Integrated oxygen sensors based on Mg-doped SrTiO₃ fabricated by screen-printing - DTU Orbit (30/12/2018)

Integrated oxygen sensors based on Mg-doped SrTiO₃ fabricated by screen-printing
This paper describes the fabrication and testing of Mg-doped SrTiO₃ thick-film oxygen sensors with an integrated Pt heater. The results show that the sensor exhibits a P-o₂ dependence according to R proportional to p(o2)(-1/4) in the considered P-o₂ range(2.5 x 10(-5) bar < P-o₂ < 0.21 bar) and a response and recovery time of 1-2 and 50 s, respectively. A temperature of 600 degrees C could be reached by a relative low power consumption of the Pt heater. (C) 2000 Elsevier Science S.A. All rights reserved.

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