

KOCHESHKOV, Aleksandr Anatol'yevich; ZHELTOV, Yury Vasili'yevich;
TOSUNOV, Eduard Mikhaylovich; ANGELOPULO, Oleg Konstantinovic;
KOVALEV, A.G., vneshniy red.; MAKLAKOVA, L.P., ved. red.;
YAKOVLEVA, Z.I., takhn. red.

[Practices in well completion in the United States] Opyt sa-
kanchivaniia skvashin v SShA. Moskva, Gostoptekhizdat, 1962.
171 p. (MIRA 16:2)
(United States—Oil fields—Production methods)

VEZIROV, D.Sh. (Moskva); NOCHESHKOV, A.A. (Moskva)

Experimental investigation of the mechanism of oil recovery
of fissured porous collectors in flooding. Izv. AN SSSR.
Mekh. i mashinostr. no.6:87-90 N-D '63. (MIRA 17:1)

BOKSERMAN, A.A.; ZHELTOV, Yu.P.; KOCHESHKOV, A.A.

Motion of immiscible liquids in a fissured porous medium. Dokl.
AN SSSR 155 no.6:1282-1285 Ap '64. (MIRA 17:4)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
Predstavлено академиком S.A.Khristianovichem.

VEZIROV, D.Sh. (Moskva); KOCHESHKOV, A.A. (Moskva); KODZHAYEV, Sh.Ya.
(Moskva)

Some characteristics of the flooding mechanism of fractured
porous reservoir rocks. Izv. AN SSSR. Mekh. i mashinostr.
no. 2:183-186 Mr-Ap '64.
(MIRA 17:5)

VEZIROV, D.Sh.; KOVALEV, A.G.; KOCMESHKOV, A.A.

Determining the petroleum yield of fractured reservoir rocks.
Nauch.-tekhn. sbor. po dob. nefti no.21:42-47 '63,

* (MIRA 17:5)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy
institut.

VEZINOV, D. Sh; KOWALEV, A.G.; KOKHSEY, A.A.

Experimental investigation of the process of petroleum recovery
from fractured reservoir rocks in dissolved gas drive. [Trudy]
VVII no.4013-14 '69 (MIRA 1787)

VEZIROV, D.Sh.; KOCHESHEVOY, A.A.

Factors determining the flowing of fractured-porous reservoir
rocks. Nauch.-tekhn. shers. po nefti nafti no.25:47-50 '64.

(MIAK 17:12)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

KOVALEV, A.G.; VEZIROV, D.Sh.; KOCHESHKOV, A.A.

Estimating the oil yield of fractured reservoirs exploited
under conditions of solution gas drive (according to the
data of experiments on models). Trudy VNII no.42;3-14 '65.
(MIRA 18:5)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

VEZ BOV, D.Sh.; KOCHESHKOV, A.A.

Some problems concerning the oil yield of fractured-porous
reservoir rocks in case of flooding. Trudy VNII no.42:15-29
'65. (VNII 18:5)

KOVALEV, A.O.; KOCHESHKOV, A.A.; POSTNIKOV, V.G.

Some problems concerning the present-day status of geology and
the development of fractured oil reservoir rocks (digest of
foreign literature). Trudy VNII no.42:362-376 '65.

(MIRA 18:5)

KOCHETKOV, A. . .; RYANTSEVA, N.A.; UDALOV, I., red.

[Agricultural practices in growing large crops; from the practices of Yur'ev-Pol'skiy State Variety Testing Station in Vladimir Province] Agrotekhnika vysokikh urozhayev; iz opyta IUr'ev-Pol'skogo gosudarstvennogo sortoisspytatel'nogo uchastka Vladimirskei oblasti. Vladimir, Verkhne-Volzhskoe knizhnoe izd-vo, 1965. 27 p. (MIRA 18:10)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

KOCHNEZHKOY, K.
KOCHNEZHKOY, K.

Reconditioning bronze bush bearings. Stroitel' no.2:11 p. '58.
(MIRA 11:2)
(Bearings (Machinery))

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

ACC NR: AP7005108

SOURCE CODE: UR/0079/66/036/009/1690/1693

OLUSHKOVA, V. P., KOCHESHKOV, K. A."Salts of the Organic Acids of Trivalent Thallium" 17

Moscow, Zhurnal Obshchey Khimii, Vol 36, No 9, 66, pp 1690-1693

Abstract: These salts are used as starting substances for the synthesis of organothallium compounds or in exchange reactions with organomercuric compounds. The authors synthesized for the first time the following organic acid salts of trivalent thallium: thallium triisobutyrate, thallium tripelargonate, thallium tri-n-caprylate, and thallium tribenzoate. The first two compounds were obtained by dissolving thallium trioxide Tl_2O_3 in boiling isobutyric and propionic acids respectively, while thallium tri-n-caprylate and tribenzoate were obtained by reacetylation. All of these salts hydrolyze in air but are quite stable when stored over phosphorus pentoxide. Their melting points are fairly high (119-172.5°C) but they are lower than the melting points of the corresponding organic acid salts of monovalent thallium. When treated with hydrazine hydrate, the salts of trivalent thallium are reduced to salts of monovalent thallium of the corresponding acid. [JPRS: 38,970]

ORG: none

TOPIC TAGS: thallium compound, organometallic compound, organomercury compound

SUB CODE: 07 / SUBM DATE: 01Jul63 / ORIG REF: 002 / OTH REF: 002

Card 1/1

DDCI 540.681 + 562.13

01/06/63 16:27

L 36855-56 EWT(d)/EWT(n)/EMT(l)/EMT(t)/ETI IJP(c) 00/P3/JP
ACC NR: AP6023424 SOURCE CODE: UR/0139/66/000/003/0169/0173

AUTHOR: Belous, M. V.; Kocheshkov, V. P.; Permyakov, V. G.

7/
68

8

ORG: Kiev Politechnical Institute (Kiyevskiy politekhnicheskiy institut)

TITLE: Compact machine for producing thin-film elements

SOURCE: IVUZ. Fizika, no. 3, 1966, 169-173

TOPIC TAGS: microelectric thin film, semiconducting film, metal deposition, metal film, physics laboratory instrument
ABSTRACT: A relatively simple and compact machine for producing thin-film elements is described. This machine makes it possible to obtain thin metallic or semiconductor films by vaporization in a vacuum, to control the electric resistance of metallic films, to deposit protective coatings on thin films, and to effect the thermal processing of thin films in a vacuum. In the proposed machine (see Fig. 1), the cylindrical housing (height, 160 mm; inner diameter, 80 mm) is attached directly to an oil-vapor pump. The film-producing section is mounted on current-carrying supports passing through the cover of the cylinder. The clamps of the conical vaporizer, which is made of tungsten wire 0.5—0.8 mm in diameter, are attached to these supports. A metallic plate (72 x 3 x 3 mm) positioned horizontally above the vaporizer, has a rectangular depression containing a heater. A mica or glass substrate on which the thin film is deposited is pressed against this heater. The shape of the thin-film elements

Card 1/3

L 36855-66

ACC NR. AP6023424

3

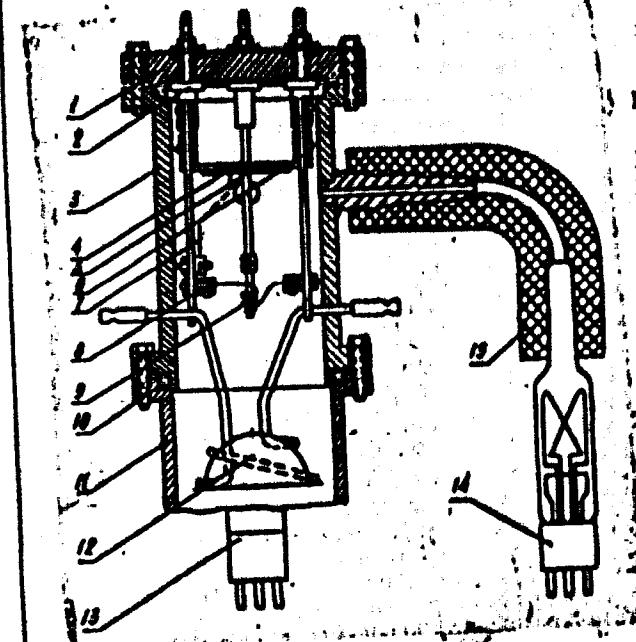


Fig. 1. Schematic drawing of the machine

1 - Cover; 2 - current carrier (support);
3 - housing; 4 - substrate heater; 5 -
insulating spacer; 6 - substrate on which
thin films are deposited; 7 - current
carrier in the circuit for measuring the
resistance of thin films; 8 - current
carrier (holder) in the vaporizer circuit;
9 - tungsten vaporizer; 10 - rubber spacer;
11 - oil-vapor pump housing; 12 - cooled
oil seal; 13 - U.M.-2 pressure gage tube;
14 - L.T.-2 pressure gage tube; 15 - vacuum
hose.

Card 3/3

CA

10

A new type of the simplest aromatic compounds of tin, *S. A. Kostetskii et al.*, *J. Russ. Phys.-Chem. Soc.*, 31, 1306 (1929). New aromatic dinitro of Sn of the formula $\text{Ph}_2\text{Sn}(NO_2)_2$, corresponding to the known fatty example of the type $\text{Ph}_2\text{Sn}(CO_2\text{R})_2$, was prepared when 42.7 g of I and 1 g of $(\text{C}_6\text{H}_5)_2\text{Sn}$, (II) (Pfeiffer, *Ber.* 37, 219 (1904)) and 74.2 g of 3 and freshly reduced NaCl , were heated for 1.5 hours at $210-220^\circ$ in a sealed glass tube. The fraction (I, 16.5%) is pure I (yield 50%), transparent, colorless fuming liquid, bp 245-250° in air, NaCl , and in cold H_2O without decomposing. NH_3 gives red of ammonium $\text{Ph}_2\text{Sn}(NO_2)_2$, alkalies give a precipitate in excess of alkali, heating around $110-120^\circ$ gives off NO_2 , and SO_2Cl_2 ; the action of dry NH_3 , Ca(OH)_2 and other bases on I in dry H_2O produces the corresponding neutral examples. The fraction bp $145-210^\circ$ is a mixture of I and $\text{Ph}_2\text{Sn}(NO_2)_2$ (III), while the residue left in the tube, black in zone III, which was recovered in nearly theoretical yield by heating 42.7 g of I and 1 g of II with 20.0 g of I and 1 g of NaCl , in a sealed glass tube for 1 hr, recrystallized from petroleum ether, m.p. 12° . It was obtained from III in 45.0% yield by heating 34.4 g of I and 1 g of III with 20.0 g of I and 1 g of NaCl , in a sealed glass tube for 1 hr, at 220° . *Phenylstannousnitrate*, $\text{Ca}(\text{SnPh}_2)_2\text{NO}_2$, was obtained in 14.7% yield by passing twice a cooled solution of 23.0 g of I with an excess of NaNO_2 , the oil layer is dried, with NaCl dried with Ca(OH)_2 , and dried, bp. $190-210^\circ$ and gives reactions analogous to those of I described above. By mixing 23.0 g of I with 30 cc of III there is formed a brown oil layer, which is assumed to be $\text{Ph}_2\text{Sn}(NO_2)_2$ isobutylate, but was not isolated as it is rather unstable.

CA

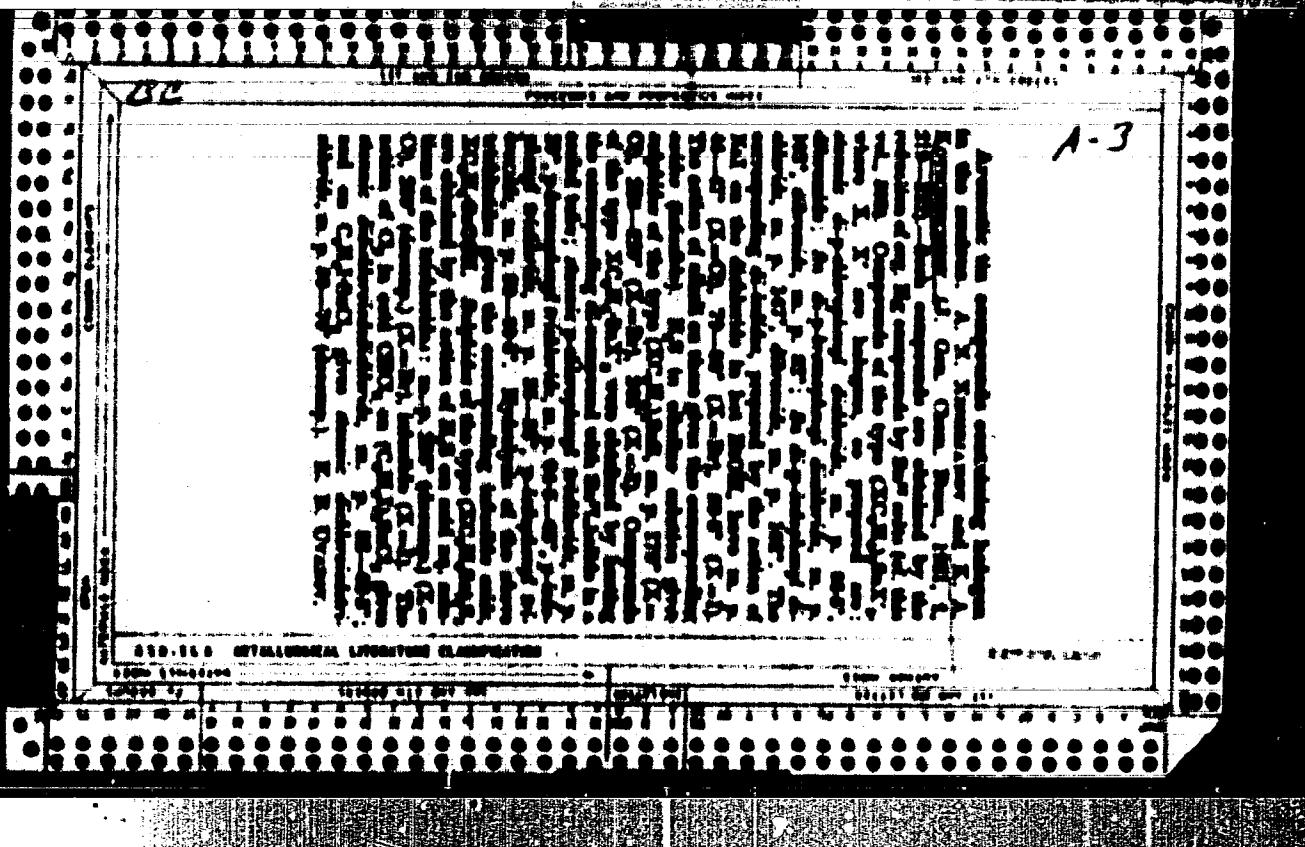
Reduction of organic mercury compounds by salts of boronite tin as a synthetic method for organic tin compounds. N. A. KARPOVICH AND A. N. NIKONOVICH. *J. Russ. Phys.-Chem. Soc.*, 61, 1790-1813 (1929).—The reactions studied were those of SnCl_3 or SnI_3 with R_2Hg (I) or R_2HgX (II) in Et_2O or Me_2CO . I was Ph_2Hg (III), $\text{p-Me}_2\text{N}_2\text{Hg}$ (IV), $\text{p-CH}_3\text{C}_6\text{H}_4\text{Hg}$ (V), PhCH_2Hg (VI), Ph_2NHg (VII), $\text{p-C}_6\text{H}_4\text{NHg}$ (VIII) or $\text{p-C}_6\text{H}_4\text{N}_2\text{Hg}$ (IX). II was Ph_2HgCl (X), Ph_2HgBr (XI), Ph_2HgI (XII), $\text{p-C}_6\text{H}_4\text{NHgBr}$ (XIII), $\text{p-C}_6\text{H}_4\text{N}_2\text{HgBr}$ (XIV), $\text{p-MeC}_6\text{H}_4\text{NHgI}$ (XV), $\text{p-MeC}_6\text{H}_4\text{N}_2\text{HgI}$ (XVI) or Me_2NHgI (XVII). The various Hg compounds react in several ways and are eliminated from their equations as follows: Complex of type II (I). These which react according to the scheme $\text{R}_2\text{Hg} + \text{SnX}_3 \longrightarrow \text{R}_2\text{HgX}_2 + \text{Hg}$ (A). This reaction is exceedingly rapid and is not influenced by the solvent used, i.e., Et_2O or Me_2CO . In this case are VII and VI which react with SnCl_3 or SnI_3 . (I). These react with the same rapidity and almost elimination of Hg as (I), but which follow scheme (A) only in analogy. Me_2CO is also. In Et_2O the reaction $\text{R}_2\text{Hg} + 2\text{SnX}_3 \longrightarrow 2\text{RHg} + (\text{Et}_2\text{O})_2\text{SnX}_2$ (B) step occurs. Usually both (A) and (B) take place. Complexes belonging here are V, VIII and IX reacting with SnCl_3 and V and VI with SnI_3 . V reacts relatively according to (A), IV gives no Hg, VI gives, VII and IX give a considerable quantity of C_6H_4 . VII (simple aryl I) when reacting with SnCl_3 . This reaction is much slower and gives only an incomplete elimination of Hg even after several hrs. boiling. There are at least 3 simultaneous reactions involved, namely (A), (B) and $\text{SnX}_3 + \text{Et}_2\text{Hg} \longrightarrow \text{Et}_2\text{HgX}_2 + \text{Et}_2\text{HgCl}$ (C). A SnX_3 group therefore the nature of SnX_3 is important. In the reaction of VII or VIII with SnI_3 , HgI_2 is always formed. VII follows (C), VIII gives C_6H_4 (even in Me_2CO), whereas VII with SnCl_3 follows (A) in that aryl previously prep'd. VII reacts with SnCl_3 or SnI_3 as in (A). However, VI which has been heated after reacting 4 hrs. with SnI_3 , gives no HgI_2 or free Hg, but only PhCH_2HgBr .

