

ABSTRACT

The present invention discloses an energy-saving electric steaming method and device and an electric heating plate used therein. The energy-saving electric steaming method includes the steps of: immersing a lower part of an electric heating plate in the water within the electric steaming device, while extending an upper part of the electric heating plate from the surface of the water; heating the water within the electric steaming device by the lower part of the electric heating plate, to generate normal saturated steam; heating the normal saturated steam by an upper part of the electric heating plate, to generate the overheated steam; when the water is boiling, alternately heating the normal saturated steam and the boiling water by a middle part and/or the upper part of the electric heating plate during the boiling of the water; and heating stuffs within the electric steaming device by the normal saturated steam and the overheated steam. Due to fluctuating of the water surface caused by the boiling of the water, the middle and/or upper part of the electric heating plate alternately heats the normal saturated steam and the boiling water, and the heat transfer state of the middle and/or upper part of the electric heating plate is close to the critical point between the nucleate boiling and transition boiling, resulting in the fast heat transfer and high heat exchange efficiency.

[Fig. 1]