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SOV/79-28-8-8/66

Condensations of Benzotrichloride With Benzene in the Presence of Aluminum Chloride

ultra-violet radiation, which can be used to produce triphenylmethane, di-(9-phenylfluorenyl), and 9-phenyl fluorene (Refs 15, 16). It was shown that the condensation of benzotrichloride with benzene is accompanied by the substitution of one atom or two chloride atoms, depending on the amount of $AlCl_3$ present. A formation of the reduction and dehydration products does not occur under normal conditions. There are 1 table and 21 references, 4 of which are Soviet.

ASSOCIATION: Sredneaziatskiy gosudarstvennyy universitet (Central Asia State University)

SUBMITTED: July 4, 1957

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GREBENYUK, A.D.; TSUKERVANIK, I.P.

Condensation of nitrile of γγγ-trichlorocrotonic acid with benzene in the presence of aluminum chloride. Zhur.ob.khim. 28 no.9: 2380-2384 S '58. (MIRA 11:11)

1. Sredneaziatskiy gosudarstvennyy universitet.
(Crotonic acid) (Benzene)

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TSUKERYANIK, I. P.

PROCESSES AND PROPERTIES INDEX

Alkylation of aromatic compounds in the presence of zinc chloride. I. Syntheses of alkylbenzenes and alkylchlorobenzenes. I. P. Tsukeryanik. *J. Gen. Chem.* (U.S.S.R.) 17, 1005-81(1947).—C_6H_6, MePh, $C_{10}H_8$, and PhCl can be readily alkylated by alcs. in the presence of $ZnCl_2$ and HCl at 140-90° at atm. pressure. The reactions do not proceed at all at room temp., unlike the conventional condensations with $AlCl_3$. The mixt. of the hydrocarbon and alc. was added to molten $ZnCl_2$ and kept at the desired temp. in a stream of dry HCl 1 hr. (expts. with benzene required 5-6 hrs.); on cooling the org. layer was sepd., washed, and distd. The reaction is easiest for high-boiling hydrocarbons and iso alcs. which lose H_2O readily. Iso alcs. give tertiary alkyl derivs. The mechanism remains unexplained. Polyalkylation also takes place, but the products were not characterized. $C_{10}H_8$ (40 g.), 22 g. iso-AmOH, and 40 g. $ZnCl_2$ at 190° gave 60% *3-tert-AmC₁₀H₇*, b_{760} 287-92°, d_{20}^{20} 0.9743, n_D^{20} 1.5763; *picrate*, m. 83°. Repetition using 10 g. BuOH gave 60% *BuPh*, b_4 110-12°, d_{20}^{20} 0.9730, n_D^{20} 1.5081. PhMe (40 g.), iso-AmOH (22 g.), and 40 g. $ZnCl_2$ at 150-60° gave 70% *p-tert-AmC₆H₄Me*, b_{760} 208-10°, d_{20}^{20} 0.8611, n_D^{20} 1.4930. Repetition at 170-80° using 19 g. BuOH gave 62% *p-tert-BuC₆H₄Me*, b_{760} 183-5°, d_{20}^{20} 0.8634, n_D^{20} 1.4928. Benzene (30 g.), 20 g. iso-AmOH, and 40 g. $ZnCl_2$ at 140-60° gave 51% *tert-AmPh*, b_{760} 188-90°, d_{20}^{20} 0.8653, n_D^{20} 1.4914. Benzene (60 g.), 30 g. iso-PrOH, and 80 g. $ZnCl_2$ at 140-60° gave 50% *cumene*, b_{760} 151-3°, d_{20}^{20} 0.8724, n_D^{20} 1.4936. PhCl (30 g.), 20 g. iso-BuOH, and 50 g. $ZnCl_2$ at 170° gave 63% *p-tert-BuC₆H₄Cl*, b_{760} 210-12°, d_{20}^{20} 1.0835, n_D^{20} 1.5119 (*di-NO₂ deriv.*, m. 94°). PhCl (30 g.), 22 g. iso-AmOH, and 50 g. $ZnCl_2$ at 170° gave 55% *p-tert-AmC₆H₄Cl*, b_{760} 225-8°, d_{20}^{20} 1.0070, n_D^{20} 1.5137 (*di-NO₂ deriv.*, m. 79°). II. Syntheses of alkylguaiacols. I. P. Tsukeryanik and V. Sergeeva. *Ibid.* 1069-14.—*o*-$MeOC_6H_4OH$ (31 g.) and 50.0 g. $ZnCl_2$ at 195° were treated with 34.5 g. EtOH added dropwise under a stream of dry HCl, the temp. kept at 168°, and 53 g. $ZnCl_2$ added, after which the mixt. was kept 0.5 hr. at 180°, to give *2,6-(MeO)EtC₆H₃OH* (I), b_{760} 222-4°, d_4^{18} 1.0917, n_D^{18} 1.5334 (*picrate*, m. 87°), *2,4-(MeO)EtC₆H₃OH* (II), b_{760} 232-3°, d_4^{18} 1.0931, d_4^{7} 1.0968, n_D^{18} 1.5351 (*picrate*, m. 91-2°), *2,6-(MeO)EtC₆H₃OEt*, b_{760} 235-40°, d_4^{18} 1.0061, n_D^{18} 1.5249, and *2,4-(MeO)EtC₆H₃OEt*, b_{760} 255-60°, d_4^{18} 1.0128, n_D^{18} 1.5268; the alkylguaiacols were obtained in a total yield of 60%, the ethers in 10% total yield; there were also obtained 0.5 g. pyrocatechol and 15% unreacted guaiacol. Guaiacol (62 g.), 45 g. PrOH, and 102 g.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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$ZnCl_2$, 1 hr. at 180°, gave 60% propylguaiacols, 18% Pr ethers of propylguaiacols, 18% guaiacol, 3 g. propylpyrocatechol, and 2 g. polyalkylguaiacols: *6-propylguaiacol* (III), b_{760} 230–2°, d_4^{20} 1.5070, n_D^{20} 1.5228 (*picrate*, m. 84°); *4-propylguaiacol* (IV), b_{760} 244–6°, d_4^{20} 1.0482, d_4^{25} 1.0495, n_D^{20} 1.5215; *dipropylguaiacol*, b_{760} 258–68°, d_4^{20} 1.0477, n_D^{20} 1.5291 (*picrate*, m. 99–101°); *6-propylguaiacol Pr ether* (V), b_{760} 252–4°, d_4^{20} 0.9837, n_D^{20} 1.5141; *4-propylguaiacol Pr ether* (VI), b_{760} 261–5°, d_4^{20} 0.9863, n_D^{20} 1.5138. Heating 62 g. guaiacol, 38 g. BuOH, and 105 g. $ZnCl_2$ 2.5 hrs. to 180° gave 60% butylguaiacols, 12% butylguaiacol Bu ethers, and 20% unreacted guaiacol: *6-butylguaiacol* (VII), b_{760} 251–4°, d_4^{20} 1.0196, n_D^{20} 1.5140 (*picrate*, m. 61°); *4-butylguaiacol* (VIII), b_{760} 264–8°, d_4^{20} 1.0185, n_D^{20} 1.5132; *6-butylguaiacol Bu ether*, b_{760} 256–8°, d_4^{20} 0.9791, n_D^{20} 1.5111; *4-butylguaiacol Bu ether*, b_{760} 268–70°, d_4^{20} 0.9879, n_D^{20} 1.5075. Heating 31 g. guaiacol, 22 g. iso-AmOH, and 51 g. $ZnCl_2$ 3 hrs. to 180° gave 60% *amylguaiacols* (b_{17} 160–2°, b_{760} 260–2°, d_4^{20} 1.0193, n_D^{20} 1.5228), 0.5 g. amylguaiacol ethers, and 10% unreacted guaiacol. I heated 20 hrs. with 2 parts Ac_2O gave the *acetate*, b_{760} 245–8°, d_4^{20} 1.0964, n_D^{20} 1.5121, which with $KMnO_4$ at 80°, followed by hydrolysis, gave *6-guaiacolcarboxylic acid*, m. 151–2°. Hydrolysis of II by 3 parts concd. HCl 10 hrs. at 140° gave *4-ethylpyrocatechol*, m. 41–2°. III boiled with Ac_2O gave the *acetate*, b_{760} 247–51°, d_4^{20} 1.0730, n_D^{20} 1.5071. Hydrolysis of IV by concd. HCl gave *p-propylpyrocatechol*, m. 58–60°. Hydrolysis of V with concd. HCl gave *3-propylcatechol*, m. 92°; hydrolysis of VI gave 4-propylpyrocatechol. Boiling VII with Ac_2O gave the *acetate*, b_{760} 270–2°, d_4^{20} 1.0379, n_D^{20} 1.5018; VIII gives the corresponding *acetate*, b_{760} 283–5°, d_4^{20} 1.0289, n_D^{20} 1.4991 (oxidation by $KMnO_4$ gave vanillic acid, m. 207°). G. M. Kosolapoff

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TSUKERVANIK, I.P.

Aromatic Compounds

Alkylation and acylation of the nucleus of aromatics. Biul.sredneaz.un., no. 25, 1947.

