

# GHOLAMABBAS SADEGHI

Department of Environmental Technology, Wageningen University & Research (WUR), Wageningen, The Netherlands

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## - EDUCATION

**PhD, Environmental Technology**, Wageningen university & Research/Wetsus, European Centre of Excellence for Sustainable Water Technology, Netherlands (2023-2027).

- Thesis: Enhancing local water cycle via evaporation for a sustainable water supply

**Eng.D, Energy and Process Technology**, University of Twente, Netherlands (2020-2022).

- Thesis: Innovative shape-stabilized PCM for direct solar receiver-storage

**MSc., Mechanical Engineering (Energy Conversion)**, Razi University, Iran (2017, GPA: 3.76/4).

- Thesis: Experimental investigation of a thermoelectric-based solar desalination-thermal system

**BSc., Mechanical Engineering (Heat & Flow)**, Shahid Bahonar University of Kerman, Iran (2015).

- Thesis: Reverse osmosis technique for desalination and water treatment

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## - RESEARCH INTERESTS

Solar desalination, photothermal energy conversion, phase change heat transfer, nanotechnology

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## - WORK EXPERIENCE

03/2023-03/2027	<ul style="list-style-type: none"><li>• PhD researcher at WUR and Wetsus Laboratory working on photothermal membrane technology for solar steam generation <a href="#">Enhancing Local Water Cycle Via Evaporation for a Sustainable Water Supply - SENSELinkLinkLI</a>, NL</li></ul>
8/2022-01/2023	<ul style="list-style-type: none"><li>• Predoctoral research on water intrusion-extrusion in nanoporous materials using mercury porosimeter at CICenergiGUNE, Spain.</li></ul>
4/2021-4/2022	<ul style="list-style-type: none"><li>• Researcher at the University of Twente and TKI Urban Energy working on materials synthesis and characterization and working with furnace to expand graphite flakes along with constructing parabolic trough solar collectors and a large-scale solar simulator, <a href="#">Link</a></li></ul>
9/2020-12/2020	<ul style="list-style-type: none"><li>• Internship at Philips lighting Company, NL</li></ul>
10/2017-10/2019	<ul style="list-style-type: none"><li>• Military service in Iranian Army Ground Forces (administration work)</li></ul>

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## - HONOURS & AWARDS

2023	<ul style="list-style-type: none"><li>• Winning the PhD project scholarship at Wageningen University &amp; Research (WUR), NL</li></ul>
2022	<ul style="list-style-type: none"><li>• Winning the TA doctoral scholarship at UC Merced, California, USA</li></ul>
2021	<ul style="list-style-type: none"><li>• Nominated for the PDS award at the University of Manchester, UK</li></ul>
2020	<ul style="list-style-type: none"><li>• Invited talk as an elite speaker at Materials Summit 2020 Conference in London (certificate offered)</li></ul>
2020	<ul style="list-style-type: none"><li>• Winning the scholarship for an Engineering Doctorate (Eng.D) project at the University of Twente, NL</li></ul>
2018	<ul style="list-style-type: none"><li>• Award from the Iranian Ministry of Science as a talented nano-based researcher</li></ul>

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## - TEAM CONTRIBUTION

- Teaching Advanced Thermodynamics to master students at Razi University
- Supervising master students at the University of Twente and defining their theses
- PPT presentation to report the progress of project.

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## - LANGUAGE PROFICIENCY

English: fluent (IELTS: 7) , Dutch and Spanish: elementary

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#### - SELECTED PUBLICATIONS ( [Google Scholar](#) link)

[1]. Sadeghi, G., Mehrali, M., Shahi, M., Brem, G., & Mahmoudi, A. (2022). Experimental analysis of shape-stabilized PCM applied to a direct-absorption evacuated tube solar collector exploiting sodium acetate trihydrate and graphite. **Energy Conversion and Management**, 269. <https://doi.org/10.1016/j.enconman.2022.116176>.

[2]. Sadeghi, G., Mehrali, M., Shahi, M., Brem, G., & Mahmoudi, A. (2022). Progress of experimental studies on compact integrated collector-storage retrofits adopting phase change materials. **Solar Energy**, 237, 62-95, <https://doi.org/10.1016/j.solener.2022.03.070>.

[3]. Sadeghi, G. (2022). Energy Storage on Demand: Thermal Energy Storage Development, Materials, Design, and Integration Challenges. **Energy Storage Materials**, 46, <https://doi.org/10.1016/j.ensm.2022.01.017>.

[4]. Sadeghi, G., & Nazari, S. (2021). Retrofitting a thermoelectric-based solar still integrated with an evacuated tube collector utilizing an antibacterial-magnetic hybrid nanofluid. **Desalination**, 500, [114871]. <https://doi.org/10.1016/j.desal.2020.114871>.

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#### - SKILLS & SOFTWARE

Proficient in designing experimental setups, materials synthesis, data processing, academic writing, and being able to work with 3D printers, Python, SOLIDWORKS, LabVIEW, Origin

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#### HOBIES

Walking, gym, playing guitar, playing frisbee, music.

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#### REFERENCES

- Prof. Bert Hamelers (Full Professor of Environmental Technology at Wageningen University & Research)  
Email: [bert.hamelers@wur.nl](mailto:bert.hamelers@wur.nl).
- Dr. Slawomir Porada (Assistant Professor of Polymer and Carbon Materials at Wroclaw University of Science & Technology)  
Email: [Slawomir.porada@wetsus.nl](mailto:Slawomir.porada@wetsus.nl)
- Prof. Mehran Ameri (Full Professor of Mechanical Engineering at University of Kerman)  
Email: [Ameri\\_m@uk.ac.ir](mailto:Ameri_m@uk.ac.ir).
- Dr. Mohammad Mehrali (Assistant Professor of Thermal Engineering at the University of Twente)  
Email: [m.mehrali@utwente.nl](mailto:m.mehrali@utwente.nl).