CHUMAYEVSKAYA, M.A.; GORLENKO, M.V.

A new bacteriosis of carrots in the U.S.S.R. Nauch.dokl.vys.shkoly: biol.nauki no.4:114-116 '60. (MIRA 13:11)

1. Rekomendovana kafedroy nizshikh rasteniy Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(CARROTS--DISEASES AND PESTS)
(BACTERIA, PHYTOPATHOGENIC)

SOV/51-6-1-8/30

AUTHORS: Chumayevskiy, N.A., Tatevskiy, V.M. and Yur'yev, Yu.K.

TITLE: The Absorption and Raman Spectra of Selenophene and Its Methyl Homologues (Spektry pogloshcheniya i spektry kombinatsionnogo rasseyaniya selenofena i yego metilgomologov)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 1, pp 45-50 (USSR)

ABSTRACT: The paper reports studies of the infrared and ultraviolet absorption spectra and Raman spectra of selenophene (I), 2-methylselenophene (II), 3-methylselenophene (III), 2,3-dimethylselenophene (IV), 2,4-dimethylselenophene (V), 3,4-dimethylselenophene (VI). The Raman spectra were obtained on a Steinheil spectrograph (linear dispersion 0.1 mm/Å). The absorption spectra in the infrared were obtained using an IKS-11 spectrometer with LiF (3300-6000 cm^{-1}), NaCl (660-3000 cm^{-1}) and KBr (400-600 cm^{-1}) prisms. An infrared spectrometer VIKSM-3 with a NaCl prism was also used. The ultraviolet absorption spectra were obtained in isooctane using a SF-4 spectrophotometer. Measurements of the infrared spectra, obtained using the VIKSM-3 spectrometer, and of the ultraviolet spectra were carried out at the Optics Laboratory of I.N.E.O.S. of the Academy of Sciences of the U.S.S.R. Selenophene and its homologues studied in the present work

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had the properties given in a table on p 50. Fig 1 gives the Raman spectra of substances I, III and V (curves a, [illegible] and [illegible] respectively). Fig 2 gives the infrared absorption spectra of all the six substances studied and Fig 3 gives the corresponding ultraviolet absorption spectra. In all the substances (with the exception of VI) characteristic intense absorption bands appeared in the infrared between 1209 and 1250 cm^{-1}. The coincidence of certain frequencies and the general similarity of the infrared absorption spectra of thiophene and selenophene and its homologues can be taken as confirmation of the plane structure of selenophene, which belongs to the C_{2v} type of symmetry. The Raman and the infrared absorption spectra of selenophene agree with the results reported by Gerding et al. (Ref 1). The spectra of selenophene homologues show characteristic frequencies due to vibrations of the substituents (table on pp 46-47). The ultraviolet absorption spectra of selenophene and its homologues obtained in the region 2200-2800 Å did not differ greatly between each other (Fig 3). The ultraviolet spectra of thiophene and its homologues behave in a similar manner. The authors

The Absorption and Raman Spectra of Selenophene and Its Methyl Homologues

suggest that the infrared absorption and the Raman spectra of selenophene and its homologues may be used for identification of these compounds. There are 3 figures, 2 tables and 11 references, 5 of which are Soviet, 3 French, 2 English and 1 Japanese.

SUBMITTED: March 31, 1958

Card 3/3

CHUMAYEVSKIY, N. A.

S/190/60/002/009/008/019
B004/B060

5.3100 also 2109, 2209

AUTHORS: Polyakova, A. M., Korshak, V. V., Sazhnova, N. D., Vdovin, V. M., Chumayevskiy, N. A.

TITLE: Production and Structure Investigation of Polymers Containing Siloxane and Hydrocarbon Links in the Principal Chain of Macromolecules. IV.

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 9, pp. 1360-1369

TEXT: The authors had previously studied (Refs. 1-3) the reaction of acetylene with dihydro tetraalkyl disiloxanes, and determined the structure of the polymers obtained on the strength of their infrared spectra. In the present article, the authors report on the reaction of acetylene with dihydro siloxanes of varying molar ratios of the reagents. The reaction yields chain-like polymers with different terminal groups. The infrared spectra were examined for the absorption bands of the stretching vibrations of the $\equiv$Si-H terminal group (2100-2150 cm^{-1}), of the C=C bond (vinyl group 1595-1600 cm^{-1}, ethyl group 1625-1635 cm^{-1}), and the

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asymmetric stretching vibrations of the $-CH_2-$ terminal group (1050 cm^{-1}). The spectra shown in Fig. 1 reveal that the reaction of acetylene with excess dihydro siloxane yields a polymerization product (I) having $\equiv$Si-H terminal groups. In the case of an acetylene excess, however, polymer (II) forms with $-CH=CH_2$ as terminal groups. This could also be proven chemically. The oily polymerizate (II) was heated to 150°C at 6000 atm and at atmospheric pressure with tert-butyl peroxide. The products obtained were insoluble in all solvents. If (II) is caused to react with tetramethyl dihydro disiloxane in the presence of $H_2PtCl_6 \cdot 6H_2O$, the chain is prolonged, and the resulting new polymerizate has $\equiv$Si-H terminal groups. Similar reactions were carried out with acetylene and the polymers (III) described in Ref. 2 (with $\equiv$Si-H as terminal group), and (IV) (with $-CH=CH_2$ as terminal group). The reaction of (III) with acetylene yielded a polymerization product with $-CH=CH-$ as terminal group; the reaction of (IV) with tetramethyl dihydro disiloxane yielded a polymerizate with $\equiv$Si-H as terminal

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Group (infrared spectra Fig. 2). In both cases, the molecular weights increased, and the chain grew longer. Furthermore, diethyl diphenyl disiloxane was caused to react with acetylene. The polymerizate, a viscous mass, had the molecular weight 1670. Table 1 shows the results of the reaction of acetylene with tetraethyl- and diethyl dihydro disiloxane at a pressure of 15 atm. The infrared spectra (Fig. 3) of the oily products revealed both the presence of C=C bonds and of $-CH=CH_2$ as terminal groups. Analyses and molecular weights of the fractions distilled in vacuum are given in Table 2. Only addition products and dimers were obtained on the reaction of phenyl acetylene and diphenyl acetylene with dihydro siloxanes (Table 3). With the exception of the reaction product from diphenyl acetylene and tetraethyl dihydro disiloxane, whose structure is still unclear, the infrared spectra (Fig. 4) revealed $\equiv$Si-H bands. The infrared spectra were taken with a ZhKC M-3 (UIKS M-3) interferometer. The author thank A. D. Petrov and I. V. Obreimov for interest displayed in the work. There are 4 figures, 3 tables, and 8 references: 4 Soviet, 1 US, and 3 German.

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ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elemental-organic Compounds of the AS USSR). Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR (Institute of Organic Chemistry Imeni N. D. Zelinskiy of the AS USSR)

SUBMITTED: April 4, 1960

5(3)
AUTHORS: Polyakova, A. M., Chumayevskiy, N.A. S/020/60/130/05/023/061
B011/B005

TITLE: The Interaction of Tetraalkyldihydridedisiloxanes With Bifunctional Unsaturated Compounds

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 5, pp 1037-1040 (USSR)

ABSTRACT: The purpose of this paper is an investigation of the structure of polymeric products formed by the interaction mentioned in the title (Ref 1) by means of infrared spectroscopy. Besides these spectra, spectra of the initial components were recorded (Figs 1-4). Table 1 shows the frequencies of the tetraalkyldihydridedisiloxanes, table 2 those of the dialkenes. Figure 1 shows the infrared spectra of the former, figure 2 those of the latter. Figures 3 and 4 show the infrared spectra of the interaction products. On the basis of these results, the authors draw the following conclusions as to the structure of polymers: Cyclic monomers are formed by the interaction of divinyl monomers with disiloxanes (in equimolar ratio) while diallyl monomers form linear polymers. The authors thank

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S/051/61/010/001/006/017
E201/E491

AUTHOR: Chumayevskiy, N.A.

TITLE: Vibrational Spectra of Organic Compounds Containing Elements of Group IV (Si, Ge, Sn). I. Characteristic Absorption Bands in the Infrared Spectra of Organosilicon Compounds

PERIODICAL: Optika i spektroskopiya, 1961, Vol.10, No.1, pp.69-78

TEXT: The author gives the results of a study of the infrared absorption spectra of a large number of organosilicon compounds, including alkylalkenylsilanes, dihydridedisiloxanes and alkylchlorsilanes. The spectra were recorded using double-beam spectrophotometers ВИКС М-3 (VIKS M-3) with NaCl and LiF prisms and a single-beam spectrometer ИКС-12 (IKS-12) with a KBr prism; the latter instrument was used also with an NaCl prism (the results are indicated by crosses in Fig.2). The spectrograms for the 700 to 2300 and 2800 to 3200 cm^{-1} regions are given in Fig.1 to 4. Table 1 lists the valence vibrational frequencies of the Si-Cl bond (in cm^{-1}) and Table 2 gives the absorption frequencies of various functional groups attached to an atom of

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S/051/61/010/001/006/017
E201/E491

Vibrational Spectra of Organic Compounds Containing Elements of Group IV (Si, Ge, Sn). I. Characteristic Absorption Bands in The Infrared Spectra of Organosilicon Compounds

silicon. Several relationships are established on the characteristic features of the absorption bands of organosilicon compounds in the regions 2100 to 2300 and below 1300 cm^{-1}.
Acknowledgments are made to I.V.Obreimov for his advice, to V.F.Mironov and A.M.Polyakova for supply of some materials and to R.A.Isayeva and Ye.D.Vlasov for help in this work. There are 4 figures, 2 tables and 9 references: 2 Soviet and 7 non-Soviet.