CA

Starch VI with BaCl_2 gives Hg (only after boiling many hrs.), RHI and an org. Ba complex product. Starch of starch VI reacts slowly than of the simple alkyl I or its derivatives and prepoly. VI. The reactivity of the Ba complex, used depends directly upon its only Ba^+ and BaCl_2 react very slowly, and BaI_2 , not at all. Therefore, if starches or mixtures of org. Ba are dissolved, an induction period by way of the corresponding chlorides should be noted. The nature of the reaction between compounds of type II and BaX_2 depends on the org. reagent, the solvent, and the X linked with Hg and the X and XIII with BaCl_2 , react thus: $2\text{R}_2\text{HgCl} + \text{BaX}_2 \rightarrow \text{R}_2\text{HgCl}_2 + \text{BaCl}_2$ (*D*) in either EtOH or Me_2CO (*A*) converts to a very slight extent, XIV with BaCl_2 follows (*D*) in Me_2CO in EtOH the reaction is $2\text{R}_2\text{HgCl} + \text{BaCl}_2 + \text{EtOH} \rightarrow \text{R}_2\text{Hg} + \text{Hg} + \text{EtOEtBaCl}_2$ (*F*). With NaCl , the principal reaction is $2\text{R}_2\text{HgCl} + \text{NaCl} \rightarrow \text{R}_2\text{Hg} + 2\text{HgCl}$ (*G*). The ppt obtained is either wholly HgCl , e.g., with XII, or HgCl admixed with a smaller quantity of Hg . The HgCl probably arises by reaction (*E*). (*E*) may also explain the formation of $\text{R}_2\text{HgCl}_2\text{BaCl}_2$ (with $\text{C}_6\text{H}_5\text{CH}_2\text{COO}$ as acid), but not that of phenylbenzene substituted acids. XVII gives HgCl and some $\text{C}_6\text{H}_5\text{N}$. XVIII with BaCl_2 reacts slowly with org. elimination of free Hg . A very small quantity of org. Ba complex is formed. XVI did not react during 10 hrs. boiling. The aromatic Hg complex used were prepared through the dissolution salts according to the method of Neimarkov (cf. C. A. 55, 5172). The importance of using absolutely anhyd. materials is emphasized and K and N attribute the failure of earlier workers to obtain satisfactory yields of org. Ba complex by analogous methods to the presence of water. The generalizations made are: With complex of type I the usual reaction is (*A*), but with slowly reacting solvents (*A*) is accompanied by other reactions such as (*C*) resulting in a mixt. of org. Ba complex. Aryl compounds of type I all react rapidly and according to (*A*) when the solvent is Me_2CO . In EtOH the reaction varies with different complex. When R is an unsubstituted ring or PhCH_3 , the reaction is (*A*); if R contains side chains or $\text{C}_6\text{H}_5\text{N}$, RHI is formed by reaction (*B*). Aromatic Hg chlorides react according to (*D*) even in EtOH , whereas the corresponding I follows (*B*). Aromatic Hg bromides react in 2 ways simultaneously, (*D*) and (*G*).

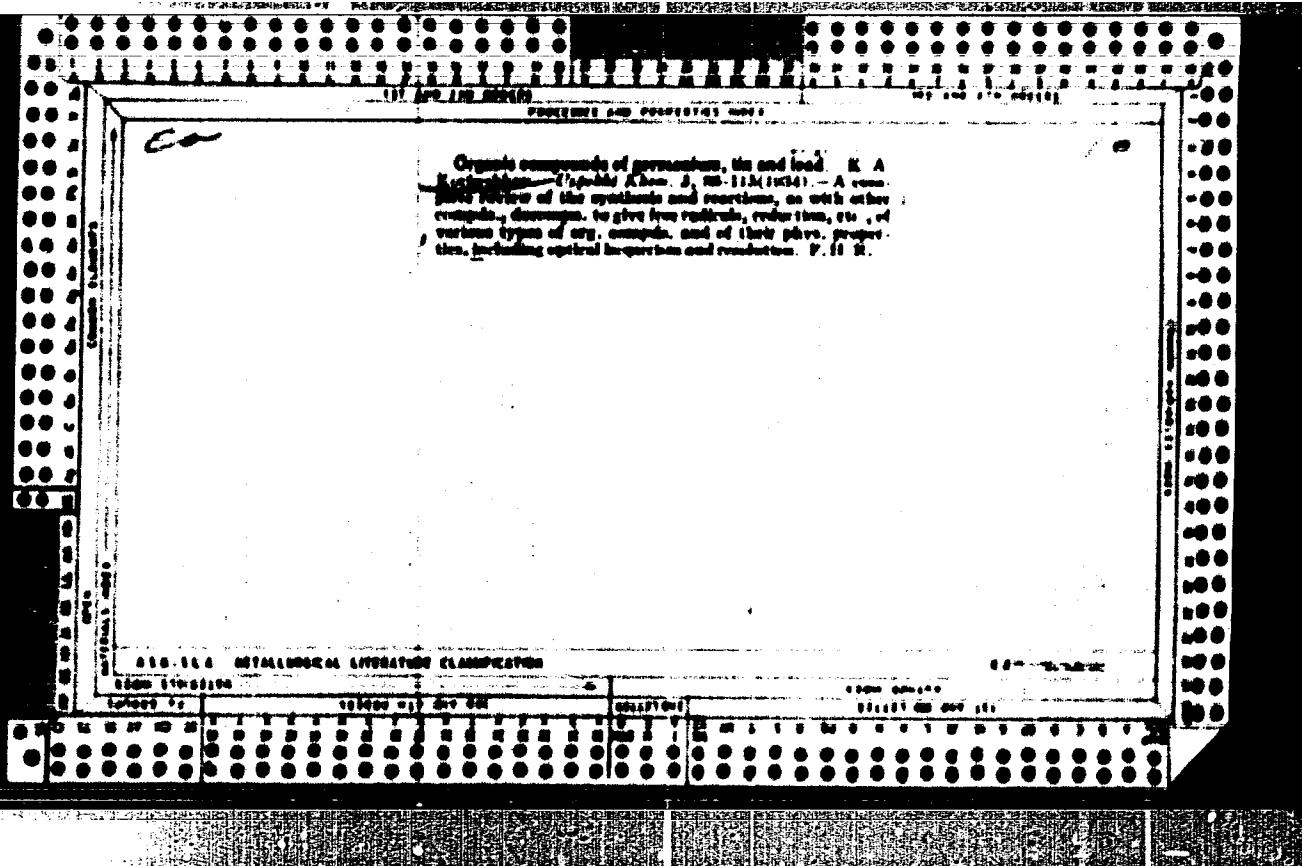
"APPROVED FOR RELEASE: 09/18/2001

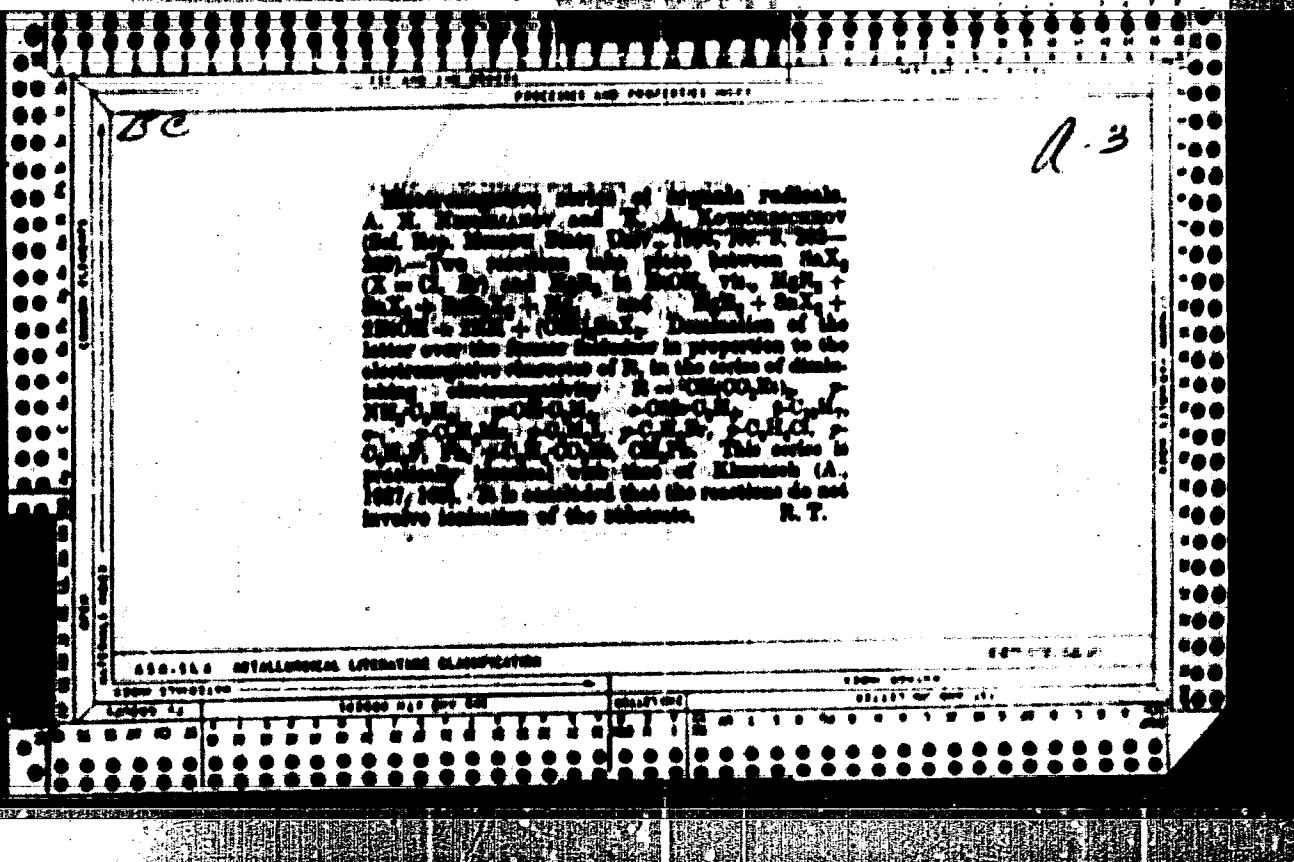
CIA-RDP86-00513R000723510010-2



APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"





