BEL'SKIKH, V.I., kand.tekhn.nauk

Automatic temperature regulator. Avt. prom. 27 no. 5:19-20 My '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii sel'skogo khozyaystva.
(Temperature regulators)

BEL'SKIKH, V.I., kand.tekhn.nauk

Efficient cooling system for internal combustion engines.
Avt.prom. 27 no. 6:14-17 Je '61. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii sel'skogo khozyaystva.
(Motor vehicles--Engines--Cooling)

S/262/62/000/008/014/022
I007/I207

AUTHOR: Bel'skikh, V. I.

TITLE: Suitable cooling system for an internal combustion engine

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustanovki, no. 8, 1962, 56, abstract 42.8.300. Avtomob. prom-st', no. 6, 1961, 14-17

TEXT: The author devised and experimentally checked a water-circulation system ensuring thermo-siphon cooling of cylinder liners for the case of forced cooling of the combustion chamber. The proper operation of such a self-adjusting system requires even distribution of water supply to each chamber and uniform hydraulic head; uniform arrangement of parts linking the block jacket with cylinder-head jacket to ensure even distribution of temperature in the circumference of the cylinder liners; arrangement of the water outlet connection above the cylinder head thus ensuring convective heat exchange between the water within the block and that circulating through the cylinder head as well as the absence of steam pockets. There are 4 figures and 4 references.

[Abstracter's note: Complete translation.]

Card 1/1

PASECHNIKOV, N.S., kand. tekhn. nauk; BEL'SKIKH, V.I., kand. tekhn. nauk; YALOVENKO, F.I., kand. tekhn. nauk; KASPEROVICH, V.V., inzh.; VAS'KOVSKIY, S.Ye., red.; GRISHIN, L.V., red.

[Technology of the maintenance of the "Belarus'" traktors] Tekhnologiia tekhnicheskogo ukhoda za traktorami "Belarus'," Moskva, Biuro tekhn. informatsii, GOSNITI, 1964. 298 p. (MIRA 18:4)

1. Perovo. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka. 2. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka (for Pasechnikov, Bel'skikh, Vas'kovskiy). 3. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut (for Yalovenko). 4. Minskiy traktornyy zavod (for Kasperovich).

BEL'SKIKH, V.I., kand.tekhn.nauk; BAGDASAROV, N.V., inzh.

Determining the loading degree of an engine by means of an electric-light signaling mechanism. Trakt. i sel'khozmash. no.3:11-13 Mr '65. (MIRA 18:5)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka (for Bel'skikh). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii sel'skogo khozyaystva (for Bagdasarov).

MIKHAYLA, M.; SINUSHAS, A.; HEL'SKIS, V., mekhanik; BAL'TRUSHAYTENE, B., kontrol'nyy master.

Advanced methods used in manufacturing asbestos slate. Stroi.mat. 3 no.11:14-16 N '57. (MIRA 10:12)

1.Daugelyayskiy kombinat stroitel'nykh materialov. 2. Glavnyy inzhener Daugelyayskogo kombinata stroitel'nykh materialov (for Mikhayla). 3.Nachal'nik shifernogo tsekha Daugelyayskogo kombinata stroitel'nykh materialov (for (Sinushas).
(Daugeliali--Asbestos cement)

BEL'SKIY, A., kontr-admiral zapasa

On the battle watch. Voen. znan. 38 no.10:4-5 O '62. (MIRA 15:10)
(Russia—Navy) (Communist Youth League)

BEL'SKIY, A.

BEL'SKIY, A., inzh.

Slaughterhouse became a meat combine. Mias. ind. SSSR 28 no.6:34-35 '57. (MIRA 11:1)

1. Glavnyy inzhener Belovskogo myasokombinata.
(Belovo--Packing houses)

BEL'SKIY, A.

Making foremen responsible for technological control. Miss. ind.SSSR 30 no.1:22-23 '59. (MIRA 12:4)

1. Belovskiy myasokombinat.
(Meat industry--Quality control)

BEL'SKIY, A., inzh.

Redesigning the "Moskvichka" saw. Mias.ind.SSSR 31 no.1:51 '60. (MIRA 13:5)

1. Belovskiy myasokombinat Kemerovskogo sovnarkhoza.
(Belov--Packing houses--Equipment and supplies)

BEL'SKIY, A.

