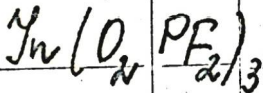


In - P

1918



Weidlein J.

Z. anorgan. und all-
gemein. Chem., 358, 11-2,
13-20.

(u.k.)
(v.i)

68/9
V-6/89

Получение, свойства и
реак- мейн/мол $\text{OTi}(\text{O}_2\text{PCl}_2)_2$
 $\text{Fe}(\text{O}_2\text{PF}_2)_3$ и $\text{In}(\text{O}_2\text{PF}_2)_3$.

[см. $\text{OTi}(\text{O}_2\text{PCl}_2)_2$] III

In-P (InP_x) (xc)

1975

InGa_x

85:27018d Study of the character of vaporization of liquid phosphides, arsenides, and antimonides of In, Ga, and gallium according to a time scan of the emission spectra. Melekh, B. T.; Orlov, A. G.; Semenkova, S. (USSR). V'sb., Termodinam. Slostva Metal. Splosh. 1975, 87-90 (Russ). From Ref. Zh., Metall. 1976, Abstr. No. 844b. Title only translated.

характер

испарения

InAs_x(xc) InSb_x(xc)

GaAs_x(xc) GaSb_x(xc)



(75)



C.A. 1976. 85 N4.

InPS_4

GaPS_4

SbPS_4

BiPS_4

Коллекция
спектр.

(+3) 18

2.1980, №4

19-16
4 Б194. Колебательные спектры MPS_4 ($\text{M}=\text{In, Ga, Sb, Bi}$). Дьордяй В. С., Галаговец И. В., Перещ Е. Ю., Ворошилов Ю. В., Герасименко В. С., Сливка В. Ю. «Ж. неорганической 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 симметрий и правила отбора. Изучена динамика решетки тиофосфата In путем исследования спектров КР в поляризованном свете. Отождествлены особенности в спектрах КРС, найдены величины $\text{LO} \rightarrow \text{TO}$ расщеплений полярных мод. Измерены КР- и ИК-спектры соединений MPS_4 ($\text{M}=\text{In, Ga, Sb, Bi}$) в неполяризованном свете; проведено сравнение этих колебательных спектров со спектром InPS_4 . Резюме

InPS₄
GaPS₄
SbPS₄
BiPS₄

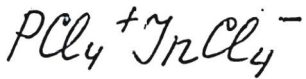
92: 49639d Vibrational spectra of MPS₄ (M-indium, gallium, antimony, bismuth). D'ordyai, V. S.; Galagovets, I. V.; Peresh, E. Yu.; Voroshilov, Yu. V.; Gerasimenko, V. S.; Slivka, V. Yu. (USSR). Zh. Neorg. Khim. 1979, 24(11), 2886-91 (Russ). Factor group anal. was carried out for the vibrational spectra of InPS₄; active modes in IR and Raman spectra were obtained along with symmetry types and selection rules. The lattice dynamics of InPS₄ 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 InPS₄, GaPS₄, SbPS₄ and BiPS₄ in nonpolarized light and comparisons were made.

Ji

UK, camp
K.P.

(13) ☒

C.A. 1980.92, 116



1981

Shamir Z., et al.

Z. Raman Spectrosc.,
1981, 11, N3, 215-220.

(спектр
комбин.
рассеян.)

(см. $\text{PCl}_4^+ \text{AlCl}_4^-$; III)

InPBz_5

1986

Shamir J., Schneider S.,
et al.

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

u.n.

(ex. ● BPBz₅; III)

In₅Py-IngPy [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

$\text{PH}_3 \cdot \text{InH}_3$

1994

сферический,
гексамер
связан
линейно

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

(сери. $\text{NH}_3 \cdot \text{BH}_3$; III)

In_2P_2

(CM 38689)

1997

структура
и стабильн.
исполств,
теор. расчет

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 $^1\text{A}_g$ ground state with an equil. structure of a rhombus and several low-lying excited states are found with the same geometries.

C. A. 1997, 126, N 14

1997

InPO₄InPO₃

✓ 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 InPO₄ and In polyphosphates was studied by high-temp. mass spectrometry. The mols. InPO₃ and InPO₂ 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.

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p, d, #298

CA 1998, 129, 55

In₂P

In₂ u ux uoxx

39347

1998

- ✓ 128: 299787v Electronic states and potential energy curves of In₂P, InP₂, In₂P⁺, and InP₂⁺. 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 InP₂, InP₂⁺, In₂P, and In₂P⁺ 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).

nomex.
p-III,
mop.
patrium

CA. 1998, 128, N24

In_3P_2

In_2P_3

Qm. 39328)

1998

Ping Xi Feng,
Nalasuvaranian L.,

микрон-
состав.

Chem. Phys. Lett.,
1998, 283, 167-173

Electronic sta-
 In_3P_2 and In_2P_3 tes for the
clusters.

Ir2P2

(Um. 40406)

1999

Ping Yi Feng and K. Balasub
ramanian,

geometrical

J. Phys.

Chem. A 1999,

103,

9093 - 9099.

spectroscopic



properties

~~of~~ Al_2P_2 , $Al_2P_2^+$, and $Al_2P_2^-$
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

27 atoms were measured at a photodetachment wavelength of 266 nm. are presented for cluster anions of both stoichiometric and nonstoichiometric compn. (In_xP_x^- , $\text{In}_{x+1}\text{P}_x^-$; $x = 1-13$). In_3P_3 exhibits the lowest electron affinity (EA) of all the clusters studied, indicating a particularly stable neutral species. The EAs of the stoichiometric clusters are considerably higher than those of the corresponding nonstoichiometric clusters, suggesting the presence of closed-shell ground states for the neutral In_xP_x clusters. Remarkable agreement between the experimental EAs and those derived from calculated 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 nonstoichiometric compn. (In_xP_x^- , $\text{In}_{x+1}\text{P}_x^-$; $x = 1-13$). In_3P_3 exhibits the lowest electron affinity (EA) of all the clusters studied, indicating a particularly stable neutral species. The EAs of the stoichiometric clusters are considerably higher than those of the corresponding nonstoichiometric clusters, suggesting the presence of closed-shell ground states for the neutral In_xP_x clusters. Remarkable agreement between the experimental EAs and those derived from calculated quantum dots is found.

Hm In PHN

2001

Himmel, Hans-Jörg;
et al.,

comp-pa,

Di, cnekmp g. Chem. Soc., Dalton
Trans. 2001, (5), 535-45.

(all. Km Al ● NHN, III,

(GAP) n
n=1,2,3

(OM 41357)

2002

Aurora Costalis et al.

компан.
консам.
сб-ла,
теорет.
павел

J. Phys. Chem. 2002,
8106, N 8, 1940-44

Гр

DM. 41592!

2002

спектр.
функции.
спектр.
состав.

Harry Gómez et al.,
J. Chem. Phys., 2002,
117, N 19, 8844-8856