

Curriculum vitae

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- Eliodoro Chiavazzo is an expert in computational modelling of materials and processes for energy applications, with special focus on energy storage technologies, solar fuel generation and solar driven desalination technologies.
- Eliodoro Chiavazzo is Full Professor at Politecnico di Torino (Italy), where he is the Director of the SMaLL laboratory (www.polito.it/small). He is the lecturer in charge of the following courses (master level): i) *Energy Storage*; ii) *Fundamentals of Energy Conversion, Transport and Storage*; iii) *Advanced Engineering Thermodynamics*. He belongs to the Energetics PhD board.
- Eliodoro Chiavazzo is (and has been) Principal Investigator (and Steering Committee Member) in projects both at European and national level. Selected examples include: i) a FETopen project entitled "SOFIA - Soap Film based Artificial Photosynthesis" aiming at introducing a radically new technology for solar fuel generation. ii) "NANOINFORMATIX - Development and Implementation of a Sustainable Modelling Platform for NanoInformatics" aiming at developing comprehensive computational models for evaluating the (eco)-toxicological impact and sustainability of nanostructured materials including those for energy applications iii) "BIG-MAP - Battery Interface Genome - Materials Acceleration Platform" where an AI-aided platform for discovery of sustainable battery chemistries and technologies is to be developed; iv) Heat Transfer and Thermal Energy Storage Enhancement by Foams and Nanoparticles (PRIN-MIUR).
- Eliodoro Chiavazzo serves as Reviewer for scientific prestigious programs such as: i) Office of Science Early Career Research Program (<http://science.energy.gov/early-career/>) at the USA Department of Energy – DOE; the Deutsche Forschungsgemeinschaft - German Research Foundation; Fulbright program; Programma per Giovani Ricercatori “Rita Levi Montalcini”. He serves as Editorial Board Member of two international Journals: Scientific Reports (Springer-Nature) and Entropy (MDPI).

Selected publications (in the last three years):

1. Chiavazzo, E. (2023). *Looking for massive carbon capture*. **Nature Sustain.** 1-2.
2. Falciani, G. *et al.* (2023). *A novel concept of photosynthetic soft membranes: a numerical study*. **Nanosc. Res. Lett.**, 18(1), 9.
3. Aghemo, L. *et al.* (2022). *Comparison of key performance indicators of sorbent materials for thermal energy storage with an economic focus*. **Energy Storage Materials**.
4. Alberghini *et al.* (2020). *Multistage and passive cooling process driven by salinity difference*. **Science Adv.** (in press);
5. Chiavazzo *et al.* (2018). *Passive solar high-yield seawater desalination by modular and low-cost distillation*. **Nature Sustain.**, vol. 1, p. 763-772;
6. Falciani *et al.* (2020). *A multi-scale perspective of gas transport through soap-film membranes*. **Molecular Systems Design & Engineering** (in press);
7. Morciano *et al.* (2020). *Sustainable freshwater production using passive membrane distillation and waste heat recovery from portable generator sets*. **App. Energy**, VOL. 258, p. 114086;
8. Fasano *et al.* (2019). *Atomistic modelling of water transport and adsorption mechanisms in silicoaluminophosphate for thermal energy storage*. **App. Thermal Engineering**, vol. 160 p. 114075;
9. Chiavazzo *et al.* (2017) *Intrinsic map dynamics exploration for uncharted effective free-energy landscapes*. **PNAS**, vol. 114 p. E5494-E5503;
10. Morciano *et al.* (2017). *Efficient steam generation by inexpensive narrow gap evaporation device for solar applications*. **Scientific Reports**, vol. 7.