9. Monthly List of Russian Accessions, Library of Congress, NOVEMBER 1952 ~~1953~~, Uncl.

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I. P.

Kittel, G. A. and Tsukervanik, I. P. "Halogen derivatives of 1,2-cyclopentadiene and of 4-methyl cyclopentadiene", Doklady Akad. nauk UzSSR, No. 9, 1948, p. 8-11, (Resume in Uzbek).

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 18, 1949).

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CA

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Condensation of alcohols with aromatic compounds in the presence of aluminum chloride. XII. Condensation of primary butyl and isoamyl alcohols with benzene and toluene. I. P. Tsukervanik and A. V. Poletaev. *Zhur. Obshchei Khim.* (*J. Gen. Chem.*) 17, 2240-3(1948); cf. *C.A.* 40, 5700ᵇ.—Condensation of BuOH, iso-BuOH, and iso-AmOH with benzene and MePh was conducted as described earlier (T., *C.A.* 40, 5700ᵇ). The resulting alkylbenzenes were converted to the phenols by sulfonation and fusion with KOH. Toluene yielded a mixt. of *m*- and *p*-alkyltoluenes (identified as the Me esters of iso- and terephthalic acids). Alkylation by BuOH and iso-AmOH proceeds with difficulty and only low yields of alkylated benzenes are obtained; benzene gave 2-10% alkylbenzenes when 1.4-2.0 moles excess $AlCl_3$ was used and the temp. reached 140°; the bulk of the products was higher-boiling substances. Reduction of the amt. of $AlCl_3$ to 0.5 mole and heating at 100° still gave only poor yields of alkylbenzenes, although olefins were reduced in comparison with the higher-temp. expts. Reaction at room temp. and letting stand up to 47 days failed to improve the yield of alkylated benzenes; in all cases the alkylated products contained isomerized side chains. Toluene gave somewhat better yields (up to 40%), but the *m*,*p*-isomer mixts. were inseparable *per se*, and gave unsatd. hydrocarbon mixts. from which it was impossible to isolate pure substances. The complex results are caused by decompn. of the alcs. by $AlCl_3$, as confirmed by sep. expts., especially with iso-AmOH. $AlCl_3$ was added to the alc. and the reaction completed on a steam bath; the gaseous products were scrubbed, and in the case of iso-AmOH were identified as isopentane, pentane, *sym*-dimethylbutane, mixed iso-AmCl, and heptane; sepn. of the olefin fraction was attempted but no definite products were isolated.

G. M. Kosolapoff

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GRANITOV, I.I.; ZAKHIDOV, T.Z., professor, dokter, redaktor; POPOV, V.I., professor, dokter, redaktor; ROMANOVSKIY, V.I., redaktor; DODONOV, I.K., redaktor; KOROVIN, Ye.P., redaktor; TSUKERVANIK, I.P., redaktor, KORZHENEVSKIY, N.L., redaktor; RAYKOVA, I.A., professor, dokter, redaktor; YERSHOV, V.V., dotsent, redaktor; VOSKOBOYNIKOV, E.A., dotsent; BONDAREVSKIY, L., dotsent, redaktor.

[Vegetation map of southwestern Kyzyl-Kum; detailed mapping of desert vegetation] Karta rastitel'nosti iugozapadnykh Kzyl-Kumov; Tashkent, Izd.Sredneaziatskogo gos. univ.1950.84 p.(Tashkent.Universitet. Trudy Sredneaziatskogo gosudarstvennogo universiteta, no.19.Bielogicheskie nauki, no.8) (MLRA 9:2)
1.Deystvitel'nyy chlen AN UzSSR (for Romanovskiy, Dodonov, Korovin).
2.Chlen-korrespondent AN UzSSR (for TSukervanik, Korzhenevskiy)
(Kyzyl-Kum--Phytogeography) (Kyzyl-Kum--Desert flora)

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TSUKERVANIK, I. P.

USSR/Chemistry = Tetralin
Chemistry - Alklation

Jan 1948

"Condensation of Aromatic Compounds With Alcohols in the Presence of Aluminum Chloride and Other Reagents: XIV, Amyltetralins," A. N. Tatarenko and I. P. Tsukervanik, Lab of Org Chem, Cent Asiatic State U, 4 pp

"Zhur Obshch Khim" Vol XVIII (LXXX), No 1

Alkylation of tetralin with primary, secondary and tertiary amyl alochols in the presence of aluminum chloride, zinc chloride and phosphoric acid was studied under conditions described in previous installments of this series, and theoretical yields of 32-82% of amyltetralin were obtained, with considerable resinification taking place, although the temperature was kept within 100 and 175°, the duration at 1-9 hours and no excess of aluminum chloride was used. Best yields of -amyltetralins, 80% theoretical, were obtained with zinc chloride in sealed tubes at 200°.

Submitted 28 Oct 1946

PA 64T43

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I. P.

Feb 1948

USSR/Chemistry- Ketone
Chemistry- Synthesis

"Ketone Synthesis by a Friedel-Crafts Reaction With ZnCl," A. B. Kuchkarov, I. P. Tsukervanik, Lab Org Cem, Cen Asiatic State U, 3½ pp

"Zhur Obshch Khim" Vol XVIII (LXXX), No 2.

Shows possibility of utilizing ZnCl for synthesizing ketones. Vapor isomer ketones obtained as a result of synthesis. Describes synthesis of 4 methyl, 4-ethylbenzophenol alpha-naphthylphenylketone, 4-methyl, , 4 ethyl-isovalerophenol, and 4-etoxiiso-valerophenol. Submitted 13 Aug 1946.

PA 68T34

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I. P.

USSR/Chemistry - Sulfuric Acid, Esters (Acid), Condensation of Mar 1948
Chemistry - Chlorosulfonic Acid, Esters of

"Condensation of Acid Esters of Sulfuric Acid and Esters of Chlorosulfonic Acid With Benzene," Z. N. Nazarova, I. P. Tsukervanik, Lab Org Chem, Cen Asiatic State U, 7¼ pp

"Zhur Obshch Khim" Vol XVIII (LXXX), No 3

Studies of interaction of individual acid esters of sulfuric acid and benzene, showed an absence of alkylization process. Studies of reaction of thermal decomposition and hydrolysis of alkylchlorsulfonates. Submitted 11 Feb 1947.

PA 69T17

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

SUSHKEVICH, T.I.; UDOVENKO, V.V.; TSUKERVANIK, I.P., chlen-korrespondent.

Complex compounds of anabasine with cobalt salts. Dokl.AN Uz.SSR no. 3: 18-20 '49. (MLRA 6:5)

1. Institut khimii AN Uz.SSR.

2. Laboratoriya fizicheskoy khimii Sredneaziatskogo gosudarstvennogo universiteta.

3. Akademiya Nauk Uzbekskoy SSR (for Tsukervanik). (Anabasine) (Cobalt organic compounds)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

AKHMEDOV, K.S.; NABIKHODZHAYEV, S.; TSUKERVANIK, I.P., chlen-korrespondent.

Study of the process of swelling of high-plymer compounds. Dokl.AN Uz.SSR no.4:13-18 '49. (MLRA 6:5)

1. Laboratoriya kolloidnoy khimii khimfaka Sredneaziatskogo gosudarstvennogo universiteta (for Akhmedov, Nabikhodzhayev). 2. Akademiya Nauk Uzbekskoy SSR (for Tsukervanik). (Polymers and Polymerization)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I. P. i GARNYOVETS, T. G.

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Kondyensatsii atsyetilyena s. Dimyetilanilinom. Doklady, Akad. Nauk UZSSR, 1949, No. 7, S. 8-10 - Ryeyumye. Na uzbyek. Yaz. - Bibliogr: S 10

SO: LETOPIS NO. 34

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

YUNUSOV, S.Yu.; ABUBAKIROV, N.K.; TSUKERVANIK, I.P., chlen-korrespondent.

Study of the alkaloids of Delphinium semibarbatum. Dokl.AN Uz.SSR no.8: 21-25 '49. (MLRA 6:5)

1. Institut khimii AN Uz.SSR (for Yunusov, Abubakirov). 2. Akademiya Nauk Uzbekskoy SSR (for Tsukervanik). (Alkaloids) (Larkspur)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

ARIFOV, U.A.; DULOVA, V.I.; AYUKHANOV, A.Kh.; VOSTRILOVA, N.V.; TSUKERVANIK, I.P., chlen-korrespondent.

Analysis of the products of evaporation during the drying of cotton wool. Dokl.AN Uz.SSR no.8:26-29 '49. (MLRA 6:5)

1. Fiziko-tekhnicheskiy institut AN Uz.SSR (for all exc. Tsukervanik).
2. Akademiya Nauk Uzbekskoy SSR (for Tsukervanik). (Cotton manufacture)

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C. A.

