

Synthesis of N-substituted ...

24426
S/079/61/031/007/008/008
D229/D305


filtered and the filtrate distilled in vacuo. Fractions contained methacrylic acid, MAA and from the fraction, b.p. 75°C/1 mm, a small amount of MDMA was separated. Recrystallized from heptane, m.p. 90.5-91.5°C. Soluble in common organic solvents: Polymerizes in bulk or in concentrated solution, forming a soluble thermoplastic polymer containing no unsaturation. Preparation from $\text{CH}_3\text{NH}_2\text{HCl}$ and MAC by the method of G.M. Chetirkina [Abstractor's note: Reference to original source not given] is subsequently explained. A 34.8 % yield of MDMA was given. After boiling equimolar quantities of $\text{CH}_3\text{NH}_2\text{HCl}$ and MAC in anhydrous toluene for ten hours some $\text{CH}_3\text{NH}_2\text{HCl}$ is unchanged. After filtration of the solid, toluene is distilled off and the residual oil fractionated in vacuum. The fraction b.p. 74-82°C/2 mm and n_D^{20} 1.4740 and was N-methylmethacrylamide. A small amount of MAA also crystallized out, m.p. 88.5-90°C. On carrying out the reaction in benzene and boiling for 16 hours, N-methylmethacrylamide was obtained in 45 % yield. Methacrylic acid anhydride,

Card 2/3

Synthesis of N-substituted ...

24426
S/079/61/031/007/008/008
D229/D305

b.p. 83-84°C/10 mm was obtained from methacrylic acid chloride, methacrylic acid and pyridine in 66 % yield. There are 13 references: 3 Soviet-bloc and 10 non-Soviet-bloc. The references to the 4 most recent English-language publications read as follows: R. Dunbar, G. White, J. Org. Chem., 23, 915, 1958; A.W. Titherley, J. Chem. Soc., 79, 391, 411, 1901; 81, 1520, 1902; 85, 1673, 1904; 101, 1871, 1912; Q.E. Thompson, J. Am. Chem. Soc., 73, 5841, 1958; D. Davidson, H. Skovronek, J. Am. Chem. 80, 376, 1958.

ASSOCIATION: Institut visokomolekulyarnikh soyedineniy Akademii nauk SSSR (Institute of Macromolecular Compounds, Academy of Sciences, USSR) 

SUBMITTED: July 16, 1960

Card 3/3

L 13294-66 EWT(m)/EWP(j)/EWA(c) RM
ACC NR: AP6000329 (A) SOURCE CODE: UR/0286/65/000/021/0017/0017

INVENTOR: Sokolova, T. A.; Rudkovskaya, G. D.

31
B

ORG: none

TITLE: A method for producing dimethacrylamides. Class 12, No. 175953 [announced by the Institute of High Molecular Compounds AN SSSR (Institut vysokomolekulyarnykh soyedineniy AN SSSR)]

9,44,55

15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 17

TOPIC TAGS: methacrylate plastic, polymer

ABSTRACT: This Author's Certificate introduces a method for producing dimethacrylamides from monomethacrylamides. The product yield is increased and a wider selection of raw materials is provided by treating the monomethacrylamides in methacryly chloride in the presence of magnesium bromoethyl in a tetrahydrofurane medium at 50° C.

SUB CODE: 07/ SUBM DATE: 12Jun63/ ORIG REF: 000/ OTH REF: 000

jw
Card 1/1

UDC: 547.391.3'398.1.07

RUDKOVSKAYA, N. Ye. [Rudkivs'ka, N.E.]

Effectiveness of toughening children under nursery conditions.
Ped., akush. i gin. 23 no.3:30-34 '61. (MIRA 15:4)

1. Ukrainskiy nauchno-issledovatel'skiy institut okhrany materinstva
i detstva im. Geroya Sovetskogo Soyuza prof. P.M.Buyka (direktor -
kand.med.nauk O.G.Pap [Pap, O.H.] nauchnyy rukovoditel' - deystvitel'nyy
chlen AMN SSSR A.P.Nikolayev).
(CHILDREN--CARE AND HYGIENE)

RUDKOVSKAYA, R. V.; TORBINA, R. M.

Chemical cleaning of spinning machine parts. Khim. volok.
no.6:59-62 '62. (MIRA 16:1)

(Spinning machinery)

RUJDKOVSKAYA, Ye.V.; LOBANOV, S.D.

Case of visceral moniliasis. Zdrav. Kazakh. 22 no.8:69-73'62
(MIRA 17:4)

1. Iz kafedry terapii fakul'teta usovershenstvovaniya vrachey
(zav. - dotsent N.A. Tiomo) Kazakhskogo meditsinskogo instituta
i patologoanatomicheskogo otdeleniya klinicheskoy bol'nitsy
No.2 Alma-Aty.

L 35831-66 EWP(j)/EWT(m)/T/EWP(v) IJP(c) RM/WW

ACC NR: AP6015729 (A) SOURCE CODE: UR/0032/66/032/005/0568/0570 41

AUTHOR: Voyutskiy, S. S.; Rudkovskaya, Z. S.; Garetovskaya, N. L. B

ORG: Scientific Research Institute for the Plastics Industry (Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti) 15

TITLE: Determination of the specific adhesion of different adhesives to fiber type polymers

SOURCE: Zavodskaya laboratoriya, v. 32, no. 5, 1966, 568-570

TOPIC TAGS: adhesive bonding, elastomer, chloroprene, cyanate, *SYNTHETIC FIBER*

ABSTRACT: The article presents a simple method for determining the specific adhesion of various adhesives to fiber type polymers. It includes a consideration of the effect of the nature of the elastomeric adhesive, the introduction of polyisocyanates into the adhesive, the thickness of the layer of adhesive, the duration of vulcanization, and the temperature of the layer of glue. With respect to the effect of the nature of the adhesive, it was found in a qualitative way that the use of natural rubber produced bonds with a small resistance to stratification; it is recommended therefore that use be made of mixtures of chloroprene rubber, containing vulcanizing agents and polyisocyanates.

UDC: 620.179.4

Card 1/2

ACC NR: AP6015729

0
A figure illustrates the effect of these additions of polyisocyanates into the chloroprene rubber mixture. With an increase in the thickness of the layer of adhesive substance (163, 385, 585 grams/meter²) the adhesion of a chloroprene rubber mixture containing polyisocyanates increases (2.1, 2.4, 4.8 kgf/cm). Orig. art. has: 3 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002

ms
Card 2/2

3.9-44

551.506.8:598.2:581.543

Rudkovski, Boris, O byznamu uceleneho fenologickoho pozorovani ptactva v prirode. (The importance of a comprehensive phenological study of birds in their natural surroundings.) Meteorologické Zpravy, 4(506):127-128, 1950. In Czech. MH-B H-
The author suggests that the time of arrival and departure of migrating birds, which is linked to meteorological factors, should be closely observed and that observers should be able to identify birds by sight and hearing and to pay attention to certain plants which develop at the same time as certain birds arrive. Editor Josef Brablec points out in a note that for Czechoslovakia, with its varied climatic conditions and topography, it is not possible to draw general conclusions from the behavior of birds and he mentions a few examples to prove discrepancies between the expected and actual arrival of certain species. Subject headings: 1. Phenology 2. Bird migrations 3. Czechoslovakia. —G.T.

BORON', P.; RUDKOVSKIY, A.

Examination of the functional state of the liver in alimentary
toxicoinfections. Sov. med. 28 no.10:29-31 O '65. (MIRA 18:11)

1. Klinika infektsionnykh bolezney (zav. - dotsent doktor meditsiny
P. Boron') Meditsinskoy akademii v Belostoke, Pol'sha.

KAMENICHNYY, Iosif Solomonovich; KALINOVICH, K.I., inzh., retsenzent;
RUDKOVSKIY, A.Ye., inzh., retsenzent; CHISTYAKOVA, L.G., inzh.
red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Brief handbook for a heat treatment specialist] Kratkii spravochnik tekhnologa-termista. Moskva, Mashgiz, 1963. 285 p.
(MIRA 16:7)

(Metals--Heat treatment)
(Metals--Handbooks, manuals, etc.)

KRINKIN, D.P.; RUDKOVSKIY, D.M.; TRIFEL', A.G.

Side reactions in the oxo synthesis process. Khim. i tekh. topi. i
masel 10 no.7:8-11 JI '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
professov.

GANKIN, V.Yu.; KRINKIN, D.P.; RUDKOVSKIY, D.M.; TRIFEL', A.G.

Effect of the temperature of formation of metallic cobalt on its reaction capacity in the process of carbonyl formation. *Khim. i tekh. topl. i masel* 10 no.10:11-14 0 '65. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

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 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

ca 10

Preparation of butyl chlorides from the concentrated butylene fraction of vapor-phase cracking gases. A. Dobryanski and D. Rudkovskii. *Org. Chem. Ind. (U. S. S. R.)* 1, 537-40 (1930).—A yield of 77% Me₂CCl and 52% of mixed secondary BuCl was obtained by the method of Wibaut, Diekmann and Rutgers (*C. A.* 22, 1149) by acting with gaseous HCl on the vaporized mixt. of butylenes in the presence of BiCl₃ on pumice at room temp. The reaction at elevated temps. (100°) gave considerable polymerization products of Me₂CCl + C₄H₈.

