

ABSTRACT

The present invention provides a separator having a low pore-closing temperature, including a base membrane containing an unbranched polyolefin and a long-branched polyolefin, and a coating formed on at least one surface of the base membrane and containing a heat-sensitive high molecular material. By the aforesaid solution, the present invention can substantially lower the pore-closing response time and pore-closing temperature of the separator, thus improving the safety performance of lithium ion batteries. In addition, the present invention further provides a method for preparing the aforesaid separator having a low pore-closing temperature and a battery containing the aforesaid separator having a low pore-closing temperature.

(FIG. 1)