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Condensation of vinyl ethers and α-chloro ethers with benzene. I. P. Tsukervanik and N. G. Sumkhaev (Acad. Sci. Uzbek. S.S.R.). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 310–14(1950).—When $AlCl_3$ is gradually added (1-2-g. portions) to a mixt. of C_6H_6 and a vinyl ether below 27°, fair yields of alkylates are obtained. Neither H_2SO_4, H_3PO_4, nor $SnCl_4$ gives anything but polymers even at a very low temp. Thus, reaction of 10 g. $BuOCH{:}CH_2$, 100 ml. C_6H_6, and 14 g. $AlCl_3$ with 84 hrs.' standing at 13° gave 33% BuPh and 20% *BuOCHPhMe*. Reaction of 10 g. BuOCHClMe, 100 ml. C_6H_6, and 15 g. $AlCl_3$ with 12 hrs.' standing at 25° gave 54.5% BuOCHPhMe. The latter was prepd. for identification from EtMgBr (from 52 g. EtBr) and 24 g. $MeCH(OBu)_2$ at 100–20°; the product (65.5%) b_{18} 220–2°, d_4^{20} 0.9003, n_D^{20} 1.4832. This (10 g.) and 50 ml. C_6H_6 with 11.2 g. $AlCl_3$ reacted in 2.5 hrs. on a steam bath to yield 27% BuPh, b_{18} 178–80°, d_4^{20} 0.8607, n_D^{20} 1.4896, 39% Ph_2CHMe, b_{18} 260–2°, n_D^{20} 1.5704, and 9% 9,10-dimethylanthracene, m. 178°. Passage of dry HCl into 10 g. $EtOCH{:}CH_2$ and 10 g. PhOMe at −10° until a wt. gain of 1.5 g. was reached, followed by similar treatment for 45 min. at 0° gave 7.2 g. products which yielded 2.4 g. (*1-α-chloroethyl)anisole*, b_{18} 60–5° (on heating 6 hrs. to 115° with pyridine it gave *vinylanisole*, b_{18} 91–5°, n_D^{20} 1.5152), and 0.8 g. (probably) *1-(methoxyphenyl)diethyl ether*, b_{18} 95–100°, as well as 3 g. *1,1-bis(p-methoxyphenyl)ethane*, m. 70–1°, b_{18} 215–17°. An anomalous result was obtained when 14 g. BuOCHClMe, 100 ml. C_6H_6, and 18 g. $AlCl_3$ (added in 3 hrs. at 25°) were allowed to stand 80 hrs. at 20–5°; only bibenzyl was isolated.

G. M. Kosolapoff

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C.A.

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Halogen derivatives of cyclic diketones. I. Structure of halogen derivatives of 1,2-cyclopentanedione. G. Kittel and I. P. Tsukervanik. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 315-19(1950).—Passage of Cl (until a 3.5-g. gain in wt. is reached) into 4.7 g. 1,2-cyclopentanedione in 40 ml. H_2O with cooling and letting the mixt. stand overnight gave 58% *3-chloro-2-cyclopenten-2-ol-1-one* (I), m. 137-8° (from H_2O). If the reaction is run at 50-60° (spontaneous heating) 41% of *2,2-dichloro-4-cyclopenten-5-ol-1-one* (II), m. 118-19°, is obtained; the product is identical with the chlorination product of I or with the product obtained from PhOH according to Hantzsch [*Ber.* 22, 1238(1889)]. Addn. of Br water to II until the color persisted gave 53% *4-bromo-2,2-dichloro-4-cyclopenten-5-ol-1-one*, m. 103° (from H_2O); continuation of bromination in H_2O until instantaneous decolorization stopped similarly gave 38% *5,5-dibromo-3,3-dichloro-1,2-cyclopentanedione*, m. 69-70°, which was identical with the product described by Hantzsch (cf. above) as a mono-Br deriv. The authentic mono-Br deriv. gives an intense red color with $FeCl_3$ and is stable to aq. KI; the di-Br deriv. gives no color with $FeCl_3$ and liberates iodine from KI. G. M. Kosolapoff

Fulvalene. R. D. Brown (Univ., Melbourne). *Nature* 165, 566-7(1950).—A theoretical discussion in which it is concluded that the as yet unknown hydrocarbon *fulvalene* HC:CH.CH:CH.C:C.CH:CH.CH:CH will probably be the 1st example of a mol. in which the static charge distribution, the classical bond diagram, and the quantum-mech. static bond orders do not provide an adequate picture of the reactivity. E. V. Blum

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CA

Condensation of vinyl ethers and α-chloro ethers with benzene. I. P. Tsukervanik and N. G. Sinkhaev. *J. Gen. Chem. U.S.S.R.* 20, 329-33(1950)(Engl. translation).—R. M. S
See C.A. 45, 572c.

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

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CA

Halogen derivatives of cyclic diketones. I. Structure of the halogen derivatives of 1,2-cyclopentanedione. G. Kittel and I. P. Tsukervanik. *J. Gen. Chem. U.S.S.R.* 20, 335-8(1950)(Engl. translation). See C.A. 45, 5856. R. M. S.

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C. 4.

Alkylation of aromatic compounds in the presence of zinc chloride. IV. Condensation of halides and alcohols with aromatic compounds under pressure. A. B. Kuchkarov and I. P. Tsukervanik (Middle-Asiatic State Univ.). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 458-61(1950); cf. *C.A.* 42, 4541h. The following autoclave reactions were performed with freshly fused $ZnCl_2$ and a trace of added HCl. C_6H_6 (18 ml.), 9.2 g. BuCl, and 2.5 g. $ZnCl_2$ in 10 hrs. at 225-30° gave 70% crude C_6H_5Bu (contg. *sec*-BuPh, b_{760} 171-3°, d_4^{20} 0.8628, n_D^{20} 1.4920) and 8% crude $(C_6H_5)_2C_6H_4$. Iso-AmCl (1 g.) gave 61% *monoamylbenzenes* (some *tert*-AmPh, b_{760} 185-90°, was identified), and 1.2 g. polyalkylbenzenes. PhMe (20 ml.) and 9.2 g. BuCl with 1.5 g. $ZnCl_2$ gave in 8 hrs. at 210-20° 71% *tri-butyltoluenes* and 2.5 g. polyalkylbenzenes. C_6H_6 (12.8 g.), 9.2 g. BuCl, and 4 g. $ZnCl_2$ in 12 hrs. at 100-70° gave 65% *butylnaphthalenes*, b_{760} 278-83°, d_4^{20} 0.9708, n_D^{20} 1.5700, and 9% *dibutylnaphthalenes*, b_{10} 170-80°, n_D^{20} 1.5807, d_4^{20} 0.9882. PhOH (10 g.), 11 g. BuCl, and 4 g. $ZnCl_2$ in 7 hrs. at 170-80° gave 72% *butylphenols* (resolved into *sec-butylphenol*, b_{760} 230-5°, d_4^{20} 0.9890, n_D^{20} 1.5178, probably *ortho*, and the *para isomer*, b_{760} 242-6°, d_4^{20} 0.9890, n_D^{20} 1.5185). MePh (15 ml.), 11.0 g. EtBr, and 7 g. $ZnCl_2$ in 11 hrs. at 230-40° gave 30% *ethyltoluenes*, b. 156-65°, and 2 g. polyalkylates, b. 190-8°. C_6H_6 (20 ml.), 7.4 g. BuOH, and 3.4 g. $ZnCl_2$ satd. with dry HCl at 0°, gave in 12 hrs. at 215-40° 67% butylbenzenes (some *sec*-BuPh isolated) and 10% dibutylbenzenes. MePh (20 ml.), 7.4 g. BuOH (satd. with HCl), and 13.6 g. $ZnCl_2$ similarly gave 74% *butyltoluenes* and 5% *dibutyltoluenes*; 3.4 g. $ZnCl_2$ gave 71.5% mono-Bu deriv., while 1.5 g. gave a 51% yield. C_6H_6 (10 ml.), 4.6 g. EtOH (satd. with HCl), and 3.4 g. $ZnCl_2$ in 12 hrs. at 330-40° gave 36% *EtPh* and 4 g. *polyethylbenzenes*; the results were similar with 13.6 g. $ZnCl_2$ at 280-90°. C_6H_6 (20 ml.), iso-PrOH (satd. with HCl), and 0.8 g. $ZnCl_2$ similarly gave in 10 hrs. at 210-20° 75% *iso-PrPh*, b_{760} 150-3°, d_4^{20} 0.8751, n_D^{20} 1.4905, and 15% *diisopropylbenzenes*.

G. M. Kosolapoff

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CA

Alkylation of aromatic compounds in the presence of zinc chloride. IV. Condensation of halogen derivatives and alcohols with aromatic compounds under pressure. A. P. Kuchiarov and I. P. Tsukervanik. *J. Gen. Chem. U.S.S.R.* 20, 485-9(1950)(Engl. translation).—See *C.A.* 45, 507a.
R. M. S.

