

Gr-Bz

GaCl₂ Br

GaBr₂ Cl

метир КР

1 Ga - Hal. 1

1970

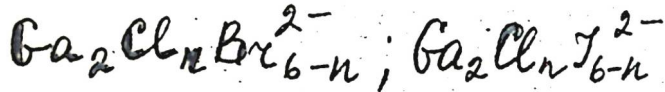
BP - XV - 123

Beattie J. R.

Morder J. R.

J. Chem. Soc., A (14),
2433.

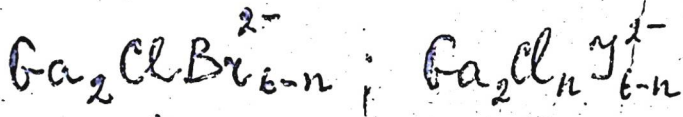
(see. Gall₂) III



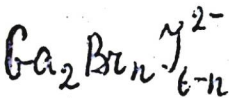
1974

89039s Vibrational spectra of mixed halide complexes of gallium(II), $\text{Ga}_2\text{Cl}_n\text{Br}_{6-n}^{2-}$, $\text{Ga}_2\text{Cl}_n\text{I}_{6-n}^{2-}$, and $\text{Ga}_2\text{Br}_n\text{I}_{6-n}^{2-}$ ($n = 1.5$). Tan, K. H.; Taylor, M. J. (Dep. Chem., Univ. Auckland, Auckland, N.Z.). *Inorg. Nucl. Chem. Lett.* 1974, 10(3), 267-71 (Eng). By examg. the ir and Raman spectra of mixed products, characteristic bands of all 15 species, $\text{Ga}_2\text{X}_n\text{Y}_{6-n}^{2-}$ ($\text{X} = \text{Cl}, \text{Y} = \text{Br}; \text{X} = \text{Cl}, \text{Y} = \text{I}; \text{or } \text{X} = \text{Br}, \text{Y} = \text{I}; n = 1-5$), in the presence of variable amts. of $\text{Ga}_2\text{X}_6^{2-}$ and $\text{Ga}_2\text{Y}_6^{2-}$ were identified. The ir spectra of the mixed halides consisted of unresolved bands with regions of strong absorptions attributed to Ga-Cl ($290-375 \text{ cm}^{-1}$, Ga-Br ($200-80 \text{ cm}^{-1}$), and Ga-I ($150-200 \text{ cm}^{-1}$)) stretching modes. The Raman spectra consisted of sharp intense bands, due to in-phase Ga-Ga and Ga-halogen stretching vibrations, which changed markedly in relative intensity with change in compn. and were assigned to the individual species.

c.A.
1974
80N16



1974



7 Д408. Колебательные спектры смешанных галогенидных комплексов галлия (II), $\text{Ga}_2\text{ClBr}_{6-n}^{2-}$, $\text{Ga}_2\text{Cl}_n\text{J}_{6-n}^{2-}$ и $\text{Ga}_2\text{Br}_n\text{J}_{6-n}^{2-}$ ($n=1-5$). Tan K. H., Taylor M. J. Vibrational spectra of mixed halide complexes of gallium (II), $\text{Ga}_2\text{Cl}_n\text{Br}_{6-n}^{2-}$, $\text{Ga}_2\text{Cl}_n\text{J}_{6-n}^{2-}$, and $\text{Ga}_2\text{Br}_n\text{J}_{6-n}^{2-}$ ($n=1-5$). «Inorg. and Nucl. Chem. Lett.», 1974, 10, № 3, 267—271 (англ.)

кажд. спектр,
см. ноем.

