

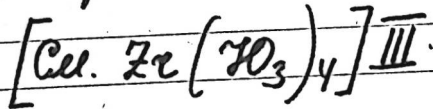
7r-N

TPC

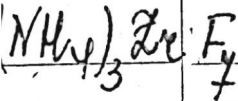
$(\text{NH}_4)_2 [\text{Zr}(\text{VO}_3)_6]$ Deabriges J. 1968
Bull. Soc. Chim. Fr.,
N10, 4005

ИК-спектр

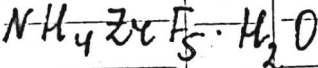
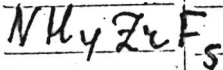
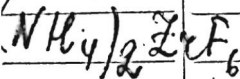
ИК-спектроскопическое
исследование водатов
Zr и Hf



1968



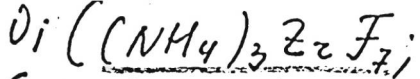
32952y Infrared studies of some fluorozirconates. Smith, P. W.; Stoessiger, R.; Turnbull, A. G. (Univ. Tasmania, Hobart, Aust.). *J. Chem. Soc. A* 1968, (12), 3013-15 (Eng). The ir spectra and assignments are reported for $(\text{NH}_4)_3\text{ZrF}_7$, $(\text{NH}_4)_2\text{ZrF}_6$, NH_4ZrF_5 , $\text{NH}_4\text{ZrF}_5 \cdot \text{H}_2\text{O}$, K_2ZrF_6 , K_2HfF_6 , and Cs_2ZrF_6 , for the 4000-200 cm^{-1} region. The Zr-F vibrations are exhibited as broad-band systems because of the low-site symmetries of the polyhedral anions. For the NH_4 salts the spectra indicate the presence of weak H-bonding. The spectrum of the hydrate is consistent with the presence of noncoordinated water, H-bonded in the crystal lattice. RCGF



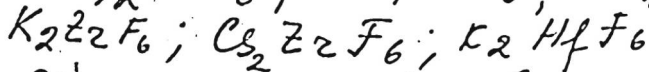
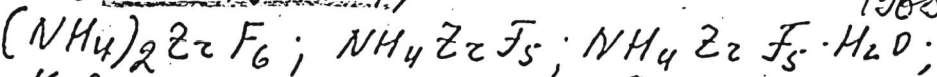
+2

C.A. 1969. 40. 8

⊗



VII 3739
1968



Stoessiger R., Turnbull A. G.,

J. Chem. Soc., 1968, A, N12, 2013-15

Infrared studies of some fluo-
zirconates

PX 1969

115240

40

VII 28

1968

$\text{Fe}(\text{NO}_3)_4$, FeCl_4 (Di)

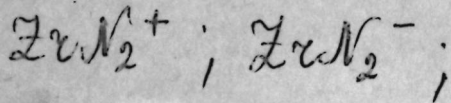
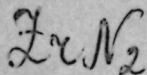
Weidlein J., Müller U.,
Dehnick K.

Spectrochim. acta, 1968, A 24,
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сеть опр.

1973



Vinogradova S.M. Borod'ko Yu.G.
Zh.Fiz.Khim. 1973, 47(4), 789-93.

Зелен. сульфид.
пакет

(см. TiN_2 ; III)



omnueu 7270

1978

u.k.

Delgado S., et al.

Рамаан
спект
DiInorg. Nucl. Chem. Lett
1978, 14, 505-510.

1978

$N_2 H_6 Zr F_6$

Khavronov Yu. Ya.
et al

Zh. Fiz. Khim. 1978,
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coll. Jif-III

КЭ, 70
СССР-Х

$(\text{NH}_4)_2\text{ZrF}_6$ [Om. 21471]

1985

Rodriguez A.M., Marti-
nez J.A., et al.,

между-
язычное
различие,
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J. Chem. Phys., 1985,
82, N.3, 1271-1274.

$ZrO^+ \cdot N_2$

(OM 38796)

1997

examples.
Xapaxm
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Bellert D., Butcherzi T
et al.,
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1997, 276, 242-49

Каммерер
Z-NH₃

1998

Tsipius, Athanassios C.,

стр-ра,
таблицы,
теорет.
рассм.

J. Chem. Soc. Faraday
Trans. 1998, 94 (1),
11-24.

(Cu. Cu-● NH₃; III)

F: NZrO

P: 3

Em. 40113

1999

131:122373 Infrared Spectroscopic and Density Functional Theoretical Investigation of the Reaction Products of Laser-Ablated Zr, Hf, and Th At with Nitric Oxide. Kushto, Gary P.; Andrews, Lester (Department of Chemistry, University of Virginia, Charlottesville, VA, USA). J. Phys. C 103(25), 4836-4844 (English) 1999 Laser-ablated Zr, Hf, and Th atoms react with NO to form the bent NMO insertion products. These favorable reactions proceed on annealing to 21 The NMO mols. were characterized by isotopic substitution and M-O stretch modes at 844.2, 855.2, and 760.3 cm⁻¹ and M-N stretching modes at 673.3, and 697.3 cm⁻¹, resp. The increase in bond stretching frequencies from Z is due to relativistic contraction not found from Hf to Th. The BP86 fun and averaged relativistic effective potentials for Zr and Hf predict bent states and obsd. frequencies within 1-3% and the isotopic shifts within 2

C.A. 1999, 131