1907

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Condensation of acetylene with aromatic compounds

I. P. Tsukervanik (Acad. Sci. Uzbek. S.S.R., Tashkent). *Doklady Akad. Nauk S.S.S.R.* 74, 959-61(1950). The condensation of C_2H_2 with C_6H_6 in the presence of $AlCl_3$ depends much on the quality of the $AlCl_3$. Old $AlCl_3$ obtained by chlorination of bauxite and contg. some $FeCl_3$ gives detectable yields of $PhCH:CH_2$ (isolated as the dibromide); a similar result is obtained when 2-5% dry $FeCl_3$, $TiCl_4$, or $SnCl_4$ is added to pure $AlCl_3$ (from Al and Cl). $FeCl_3$ is most effective, giving as much as 15% yields of $PhCH:CH_2$, calcd. on the total amt. of the products formed, although the conversions are very low. The largest part of the products consists of $(PhCH_2)_2$; some 9,10-dimethylanthracene is also formed. Some styrene dimer is found in the higher-boiling fractions and styrene may be obtained by distn. of the resinous residues. Insol., highly polymerized resins are formed with all kinds of $AlCl_3$ at 70-80°, especially when the reaction is run in contact with air, traces of peroxides, Hg salts, or metallic Fe; the reagent proportions are also of importance. With a large excess of C_2H_2 the polymer does not form; 500 ml. C_6H_6 and 20 g. $AlCl_3$ with 20 l. C_2H_2 gave only liquid products, but 100 ml. C_6H_6 gave 120 g. insol. resin (cf. analogous data of Korshak, *et al.*, *C.A.* 42, 7270*e*; 44, 3051*f*). Replacement of C_2H_2 by its quasi-complex with Hg (Nesmeyanov, *C.A.* 40, 2122[4]), led to no reaction with C_6H_6 at 20° or 80°, or with xylene at 120°. When small amts. of $AlCl_3$ were added, however, high yields of $(PhCH_2)_2$ and the usual by-products were formed, while resorcinol gave vinylresorcinol (Flood and Nieuwland, *C.A.* 22, 3643); $PhNH_2$ and the $Hg\cdot C_2H_2$ complex gave quinaldine. AcH and C_2H_2 with $PhNMe_2$ in the presence of $AlCl_3$, $SnCl_4$, $ZnCl_2$, or H_2SO_4 yield up to 35% $MeCH(C_6H_4NMe_2)_2$. G. M. Kosolapoff

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Condensation of allylcyanide with benzene. Synthesis of derivatives of 2-phenylbutyric acid. I. P. Tsukervanik and A. D. Grebenyuk. *Doklady Akad. Nauk S.S.S.R.* **76**, 223-5(1951); cf. U.S. 2,476,264, *C.A.* **43**, 7968.—Since nitriles form rather stable complexes with $AlCl_3$, alkylation of C_6H_6 with Friedel-Crafts conditions does not proceed satisfactorily, when molar proportions are used. However, addn. over 30 min. of 19.9 g. $AlCl_3$ to 16.8 g. CH_2CHCH_2CN and 100 ml. C_6H_6 ppts. at first a solid complex, which disappears slowly, heating 2.5 hrs. at 75° and usual hydrolytic treatment give 93% *PhCHMeCH₂CN*, b_{10} 99-100, b_{10} 135°, b_{20} 140-2°, d_4^{20} 0.9832, n_D^{20} 1.5173, boiling with 30% NaOH gave 68% of the corresponding *acid*, b_{10} 158-60°. Addn. of 31.3 ml. 30% H_2O_2 to 9.04 g. nitrile in 35 ml. EtOH followed by 2.7 ml. 24% NaOH led to active interaction; heating 1.5 hrs. on a water bath, neutralization, and evapn. yielded 96% *PhCHMeCH₂CONH₂*, m. 104-6° (from dil. EtOH), which with NaOH and Br gave 38% *PhCHMeCH₂NH₂*, b_{20} 97-105° (*picrate*, m. 179-81°, *benzoate*, m. 85-7°). Hydrogenation of the nitrile in EtOH over Raney Ni in the presence of NH_3 at 55 atm. H gave 86% *PhCHMeCH₂CH₂NH₂*, b_{20} 112-13°, d_4^{20} 0.9382, n_D^{20} 1.5109; *picrate*, m. 138-9° (from EtOH). G. M. K.

1951

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

ZEMZINA, I.N.; TSUKERVANIK, I.P.

Acylation of aromatic compounds. Report No.8. Uzb.khim.zhur. 8 no.1:51-55 '64. (MIRA 17:4)

1. Tashkentskiy gosudarstvennyy universitet imeni V.I.Lenina.

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TSUKERVANIK, I. P.

USSR.

Radical and ionic mechanisms of alkylation reactions of aromatic compounds. E. A. Vdovtsova and I. P. Tsukervanik. *Doklady Akad. Nauk S.S.S.R.* [illegible] 81-4(1951); cf. preceding abstr.—Expts. were carried out to establish conditions for alkylation of the aromatic nucleus by a radical mechanism. Conditions are described for prepg. mixed aluminum organic compds. with BuI and Me_2CHI ($RAlI_2$ and R_2AlI). These compds. can then act as alkylation reagents. The compds. $PhAlI_2$ and $PhAlI_2$ were also prepd and condensed with Me_2CHI, BuI, Me_2CHCH_2I, $Me_2CHCH_2CH_2I$, Me_3CCH_2I, BuCl, and PhCl. J. R. L.

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TSUKERVANIK, I. P.

USSR/Chemistry - Alkylation 21 Sep 51

"Condensation of Ditertiary Glycols With Benzene," I. P. Labunskiy, I. P. Tsukervanik, Cen Asian State U

"Dok Ak Nauk SSSR" Vol LXXX, No 3, pp 369-372

The condensation of pinacol, 2, 4-dimethylpentanediol-2, 4 and 2, 5-dimethylhexanediol-2, 5 all resulted in cycloalkylation of benzene. Condensation with pinacol proceeds with difficulty. Beta and gamma ditertiary glycols condense (70 - 75% theoretical yield). Some unusual products were obtained.

210T28

Evaluation - B-76836, 19 July 54

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USSR/Chemistry - Alkylation Jun 52

"Alkylation of Aromatic Compounds by Alcohols in Presence of Aluminum Chloride. XV. Alkylation of Benzene by a Continuous Process," I. P. Tsukervanik, Kh. Taveyeva

"Zhur Obshch Khim" Vol XXII, No 6, pp 966-969

Studied a continuous process for alkylation of benzene in the presence of $AlCl_3$. With isopropyl alc a yield of cumole amounting to 66% of the theoretical was obtained. The method of condensation given is the 1st which permits butylization

218T19

USSR/Chemistry - Alkylation (Contd) Jun 52

of benzene by means of n-butyl alc with a satisfactory yield (up to 60% of the theoretical calcd on the basis of the alc reacting).

218T19

TSUKERVANIK, I. P.

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

GALUST'YAN, G.G.; TSUKERVANIK, I.P.

Acylation of furan derivatives in the presence of iron and iron chloride. Zhur. ob. khim. 34 no. 5:1478-1480 My '64. (MIRA 17:8)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

KOVINA, I.M.; TSUKERVANIK, I.P.

Carboxyalkylation of aromatic hydrocarbons in the presence of ferric chloride. Uzb.khim.zhur. 8 no.2:33-37 '64. (MIRA 17:5)

1. Institut khimii AN UzSSR.

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.

Powdered iron as a catalyst in alkylation and acylation reactions. Dokl. AN UzSSR no.4:36-39 '57. (MIRA 12:7)

1. Sredneaziatskiy gos. universitet im. V.I. Lenina. 2. Chlen-korrespondent AN UzSSR.
(Iron) (Catalysts) (Alkylation) (Acylation)

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TSUKERVANIK, I. P.

USSR/Chemistry - Hydroxyalkylation 21 Sep 52

"Hydroxyalkylation of Aromatic Compounds With 1,3-Butanediol," I. V. Terent'yeva and I. P. Tsukervanik, Central Asiatic U

DAN SSSR, Vol 86, No 3, pp 555-558

The possibility of the hydroxyalkylation of aromatic compds with 1,3-butanediol and 1,3-butylenechlorohydrin was demonstrated. 3-phenylbutanol-1, 3-p-tolylbutanol-1, 3-p-(o-xylyl-)butanol-1, 3-p-chlorphenylbutanol-1, were prepd from the glycol and benzene, toluene, o-xylene, and chlorobenzene respectively. Presented by Acad V. M. Rodionov 17 Jul 52

247T8

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

VDOVTSOVA, Ye.A., kandidat khimicheskikh nauk; TSUKERVANIK, I.P., professor, otvetstvennyy redaktor; SARYMSAKOV, T.A., glavnyy redaktor; RYZHOV, S.N., professor-doktor, zamestitel' glavnogo redaktora; ROMANOVSKIY, V.I., redaktor; KOROVIN, Ye.P., redaktor; MASSON, M.Ye., redaktor; KORZHENEVSKIY, N.L., redaktor; POPOV, V.I., professor-doktor, redaktor; MIROSHKINA, N.M., professor, redaktor; STOLYAROV, D.D., dotsent, redaktor; BONDAREVSKIY, G.L., dotsent, redaktor; KRASNOVAYEV, I.M., dotsent, redaktor; GENTSHKE, L.V., dotsent, redaktor

[Radical and ionic alkylation of aromatic compounds] Radikal'nyi i ionnyi mekhanizmy reaktsii alkilirovaniia aromaticheskikh soedenenii. Erevan, Izd-vo Erevanskogo universiteta, 1953. 92 p. (Tashkent. Universitet. Trudy Sredneasiatskogo gosudarstvennogo universiteta. no.43. Khimicheskie nauki, no.6)

1. Deystvitel'nyy chlen Akademii nauk UzSSR (for Sarymsakov, Romanovskiy, Korovin). 2. Deystvitel'nyy chlen Akademii nauk Turkm. SSR (for Masson). 3. Chlen-korrespondent Akademii nauk UzSSR (for TSukervanik, Korzhenevskiy).