SUBMITTED: March 31, 1960

Card 2/2

88575

5.3700
9.4300 (1137, 1143, 1164)

S/020/61/136/001/027/037
B004/B056

AUTHORS: Borisov, A. Ye., Novikova, N. V., and Chumayevskiy, N. A.

TITLE: Infrared Absorptionspectra of Organometallic Compounds of the Ethylene Series. On Cis- and Trans-configurations of Propylene-antimony Compounds (Sb^{III} and Sb^{V})

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 1, pp. 129-132

TEXT: The present paper is an account on investigations of the infrared absorption spectra of cis- and trans-isomeric propylene compounds with tri- and pentavalent antimony. Synthesis of these substances was described in an earlier paper (Ref. 1). Investigation was made with a ВИКС М-3 (VIKS M-3) spectrometer and an NaCl prism within the range of 700-1800 cm^{-1}, and with an ИКС-12 (IKS-12) spectrometer and KBr prism within 400-700 cm^{-1}. Figs. 1-3 show the spectra of

$(CH_3\underset{H}{C}=\overset{H}{C})_3SbBr_2$; $(CH_3\underset{H}{C}=\underset{H}{C})_3SbBr_2$; of the corresponding

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Infrared Absorptionspectra of Organometallic Compounds of the Ethylene Series. On Cis- and Trans-configurations of Propylene-antimony Compounds (Sb^{III} and Sb^{V})

S/020/61/136/001/027/037
B004/B056

chlorides and iodides, moreover of $(CH_3\overset{H}{\underset{H}{C}}=\overset{H}{C})_3Sb$; $(CH_3\overset{H}{\underset{H}{C}}=\overset{H}{\underset{H}{C}})_3Sb$; $(CH_3\overset{H}{\underset{H}{C}}=\overset{H}{C})_5Sb$; $(CH_3\overset{H}{\underset{H}{C}}=\overset{H}{\underset{H}{C}})_5Sb$; $(CH_3\overset{H}{\underset{H}{C}}=\overset{H}{C})_4SbBr$; $CH_3\overset{H}{\underset{H}{C}}=\overset{H}{\underset{H}{C}})_4SbBr$; and, for comparison, sketches of $CH_3-\overset{H}{\underset{H}{C}}=\overset{H}{C}-Br$ and $CH_3-\overset{H}{\underset{H}{C}}=\overset{H}{\underset{H}{C}}-Br$ spectra. Frequencies are listed in Table 1. All trans-configurations exhibit intense absorption at 945-970 cm^{-1}. The frequencies of the CH-group uneven oscillations are at 971 cm^{-1} for tri- and pentapropenyl antimony, at 945 cm^{-1} for dihalogen derivatives, and at 967 cm^{-1} for tetrapropenyl stilbonium bromide. The trans-configurations are distinguished by bands at 718-726 cm^{-1} which do not exist in the cis-configuration. The 920-940 cm^{-1} absorption bands of the cis-configuration are considerably less intense than the 945-970 cm^{-1} absorption bands of the trans-configuration. Only cis-tripropenyl antimony and cis-pentapropenyl antimony turned out to have bands at 970 cm^{-1}, but their intensity amounts to only one third of the trans-configuration

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Infrared Absorptionspectra of Organometallic Compounds of the Ethylene Series. On Cis- and Trans-configurations of Propylene-antimony Compounds (Sb^{III} and Sb^{V})

S/020/61/136/001/027/037
B004/B056

intensity. The same holds for propenylbromide: Intensity of the 930 cm^{-1} band of the cis-configuration only one third of the trans-configuration band. The bands at 655-660 cm^{-1} of the cis-configuration are 2 - 2.5 times more intense than those of the trans-configuration. Cis-configurations of the halogen derivatives and of tetrapropenyl stilboniumbromide showed intense bands at 452 cm^{-1} which were not observed in the case of trans-configurations and cis- and trans-tri- and pentapropenyl antimony. The plane vibrations at the double bonds are more intense at 1200 cm^{-1} in the case of trans-isomers and at 1300 cm^{-1} in the case of cis-isomers.
A. N. Nesmeyanov is mentioned in the paper. The authors thank Academician I. V. Obreimov for his interest in the investigation, and R. A. Isayeva and Ye. D. Vlasov for their collaboration. There are 3 figures, 2 tables, and 8 references: 5 Soviet, 1 US, and 2 British.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental Organic Compounds of the Academy of Sciences USSR)

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88575

Infrared Absorptionspectra of Organometallic Compounds of the Ethylene Series. On Cis- and Trans-configurations of Propylene-antimony Compounds (Sb^{III} and Sb^{V})

S/020/61/136/001/027/037
B004/B056

PRESENTED: July 18, 1960, by I. V. Obreimov, Academician

SUBMITTED: June 16, 1960

Legend to table 1. Frequencies of the Sb^{III} and Sb^{V} propenyls. 1) cis, 2) trans, 3) boiling point, 4) melting point.

Table 1

$(CH_2CH=CH)_3 \cdot Sb$		$(CH_2CH=CH)_2 \cdot SbCl_2$		$(CH_2CH=CH)_2 \cdot SbBr_2$		$(CH_2CH=CH)_3 \cdot SbJ_2$		$(CH_2CH=CH)_2 \cdot SbBr$		$(CH_2CH=CH)_3\ Sb$	
1) цис-, т. кип. 70°/4—5	2) транс-, т. кип. 82°/5 мм	1) цис-, т. пл.4) 74—75°	2) транс-, т. кип. 160—162/4мм	1) цис-, т. пл.4) 85—86°	2) транс-, т. кип.3) 166—167°/4 мм	1) цис-, т. пл.4) 122—123°	2) транс-,	1) цис-, т. пл.4) 140—143°	2) транс-, т. пл.4) 45—48°	1) цис-, т. кип.3)	2) транс, т. кип.3)
1600	1600	1606	1607	1604	1605	1600	1598	1600	1600	1600	1600
1438	1442	1446	1440	1443	1440	1425	1437	1445	1432	1440	1437
1378	1377	1385	1376	1382	1377	1378	1375	1380	1367	1380	1375
1320	1320	1308	1306	1305	1306	1297	1302	1305	1304	1321	1308
1193	1199	1201	1191	1199	1190	1196	1185	1195	1225	1200	1190
1115	1115	—	1100	—	1165	1100	1165	1109	1185	1115	1110
	1060	1047	1075	1045	1075		1065	1048	1662		1062
1039	1040		1042		1041	1040	1039		1043	1035	1040
970	971	940	957	939	951	937	945	960	967	970	971
920	933	928		925		925		924	945	920	938
710	720	665	724	—	722	—	718	700	726	—	722
660	655	625	667	663	655	660	660	680	663	660	662
	610	455	620	818	620	610	615	635	625		600
				452	—	452	—	452			

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BORISOV, A.Ye.; NOVIKOVA, N.V.; CHUMAYEVSKIY, N.A.

Infrared absorption spectra of organometallic compounds in the ethylene series. Cis-, trans-configuration of propylene antimony compounds (Sb^{III} AND Sb^{V}). Dokl.AN SSSR 136 no.1:129-132 Ja '61. (MIRA 14:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. Predstavleno akademikom I.V.Obreimovym.
(Antimony organic compounds--Spectra)

5.3760

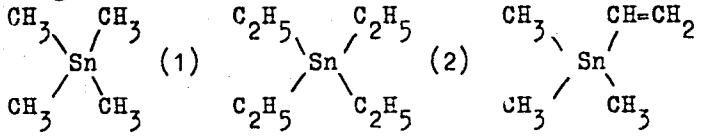
30035
S/020/61/141/001/021/021
B119/B108

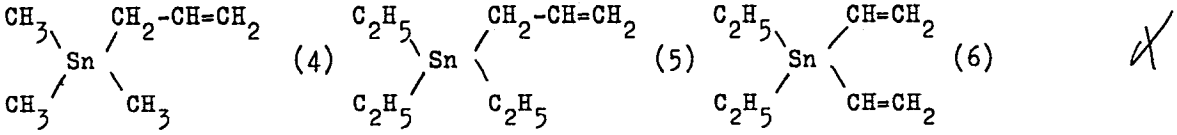
AUTHOR: Chumayevskiy, N. A.

TITLE: Vibrational spectra of some alkyl and alkyl-alkenyl stannanes (Sn^{IV})

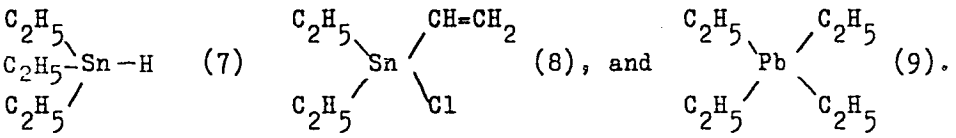
PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. 1, 1961, 168-171

TEXT: The author investigated the infrared and Raman spectra of the following substances:





Card 1/4


(7)

(8), and

(9).

