BioPower: A Biochemical Redox-Flow Battery

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Climate change drives governments around the world to switch from carbon-based energy to renewable sources. Wind and solar power are very popular, yet storing enough energy for night or times without wind remains a challenge. A convenient solution are batteries. Most batteries are metal based, yet the required resources are not endless, they are unevenly distributed around the globe, often associated with environmental degradation and their disposal is not always without risks. Therefore, batteries which do not use toxic chemicals, esp. metals or metal salts are of great interest. Such batteries would be much simpler and safer to produce and to dispose, they would be less expensive, non-flammable and ideally non-toxic, they would be capable to store energy loss-free. Currently there are no such batteries commercially available, but they are in focus of research groups worldwide.

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