CA

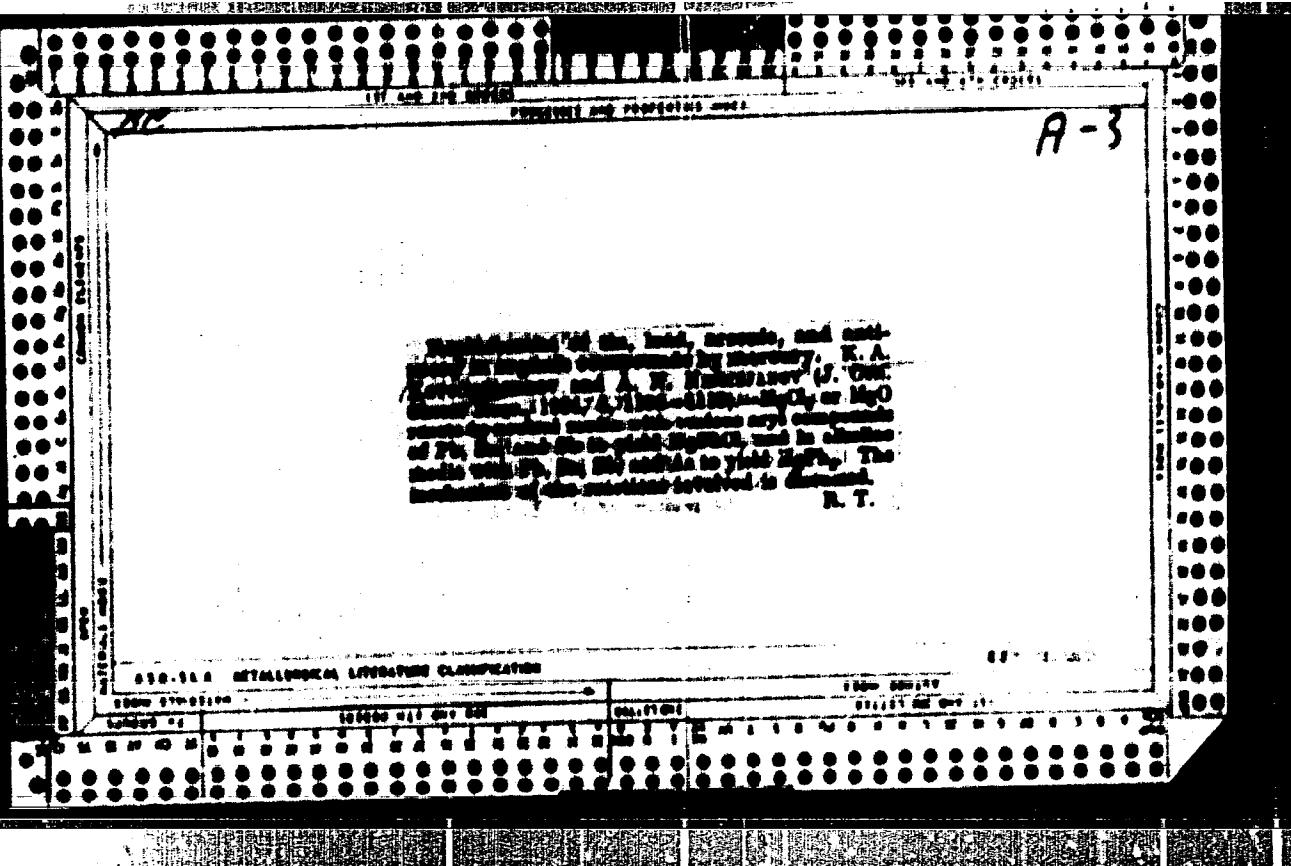
PROPERTIES AND PREPARATION INDEX

10

Phosphates of complex formation and heterocyclic in the series of the organic compounds of the K. A. Kostylevsky, *Journal Russ. Phys. Chem. Soc.* (1896), 3, 100; 300 (1894); *Chem. Zentral.* 1896, II, 2768; cf. C. A. 24, 4711. While tetravalent salts, however, are prepared with pyridine (I) and trivalent salts, on the other hand, with heterocyclic compounds, e.g., (Molybdate)Cl (cf. Kremnitskii, C. A. 18, 300), complexes of amine and diaryl-phosphates, halides of the formulas $\text{Pd}(\text{OAc})_2\text{Py}_2$ and $\text{Pd}(\text{OAc})_2\text{Py}_3$, which therefore can be represented with the coordination no. 6 for the in the sense of Muller's system. Diaphosphonates, and diacetato-phosphates give anionic complexes of the formulae $\text{Pd}(\text{OAc})_2\text{Py}_2$ and $\text{Pd}(\text{OAc})_2\text{Py}_3$. Still more unstable are the examples of the trivalent halides with I. Tetravalent salts do not add I. Anhydrideoxides with I. give examples of the type $\text{Ar}(\text{OAc})_2\text{Py}_2$, which therefore represent salts. Complex studies were carried out to determine whether organometallic salts, like CuCl_2 , are able to form anionic complexes, with diaphosphonates (II). It was found that only arylketones, as PhCOCH_3 , or $\text{C}_6\text{H}_5\text{COCH}_3$, yield known yellow complexes, or Cu^{+2} , or $\text{C}_6\text{H}_5\text{COCH}_3\text{Cu}^{+2}$, which correspond to such compounds as II. The following formulas are assigned to such compounds by Dostoyevskii (PhCOCH₃)₂Cu²⁺. Empirical formula: $\text{C}_{12}\text{H}_{10}\text{O}_4\text{Cu}$. Molar mass: 360. The salt Cu^{+2} is soluble. MethOAc-Cu^{+2} is about 310°. MethOAc-Cu^{+2} is about 160°. MethOAc-Cu^{+2} is about 170°. Pyridine-Cu^{+2} is about 120°. The salt Cu^{+2} is about 170°. Pyridine-Cu²⁺ and $\text{C}_6\text{H}_5\text{COCH}_3\text{Cu}^{2+}$ are shown on p. 9. W. A. Moers, Cl-Cu²⁺ showed on p. 10.

A10-110 METALLOPHENYL LITERATURE CLASSIFIED

SODIUM SULFIDE		SODIUM SULFIDE		SODIUM SULFIDE	
LiAlO ₂	Li ₂ SiO ₃				
Li ₂ SiO ₃					
Li ₂ SiO ₃					
Li ₂ SiO ₃					



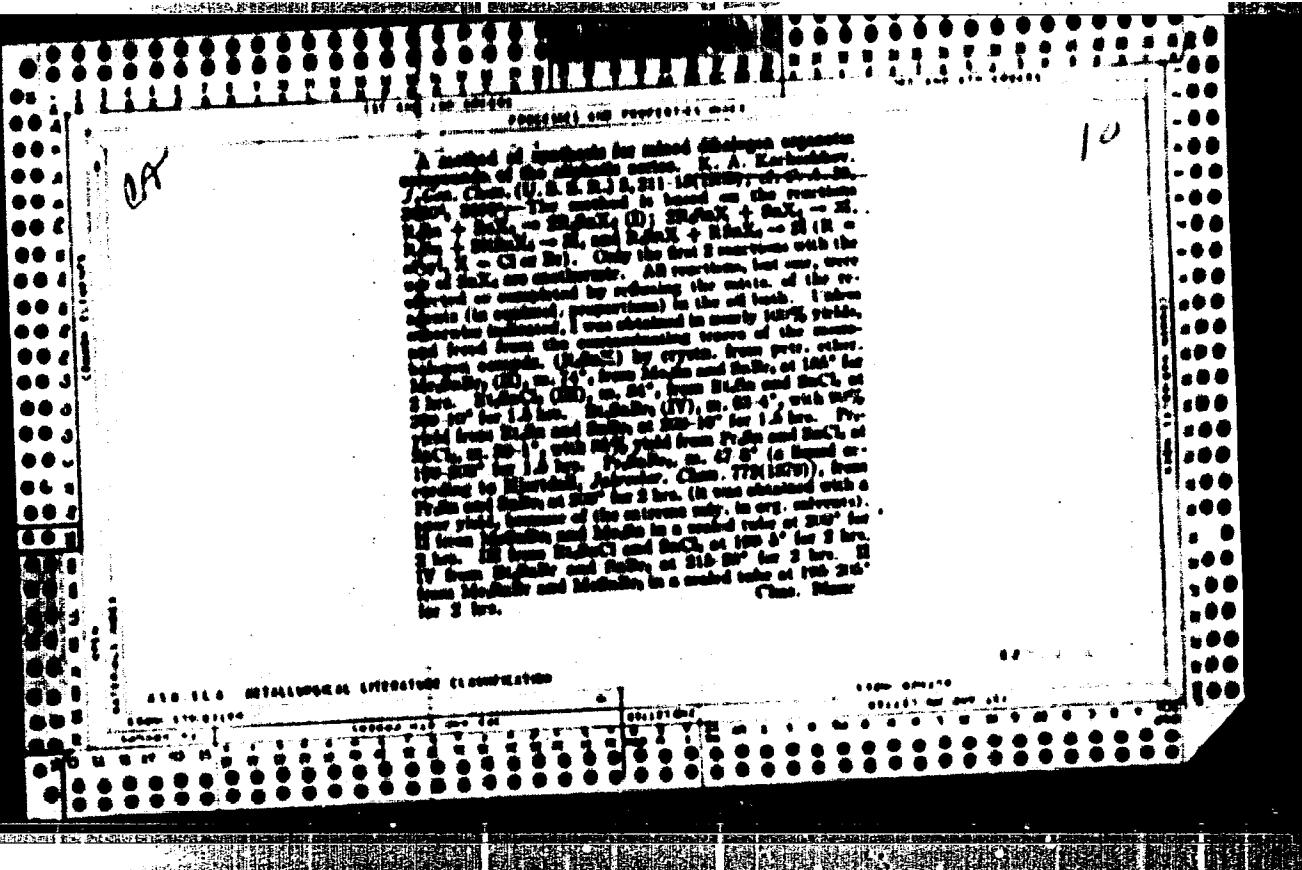
A method of synthesis for mixed substituted organoaluminum compounds of the alkoxide series R₂AlX₃ is described by R. A. Kornblum, J. Am. Chem. (U. S. A.) 61, 1330 (1939). The new method is based on the reactions: $\text{R}_2\text{Al} + \text{R}_2\text{X}_2 \rightarrow \text{R}_2\text{AlX}_2$ (I), and $\text{R}_2\text{AlX}_2 + \text{R}_2\text{X}_2 \rightarrow \text{R}_2\text{AlX}_3$ (II). II may be stage I, II, $\text{R}_2\text{Al} + \text{R}_2\text{AlX}_2$ (III), or II may be I, II, or III. The reactions never run energetically than the corresponding ones with aryl compounds, the temp. frequently rising to 40-70°. The heat evolution is general, with reactions III and I and not with II or $\text{R}_2\text{Al} + \text{R}_2\text{X}_2 + \text{R}_2\text{AlX}_2$ (IV). It is recommended by absorption of heat. These reactions may be applied in the original reaction in cases where, because of the absence of an adequate excess of reagent, a series of organometallic halogen compounds is formed. By the addition of the extra quantity of R_2X_2 , or R_2Al with subsequent heating a single product can be obtained. Et₂AlCl was prepared from 40.5 g. Mg, 100 cc. Et₂O and 210 g. Et₂Al and the melt was heated 2 hrs. on the water bath and then cooled with snow and salt. Addn. of 78 g. freshly distilled SnCl_4 in portions with vigorous stirring, heating 2 hrs. with a reflux condenser on a water bath, removal of the Et₂O, decomps., with ice and Et_2O again. (160 cc. of 1 part Et_2O , 1 part H₂O), gave a mixt. of Mg salts, Et_2Sn and some Et_2AlCl . The last was removed by adding 100 g. $\text{Na}_2\text{-CO}_3$ to give a nonvolatile product, Et_2SnCl_2 . Steam distn., exch. with 2 portions of Et₂O, removal of the Et₂O and fractional distn. gave 50 g. Et₂Sn, b. 170-7.

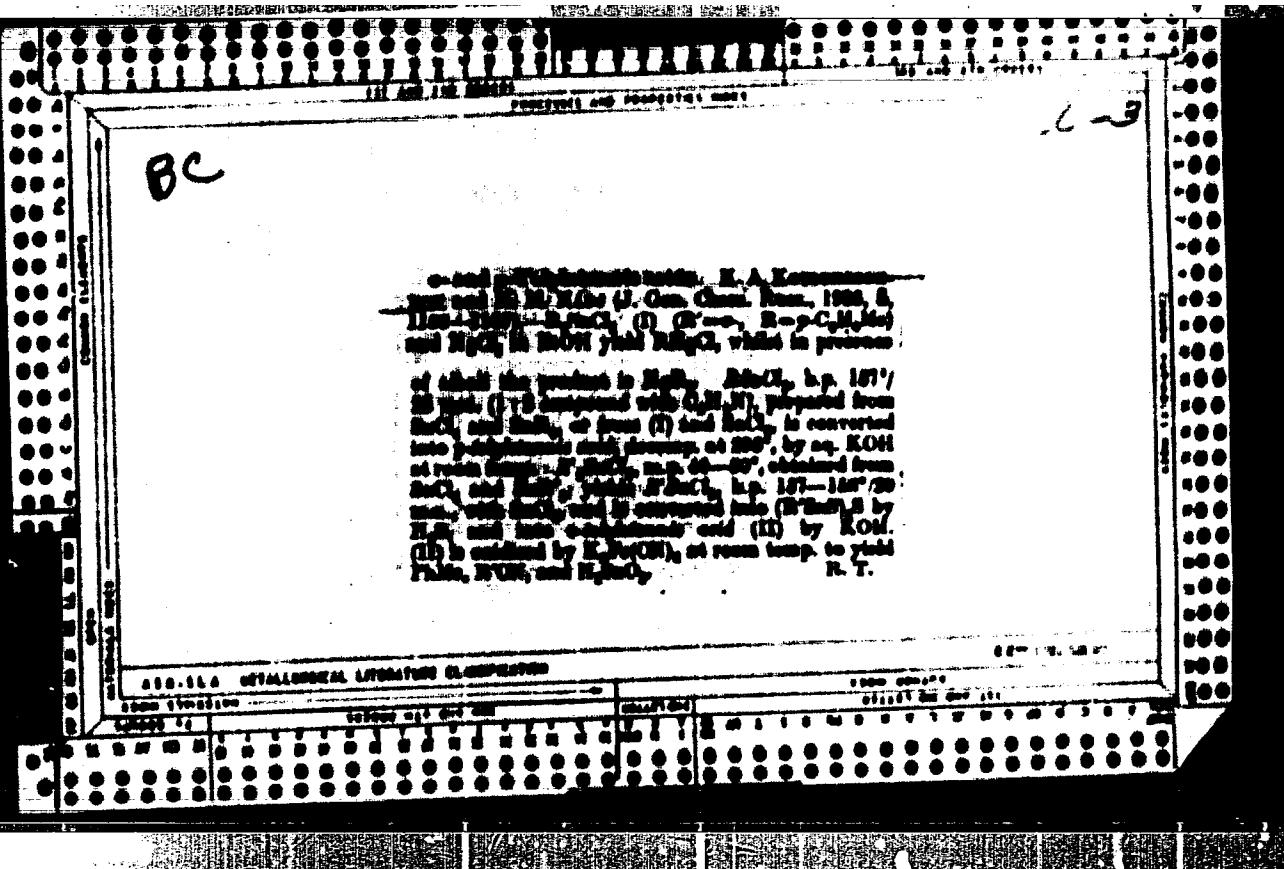
Et₄Sn (21.1 g.) with 7.0 g. freshly dried. SnCl₄ heated 0.75 hr. on a water bath with reflux condenser carrying a CaCl₂ tube, then heated 2 hrs. on an oil bath at 190-210° gave 30% of Et₃SnCl, b.p. 80-11°, b.p. 100-1°. The crystall. residue is Et₂SnCl₂, n._D²⁰ 1.4744. Et₄Sn (21.1 g.) with 12.2 g. SnBr₄ similarly gave 91% of Et₃SnBr, b.p. 82-5°, b.p. 100-10°. A small quantity of Et₂SnCl (from petr. ether), remained after the distn. Addn. of 24.8 g. anhyd. Et₂SnCl₂ to 23.6 g. Et₄Sn ribbed by heating at 210-15° for 2 hrs. and distn. of the product gave 75% of Et₃SnCl. Et₂SnBr₂ (23.7 g.) with 23.6 g. Et₄Sn heated 2.5 hrs. at 200-6° gave a product which on distn. gave 70% of Et₃SnBr.