A ВИКС М-3 (VIKS M-3) infrared spectrophotometer with an LiF prism was used for the spectral range of 3000 cm^{-1}, and one with an NaCl prism in the range of from 700 to 2000 cm^{-1}. The range between 400 and 700 cm^{-1} was measured by means of an ИКС-14 (IKS-14) infrared spectrophotometer with a KBr prism. The Raman spectra were taken by means of an ИСП-15 (ISP-15) spectrograph with a ФЭП-1 (FEP-1) photoelectric recorder. Results: The Sn-H absorption band of triethyl stannane lies at 1820 cm^{-1}. The force constant K_q(Sn-H) of the Sn-H bond in SnH_4 was calculated to be $\sim 3.8 \cdot 10^6$ cm^{-2}. Both the scattering and the absorption bands of the Sn-CH_3 bond are between 1190 and 1195 cm^{-1}, those of the Sn-C_2H_5 bond between

Vibrational spectra of some alkyl ...

1183 and 1190 cm^{-1}. The absorption band of the Pb-C_2H_5 bond lies at 1158 cm^{-1}. The absorption band of the C=C bond of vinyl and allyl derivatives of Sn^{IV} lies at 1580 cm^{-1} for (6), and at 1628 cm^{-1} for (4) and (5). The absorption bands of the $=CH_2$ terminal groups are between 3045 and 3050 cm^{-1} for vinyl derivatives, and at 3080 cm^{-1} for allyl derivatives. For (8), the absorption bands of the Sn-C_2H_5 bonds in (8) lie at 526 and 495 cm^{-1}, that of the Sn-CH=CH_2 bond at 471 cm^{-1}. In general, the infrared absorption bands and the Raman lines for the stretching vibrations of the Sn-C bonds lie between 450 and 530 cm^{-1}.

I. V. Obreimov is thanked for his criticism and V. F. Mironov for supplying the substances. There are 4 figures, 1 table, and 4 references: 3 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: C. W. Joung, J. S. Koehler, D. S. McKinney, J. Am. Chem. Soc., 69, 1410 (1947).

30035
S/020/61/141/001/021/021
B119/B108

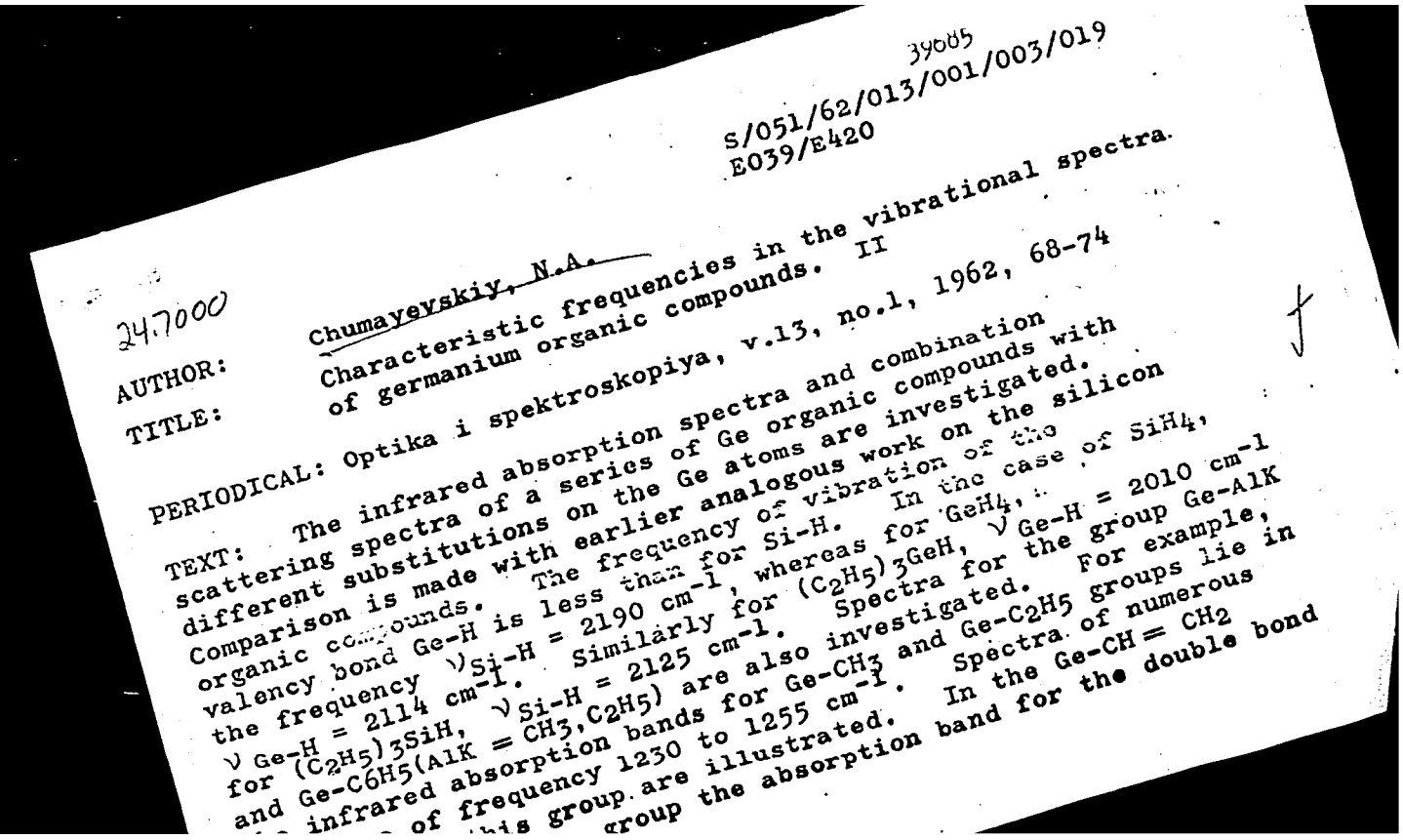
Vibrational spectra of some alkyl ...

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental Organic Compounds of the Academy of Sciences USSR)

PRESENTED: June 1, 1961, by I. V. Obreimov, Academician

SUBMITTED: May 27, 1961

Card 4/4



39085
S/051/62/013/001/003/019
E039/E420

24.7000

AUTHOR: Chumayevskiy, N.A.

TITLE: Characteristic frequencies in the vibrational spectra of germanium organic compounds. II

PERIODICAL: Optika i spektroskopiya, v.13, no.1, 1962, 68-74

TEXT: The infrared absorption spectra and combination scattering spectra of a series of Ge organic compounds with different substitutions on the Ge atoms are investigated. Comparison is made with earlier analogous work on the silicon organic compounds. The frequency of vibration of the valency bond Ge-H is less than for Si-H. In the case of SiH_4, the frequency ν_{Si-H} = 2190 cm^{-1}, whereas for GeH_4, ν_{Ge-H} = 2010 cm^{-1} for $(C_2H_5)_3SiH$, ν_{Si-H} = 2114 cm^{-1}. Similarly for $(C_2H_5)_3GeH$, ν_{Ge-H} = 2125 cm^{-1}. Spectra for the group Ge-AlK and $Ge-C_6H_5$(AlK = CH_3, C_2H_5) are also investigated. For example, infrared absorption bands for $Ge-CH_3$ and $Ge-C_2H_5$ groups lie in the region of frequency 1230 to 1255 cm^{-1}. Spectra of numerous compounds of this group are illustrated. In the Ge-CH = CH_2 group the absorption band for the double bond

is shown to lie in the region 1585 to 1590 cm^{-1}; in the case of the vinyl group 1585 to 1590 cm^{-1} and for the allyl group 1630 to 1635 cm^{-1}. In addition, the Ge-C bond is studied; the infrared absorption spectra and the combination scattering spectra lying in the range 500 to 650 cm^{-1}. Finally, the $GeCl_2$ and $GeCl_3$ group is examined, the absorption spectra of which lie in the region of 425 cm^{-1}. The measurements on the infrared absorption spectra were carried out in the 3000 cm^{-1} region using a double beam spectrophotometer ВИКСМ (VIKSM)-3 No.12, with a LiF prism ($\Delta\nu$ = 6 cm^{-1}); in the 700 to 2000 cm^{-1} region with a double beam spectrophotometer VIKSM-3 No.11 with a NaCl prism ($\Delta\nu$ at 1000 cm^{-1} equal 10 cm^{-1}) and in the 400 to 700 cm^{-1} region with a double beam spectrophotometer ИКС-14 (IKS-14) with a KBr prism ($\Delta\nu$ = 4 cm^{-1}) and using cells of thickness 0.05 and 0.02 mm. The combination scattering measurements were made using a ~~three prism spectrograph~~ ИСП-51 (ISP-51). A series of laws are established relating the characteristic band and line spectra of the investigated compounds. There are 6 figures and 3 tables.

SUBMITTED: May 18, 1961
Card 2/2

S/020/62/146/005/009/011
B107/B186

AUTHORS: Mironov, V. F., Chumayevskiy, N. A.

