平成19年度　第1回　VBL講演会報告

演　　題：　Interconnector Materials for the Planar Solid Oxide Fuel Cell (SOFC) Application

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日　　時：　平成19年7月18日（水）　　10:30～12:00

講演会場：　富山大学　工学部　大会議室

概　　要：

This review concern the electrical properties and microstructure investigations of the oxide products formed on Fe-25 wt.-%Cr steel and on samples coated with electrical conducting thick films of $(La,Sr)CoO_3$, $(La,Ca)CrO_3$ or $(La,Sr)CrO_3$ deposited by screen printing. The experiments are performed in air, H_2/H_2O and CH_4/H_2O gas mixtures at 1023–1173 K with regard to their application as the SOFC metallic interconnect. The values of the in situ area specific resistance (ASR) measurements by dc two-probe technique for composite materials, exposed to air and H_2/H_2O gas mixture at 1073 K, are lower than the acceptable ASR level of 0.1 Ωcm^2 for the SOFC metallic interconnect material. The microstructure investigations by SEM-EDS and TEM-SAD methods and electrical resistance measurements by impedance spectroscopy revealed significant influence of the multilayer reaction products formation at the steel/coating interface on the electrical properties of the composite material for construction of the SOFC metallic interconnector

教職員および学生約30名の参加がありました。