Q 1974 N7

Изучены ИК-спектры и спектры комб. рас. твердых фаз смешанных галогенидных димерных комплексов галлия (II) ($\text{Ga}_2\text{X}_n\text{Y}_{6-n}^{2-}$; X и Y = Cl, Br, J; $n = 1-5$). Путем сопоставления указанных спектров с аналогичными данными для $\text{Ga}_2\text{X}_6^{2-}$, $\text{Ga}_2\text{Y}_6^{2-}$, GaX_4^- и GaX_4^- проведено отнесение полос ($\nu_{\text{Ga-Cl}} = 290-390 \text{ см}^{-1}$, $\nu_{\text{Ga-Br}} = 200-325 \text{ см}^{-1}$, $\nu_{\text{Ga-J}} = 150-200 \text{ см}^{-1}$ и т. д.). Валентные колебания связи Ga—Ga в значительной степени взаимодействуют с колебаниями $\nu_{\text{Ga-X(Y)}}$ и проявляются в спектрах комб. рас. в интервале $118-233 \text{ см}^{-1}$. Для «двухатомной» модели $(\text{X}_3\text{Ga})-(\text{GaX}_3)$ рассчитаны значения соответствующих силовых постоянных. Библ. 7.

Л. В. Коновалов

HGaBr₄

1975

Picotin G.

(Vi)

"Adv. Mol Relax Processes"
1975, I, N3, 177-188 (ann)

(an HSB₆; iii)

50407.1284

DB, Ch, TC

GaBr₃Cl

31603

GaCl₃Br

(VI)

1975

3150

Rafaeloff R. Silberstein-Hirsh A.

The chemistry of gallium. IX. Laser Raman spectra of some gallium(III)halide complexes.

"Spectrochim. acta", 1975, A31, N2, 183-185

(англ.)

0339 пик

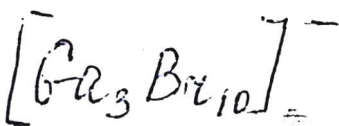
308

311

331

ВИНИТИ

1977



88: 43297m Vibrational spectra of the crystallized compounds rubidium and cesium gallium bromide ($\text{RbGa}_3\text{Br}_{10}$ and $\text{CsGa}_3\text{Br}_{10}$). The complex ion $[\text{Ga}_3\text{Br}_{10}]^-$. Mascherpa-Corral, Daisy; Potier, Antoine (Lab. Acides Miner., Univ. Sci. Tech. Languedoc, Montpellier, Fr.). *J. Inorg. Nucl. Chem.* 1977, 39(9), 1519-22 (Fr). The vibrational spectra were studied of cryst. $\text{MBr} \cdot 3\text{GaBr}_3$ ($\text{M} = \text{Rb}, \text{Cs}$). The only consistent formula is $\text{M}[\text{Ga}_3\text{Br}_{10}]$, the $[\text{Ga}_3\text{Br}_{10}]^-$ ion being comparable with $[\text{S}_3\text{O}_{10}]^{2-}$ and $[\text{P}_3\text{O}_{10}]^{5-}$. The main feature of the spectra of $[\text{Ga}_3\text{Br}_{10}]^-$ is a strong Raman line at 220 cm^{-1} that can be assigned to the in phase antisym. stretching vibration of the 2 bridges Ga-Br-Ga-Br-Ga.

Vi

CKP.



C.A., 1978, 22, 116

Ba₂Br₆

10m. 37507!

1993

суд. пост.,
среще
амнист.
Коледж.

Singh P., Dublisk A.K.,
Indian J. Pure Appl.
Phys., 1993, 31, N3,
193-194.

Ca₂B₂

(DM. 37366)

1994

структура,
колебания,
растворимость,
хим. сост.,
ab initio
расчет

Ivaranga A.D., Saboungi M.-L.,
Certiss L.A. et al.,

Mol. Phys., 1994, 81, N2,
409-420.

F6aBr⁺

1999

Petrie, Simon;

neopem.
pracem
comp
 ΔH

Int. γ . Mass Spectrom.
1999, 184(2-3), 191-199

(Cue.



FBCE⁺; III)

HfBr₂

[om. 40140]

1999

Jens Müller and
Henning Herkicker,

J. Chem. Soc., Dalton
Trans., 1999, 4149-4153

Matrix isolation of HfBr₂
(X=Cl or Br): IR  Spectroscopy

and ab initio calculations

