. *工程热物理学报*, 2015, 36(09): 1942-1946.

[21] 南文光, 王跃社, 葛渊, 等. 柔性纤维简单剪切流场中的运动特性研究. *应用力学学报*, 2014, 31(05): 727-733.

(七) 发明专利

[1] 南文光, 顾益青, 一种新型增材制造粉末铺展性能检测装置和方法, 发明专利, CN202011185854.3

[2] 王跃社, 南文光, 一种单气泡发生装置, 发明专利, ZL201510036037.4