(Arotmatic compounds) (Alkylation)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.

USSR

Reactions of acetylene with aromatic compounds. I. P. Tsukervanik. Vol. Acad. Sci. U S S R, Div. Chem. Sci. 953, 479-81 (Engl. translation). —See C A 48, 99825.

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TSUKERVANIK, I. P.

Reactions of acetylene with aromatic compounds. I. P. Tsukervanik. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1953, 633-6.—A resume of earlier work (cf. *C.A.* 45, 572*e*, 4666*f*, 6001*b*; *Doklady Akad. Nauk Uzbek. S.S.R.* 1952, No. 5, 18) in which the following main points are brought out: (1) reaction of C_6H_6 with C_2H_2 and an $AlCl_3$ catalyst to which trace amts. of $FeCl_3$ are added results in better yield of low-boiling products (in addn. to resins), with up to 15% styrene; (2) reduced amts. of $AlCl_3$ at 40–60° result in elimination of resinous products and good yields of diarylethanes: 55% $MeCHPh_2$, 75% $(p\text{-}ClC_6H_4)_2CHMe$, 75% $(p\text{-}MeOC_6H_4)_2CHMe$. The condensation of Me_2NPh, C_2H_2, AcH, and $CH_2{:}CHCl$ was studied and 50% yields of $(p\text{-}Me_2NC_6H_4)_2CHMe$ were obtained. Substitution reactions of diarylethanes are similarly discussed (cf. last ref. above): Ph_2CHMe yields bis(*p*-nitro) and bis(*p*-sulfo) derivs.

G. M. Kosolapoff

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TSUKERVANIK

USSR

Radical and ionic mechanism of reactions of alkylation of aromatic compounds. E. A. Vdovtsova and I. P. Tsukervanik (Central Asia State Univ., Tashkent). Zhurnal Obshchei Khim. 2, 1027-31(1959); cf. following abstr. —Alkylation of aromatic compds. in the presence of $AlCl_3$ is at times accompanied by unusual reactions (dimerization, reduction of halides) which are interpretable by radical reactions. Depending on the expt. conditions, alkylations in the presence of Al can occur either ionically or by a radical route. Al shavings treated with iso-$PrAlI_2$ + $(iso\text{-}Pr)_2AlI$, prepd. separately in a test tube, undergo an exothermic reaction and after 2 hrs. stirring, during which iso-PrI was added, the resulting mixt. was used for alkylation expts. A similar reagent of $BuAlI_2$ + Bu_2AlI was prepd. at 55-65°. Reactions of these mixts. with C_6H_6, PhBr, MePh, and PhCl were run at 60-110°, yielding 23-41% monoalkyl derivs. and small amts. of dialkyl derivs. (from C_6H_6 and MePh). These products could only result from a radical-type fission of the C-Al link, since nucleophilic substitutions in the benzene series are not usual. The reagent prepd. from 36.8 g. BuI and 3.6 g. Al with 20 g. BzPh at 80° (exothermic reaction) gave Ph_2CH_2, indicating that reduction was the principal reaction of the resulting free radicals. The reaction of Ph_2AlI_2 with EtI, iso-PrI, BuI, BuBr, BuCl, iso-BuI, Et_2CHI, *tert*-AmI, and BzCl was examd. at 0-40°; this resulted in 23-72% yields of the corresponding monoalkylbenzenes and 12-43% dialkylbenzenes. The alkylation products are usually mixts. contg. secondary and n-alkyl derivs. G. M. K.

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TSUKERVANIK, I. P.

USSR.

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Alkylation of aromatic hydrocarbons with halo derivatives in the presence of metallic aluminum. N. G. Sidorova, I. P. Tsukervanik, and Z. Kh. Abidova. *Doklady Akad. Nauk Uzbek. S.S.R.* 1955, No. 5, 33-7; *Referat. Zhur. Khim.* 1954, No. 16235.—Condensation of a no. of chloro- and bromoalkyls with C_6H_6 and PhMe in the presence of metallic Al gave 47-81% monoalkylated products. The reaction required 0.01 g.-atom Al as freshly prepd. filings per mole of halo compd. Alkylation was partly accompanied by isomerization of primary into secondary alkyls. The reaction apparently proceeds through the formation of Al org. intermediates such as $RAlCl_3$ and R_2AlCl. C_6H_6 23, Al 0.3, and BuBr (part of it added initially and the balance dropwise after the start of the reaction) 30 g. heated for 2 hrs. at 70° gave 51% BuPh (I), b_{727} 170-1°, n_D^{20} 1.4920, d_{20} 0.8631, and 20% $C_6H_4Bu_2$, b. 178-240°. BuCl 24, C_6H_6 90, and Al 0.3 g. heated 30 min. at 70-80° produced 81.2% I. Nitration of I produced 54% *p*-nitro-*sec*-butylbenzene, b_9 132-4°, n_D^{20} 1.5320, d_{20} 1.0051; this with Sn and HCl produced *p*-*sec*-butylaniline b_{727} 244-5°, n_D^{20} 1.5360, d_{20} 0.9770; *p*-*sec*-butylacetanilide, m. 125-6°; and *p*-*sec*-butylbenzanilide, m. 131° (from alc.). BuBr 36, PhMe 30, and Al 0.3 g. heated for 2 hrs. at 70° gave 64.3% BuC_6H_4Me (II), b_{727} 190-3°, n_D^{20} 1.4920, d_{20} 0.8592. BuCl 12, PhMe 15, and Al 0.15 g. heated for 1.5 hrs. at 70-80° gave 62.5% II, b. 190-200°. AmCl 11.5, C_6H_6 90, and Al 0.1 g. heated for 2 hrs. at 70-80° gave a mixt. of 66% amylbenzenes, b_{725} 190-3°, n_D^{20} 1.4930, d_{20} 0.8628. *n*-$C_6H_{17}Cl$ 27, C_6H_6 23, and Al 0.3 g. produced 47% *sec*-octylbenzene, b. 242-5°, n_D^{20} 1.4850, d_{20} 0.8601. $PhCH_2Cl$ 25, C_6H_6 150, and Al 0.1 g. heated to 70° and the reaction continued for 50 min. at 15° produced Ph_2CH_2, b_{727} 250-60°, m. 20°. A cooled soln. of EtCl in 75 g. of C_6H_6 added over a period of 2 hrs. at 40° to 0.3 g. of Al produced 73.7% PhEt, b_{725} 134-6°, n_D^{20} 1.4950, d_{20} 0.8620, and a mixt. of 14% $C_6H_4Et_2$, b. 1[illegible]-90°, after a repeated distn. b_{725} 180-5°, n_D^{20} 1.5020, d_{20} 0.8630.

M. Hoseh

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TSUKERVANIK I?

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+ SHKERVANIK L.P.

Mel'ka [illegible] (Central [illegible]
Zhur. Obshchei Khim. 23, 1635-8(1953).—Under all condi-
tions the condensation of C_4H_6 with CH_2:$CHCH_2OAc$ (I)
in the presence of $AlCl_3$ yields up to 56% $PhCH_2CHMePh$.
[illegible] $MeCHPhCH_2OAc$ (II) can be de-
[illegible]

[illegible] on refluxing the carbinol
CH_2CMePh [illegible] Reduction of the stilbene with Na-EtOH
with $AcCl$ [illegible] $PhCH_2CHMePh$, b. 128-9°, d_{20} 0.9797,
[illegible] with HNO_3
[illegible]

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Tsukervanik, I. P.

USSR/Chemistry - Alkylation

Card 1/1 Pub. 151 - 17/36

Authors : Sidorova, N. G.; Tsukervanik, I. P.; and Pak, E.

Title : Alkylation of aromatic hydrocarbons with olefines in the presence of metallic Al and halogen derivatives

Periodical : Zhur. ob. khim. 24/1, 94-96, Jan 1954

Abstract : The possibility of alkylation of aromatic hydrocarbons (benzene) with olefines (ethylene, propylene, isobutylene, isoamylene and cyclohexene) in the presence of metallic aluminum and additions of halogen derivatives, is explained. The amount of Al used for the alkylation was found to be of no great importance since only a small part of it enters into reaction. Room temperature was found to be the most favorable condition for the reaction with low-molecular olefines; high temperature was required for olefines with higher molecular weight. The results obtained from such alkylation are listed. Five references: 3-USSR and 2-German (1895-1953). Tables.

Institution : Central Asiatic State University, Laboratory of Organic Chemistry

Submitted : July 1, 1953

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

Tsukervanik, I. P.

USSR/Chemistry - Metalorganic compounds

Card 1/1 : Pub. 151 - 32/37

Authors : Vdovtsova, E. A., and Tsukervanik, I. P.