ASAC 55A - METALLURGICAL LITERATURE CLASSIFICATION

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 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PROCESSES AND PROPERTIES INDEX

10

Preparation of butyl chlorides from the concentrated butylene fraction of vapor-phase cracking gases. II. D. M. Rudkovskii and A. Trifel. *Org. Chem. Ind. (U. S. S. R.)* 2, 203-5 (1936); cf. *C. A.* 30, 6702. Nearly 100% Me_2CCl was obtained by causing gaseous HCl to act on a vaporized mixt. of $Me_2C=CH_2$ (I) 25-35, normal butylenes 40-50, divinyl 12-18 and C_3H_4 hydrocarbons 2-3% in the presence of $BiCl_3$ on glass wool at 50-60° and a contact time of 3-5 sec. At this rate normal butylenes and divinyl practically do not react with HCl, while I and acetylenes give nearly 100% conversion. Changing the ratio of HCl to I from 1:1 to 2:1 showed no effect on the yield of Me_2CCl . The presence of divinyl and acetylenes caused rapid poisoning of the catalyst. Use of glass wool alone without $BiCl_3$ reduced the yield of Me_2CCl to 30%.

Chav. Blanc

METALLURGICAL LITERATURE CLASSIFICATION

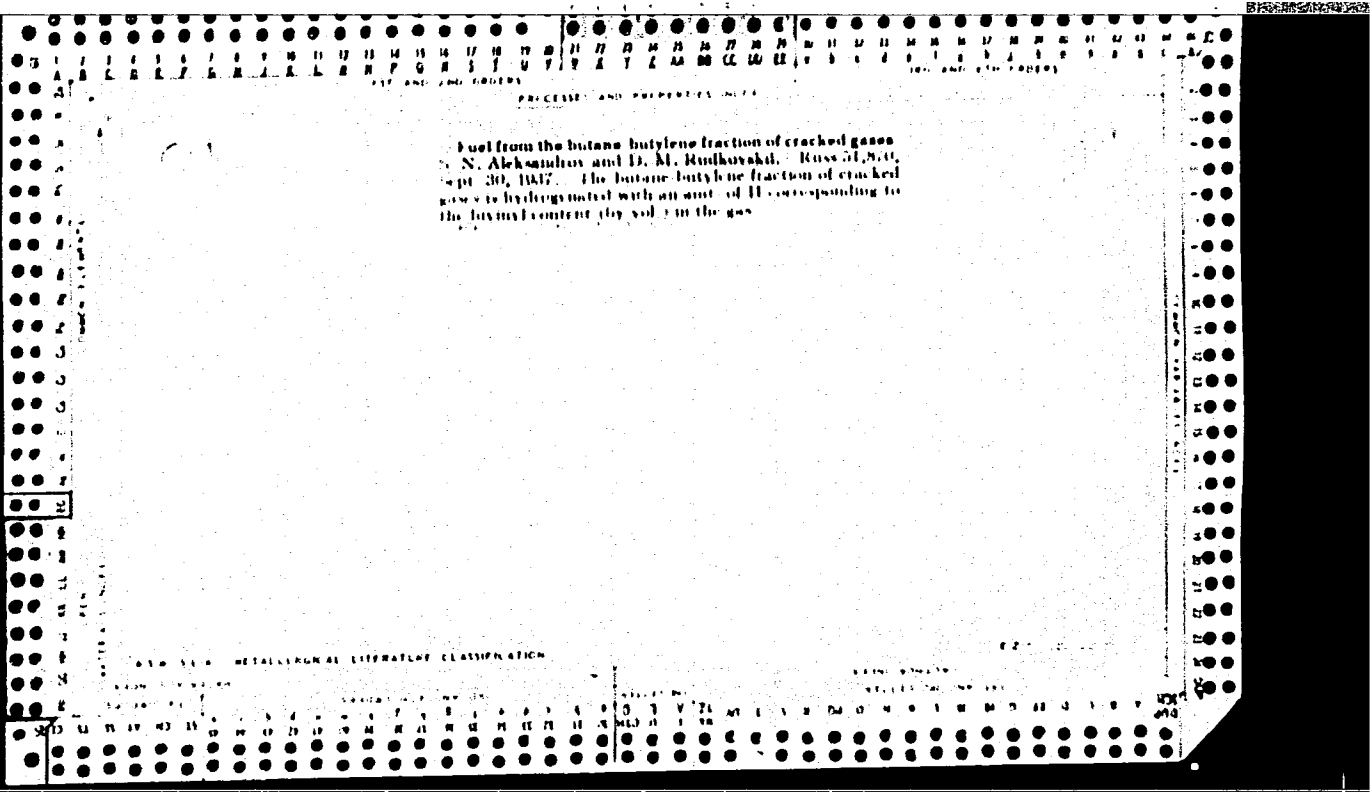
BC

a-3

Reversible catalytic conversion of n-butylenes into isobutylenes. A. V. FROST, D. M. RUDKOYSKI, and E. K. SHKREBJAKOVA (Compt. rend. Acad. Sci. U.R.S.S., 1938, 4, 373-376).—Quant. conversion of n-butylenes into isobutylenes (I) in presence of six different catalysts is examined at about 300° and equilibrium relationships are determined between 265° and 426°. SiO₂ gel-H₃PO₄ promotes the largest yield (44.3%) of (I). F. N. W.

ASB 514 METALLURGICAL LITERATURE CLASSIFICATION

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	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----



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 45 46 47 48 49 50

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES INDEX 3RD AND 4TH ORDERS

130

B-I-3

Catalytic polymerization of industrial un-saturated hydrocarbon gases under pressure. D. RYKOVA, G. SOLOVIOVA, and G. PERELIN (From: *Org. Chim.*, 1967, 2, 888-889). The highest yields of liquid hydrocarbons obtained by passing cracking gas over a no. of catalysts are obtained at 280°/25 atm; with freshly heated at 260° with H_3PO_4 and containing considerable excess of H_3PO_4 . R. T.

COMMON ELEMENTS

MATERIALS INDEX

OPEN

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUP #1

ALPHABETIC

GROUP #2

ALPHABETIC

GROUP #3

ALPHABETIC

GROUP #4

ALPHABETIC

GROUP #5

ALPHABETIC

GROUP #6

ALPHABETIC

GROUP #7

ALPHABETIC

GROUP #8

ALPHABETIC

GROUP #9

ALPHABETIC

GROUP #10

ALPHABETIC

GROUP #11

ALPHABETIC

GROUP #12

ALPHABETIC

GROUP #13

ALPHABETIC

GROUP #14

ALPHABETIC

GROUP #15

ALPHABETIC

GROUP #16

ALPHABETIC

GROUP #17

ALPHABETIC

GROUP #18

ALPHABETIC

GROUP #19

ALPHABETIC

GROUP #20

ALPHABETIC

GROUP #21

ALPHABETIC

GROUP #22

ALPHABETIC

GROUP #23

ALPHABETIC

GROUP #24

ALPHABETIC

GROUP #25

ALPHABETIC

GROUP #26

ALPHABETIC

GROUP #27

ALPHABETIC

GROUP #28

ALPHABETIC

GROUP #29

ALPHABETIC

GROUP #30

ALPHABETIC

GROUP #31

ALPHABETIC

GROUP #32

ALPHABETIC

GROUP #33

ALPHABETIC

GROUP #34

ALPHABETIC

GROUP #35

ALPHABETIC

GROUP #36

ALPHABETIC

GROUP #37

ALPHABETIC

GROUP #38

ALPHABETIC

GROUP #39

ALPHABETIC

GROUP #40

ALPHABETIC

GROUP #41

ALPHABETIC

GROUP #42

ALPHABETIC

GROUP #43

ALPHABETIC

GROUP #44

ALPHABETIC

GROUP #45

ALPHABETIC

GROUP #46

ALPHABETIC

GROUP #47

ALPHABETIC

GROUP #48

ALPHABETIC

GROUP #49

ALPHABETIC

GROUP #50

ALPHABETIC

CA

10

Synthesis of ethyl chloride. D. M. Rudkovskii, S. N. Aleksandrov, V. K. Pazhitnov, H. V. Ivanovskii and N. S. Goloushin. *Org. Chem. Ind. (U. S. S. R.)* 4, 480 502(1937); cf. *C. A.* 30, 2082^a. - Contrary to Tuleners, *et al.* (*C. A.* 28, 4035^b) the reaction between dry HCl and C₂H₆ with a catalyst of anhyd. AlCl₃ suspended in EtCl proceeds satisfactorily at temps. above -78°. The reaction rate increases with increasing temp. (-78° to -55°), giving in the interval between -55° and -12° 95% yields. The EtCl obtained at -55° contained 5% polymers and at -12° 10% polymers. The addn. of 10 g. Al to 1 g. AlCl₃ increased the productivity from 700-800 g. to 5000 g. EtCl. Yields of 95% (91% EtCl) resulted from C₂H₆ dild. with air and with cracking gases (H, CH₄, and C₂H₄) by working at -27° and -30°.

Chas. Blanc

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

PROCESSES AND APPARATUS

Synthesis of naphtha from hydrocarbon gases. D. M. Rukkovskii and A. V. Frost. *L'pekha Khim.* 6, 180-184 (1937).—A review covering the products of the cracking of said hydrocarbons under various conditions, polymerization to give aromatic compds., the yields of oil obtained by polymerization of various pure hydrocarbons, effects of pressure and catalysts and alkylation and dealkylation of aromatic compds. Special attention is paid to the production of diisobutylene and of isooctane. F. H. R.