TITLE: Some laws for the vibrational spectra of organosilicon compounds

PERIODICAL: Akademiya nauk SSSR.. Doklady, v. 146, no. 5, 1962, 1117-1120

TEXT: The infrared and Raman spectra of the following compounds were studied: $Cl_n(CH_3)_{3-n}SiCH=CH_2$; $Cl_n(CH_3)_{3-n}SiCH_2-CH=CH_2$; $(CH_3)_3Si(CH_2)_n-CH=CH_2$ (n=0-3); $(CH_3)_3ECH_2-CH=CH_2$ (E = C, Si, Ge, Sn). Results: (1) In the series $Cl_n(CH_3)_{3-n}SiCH=CH_2$, the intensity of the C=C absorption band increases up to the threefold ($\nu_{C=C}$ = 1600 cm^{-1}) as n increases; for $Cl_n(CH_3)_{3-n}SiCH_2-CH=CH_2$ ($\nu_{C=C}$ = 1635 cm^{-1}) the reverse effect is true. In the Raman spectra, this effect is not so strong and does not exceed the limit of error. (2) In the series $(CH_3)_3Si(CH_2)_nCH=CH_2$ (n = 0-3), the allyl configuration has the strongest, and the vinyl configuration the

weakest C=C absorption band. Further data are given in Fig. 4. The frequencies of the absorption bands and Raman lines increase with n, approaching the values for olefins with an isolated C=C bond. (3) In the series $(CH_3)_3ECH_2-CH=CH_2$ (E = C, Si, Ge, Sn), the intensity of the C=C absorption band increases in the stated sequence, and the frequencies change from 1650 cm^{-1} to 1628 cm^{-1}. Fig. 4 shows a distinct difference between on the one hand C, and,Si, Ge, and Sn, on the other. As to the known difference between C and Si regarding the presence of empty 3d-orbits, the authors assume the same for Ge and Sn. There are 4 figures and 1 table. The two most important English-language references are: L. Pauling, J. Phys. Chem., 56, 361 (1952); F. G. A. Stone, D. Seyferth, J. Inorg. and Nucl. Chem., v. 4, 112 (1955).

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental Organic Compounds of the Academy of Sciences USSR)

PRESENTED: February 10, 1962, by I. V. Obreimov, Academician

S/062/62/000/011/004/021
B101/B144

AUTHORS: Andrianov, K. A., Volkova, L. M., and Chumayevskiy, N. A.

TITLE: Vibration spectra of organic compounds containing elements of group IV (Si, Ge, Sn). Communication 7. Infrared absorption spectra of substituted amino-methyl siloxanes and stretching vibration frequencies of C-H bonds

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 11, 1962, 1958 - 1964

TEXT: The IR absorption spectra of the following compounds were studied: $C_6H_5NHCH_2(CH_3)Si(OC_2H_5)_2$, b.p. 130 - 132°C/5 mm Hg, n_D^{20} 1.4975; $C_6H_5NHCH_2(CH_3)_2SiOC_2H_5$, b.p. 140 - 144°C/20 mm Hg, n_D^{20} 1.5111; $C_6H_5NHCH_2(CH_3)_2SiOSi(C_2H_5)_3$, b.p. 109 - 109.5°C/0.5 mm Hg, d_4^{20} 0.9402, n_D^{20} 1.4927; $(C_2H_5)_3SiOSi(CH_3)(CH_2NHC_6H_5)OSi(C_2H_5)_3$, b.p. 159 - 161°C/1 mm Hg, d_4^{20} 0.9514, n_D^{20} 1.4819; $(C_2H_5)_3SiOSi(CH_3)[CH_2N(C_2H_5)_2]OSi(C_2H_5)_3$,

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b.p. 102 - 106°C/0.5 mm Hg, d_4^{20} 0.8882, n_D^{20} 1.4410;

$(C_2H_5)_3SiOSi(CH_3)(CH_2N\langle^{CH_2CH_2}_{CH_2CH_2}\rangle O)OSi(C_2H_5)_3$, b.p. 129 - 131°C/1 mm Hg, d_4^{20} 0.9425, n_D^{20} 1.4525; $C_6H_5NHCH_2(CH_3)_2SiOSi(CH_3)_2C_6H_5$, b.p. 123-128°C/1 mm Hg, d_4^{20} 1.0047, n_D^{20} 1.5310; $C_6H_5(CH_3)_2SiOSi(CH_3)(CH_2NHC_6H_5)OSi(CH_3)_2C_6H_5$, b.p. 187 - 196°C/1 mm Hg, d_4^{20} 1.0534, n_D^{20} 1.5381;

$C_6H_5NHCH_2(CH_3)_2SiOSi(C_2H_5)_2OSi(CH_3)_2CH_2NHC_6H_5$, b.p. 173 - 175°C/0.5 mm Hg, d_4^{20} 1.023, n_D^{20} 1.5218; $(C_2H_5)_3SiOSi(CH_3)(CH_2NHC_6H_4Cl)OSi(C_2H_5)_3$, b.p. 153 - 157°C/0.5 mm Hg, d_4^{20} 1.000, n_D^{20} 1.4885, and

$(C_2H_5O)_2Si(CH_3)CH_2NH(CH_2)_6NH_2$, b.p. 144 - 147°C/7 mm Hg, d_4^{20} 0.9238, n_D^{20} 1.4450. The results confirm the conclusions drawn by N. A. Chumayevskiy (Optika i spektroskopiya, v. X, no. 1, 1961, p. 69) concerning the

frequencies of Si-O-Si, Si-O-C, Si-CH_3, Si-C_2H_5, and Si-C bonds. In the present paper the frequencies of the C-H bonds in the Si-CH_3 and Si-C_2H_5 groups were identified, using data from the earlier paper. The following interpretation of frequencies is suggested: $\nu_s(CH_2)$ 2870 - 2880 cm^{-1}; $\nu_{as}(CH_2)$ 2925 - 2940 cm^{-1}; $\nu_s(CH_3)$ 2900 - 2910 cm^{-1}, and $\nu_{as}(CH_3)$ 2956 - 2970 cm^{-1}. There are 4 figures and 4 tables.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental Organic Compounds of the Academy of Sciences USSR)

SUBMITTED: March 23, 1962

Card 3/3

MIRONOV, V.F.; CHUMAYEVSKIY, N.A.

Some regularities in the vibration spectra of organosilicon compounds. Dokl. AN SSSR 146 no.5:1117-1120 O '62. (MIRA 15:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. Predstavleno akademikom I.V.Obreimovym.
(Silicon organic compounds--Spectra)

S/020/63/148/006/015/023
B117/B186

AUTHORS: Nesmeyanov, A. N., Academician, Borisov, A. Ye., Novikova, N. V., Chumayevskiy, N. A.

TITLE: Infra-red absorption spectra of stereo-isomers of propenyllithium

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 6, 1963, 1312 - 1313

TEXT: Infra-red absorption spectra of cis- and trans-isomers of propenyllithium were studied more accurately in comparison with the results obtained (in a 20% ether solution) earlier (DAN, 119, 712 (1958)) by the same authors, and with those of N. L. Allinger and R. B. Hermann (J. Org. Chem., 26, 1040 (1961)). In order to eliminate the misleading frequencies by which the ether is characterized, the spectra mentioned were taken both in ether solution and in paraffin oil. A comparison of the spectra taken in these media showed the following frequencies to be consistent: 1625 cm^{-1}, 1540 cm^{-1} and 1300 cm^{-1} in spectra of the cis-isomer; 1635 cm^{-1}, 1550 cm^{-1} in the spectrum of the trans-isomer. Hence the higher frequencies in the infra-red spectrum of propenyllithium of the C=C oscillations

($1635\ cm^{-1}$ and $1545\ cm^{-1}$) correspond to the trans-isomer, and the lower frequencies ($1625\ cm^{-1}$ and $1535\ cm^{-1}$) correspond to the cis-isomer. Thus, the infra-red absorption spectra gave results that were in agreement with those obtained by Allinger and Hermann. The conclusions drawn in the above paper from optical and chemical data as to the configuration of cis- and trans-isomers are still valid.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental Organic Compounds of the Academy of Sciences USSR)

SUBMITTED: November 26, 1962

LIVSHITS, B.L.; CHUMAYEVSKIY, N.A.

Use of the method of perturbations in analyzing the vibrations of monodeuteromethane and the plane vibrations of ethylene. Opt. i spektr. 15 no.5:609-616 N '63. (MIRA 16:12)

ANDRIANOV, K.A.; VOLKOVA, L.M.; CHUMAYEVSKIY, N.A.

Vibrational spectra of organic compounds containing the elements of the IV group (Si, Ge, Sn). Report No.7: Infrared absorption spectra of substituted aminomethylsiloxanes and the frequencies of N-H bond stretching vibrations. Izv.AN SSSR. Otd.khim.nauk no.11:1958-1964 N '62. (MIRA 15:12)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Siloxanes—Spectra) (Hydrogen bonding)

CHUMAYEVSKIY, N.A.

Vibrational spectra of compounds containing elements of the carbon subgroup. Usp.khim. 32 no.9:1152-1175 S '63.
(MIRA 16:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR, opticheskaya laboratoriya.
(Organometallic compounds--Spectra)

NESMEYANOV, A.N., akademik; BORISOV, A.Ye.; NOVIKOVA, N.V.; CHUMAYEVSKIY, N.A.

Infrared absorption spectra of propenyllithium stereoisomers.
Dokl. AN SSSR 148 no.6:1312-1313 F '63. (MIRA 16:3)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Lithium compounds--Absorption spectra) (Stereochemistry)

L 42147-65 EPF(c)/EWP(j)/EWT(m)/T Pc-4/Pr-4 RM

ACCESSION NR: AP5007659 S/0020/65/160/006/1307/1310

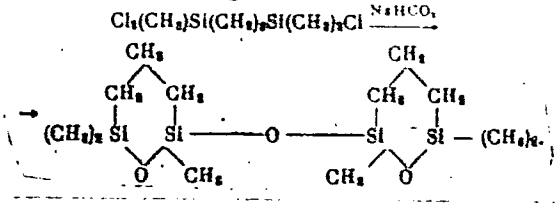
AUTHORS: Andrianov, K. A. (Academician); Delazari, N. V.; Volkova, L. M.; Chumayevskiy, N. A.

