


个人简历

(一) 基本信息						
姓 名	南文光	个人主页	https://nan-group-academic.netlify.app/			
工作单位	南京工业大学机械与动力工程学院		职称	副教授		
邮箱	nanwg@njtech.edu.cn		邮编	211816		
地址	江苏省南京市江北新区浦珠南路 30 号					
(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-青年项目, 51806099, 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, 26 万元, 主持。</p> <p>2. 国际合作-利兹大学 Mojtaba 院士: a) <u>HP Consultancy, Single Particle and Bulk Powder Characterisation of Gas-Atomised Metal Powders and Associated Analysis of Roller Spreading by Discrete Element Method</u>, 2018-2021, <u>international collaborator</u>; b) <u>EPSRC Future Formulation Programme, Virtual Formulation Laboratory for prediction and optimisation of manufacturability of advanced solids based formulations</u>, <u>EP/N025261/1</u>, 2017-2021, £1.74 Million, <u>participate</u>; c) <u>Engineering Prioritisation Programme, Modelling, Validation and Application of Triboelectrification</u>, <u>EP/X023389/1</u>, 2023-2026, £1.45 Million, <u>international collaborator</u>.</p>						

3. 国家自然科学基金-面上项目, 32272358, 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, 2023-01 至 2026-12, 54 万元, 参与(主持单位为中国农业科学院原子能利用研究所), 项目组所有人员中排名第 2, 承担项目 1/4 的研究内容和研究经费: 颗粒吸湿模拟以及水分在颗粒群中的迁移规律。
4. 国家自然科学基金-叶企孙联合基金项目, U2241248, 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, 259 万元, 参与(主持单位为西北工业大学), 项目组所有人员中排名第 5, 承担子课题中 1/3 的研究内容: 颗粒热塑性流动以及传热传质

(六) 期刊论文 (独立一作/通讯 SCI 论文 (JCR 一区) 20 余篇)

- [1] Ge Lanzhou, Xu Rui, **Nan Wenguang**. Wear of blade spreader during powder spreading in Additive Manufacturing [J]. *Tribology International*, 2023, 188. URL: <https://doi.org/10.1016/j.triboint.2023.108818>
- [2] Xu Rui, **Nan Wenguang**. Analysis of the metrics and mechanism of powder spreadability in powder-based additive manufacturing [J]. *Additive Manufacturing*, 2023, 71. URL: <https://doi.org/10.1016/j.addma.2023.103596>
- [3] **Nan Wenguang**, Md Arifur Rahman, Ge Lanzhou, Sun Zhonggang. Effect of plastic deformation on the spreadability of cohesive powder in the spreading process [J]. *Powder Technology*, 2023, 425. URL: <https://doi.org/10.1016/j.powtec.2023.118577>
- [4] Zhu Ming, **Nan Wenguang**, Wang Yueshe. Analysis on the thermal behaviour of the latent heat storage system using S-CO₂ and H-PCM [J]. *Renewable Energy*, 2023, 208: 240-50. URL: <https://doi.org/10.1016/j.renene.2023.03.041>
- [5] **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>
- [6] **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.apr.2022.103466>
- [7] **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>
- [8] **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>
- [9] **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>
- [10] 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>
- [11] **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>
- [12] 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>
- [13] **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.apr.2019.07.034>

- [14] **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>
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- [25] **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.
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(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