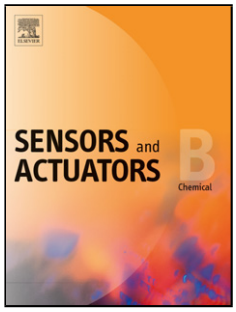

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A novel limiting current oxygen sensor prepared by slurry spin coating

Cheng Wang[#], Tao Liu[#,*], Xiangnan Wang, Jingyun Li, Hongbin Jin, Jingkun Yu, Maoyi Yi, Yangcheng Mo

School of Metallurgy, Northeastern University, Shenyang 110819, China

Research Highlights

1. A limiting current oxygen sensor with dense diffusion barrier has been successfully fabricated by slurry spin coating method.

2. The optimum process parameters of slurry spin coating are: ethyl cellulose content of 5 wt%, coating cycle number of 7, and sintering temperature of 1400 °C.

3. The oxygen sensor exhibits excellent performances, and has great potential in automobile industry applications.

Abstract:

$La_{0.7}Sr_{0.3}MnO_3$ (LSM) and $Y_{0.08}Zr_{0.92}O_2$ (8YSZ) were synthesized by citric-nitrate and co-precipitation methods, respectively. Crystal structure and conductivity of the samples were characterized by X-ray diffraction (XRD) and DC van der Pauw measurements, respectively. A

[#] These authors contributed equally to this work.

[*]Corresponding author.

E-mail address: liut@smm.neu.edu.cn (T. Liu).