TITLE: Synthesis and spectra of trimethylalkyl-(phenyl, chlor)-1-oxa-2,6-disilacyclohexanes

SOURCE: AN SSSR. Doklady, v. 160, no. 6, 1965, 1307-1310

TOPIC TAGS: cyclohexane, IR absorption spectrum, spectrophotometer/ VIKS M 3 spectrophotometer, IKS 14 spectrophotometer

ABSTRACT: The authors have produced new trimethylalkyl-(phenyl, chlor)-1-oxa-2,6 disilacyclohexanes, with a yield of 60-80%, during hydrolysis of bis(alkylchlorsilyl) propanes by an aqueous solution of caustic potash. On heating an ether solution of 1-dimethylchlorsilyl-3-methyldichlorsilyl propane with bicarbonate of soda, a bicyclic compound was obtained according to



Card 1/2

L 42147-65

ACCESSION NR: AP5007659

Bis-(alkylchlorsilyl) propanes were obtained according to reactions (a), (b), and (c)

$$CH_3SiCl_3 + RMgBr \rightarrow CH_3(R)SiCl_2, \quad (a)$$

$$CH_3RSiCl_2 + CH_2 = CHCH_2MgBr \rightarrow CH_3(R)ClSiCH_2CH = CH_2, \quad (b)$$

$$CH_3(R)ClSiCH_2CH = CH_2 + HSi(CH_3)_2Cl \xrightarrow{H_2PtCl_6} \rightarrow Cl(CH_3)(R)SiCH_2CH_2CH_2Si(CH_3)_2Cl, \quad (c)$$

$R = CH_3, C_2H_5, C_6H_5, C_6H_5, Cl.$

The properties of the newly synthesized substances are given in a table. The IR spectra were obtained and compared with other compounds. These spectra were studied on two spectrophotometers: a VIKS M-3 with an NaCl prism (700-1500 cm^{-1}) and an IKS-14 with a KBr prism (400-700 cm^{-1}). The spectra are illustrated in Fig. 1 on the enclosure. Orig. art. has: 1 table and 1 figure.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy, Akademii nauk SSSR (Institute of Hetero-Organic Compounds, Academy of Sciences SSSR)

SUBMITTED: 26Oct64 ENCL: 01 SUB CODE: OC, OP

NO REF SOV: 001 OTHER: 007

Card 2/3

L 33264-66 EWP(j)/EWT(m) RM
ACC NR: AR6016189 SOURCE CODE: UR/0058/65/000/011/D024/D024

AUTHOR: Chumayevskiy, N. A.

TITLE: Concerning certain regularities in the vibrational spectra of organic compounds of elements of groups IV-B and V-B

SOURCE: Ref. zh. Fizika, Abs. 11D177

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 84-91

TOPIC TAGS: conjugate bond system, spectrum analysis, vinyl compound, vibration spectrum, nuclear shell model

ABSTRACT: The author investigated regularities in the vibrational spectra of organic compounds containing IV-B elements (Si, Ge, Sn) and V-B elements (P, As, Sb). Several common features manifest in the closeness of the oscillation frequencies of the fragments of the investigated compounds, and particularly of C=C oscillations, are established. It is deduced that the C=C bond in the organo-elemental vinyl derivatives of elements of the IV-B and V-B groups differs from the S=C bond in olefins. The fact that many properties of the vibrational spectra of compounds of elements of the IV-B and V-B groups are common is due to the structure of the outer layers of the electron shells of these elements. [Translation of abstract]

SUB CODE: 20, 07

Card 1/1

CHUMAYEVSKIY, N.A.; BORISOV, A.Ye.

Cis- and trans-configurations of propenyl compounds of As(IV), Hg(II), and Sn(IV). Dokl. AN SSSR 161 no.2:366-369 Mr '65.

(MIRA 18:4)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. Submitted September 14, 1964.

GREYNER, Gans Rolandovich; IL'YASHENKO, Vladimir Pavlovich; PERVUSHIN, Nikolay Nikolayevich; CHUMAYEVSKIY, Viktor Alekseyevich; GEYNRIKHS, G.K., kand.tekhn.nauk, retsenzent; SEKUNOVA, O.N., nauchn.red.; SINITSIN, A.I., nauchn.red.; VASIL'YEVA, M.N., red.; FRUMKIN, P.S., tekhn. red.

[Automatic control of air pump compressor plants] Avtomatizatsiia vozdushnykh porshnevykh kompressornykh ustanovok. Moskva, Sudpromgiz, 1963. 147 p. (MIRA 16:8)
(Air compressors) (Automatic control)

CHUMBADZE, I. S.

772. Чхиквадзе Давид Метхеделович. Диатометрическое исследование многокомпонентных сплавов. 1941. 36, 8 с. [25] экз. Тб., нал. (Сообщ. АН Груз. ССР, 1945, № 8, 10).
Зап. 1941, 30.6.

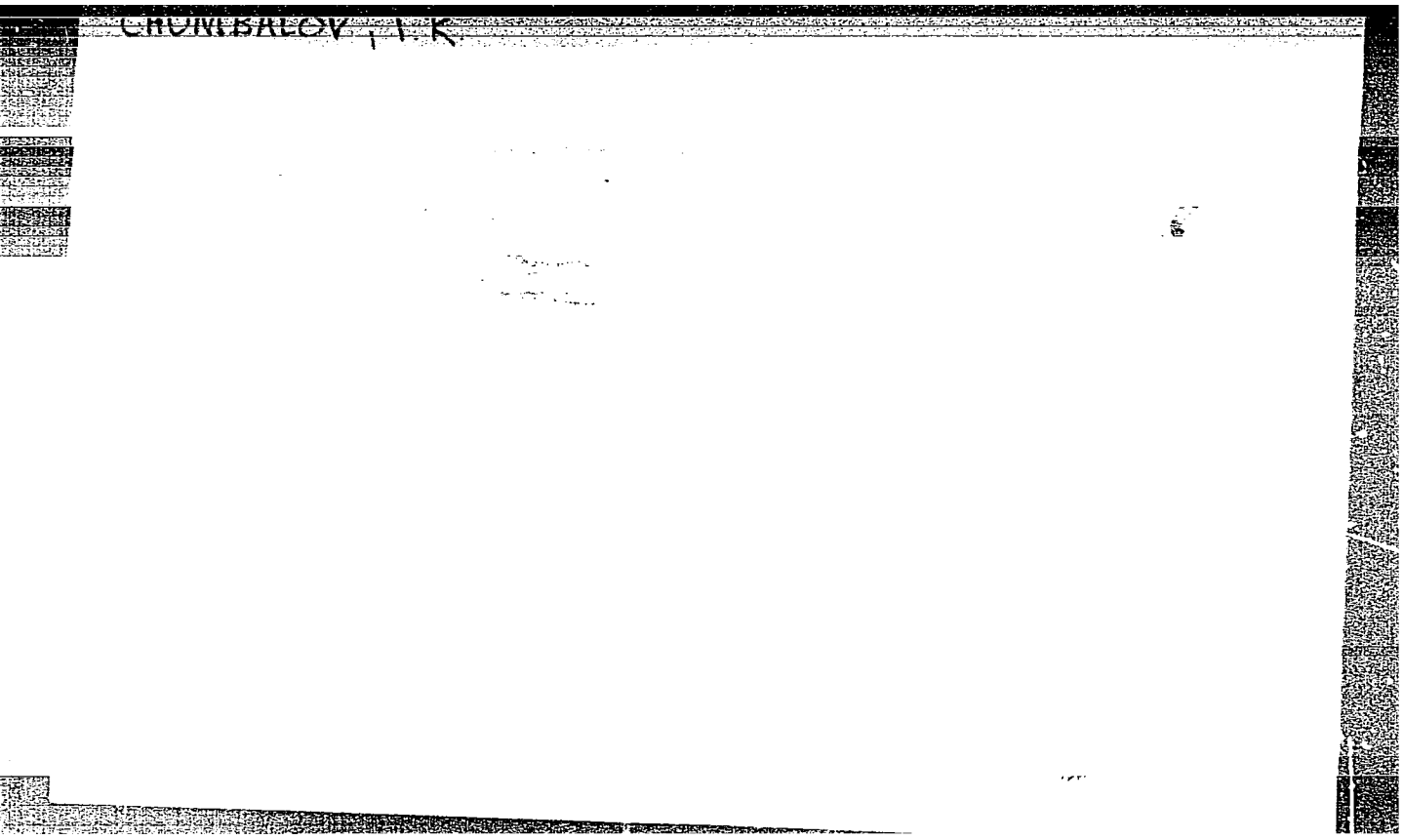
773. Чхаидзиан Гурам Александрович. Взаимодействие у излучения с легкими ядрами. 1954. 90 с.
Зап. 1955, 25.1.

774. Чрелашвили Арчил Георгиевич. Некоторые электрические свойства полупроводниковых керамических

Def. at
Tbilisi State U.

Dissertation for degree of
Candidate Physico-Mathematical Sciences

698



CHUMBALOV, T. K.