Mobile platform for the unloading of cattle from railroad cars. Mias.-ind. SSSR 33 no.3:46 '62. (MIRA 15:7)

1. Yeletskiy ptitsemyasokombinat.
(Cattle--Transportation)
(Loading and unloading--Equipment and supplies)

BEL'SKIY, A. A.

32677. Eksperimental'naya proverka usloviy likvidatsii vygrebov v rayone stroitel'stva novoy kanalizatsii leningrada. /Doklad na konferentsii, sozv. navch.-issled. In-tom kommunal. Khozyaystva ispolkoma lengorsoveta. May 1929, G./ Materialy pokommunal. Khoz-vu, 1949, SB. 3, s. 67-72

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

DERKACH, V.G.; BEL'SKIY, A.A.; SHCHUPANOVSKAYA, R.I.

Characteristics of magnetic fields of drum separators with closed circuit. Obog. rud. 3 no.3:26-32 '58. (MIRA 12:1)
(Magnetic separation of ores)

BEL'SKIY, A.A.

Calculating the susceptibility of open magnetic systems in separators. Obog. rud 5 no.3:42-48 '60. (MIRA 14:8)
(Magnetic separation of ores)

BEL'SKIY, A.A.

Calculation of permanent magnets in magnetic field patterns. Obog. rud 5 no.6:41-44 '60. (MIRA 14:8)
(Magnets)

BEL'SKIY, A.A.

Highly efficient magnetic separators. Obog. rud 6 no.3:41-43 '61. (MIRA 14:11)
(Magnetic separation of ores--Equipment and supplies)

BEL'SKIY, A.A.; MYSHENKOVA, M.P.

Ceramic magnets made of barium ferrite. Obog. rud. 8 no.3: 30-32 '63. (MIRA 17:1)

USSR.

"Investigation of the Rectification Properties of the Contact Se/HgSe. A. F. Belskiy and A. I. Blum (*Zhur. Tekhn. Fiziki*, 1954, 24, (3), 529-532).—(In Russian). It is confirmed that the junction Se/HgSe gives some rectification, the direction of high resistance being that with HgSe negative. However, the coeff. of rectification >10, so that the system is of no practical importance. Other experiments with the contact arranged in the order Metal (1)/Se/HgSe/Metal (2) gave the following results: (1) Appn. of liq. Hg to Se to make HgSe gives higher conductivity, but no better rectification than if Hg is applied from vapour. (2) Conductivity and rectification depend on the thermal treatment (grain-size) of the Se. (3) Rectification at the contact Metal (1)/Se is comparable in magnitude with that at the Se/HgSe interface, and can in some cases reverse the sign of rectification. Metals tried were Fe, Ni, and Al. (4) There is very little rectification at the HgSe/Metal (2) interface, and what there is, is not apparently simply related to the work-function of the metal (Ni, Cu, Cd, Mg). (5) With pure Se max. rectification occurs at ~2 V.

—A. F. B.

TEPERMAN, Yefim Yakovlevich; BEL'SKIY, A.M., otv.red.; LIBERMAN, S.S., red.izd-va; ANDREYEV, S.P., tekhn.red.

[Mine dewatering pump; a manual for schools and training courses for mine foremen] Rudnichnyi vodootliv; uchebnoe posobie dlia shkol i kursov masterov. Khar'kov, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1959. 151 p. (MIRA 13:9)

(Mine pumps) (Mine water)

BEL'SKIY, A.S.

USSR/Electricity - Semiconductors G-3

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 7006

Author : Bel'skiy, A.S.
Title : Procedure for Measuring the Electric Conductivity of Dielectrics and Semiconductors Using Pulses in Strong Electric Fields.

Orig Pub : Uch. zap. Tomskiy gos. ped. in-t, 1955, 14, 535-539

Abstract : The author considers a method for measuring the electric conductivity of semiconductors with the aid of rectangular pulses of 10^{-3} -- 10^{-5} sec duration. The generator is a cathode-coupled multivibrator with one stable state. The resultant pulse was first amplified with a single tetrode stage. The load was the investigated specimen (R_0; C_0) and a standard resistance (R_{st}) connected in series with it. By varying the capacitance C in parallel with R_{st}, the condition $R_{st}C = R_0C_0$. In this case the waveform of the output pulse across the lower end of the divider (across R_{st}) does not become distorted. The voltage is measured with an oscillograph.

Card : 1/1

BEL'SKIY, A.V., dotsent.