Louis W. Butz

In part. In art., unreacted. In H₂O it dissolves spontaneously and gives an amorphous poly-a product of partial hydrolysis. VI (1.7 g.), dissolved, gave a product of partial hydrolysis, an excess of 20% in H₂O, gave a white, amorphous poly-a and, in excess H₂O. The dissolved art. subs. bromine to slight ext., with ArCO₂ and carbonated with CO₂ gave white crystalline poly-a, which, washed with excess H₂O, dissolved to an 70% over art., the sol. recovered under reduced pressure at 60°, and dried to a very thin, brittle film before it dissolved at 200°. VI is stab. to cold MeOH, EtOH, Et₂O, CHCl₃, AcOEt and C₆H₅N, heat. to power give salts.

Lewis W. Burts





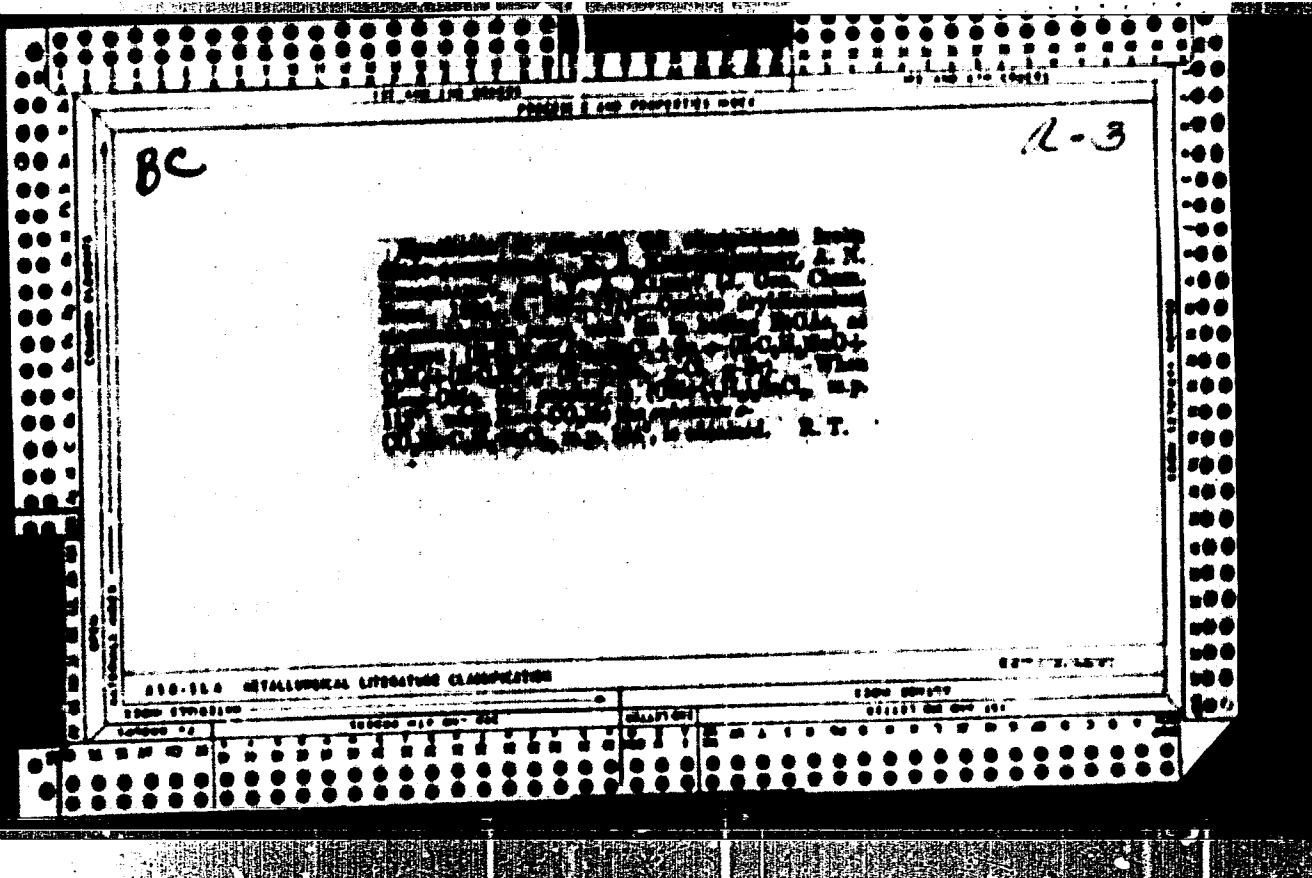
CA

Double salts of arylbismuthine chlorides and chlorides of heavy metals. W. R. Sanderson and A. N. Netter, J. Am. Chem. Soc., 11, 116, 144 (1929).
 BaCl₂, o-MeC₆H₄NCl (1), o-MeC₆H₄N₃Cl, o-C₆H₅NC₆H₄NCl (1), o-BrC₆H₄N₃Cl, o-MeC₆H₄N₃Cl, o-C₆H₅NC₆H₄N₃Cl (1), o-NO₂C₆H₄N₃Cl, o-CH₃C₆H₄N₃Cl (1), o-ClC₆H₄N₃Cl, o-BrC₆H₄N₃Cl, o-NO₂C₆H₄N₃Cl (1), o-CH₃C₆H₄N₃Cl were allowed to react with BaCl₂, CaCl₂, TiCl₄, PbCl₂, BaCl₂, AsCl₃, PbCl₃ and PbCl₄. The double salts were prepared by heating the metal chloride in 10% HCl until 1% RNH₃ was present, by neutralization with solid NaOH, of 1 mol. RNH₃ in 10% HCl to 10% RNH₃. The precip. salts (the Zn and Cd salts were amorphous ppt. only after long heating of -15°) were filtered off, washed with cold 5% HCl, air, and BaCl₂ and dried in air. The example of the double salts was usually independent of the relative proportions of reagents. Usually were taken 1 eq. each mol. of RNH₃, 0.8 mol. of ZnCl₂, CaCl₂, TiCl₄ and PbCl₂, and 1 mol. of PbCl₃, BaCl₂ and AsCl₃, and a larger excess of PbCl₄ (otherwise the Pb salts were not formed). With TiCl₄ and BaCl₂ the proportions 1 mol. metal chloride and 2 mol. RNH₃ and 1 mol. RNH₃ and 1.5 mol. metal chloride were likewise used. Compos. (M) of the metal chlorides in HCl: ZnCl₂ 1 M; CaCl₂ 2.5 M; TiCl₄ 2 M; PbCl₂ 2.5 M; PbCl₃ 0.5 M; BaCl₂ 3 M; PbCl₄ 1 M; AsCl₃ 1 M; PbCl₃ 0.5 M. The example of the double salts of Au, Zn, Ba, Pb, and

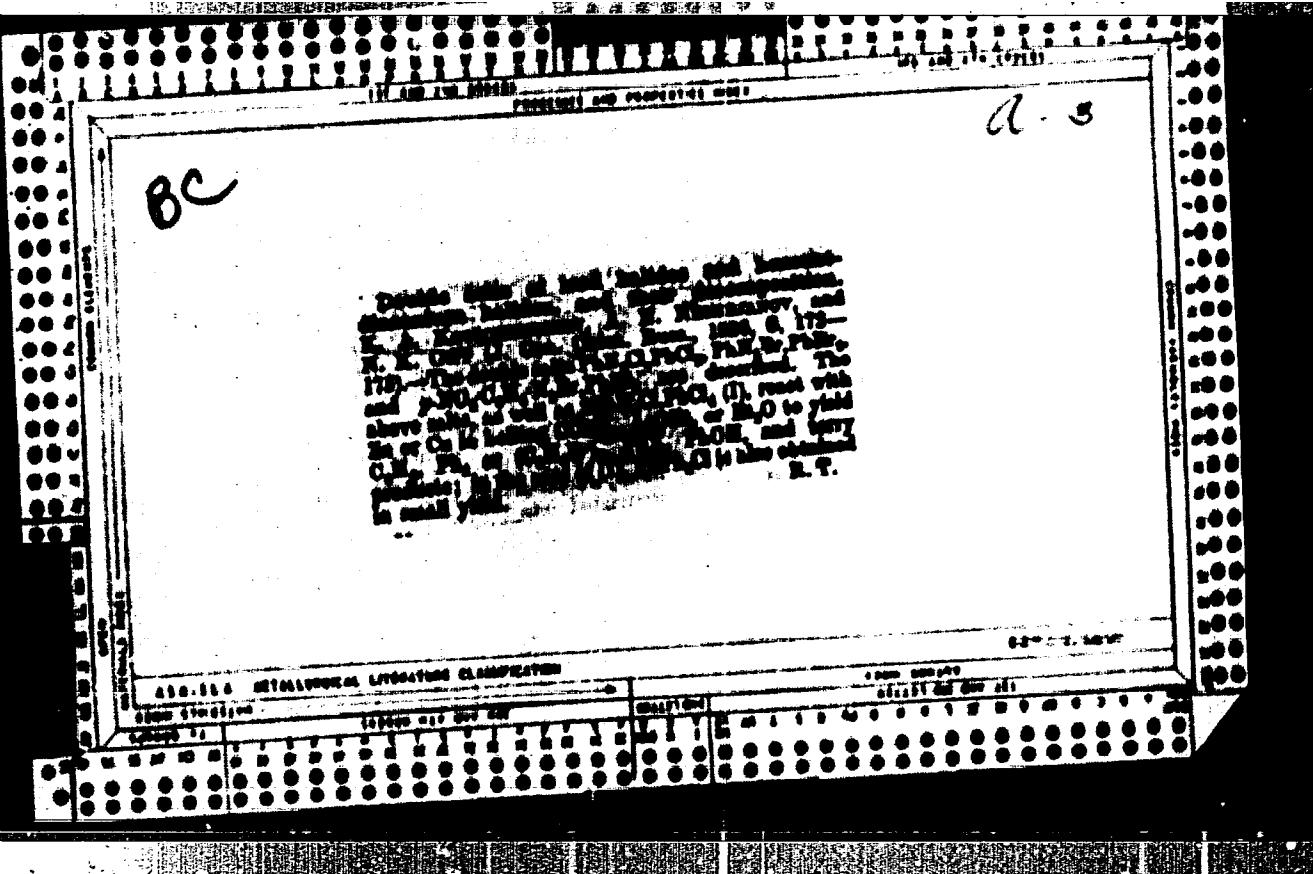
Pt and Fe was independent of the structure of R, which with the other metals the nature of R affected the results. Au, Zn and Fe had coordination no. 4. Cu, Pb and Pt had 6. The coordination no. of Cd and Hg varied from 2 to 6, and that of Ti and Bi from 4 to 8. They always gave salts with the same no. of RNH₃ molecules, being the only compound to give with CaCl₂ the type RNH₃CaCl₂ with all pairs of reagents. II gave 2 H BaCl₂ and with BaCl₂ only 2 H TiCl₄. TiCl₄ gave only H TiCl₄. Both H BaCl₂

and 2 H HgCl₂ were formed. III gave salts with the coordination no. of the metal, except that the 2 H HgCl₂ was contaminated with some Hg BaCl₂. III was the soft RNH₃Cl to give a pure salt of the type (RNH₃)₂TiCl₄ and which did not give RNH₃2TiCl₄. For the remaining reagents, the influence of R is less pronounced. The only in many solvents and the decomps. temp. of each double salt are given. These properties are of interest to consider, both with the formation of organometallic compounds, from the double salts. The only was affected clearly by the nature of the metal component, the decomps. temp., by the nature of R. The presence of one substituent in the P's nucleus made for increased thermal stability, the p-substituted being most stable. The salts of Pt, Cd, Bi and Au were the most stable. The examples of each double salt and a review of earlier literature are given. L. W. B.

"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2



APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2"



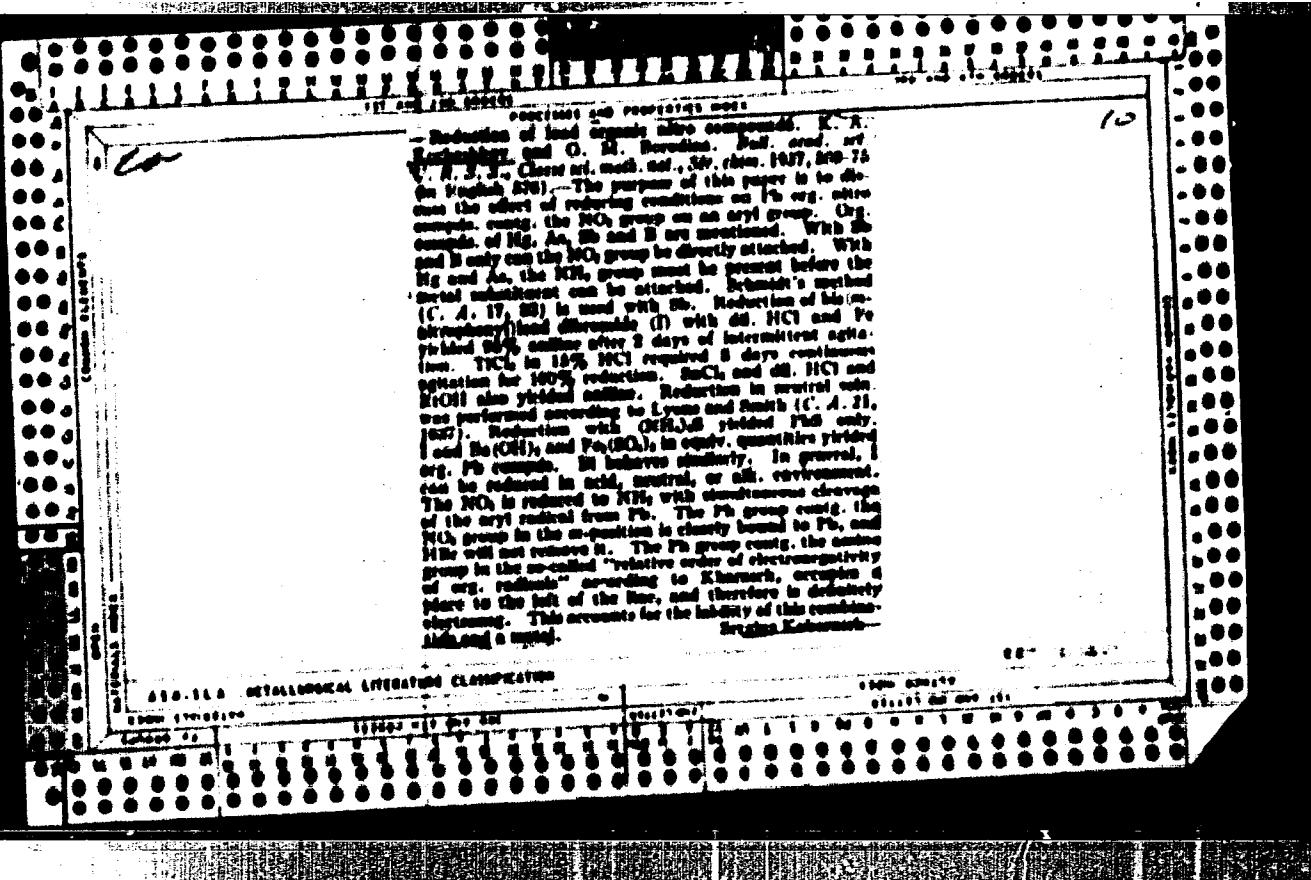
BC

R-3

1,3-diphenylpropan-1-one, and *3,5-diphenylcyclohexanone*, m.p. 103–105°, were prepared analogously.

