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**Electrochromic properties of mixed oxides based on titanium and niobium for  
smart window applications**

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**ABSTRACT**

Titanium niobium mixed oxide films have been deposited by reactive magnetron serial co-sputtering. After post annealing at 650 °C in air, a monoclinic  $\text{TiNb}_2\text{O}_7$  phase was achieved. Lithium intercalation properties were determined and cathodic switching behavior has been demonstrated for this material. Maximum switching of the integral visual transmittance of 16.8 % has been determined for this sample with a thickness of 156 nm.

**KEYWORDS**

Titanium niobate (TNO);  $\text{TiNb}_2\text{O}_7$ ; Electrochromics; Smart window; Co-sputtering

**1 Introduction**

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