

ABSTRACT

A conductive porous material (1) includes a matrix (2) having a sintered compact of an oxide (26), a communicating opening (3) formed in the matrix (2), having
5 a small diameter and being permeable to gas and impermeable to substance other than gas, and a conductive layer (4) provided on an internal wall of the communicating opening (3) and receiving a current to generate heat. As conductive material (1) is used, an organic substance adheres on the internal wall of communicating opening (3).
10 To address this, conductive layer (4) is caused to generate heat to decompose and thus remove the organic substance and thus prevent the communicating opening from clogging.