**Master thesis topics supervised by Sabrina Sartori**

**Current projects:**

* Chemically intuited, large-scale screening of metal hydrides by machine learning techniques (collaboration with University of Crete)
* PV-modules in a marine environment (collaboration with a Norwegian company)

**Starting in June 2020**

* Hydrides (TiCrMn, TiCrMnFeV) for renewable large-scale hydrogen economy (Collaboration with an American company)
* Safety tests on Li-ion batteries (Collaboration with FFI)

**Available**

* Synthesis and characterization of dadolinium oxyhydride films for applications in superconductivity (collaboration with IFE)
* Hydrogen based storage systems for off shore wind (collaboration with a Norwegian company)
* The role of Mg in the hydrogen-absorbing La-Y-Ni-based compounds for renewable energy storage systems, synthesis and characterization (collaboration with a Chinese company)   
  - Mechanochemical processing vs. sorption properties of the La-Y-Ni-based compounds for renewable energy storage systems (collaboration with a Chinese company)

Other topics where energy storage is a component could be formulated according to the students´ interest.

**Example of past topics:**

* In Situ Operando SAXS and WAXS Characterization of the Anode Materials (a-P/C and FeSb2) for Rechargeable Sodium Ion Batteries
* Advanced Modelling of NiMH Batteries - Integrating Renewable Energy Sources into EV Charging Stations
* Wind-Driven Clouds - Utilizing wind energy in data centers
* Conductivity and Defects in Al-doped Li7La3Zr2O12 - A solid-state Li-ion conductor