

Abstract Submitted  
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**Wet-chemistry synthesis and dielectric properties of pure and Rb and V doped  $\text{Cs}_2\text{Nb}_4\text{O}_{11}$** <sup>1</sup> JIANJUN LIU, Department of Physics, University of Nebraska at Omaha, ROBERT SMITH, Department of Chemistry, University of Nebraska at Omaha, WAI-NING MEI, Department of Physics, University of Nebraska at Omaha —  $\text{Cs}_2\text{Nb}_4\text{O}_{11}$  (CNO) is an antiferroelectric compound whose single crystal structure and antiferroelectric properties have been recently reported [1]. It has a space group of Pnna and a phase transition temperature at 165 °C. In this study we synthesized CNO powdered samples, both pure and doped with rubidium and vanadium, by using a wet-chemistry method. Dielectric measurements showed that the phase transition temperature shifted with the doping. We analyzed the mechanism of this antiferroelectric phase transition based on the observed results. [1] Robert W. Smith, Chunhua Hu, Jianjun Liu, Wai-Ning Mei, Kuan-Jiuh Lin, J. Solid State Chem. 180 (2007) 1193-1197.

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