Title : Condensation of phenylaluminum diiodides with aromatic halogen derivatives

Periodical : Zhur. ob. khim. 24/3, 558-561, Mar 1954

Abstract : Investigation was conducted to determine the mechanism of condensation of phenylaluminum diiodide with bromobenzene, p-chlorotoluene and p-bromotoluene. The optimum conditions favorable for the derivation of large yields of diphenyl during the reaction of $C_6H_5AlJ_2$ with bromobenzene were determined. The characteristics of the secondary products (terphenyl, quaterphenyl and quinquiphenyl) obtained during the above mentioned reaction are described. Diphenyl was found to be the basic product of $C_6H_5AlJ_2$ condensation with p-chloro-and p-bromotoluene. The radical mechanism of the reaction between $C_6H_5AlJ_2$ and aryl halides is explained. Eight references: 6-USSR; 1-USA and 1-German (1880-1953). Tables.

Institution : Central Asiatic State University

Submitted : September 5, 1953

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK I P

USSR

Condensation of phenylaluminum diiodide with aromatic halogen derivatives. E. A. Vdovtsova and I. P. Tsukervanik. *J. Gen. Chem. U.S.S.R.* 24, 571-4(1954)(Eng. translation).—See *C.A.* 49, 6189*b*. H. L. H.

35

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I. P.

USSR/ Chemistry Nitrating

Card : 1/1 Pub. 151 - 26/33

Authors : Tsukervanik, I. P., and Sokol'nikova, M. D.

Title : Nitration of 1,1-diphenylethane

Periodical : Zhur. ob. khim. 24/8, 1435 - 1438, August 1954

Abstract : The effect of nitrating conditions (nitration with fumic nitric acid) on the structure and yields of 1,1-diphenylethane nitration products, was investigated. The results obtained from nitration of 1,1-diphenylethane in different conditions, are shown in a special chemical arrangement. It was also established that nitration of the side chain of 1,1-diphenylethane, with concentrated nitric acid, is possible only when the latter is heated. Fourteen references: 1 English; 3 USA; 5 USSR; 4 German and 1 French (1894 - 1953).

Institution : Acad. of Sc. Uzbek-SSR, Institute of Chemistry

Submitted : February 19, 1954

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I. P.

USSR/Chemistry

Card 1/1 : Pub. 151 - 16/42

Authors : Tsukervanik, I. P., and Yuldashev, K. Yu.

Title : Bromination of 1,1-diphenylethane

Periodical : Zhur. ob. khim. 24/9, 1566-1568, Sep 1954

Abstract : Bromination of 1,1-diphenylethane (obtained from acetylene and benzene) was carried out in a quartz flask illuminated with a plain electric bulb at 100 - 200°. Heating of the mixture results in displacement of the ethane hydrocarbons and consequent separation of the hydrogen bromide. The bromination products were separated through distillation and crystallization. The effect of the bromine amount on the yield of bromination products, is explained. Six references: 2-USSR; 1-USA and 3-German (1873-1953).

Institution : Central Asiatic State University

Submitted : April 17, 1954

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.; MINASYAN, M., tekhnicheskiy redaktor.

[Research on ring alkylation of aromatic compounds] Issledovaniia v oblasti alkilirovaniia iadra aromaticheskikh soedinenii. Tashkent, Izd-vo Sredneaziatskogo gos. univ. 1955. 113 p. (Tashkent. Universitet. Trudy Sredneaziatskogo gosudarstvennogo universiteta, no. 71. Khimicheskie nauki, no 8) (MLRA 9:8)

(Alkylation) (Aromatic compounds)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I. P.

[illegible] and A. D.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

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APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK I. P.

USSR

7682* Cyanethylation of the Nucleus of Aromatic Compounds Tsianetilirovanie iadra aromaticheskikh soedinenii.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

Tsukervanik, I.P.

TSUKERVANIK, I.P.; GOR'KOVETS, T.G.

Acetylene condensation with chlorobenzene. Zhur.ob.khim. 25 no.5:919-921 My'55. (MLRA 8:10)

1. Institut khimii Akademii nauk Uzbekskoy SSR
(Acetylene) (Benzene)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P

I-7

USSR/Chemical Technology - Chemical Products and Their Applications -- Pesticides.

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8867

Author : Tsukervanik, I.P., and Romanova, I.B.
Inst : Academy of Sciences of the Uzbek SSR
Title : New Preparations for Speeding the Harvest of Cotton Crops.

Orig Pub : Dokl. AN UzSSR, 1957, No 6, 11-14 (Uzbek summary)

Abstract : It is shown that a 1-2% aqueous thiourea solution (I) produces 75-85% defoliation on the 18th day when applied to cotton crops. The addition of NH_4CNS (II) does not redice the activity of I. The addition of large amounts of II (30%) produces an increase in the burning of the leaves. The defoliating action of ammonium dithiocarmamate (III), ammonium

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USSR/Chemical Technology - Chemical Products and Their Applications -- Pesticides. I-7

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8867

phenyldithiocarbamate, ammonium diethyldithiocarbamate, tetramethylthiouram disulfide, mercaptobenzothiozole (IV), phenylthiourea (V),

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USSR/Chemical Technology - Chemical Products and Their Applications -- Pesticides I-7

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8867

benzylisothiourea, di-(β-naphthyl)-thiourea, di-(α-naphthyl)-thiourea, allylthiocyanide, nitroquinidine, diphenylquinidine, and dicyanoquinidine has been investigated. III when used in the form of a 0.8% aqueous solution gave 60% defoliation after 18 days (20% burns); IV (0.8% in 0.4% NaOH solution) gave a defoliation of 70% after 12 days (8-10% burns); V (0.4%) gave defoliation of 39% (no burns were observed). Tests for desiccant applications were carried out on I, ethyl and allyl alcohol, mono- and trichloroacetic, succinic, and maleic acids as well as on butylmethacrylate, and a diethyl esters of maleic and formic acids and on vinylbutyl ether. The esters of the unsaturated acids were found to be most effective.

Card 3/3

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

1959(1957).—A review, with 140 references through 1956, dealing with Friedel-Crafts reactions of the [redacted]

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.

TSUKERVANIK, I.P.; SEMESHKO, G.S.

Radical and ionic mechanism of the alkylation of aromatic rings. Part 5: Bezylation of naphthalene. Zhur.ob.khim. 27 no.5:1143-1146 My '57. (MLRA 10:8)

1.Sredneaziatskiy gosudarstvennyy universitet.
(Alkylation) (Naphthalene)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

Cyclodehydration of aromatic compounds. XI. Product of condensation of cyclohexanone with benzene. N. G.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

[illegible] 1.5214, d_{20} 0.9465, over Raney Ni at 120-5° and 55 atm. H, the hydrocarbon I was nitrated and reduced with Sn-HCl, yielding the *amino deriv.*, b_{20} 185°, n_D^{19} 1.5032, d_{20} 1.0144, which gave the *N-benzoyl* deriv., m. 196-7°, and an *isomer*, m. 201-2°. Hydrogenation of I over Raney Ni at 190° gave 98% *1-methyl-1-cyclohexylcyclohexane isomers*, b_{20} 141-2°, n_D^{19} 1.4800, d_{20} 0.8915. I heated with Se at even 300° failed to be completely dehydrogenated, but at 380° gave fluorene. Dehydrogenation of I over Pt-C at 350-70° gave Ph_2 and fluorene. A similar reaction sequence gave from 3-methylcyclohexanol 90% 3-metiylcyclohexanone, b_{20} 166-8°, which yielded [illegible] *3-methylcyclohexanone*, b_{20} 141-3° [illegible] Raney Ni at [illegible] and [illegible] atm. H [illegible] *1-methyl-1-phenylcyclohexane* (II), b_{20} 133-4°, n_D^{19} 1.5293, d_{20} 0.9464 (*benzamido deriv.*, m. 167-8°, and m. 174-5°), in addition to a small amount of apparently an *isomer*, m. 125-8°. Hydrogenation of the hydrocarbon at 190° gave *1-methyl-1-cyclohexylcyclohexane* b_{20} [illegible] II [illegible] n_D^{19} [illegible] *deriv.*, m. [illegible]

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I. P.

79-1-3/63

AUTHORS: Mel'kanovitskaya, S. G., Tsukervanik, I. P.

TITLE: Radical and Ionic Alkylation of the Aromatic Nucleus (Radikal'noye i ionnoye alkilirovaniye aromaticheskogo yadra) VI. Reactions of Dipenylchloromethane With Toluene and Benzene (VI. Reactsii difenilkhlormetana s toluolom i benzolom)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 1, pp. 11-15 (USSR)

ABSTRACT: In the further investigation whether a copper catalyst can be used in alkylation the authors performed reactions with diphenylchloromethane. A short time before that they reported that they had succeeded in realizing the benzilation of a number of aromatic compounds in a thermal and catalytic way where they assumed that the homolytic regrouping takes place within the reaction complex without the formation of free radicals. The reason for their selection of diphenylchloromethane in the present work is to be seen in the insufficient investigation of the alkylation with haloidbenzhydryls as well as in the

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

Radical and Ionic Alkylation of the Aromatic Nucleus 79-1-3/63
VI. Reactions of Diphenylchloromethane With Toluene and Benzene

endeavor to obtain supplementary results on the mechanism of the present reactions. They investigated the reactions of diphenylchloromethane with benzene and toluene in the presence of copper. As main products p-benzhydryltoluene (54%) was synthesized with toluene (0,1 equimolecular weight copper), tetraphenylethane (68%) with benzene (equimolecular weight copper). New experimental data are given which confirm the earlier existing opinion that no free radicals form in these reactions. The authors investigated the reactions of the thermal decomposition of diphenylchloromethane in aromatic compounds and in cyclohexane; for these a mechanism of free radicals was set up. There are 3 tables and 13 references, 3 of which are Slavic.

