



## Surfaces for atmospheric water capture

### Postdoctoral Position

(Full- or part-time, fixed term for 1 year, with possible extension of 6 months)

**Description:** Available immediately to join a large interdisciplinary project “Advanced Capture of Water from the Atmosphere” (ACWA, <http://tiny.cc/bjan5y>), led by Prof Martijn de Sterke (Physics) and A/Prof Chiara Neto (Chemistry) at the University of Sydney. The project is funded by a seed grant of the University of Sydney Nano Institute to explore and design devices for atmospheric water capture.

You will work under the direct mentorship of A/Prof Chiara Neto in the Nano Interfaces Group in the School of Chemistry (<http://tiny.cc/7abn5y>), together with PhD students and researchers. The research is primarily experimental and requires advanced surface fabrication and modification, device prototyping, and data collection. Job responsibilities include:

- Characterise optical, heat transfer and surface properties of the cooling surfaces
- Build, test and improve water capture prototypes
- Test and improve water capture efficiency on prototypes
- Test and improve materials/coatings to be used for passive water capture from air
- Conduct literature review on technologies and methods for extracting water from air
- Work in close collaboration with other ACWA team members

**Eligibility:** Candidates should have a PhD degree in Chemical or Mechanical engineering with knowledge in at least one of these areas: surface science, heat transfer and optical properties of materials. Candidates with doctoral degrees in Environmental, Electrical, or Civil Engineering with experience in prototyping will also be considered. **Essential qualifications and skills are:** in depth experience in at least one of the fields mentioned above; experience building real-world prototypes; excellent skills in computer-aided design and drafting software applications e.g. AutoCAD or SolidWorks; a demonstrated ability to independently plan and conduct high quality research; a high degree of independence and motivation; a strong track record in research publication; excellent written and verbal communication skills; good teamwork. **Desirable qualifications include:** experience in working with lab-based and field experiments for water or energy engineering.

**Salary:** The salary is AUD \$94,628 per annum, and the contract may be extended a total of 18 months, subject to satisfactory progress. Review of applications starts May 30<sup>th</sup>, 2019, and continues until the position is filled.

**Application guide:** To apply please send a brief cover letter and a CV containing full contact details of two-three academic referees. For information concerning the research project and the position please contact:

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<https://sydney.edu.au/nano/grand-challenges/advanced-capture-of-water-atmosphere.html>