

Y-Gr, Mo, W

1966

YCrO<sub>3</sub>  
 MnO<sub>2</sub>  
 (M-  
 P-3 M)

Infrared absorption spectra of the chromates of rare earth elements. V. T. Matveichuk, A. V. Shevchenko, and N. V. Skripchenko. *Izv. Akad. Nauk SSSR, Neorgan. Materialy* 2(3), 514-16(1966)(Russ). The ir spectra (4000-400 cm.<sup>-1</sup>) were investigated of the compds. MCrO<sub>3</sub> (M = La, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Y, Ho, Er, Tu, and Yb). The spectra of all chromates of the rare earth elements exhibit 2 intense bands in the region 700-400 cm.<sup>-1</sup>. The band at 600 cm.<sup>-1</sup> corresponds to the stretching vibration of the Cr-O bond and is the same in all compds. The 2nd band, at 480-430 cm.<sup>-1</sup>, is a singlet in the chromates of the Ce subgroup, and splits into a doublet, triplet, and quartet in the Y subgroup. The splitting is caused by the perturbation of the symmetry of the lattice, which increases from La to Lu. The frequency of the 2nd band can be linearly correlated with the ionic radii of the rare earth elements, and was assigned as a M-O-Cr stretching vibration. D. Papousek

C.A. 1966. 65.5  
 6519a

SmWO<sub>6</sub>; YWO<sub>6</sub>; BiWO<sub>6</sub>; (V<sub>2</sub>) 1973  
LaMoO<sub>6</sub>; NdMoO<sub>6</sub>; BiMoO<sub>6</sub> VIII 5837  
Bode J.H.G., Krijt H.R., Lacey M.A.J.

T., Blasse G.,

J. Solid. State Chem., 1973, 8, N2,  
114-119 (and.)

Vibrational spectra of com-  
pounds LnMoO<sub>6</sub> and Ln<sub>2</sub>WO<sub>6</sub>.

InChim, 1974, 75209 10 10