ASB 31.4 METALLURGICAL LITERATURE CLASSIFICATION

REGION 100 010000

SEARCHED INDEXED SERIALIZED FILED

APR 1968

U S GOVERNMENT PRINTING OFFICE

2) to 25% (at 900 70°), falling again to 21 at $\rho = 0.1$ sec. C_2H_4 + C_3H_6 in gas to fall beyond $\rho = 0.03$, this fall entails early fall of the sum of total olefins. Variation of the kerosene-water ratio ρ from 1:1 to 1:0, at 900 70° ρ , 0.05 and 0.14, produced a slow increase of the total amt. of gas, an increase of total olefins reaching a max. (43.7%) at about $\rho = 1.3$, a slow but steady increase of C_2H_4 from 20.6 to 21.4%, an increase of C_3H_6 + C_4H_8 reaching a max. at about $\rho = 1.3$, no change in C_2H_2 and H_2 . Coke was formed in the amt. of 0.5% at 980° ($\rho = 1.3$), rising fast with the temp. to 2.4 and 4.8% at 1000 and 1050°, resp.; ρ has hardly any effect on it. Only a very small fraction of the H_2O is decompl. in reactions with C and hydrocarbons resulting in formation of CO; at 900 and 1050°, the amt. is 0.5 and 1.8%, resp.; consequently, as surmised by Matignon, H_2O acts chiefly by protecting olefins against polymerization. Saratov mazut was subjected to pyrolysis dbl. with double its wt. of water, resulting in 15.2 vol. % mazut, in O_2 , $\rho = 0.1$ corresponding to 2.40 ml O_2/g mazut. Optimum C_2H_4 corresponded to $\rho = 2.5-4$, at 750-850°, $\rho = 0.5-0.3$ sec.; under the given conditions, 750-850°, $\rho = 0.2-0.8$, the highest yield in C_2H_4 was 5%, C_3H_6 4%, bivenyl 3%, without reaching the optimum corresponding to $\rho = 1$; the optimum sum of olefins lies at about $\rho = 2-3$. The vol. compn. of the optimum gas is C_2H_4 20, C_3H_6 5, C_4H_8 2.5, bivenyl 1.5%, total olefins 29%; C_2H_2 20, H_2 13, CO 15, CO_2 20. Coke amounts to 3-4.5% (of the wt. of the mazut); it doubles for $\rho = 1:1$. The corrected balance with respect to the "usefully" converted mazut (with deduction of 10% burned) is: C_2H_4 15.5, C_3H_6 5.5, C_4H_8 4.4, bivenyl 3.3, total olefins 29, total aromatics 4.5, coke 4%. As compared with

moderate in pyrolysis (i.e. cracking with H_2O III) and with H_2O + O_2 (III) does result in a certain increase of C_2H_4 , but II and III have a distinctly more marked effect on the yields in C_2H_4 , C_3H_6 , and particularly C_4H_8 (bivenyl). At $\rho = 2$ and 4, C_2H_4 in I, II, III, was 5.0, 11.4, 5.0 and 2.8, 5.8, 3.0; C_3H_6 1.2, 4.0, 2.8 and 0.7, 0.4, 1.0; C_4H_8 0, 1.3, 1.6 and 0, 0, 0.5; the sum of olefins 10.0, 22.0, 23.5 and 10.3, 18.2, 21.5%; yield in hydrocarbon gas (in 1/100 g mazut) 23, 20, 30 and 31, 33, 42. Light oil ($d_4^{20} < 0.81$) 7.3, 0.3, 3.0 and 11.8, 14.0, 7.4; aromatics 3.0, 1.0, 1.0 and 5.0, 3.5, 4.1. Gas dbl. with N_2 is an essential feature of III. N. Thon

CA 10

Preparation of methylene chloride from methane M. M. Ketslakh, D. M. Ruzikovskii, and I. F. Suknevich. *Zhur. Priklad. Khim.* 23, 215-19 (1950); *J. Applied Chem. U.S.S.R.* 23, 221-4 (1950) (Engl. translation); cf. Carter and Cox, *U.S.* 1,572,513, *C.I.* 20, 1241. -The prepn. of CH_2Cl_2 by 3 methods was investigated: chlorination of CH_4 , of MeCl , and of their mixt. The most satisfactory is chlorination of CH_4 contg. MeCl , so as to give a $\text{Cl}_2/\text{CH}_4/\text{MeCl}$ ratio 1.0:0.8:0.7, when the yield of CH_2Cl_2 reaches 73.6% (on Cl_2) and 31% on CH_4 . Polychlorides comprise 19%. The best temp. range is 380-450° and either broken glass or CaCl_2 tube fillers give approx. the same result. Almost no MeCl is lost in the process and this can be recycled. CaCl_2 or CuCl_2 do not appear to have any specific catalytic action over glass. In all cases some C deposition took place which may have an effect on the results; this was not studied further. G. M. Kosolapoff.

RUDKOVSKIY D.M.

Semegrad Sci. Res. Inst.

[Handwritten signature]

Y - A

5577. HYDROGENATION OF ALDEHYDES OBTAINED FROM CARBONYLATED DIESEL OIL
EXTRACTED FROM SHALE TAR. Ketslakh, M.M. and Rudkovskii, D.H. (Khim.
Ucheb. Zhurn. i Prikl. Khim., Moscow, 1957, (1), 1-7;

AUTHORS: Afanas'ev, I.D., Gadaskina, N.D., Remiz E.K., Rudkovskiy,
D.M. 65-6-3/13

TITLE: Complex esters from products of oxosynthesis and other products of chemical processing of hydrocarbons. (Slozhnye efiry iz produktov oksosinteza i drugikh produktov khimicheskoy pererabotki uglevodorodov).

PERIODICAL: "Khimiya i Tekhnologiya Topлива i Masel" (Chemistry and Technology of Fuels and Lubricants) 1957, No.6, pp.16-25, (USSR).

ABSTRACT: An experimental work on the synthesis of a series of complex esters and determination of their properties is described. The following raw materials were used:
1) Monohydroxy alcohols from oxosynthesis; dihydroxy alcohols obtained in a treatment of unsaturated gaseous hydrocarbons; di- and trihydroxy alcohols - condensation products of propionic and butyric aldehydes with formaldehyde.
2) monocarboxylic fatty acids, obtained by oxidation of paraffins and by oxidation of aldehydes from oxosynthesis; dicarboxylic acids of fatty and aromatic series. Technical mixtures were mainly used so that technical mixtures of esters were obtained.

Card 1/1 Boiling of mixtures of acid, alcohol, catalyst and oxygen, APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445920019-6

Complex esters from products of oxosynthesis and other products of chemical processing of hydrocarbons. (Cont.)
the latter being used for the removal of water from the reaction zone. As catalysts zinc oxide and β -naphthalene-sulpho acid (prepared as in ref.5, Witt, Ber., v.48, p.751, 1915) were used in a proportion of 0.3-0.5% of the reaction mixture. In order to prevent the formation of incompletely substituted esters the monobasic component was usually in excess (125-150%) of the di or tri-basic component. Esters of monohydroxy alcohols from oxosynthesis and acids obtained by oxidation of paraffins are given in table 1. Esters of mono-hydroxy alcohols (from C₄ to C₁₀) and acids from oxosynthesis (C₄ - C₉) are given in table 2. As the esters obtained possess a low solidification temperature and a relatively flat viscosity curve, they are suitable as components of lubricating materials. In order to increase their viscosity additions of high molecular polymer esters can be used. As an example the viscosity of the isobutyl ester of isobutyric acid with an addition of polybutylmethacrylate (0-20%) is given in table 3. Esters of dihydroxy alcohols and acids obtained by oxidation of paraffins are given in table 4. Esters of dihydroxy alcohols and acids obtained by oxosynthesis are given in

Card 2/4

Complex esters from products of oxosynthesis and other products of chemical processing of hydrocarbons. (Cont.)
table 5. Esters of trihydroxy alcohols and normal acids (including those obtained by oxidation of paraffins) are given in table 6. Esters of trihydroxy alcohols and acids from oxosynthesis - table 7. Complex esters of adipic and phthalic acids and primary alcohols (from C₄ to C₁₈), secondary hexyl alcohol, mono- and triethylene glycol were also obtained. Esters of adipic acids and monohydroxy alcohols are given in table 8. The influence of the structure of the alcohol component on the solidification temperature of adipic acid esters is shown in table 9. Phthalic esters of mono-hydroxy alcohols are given in table 10. Data on adipic and phthalic acid esters of dihydroxy alcohols are given in the text. The following data are given in tables: starting components, boiling range of esters, specific gravity, molecular weight, volatility %, viscosity, temperatures of turbidity and loss of fluidity, acid on saponification numbers. For comparison literature data on molecular weight, viscosity and solidification temperature of a number of esters are given in table 11. It is concluded that from synthesised products the following are of practical interest: esters of butyleneglycol, diethylene- and

Card 3/4

Complex esters from products of oxosynthesis and other products of chemical processing of hydrocarbons. (Cont.)
65-6-3/13
triethylene glycol and fatty acids (C_6 and above) of normal or branched structure; b) esters of methyl- and ethylmethylolmethane and fatty acids (C_6 and above) of normal and branched structure; c) esters of adipic acid and iso alcohols (C_6 and above); particularly good results were obtained with alcohols with the most branched hydrocarbon chain; and d) esters of phthalic acid and iso alcohols (C_4 and above). It was established that as a starting raw material for the production of complex esters with one complex ester grouping and possessing a low solidification temperature, the products of oxo-synthesis can be used. Certain fractions of fatty acids of normal structure, obtained by oxidation of paraffins as well as acids from oxo-synthesis can be used for the production of complex esters of poly-hydroxy alcohols (di and triol). Technical mixtures of alcohols and acids can be used for the production of complex esters. The required mean properties of esters can be obtained by selection of corresponding fractions from mixtures of complex esters produced. There are 11 tables and 7 references including 4 Slavic.

