**Link:** <https://solar-power-tech.com/e-posters/__trashed-50/>

**Abstract**

The global and economic population growth impels the increase of energy consumption. Resources formed over hundreds of millions of years have been burned in a relative short time, with substantial environmental impact.1,2 To reduce the use of fossil fuels, an environmentally friendly route to generate and store electricity from renewable sources is thus mandatory to fulfill the world needs in a sustainable way.1,3,4 Redox flow batteries (RFBs) constitute an emerging and highly promising best storage technologies for electrical energy obtained from renewable sources like wind power and solar energy.3

A practical and modern application of storage of chemical energy with, an aqueous organometallic and an all-organic RFB with sulfonated tryptanthrin, working at neutral pH and with long-term stability, was developed.

The single cell tests showed reproducible charge-discharge cycles, with high coulombic, voltaic and energetic efficiencies stabilized over several working cycles.

The work paves the way to the promising development of new tryptanthrin based structures for environmentally friendly aqueous all-organic RFBs working at neutral pH values.