

**16-007 Microscopic characterization OF ZrO<sub>2</sub> doped by addition OF YNbO<sub>4</sub> sintered in air**

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Zirconia compositions with 14.5, 16 and 17.5 mol% of YO<sub>1.5</sub> and NbO<sub>2.5</sub> were prepared applying 2 cycles of mixing and milling in planetary ball mill, during 5 hours alternating with calcination at 1000 oC. The analyses were conducted on this new material, for their application as TBC's. The ceramics, sintering in air at 1550 oC were polished and thermal etched at 1450 oC during 10 minutes. The scanning electron microscopy and analysis by EDS showed the zirconia's grains revealed and its compositions close to equimolarity and a colony of small m-YNbO<sub>4</sub> grains.