Card 4/4
ASSOC: Len NII.
AVAILABLE:

RUDKOVSKIY, D M

Handwritten mark

Nonionic surface-active substances from products of the chemical treatment of oils and tars from coal and shale. N. D. Gudaskina, D. M. Rudkovskii, and E. Ya. Yartem'skaya. *Zhur Priklad Khim.* 30, 148-64 (1957). - Surface-active substances were prepd. by condensation of ethylene oxide with (a) alkylated and nonalkylated tech. phenols, (b) acids, (c) primary alcs. of the type $C_mH_{2m+1}OH$ where $m = 7-18$. The interfacial surface tension (air and H_2O), the contact angle (on paraffin), foam formation, and foam stability of the products were detd. The products of (a) were as good as the standard com. surface-active substances, OP-7 or OP-8 (cf. C.A. 51, 10110a). Those of (b) were not foam forming and those of (c) with m between 10 and 14 were good wetting agents. L. Benowitz

SCV/63-58-6.4/13

AUTHORS: Rudkovskiy, D. M.; Trifel', A. G. and Alekseyeva, K. A.

TITLE: Preparation of $C_6 - C_8$ Alcohols from Olefin-Containing Fuel Fractions by the Oxo-Synthesis. (Priukheniye vysshikh spirtoy $C_6 - C_8$ iz olefinsoderzhashchikh toplivnykh fraktsiy metodom oksosintesa).

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.6. pp. 17 - 24. (USSR).

ABSTRACT: The fundamental principles of the Oxo-synthesis and the uses of end products are reviewed. Amongst these end products are higher alcohols ($C_6 - C_8$) which are excellent flotation agents for light metal ores and for slack. Results of experiments on the preparation of $C_6 - C_8$ aldehydes from olefin-containing fuel fractions are given. The influence of the concentration of the catalyst, the temperature, pressure, composition of the synthesis gas, the rate of supply of the liquid raw material and of the rate of circulation of the gas on the carbonylation process, were investigated. The raw material used was the fraction boiling up to $100^\circ C$ which was separated on a rectification column during two distillations of cracked petroleum. Various physical constants of this fraction are listed as well as the content of C_5 , C_6 and C_7 hydro-

Card 1/4

007/85-59-6-4/13

Preparation of $C_5 - C_9$ Alcohols from Olefin-Containing Fuel Fractions by the Oxo-Synthesis

carbons in the raw material (Table 1). The experiments were carried out on a continuous apparatus (Fig.1). Details of the process of carbonylation of unsaturated hydrocarbons are given. Cobalt carbonyl was used as catalyst. The influence of the concentration of this catalyst on the rate of carbonylation of unsaturated $C_5 - C_9$ hydrocarbons was investigated at a temperature of $162^{\circ}C$, pressures of 200 and 300 atms and the ratio of the rate of supply to the raw material was 3.6:1. The volume of circulating gas = $0.7m^3/litre$ of raw material. The concentration of the catalyst was changed within the limits 0.03 - 0.31%. Results of these experiments are given in Table 2 and Fig.2. Details of investigations on the influence of temperature on the rate of the reaction at 290 atms are given in Table 3 and Fig.3. Activation energy was calculated according to the equation by Arrhenius and was $\sim 11,000$ cal/mole. The temperature coefficient of the rate of reaction = 1.4. Experiments on the effect of pressure on the carbonylation process were carried out at low depths of conversion (Table 4 and Fig.4.). When the reaction was carried out under

Card 2/4

SOI 65-58-6-1/13
Preparation of $C_3 - C_8$ Alcohols from Olefin-Containing Fuel Fractions
by the Oxo-Synthesis.

Industrial conditions (volume rate = 2, and concentration of the catalyst = 0.2%) a change in the pressure from 150 - 300 atms does not affect the depths of conversion (Table 5). Investigations on the influence of the composition of the gas on the process were carried out at varying temperatures, partial pressures of CO and H_2 and varying rates of supply of the raw material. From data given in Table 6 and Fig. 5 it can be seen that at low temperatures (120 - 140°C) the depth of conversion of unsaturated hydrocarbons increases with increasing partial pressure of hydrogen. Results of tests on the influence of the rate of supply of the raw material and the quantity of circulating gas on the carbonylation process are given in Tables 7 and 8. The analytical investigations showed that the products obtained from fractions up to 100°C contain 39% - 42% oxygen-containing compounds. The alcohols were separated from the hydrogenates by rectification; the fraction boiling up to 100°C (unreacted raw material); the alcohol fraction ($C_3 - C_8$) boiling between 140 - 200°C, and the vat residue 15 - 20%. Physical constants of all these fractions are given. There are 8 Tables, 5 Figures,

Card 3/4

SOV/65-58.6-4/13

Preparation of $C_6 - C_8$ Alcohols from Olefin-Containing Fuel Fractions
by the Oxo-Synthesis.

and 5 References: 3 Soviet, 1 German and 1 English.

ASSOCIATION: LenNII

Card 4/4

SOV/136-59-2-20/24

AUTHOR: Okolovich, A.

TITLE: Organisation of the Flotation-Reagent Section in the Standing Committee on Synthetic Surface-Active Agents of the GNTK USSR and the Problems Facing It.
(Organizatsiya sektsii flotatsionnykh reagentov v postoyannoy komissii po sinteticheskim poverkhnostno aktivnym veshchestvam pri GNTK SSSR i yeye zadachi)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 2, pp 84-85 (USSR)

ABSTRACT: One of the four sections of the surface-active agents committee of the GNTK of the Sovet Ministrov SSSR (Council of Ministers of the USSR) is that dealing with flotation reagents. The following have been confirmed as members: I.N.Plaksin, corresponding member AN SSSR (AS USSR) of IGD of the AS USSR (Chairman); O.S.Bogdanov, Professor, Mekhanobr Institute; Ye.S.Alekseyev, Sredneural'skiy medeplavil'nyy zavod (Sredneural'skiy Copper Smelting Works); K.G.Bagatur'yants, Gosudarstvennyy komitet (State Committee) of the Council of Ministers of the USSR; S.I.Gorlovskiy, Mekhanobr Institute; L.A.Ivanova, Nauchno-issledovatel'skiy

Card 1/4

SOV/136-59-2-20/24

Organisation of the Flotation-Reagent Section in the Standing Committee on Synthetic Surface-Active Agents of the GNTK USSR and the Problems Facing It

(Gosplan USSR); M.A.Eygeles, Professor, Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya (All-Union Scientific Research Institute for Mineral Raw Materials). The author enumerates the tasks of the section and notes that at a conference on the 10th December 1958, the programme of work for the section was adopted. This conference heard the following reports: S.I.Mitrofanov, Professor, on "Directions and Projects for Research Work in 1959 in the Field of the Production and Use of Flotation Reagents"; A.K.Livshits, Candidate of Technical Sciences on "Xanthate Production Methods"; D.M.Rudkovskiy, Candidate of Technical Sciences on "Production of Washing Media from Flotation Reagents". The conference adopted resolutions aimed at increasing facilities for research on flotation reagent and improving its co-ordination. At a conference on the 14th-17th December 1958 of the standing committee on

Card 3/4
2/2

AUTHORS: Rudkovskiy, D. M., Trifel', A. G., S/064/59/000/08/02/021
Alekseyeva, K. A. B115/B017

TITLE: Production of Butyric Aldehydes and Butyl Alcohols by Means of the Method of Oxosynthesis 7

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 8, pp 652-658 (USSR)

ABSTRACT: In the present paper the production of butyric aldehydes and butyl alcohols from a commercial propane - propylene fraction and from a carbon monoxide - hydrogen mixture by means of oxosynthesis is described, and the technological factors determining this process are investigated. The method has been described already earlier (Ref 7). It consists of three stages: production of the cobalt-carbonyl solution (which is used as catalyst, solvent: toluene, iso- and n-butyl alcohol, pentane-hexane fraction from the direct distillation of gasoline), carbonylization and decomposition of the catalytic complex formed. The apparatus used and the processes which take place in them are briefly described. Figure 1 shows the scheme of the laboratory arrangement, in which a flow system was used and work was carried out at a temperature of approximately 150° and at pressures of 150 to 300 atm. The composition of the gases used as initial products is also given. The influence exer-

Card 1/3

Production of Butyric Aldehydes and Butyl Alcohols
by Means of the Method of Oxosynthesis

S/064/59/000/08/02/021
B115/B017

cised by the temperatures in the range of from 110 to 150° on the rate of carbonylization of propylene is investigated in a static system. The following was also investigated: The influence exercised by the cobalt concentration on the conversion of propylene at 120, 135 and 150° and 150 atm (Fig 3), the influence of pressure on the carbonylization of propylene (Table 1), of the propylene concentration in the solution on the carbonylization of propylene (Table 2), of the gas composition on the rate of pentane carbonylization (Fig 4), of propylene (Table 3) at different temperatures, of the ratio $P_{CO} : P_{H_2}$ on the constant of reaction rate ($K \cdot 10^2$) (Fig 5), of the partial pressure of carbon monoxide P_{CO} on the maximum stability temperature of cobalt carbonyl (Fig 6), of the composition of the propane-propylene fraction (Fig 7) and of the volume rate of the liquid raw material (Table 4) on the yield in propylene transformation products. Carbon dioxide delays the carbonylization reaction. The maximum stability temperature of cobalt carbonyl shows a logarithmic dependence on the partial pressure of carbon monoxide. The influence exerted by various factors on the formation of acetals in the condensation products in using butyl alcohols as solvent is given (Table 5), and the

Card 2/3

Production of Butyric Aldehydes and Butyl Alcohols
by Means of the Method of Oxosynthesis

S/064/59/000/08/02/021
B115/B017

composition of the hydrogenated product obtained by using a pentane-hexane fraction as solvent in the carbonylization of the propane-propylene fraction is mentioned (Fig 8, Table 6). The results show that n-butyl alcohol is the main reaction product (60%). The other products are: isobutyl alcohol (22%), alcohols C₈ and ester (6%), 2-ethyl hexanol (9.5%), and higher condensation products (higher than C₈) (4%). There are 8 figures, 6 tables, and 11 references, 4 of which are Soviet.