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2"



Organic lead compounds containing a carboxylic group. I. G. K., A. V. Aleksandrov and A. P. Aleksandrova. *J. Russ. Chem. (O. S. B. B.)*, 7, 69-84 (1957).— $\text{Ph}_2\text{Pb}(\text{CH}_2\text{COOEt})_2$ di- and triethyl (CH₂COOEt)₂Pb(OC₂H₅)₂ were prepared by thermal decomposition of $\text{Pb}(\text{OC}_2\text{H}_5)_4$ (III) and $\text{Pb}(\text{OC}_2\text{H}_5)_3$ (IV) at 130-150° (calc'd. 40.1% Pb) and 120-130° (calc'd. 33.8% Pb) respectively. In 60 cc. of dry CH_2Cl_2 (dissolved in CH_2Cl_2) 100 cc. of abs. ph. and 10 cc. of $\text{Pb}(\text{OC}_2\text{H}_5)_4$ (dissolved in CH_2Cl_2) were added 70 cc. of dry MoO_3 by dropping the last until, on a water bath for 15 min., and then dried off a part of the solvent from the filtrate. III heated at 100 & 150°, pressure to cessation of the CO_2 evolution of 100-110°, 1 hr., 60-65° (calc'd. 40.1% Pb) and K₂C₂(CH₂COOEt)₂Pb(OC₂H₅)₂ (Margaryan, *Bull. soc. chim.*, 131, 481 (1958)) gave 34.4% IV, m. 121.2° (Calc'd., IV d₄₀ = 1.16-1.17, m. 120-121°) and 25 mm. gave 61% II, m. 121-122° (calc'd.).

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

f.a
 Reduction of organic mercury compounds by aliphatic thiocyanides as a specific method for aromatic compounds substituted in the (benzene) nucleus with hydroxyl and amino groups. A. N. Nevezinova, N. A. Kostyleva and V. V. Pustrova. J. Russ. Chem. (U. S. S. R.), p. 115 (1937); cf. C. A. 31, 267, 2703; 32, 1679. — The reduction of substituted aromatic tin compounds of the types R_2SnX_3 and R_2SnX_2 from corresponding R_2HgX and R_2Hg compounds, where X and Hg groups in the ring in the α - and β -positions to the Hg atom (cf. C. A. 31, 2678), are effected by reducing aliphatic thiocyanides of the types R_2Sn and $(R_2Sn)_2S$, but R_2Sn and R_2Hg in the reaction. Molecules (I) and $(IV)_2$ (II) are capable of reducing Hg compounds, forming corresponding thiomers: I \rightarrow $HgCl_2 + HgS$; II \rightarrow $HgCl_2 + 2 HgS$; III \rightarrow $HgCl_2 + HgS_2$; IV \rightarrow $HgCl_2 + HgS_2$; V \rightarrow $HgCl_2 + HgS$. The introduction of OH and NH₂ groups into the ring in the α - and β -position to the Hg atom results in a greater reactivity of Hg and NH_2 groups toward the ring in the α - and β -positions to the Hg atom (cf. C. A. 31, 2679). Thus, $I + HgCl_2 \rightarrow 2 - 2,4-dihydroquinazolinium (VI) + Hg$; $II + HgCl_2 \rightarrow HgCl_2 + 2 - 2,4-dihydroquinazolinium (VI) + Hg$; $III + HgCl_2 \rightarrow 2 - 2,4-dihydroquinazolinium (VI) + Hg$; $IV + HgCl_2 \rightarrow 2 - 2,4-dihydroquinazolinium (VI) + Hg$; $V + HgCl_2 \rightarrow 2 - 2,4-dihydroquinazolinium (VI) + Hg$.

0.2 g. $SnCl_2$ (cf. C. A. 30, 2232), 3 g. of iodine, Na and $SnCl_2$ in $AcOH$ by digesting the mixture on an oil bath at 120° for 8 hrs. and drying in a X oven. An equimolar mixture of II and $HgCl_2$ treated at 120° for 20 min. gave 70% yield of VI. This with $HgCl_2$ in $AcOH$ at 120° for 2 hrs. resulted in 20% II with $HgCl_2$ at 120° for 2 hrs. reduced to 20% $HgCl_2$, to $112-14^\circ$. II with $HgCl_2$ at 100° for 7 hrs. gave 67% $HgCl_2$, 100% VI. II with III digested on a water bath for 30 min. and then on an oil bath at 120° for 8 hrs. gave IV, to $172-2^\circ$, $d_{10}^2 1.3423$, m.p. 120° . IV with $HgCl_2$ in air, heated until 120° , p. $M_2N_2Cl_2HgCl_2$, to 200° . The air mixture treated with $HgCl_2$ and cold with $HgCl_2$ gave $HgCl_2$. This with $AcOH$ gave $HgCl_2$, to 120° . IV in C_6H_6 was treated with $HgCl_2$ in C_6H_6 . The solution was dried off and the residue was digested in $HgCl_2$. After being digested with $HgCl_2$, the filtrate was cooled, giving $p - SnCl_2HgCl_2$, m.p. 20° (one ester). II with V, giving $p - SnCl_2HgCl_2$, m.p. 120° (one ester). II with V, at 120° for 2 hrs. afforded mostly $2,4-dihydro$ VI, to 120° , $d_{10}^2 1.3420$, m.p. 120.77. Treated with $HgCl_2$ it gave a $HgCl_2$. Treating I with $HgCl_2$, condenser over $HgCl_2$, $LiCl$, gave $HgCl_2$. Treating I with $HgCl_2$, $b. 114^\circ$, and $HgCl_2$ (one ester) resulted in 80% $HgCl_2$, b. 114° , and $HgCl_2$ (one ester).

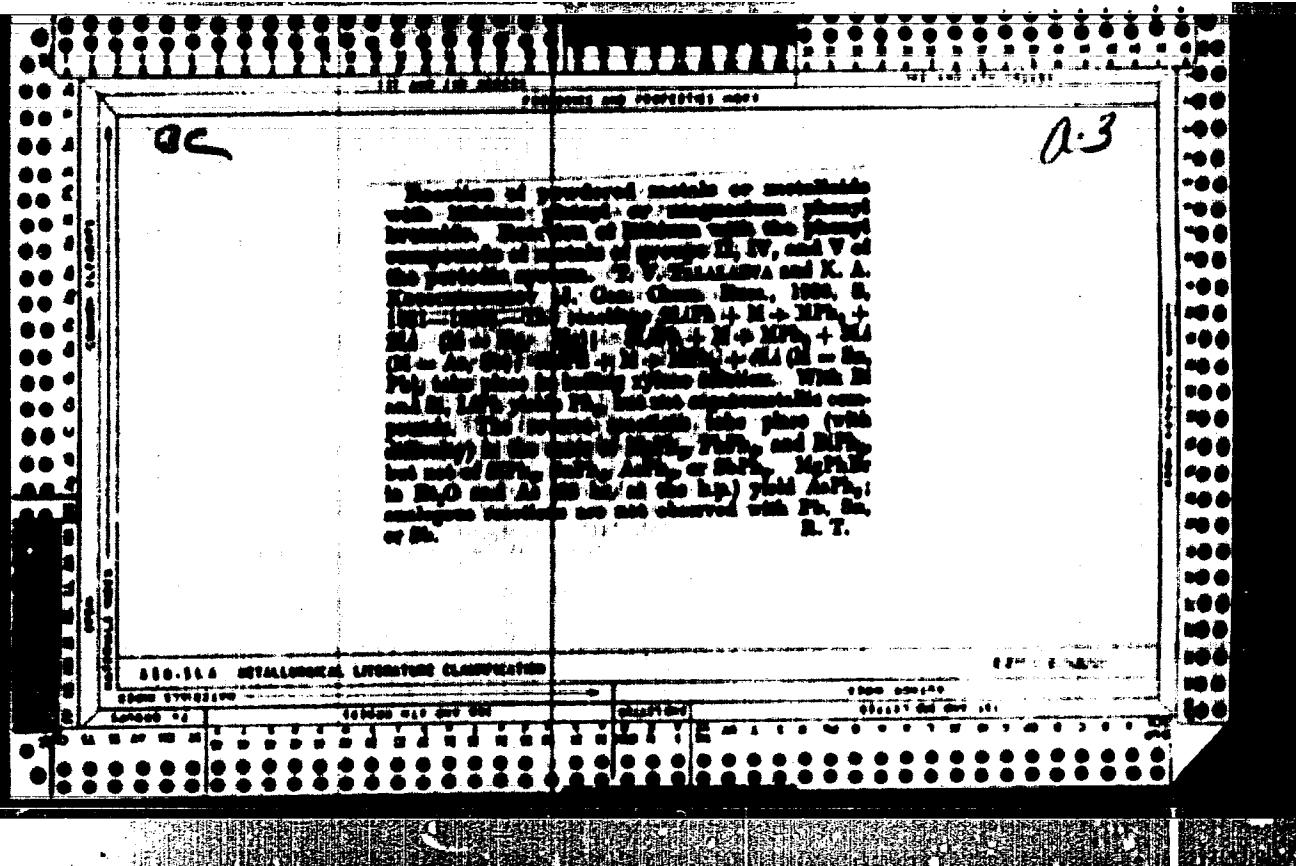
The interaction of argon and mercury with highly oxygenated metals like the compounds, M₂N₂ (M = Ni, Cu, Zn) and the carbonyls, M₂C₂ (M = Ni, Cu, Zn) has been studied by J. G. Chen (U. S. A. 3, 03-20 [1957]; U. S. C. A. 29, 20007) [1]. 20007 and presented later. Tetraarylpotassium, Ar₄K, are usually prepared by the Cannizaro reaction with removable aluminum and zinc picrate. Trietyl tin chlorides, Ar₃SnCl, are derived from the ArCl (ref. C. A. 55, 7226). ArCl can be obtained by direct yields from org. halogen compounds, with Na-Na alloy (Na₂, Na), or by sintering, according to the reaction scheme: Ar₂Sn(Cl) + 2Na₂Sn = 2Na₂Sn + Ar₂SnCl + SnCl₂. The reaction with Na powder proceeds differently, forming Ar₂SnCl: Ar₂Sn(Cl) + 2Na = 2Na₂Sn + Ar₂SnCl. The conversion of Ph₃Sn to Ph₃SnCl and that of Na₂Sn to Na₂SnCl was demonstrated by spectral tests. The products resulted in heating Ar₂Sn with Na-Na and Na in vacuum for 10 hrs. and 2010, the reaction with Cd, after the system is partially or completely evacuated. Ph₃Sn, m. 224-5 (30.1% yield), prep., from 9.4 g. (0.03 mol.) Ph₃SnCl and 20 g. Na-Na in an oil. system. The filtrate

gave 0.7 g. (Ph₃Sn), m. 211-2 (PdCl₂HgCl₂) + 0.1 g. (PdCl₂Na₂SnCl₂), m. 224-5*. This with 1 mol. Cd gave 1.4 g. (PdCl₂Na₂SnCl₂), m. 224-5*. The filtrate from Cd gave (PdCl₂Na₂SnCl₂), m. 224-5*. The filtrate from Cd gave (PdCl₂Na₂SnCl₂), m. 224-5 (41% yield), from P-McGill (PdCl₂Na₂SnCl₂), m. 224-5* (47% yield), from 3.1 g. Ph₃Sn (0.01 mol.) and 0.2 g. Na. Then in Hg(0.01 mol.) 20% KOH gave Ph₃SnCl, m. 211-2 (30% yield), m. 211-2 (PdCl₂Na₂SnCl₂), m. 224-5 (PdCl₂Na₂SnCl₂), m. 224-5 (PdCl₂Na₂SnCl₂), m. 224-5 (PdCl₂Na₂SnCl₂). Then in air with 1 mol. Na gave (PdCl₂Na₂SnCl₂), m. 224-5*. PdCl₂Na₂SnCl₂ with Na gave 71.4% (PdCl₂Na₂SnCl₂), m. 224-5* (Ar₂SnCl) with Na gave 123.4% (PdCl₂Na₂SnCl₂), m. 224-5* (Ar₂SnCl). This was 134% based in 16.1% Ph₃SnCl (theory). This was 134% based in 11.4% Ph₃SnCl (theory). Ph₃SnCl with Na-Na and with Na-Na alloy Ph₃SnCl gave 26.0% and with Na-Na a pure yield of Ph₃SnCl (from Ph₃SnCl).

AIA-114 METALLURGICAL LITERATURE CLASSIFICATION

10

synthesis of primary amides by the reaction of a
methylhydrocarboxylate with organomagnesium and or-
ganolithium compounds. N. J. Horvath and K. A.
Kundrotas, *J. Org. Chem.* 17, 18, 20, 22, 24
(1952). RMgX and RLi in ether, at a temp. of
-10° to -15° react readily with MeOHCl, (1) to give
primary amides. The yield depends on the nature of R,
decreasing sharply from (1) to 1, and is practically inde-
pendent of the nature of R. The following samples were
reacted with 1; RMgBr, iso-AmMgCl, iso-AmMgBr,
iso-AmMgl, sec-BuMgI, sec-BuMgl, PhMgCl, PhMgl,
p-Nc₆H₄MgI, and PhLi. The yields of MeOHCl were
100% on 1, 71.4, 8.8, 71.4, 73.8, 80.0, 11.21, 72.9
and 101.1%.