Prevention and surgical treatment of relapses of jaundice after palliative operations in cancer of the ampullar zone. Khirurgiia no.3:82-86 '63. (MIRA 16:5)

1. Iz kafedry obshchey khirurgii (zav.-dotsent N.V.Gerasimov) Saratovskogo meditsinskogo instituta.
(JAUNDICE) (BILE DUCTS—CANCER)

POPOV'YAN, I.M., prof., otv. red. (Saratov); NAPALKOV, P.N., zasl. deyatel' nauki prof., red.; ZAKHAROV, N.V., prof., red. [deceased]; BEL'SKIY, A.V., dots., red.; KOSHELEV, V.N., dots., red.; GORCHAKOV, L.G., red.; CHERNYSHEV, N.V., red.; BLINER, M.S., red.; ANDREYEV, P.P., red.

[Transactions of the Second Congress of Surgeons of the R.S.F.S.R.] Trudy vtorogo s"ezda khirurgov RSFSR. Saratov, Vser. nauchn. med. ob-vo khirurgov, 1963. 583 p. (MIRA 17:8)

1. S"yezd khirurgov RSFSR. 2d, Saratov, 1962.

BEL'SKIY, A.V.

Furcate drain with two or three branches for hepatic ducts, removable in separate parts. Eksper. khir. i anest. no.1 40-43'63. (MIRA 16:10)

1. Iz kafedry obshchey khirurgii (zav. - dotsent N.V. Gerasimov) Saratovskogo meditsinskogo instituta.
(BILE DUCTS--SURGERY) (DRAINAGE, SURGICAL)

BEL'SKIY, A.V., dotsent (Saratov, Sovetskaya ul., d.31, kv.6)

Primary inflammatory and cicatricial narrowing of the hepatocystic duct. Vest. Khir. 91 no.10:30-34 O '63. (MIRA 17:7)

1. Iz kafedry obshchey khirurgii (zav. kafedroy - dotsent N.V. Gerasimov) Saratovskogo meditsinskogo instituta (rektor - dotsent N.R. Ivanov).

BEL'SKIY, A.V., dotsent

Direct anastomosis of two or three hepatic ducts with intestines having cicatricial structures above their junction. Sbor. nauch. rab. Sar. gos. med. inst. 44:246-251 '64.

Surgical treatment of jaundice in malignant tumors of the porta hepatis. Ibid.:251-256 (MIRA 18:7)

1. Iz kafedry obshchey khirurgii (zav. - dotsent N.V. Gerasimov) Saratovskogo instituta (rektor - dotsent N.R. Ivanov).

BEL'SKIY, A.Ye., KUKELEVA, T.A.

Investigating the movement of motor vehicles on mountain roads with prolonged upgrades. Avt. prom. 31 no.9:18-19 S '65. (MIRA 18:9)

1. Khabarovskiy politekhnicheskiy institut.

BEL'SKIY, A. Ye.

BEL'SKIY, A. Ye.: "Investigation of the movement of an automobile on the vertical curves of automobile highways". Khar'kov, 1955. Min Higher Education USSR. Khar'kov Automobile and Road Inst. (Dissertations for the degree of Candidate of Technical Sciences.)

SO: Knizhnaya Letopis' No. 50 10 December 1955. Moscow.

BEL'SKIY, A Ye

MOGILEVSKIY, Dmitriy Aleksandrovich, dotsent; BABKOV, Valeriy Fedorovich, prof., doktor tekhn.nauk; SMIRNOV, Andrey Sergeyevich, kand.tekhn. nauk; ABRAMOV, Leonid Tikhonovich, kand.tekhn.nauk; ZAYTSEV, Filipp Yakovlevich, kand.tekhn.nauk; ZAMAKHAYEV, Mitrofan Semenovich, kand.tekhn.nauk; NIKITIN, Sergey Mikhaylovich, inzh.; BIRULYA, A.K., prof., retsenzent; DUDKIN, P.A., kand.tekhn.nauk, retsenzent; AVDEYEV, V.N., retsenzent; KARTASHEV, V.A., retsenzent; PAL'CHEV, A.G., retsenzent; POPOV, A.N., retsenzent; PTITSIN, I.G., retsenzent; ROMANENKO, I.A., prof., retsenzent; BARATS, L.A., prepodavatel', retsenzent; BASKEVICH, N.I., prepodavatel', retsenzent; BEL'SKIY, A.Ye., prepodavatel', retsenzent; KALUZHSKIY, Ya.A., prepodavatel', retsenzent; CHVANOV, V.G., red.; MAL'KOVA, N.V., tekhn.red.

