

A sodium ion battery

Abstract

The present invention provides a sodium ion battery. The sodium ion battery comprises a cathode electrode, an anode electrode, and an electrolyte, characterized in that: both the cathode electrode and anode electrode are selected from phosphate compounds with sodium ion fast conductivity structures; The cathode electrode is selected from at least one of $\text{Na}_4\text{Fe}_3(\text{PO}_4)_2(\text{P}_2\text{O}_7)$, $\text{Na}_4\text{Fe}_{3-x}\text{Mn}_x(\text{PO}_4)_2(\text{P}_2\text{O}_7)$, $\text{Na}_4\text{Mn}_3(\text{PO}_4)_2(\text{P}_2\text{O}_7)$ and $\text{Na}_3\text{MnTi}(\text{PO}_4)_3$, among them, $0 < x < 3$; And the anode electrode is selected from at least one of $\text{NaTi}_2(\text{PO}_4)_3$, $\text{Na}_3\text{Fe}_2(\text{PO}_4)_3$, $\text{Na}_3\text{MnTi}(\text{PO}_4)_3$.

Figure 1