Carbohydrates of Ephedra intermedia and Ephedra equisetina. K. V. Taraskina, T. K. Chumbalov, and K. A. Vinogradova. *Vestnik Akad. Nauk Kazakh. S.S.R.* 12, No. 4, 89–93(1956)(in Russian).—The *E. intermedia* and *E. equisetina* contain, resp., 1.07 and 1.3% monosaccharides, 0.23 and 0.27% dextrin, inulin and glutenous substances, 0.45 and 0.57% starch, 5.13 and 2.99% pectins, and 1.19 and 1.59% cellulose which is sol. in 80% H_2SO_4. Both contain some free glucose. G. M. Kosolapoff

TARASKINA, K.V.; CHUMBALOV, T.K.

Nepedine from Tien Shan dock (Rumex tianschanicus A.Les) and horse dock (Rumex confertus Willd). Vest.AN Kazakh.SSR 12 no.7:107-111 Jl '56. (MLRA 9:9)

1.Predstavlena akademikom AN KazSSR M.I.Goryayevym.
(Dyes and dyeing) (Rumex)

CHUMBALOV, T.K.; KIL', T.A.

Chemical composition of the "kermek" (Statice Gmelini Willd) tanning root. Part 1: Flavone dyes. Izv.vys.ucheb.zav.; khim.i khim.tekh. 5 no.1:150-154 '62. (MIRA 15:4)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova, kafedra organicheskoy khimii.

(Flavones)

CHUMBALOV, T.K.; KIL', T.A.

Chemical composition of the Statice gmelini Willd tanning root. Part 2: Leucoanthocyanidins. Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.2:318-321 '62. (MIRA 15:8)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova, kafedra organicheskiy khimii.
(Tanning materials) (Leucoanthocyanidins)

CHUMBALOV, T.K.; PASHININA, L.T.

Study of the catechins of the mountain rhubarb. Biokhimiia 27 no.4:651-655 Jl-Ag '62. (MIRA 15:11)

1. The Kasakh State University, Alma-Ata.
(RHUBARB) (CATECHOL)

TARASKINA, K.V.; CHUMBALOV, T.K.

Anthraquinone dyes of Tatar rhubarb (Rheum Tataricum L.Fil). Izv.vys.ucheb.zav.;khim. i khim.tekh. 6 no.2:305-309 '63. (MIRA 16:9)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova, kafedra organicheskoy khimii.

(Kazakhstan--Rhubarb)

CHUBALOV, T.K.; MUZYCHKINA, R.A.

Transformations of natural anthraquinone dyeing substances. Report No.1. Nitrogen-containing derivatives of chrysophanic acid. Khim. prirod. soed. no.5:360-363 '65.

(MIRA 18:12)

1. Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.
Submitted February 10, 1965.

TEGISBAYEV, Ye.T.; CHUMBALOV, T.K.; ABUBAKIROV, N.K.

Triterpene glycoside silenoside from the roots of bladder campion. Rast. res. 1 no.1:102-106 '65. (MIRA 18:6)

1. Alma-Atinskiy gosudarstvennyy meditsinskiy institut; Alma-Atinskiy gosudarstvennyy universitet im. S.M. Kirova i Institut khimii rastitel'nykh veshchestv AN UzSSR, Tashkent.

L 16469-66 EWT(m)/EWP(t) IJP(c) JD/DM
ACC NR: AP6005533 SOURCE CODE: UR/0089/66/020/001/0054/0055

AUTHOR: Zeynalov, E. I.; Obaturov, G. M.; Shalin, V. A.; Chumbarov, Yu. K.

ORG: none

TITLE: Using indium in neutron film badges

SOURCE: Atomnaya energiya, v. 20, no. 1, 1966, 54-55

TOPIC TAGS: radiation dosimeter, neutron radiation, gamma radiation, indium

ABSTRACT: The authors describe the IFKNG film badge with an indium intensifier shield designed for thermal and intermediate neutrons and γ-radiation. A table is given comparing the theoretical and experimental values for the relative effect of thermal and intermediate neutrons on these badges. It is found that the IFKNG badge may be used with RM-5-4 x-ray film for simple and accurate measurement of thermal neutron doses from 0.005 rem, intermediate neutron doses from 0.03 rem and γ-radiation doses from 0.015 r in mixed fields of neutron and γ-radiation from nuclear reactors. Orig. art. has: 1 figure, 1 table, 1 formula.

SUB CODE: 18/ SUBM DATE: 10Sep65/ ORIG REF: 000/ OTH REF: 000

UDC: 539.107.37

Card 1/1 mc

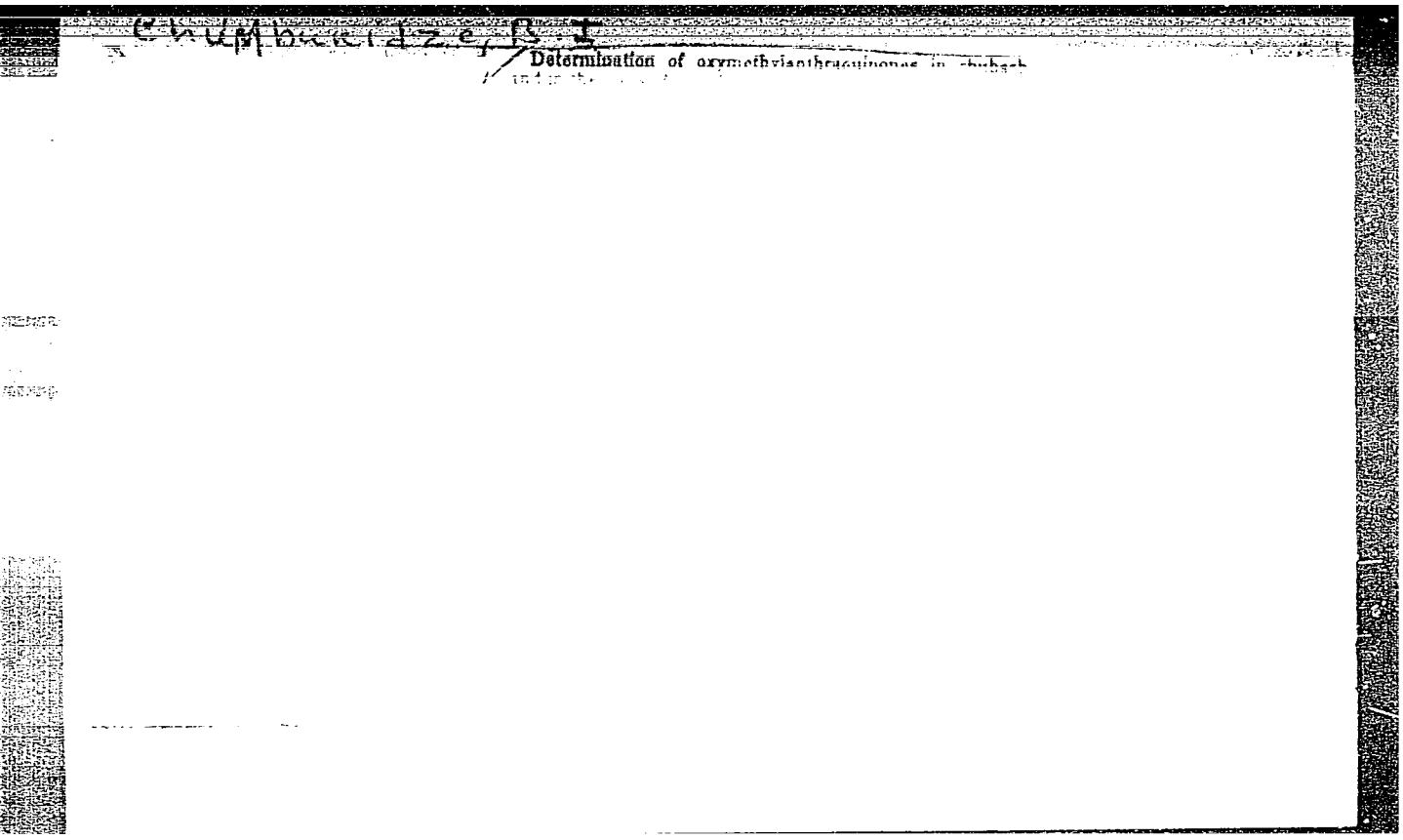
CHUMBAROVA, A.A.

BOBROV, A.R.; SIBIRYAKOV, A.A.; AKATNOV, I.N.; BIL'DE, A.E.; KOZIN, A.I., GROSMAN, I.S.; BASKAKOV, A.I.; YATSYSHIN, A.M.; TRUNOV, A.F.; KUTUZOV, N.L.; VICHIK, Ya.B.; CHUMBAROVA, A.A.; PRYAKHIN, R.I.; ZINOV'YEV, N.I.; MIKHAYLOVA, S.I.

Georgii Alekseevich Uarov. Muk.-elev.prom. 21 no.1:31 Ja '55.
(Uarov, Georgii Alekseevich, 1898-1954) (MIRA 8:5)

YAKHONTOV, L.N.; BELOVA, O.I.; CHUMBURIDZE, B.I.

Fifth Congress of the Pharmaceutical Society of the German Democratic Republic. Aptech. delo 12 no.3:78-81 My-Je '63 (MIRA 17:2)



MSHVIDOBADZE, A.Ye.; CHUMBURIDZE, B.I.; SARDZHVELADZE, O.V.

Fluorescence chromatographic analysis of synthetic antimalarial preparations. Aptech. delo 12 no.3:36-39 My-Je'63 (MIRA 17:2)

1. Kafedra farmatsevticheskoy khimii Tbilisskogo meditsinskogo instituta.

ABADZHYAN, K.A., inzh.; CHUMBURIDZE, G.K., inzh.