ASSOCIATION: Chemical Institute AN Uzbek SSR (Institut khimii Akademii nauk Uzbekskoy SSR)

SUBMITTED: January 2, 1957

AVAILABLE: Library of Congress

Card 2/2 1. Cyclic compounds 2. Cyclohexanes 3. Chemistry

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

ROZHKOVA, N.K.; TSUKERVANIK, I.P.

Metals as catalysts in reactions of alkylation of aromatic compounds. (MIRA 13:4)
Uzb.khim.zhur. no.6:53-64 '59.

1.Sredneaziatskiy gosuniversitet im.V.I.Lenina. 2. Chlen-korrespondent AN UzSSR (for Rozhkova).
(Catalysts) (Metals) (Alkylation)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

YULDASHEV, K.Yu.; TSUKERVANIK, I.P.

Reactions of phenylacetylene and 2-methyl-1-phenylacetylene with anisole. Zhur. ob. khim. 34 no.8:2647-2652 Ag '64. (MIRA 17:9)

1. Tashkentskiy gosudarstvennyy universitet im. V.I. Lenina.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.; LEONT'YEVA, L.I.

Methods of synthesis of ortho- and para-benzylphenols. Uzb. khim. zhur. 9 no. 4:33-34 '65. (MIRA 18:12)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina. Submitted Sept. 19, 1964.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

BUGROVA, L.V.; TSUKERVANIK, I.P.

Alkylation of the aromatic ring with dihalo compounds. Part 5: Reactions of benzene with 1,2-and 1,3-and 1,4-chlorobromoalkanes. Zhur. org. khim. 1 no.4:714-718 Ap '65. (MIRA 18:11)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

ZEMZINA, I.N.; TSUKERVANIK, I.P.

Acylation of aromatic compounds. Part 7: Benzoylation, caproylation, and acetylation of 2-methoxynapthalene. Zhur. ob. khim. 33 no.8:2605-2609 Ag '63. (MIRA 16:11)

1. Tashkentskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.; GALUST'YAN, G.G.

Benzylation and benzoylation of furoic esters. Dokl. AN Uz. SSR 20 no.1:26-29 '63. (MIRA 16:6)

1. Institut khimii rastitel'nykh veshchestv AN Uzbekskoy SSR.
2. Chlen-korrespondent AN Uzbekskoy SSR (for TSukervanik).
(Furoic acid)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

KHAKIMOV, G.Kh.; TSUKERVANIK, I.P.

Alkylation of aromatic compounds by alcohols. Part 19: Reaction of 1-heptanol, 1-octanol, 1-nonanol, 1-decanol, and 1-hexadecanol with benzene. Uzb.khim.zhur.7 no.1:76-80 '63. (MIRA 16:4)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.
(Alcohols) (Benzene)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I. P.; KIM, Kh.; KURBATOVA, A. S.

Acylation of aromatic compounds. Part 6: Acetylation and benzolyation of 2-methylnaphthalene and acenaphthene in the presence of iron and ferric chloride. Zhur. ob. khim. 33 no.1:234-237 '63. (MIRA 16:1)

1. Tashkentskiy gosudarstvennyy universitet.

(Naphthalene) (Acenaphthene) (Acetylation)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

GREBENYUK, A.D.; LADANOVA, A.; TSUKERVANIK, I.P.

Reactions of nitroolefins with aromatic compounds in the presence of acid catalysts. Part 2: Condensation of 1,1,1-trichloro-3-nitro-2-propene with benzene in the presence of aluminum chloride. Zhur.ob.khim. 33 no.2:490-493 F '63. (MIRA 16:2)

(Propene) (Benzene) (Aluminum chloride)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

KHAKIMOV, G.Kh.; TSUKERVANIK, I.P.

Alkylation of aromatic compounds with alcohols. Part 18: Reactions of 1-pentanol and 1-hexanol with benzene. Zhur.ob. khim. 33 no.2:493-499 F '63. (MIRA 16:2)
(Pentanol) (Hexanol) (Benzene)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

GREBENYUK, A.D.; KHOLMATOV, M.; TSUKERVANIK, I.P.

Reactions of nitroolefins with aromatic compounds in the presence of acid catalysts. Part 1: Condensation of β-nitrostyrene with benzene in the presence of aluminum chloride. Zhur.ob.khim. 32 no.8:2654-2657 Ag '62. (MIRA 15:9)
(Styrene) (Benzene)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

BUGROVA, L.V.; TSUKERVANIK, I.P.

Alkylation of an aromatic nucleus by dihalo compounds. Part 4: Reactions of 1,4-chlorobromobutane, 1,3-chlorobromopropane, and 2-methyl-1,2-dibromopropane with benzene. Zhur.ob.khim. 32 no.11:3575-3579 N '62. (MIRA 15:11)

(Benzene) (Alkylation)
(Halogen compounds)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

S/081/62/000/023/031/120
B168/B186

AUTHORS: Golovyashkina, L. F., Tsukervanik, I. P.

TITLE: Alkylation of benzene by α-trichloromethylcarbinols

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 245-246, abstract 23Zh102 (Uzb. khim. zh., no. 1, 1962, 56-68 [summary in Uzbek])

TEXT: Alkylation of C_6H_6 by alcohols of the type $Cl_3CC(R)(R')OH$ (I) in the presence of $AlCl_3$ and also of BF_3, H_2SO_4 and H_3PO_4, was studied. Condensation of C_6H_6 with I [R = R' = CH_3 (Ia); R = CH_3, R' = H (Ib), R = R' = H (Ic); (R = C_6H_5, R' = H (Id); R = C_6H_5, R' = CH_3 (Ie)] was investigated. It was shown that under the influence of the CCl_3 group Ia, Ib and Ic apparently lose their capacity to alkylate C_6H_6 due to the OH group. Introduction of a C_6H_5 group into the α-position with respect

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to the CCl_3 group almost completely eliminates the influence of the latter. It was shown that the acidity of the alcohols of type I is not the fundamental cause of their behavior during alkylation and that the influence of the CCl_3 group is determined not by the increase in acidity but by the capacity of the chlorine atoms to participate in the alkylation reaction. The authors consider that the decisive factors in alkylation by alcohols of type I are the easy changeability of the molecule of the tertiary alcohols and the high activity of the Cl atoms in the primary and secondary alcohols. Ia, b. pt. 167°C/730 mm, m. pt. 94-95°C, is obtained from acetone and $CHCl_3$; Ib, b. pt. 155-156°C, m. pt. 49-50°C, is obtained with a 60% yield from CH_3MgI and chloral (II). Ic, yield 40%, b. pt. 147-149°C/730 mm, is obtained by Meerwein-Ponndorf reduction of II. Id, yield 74%, b. pt. 109-110°C/4 mm, is obtained from Ia and II by Dinesman's method. Ie, yield 61%, b. pt. 110-111°C/1.5 mm, is obtained from acetophenone and $CHCl_3$. 18.7 g Ia, 18 ml C_6H_6 and 6.7 g $AlCl_3$

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heated to ~100°C for 10 hrs produce 4.3 g α-chloroisobutyric acid, b. pt. 62-72°C/4 mm and 0.38 g 1,1-dichloro-2-methyl-3-phenylpropene-1, b. pt. 79-81°C/2 mm. 18.7 g Ia, 54 ml C_6H_6 and 26.7 g $AlCl_3$ heated to ~100°C for 18 hrs produce 2-methylindanone-1, yield 76.7%, b. pt. 234-235°C/730 mm, 103-104°C/7 mm, $n^{20}D$ 1.5534, d_4^{20} 1.0642; semicarbazone, m. pt. 194-195°C; and oxime, m. pt. 105-106°C. The structure is verified by back synthesis. 4 g Ib, 14 ml C_6H_6 and 6.7 g $AlCl_3$ heated to 50-60°C for 1.25 hr produce $(C_6H_5)_2CHCOCH_3$, yield 76.3%, b. pt. 134-140°C/2 mm, m. pt. 61-62°C; semicarbazone, m. pt. 167-168°C; oxime, m. pt. 164-165°C and 0.7 g (unpurified) $(C_6H_5)_2C{=}C(C_6H_5)CH_3$, b. pt. 150-160°C/3 mm, m. pt. 92-93°C; the structure of both these substances is verified by back synthesis. 5 g Ic, 60 ml C_6H_6 and 8.9 g $AlCl_3$ heated to 50-60°C for 4.5 hrs and distilled at 5 mm produce 5.3% diphenylmethane, b. pt. 120-121°C/10 mm (dinitro derivative, m. pt. 182-183°C), 12.2%

