

Research Fellow on Liquid Hydrogen Safety

The Department of Mechanical Engineering at the University of Melbourne is seeking a postdoctoral researcher for a liquid hydrogen safety project. The project is funded by the Australian Renewable Energy Agency to investigate liquid hydrogen release to ambient air during leak incidents and emergency venting. At a deep cryogenic temperature (-253°C), liquid hydrogen can condense all air components which considerably increases the fire risk.

The project will design and build a cryogenic nozzle and investigate condensation of hydrogen/air mixtures. The candidate will also investigate cryogenic hydrogen release behaviors in an existing flow chamber using optical diagnostics and complementary tools. The experiments will be completed with theoretical and 1-D model simulations for development of quantitative risk assessment codes.

The candidate should have a PhD in Mechanical Engineering, Chemical Engineering or equivalent discipline with a strong background in experimental thermo-fluids research. Excellent written and verbal communication skills are required. Experience with cryogenics and optical diagnostics is preferred.

Interested applicants to send CV to Yi Yang yi.yang@unimelb.edu.au.

Salary: *\$110,267-\$118,359 Australian Dollars + 17% superannuation.*

Position duration: *1 year renewable.*

Application close: *31 May 2024.*