Use of a concrete pump in the construction of tunnels under water. Energ. stroi. no.20:103-105 '61. (MIRA 15:1)

1. Tbilisskiy nauchno-issledovatel'skiy institut sooruzheniy i gidroenergetiki imeni A.V Vintera.
(Concrete construction) (Tunnel lining)

TOKACHIROV, V.A., kand.tekhn.nauk; CHUMBURIDZE, G.K., inzh.

Comparison of Soviet and foreign methods of calculating the linings of pressure tunnels for internal pressure. Gidr. stroi. 32 no.2:41-44 F '62. (MIRA 15:7)
(Tunnel lining)

CHUMBURIDZE, I. P.

PA 50T12

USSR/Electricity Dec 1947
Power Plants, Electric
Circuit Breakers

"Dual Automatic Repeater-Type Break-In at the Armenergo," Docent I. P. Chumburidze, ½ p

"Elektricheskiye Stantsii" No 12

Many articles have described the circuit hookups for method of multiple automatic repeater-type break-in systems. All have been very complex, however, requiring complex system of relays. Author describes simple dual automatic repeater-type break-in system requiring minimum of relays. States that same system

IC

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USSR/Electricity (Contd) Dec 1947

can be adopted for multiple ARB. States that system has been in effect for 8½ years at Armenenergo, and has had to operate 270 times. No errors evidenced during periods of operation.

IC

50T12

CHUMBURIDZE, I. P.

Subject : USSR/Electricity AID P - 1296

Card 1/1 Pub. 27 - 20/30

Author : Chumburidze, I. P.

Title : N. N. Krachkovskiy's article: "Interconnection diagrams of hydroelectric power stations" (Elektrichestvo, #11, 1953) (Discussion)

Periodical : Elektrichestvo, 1, 75-76, Ja 1955

Abstract : The author critically discusses at length the above article and points to certain incorrect statements concerning, in particular, nonsymmetrical diagrams. He points out some different solutions for diagrams of the stations' own needs. One diagram.

Institution : ARMENENERGO

Submitted : No date

CHUMBURIDZE, I.P., dotsent.

Transcaucasian conference of readers of "Elektrichestvo." Elektrichestvo no.2:90-91 F '56. (MLRA 9:5)
(Electric engineering--Periodicals)

CHUMBURIDZE, I.P.

Conference of readers of "Elektricheskie stantsii" held in Erivan.
Elek.sta. 28 no.1:94 Ja '57. (MLRA 10:3)
(Erivan--Power engineering--Congresses)

CHUMBURIDZE, I. P.

"Main Electrical Connection Systems for Hydroelectric Power Plants and Substations." p 44

in book - New Deveopments in the Design of Electric Equipment for Hydroelectric Power Plants, 1957. 222 p. Moscow-Leningrad, Gosenergoizdat .
(Data of the Conference on Design and Operation, Moscow, 16-24 May 1956.)

8(6), 14(6) SOV/112-59-2-2746

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 2, p 65 (USSR)

AUTHOR: Chumburidze, I. P.

TITLE: Main Schemes of Electrical Connections of a Hydroelectric Generating Station and Substation (Glavnyye skhemy elektricheskikh soyedineniy gidroelektrostantsii i podstantsii)

PERIODICAL: V sb.: Novoye v proyektir. elektr. chasti gidroelektrost. M.-L., Gosenergoizdat, 1957, pp 44-49

ABSTRACT: There is no single opinion in selection of the main scheme of electrical connections for a hydroelectric station and substation. Usually, two types of schemes are compared: the ring-bus scheme and the straight-bus scheme. In addition to reliability and economy, the main schemes must provide for flexibility and convenience in operation. Bus-failure causes are analyzed on the basis of published data and operating experience, and the conclusion drawn that nearly all possible causes of bus outage can be eliminated by using modern

Card 1/2

Main Schemes of Electrical Connections of a Hydroelectric Generating Station . . . .

high-quality equipment and highly qualified service personnel. The article proves that the buses are one of the most reliable elements of the switchgear. In connection with a limited number of service personnel, automation and telemechanical devices should be used; they require strict scheme clarity and flexibility. A detailed survey of various double-bus schemes is made, ranging from the usual double-bus single-breaker scheme up to sectionalized-bus transfer-type schemes that ensure reliability, flexibility, and structural simplicity of the switchgear. A brief characterization of every scheme is given. The conclusion is offered that with 4 feeders or less, the ring-bus scheme and the "bridge"-type scheme are expedient for hydroelectric generating stations and substations; with more than 4 feeders, double-bus schemes; for important plants, more flexible sectionalized-bus schemes. The simplest schemes with a minimum number of breakers or with no breakers, or schemes with a minimum number of interconnections are not considered.

S.S.L.

CHUMBURIDZE, I.P., dotsent; BELOUSOV, M.M., kand.tekhn.nauk

Discussion of I.A. Syromiatnikov's article "Principal trends in carrying out complete electrification." Elektrichestvo no.2:87-90 F '61. (MIRA 14:3)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov Gruzinskoy SSR.

(Electrification)
(Syromiatnikov, I.A.)

CHUMBURIDZE, I.P. (Tbilisi); VAYNSHTEYN, B.Z. (Tbilisi)

Voltage unification in the circuit control of the rolling stock. Zhel.-dor.transp. 45 no.12:53-54 D '63. (MIRA 17:2)

1. Direktor Tbilisskogo nauchno-issledovatel'skogo elektrotekhnicheskogo instituta (for Chumburidze). 2. Rukovoditel' laboratorii Tbilisskogo nauchno-issledovatel'skogo elektrotekhnicheskogo instituta (for Vaynshteyn).

CHUMBURIDZE, I. T.

CHUMBURIDZE, I. T. -- "The Problem of Cortical Mechanisms of Disorders to Certain Heart Functions." Published by the Acad Sci Georgian SSR. Acad Sci Georgian SSR. Tbilisi State Medical Inst. Tbilisi, 1955. (Dissertation for the Degree of Candidate of Medical Sciences.)

SO: Knizhnaya Letopis', No 5, Moscow, Feb 1956

CHUMBURIDZE, I.T.

USSR/Medicine - Cardiology FD-2794

Card 1/1 Pub 154-15/19

Author : Chumburidze, I. T.

Title : On the cortical mechanisms of the disturbance of certain functions of the heart

Periodical : Zhur. vys. nerv. deyat. 5, 281-287, Mar-Apr 1955

Abstract : Investigated the role of a disturbance in higher nervous activity in producing certain forms of functional pathology of the heart. Administered carbocholine to five dogs and studied the effect on the cardiovascular system. Graphs; electrocardiograms. Twenty-one references, all USSR (15 since 1940).

Institution : Experimental Department of the Institute of Clinical and Experimental Cardiology of the Academy of Sciences of the Georgian SSR

Submitted : September 13, 1954

CHUMBURIDZE, I.T.

Effect of a disturbance of the cortical mechanisms on coronary circulation and conductivity of the heart. Soob. AN Gruz.SSR 16 no.5:375-382 '55. (MLRA 9:2)

1.Akademiya nauk Gruzinskoy SSR, Institut klinicheskoy i eksperimental'noy kardiologii, Tbilisi. Predstavleno deystvitel'nym chlenom Akademii M.D.TSinamdzgvrishvili.

(Heart) (Nervous system, Parasympathetic)

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(CORONARY HEART DISEASE) (ELECTROCARDIOGRAPHY)

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(HYPERTENSION) (PULSE)
(HEART BEAT)

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Effect of chronic irritation of the gallbladder on the electrocardiographic indices of a dog and a rabbit. Trudy Inst. klin. i eksper. kard. AN Gruz. SSR 7 no.2:7-23 '61. (MIRA 17:1)

GVANTSELADZE, Valentina Sergeyevna; MIKHARADZE, Shalva Kuz'mich; CHURBURIDZE, Irakliy Teymurazovich

[Congenital heart defects; clinical aspects, diagnosis and surgical treatment] Vrozhdennye poroki serdtsa; klinika, diagnostika i khirurgicheskoe lechenie. Tbilisi, Izd-vo AN Gruz.SSR, 1963. 114 p. [in Georgian]
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22723 Chumouridze, O.G. K Voprosu Kriptogennogo Peritonita-V Ogl: I. Chumouridze. Trudy (Toilis. Gos. Med. In-T), T. V, 1948, S. 351-357. -Na Grud. Yaz. - Rezyume Na Rus. Yaz

So: Letopis', No. 30, 1949

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1. Laboratoriya kortiko-vistseral'noy patologii. Zaveduyushchiy I.T.Kurtsin.
(PEPTIC ULCER, experimental, pancreatic secretion)
(PANCREAS, in various diseases, exper. peptic ulcer, secretory changes)

CHUMBURIDZE, O.G.

New experimental model of stomach ulcers of corticovisceral origin and the dynamics of change in the gallbladder motility caused by them. Soob. AN Gruz. SSR 32 no.3:679-686 D '63.
(MIRA 17:11)

1. Institut eksperimental'noy i klinicheskoy khirurgii i gematologii, Tbilisi. Predstavleno akademikom K.D. Eristavi.

SHVALEV, V.N.; CHUMBURIDZE, O.G.; ANDREYEVA, V.A.; VOLOSKOVA, V.Ye.; KURTSIN, I.T.