ASSOCIATION: VNIIneftekhim (VNIIneftekhim - All-Union Scientific Research
Institute of Petroleum Chemistry)

Card 3/3

SOV/79-29-6-31/72

5(3)

AUTHORS:

Rudkovskiy, D. M., Ketslakh, M. M., Zonis, E. S.

TITLE:

Common Synthesis of Alcohols and Ketones From Aldehydes of the Oxo-synthesis and Secondary Alcohols (Sovmestnoye polucheniye spirtov i ketonov iz al'degidov oksosinteza i vtorichnykh spirtov)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 6,
pp 1914 - 1920 (USSR)

ABSTRACT:

In the present paper a synthesis of the aliphatic alcohols C_6-C_8 and ketones, of acetone and methyl-ethyl-ketone was devised. The yields were high and the consumption of aluminum alcoholates, which were used as activators in the reaction of the cobalt carbonyls, was low. As initial products for the reduction hydrogen carbon solutions were used, which were obtained via the oxo-synthesis and contained 28-36% aldehydes C_6-C_8 . The reduction was carried out in the presence of isopropylate and secondary aluminum butylate in the corresponding alcohol solution. It was shown for the first time that the cobalt carbonyls activate the reduction process. Their effect was more intense when using directly the aldehydes of the oxo-

Card 1/2

Common Synthesis of Alcohols and Ketones From Aldehydes SOV/79-29-6-31/72
of the Oxo-synthesis and Secondary Alcohols

synthesis than with an artificially composed mixture. The regular addition of the aldehydes to the solution of aluminum alcoholates as well as the continuous distilling-off of the ketones formed favor the formation of the alcohols and inhibit the condensation of the aldehydes. The optimum laboratory conditions for the reduction of the aldehydes C_6-C_8 in the presence of the aluminum isopropylate were determined on which the yield in alcohols (C_6-C_8), with respect to the reacted aldehyde, was 94% and that in acetone 95%. The aluminum consumption was there 1.4-3%, related to the reacting alcohols and the acetone. The use of the secondary aluminum butylate resulted in likewise high yield in alcoholates and methyl-ethyl-ketone in the case of a solution in secondary butyl alcohol. There are 1 figure, 3 tables, and 13 references, 4 of which are Soviet.

ASSOCIATION: Leningradskiy nauchno-issledovatel'skiy institut po pererabotke nefti i polucheniyu iskusstvennogo zhidkogo topliva (Leningrad Scientific Research Institute for Petroleum Refining and Production of Artificial Liquid Fuels)
May 12, 1958

SUBMITTED:
Card 2/2

Судковский, Д.И.

КОНФЕРЕНЦИЯ ПО РАЦИОНАЛЬНОМУ ПОЛЬЗОВАНИЮ ВОДНЫМИ РЕСУРСАМИ В СИБИРИ И НА ДАЛЬНЕГОСТОЯЩИХ ТЕРРИТОРИЯХ СОВЕТСКОГО СОЮЗА

Сборник тезисов докладов, 1960. 202 с. (Серия: Тезисы докладов конференции по рациональному пользованию водными ресурсами в Сибири и на дальнегостоящих территориях Советского Союза. Вып. 1. 2,000 экз. в пер.)

Сост. Д.И. Судковский. Издательство Сибирского государственного университета им. М.Ф. Фрунзе, Новосибирск, 1960. 202 с. (Серия: Тезисы докладов конференции по рациональному пользованию водными ресурсами в Сибири и на дальнегостоящих территориях Советского Союза. Вып. 1. 2,000 экз. в пер.)

Содержание: Доклады по рациональному пользованию водными ресурсами в Сибири и на дальнегостоящих территориях Советского Союза. Вып. 1. 2,000 экз. в пер.

Содержание: Доклады по рациональному пользованию водными ресурсами в Сибири и на дальнегостоящих территориях Советского Союза. Вып. 1. 2,000 экз. в пер.

FROST, Andrey Vladimirovich, prof. [deceased]. Prinimali uchastiye:
BUSHMAKIN, I.N.; VVEDENSKIY, A.A.; GRYAZNOV, V.M.; DEMENT'YEVA,
M.I.; DINTSES, A.I.; DOBRONRAVOV, R.K.; ZHARKOVA, V.R.; ZHERKO,
A.V.; IPAT'YEV, V.N.; KYIATKOVSKIY, D.A.; KOROBOV, V.V.; MOOR,
V.G.; NEMTSOV, M.S.; RAKOVSKIY, A.V.; REMIZ, Ye.K.; RUDKOVSKIY,
D.M.; RYSAKOV, M.V.; SEREBRYAKOVA, Ye.K.; STEPUKHOVICH, A.D.;
STRIGALEVA, N.V.; TATEVSKIY, V.M.; TILICHEYEV, M.D.; TRIFEL',
A.G.; FROST, O.I.; SHILIYAYEVA, L.V.; SHCHEKIN, V.V.; DOLGOPOLOV,
N.N., sostavitel'; GERASIMOV, Ya.I., otv.red.; SMIRNOVA, I.V., red.;
TOPCHIYEVA, K.V.; YASTREBOV, V.V., red.; KONDRASHKOVA, S.P., red.
izd-va; LAZAREVA, L.V., tekhn.red.

[Selected scientific works] Izbrannye nauchnye trudy. Moskva,
Izd-vo Mosk.univ., 1960. 512 p. (MIRA 13:5)

1. Chlen-korrespondent AN SSSR (for Gerasimov).
(Chemistry, Physical and theoretical)

HUDKOVSKIY, D.M.

Production of ... and of secondary products
based on them. ... in no. 2: 5-26 '60. (MIRA 14:2)
(Aldo ... (Oxypropyl ...)

BUKOVSKIY, D.M.; TRIFEL', A.S.

Principal technological flow systems for cmo synthesis. Trudy
VIII Neftekhim no.2:27-37 '60. (MIRA 14:2)
(Cmo process)

HUDKOVSKIY, D.M.; TRIFIL', A.G.; ALEKSEVA, K.A.

Catalyst for the oxo synthesis process and methods for its preparation.
Trudy VNIINeftekhim no.2:38-51 '60. (MI A 14:2)
(Oxo process) (Catalysts)

RUDKOVSKIY, D.M.; TALPEL', A.G.; ALEKSIYVA, K.A.

Use of cobalt salts of organic acids as catalysts in the process of
oxo synthesis. Trudy VNIINeftekhim. no.2:52-53 '60. (MIRA 14:2)
(Oxo process) (Catalysts)

RUDKOVSKIY, D.M.; RYSKIN, M.I.; TS. LLINSKAYA, T.F.

Selection of carriers for cobalt in the process of oxo synthesis.
Trudy VNIINeftokhim no.2:59-66 '68. (MIRA 14:2)
(Oxo process) (Cobalt)

RUDKOVSKIY, D.M.

Methods for the recovery of a catalyst from carbonylation products.
Trudy VNIINeftekhim no. 2:67-89 '60. (MIRA 14:2)
(Carbenyl compounds) (Cobalt) (Oxo process)

RUDKOVSKIY, D.M.; GANKIN, V.Yu.; IMYANITOV, N.S.

Recovery of C₆ - C₈ aldehydes from oxo synthesis products. Trudy
VNIINeftekhim no.2:90-92 '60. (MIRA 14:2)
(Aldehydes) (Oxo process)

L 34001-65 EWI(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM
 ACCESSION NR: AP5006077 S/0204/65/005/001/0058/0061

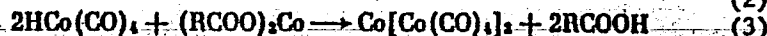
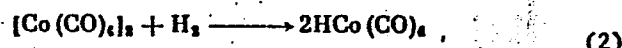
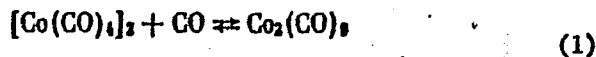
AUTHOR: Gankin, V. Yu.; Rozovskiy, A. Ya.; Rudkovskiy, D. M.

TITLE: The mechanism of formation of a catalyst for the hydroformylation reaction from cobalt salts

SOURCE: Neftekhimiya, v. 5, no. 1, 1965, 58-61

TOPIC TAGS: hydroformylation, cobalt carbonyl, hydroformylation. catalyst, cobalt naphthene, carbon monoxide

ABSTRACT: A mechanism is proposed for the formation of cobalt carbonyl catalysts from Co salts during the oxo-reaction (hydroformylation of olefins). Kinetic analysis and experimental studies confirmed that the mechanism involves the reactions:



Card 1/2

L 34001-65

ACCESSION NR: AP5006077

Thus, formation of cobalt carbonyl from cobalt naphthene was determined in toluene solution after addition of a small amount of carbonyl at an initial total carbon monoxide+hydrogen pressure of 400 atm.; this was accomplished by heating the mixture to 95C for 30 min. in an autoclave, analyzing the liquid and gaseous reaction products and measuring the decrease of pressure with time. The equilibrium constant for reaction (1), i.e. the reversible formation of cobalt nonacarbonyl from octacarbonyl and carbon monoxide, and the rate constant for formation of catalytically active hydrocarbonyl (reaction 2) were derived. A linear relationship between P_{H_2}/K and P_{CO} was predicted from the kinetic analysis in agreement with experimental results, K being a reaction constant which can be calculated from experimental values and P_{H_2} and P_{CO} being the partial pressures of hydrogen and carbon monoxide, respectively. Reaction (1) and the formation of cobalt nonacarbonyl explains the inhibitory effect of carbon monoxide on the hydroformylation reaction. Orig. art. has: 3 tables, 2 figures and 9 formulas.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov (All-union petrochemical processes scientific research institute)

SUBMITTED: 24Dec63

ENCL: 00

SUB CODE: OC

NO REF SOV: 003

OTHER: 003

Card 2/2

HUDKOVSKIY, D.M.; REHIZ, Ye.K.; KRAUSP, N.I.; VLADIMIROVA, I.I.