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desoxybenzoin (b. pt. 160-170°C/5 mm, b. pt. 175-176°C/12 mm, m. pt. 59-60°C; semicarbazone, m. pt. 147-148°C; oxime, m. pt. 93-94°C) and 21.9% 1,1,2,2-tetraphenylethane, m. pt. 208-209°C (structure verified by back synthesis). 22.6 g Id, 90 ml C_6H_6 and 13.4 g $AlCl_3$ mixed at 0-5°C for 7.5 hrs and distilled at 3 mm produce 43% 1,1,1-trichloro-2,2-diphenylethane, b. pt. 158-159°C/3 mm, m. pt. 62-63°C, and 1,1,2,2-tetraphenylethane, m. pt. 208-209°C (from alcohol benzene). 22.6 g Id, 90 ml C_6H_6 and 13.4 g $AlCl_3$ heated to 55-60°C for 2.5 hrs and distilled at 2 mm produce 26.5% 1,1-diphenyl-2,2-dichloroethylene (b. pt. 134-135°C/2 mm, m. pt. 78-79°C), 16.8% 1,1,2-triphenyl-2-chloroethylene (b. pt. 182-185°C/2mm, m. pt. 116-117°C) and 2.6% 1,1,2,2-tetraphenylethane. 6 g Ie, 23 ml C_6H_6 and 3.3 g $AlCl_3$ mixed at 20-22°C for 5 hrs and distilled at 2 mm produce 2.8 g 1,1,1,2-tetrachloro-2-phenylpropane (b. pt. 111-112°C/2 mm,

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d_4^{20} 1.4181, $n^{20}D$ 1.5702) and 1.8 g 1,1,1-trichloro-2,2-diphenylpropane, b. pt. 150-160°C, m. pt. 133-134°C. Alkylation of C_6H_6 by 1,1,1-trichloro-2-methylpropene-1 in the presence of $AlCl_3$ (molar ratio 10:1:0.1) produces 1,1-dichloro-2-methyl-3-phenylpropene-1, b. pt. 95-96°C/4 mm, $n^{20}D$ 1.5475, d_4^{20} 1.777. Alkylation of C_6H_6 by α-chloropropionyl chloride in the presence of $AlCl_3$ produces α-chloropropiophenone, b. pt. 120-122°C/17 mm. Alkylation of C_6H_6 by chloroacetyl chloride in the presence of $AlCl_3$ produces chloroacetophenone, b. pt. 91-92°C/3 mm. [Abstracter's note: Complete translation.]

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YULDASHEV, Kh.Yu.; TSUKERVANIK, I.P.

Reactions of chlorostyrene with benzene. Zhur.ob.khim. 32 no.4: 1293-1296 Ap '62. (MIRA 15:4)

1. Tashkentskiy gosudarstvennyy universitet.
(Styrene) (Benzene)

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TSUKERVANIK, ~~I.P.;~~ KHAKIMOV, G.Kh.

Alkylation of aromatic compounds by alcohols. Part 17: Reactions of propyl and butyl alcohols with benzene. Zhur.ob.khim. 32 no.4:1296-1301 Ap '62. (MIRA 15:4)

1. Tashkentskiy gosudarstvennyy universitet.
(Propyl alcohol) (Butyl alcohol) (Benzene)

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RAKITIN, Yu.V., prof., otv. red.; IMAMALIYEV, A.I., kand. biol. nauk, zam. otv. red.; SADYKOV, S.S., red.; TSUKERVANIK, I.P., red.; OVCHAROV, K.Ye., doktor biol. nauk, red.; ALEYEV, B.G., kand. sel'khoz. nauk, red.; KAMILOVA, R.M., kand. bil. nauk, red.; ASTAKHOV, A.N., red. ; KARABAYEVA, Kh.U., tekhn. red.

[Materials of the Uzbek Conference on the Methods and Study of the Use of Defoliants, Desiccants, and Herbicides in Cotton Growing]Materialy Respublikanskogo nauchno-metodicheskogo soveshchaniia po primeneniiu defoliantov, desikantov i gerbitsidov v khlopkovodstve. Tashkent, Izd-vo Akad. nauk UzSSR, 1962. 202 p. (MIRA 15:7)

1. Respublikanskoye nauchno-metodicheskoye soveshchaniye po primeneniyu defoliantov, desikantov i gerbitsidov v khlopkovodstve, Tashkent, 1960. 2. Chlen-korrespondent Akademii nauk Uzbekskoy SSR (for Sadykov, TSukervanik). 3. Institut fiziologii rasteniy im. K.A.Timiryazeva Akademii nauk SSSR (for Rakitin, Ovcharov). 4. Institut genetiki i fiziologii rasteniy Akademii nauk Uzbekskoy SSR (for Sadykov, Imamaliyev, Kamilova). 5. Institut zashchity rasteniy Ministerstva sel'skogo khozyaystva Uzbekskoy SSR (for Aleyev).

(Uzbekistan--Cotton research--Congresses)

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TSUKERVANIK, I.P.; BANK, A.S.

Method for synthesizing α-naphthylacetic acid. Uzb.khim.zhur no.3:41-44 '61. (MIRA 14:11)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.
2. Chlen-korrespondent AN UzSSR (for TSukervanik).
(Acetic acid)

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GOLOVYASHKINA, L.F.; TSUKERVANIK, I.P.

Alkylation of benzene by α-trichloromethylcarbinols. Uzb.khim. zhur. 6 no.1:56-68 '62. (MIRA 15:3)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.
(Benzene) (Alcohols)

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TSUKERVANIK, I.P.; SHADIYEVA, F.Kh.

Acylation of aromatic compounds in the presence of metals. Uzb. khim.zhur. no.2:60-62 '61. (MIRA 14:10)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. 2. Chlen-korrespondent AN UzSSR (for TSukervanik).
(Benzoylation) (Biphenyl) (Xylene)

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LAZUR'YEVSKIY, Georgiy Vasil'yevich; TERENT'YEVA, Ida Vladimirovna; SHAMSHURIN, Aleksandr Andreyevich; TSUKERVANIK, I.P., red.; STUKOVNIN, N.D., red. izd-va; VORONINA, R.K., tekhn. red.

[Practical work in the chemistry of natural compounds] Prakticheskie raboty po khimii prirodnykh soedinenii. Moskva, Gos.izd-vo "Vysshaia shkola." No.1. [Methods of isolation, separation, and identification] Metody vydeleniia, razdeleniia i identifikatsii. 1961. 191 p. (MIRA 15:4)
(Chemistry, Organic--Laboratory manuals)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.; BUGROVA, L.V.

Alkylation of benzene, toluene, and xylenes with 1,3-dibromobutane.
Zhur.ob.khim. 31 no.7:2143-2149 Jl '61. (MIRA 14:7)
(Benzene) (Toluene) (Xylene) (Butane)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.; YANICHKIN, L.P.

Acylation of aromatic compounds in the presence of metal catalysts. Benzoylation of naphthalene. Uzb.khim.zhur. no.4:58-63 '61. (MIRA 14:8)

1. Tashkentskiy gosudarstvennyy universitet imeni V.I.Lenina.
2. Chlen-korrespondent AN UzSSR (for TSukervanik).
(Naphthalene) (Benzoylation)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.; YULDASHEV, Kh.Yu.

Condensation of 1-bromo-2-methyl-1-propene and 1-chloro-1-butene with benzene. Uzb. khim. zhur. no.6:58-62 '60. (MIRA 14:1)

1. Tashkentskiy gosudarstvennyy universitet im. V.I. Lenina.
2. Chlen-korrespondent AN UzSSR (for TSukervanik).
(Propene) (Butene) (Benzene)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.; GALLUST'YAN, G.G.

Alkylation and acylation of acetoacetic and malonic esters in the presence of copper powder. Zhur. ob. khim. 31 no. 2:528-531 F '61. (MIRA 14:2)

1. Tashkentskiy gosudarstvennyy universitet.
(Acetoacetic acid) (Malonic acid) (Copper)

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TSUKERVANIK, I.P.; YULDASHEV, Kh. Yu.

Condensations of vinyl halides with toluene and anisole.
Zhur. ob. khim. 31 no.3:858-861 Mr '61. (MIRA 14:3)

1. Tashkentskiy gosudarstvennyy universitet.
(Vinyl compounds) (Toluene) (Anisole)

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TSUKERVANIK, I.P.; KADYROV, Ch.Sh.

Condensation of tetrahydrofuran with benzene, toluene, m-xylene, and phenol. Uzb. khim. zhur. no. 2:45-52 '60. (MIRA 14:1)

1. Institut khimii AN UzSSR. 2. Chlen-korrespondent AN UzSSR (for TSukervanik).

(Furan) (Condensation products)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

TSUKERVANIK, I.P.

New preparations for the mechanization of cotton harvesting. Search for new cotton defoliants. Uzb. khim. zhur. no.1:44-48 '61. (MIRA 14:1)

1. Tashkentskiy gosudarstvennyy universitet imeni V.I. Lenina.
2. Chlen-korrespondent AN UzSSR.
(Defoliation) (Cotton)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210008-0

KADYROV, Ch.Sh.; TSUKERVANIK, I.P.

Condensation of tetrahydrosylvan with toluene and p-and m-xylenes. (MIRA 13:10)
Uzb. khim. zhur. no.3:49-53 '60.

1. Institut khimii AN UzSSR i Sredneaziatskiy gosudarstvennyy universitet imeni V.I. Lenina.
(Furan) (Toluene) (Sylene)

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