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
Electrochromism of Sol-gel Derived Niobium Oxide Films

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Abstract: Niobium oxide films are promising cathodic electrochromics that in many aspects can compete with the more frequently studied WO_3 films. The films reported herein were prepared using the sol-gel route from a NbCl_5 precursor. The electrochromic properties were pronounced for crystalline films that are heat-treated at 500°C and exhibited transmittance changes between coloured and bleached states of 60 % in the UV and 80 % in the VIS-NIR regions. Improved bleaching and more reversible electrochromism of thick niobium oxide films ($d > 250$ nm) were obtained by lithiation.

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