Certain reactions of propionaldehyde and butyraldehyde. Trudy VNIINefte-
khim no.2:93-120 '60. (M.A 14:2)
(Propionaldehyde) (Butyraldehyde)

RUDKOVSKIY, D.M.; IMYANITOV, N.S.; GANKIN, V.Yu.

Conversions of hexafluoropropylene under conditions of oxo synthesis.
Trudy VNIINeftelkhim no.2:121-124 '60. (MIRA 14:2)
(Propene) (Oxo process) (Fluorine organic compounds)

KETSLAKI, M.M.; RUDKOVSKIY, D.M.; EPPEL', F.A.

Preparation of trimethylolpropane by the condensation of butyralde-
hyde. Trudy VNIINol'tsekh no.2:154-167 '60. (MIRA 14:2)
(Butyraldehyde) (Formaldehyde)
(Propanediol)

KETSLAKH, M.M.; RUDKOVSKIY, D.M.; EPPLE, F.A.

Synthesis of dimethyldimethylolmethane by the condensation of isobutyraldehyde with formaldehyde. Trudy VNIINeftekhim no.2:168-177 '60.

(MIRA 14:2)

(Isobutyraldehyde)

(Formaldehyde)

(Propanediol)

S/081/61/000/014/021/030
B117/B203

AUTHORS: Ketslakh, M. M., Rudkovskiy, D. M., Eppel', F. A.
TITLE: Production of polyatomic alcohols by condensation of
 $C_3 - C_4$ aldehydes with formaldehyde in a continuous process
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1961, 416-417,
abstract (14 118). (Tr. Vses. n.-i. in-t neftekhim.
protsesov, no. 2, 1960, 178-187)

TEXT: It was shown that methyl trimethylol methane (I), ethyl trimethylol
methane (II), and dimethyl dimethylol methane (III) can be obtained by
continuous condensation of $C_3 - C_4$ aldehydes with CH_2O . The reaction is ✓
conducted in an aqueous solution at 20 - 80°C in the presence of the alka-
line reagent. The contact time is 30 - 90 min. Excess CH_2O is removed by
water at 115 - 130°C and 2 - 4 atm pressure, and led back into the process.
96-98% $C_3 - C_4$ aldehydes, a 20-37% CH_2O solution, and a 20-25% NaOH so-

Card 1/2

Production of polyatomic...

S/081/61/000/014/021/030
B117/B203

lution are continuously introduced into a tubular reaction vessel within 10-30 min. The mixture is stirred at 30°C for 50-60 min, and then neutralized. Optimum conditions are: a) for production of (I): molar ratio $\text{CH}_2\text{O} : \text{CH}_3\text{CH}_2\text{CHO} = 3.5 : 1$, temperature 30-60°C, contact time 20 min; in the presence of NaOH or $\text{Ca}(\text{OH})_2$, the yield is 70% (if the molar ratio is increased up to 10, the yield rises to 77%); b) for production of (II): molar ratio $\text{CH}_2\text{O} : \text{CH}_3\text{CH}_2\text{CH}_2\text{CHO} = 10 : 1$, temperature 30-50°C, contact time 10 min. The use of NaOH should be preferred. The yield is 63-66%; c) for production of (III): molar ratio $\text{CH}_2\text{O} : \text{CH}_3\text{CH}(\text{CH}_3)\text{CHO} = 2.15 : 1$, temperature 60-80°C, contact time 5-15 min. In the presence of NaOH or $\text{Ca}(\text{OH})_2$, the yield is 80%. The technological scheme of the process is given. [Abstracter's note: Complete translation.]

Card 2/2

83981

S/080/60/033/009/014/021
A003/A001

156400

AUTHORS: Gadaskina, N.D., Remiz, Ye.K., Rudkovskiy, D.M.

TITLE: The Condensation Products of Multiatomic Alcohols With Ethylene Oxide and the Esters of These Products

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 9, pp. 2132-2135

TEXT: The condensation products were synthesized of dimethyldimethylol-methane, methyltrimethylolmethane, ethyltrimethylolmethane and pentaerythrite with various amounts of ethylene oxide. It was shown that the number of alcohol groups in multiatomic alcohols at an equal amount of ethylene oxide lowers the solidification point of the product. The shorter the straight hydrocarbon chain in the alcohol molecule, the lower is the solidification point. In the derivatives of methyltrimethylolmethane and pentaerythrite it was shown that with an increase in the amount of ethylene oxide the solidification points drop. On attaining a certain minimum value they rise again. An increase in the amount of ethylene oxide from 12 to 24 moles per mole of condensation product has practically no effect on the viscosity. With small amounts of ethylene oxide highly-viscous products are obtained at room temperature. The product with 2.1 moles

Card 1/2

83981

S/080/60/033/009/014/021

A003/A001

The Condensation Products of Multiatomic Alcohols With Ethylene Oxide and the Esters of These Products

ethylene oxide per 1 mole methyltrimethylolmethane has a viscosity of 2,500 cstones at 20°C. Esterification with fatty acids yields condensation products of multiatomic alcohols with ethylene oxide which are insoluble in water but soluble in alcohol. With an increase in the molecular weight of the acid the points of fluidity loss drop. The lubrication properties were tested on a 1,500 rpm four-ball machine with a ball diameter of 19 mm. The lubrication ability of the ПЭПЭ -15.5 (PERE-15.5) was determined as 97 kg, and that of the ester ПЭПЭ -12.5 (PERE-12.5) as 67 kg. The corresponding value for good industrial lubricants on this machine is 52 kg. The appropriate selection of the multiatomic alcohol and the amount of ethylene oxide condensed with alcohol makes it possible to produce a water-soluble lubricant with the properties desired. L.L. Kheyfets and N.I. Krausp took part in the work. There are 2 tables, 1 figure and 2 references: 1 Soviet, 1 English.

SUBMITTED: December 24, 1959

Card 2/2

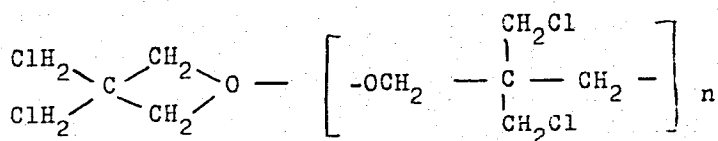
S/064/61/000/001/003/011
B110/B215

AUTHORS: Rudkovskiy, D. M., Remiz, Ye. K., Katsman, S. V.

TITLE: Synthesis of monomers for the production of the plastic "Pentone"

PERIODICAL: Khimicheskaya promyshlennost', no. 1, 1961, 16-18

TEXT: A chlorinated, crystalline polyether of high molecular weight, "Pentone" is formed by cation polymerization of 3,3-bis (methyl chloride) oxacyclobutane:



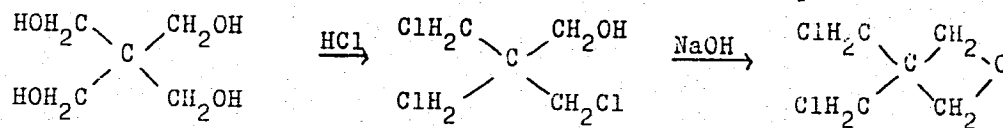
The methyl chloride group on the neopentyl carbon, and the absence of H in β -position, make the pentone polymer stable up to 120°C. Absorption

Card 1/6/

Synthesis of monomers for...

S/064/61/000/001/003/011
B110/B215

of water is low. With CCl_4 vapor saturated with moist HCl at 80°C . The preparation of the monomer from pentaerythrite takes place in two stages:



The authors developed a two-stage method of preparing pentone monomers at atmospheric pressure. In the first stage, pentaerythrite was treated with HCl gas in the presence of xylene in organic acid (molecular weight = 102). The monomer of pentaerythrite develops first and accumulates HCl . Besides monoester, also di- and triesters form. First, HCl was introduced at $120-130^\circ\text{C}$, and again after two hr at $180-200^\circ\text{C}$. In the fractions separated at 12 mm Hg, the yields of esters of chlorohydrins and trichlorohydrin are determined by ascertaining the chlorine content and refractive index. Optimum yields of trichlorohydrin (approximately 75% of the theoretical determination) were obtained under the following conditions: ratio pentaerythrite acid = 1/1; temperature: 200 to 220°C (Fig. 2), HCl : 200% of

Card 2/8

Synthesis of monomers for...

S/064/61/000/001/003/011
B110/B215

the theoretical amount (calculated with respect to trichlorohydrin), gas velocity of HCl: 110 l/kg·hr, time of reaction: 9 hr. A ratio organic acid/pentaerythrite > 1 gives lower yields of trichlorohydrin (Fig. 3). Dichlorohydrindiester and monochlorohydrintriester which also formed, can be converted into trichlorohydrinester. The yields of trichlorohydrinester produced from CH_3COOH , $\text{C}_4\text{H}_9\text{COOH}$, $\text{C}_5\text{H}_{11}\text{COOH}$, $\text{C}_7\text{H}_{15}\text{COOH}$ were the same as those by commercial acids (molecular weight approximately 102). This ester had the following properties: boiling point: 160 to 170°C at 12 mm Hg, specific gravity: $\frac{20}{20} = 1.217$ to 1.221; $n_D^{20} = 1.478$ to 1.4881, Cl content = 37.5 to 38.5 percent by weight. Trichlorohydrin which was formed in a ratio of 10:1 as compared to the ester, showed the following properties: melting point 65 - 66°C, Cl content 55.2 to 55.6%. The pentone monomer was obtained from this mixture by reaction with aqueous sodium hydroxide at 70 - 80°C. The reaction products were distilled at 107-108°C. After drying, the fraction yielded the desired product at 80-81°C and 10 to 11 mm Hg. The optimum yield (70 to 73 percent by volume of the theoretical amount) was obtained with 20% of aqueous NaOH; 105% to 110% of the theoretical amount of alkali

Card 3/6

Synthesis of monomers for...