The action of hypochlorous acid on aromatic compounds of the type $\text{Ar}-\text{NH}_2$, as a method for the determination of the "relative electropositivity" of certain radicals. Ch. A. Buddehurwara and L. A. Kiselevkin. J. Org. Chem. (U.S.S.R.), 1973, No. 9, p. 1930. The following aromatic compounds were prepared from Ar-NH_2 and NaOCl ; in other, analogous hypochlorous acids, yields were: I, m. 120-122°, 30%; II, α -chloroaniline derivative (II), m. 123-125°, 10%; from ρ -Me₂C₆H₄NH₂ (III) and VII; α -chloro- ω -nitrophenoxide (IV), m. 190-192°, 10%; from III and ω -C₆H₄NH₂ (V); α -chloro- ω -nitrophenoxide (VI), m. 210-212°, 20%; from Ph-NH₂ and V; diphenyl- α -chlorophenoxide (VII), m. 200-202°, 10%; from Ph-NH₂ and ω -C₆H₄NH₂ (VIII); prepared from ω -C₆H₄NH₂ and NaOCl ; α -chloro- ω -nitrophenoxide (VIII), m. 190-192°, 10%; from ω -C₆H₄NH₂ and V; α -chloro- ω -nitrophenoxide (VII), m. 200-202°, 10%; from III and ω -C₆H₄NH₂ (VIII) when treated with excess of aqueous HCl solution. In Ar-NH₂ and NaOCl , the more electropositive radical combining with the II ion. The following examples were obtained on decomposing: I gives $\text{C}_6\text{H}_5\text{NO}_2$, yellow, m. 127-128°, 40% yield; II, Ph-NH₂, m. 120-122°, 10% yield; IV, Ph-NH₂, m. 190-192°, recovered of both Ph and thermal energy required; VI, α -C₆H₄NH₂, m. 210°; VII, ω -Me₂C₆H₄NH₂, yellow and green. Based on the yields of H_2NAr , the radicals may be arranged in decreasing order of electropositivity as: o-phenyl, ω -nitro, α -nitro, ω -nitrophenyl, Ph and ω -nitrophenyl.

10

*SC**A-1*

Carbonyls of group VI metals. I. K. A. Kostylevskii, A. N. Kuznetsov, M. M. Nasr, T. M. Serezhnikova, and L. M. Dvurechenskaya. Zh. Kh. N. Arsen'ev and A. N. Kuznetsov (Omsk). read. Acad. SSSR, U.R.S.S., 1968, 25, 24-27, 38-40).—I. Reduction of WCl_6 and $MoCl_6$ at -10° to 0° by CO and Fe or Zn dust in $H_2O + C_2H_2$ yields $W(CO)_6$. Imprecise yields of $W(CO)_6$ and $Mo(CO)_6$ were obtained respectively in dry H_2O and C_2H_2 . The intermediate formation of a carb-halide, unstable at low temperatures, is tentatively advanced to explain, after some, the low yields of $\sim 10-14\%$. II. Increased initial pressures of CO improve the yields of $W(CO)_6$ and $Mo(CO)_6$. $W(CO)_6$ can also be prepared from WO_3 in H_2O by the method given above. Carbonyl could not be prepared from WO_3 or from $CrCl_3$. W. R. A.

AIA-34 METALLURGICAL LITERATURE CLASSIFICATION

KOCHETKOV, K. A.

"Reaction between α -benzylhydroxylamine and Organometallic Compounds of Magnesium and Lithium as a Method for the Synthesis of Primary Amines," Iz. Ak. Nauk SSSR, Otdel. Khim. Nauk, No. 1, 1941

KOCHESHKOV, K. A.

"Organometallic compounds in the Friedel-Krafts reaction." Skoldinov, A. P., and Kocheshkov, K. A. (p. 402)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1942, Vol 12, No 7-8.

KOCHESHKOV, K. A.

"Synthesis of organometallic compounds of tin by the action of organometallic compounds of lithium upon the salts or the amalgam of tin." Talalaeva, T. V., and Kocheshkov, K. A. (p. 407)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1942, Vol. 12, No 7-8.

KOCHESHKOV, K. A.

"Method for the synthesis of organometallic compounds of lead having a substituted group in the benzene nucleus." Najd, M. M., and Kocheshkov, K. A. (p. 413)

SO: Journal of General Chemistry (Zhurnal Osnovnoi Khimii) 1942, Vol 12, No 7-8.

the yields are 8.7% II, 20% III, and 20% IV. When R = CH₃, I decomposes 12%, gives mostly (10%), II, and when R = C_6H_5 , I gives 20% (17%), II, 24%, and 21% III, or 10%. When R = $\text{p}-\text{NO}_2$, I, decomposes 12%, gives 2.5% II, and 17% III, or 10%. When R = $\text{p}-\text{NO}_2$, I, decomposes 10%, and gives 10% IV. When R = HCO, I gives 10% II, 10% III, and 10% IV. All the double salts with phenoxide and ethers precipitate, rather unstable ones a much later stability. When R = NH₂, I gives 20% III.

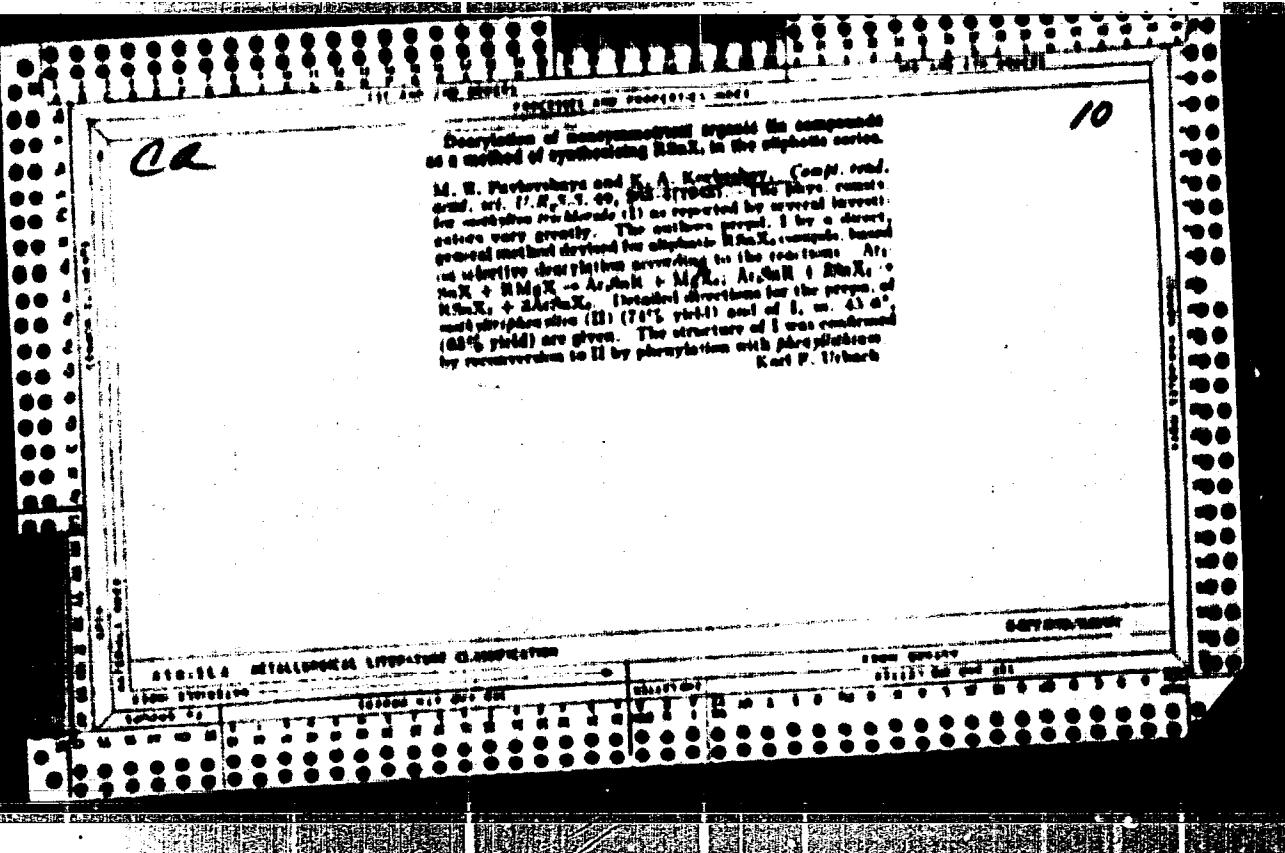
AIA:11.2 METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

*ca**10*

Synthesis of organometallic compounds by the use of double crossover units. XVII. Tetraphenylcopper. A. N. Nevezinov and K. A. Korkinobov. *J. Russ. Phys.-Chem. Soc.*, 1895, 1900-01; cf. C. A. 20, 2229. Addn. of Pb to Pb_2CuP_2 in CuCl_2 at 50 yields Pb_2Cu (112%), m. 220°. In NaOH , reduction of N is observed only at 25°, but no Pb_2Cu is obtained. The reaction can be run in aqueous. XVIII. The (*p*-nitrophenyl) borane. *J. Russ. Phys.-Chem. Soc.*, 1895, 1901; cf. C. A. 20, 2229' with 80% excess of H in CH_2Cl_2 at 30°, or H_2O_2 at 120°, yields, resp., 26 or 6% of *trans* (*p*-nitrophenyl)borane (I), m. 260°. With Br in CCl_4 , I gives $\text{p}-\text{BrC}_6\text{H}_4\text{BPh}_3\text{NBr}$ in nearly theoretical yield. Treatment of the double salt with Cu in CH_2Cl_2 or H_2O_2 affords mainly $\text{p-C}_6\text{H}_4\text{BPh}_3\text{NH}_2$. R. A.



KOCHESHKOV, K. A.

"Metallo-Organic Combination of Magnesium and Lithium in the Synthesis of Amines,"
a lecture delivered at the June session of the Dept. Chem. Sci., AS USSR held 28-
29 June 1946. Work compiled with N. I. Sheverdina.

Vestnik AS USSR 8/9, 1946

KOCHESHKOV, K.A.

Synthesis of α -bromo organic compounds by lithium
organic compounds. I. *tris(p-bromophenyl)ethane*. *Vestn. Akad. Nauk KazSSR*, No. 4,
1958, (U.S.S.R. 16, 777-783 (1959)). To an $\text{Li}(\text{C}_6\text{H}_5\text{CH}_2)_2$ soln. in CH_2Cl_2 (from 10.0 g.
 Li (from 62.7 g. LiBr and 0.1 g. Li), there was added with ice-cooling 22.8 g. $\text{BrCH}_2\text{CH}_2\text{Br}$ (ice, H_2O) and the mixt.
was boiled for 2 hrs., cooled, and treated with ice, NaHCO_3 ,
after evapn. of the CH_2Cl_2 , 90.7% LiBr , m. 52° (from
petr. ether). Similarly, $\text{p-BrC}_6\text{H}_4\text{Me}$ gave 93.5% *tris(p-bromophenyl)*, m. 137° (from MeOH); p -bromonitro
gave 31% *tris(p-bromophenyl)*, m. 180° (from CHCl_3 ,
 NaOH); p -bromophenol gave 85.4% *tris(p-bromophenyl)*,
m. 82°; p -bromoanisole gave 57% *tris(p-bromophenyl)*, m. 176° (from CHCl_3 and LiOH);
 $1\text{-C}_6\text{H}_5\text{Br}$ gave 15% *tris(p-bromophenyl)*, m. 214° (from
benzene); $\text{p-BrC}_6\text{H}_4\text{Me}$ gave 75.1% *tris(p-*
dimethylaminophenyl), m. 229° (from CHCl_3 ,
 NaOH). The use of Li complex was much less successful
than that of the $\text{Li}-\text{Grignard}$ (G. M. k.).

KOCHESHKOV, K.A.

RT-106 (The synthesis of organo-bismuth compounds of the R_2Bi type by the method of
double diazonium salts). Sintez vismutoorganicheskikh soedinenii tipa R_2Bi metodom
dvoinykh diazonievых dolei.
Zhurnal Obshchai Khimii, 16(6): 891-896, 1946.

KOCHESIKOV, K.A.

RT-105 (Aromatic bismuth compounds containing a halogen atom in the nucleus). Aran-
aticheskie vismutoorganicheskie soedineniya soderzhashchie galoid v iadre.
Zhurnal Obshchei Khimii, 16(6): 897-900, 1946.

KOCHETKOV, K.

A.

"Organic-Tin Compounds of the p-Anisyl, p-Phenyl and p-Biphenyl Series" by T. V.
Talallneva, N. A Zaytzeva and K. A Kochetkov (p. 905)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 146, Volume 16, No. 6

Sulfonatoimide derivatives of the chlorinated ester of carbonyl acid. V. P. Kurnikova and K. A. Kostrikhina. *J. Gen. Chem. (U.S.S.R.)* 16: 1127-23 (1946) (in Russian).—Chloroform (50 g.) in 101 cc. Et₂O was slowly treated with COCl until the initially formed pcp, wet back into solution. The soln. was allowed to stand 3 hrs. and filtered off to yield 78.42% (chloromethyl) *chloroformate*, m. 117-18° (from Me₂CO). This (8 g.) in 40 cc. abs. Et₂O was treated with 2.7 g. PhN₃ to give 45.2% of the corresponding carbamate, m. 163-4.5° (from C₆H₆). Hydrolysis gave the *p*-pyridone-carboxylic acid, m. 226-2.5° (dissolved) from C₆H₆; saponification gave the *p*-pyridone-carboxylate, m. 169-10° (from C₆H₆-Me₂CO). At 100° the carbamate decomposes to give the *p*-pyridone-phthalimidate, m. 181-1° (from Me₂CO); sulfonatoimide (in Et₂O-Me₂CO) gave the *p*-pyridone-phthalimidate, m. 200-0.5° (hydrolyzed to an EtOH-Me₂CO); saponification giving m. 234-4.5° (m. 230-1° from C₆H₆); sulfonatoimide giving m. 226-2.5° (from pyridine-Me₂CO); hydrolysis giving m. 230-2.5° (from pyridine-Me₂CO). (1. M. Kurnikova)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

17 676 100 97 101

soc11141 and 9911141 -001

ed

Acidic derivatives of the heterocyclic portion, I. Cor. water and stirred 1 hr. in the pot, was washed with 100 cc. 1701-04 (1948).—This was suspended in 40 cc. benzene by means of 20.4 g. in 27.0 g. 75% NaOH, 11.0 g. was treated over 0.5 hr. with 10 g. 2-bromoethane, treatment with 0.5 g. charcoal and 0.5 g. Na₂CO₃, benzene and the solution, heated to boiling 2 hrs., and heating 1.5 hrs., filtering, and extracting with 10 cc. HCl; the (10 g.) in 40 cc. benzene-4,4'-dinitrophenol, on standing, yield, 6.0%, m. 200-70°. This (10 g.) in 40 cc. benzene-4,4'-dinitrophenol, was refluxed 0.5 hr., cooled, filtered, treated with 170 cc. 60% NaOH in 200 cc. water at 50-55°, treated by Na₂O₂ was refluxed 0.5 hr., cooled, filtered, treated with 10 cc. concentrated HCl, then 10 cc. HCl to neutralize reaction; the crude 7-oxo-4,4'-dinitrophenol-4,4'-dinitrophenyl derivative was purified by means of 20 cc. 75% NaOH, treated with 0.5 g. charcoal and 0.5 g. Na₂CO₃, heating 0.5 hr., filtering, after wash, of 5-6 cc. water the product was filtered and washed with water; 7-oxo-4,4'-dinitrophenol-4,4'-dinitrophenyl derivative, m. 160-1° (from Et₂O, Me₂CO), 1 (0.49 g.) in 5 cc. H₂O was added to 1 g. chloroform (II), in 10 cc. H₂O and the solution was allowed to stand for 3 hrs. to give 41.8% chloroform-4,4'-dinitrophenol-4,4'-dinitrophenyl derivative, m. 204-2.5° (from C₆H₆-Me₂CO). 4-Methyl-3-aminopyridine (3.8 g.) in 10 cc. H₂O was treated with 0.5 g. II in 50 cc. H₂O and allowed to stand overnight to yield 54.5% chloroform-4-methyl-3-aminopyridine derivative, m. 200-8° (from C₆H₆). 4-Methyl-3-aminopyridine (3.8 g.) in 570 cc. Me₂CO was treated with 2.0 g. II in 30 cc. H₂O and allowed to stand for 3 days to yield 58.4% 3-chloro-4-methyl-3-aminopyridine derivative, m. 200-8° (from C₆H₆-Me₂CO, then C₆H₆). 1 (12.5 g.) in 50 cc. H₂O was treated with 20.2 g. p-Aminobenzoic acid-HCl over 1 hr. at below 20°, after which the solution was cooled, by cooling, represented 2.0 g. Me₂CO-soluble powder, identified as N,N'-di(4-methyl-3-pyridyl)benzidine.

