$\mathcal{F}_m - p$

1918

$In(O_2PF_2)_3$ Weidlein J.

(U.K. V_1) V 1 1969

Z. anorgan. und allgem. Chem., 358, №1-2, 13-20.

Получение свойства и кристаллическая структура $OTi(O_2PCl_2)_2$ $Fe(O_2PF_2)_3$ и $In(O_2PF_2)_3$.

[см. $OTi(O_2PCl_2)_2$] III

In-P (InP_x) (xc) 1975

InGa$_x$

85: 27018d Study of the character of vaporization of liquid phosphides, arsenides, and antimonides of indium and gallium according to a time scan of the emission spectra. Melekh, B. T.; Orlov, A. G.; Semenkovich, S. . . (USSR). *V sb., Termodinam. Svoistva Metal. Splavov* 197. . 87-90 (Russ). From *Ref. Zh., Metall.* 1976, Abstr. No. 3Avb. Title only translated.

хальгогенидов

InAs$_x$ (xc) InSb$_x$ (xc)

GaAs$_x$ (xc) GaSb$_x$ (xc)

+5

C.A. 1976. 85 N4.

InPS4

GaPS4

SbPS4

BiPS4

4 Б194. Колебательные спектры MPS_4 (M=In, Ga, Sb, Bi). Дьордяй В. С., Галаговец И. В., Перещ Е. Ю., Ворошилов Ю. В., Герасименко В. С., Сливка В. Ю. «Ж. неорган. химии», 1979, 24, № 11, 2886—2891

Проведен фактор-групповой анализ колебательного спектра $InPS_4$; получено число мод активных в ИК- и КР-спектрах, тип их симметрии и правила отбора. Изучена динамика решетки тиофосфата In путем исследования спектров КР в поляризованном свете. Отождествлены особенности в спектрах КРС, найдены величины LO—TO расщеплений полярных мод. Измерены КР- и ИК-спектры соединений MPS_4 (M=In, Ga, Sb, Bi) в неполяризованном свете; проведено сравнение этих колебательных спектров со спектром $InPS_4$. Резюме

колебат. спектр.

Ж. 1980, N4

$InPS_4$
$GaPS_4$
$SbPS_4$
$BiPS_4$

92: 49639d **Vibrational spectra of MPS_4 (M-indium, gallium, antimony, bismuth).** D'ordyai, V. S.; Galagovets, I. V.; Peresh, E. Yu.; Voroshilov, Yu. V.; Gerasimenko, V. S.; Slivka, V. Yu. (USSR). *Zh. Neorg. Khim.* 1979, 24(11), 2886–91 (Russ). Factor group anal. was carried out for the vibrational spectra of $InPS_4$; active modes in IR and Raman spectra were obtained along with symmetry types and selection rules. The lattice dynamics of $InPS_4$ were studied by polarized Raman spectroscopy. Features were identified in the Raman scattering spectra and values were found for LO-TO polarized mode splitting. The Raman and IR spectra were measured for $InPS_4$, $GaPS_4$, $SbPS_4$ and $BiPS_4$ in nonpolarized light and comparisons were made.

Ji

ИК., спектр КР!

(+3) ☒

C.A. 1980. 92, N6

$PCl_4^+InCl_4^-$

1981

Shamir J., et al.

J. Raman Spectrosc., 1981, 11, N3, 215–220.

(спектр колебан. рассеян.)

(см. $PCl_4^+AlCl_4^-$; III)

$InPBr_5$ 1986

Shamir J., Schneider S., et al.

J. Raman Spectrose., 1986, 17, N6, 463-466.

u.n.

(см. ● $BPBr_5$; III)

$In_5Py - In_3Py_4$ Dm. 34852 1990

Kolenbrander K.D.,
Mandich M.L.,

Do J. Chem. Phys. 1990,
92, N8, 4759 - 4767
Optical and near - infrared

Spectroscopy of neutral indium phosphide clusters

$PH_3 \cdot InH_3$ 1994

Chaillet Max,
Dargelos A., et al.
New J. Chem. 1994.
18, N6. c. 693-700.

сегнетоэлектрики, энергия связывания

(см. $NH_3 \cdot BH_3$; III)

In_2P_2 (ОМ 38689) 1997

126: 191187u **Geometries and energy separations of the electronic states of In_2P_2.** Feng, Ping Yi; Balasubramanian, K. (Department of Chemistry and Biochemistry, Arizona State University, Tempe, AZ 85287–1604 USA). *Chem. Phys. Lett.* **1997**, 264(3,4), 449–453 (Eng), Elsevier. Geometries and energy sepns. of several electronic states of In_2P_2 are computed using the relativistic complete active space multi–configuration SCF followed by multi–ref. singles+doubles CI (MRSDCI) computations in conjunction with relativistic effective potentials that included over a million configurations. The ^1A_g ground state with an equil. structure of a rhombus and several low–lying excited states are found with the same geometries.

структура и спектров, теор. расч.

