

- which is incorporated an ionisable salt LiX, having a higher decomposition voltage than MA_xO_y , where X is an acid radical.
2. An electrochemical cell as claimed in claim 1 wherein the alkali metal is lithium.
 3. An electrochemical cell as claimed in claim 1 wherein the non-metallic element is sulphur, nitrogen, carbon or phosphorus.
 4. An electrochemical cell as claimed in claim 1 wherein the acid radical X is one or more of the following:
 $AlCl_4$, BF_4 , PF_6 , ClO_4 , CF_3SO_3 , $N(CF_3SO_2)_2$.
 5. An electrochemical cell as claimed in claim 1 wherein the alkali metal M is lithium, and the element A is sulphur.
 6. An electrochemical cell as claimed in claim 1 wherein the compound MA_xO_y is lithium dithionite.
 7. An electrochemical cell as claimed in claim 1 wherein the compound MA_xO_y is lithium sulphite.
 8. An electrochemical cell as claimed in claim 1 wherein the compound MA_xO_y is sodium dithionite.
 9. An electrochemical cell as claimed in claim 1 wherein the solid polymer is poly(4-vinylpyridine), less than 5% cross linked.
 10. An electrochemical cell as claimed in claim 1 wherein the solid polymer is poly(vinylpyrrolidone).
 11. An electrochemical cell as claimed in claim 1 wherein the solid polymer is thermally restructured poly(acrylonitrile)-(CH=C—CN)—.
 12. An electrochemical cell as claimed in claim 1 wherein the cathode active material is lithium cobalt oxide $LiCoO_2$ or a mixed nickel cobalt oxide $LiNi_{0.85}Co_{0.15}O_2$.
 13. An electrochemical cell as claimed in claim 1 wherein the cathode active material is lithium sulphite and a transition metal oxide such as VO_2 or M_xO_x where $2 > x > 1$.
 14. An electrochemical cell as claimed in claim 1 when used as a primary or rechargeable battery or a supercapacitor.

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