Fundamentals and applications of electrochemistry

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Two centuries ago, here on Lake Como, electrochemistry became a science, being the first system capable of producing a continuous electric current, and thereby making possible the 19th. century developments in electromagnetism. It is therefore the source of all our electrical engineering and technology. The electrochemical series will be presented, and the concept of redox reactions. Treatment of over potentials and electro catalysis will lead to a consideration of electrochemical applications in metallurgy, then in relation to energy technology, batteries, fuel cells and electrochemical photovoltaics.