S/064/61/000/001/003/011
B110/B215

(Fig. 5) were used for this purpose. In the first fractions, impurities of 2,6-dioxaspiroheptane, melting point of 83-86°C were found. Absolute purity, however, is necessary for the polymerization. On storing, the obtained monomer oxidizes with atmospheric oxygen, its specific gravity is increased, and its freezing point is reduced. Since thereby the properties of polymerization are ill-affected, the corresponding inhibitors have to be added when left standing. These properties were: boiling point = 80 to 81°C at 10 mm Hg, $d_{20}^{20} = 1.2993$ to 1.2995 , $n_D^{20} = 1.4856$ to 1.4858 , solidification point = 18.7 to 18.9°C, moisture content according to Fischer = 0.03 percent by weight. The pentone polymer thus obtained showed satisfactory properties. There are 5 figures and 16 references: 1 Soviet-bloc and 15 non-Soviet-bloc.

Card 4/6

20510

15.8109

2209

S/064/61/000/003/004/009
B101/3203

AUTHORS: Al'shits, I. M., Shtraykhman, G. A., Rudkovskiy, D. M.,
Luchko, R. G., Remiz, Ye. K.

TITLE: Slow-burning polyester resins on the basis of pentaerythrite
dichloro hydrin

PERIODICAL: Khimicheskaya promyshlennost', no. 3, 1961, 26-28

X

TEXT: Glass-reinforced polyesters are widely used for the production of large-sized goods (hulls, automobile hoods). For this purpose, they must have a reduced combustibility. The physicommechanical properties of the resin are deteriorated by the hitherto described methods of reducing the combustibility: 1) the use of acid chlorides or phosphorus-containing acids, 2) replacement of styrene by halogen- or phosphorus-containing compounds, 3) addition of organophosphorus or organohalogen compounds to the resin. Therefore, it was the object of the present study to produce slow-burning resins on the basis of chlorine-containing alcohols. It was assumed that the chloromethyl-, methyl-, and ethyl side radicals of such alcohols would improve the heat resistance, compressive strength, and

Card 1/4

20510

S/064/61/000/003/004/009
B101/B203

Slow-burning polyester resins ...

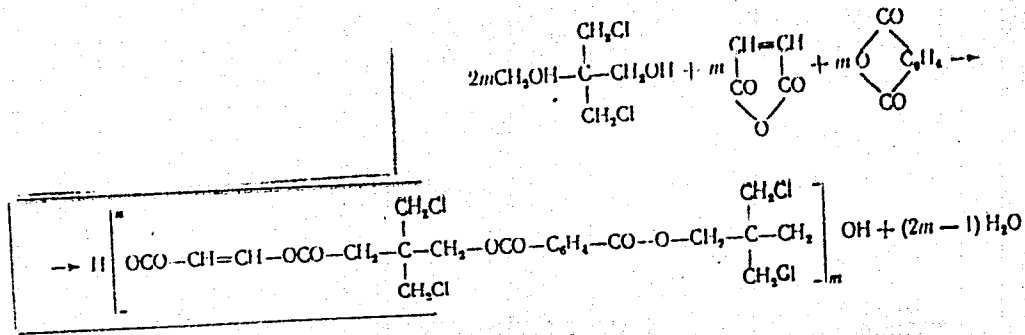
other properties of polyester resins and glass-reinforced plastics made of them, and that their considerable chlorine content would reduce their combustibility. A procedure for direct hydrochlorination of pentaerythrite was developed. 136 g of pentaerythrite, 150 g of benzine (boiling point 150-180°C), and 10 g of organic acid (C₄ - C₆ acids or industrial acids obtained by oxidation of solid paraffin) were heated, and hydrogen chloride was bubbled through at 160-165°C. The reaction was carried on until two hydroxyl groups were substituted by Cl. Total duration of the reaction 6-7 hr. The chlorohydrins were separated from the benzine, and fractionated at 3-4 mm Hg. Dichloro hydrin distilled over at 135-155°C. Its chlorine content was 39-40%, after recrystallization 40-41%, melting point 72-74°C, yield 60-68%. The esters of organic acids and of dichloro hydrin formed as by-products may be used for the synthesis of dichloro hydrin instead of fresh acids. The dichloro hydrin was used for the synthesis of polymaleinate dichloro-hydrin pentaerythrite phthalate: ✓

Card 2/4

20510

S/064/61/000/003/004/009
B101/B203

Slow-burning polyester resins ...



The components were melted at 120°C, the temperature was slowly increased to 205°C under stirring, and held there for an hour. The total duration of polymerization was 5.5-6 hr. 3.9 ml of water was separated per 100 g of mixture. The resin yield was 86%. The resin had the following characteristics: viscosity of the 10% solution in acetone 0.488 cpoise; acid

Card 3/4

20510

Slow-burning polyester resins ...

S/064/61/000/003/004/009
B101/B203



number 40-50; saponification number 520-550; degree of esterification 90.7%; color, lemon-yellow. 30% of styrene was added to this vitreous resin at 70°C in the presence of 0.01% of hydroquinone. The viscosity of the combined resin determined by means of a B3-4 (VZ-4) viscosimeter was 8 min 50 sec. On addition of 3% of isopropyl benzene hydroperoxide and 2% of 40% styrene solution of cobalt naphthenate, gel formation took place after 1.5 hr. The solidified resin had a specific gravity of 1.28; heat resistance according to Vicat 115; Brinell hardness 18.8 kg/mm²; chlorine content 18.6%; water adsorption during 24 hr, 0.038%. Exposed to a spirit alcohol flame for one minute, it was extinguished after 20 sec, whereas industrial ПН-1 (PN-1) diethylene glycol maleinate resin was burnt up completely. With addition of 1% of Sb, it was extinguished after 2 sec. Glass textolite made of this resin and АСТТ-6 (ASTT-b) glass fabric (ratio 1:1) was extinguished after 15 sec after having been exposed to a gas flame for two minutes. The loss in weight was 5%. The glass textolite had a specific gravity of 1.65, breaking strength 2750 kg/cm², bending strength 2700 kg/cm², compressive strength 1400 kg/cm², resilience 160 kg/cm², water adsorption within 24 hr, 0.1%. There are 20 references: 2 Soviet-bloc and 18 non-Soviet-bloc.

Card 4/4

AL'SHITS, I.M.; SHTRAYKHMAN, G.A.; RUDKOVSKIY, D.M.; LUCHKO, R.G.; REMIZ,
Ye.K.

In combustible polyester resins based on pentaerythritol dichloro-
hydrin. Khim.prom. no.3:174-176 Mr '61. (MIRA 14:3)
(Propanediol) (Resins, Synthetic)

RUDKOVSKIY, D.M.; BRUNSHTEYN, B.A.; KLIMENKO, V.L.

Production of butyraldehydes by oxo synthesis. Khim.prom. no.5:335-
338 My '61. (MIRA 14:6)

(Butyraldehyde)
(Oxo process)

GADASKINA, N.D.; PLAKSA, Kh.L.; RUDKOVSKIY, D.M.

Sodium dodecylbenzenesulfonates based on coal-chemical materials.
Khim.i tekhn. topl.i masel 6 no.2:10-16 F '61. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

(Benzenesulfonic acid)
(Coke industry—By-products)

KLIMENKO, V.L.; RUDKOVSKIY, D.M.; RYABUKHOVA, S.F.

Methods of preparing higher aliphatic alcohols (C₇ - C₁₀) and
their technological and economic evaluation. Khim.prom. no.1:8-10
Ja '62. (MIRA 15:1)

(Alcohols)

RUDKOVSKIY, D.K.; BRUSHCHYN, B.A.; TSYRKIN, Ye.R.

Alcohols of $C_{10} - C_{16}$ oxo synthesis as raw material for the
production of surface-active agents. Khim. prom. 40 no.9:663-
665 S '64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
protssosov.

KLIMENKO, V.L.; RUDKOVSKIY, D.M.; TSYNKIN, Ye.S.

Present status of and prospects for the development of oxo-synthesis
abroad. Nefteper. i neftekhim. no. 3:47-52 '63. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
processov.

GANKIN, V.Yu.; KRINKIN, P.P.; RUDKOVSKIY, S.M.

Kinetics of transformation of dicobaltoctacarbonyl to cobalt hydrocarbinol in the liquid phase. Zhur.ob.Khim. 35 no.12:2127-2130 D '65. (MIRA 19:1)

1. Submitted December 17, 1964.

IMYANITOV, N.S.; KUVAYEV, P.Ye.; KASHONTSOV, P.M.

Hydrocarboxylation of Esters. (U.S. Pat. Appl. No. 1,182,562-
2562 N '65. (CIRA 18:17)

I. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov. Submitted September 1, 1963.

I. 08794-67 EWT(m)/EWP(v)/EWP(j) IJP(c) WW/RM
ACC NR: AP6030844 (A, IV) SOURCE CODE: UR/0191/66/000/009/0011/0012 /

AUTHOR: Al'shits, I. M.; Anikina, T. A.; Grad, N. M.; Ketslakh, M. M.; Rudkovskiy, D. M.; Tsubina, Kh. V.

ORG: none

29

TITLE: Unsaturated polyester resins based on neopentylglycol

SOURCE: Plasticheskiye massy, no. 9, 1966, 11-12

TOPIC TAGS: polyester plastic, copolymer, copolymerization, glass textolite, bonding material, adhesive, synthetic material

ABSTRACT: An unsaturated polyester resin was synthesized by copolymerizing neopentylglycol with styrene or with commercial low grade molecular polyester-acrylate resin (TGM-3 brand). This polyesterification reaction was conducted by stirring a mixture of the polyester with either styrene or TGM-3 resin at 80°C in CO₂ atmosphere. It is concluded that the unsaturated polyester resins exhibited high thermal stability and that they can be recommended for use as cements in the production of glass textolites. Orig. art. has: 2 tables.