A18-11-8 CRYSTALLINE LITERATURE CLASSIFICATION

BENTON LIBRARY

ITEM NUMBER	1000000-01 000 000	CLASSIFICATION	1000 000-000
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
46	47	48	49
51	52	53	54
57	58	59	60
64	65	66	67
71	72	73	74
78	79	80	81
85	86	87	88
91	92	93	94
97	98	99	100

amide, m. 200-2° (from EtOH-C₆H₆X); the mother liquor with 10 parts H₂O and a little EtOH gave 8 g. Et-N-(4-chloro-3-pyridyl)acetamide, m. 160-0° (dried over ether), similarly, 14 g. Et-N-(4-chloro-3-pyridyl)acetamide, and 59 g. Et gave after 2.5 hrs. at 100° 3.5 g. N,N'-bis(4-bromo-3-pyridyl)acetamide, m. 220 0° (from pyridine-MgCO₃) and 5.0 g. Et-N-(4-bromo-3-pyridyl)acetamide, m. 160-1° (from Et, MgCO₃); 9 g. Et-N-(4-chloro-3-pyridyl)acetamide and 1 g. (17) J gave after 3.5 hrs. at 100° 1.4 g. N,N'-bis(4-chloro-3-pyridyl)acetamide, m. 244-5° (from EtOH-C₆H₆X), and 4.4 g. Et-N-(4-chloro-3-pyridyl)acetamide (2), m. 117-18° (from Et, MgCO₃). When 1.3 g. Et and 1 g. Et-N-(4-chloro-3-pyridyl)acetamide were heated to 100-100° 0.5 hr., there was obtained 50-67% of the corresponding acetamide. The Et acetamide similarly heated with 4-bromo-3-pyridylacetide gave 50% of the chlorinated acetamide. Et-N-(4-chloro-3-pyridyl)acetamide (1 g.) and 1.5 g. 4-bromo-3-pyridylacetide heated 45 min. to 100-100° yielded 70.0% N-(4-chloro-3-pyridyl)-N'-(4-bromo-3-pyridyl)acetamide, m. 220-0° (from EtOH-C₆H₆X), when 2.1 g. Et-N-(4-chloro-3-pyridyl)acetamide and 1.7 g. 4-bromo-3-pyridylacetide similarly gave 69.9% N-(4-chloro-3-pyridyl)-N'-(4-bromo-3-pyridyl)acetamide, m. 220-0° (from EtOH-C₆H₆X). (The latter product is obtained also by the interaction of 4-chloro-3-pyridylacetide with the corresponding Et-chlorinated acetamides). Et-N-(4-chloro-3-pyridyl)acetamide (4 g.) in 17 cc. cold acet. H₂O, allowed to stand 3 days and then dilut. with cold H₂O, neutralized with 30% NaOH, gave 2.7 g. N-(4-chloro-3-pyridyl)acetamide, m. 160-0.5° (from EtOH), which loses CO₂ on heating above the m.p. to yield 4-chloro-3-pyridylpyridine, m. 171° (from EtOH); similarly, there were prepared N-(4-bromo-3-pyridyl)acetamide, m. 160-0° (from Et-OH-MgCO₃) (70.7%), 4-bromo-3-pyridylpyridine, m. 171-0° (from EtOH); N-(4-chloro-3-pyridyl)acetamide and m. 144-5° (from MgCO₃) (60.5%); 4-chloro-3-pyridylpyridine m. 144-5° (from EtOH). C. M. K.

KOCHESHKOV, K. A.

"Synthetic Methods in the Field of Organometallic Compounds of Elements of the IVth Group," 1947

Metallohydrogen compounds of lithium, sodium, potassium, rubidium, and cesium. K. A. Korobkovskiy and T. V. Tolstova. *Zhurn. Neorganicheskoy Khimii*, 1960, No. 1, 174 pp. Mercury organic compounds. L. D. Matrosova and A. N. Novoselov. *Izdat. Akad. Nauk*, 1960, No. 2, 162 pp. Metal-organic compounds of elements of the third group. K. A. Korobkovskiy and A. N. Novoselov. *Izdat. Akad. Nauk*, 1961, No. 4, 131 pp. Metallohydrogen compounds of elements of the fourth group. K. A. Korobkovskiy. *Izdat. Akad. Nauk*, 1967, No. A. III, 97 pp. Aromatic organic compounds. B. K. Petrikov. *Izdat. Akad. Nauk*, 1968, No. 7, 180 pp.—Compilations contain the methods of synthesis, properties, reactions, and analysis of three groups of compounds. M. Hirsch

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

2

KOCHESHKOV, K. A.
ct

1. Alexander Semenovich Dvornikov, K. A. Kocheshkov,
I. V. Lomakin, and G. A. Savchenko, Soviet agents.
2. 14th birthday, very personal.
3. ALB(1988) - Message of their birthday. X. There

1151

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

KOCHETKOV, K. A.

"Synthetic Methods in the Field of Metal-Organic Compounds of Lithium, Sodium, Potassium, Rubidium and Caesium," Moscow, 1950.

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

CA
New methods of preparation of crystalline lithium compounds
products of alkali, alkaline, and amine hydrocarbons
T. V. Tikhonov and E. A. Kostylev. Doklady Akad.
Nauk SSSR, 77, No. 1 (1944) mention treatment by the
action of LiH on various organic esters of Li and RMg
esters in benzene which LiH is added to the desired
ester. For the prep. of ethyl LiH, however, it is much better.

No. 4

than C_6H_6 . The reaction of Li with $LiBH_4$ is nonthermic and gives a LiBH₄ prod. as a gray-white solid. This salt is treated with C_6H_6 to take up the LiH and the rest is dried, and cleaned; aside, of course, pure LiH, which after drying, at 10°, is spontaneously decomposed in air. A single crystal, from benzene plus an anhydrous pure product, is 94% LiH; the yield is oxidized C_6H_6 ratio, reaction 0.45: 1. Only LiH is recyclable among the alkali compounds in formation of PdLi in the Pd/H reaction with Li in comparison to BaO and, by comparison of LiH, LiBr, and LiI. Recyclage methods of prep., from other organometallic compounds may employ derivs. of Li, Na, K, Rb, Cs, and the reaction with complex, based on N, O, S, F, Cl, P, or As is also satisfactory but there is evidence that the last 2 elements may be used. Exchange of LiH and LiAl with organic derivs. of Li, Na, K, Rb, and Cs; the Pd derivs. are toxic and the derivs. are unstable. The Wurtz reaction is a common side reaction. Pure C₆H₆ is the most easily applicable method reaction solvent. The best yields were obtained with aromatic Li derivs. Cryst. LiH is C₆H₆, is treated with 0.05 M $AgNO_3$ at room temp., or when dried, benzene, and the prod. LiH filtered off, washed with benzene, and dried. In this manner the following were obtained in approximately pure form (% yield given): PdLi 90, $Pd(C_6H_6)_2$ 90, palladium 90, anhydrous 90, $LiClO_4$ 90, $Pd(C_6H_6)_2$ 90, $Pd(C_6H_6)_2$ 90. All can be stored in H-dried tubes; all are oxidized and decomposed by air. $(PdCl_4)_2$ gave 20%, $PdCl_4$ the product is sensitive to heat and cannot be stored for over 1-2 days.

KOCHESHKOV, K. A.

Khimiya - Osnovnye, Otdeljute v Nauku
"Acylation of Oxocompounds in the Presence of 'Acid' Agents," A. P. Shchelkov, K. A. Kocheshkov, Corr Mem., Acad Sci USSR, All-Union Sci Res Chem-Phys Inst, Izdat. ineni S. Ordzhonikidze

"Dok Akad Nauk SSSR" Vol LXXIV, No 3, pp 527-530

This work reports the feasibility of progressive acylation of oxo compounds in the presence of acid agents. Acid catalysts such as FeCl_3 , AlCl_3 , ZnCl_2 , BaCl_2 , P_2O_5 could not be used, because of their violent reaction; but boron chloride, which has a milder action and is more stable toward hydrolyzing

2218

agents, led to the desired goal. It was shown that, in the progressive acylation of oxo compounds, all stages could be reached through the aid of acid agents, particularly boron fluoride and sulfuric acid. The C-acylation of oxo compounds, by means of Hg_2^+ , was achieved both immediately and by stages or the isomerization of O-acylates, thus leading to the assumption that even during the direct C-acylation process, the reaction takes place through an intermediate formation of O-acylate of enol, which is polymerized subsequently to C-acylate.

(BA-AII M 13:595)

2010

KOCHESHKOV, A. A.

USSR/Chemistry - Triacylnitrogen

"Preparation of Compounds of the Triacylnitrogen Type," N. V. Smirnova, A. P. Skoldinov, K. A. Kocheshkov, Corr Mem, Acad of Sci SSSR, All-Union Sci Res Chem-Phar Inst imeni S. Ordzhonikidze

1951

"Dok Ak Nauk SSSR" Vol 84, No 4, pp 737-740

Ketene reacts with amides in the presence of an inorg acid to form N-acetyl substituted amides. Further action of ketene on the diacetyl amide leads to the formation of compound having 3 acetyl groups on one nitrogen atom. This compd is a representative of a new class of compds of the type $N(COR)_3$, where R is an aliphatic radical. Nine compds of this series were prep'd and tabulated with their phys consts.

232710

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

PANOV, E.N.; KOCHINSKOV, K.A.

New fundamental class of simplest organic compounds of lead. ArFMZ.
Doklady Akad. Nauk S.S.R. 85, 1037-40 '52.
(CA 47 no.13:6365 '53) | (MLRA 5:9)

No. 5

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

PANOV, B.M.; KOCHINSKOV, K.A.

Metalloorganic analogs of benzoic and p-toluic acids. Doklady Akad.
Nauk S.S.R. 85, 1297-5 '52.
(CA 47 no.14:6887 '53) (MLRA 5:9)

PANOV, Ye. M.; KOCHESHOV, L. A.

Toluic Acids

Organometallic analogs of benzoic and γ -toluic acids; phenyllead and γ -tolyplumbonic acids. Dokl. AN SSSR 85 No. 6, 1952

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED.

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2"

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

KOCHENKOV, K. A. and ZASOSOV, V. A.

Organic Lithium Compounds in Their Reactions with Organic Tin- and Lead Compounds
of the Aromatic Series Containing the Halogen in the Ring. II., Page 285,
Sbornik stately po obshchey khimii (Collection of Papers on General Chemistry),
Vol I, Moscow-Leningrad, 1953, pages 762-766

Laboratory of Experimental Chemotherapy of Infectious Diseases, All Union Sci
Res Chemicco-Pharmaceutical Inst imeni S. Ordzhonikidze

"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2"

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

Lab experimental chemotherapy of infectious diseases.

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2"

After 100 ft. of flight, the reaction took place between 1.1 g. Mg and
0.65 g. of EUD. The reaction was very violent.

After 100 ft. of flight, the reaction took place between 1.1 g. Mg and
0.65 g. of EUD. The reaction was very violent.

KOCHETKOV, K. A. and ZASOVOV, V. A.

On the Influence of the Structure of Some Halogen-Containing Organo-Elemental Compounds upon Their Reaction with Magnesium. III. Synthesis of Carboxylic Acids Containing Silicon or Tin in Their Molecules, Page 290, Sbornik stately po obshchey khimii (Collection of Papers on General Chemistry), Vol I, Moscow-Leningrad, 1953, pages 762-766

Laboratory of Experimental Chemotherapy of Infectious Diseases, All Union Sci Res Chemico-Pharmaceutical Inst imeni S. Ordzhonikidze

"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2"

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

USSR/Chemistry - Lithium-Organic
Compounds

Mar/Apr 53

"Crystalline Lithium-Organic Compounds: Benzyl-lithium," T.V. Talalayeva, K.A. Kocheshkov, Phys.-
Chem Inst imeni L.Ya. Karpov

Iz Ak Nauk SSSR, OKhN, No 2, pp 290-293

Benzyllithium as the simplest aryl-alkyl Li compd differs from both aromatic and aliphatic Li compds by its greater reactivity, which is utilized mostly for analytical purposes. Crystalline benzyl-lithium was obtained by reacting tribenzyllantimony with ethyllithium in a pentane-benzene soln. Its properties were investigated.

256729

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

KOCHESHKOV, K. A.

ZELIENSKIY, N.D., akademik; KOCHESHKOV, K.A., redaktor; ZAVARZINA, Ye.B.,
doktor khimicheskikh nauk, redaktor; ZEVINA, N.Ya., redaktor;
YUR'YEV, Yu.I., redaktor.

[Collected works] Sobranie trudov. Moscow, Izd-vo Akademii nauk
SSSR, Vol. 1. 1954. 514 p.
(MLRA 7:8)

1. Chlen-korrespondent AI SSSR (for Kocheshkov)
(Chemistry--Collected works)

KOCHESHKOV, K. N.

ZELINSKIY, Nikolay Dmitriyevich, 1861-1953 [deceased] KAZANSKIY, B.A.,
akademik; BALANDIN, A.A., akademik; KOCHESHKOV, K.A.; SHUYKIN, N.I.;
KAVERZHEVA, Ye.D., doktor khimicheskikh nauk; LAVINA, N.Ya., doktor
khimicheskikh nauk; PLATE, A.V., doktor khimicheskikh nauk;
DUBINSKII, A.M., doktor khimicheskikh nauk; YUR'YEV, Yu.K., doktor
khimicheskikh nauk; KISELEVVA, A.A., tekhnicheskiy redaktor.

[Collected works] Sobranie trudov, Moskva, Izd-vo Akademii nauk SSSR,
Vol. 2. 1955. 743 p.
(MLRA 8:11)

1. Chlen-korrespondent AN SSSR(for Kocheshkov and Shuykin)
(Hydrocarbons) (Petroleum)

"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2"

KOCHESHKOV, K. A.

