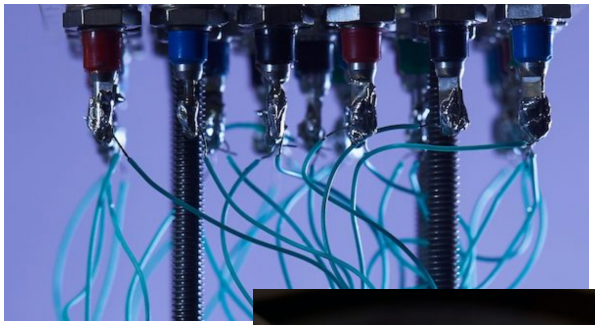
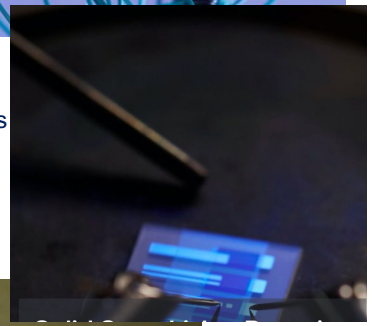
Technical Chemistry

Jennifer L.M. Rupp

Solid State Electrochemical Materials and Devices

Rupp team`s current research interests are on processing of ceramic and glass materials, solid state material design and tuning of structure-property relations for novel energy and information devices and operation schemes. This ranges from alternative energy storage via solid state batteries, solar-to-synthetic fuel conversion or novel types of neuromorphic memories and computing logic entities for data storage and transfer beyond transistors and new sensing functions to track chemicals in the environment. Here, her team goes the whole way from material design, novel processing techniques to make ceramics, cermets or glassy-type ceramic structures up to novel device prototypes, their operation and characteristics.





Sustainable Energy
Batteries
Glucose Fuel Cells for Human Implants

Information/Computation Chips
Neuromorphic Computing Chemistry
Sensing architectures