

HfO<sub>2</sub>

1665 HfO<sub>2</sub> 1961  
Brewer L., Rosenblatt G.M.

Xa<sup>im</sup> Chem. Rev., 1961, 61, p. 257

5 HfO<sub>2</sub> (203)

1964

VII-1065

HfO<sub>2</sub>  
VO<sub>2</sub>  
NbO<sub>2</sub>  
TaO<sub>2</sub>

Mean amplitudes of vibration and Bastiansen-Morino shrinkage effect in some oxides of groups IVB and VB. G. Nagarajan (Oklahoma State Univ., Stillwater). *Indian J. Pure Appl. Phys.* 2(11), 343-5(1964)(Eng). The mean amplitudes of vibration for Hf, V, Nb, and Ta dioxides possessing a linear sym. structure were calcd. by Cyvin's method (CA 54, 5235d) at 0, 298, and 500°K. The Bastiansen-Morino shrinkages of the chem. bonds for these mols. were also calcd. The mean amplitudes of vibration for the bonded as well as nonbonded distances are very close for the oxides of group VB. The shrinkage effects decrease slightly from lower to higher members of group VB, though there is no significant change in the mean amplitudes of vibration for oxides of the same group.

D. H. De Voe

4465

C.A. 1965.62.9  
993/c

7

HfO<sub>2</sub>

ZrO<sub>2</sub>

Conlon G, Boyle W.P. [1965]

J Chem Phys. 42, 4315 (1965)

Crystallographic HfO<sub>2</sub> &  
ZrO<sub>2</sub> ~~is~~

on ZrO<sub>2</sub>

1973

$HfO_2$

спектр

$\nu$

Каминский Б.Т. и др.,  
Укр. хим. журн., 1973,  
XXIII, 39, 939-940.

(см.  $TiO$ ; III)

HfO<sub>2</sub>

1973

Kaminskii B.T.

Plygunov A.S. et al.

Ukr. Khim. Zh. 1973, 39(9)

946-7 (Russ).

(Ti)

(cm TiO<sub>2</sub> III)

HfO<sub>2</sub>

x 4-4795

1974.

Rauch E. G.

Rokermann R. F.

(7)

"J. Chem. Phys."

1974, 60, N 4,

1396-1400

4 0422.8862

TE, Ph, Ch

HfO<sub>2</sub> 30065 02

квадрупольное  
взаимодействие

1974

3-4587

Yeshurun Y. Arad B.

The electric quadrupole interaction in  
ZrO<sub>2</sub> and ████ HfO<sub>2</sub>.

"J. Phys. C: Solid State Phys.", 1974, 7, N 2,  
430-438

(англ.)

0092 ВИНИТИ

066 076

084

ВИНИТИ

Нф02  
1104

1976

Чаркин О.П.

Хайт

Итоги науки (и техники).  
Серия: "Строение молекул и  
химическая связь"  
Том 4, ВИНТИ, М., 1976

3

Нф02 (газ)

$\text{HfO}_2$  (k)

1982

Krebs M. A., Condrate  
R. A., et al.

$\text{Vi}$ ;

J. Am. Ceram. Soc. 1982,  
65 (9), C144-C145.

(cer.  $\text{ZrO}_2$  (k) ; III)

HfO<sub>2</sub>

1991

Gubanov V. A.,  
Medvedeva N. I.,

Physica B (Amsterdam)

vol. n. 1991, 172 (1-2), 285-8.

(cur. ● TiO<sub>2</sub>; III)

Hf O<sub>2</sub>

1997

128: 8339z Raman spectrum of <sup>18</sup>O-labeled hafnia. Kim, Byung-Kook; Hamaguchi, Hiro-o (Division of Ceramics, Korea Institute of Science and Technology, Seoul, 130-650 S. Korea). *Mater. Res. Bull.* 1997, 32(10), 1367-1370 (Eng), Elsevier. The Raman spectrum of <sup>18</sup>O-labeled monoclinic Hafnia (HfO<sub>2</sub>) is reported. All of the eighteen Raman bands predicted from a group theor. anal. are obsd. The six Raman bands at 300-130 cm<sup>-1</sup> have little dependence on the <sup>18</sup>O content, whereas the remaining twelve Raman bands shift to low wavenumbers by the <sup>18</sup>O-substitution. The former six are assigned to the Hf-Hf vibrations and the latter twelve are assigned to the Hf-O or O-O vibrations.

(CKP)

C. A. 1998, 128, N1