ZELINSKIY, N.D.; KAZANSKIY, B.A., akademik; BALANDIN, A.A., akademik;
KOCHESHKOV, K.A.; SHUYKIN, N.I.; KAVERZHEVA, Ye.D., doktor khimi-
 cheskikh nauk; KUVINA, R.Ya., doktor khimicheskikh nauk; PLATE,
 A.Y.; doktor khimicheskikh nauk; KUBIKHTEV, A.M. doktor khimi-
 cheskikh nauk; YUR'YEV, Yu.K., doktor khimicheskikh nauk.

[Collected works] Sobranie trudov. Moskva, Izd-vo Akad.nauk SSSR.
 Vol. 3 1955 719 p.
 (MLRA 8:8)

1. Chlen-korrespondenty AN SSSR (for Kocheshkov, Shuykin):

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No. 1, 1957, 953

Author: Kocheshkov, K. A., and Panov, Ye. M.

Institution: Academy of Sciences USSR

Title: Dearylation of Ar_2PbX_2 as a Method for the Synthesis of a New Class
of Compounds ArPbX_3 Original
Periodical: Izv. AN SSSR, Section on Chemical Sciences, 1955, No 4, 711-717Abstract: Compounds of the type $\text{C}_6\text{H}_5\text{Pb}(\text{OCOR})_3$ ($\text{R} = \text{CH}_3$ (I); $\text{R} = (\text{CH}_3)_2\text{CH}$ (II);
 $\text{R} = \text{C}_6\text{H}_5$ (III)) have been prepared by the dearylation of organo-lead
 compounds of the type $(\text{C}_6\text{H}_5)_2\text{Pb}(\text{OCOR})_2$ with mercuric salts in organic
 acid solutions. The compound I can be prepared from 1.92 gms
 $\text{Hg}(\text{OCOCH}_3)_2$ in 40 ml glacial CH_3COOH and 2.88 gms diphenyllead di-
 acetate (24 hours at 20°); the $\text{C}_6\text{H}_5\text{HgOCOCH}_3$ which is formed is con-
 verted to $\text{C}_6\text{H}_5\text{HgCl}$ by the addition of 1.28 ml of 4.7 N HCl in alcohol,
 followed by filtration. The filtrate is evaporated in a vacuum-
 desiccator over KOH. The residue (3.63 gms) is dissolved in 50 ml

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 954

Author: Kocheshkov, K. A., and Panov, Ye. M.

Institution: Academy of Sciences USSR

Title: Compounds of the Type Ar_2PbX_2 and ArPbX_3 of the Paratolyl Series

Original

Periodical: Inv. AN SSSR, Section on Chemical Sciences, 1955, No 4, 718-722

Abstract: A method has been developed for synthesizing compounds of the type $\text{Ar}_2\text{Pb}(\text{OCOR})_2$ (I) from Ar_2Pb in II [Tr. note: II presumably refers to preceding abstract] ($\text{Ar} \equiv p\text{-CH}_3\text{C}_6\text{H}_4$); compounds of the type I with $\text{R} = \text{CH}_3$ (Ia) and $\text{R} = (\text{CH}_3)_2\text{CH}$ have been prepared. Ia was used in the synthesis of $\text{Ar}\text{Pb}(\text{OCOCH}_3)_3$ (III), which was converted to p-tolyllead trimethacrylate (IV); 7.5 gms II are gradually dissolved in 75 ml concentrated HNO_3 . The reaction mixture is heated for several minutes and then cooled; the precipitate of $\text{Ar}_2\text{Pb}(\text{NO}_3)_2$ is sucked off, washed with water, and redissolved in 80 ml alcohol and alcoholic KOH (2.2 gms in 25 ml), which results in conversion to Ar₂PbO (V); the yield

Card 1/2

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

Kocheshkov, V.P.
CHUSHKOVA, V.P.; KOCHESHKOV, V.A.

Reaction of the synthesis of thallium aromatic and heterocyclic series. Dokl. AN SSSR 103 no.4:615-618 Ag'55. (NRA 8:11)

1. Chlen-korrespondent Akademii nauk SSSR (for Kocheshkov) 2. Vsesoyuzno-khimicheskiy institut imeni L.Ya.Karpova
(Thallium organic compounds)

TALALAYWA, T.V.; KOCHESHKOV, K.A.

Structure of some crystalline organolithium compounds. Dokl.AN SSSR
104 no.2(260-263) 8 '55.
(MERA 9:2)

1.Chlen-korrespondent AN SSSR (for Kocheshkov). 2.Fiziko-khimicheskiy
institut imeni L.Ya.Karpeva.
(Lithium organic compounds)

TALALAYEVA, T.V.; NAD', M.M.; KOGOMSHKOV, K.A.

Etherates and dioxanates of lithiumorganic compounds. Dokl. AN SSSR
109 no.1:101-104 Jl-Ag '56. (MLRA 9:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Kecheshev).
2. Fiziko-khimicheskiy institut imeni L.Ya. Karpova.
(lithium organic compounds)

580-48006-30
PANOV, Ye.M.; LODOCHNIKOVA, V.I.; KOCHESHKOV, K.A.

A new method for the production of ArPax; lead organic compounds.
Dokl.AN SSSR 111 no.5:1042-1044 D '56. (MLRA 10:2)

1. Chlen-korrespondent AN SSSR. (for Kocheshev) i Fiziko-
khimicheskiy institut im. L.Ya. Karpova, Sverdlovskiy gosudarstvennyy
meditsinskij institut.
(Lead organic compounds)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

FRONZOV, K. A.

"Research in the Field of Metallization of Aromatic and Heterocyclic Compounds," a paper submitted at the 16th International Congress of Pure and Applied Chemistry, Paris, 18-24 July 1977.

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

KOCHINSKOV K. A.

NAD', M.M.; KOCHINSKOV, K.A.

Selective reduction of polyhalogenated methanes by sodium-boronhydrides. Izv. AN SSSR. Otd. khim. nauk no.9:1122-1123
S '57. (MIRA 10:12)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova AN SSSR.
(Reduction, Chemical) (Methane) (Sodium borohydride)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510010-2"

Kocheshkov, K. A.

AUTHORS:

Glushkova, V. P., Kocheshkov, K. A.

62-11-16/29

TITLE:

Introduction of Thallium into Dibenzofuran (Tallirovaniye dibenzofurana).

PERIODICAL:

Izvestiya AN SSSR, Otdelenie Khimicheskikh Nauk, 1957,
Nr 11, pp. 1391-1392 (USSR)

ABSTRACT:

The introduction of thallium into the amisol and tiophen by the aid of salts of organic acids of the trivalent thallium was carried out by the authors (reference 1) and it was shown that this leads towards thalliumorganic compounds of the class ArTJX_2 , and not - as maintained by the American authors (reference 2) - towards compound of the class Ar_2TJX . Here the behaviour of the dibenzofuran with regard to the salts of organic acids was compared with that with regard to the halogen-salts of the trivalent thallium. It was shown that the introduction of thallium as also in previous cases leads to the class ArTJX_2 .

Furthermore it is shown that the introduction of thallium with regard to oxygen does not lead to the para-position but to the orthoposition. There are 7 references, 2 of

Card 1/2

"APPROVED FOR RELEASE: 09/18/2001" CIA-RDP86-00513R000723510010-2" 62-11-16/29

which are Slavic.

ASSOCIATION: Physico-Chemical Institute imeni L. Ya. Karpov (Fiziko-khimicheskiy institut im. L. Ya. Karpova).

SUBMITTED: July 5, 1957.

AVAILABLE: Library of Congress

Card 2/2

α -Naphthyl Derivatives of the Class ArF_nX_{3-n}
are Slavic.

62-12-14/20

ASSOCIATION: Physical-Chemical Institute imeni L.Ya.Karpov and State Medical
Institute Sverdlovsk (Fiziko-khimicheskiy institut im.
L.Ya.Karpova i Sverdlovskiy gosudarstvennyy meditsinskii institut).

SUBMITTED: July 5, 1957

AVAILABLE: Library of Congress

Card 2/2 1. α -Naphthyl derivatives

Kocheshkov, K. A.

AUTHORS: Glushkova, V. P., and Kocheshkov, K. A., 20-2-19/50
Corresponding Member AN SSSR.

TITLE: A New Method of Synthesis for Organothallium Compounds of the ArTlX₂ Class (Novyy metod sinteza talliyorganicheskikh sovodenineniy klassa ArTlX₂).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 2, pp. 253-255 (USSR)

ABSTRACT: The absence of reliable production methods represents a considerable gap in the chemistry of the above-mentioned compounds and therefore the ArTlX₂-class is not easily accessible. The Challenger method (over organoboron compounds) consists of several stages and besides leads to secondary processes. Thus some authors described ArTlX₂ (X-haloid) as colored substances, when produced according to Challenger, whereas in reality they are colorless (see below). In this paper the authors for the first time described the production method of ArTlX₂ (X-rest of an organic acid) with the use of organic acids of trivalent thallium in a reaction with organomercury compounds. The reaction which rapidly proceeds

Card 1/3

~~the reaction with haloid did not~~
not lead to the formation of color either. Thus the color described in publications is the result of admixtures. An experimental part with the usual data follows.

Card 2/3

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510010-2"

~~Method of Synthesis for Organothallium Compounds of the ArTlX₂-Class~~ 20-2-19/50

There are 6 references, 4 of which are Slavic

ASSOCIATION: Physico-chemical Institute imeni L. Ya. Karpov
Fiziko-Khimicheskiy institut im. L. Ya. Karpova).

SUBMITTED: May 10, 1957

AVAILABLE: Library of Congress

Card 3/3

KONENKO, E. A., FARJIN, Z. A., FAL'KOV, D. A., TALALAEV, I. N., AND DUDINA, E. I.,

"High Polymers Obtained Using Organometallic Complexes Containing
Lithium and Titanium," paper No. N7, submitted at the International
High-Polymer Conference, Nottingham, July 21-24, 1958.

Akademiya Nauk SSSR, Leninskiy Prospekt 14, Moscow, USSR

Translation E-3,109,651

KOCHESHKOVA K. A.

64-1-18/19

AUTHOR: Malyusov, V. A.

TITLE: Scientific Conference at the Institute for Physical
Chemistry imeni L. Ya. Karpov
(Nauchnaya konferentsiya v Fiziko-khimicheskom institute
imeni L. Ya. Karpova)

PERIODICAL: Khimicheskaya Promst', 1958, Nr 1, pp. 56-56 (USSR).

ABSTRACT: At the end of November, 1957, a meeting of the scientific session of the scientific council took place in the above mentioned institute in honour of the 40th anniversary of the great socialist October Revolution. 19 contributions of the most interesting works carried out lately in this institute were delivered. The corresponding member of the AN USSR, professor S. S. Medvedev, gave a report on the investigation of the general rules governing the emulsion polymerization. The active member of the AN USSR, professor V. A. Kargin reported on new observations in structural polymers. The corresponding member of the AN USSR, professor K. A. Kocheshkova reported on investigations in the field of organic lithium compounds. The corresponding member of the AN USSR, N. A. Kazarnovskiy,

Card 1/3

Scientific Conference at the Institute for Physical
Chemistry imeni L. Ya. Karpov

64-1-18/19

reported on peroxide compounds of the alkaline metals, professor A. I. Shatenshteyn on the isotopic reactions with deuterium in anhydrous solutions, professor P. P. Shorygin on the interaction of the substituents in molecules of organic compounds, D. N. Shirogin on the nature and effect of the hydrogen- and metal element binding, professor B. F. Ormont on the importance of the solid phases, professor G. S. Zhdanov reported on the work of the electronic computing machine "Kristall" and demonstrated it. V. L. Karpov reported on the investigations of the radiation stability of high polymers, professor V. I. Veselovskiy on the mechanism of the radiation-electrochemical processes, professor M. A. Proskurnin on the sensitization of radiation-chemical reactions, professor S. Ya. Pahezhetskiy on the oxidation of nitrogen under ionizing radiations, professor H. N. Tunitskiy on the molecule- and ionic dissociation in the mass spectrometer, A. Kh. Breger on sources of nuclear radiations, professor Ya. M. Kolotyrkin on electrochemical investigations of metals, the corresponding member of the AN USSR professor N. N. Zhavoronkov reported on the process of steady and unsteady mass transport in the absorption and rectification, professor

Card 2/3

Scientific Conference at the Institute for Physical
Chemistry Imeni L. Ya. Karpov.

64-1-18/19

M. I. Temkin and L. E. Apel'baum on the chain characteristics
of heterogeneous catalytic reactions and professor G. K. Boreskov
reported on: "Some Questions of Catalyst Selection."
There are no references.

AVAILABLE: Library of Congress.

1. Chemical research-USSR 2. Scientific research-USSR

Card 3/3

KOCHESHKOV, K.

AUTHORS: Rodionov, A., Shigorin, D., Talalayeva, T.,
Kochechkov, K.
(Lithium Bond)
TITLE: Letters to the Editor (Pis'ma redaktoru)

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958, Nr 1,
pt. 120-120 (USSR)

ABSTRACT: On the strength of the research of the infrared spectra of the compounds R - Li and R - O - Li the authors of this letter discovered the formation of an intermolecular lithium binding
 $\text{C} \begin{smallmatrix} +\delta \\ -\delta \end{smallmatrix} \text{---} \text{Li} \dots \text{C} \begin{smallmatrix} +\delta \\ -\delta \end{smallmatrix} \text{---} \text{Li} \dots$ and $\text{O} \begin{smallmatrix} +\delta \\ -\delta \end{smallmatrix} \text{---} \text{Li} \dots \text{O} \begin{smallmatrix} +\delta \\ -\delta \end{smallmatrix} \text{---} \text{Li} \dots$. A comparison of the spectra of the vapors, solvents, and powders in vaseline oil as well as an analysis of the kind of oscillation of the molecules made possible the precise determination of the frequency of the valent oscillations of the groups C-Li (of the free and those taking part in the formation of the lithium binding; see table). The intermolecular lithium binding
 $\text{C} \begin{smallmatrix} +\delta \\ -\delta \end{smallmatrix} \text{---} \text{Li} \dots$ is constant. With the binding $\text{O} \begin{smallmatrix} +\delta \\ -\delta \end{smallmatrix} \text{---} \text{Li} \dots$ the latter is, however, still more stable. The formation of especially resistent intermolecular lithium bindings has to be traced back to the peculiarity of the atom of the lithium: Small

Card 1/2

Letters to the Editor.

62-1-28/29

radius, comparatively small ionization potential, better possibility of utilizing the -orbit. All this makes possible a immediate more and more active taking part of its electron in the intermolecular interaction than is the case with the hydrogen atom. There is 1 table.

ASSOCIATION: Physicochemical Institute imeni L. Ya. Karpov (Fiziko-khimicheskiy institut imeni L. Ya. Karpova).

SUBMITTED: December 20, 1957

AVAILABLE: Library of Congress

1. Lithium-Molecular structure
2. Vaseline oil spectra-Analysis
3. Infrared spectra-Applications

Card 2/2