

The present disclosure discloses an open metal-air fuel cell system capable of uninterruptible supply power, which relates to the field of metal-air fuel cell stacks and comprises a sensing subsystem, a controller, a circulating filtration subsystem, an electrolyte solution tank and several open metal-air fuel cell units. Open metal-air fuel cell units are sequentially arranged within the electrolyte solution tank, and each open metal-air fuel cell unit is connected with each other in parallel. An air electrode of the open metal-air fuel cell unit has a trough structure, and the trough structure has a concave surface upwards. The sensing subsystem is arranged within the electrolyte tank. The electrolyte solution tank is connected with a circulating filtration subsystem. The controller is used for controlling a circulating flow of the circulating filtration subsystem according to electrolyte solution temperature information collected by the sensing subsystem. The present disclosure eliminates the need of the sealing structure, and enables the metal electrode replacement of the cell under uninterruptible power supply, thus greatly simplifying the maintenance of metal-air fuel cells.

(Fig.4)