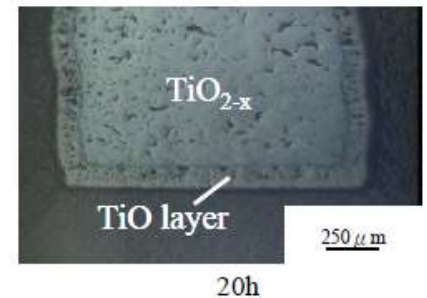
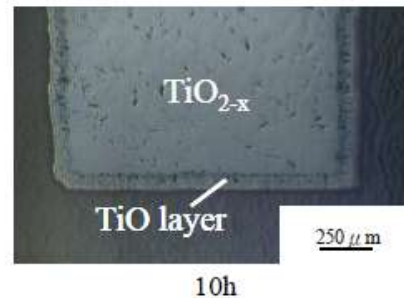
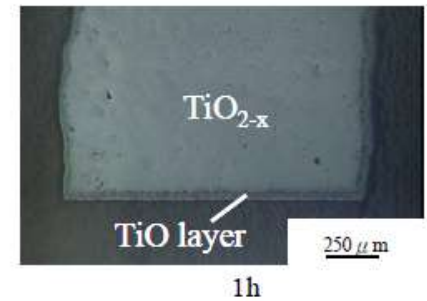
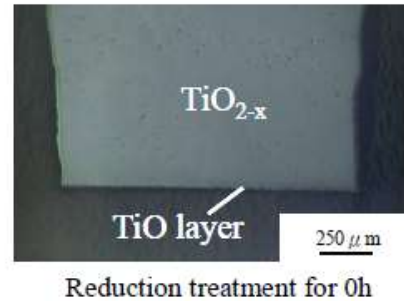
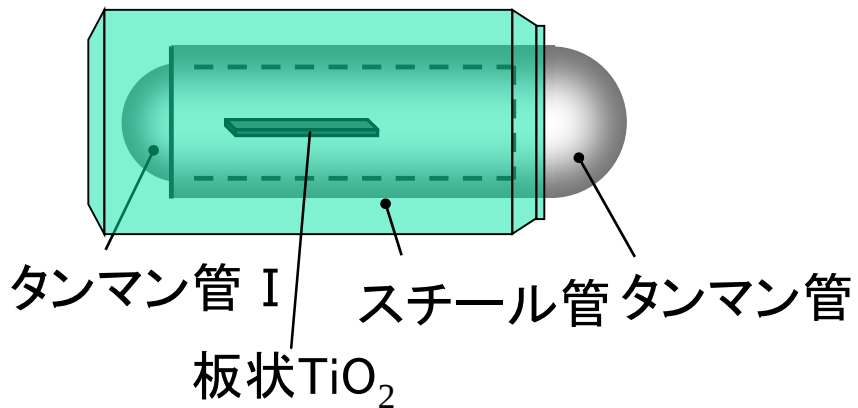


■木炭粉末を用いたTiO₂の還元処理

■木炭粉末を用いた還元反応によるTiO_{2-x}熱電材料の開発

木炭粉末を用いた 還元処理概略図

タンマン管に木炭粉末(直径1.4mm
以下)を詰め込む



成果: ●簡便かつ安全な酸化物の還元処理プロセスの開発
●TiO_{2-x}の不定比に及ぼすプロセス条件の影響の解明

1) Yun Lu, Katsuhiro Sagara, Liang Hao, Ziwu Ji, Hiroyuki Yoshida: Fabrication of non-stoichiometric titanium dioxide by spark plasma sintering and its thermoelectric properties, Materials Transactions (IF0.6), 53 (2012), 1208-1211.

2) Yun Lu, Mitsuji Hirohashi, Kenkichi Sato: Thermoelectric properties of non-stoichiometric titanium dioxide TiO_{2-x} fabricated by reduction treatment using carbon powder, Materials Transactions (IF0.6), 47 (2006), 1449-1452.