[Locating and designing airfields] Izyskaniia i proektirovanie aerodromov. Pod red. V.F.Babkova. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transporta i shosseinykh dorog RSFSR, 1959. 566 p. (MIRA 13:3)

1. Khar'kovskiy avtomobil'no-dorozhnyy institut (for Romanenko, Barats, Baskevich, Bel'skiy, Kaluzhskiy).
(Airports—Planning)

BEL'SKIY, A.Ye.

Analytic calculation of motor-vehicle speeds taking into consideration the variable value of the coefficient of rolling resistance. (MIRA 16:10)
Avt.prom. 29 no.10:10-13 O '63.

1. Frunzenskiy politekhnicheskiy institut.

BEL'SKIY, P.B.

42465. Kul'tura Kok-sagyza V BSSR. Izvestiya Akad. Nauk. BSSR, No. 4, 1948, S. 71-76

BEL'SKIY B.B.

BEL'SKIY B.B. "The effect of the application of mineral fertilizer on the yeild of kok-sagyz" Izvestiya akad. Nauk BSSR, 1948 no 6, p 83-94 Bibliog: 8 items

SO: U-3261 10 april 53, (Letopis 'Zhurnal 'nykh Statey No 11 1949)

BEL'SKIY, B.

36325
Kul'tura Kok-Sagyza Na Torfyanykh Pochvakh V Kolkhozakh Polesskoy Oblasti Izvestiya Akad,. Nauk Bssr, 1949, NO. 5, S. 119-28

SO: Letopis' Zhurnal'nykh Statey, No. 49, 1949

A

BELSKIJ BB

Effect of liming the soil on kok-saghyz crops. B. B. Bel'skii. *Izvest. Akad. Nauk Belorussk. S.S.R.* 1949, No. 2, 99–107.—Liming the soil improves kok-saghyz yields both in respect to the d. of plant growth and increased av. wt. of wet or dry roots. Although the percentage of rubber latex drops, the yield per unit area is significantly increased. Best amt. is 50–100% of the hydrolytic acidity of the soil. G. M. Kondratoff

BEL'SKIY, B. B.,

6763. Bel'skiy, B. B. , Kulakovskaya, T.N. i Nyastyuk, N. N. Primeneniye udobreniy na torfyano-bolotnykh pochvakh nizinnogo tipa. Peredovoy opyt. Minsk, Izd-vo Adad. nauk Belorus. SSR, 1954. 86 s. 20 sm. (Akad. nauk belorus. SSR. In-t melioratsii, vodnogo i bolotnogo khozyaystva). 4.000 ekz. 1 r. 25 k. -- Bibliogr: s. 84. --Na Belorus. yaz. - (55-2204) 631.615: 631.8 (47.60) & (016.3)

SO: Knizhnaya Letopis' No. 6, 1955

BEL'SKIY, B.B.

475 SKOROPANOV, S. G., PECHKUROV, A. F. i BIL'SKIY, B. B.
Osusheniye i sel'skokhozyaystuennoye osuoyeniye bolot v Belorussii. M. Selkhozgiz. 1954. 133 s. sill. 20sm. 5,000 ekz. 1r. 80k.—Na obl. avt. ne ukazany.—
/54-54435/ p 631.615(47.60)

SO: Knizhnaya Letopis, Vol. 1, 1955

[redacted], B.B., kandidat sel'skokhozyaystvennykh nauk; KONDYUKOVA, A.Kh., nauchnyy sotrudnik.

Effect on crops of the type of underground drainage. Trudy Inst. mel., vod.i bol.khoz.AN BSSR 7:154-167 '56. (MLRA 10:5)
(Drainage) (Oats) (Rye)

BEL'SKIY, Bronislav Bronislavovich

[Using fertilizers on bottom peat soils] Uzhyvanne uhnaenniau na tarfiana-balotnykh hlebakh nizinnaha typu; peradavy vopyt. Minsk, Akademia navyk Belaruskai SSR, 1954. 83 p. (MIRA 10:9)
(Peat soils) (Fertilizers and manures)

USSR/Soil Science. Mineral Fertilizers. J-3

Abs Jour: Ref Zhur-Biol., No 6, 1958, 23742.

Author : Bel'skiy, B.; Kulakovskaya, T.

Inst :

Title : Mobility of Phosphoric Acid in Peat-Bog Soil.