SUB CODE: 07,11/ SUBM DATE: 00/ ORIG REF: 004/ OTH REF: 005

Card 1/1 nst

UDC: 678.644'430-9 : 678.746.22].06 : 677.521+
+678.644'430-9 : 678.674'42'283.4].06 : 677.521

GANKIN, V.Yu.; ROZOVSKIY, A.Ya.; RUDKOVSKIY, D.M.

Formation of a hydroformylation catalyst from cobalt salts.
Neftekhimiia 5 no.1:58-61 Ja-F '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimi-
cheskikh protsessov.

L 1615-66 EWT(m)/EPP(c)/EWP(j)/EWP(t)/EWP(b) IJP(c) JD/WW/HW/RM
 UR/0080/65/038/008/1670/1677
 546.73'262.3+66.046 58
 57
 K

ACCESSION NR: AP5021661

AUTHOR: Krinkin, D. P.; Rudkovskiy, D. M.

TITLE: Thermal decomposition of cobalt carbonyl in the liquid phase

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 8, 1965, 1670-1677

TOPIC TAGS: thermal decomposition, cobalt compound, carbon monoxide, metal deposition

ABSTRACT: Starting materials were a catalyzate from the oxysynthesis process and solutions of cobalt carbonyls in toluene and in different gasoline fractions. Hydrogen was supplied to the reactor to decrease the partial pressure of the carbon monoxide formed in the process. The process of decobaltization was carried out at pressures from 1 to 300 atmospheres (absolute) and temperatures up to 200 C. Experimental results are presented in tabular form and a diagramatic scheme of the equipment is shown. The main factor in the thermal decomposition of cobalt carbonyls is their breaking up on the surface of metallic cobalt. At the start of the reaction, nuclei of metallic cobalt form centers for decomposition of

Card 1/3

L 1615-66

ACCESSION NR: AP5021661

the carbonyls, either in the volume of the liquid or on the surface of the apparatus. In the absence of metallic cobalt in the thermal decomposition zone, there can be a long period of induction. At temperatures of 160-200 C and a partial pressure of about 0.5 atm (gauge) of carbon monoxide, the residual content of soluble cobalt, 0.001-0.005%, is reached in 10-30 min and then remains practically constant. Initial concentration of cobalt over a wide range (0.1-0.4%) does not affect residual cobalt content. An increase in temperature substantially increases the depth of thermal decobaltization. A partial pressure of carbon monoxide of more than 1 atm (absolute) lowers the rate of thermal decomposition. Introduction of suspensions of metallic cobalt considerably increases the depth of thermal decomposition. In a column with a ratio of surface to volume of $0.8 \text{ cm}^2/\text{cm}^3$ and an external heat supply (surface temperature 10-15 C higher than the temperature in the volume of the liquid), deposition of cobalt was 35-50% of the cobalt formed in the decomposition process. With turbulence resulting from intensive mixing, the deposition increased to 85-95%. When the surface of the apparatus was cooled 10-15C below the temperature of the liquid, the amount of deposited cobalt decreased to 5-10%. Orig. art. has: 3 formulas, 7 figures

Card 2/3.

L 1615-66

ACCESSION NR: AP5021661

and 5 tables

ASSOCIATION: None

SUBMITTED: 14Jun63

ENCL: 00

SUB CODE: GC, MM

NR REF SOV: 016

OTHER: 011

Card 3/3

99

KRINKIN, D.F.; RUDKOVSKIY, I.M.

Stability of the oxo synthesis process. Khim. prom. 42
no.9:641-647 S '65. (MIRA 18:9)

КОММУНИЗМ, В.И.; КОММУНИЗМ, В.И.; КОММУНИЗМ, В.И.

Production and use of (allyl) alcohols and acrylaldehydes. Khim.prom.
41 no.4:23-24 Ap '65. (MIRA 18:8)

SELENIN, N.I.; RUDAKOVSKIY, D.M.; CHERNYSHEVA, K.B.; NATAROV, V.F.;
TATARKINA, G.V.

Prospects for the oxosynthesis process based on shale olefins.
Khim. i tekh. gor. slan. i prod. ikh perer no.13:326-332 '64.
(MIRA 18:9)

ZELENY, K.I.; KOZHEVNIKOV, A.V.; RUDROVSKIY, D.M.

Aleksandr Filippovich Dobrianski; 1889 -. Zmur. prikl. Khim.
37 no.11:2329-2333 N '64 (MIRA 18:1)

KRINKIN, D.P.; RUKOVSKIY, D.M.

Effect of diene hydrocarbons on oxo process. Khim. prom.
no.10:731-735 G 1963. (MIRA 17:6)

WOLFE, J.D.; HENNING, J.M.; BRIDGEMAN, A.G.; CHANDLER, N.I.

Iron content of products at various stages of oxo synthesis.
Min. Iron. 42 10:1:73-76 4a 145.

(11/18/73)

BRUNSHTEYNS, Boris Anatol'yevich; KLIMENKO, Vladimir Leonidovich;
TSYRKIN, Yefim Borisovich; RUDKOVSKIY, D.M., nauchn.red.;
SEGAL', Z.G., ved.red.; DEM'YANENKO, V.I., tekhn.red.

[Production of alcohols from petroleum and gas] Proizvod-
stvo spirtov iz neflianogo i gazovogo syr'ia. Leningrad,
Izd-vo "Nedra," 1964. 199 p. (MIRA 17:3)

KRINKIN, D.P.; RUDKOVSKIY, D.M.

Formation of cobalt carbonyls from metallic cobalt (powder)
and carbon monoxide. Khim.prom. no.9:655-660 S '63. (MIRA 16:12)

IMYANITOV, N.S.; RUDKOVSKIY, D.M.

Preparation of iridium carbonyls. Zhur.ob.khim. 33 no.4:1053-1054
Ap '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
protseessov.

(Iridium compounds)

(Carbonyls)

IMYANITOV, N.S.; RUDKOVSKIY, D.M.

Hydrogenation and hydroformylation in the presence of cobalt,
rhodium, and iridium carbonyls. Neftekhimiia 3 no.2:198-200
Mr-Ap '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
protsessov.

(Carbonyls) (Hydrogenation) (Formylation)

RUDKOVSKIY, D.M.; IMYANITOV, N.S.

Reactions of hydrogenation and hydroformylation of α -methylstyrene
under conditions of oxo synthesis. Zhur.prikl.khim. 35 no.12:
2719-2724 D '62. (MIRA 16:5)

1. Ysesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
professov.

(Styrene) (Oxo process) (Hydrogenation)

ACCESSION NR: AR3000208

8/0081/63/000/006/0475/0475

SOURCE: RZh. Khimiya, Abs. 6N27 P

AUTHOR: Klimenko, V. L.; Rudkovskiy, D. M.; Ryabukhova, S. F.

TITLE: Methods of production of higher fatty alcohols C sub 7 - C sub 10 and their technical and economic evaluation

CITED SOURCE: Ekon. effektivnost' neftekhim. protsessov. L., Gostop-tekhnizdat, 1961, 84-93

TOPIC TAGS: Chemical production, fatty alcohols, polyvinyl chloride

TRANSLATION: Methods of production of C sub 7 - C sub 10 fatty alcohols used in the manufacture of plasticizers are considered [hydrogenation of fatty acid esters; oxo synthesis applied to thermal cracking gasoline, co-polymers of propylene and butylene, propylene trimers, alpha-olefins and butylenes; production of 2-ethylhexanol (I) from n-butyraldehyde (II) and from n-butyl alcohol]. Extent of process development, raw material supp-

Card 1/2

ACCESSION NR: AR3000208

lies, product quality, technical and economic indicators of the process are taken in consideration. It is shown that the most efficient is the method of oxo synthesis utilizing thermal cracking gasoline distillates and paraffin-cracking products. The alcohols produced by this procedure can be used in the manufacture of polyvinyl chloride items (frost resistance to -30°). Of promising nature is the production of I from II, with the view of utilizing the plasticizer in items having a frost resistance from -40 to -50° . See RZhKhim, 1962, 13L19. Yu.P.

DATE ACQ: 16May63 ENCL: 00

SUB CODE: 00

Card 2/2

KETSLAKH, M.M.; RUDKOVSKIY, D.M.; EPEL', F.A.

Preparation of polyatomic alcohols - trimethylolpentane and
trimethylolisobutane. Khim.prom. no.9:666-670 S '62. (MIRA 15:11)
(Alcohols)

KAPLAN, S.Z.; ZVONTSOVA, A.S.; RUDKOVSKIY, D.M.; KETSLAKH, M.M.

Synthesis of "etriol" triamine [1,1,1-tris (aminomethyl)-propane].
Zhur.ob.khim. 32 no.10:3197-3198 0 '62. (MIRA 15:11)
(Propane) (Triamine)

RUDKOVSKIY, D.M.; KLIMENKO, V.L.

Production of propionic aldehyde and certain syntheses based
on it. Khim.prom. no.7:484-486 J1 '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut
neftkhimicheskikh protsessov.
(Propionaldehyde)

RUDKOVSKIY, D. M.

Dissertation defended for the degree of Doctor of Chemical Sciences
at the Institute of Hetrochemical Synthesis in 1962:

"Obtaining Ocygen-containing Compounds Using the Oxo-synthesis Method,
and Development of Several Other Processes for Obtaining Chemical
Products Based on Crude Petroleum (Compilation of Studies)."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145