Changes in the nervous apparatus of the stomach in experimental peptic ulcer. Dokl.AN SSSR 149 no.3:703-706 Mr '63. (MIRA 16:4)

1. Institut fiziologii im. I.P.Pavlova AN SSSR. Predstavleno akademikom V.N.Chernigovskim.

(PEPTIC ULCER) (STOMACH--INNVERVATION)

Country : USSR
Category : Farm Animals. Q-2
Cattle.
Abs. Jour : Ref Zhur-Biol., No 16, 1958, 74061

Author : Vardosanidze, D. G.; Chumburidze, S. I.
Institut. : Georgia Zootechnical Veterinary Institute.
Title : Biochemical Blood Indicators in Female Milch Buffaloes Kept in Stall-Pasture Conditions.

Orig Pub. : Materialy 12-y Naucin. konferentsii, posvyashchen. 25-letiyu Gruz. Zootekhn.-vet. inta.*
Abstract : The blood of milch female buffaloes which were kept in stall-pasture conditions contained (in percent): 7.32 of general protein, 4.45 of albumin, 2.56 of globulin, and 0.31 of fibrinogen. For female buffaloes kept in pasture conditions the corresponding figures were 6.12; 3.65; 2.23 and 0.26.

Card: 1/1

*Tbilisi, 1957, 43-44

TSITSISHVILI, G.V., akademik; ANDRONIKASHVILI, T.A.; CHUMBURIDZE, T.A.; KORIDZE, Z.I.

Chromatographic separation of a mixture of hydrocarbon gases $C_1 - C_4$ on X-type zeolites with a different content of calcium cations. Dokl. AN SSSR 156 no. 4:932-934 Je '64. (MIRA 17:6)

1. Institut khimii im. P.G.Melinishvili AN GruzSSR. 2. AN Gruz SSR (for TSitsishvili).

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Chromatographic properties of magnesium-containing type-X zeolites. Dokl. AN SSSR 164 no.5:1102-1104 O '65. (MIRA 18:10)

1. Institut fizicheskoy i organicheskoy khimii im. P.G.Melikishvili AN GruzSSR. 2. AN GruzSSR (for Tsitsishvili).

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Gas chromatographic properties of barium-containing type-X zeolites. Soob. AN Gruz. SSR 38 no.1:63-68 Ap '65. (MIRA 18:12)

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Studies on Cardiovascular System, some Biochemical, Hematologic and Haemostatic Blood Indications in Old Age. Clinical Cardiology

Gerontalogy, 6th International Congress, Copenhagen, Denmark 11-16 August 1963

CHUMENKOV, P.F., inzh.

Experimental operation of the UTV-450 gas turbine injector on sliding bearings. Energomashinostroenie 7 no.9:36-37 S '61. (MIRA 14:9)

(Gas turbines--Design)

PHASE I BOOK EXPLOITATION 955

Pisarevskaya, Klara Isidorovna; Chumichev, Aleksey Grigor'yevich; and Berezovskiy, Semen Mikhaylovich, Deceased

Ekspluatatsiya oborudovaniya dlya razdelki metallicheskogo loma (Operation of Equipment Used for the Preparation of Scrap Metal) Moscow, Metallurgizdat, 1958. 251 p. 3,000 copies printed.

Ed.: Gurvits, A.I.; Ed. of Publishing House: Lanovskaya, M.R.; Tech. Ed.: Bekker, O.G.

PURPOSE: This book is intended for skilled workers, engineers, and technicians employed at scrap-preparation depots, scrap drops, and scrap shops, as well as at plants reprocessing secondary ferrous metals. The book may also be useful to students at metallurgical tekhnicums.

COVERAGE: Descriptions are given of equipment for processing iron and steel scrap, together with instructions for the operation and maintenance of the equipment, performance data, and information on

Card 1/10

technological processes. In addition, systems of organizing scrap-preparation operations are described. The authors express their thanks to P.V.Matveyev, Engineer, for his assistance in preparing the book. There are 8 references, all Soviet.

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SOV/130-58-6-7/20

AUTHORS: Ful'makht, V.V., Kan, Ye.M. and Chumichev, A.G., Engineers

TITLE: The Largest Installation in the World for the Continuous Casting of Steel (Samaya krupnaya v mire ustanovka nepreryvnoy razlivki stali)

PERIODICAL: Metallurg, 1958, Nr 6, pp 15 - 17 (USSR)

ABSTRACT: The authors describe a four-machine, continuous-casting installation designed jointly by the Giprostal' and the Tsentral'nyy nauchno issledovatel'skiy institut chernoy metallurgii (Central Research Institute for Ferrous Metallurgy). This installation is being built in the melting shop of the Stalino Metallurgical Works for casting four billets or slabs simultaneously of carbon and low-alloy steels from 140-ton ladles. Thickness and width ranges are 120-250 and 600-1200 mm, respectively and casting speed is 0.6-1.2 m/min. All units are in a 25-m dia. reinforced concrete-faced pit with its bottom 24 m below floor level; the pouring platform is 3 m above it. The platform has four 14-ton tundishes, two of which are in reserve. The tundishes can be quickly moved with the aid of rotary and lifting tables. The four moulds are of the independent-wall construction and each wall consists of an inner copper and an outer cast-iron plate with channels for cooling water between them; the mould for a particular size of billet

Card1/3

The Largest Installation in the World for the Continuous Casting of Steel

is assembled in a special holder. There is a special device for lubricating the inner walls when pouring starts. The casting is started with the aid of three-part primer, 13.8 m long, with a swallow-tail top which forms a bottom for the mould. The primer is lowered by the machine roller system and is split into its component parts and stored. Each directing roller-section, with a total length of 10.5 m, consists of an upper and a lower part, the rollers being 140 x 1 200 mm. The billet is spray-cooled as it passes down the section and then enters the drawing stand provided with hollow, water-cooler rollers. Under each drawing stand is a flame-cutting installation which cuts the billet into lengths of 4.2 - 5.2 m. The cutting system descends at the casting speed and can be raised at 0.3 m/sec. The cut billets are raised by 16-ton lifts (one for each pair of machines) to the floor level. Instrumentation is provided on panels at the pouring and intermediate levels, television is available for remote observation and a loudspeaker system for intercommunication. A model of the installation is on exhibition at the Brussels fair. An annual saving of 9.4

SOV/130-58-6-7/20

The Largest Installation in the World for the Continuous Casting of Steel

million roubles is expected from the use of the continuous instead of ordinary methods of casting.
There are two figures.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (Central Research Institute for Ferrous Metallurgy)

Card 3/3 1. Steel - Casting 2. Industrial plants - Equipment

SIKIRYAVYY, A.G.; CHUMICHEV, A.S.; NIKOLAYEV, V.A.; TARANOVA, L.D.; GUSINSKAYA, M.S.

Work of the separation plant of the Ertil' Sugar Factory. Sakh. prom. no.4:21-23 Ap '60. (MIRA 13:8)

1. Direktor Ertil'skogo sakharnogo zavoda (for Sikiryavyy). 2. Glavnyy inzhener Ertil'skogo sakharnogo zavoda (for Chumichev). 3. Nachal'nik planovogo otdela Ertil'skogo sakharnogo zavoda (for Taranova). 4. Pomoshchnik starshego khimika po separatsii Ertil'skogo sakharnogo zavoda (for Gusinskaya).
(Ertil'--Sugar manufacture)

CHUMICHEV, D. A.

Density of Urban Population

Geogra Fiya V Shkole, Issus 6, November, December 1949. Article's Talinabad" (Moscow, Feb. 50)

CHUMICHEV, D. A.

House of Specialists of Ministry of Agriculture.

Geografiya V Shkole, Issue 6, November-December 1949. Article "Stalinabad." (Moscow, Feb. 1950)

CHUMICHEV, D. A.

Coal Deposits

P: Geografiya V Shkole, Issue 6, Nov.-Dec. 1949, Article "Stalinabad" (Moscow, Feb., 1950)

CHUMICHEV, D.A.

CHUMICHEV, D.A. .Stalinabad. (Geografiia v shkole, 1949, no. 6., p. 29.).
DLC: Unclass.

SO: LC, Soviet Geography, Part II, 1951, Unclassified

CHUMICHEV, Dmitriy Aleksandrovich; DOBRONRAVOVA, K.O., redaktor; KOSHELEVA, S.M., tekhnicheskiy redaktor; MAL'CHEVSKIY, G.N., redaktor kart.

[Tadzhik SSR] Tadzhikskaia SSR. Moskva, Gos. izd-vo geogr. lit-ry, 1954. 126 p. (MLRA 8:2)
(Tadzhikistan)

Chumichev, D. A.

AUTHORS: Agakhanyants, O.Ye. and Selivanov, R.I. 12-1-21/26

TITLE: None Given

PERIODICAL: Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva, 1958, # 1, pp 95 - 98 (USSR)

ABSTRACT: The reviewers criticize a book "The Tadzhik SSR" (Tadzhikskaya SSR) composed by a large collective of authors (D.A. Chumichev, P.N. Ovchinnikov, A.V. Popov, Yu.L. Shchetkin, A. Dzhalilov, V.A. Kozachkovskiy, B. Kh. Karmysheva, M.R. Rakhimov, I.K. Narzikulov, S.L. Malayeva). This book gives a general picture of Tadzhikistan. A great part of the work is devoted to physico-geographical matters, connecting natural description with economic evaluations.

However, there is a series of deficiencies such as problems of divisions into districts, which are insufficiently covered, wrong descriptions of some natural phenomena and erroneous economic recommendations. Many facts relating to nature and economics are obsolete. On the basis of the mentioned observations the book cannot be recommended to a large circle of readers.

AVAILABLE: Library of Congress

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