Orig Pub: Vestsi AN BSSR, ser. biyal. n., Izv. AN BSSR, ser. biol. n., 1956, No 2, 25-28.

Abstract: Experiments were conducted in the Minsk Marsh Experimental Station on peat-bog soil in lysimeters. Radioactive superphosphate was applied in the capacity of phosphorus fertilizer. The highest assimilation of the phosphoric acid by barley plants occurred with the application of fertilizers to a depth of 10 cm.

Card : 1/1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24836.

was identical in distances of 5 and 10 m. between drains. The yield of oats on the lot with the clay drainage was highest at a 10 m. distance between drains. The lowest effectiveness of phosphorus-potassium fertilizers was registered on fields with clay drainage. The effective action of the slit drainage on the yield of agricultural crops is caused by the best conditions of aeration of soils.

USSR / Cultivated Plants. Grains. M-3

Abs Jour: Ref Zhur-Biol., 1958, No 16, 72920.

Author : Bel'skiy, B. B.
Inst : Not given.
Title : Fertilization of Corn on Peat-Marsh Soils.

Orig Pub: V.sb.: Kukuruza v BSSR. Minsk, AN BSSR, 1957, 191-200.

Abstract: Experiments of the Institute of Amelioration were conducted at the Kossovskaya Experimental Marsh Station in 1955. The corn harvest, especially of the ears, and their ripening increase with the increase of P and K doses. With a dose of P30 K100 of active substance the harvest of green mass of the corn was increased by 10.8 and of ears by 14.2% in comparison with the control (311.7 centners/ha. of green mass and 87 cwt/ha. of ears). Increase

Card 1/3

USSR / Cultivated Plants. Grains. M-3

Abs Jour: Ref Zhur-Biol., 1956, No 16, 72920.

Abstract: the seeds 2-4 cm away. Cu, Co and Mo applied in the soil before planting at 5 c/ha in the form of pyrite cinders or cobalt wastes increased the harvest of green mass and ears. Soaking the corn seeds in weak solutions of microelements provided an additional harvest of green mass by 20.5-24.7 and of ears by 15.5-29.5% in comparison with the control. -- M. A. Novoderzhkina.

Card 3/3

SKOROPANOV, S.G., glavnyy red.; PECHKUROV, A.F., kand.sel'skokhoz.nauk, red.; KHOT'KO, A.I., kand.sel'skokhoz.nauk, red.; IVITSKIY, A.I., doktor tekhn.nauk, red.; BEL'SKIY, B.B., kand.sel'skokhoz. nauk, red.; MARIKS, L., red.izd-va; VOLOKHANOVICH, I., tekhn.red.

[Achievements of the science of land reclamation in the White Russian S.S.R.; works of the institute dedicated to the 40th anniversary of the White Russian S.S.R.] Dostizheniia meliorativnoi nauki v BSSR; institut k 40-letiiu BSSR. Minsk, Akad. nauk BSSR, 1958. 193 p. (MIRA 13:6)

1. Minsk, Beraruski naukova-dasledchy instytut meliiaratsyi i vodnoi haspadarki. 2. Chlen-korrespondent AN BSSR (for Skoropanov).

(White Russia--Peat soils)

ZUBETS, V.M., red.; SKOROPANOV, S.G., red.; BEL'SKIY, B.B., red.; LASHKEVICH, G.I., red.; KHOT'KO, A.I., red.; SAVENKOVA, A.I., red.; YERMILOV, V.M., tekhred.

[Cultivation practices for growing field crops on peat-bog soils] Agrotekhnicheskie trebovaniia po vozdelyvaniiu sel'skokhoziaistvennykh kul'tur na torfiano-bolotnykh pochvakh. Minsk, Izd-vo Akad.sel'khoz. nauk BSSR, 1960. 79 p. (MIRA 14:1)

1. Minsk. Navukova-dasledchy instytut meliaratsyi i vodnai haspadarki.
(Field crops) (Peat soils)

SKOROPANOV, S.G., glavnyy red.; PECHKUROV, A.F., kand.sel'skokhoz.nauk, red.; KHOT'KO, A.I., starshiy nauchnyy sotrudnik; red.; IVITSKIY, A.I., doktor tekhn.nauk, red.; BEL'SKIY, B.B., kand.sel'skokhoz.nauk, red.; PROKOPENKO, D.P., tekhn.red.