C. A. 1997, 126, N 14

$InPO_4$
$InPO_2$

1997

129: 62022z **Vaporization of indium phosphates.** Lopatin, S. I.; Semenov, G. A.; Selevich, A. F. (Research Institute of Chemistry, St. Petersburg State University, St. Petersburg, Russia). *Russ. J. Gen. Chem.* **1997**, 67(11), 1678–1682 (Eng), MAIK Nauka/Interperiodica Publishing. Vaporization of $InPO_4$ and In polyphosphates was studied by high-temp. mass spectrometry. The mols. $InPO_3$ and $InPO_2$ were detected in the vapor for the 1st time. The std. heats of formation and atomization of these mols. at 298 K were calcd.: -717 ± 25 and 2021 ± 25 kJmol^{-1} for the former and -491 ± 30 and 1546 ± 30 kJmol^{-1} for the latter mol., resp.

Расчет энтальпии сублимации, p, $\Delta_f H^\circ_{298}$

CA 1998, 129, N5

In_2P
InP_2 и их ионы

39347

1998

128: 299787v **Electronic states and potential energy curves of In_2P, InP_2, In_2P^+, and InP_2^+.** Feng, Ping Yi; Balasubramanian, K. (Department of Chemistry and Biochemistry, Arizona State University, Tempe, AZ 85287–1604 USA). *Chem. Phys. Lett.* 1998, 284(5,6), 313–319 (Eng), Elsevier Science B.V.. Electronic states of InP_2, InP_2^+, In_2P, and In_2P^+ were studied by the complete active space multi–configuration SCF followed by multi–ref. singles+doubles CI (MRSDCI) computations. Potential energy curves, geometries, energy sepns., and the adiabatic ionization energies of these species were also detd. The authors compare their results with the exptl. spectra of Arnold and Neumark (Can. J. Phys. 72 (1994) 1322).

потенц. ф-ции, молекулы

CA 1998, 128, N24

In_3P_2
In_2P_3

Qm. 39328

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Ping Xi Feng,
Balasubramanian K.,

Электрон. состоян.

Chem. Phys. Lett.,
1998, 283, 167–173

Electronic states for the
In_3P_2 and In_2P_3 clusters.

Ynzl2 (Om. 40406) 1999

Ping Yi Feng and K. Balasub
ramanian,
геометрие J. Phys. Chem. A1999,
103, 9093 - 9099.
), properties
Spectroscopic

of Al_2I_2, $Al_2I_2^+$, and H_2I_2 -
and Comparison with their
Fa and In Analogues.

2000?

InxPx-
P: 3
131:235149 Electronic structure of indium phosphide clusters: anion photoelectron spectroscopy of InxPx- and Inx+1Px- (x = 1-13) clusters. As Knut R.; Taylor, Travis R.; Neumark, Daniel M. Department of Chemistry, University of California Berkeley, CA 94720, USA Chem. Phys. Lett., 308(5,6), 347-354 (English) Photoelectron spectra for In phosphide (InP) cluster anions comprised of up to

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27 atoms were measured at a photodetachment wavelength of 266 nm. are presented for cluster anions of both stoichiometric .and nonstoichiome compn. (InxPx-, Inx+1Px-; . x = 1-13). In3P3 exhibits .the lowest electron affinity (EA) of all the clusters studied, indicating a particularly stab neutral species.. . The EAs of the stoichiometric clusters are considerably than those of the corresponding nonstoichiometric clusters, suggesting th presence of closed-shell ground states for the neutral InxPx clusters. Remarkable agreement between the exptl. EAs and those derived from calcns quantum dots is found.

2000?

F: Inx+1Px-
P: 3
131:235149 Electronic structure of indium phosphide clusters: anion photoelectron spectroscopy of InxPx- and Inx+1Px- (x = 1-13) clusters. As Knut R.; Taylor, Travis R.; Neumark, Daniel M. Department of Chemistry, University of California Berkeley, CA 94720, USA Chem. Phys. Lett., 308(5,6), 347-354 (English) Photoelectron spectra for In phosphide (InP) cluster anions comprised of up to 27 atoms were measured at a photodetachment

wavelength of 266 nm. are presented for cluster anions of both stoichiometric and nonstoichiome compn. (InxPx-, Inx+1Px-; x = 1-13). In3P3 exhibits the lowest electron affinity (EA) of all the clusters studied, indicating a particularly stab neutral species. The EAs of the stoichiometric clusters are considerably than those of the corresponding nonstoichiometric clusters, suggesting th presence of closed-shell ground states for the neutral InxPx clusters. Remarkable agreement between the exptl. EAs and those derived from calcns quantum dots is found.

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Himmel, Hans-Jorg;
et al.,

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di, спектр J. Chem. Soc., Dalton
Trans. 2001, (5), 585-95.

(сл. Hn Al ● N Hn, III,

$(InP)_n$ $n=1,2,3$

2002

структ. и колебат. св-ва, теорет. расчет

Aurora Costales et al., J. Phys. Chem. 2002, B106, N 8, 1940–44.

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электрон. 117, N 19, 8644–8656
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