[Principal results of research carried out by the White Russian Scientific Research Institute of Land Reclamation and Water Management in 1957] Osnovnye rezul'taty nauchno-issledovatel'skoi raboty instituta za 1957 god. Minsk, 1958. 280 p.
(MIRA 14:2)

1. Minsk. Belaruski navukova-dasledchy instytut meliaratsyi vodnai haspadarki. 2. Chlen-korrespondent AN BSSR (for Skoropanov).
(White Russia--Drainage research)
(White Russia--Agricultural research)

BEL'SKIY, B.B.; KULAKOVSKAYA, T.N.; ROZINA, M.S.

Determining phosphate availability in peat-bog soils. Pochvovedenie no.11:93-98 N '61. (MIRA 14:12)

1. Belorusskiy nauchno-issledovatel'skiy institut melioratsii i vodnogo khozyaystva.
(Peat soils) (Soild--Phosphorus content)

ZUBETS, V.M., otv. red.; LASHKEVICH, G.I., red.; PECHKUROV, A.F., red.; IVITSKIY, A.I., red.; BEL'SKIY, B.B., red.; LUNDIN, K.P., red.; MISHANOVA, Ye.A., red.; TIMOSHCHUK, R.S., tekhn. red.

[Draining and utilizing peat-bog soils] Osushenie i ispol'zovanie torfiano-bolotnykh pochv. Minsk, Gos.izd-vo sel'khoz.lit-ry BSSR, 1963. 316 p. (MIRA 16:12)
(Peat soils) (Drainage)

BEL'SKIY, Bronislav Bronislavovich; MIKHANOVA, Ye.A., red.

[Role of chemistry in the efficient utilization of peat-bog soils] Rol' khimii v effektivnom ispol'zovanii torfiano-bolotnykh pochv. Minsk, Izd-vo "Urozhai," 1964. 36 p. (MIRA 17:7)

BEL'SKIY, B.E. Deceased

Metallurgy -

See ILC

BEL'SKIY, B.I.

Cellophane blinds against flies. Gig. i san. 21 no.11:96 N '56.
(MLRA 10:2)
(FLIES) (WINDOWS)

BEL'SKIY, B.I.

Portable trap for synanthropic flies and blood-sucking insects [with summary in English]. Med.paraz. i paraz.bol. 26 no.2:222-225 Mr-Ap '57. (MLRA 10:7)

1. Iz Rovenskoy oblastnoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach L.V.Bulanov)
(FLIES
portable fly trap)

AUTHOR: Bel'skiy, B.I., Candidate of Agricultural Science 26-58-6-54/56

TITLE: Mass Transmigration of Caddis Flies (Massoviye perelety rucheynikov)

PERIODICAL: Priroda, 1958, Nr 6, p 127 (USSR)

ABSTRACT: The author reports two incidents where caddis flies migrated in large numbers during daytime. The flights were apparently caused by heavy clouds and strong winds. The swarms varied between 200-500 m in length and were rushing along with the wind at 10 to 100 m altitude.

Card 1/1

ASSOCIATION: Oblastnaya sanitarnaya epidemiologicheskaya stantsiya, g. Rovno (Oblast Sanitarium Epidemiological Station, city of Rovno)

1. Flies-Migration

SAVVA, David Abramovich; VLASOV, Nikolay Dmitriyevich; BEL'SKIY, B.R., spets. red.; SHELYUTTO, Ye.P., red.; ZAYTSEVA, L.A., tekhn. red.

[Using the production-line method for watch and clock repairs] Remont chasov potochno-operatsionnym metodom. Moskva, Gos.izd-vo mestnoi promyshl. i khudozh.promyslov, RSFSR, 1961. 133 p. (MIRA 14:12)

(Clocks and watches—Repairing and adjusting)
(Assembly-line methods)

KOROBOCHKIN, I.V., kand. tekhn. nauk; BEL'SKIY, B.R., inzh.; MIKHAYLOV, Ye.A., inzh.; GUTENMAKHER, L.I., laureat Stalinskoy premii doktor tekhn. nauk, nauchnyy red.; SEVOST'YANOVA, M.V., doktor fiz.-mat. nauk, prof., nauchnyy red.; RUSEVICH, I.M., inzh., red.; OSTROVSKAYA, Ye.G., otv. za vypusk

[Catalog-manual of laboratory devices and equipment] Katalog-spravochnik laboratornykh priborov i oborudovaniia. Moskva, Mashgiz. No.21.[Calculating machines and devices] Schetno-vychislitel'nye pribory i apparaty. 1948. 22 p. No.27. [Microscopes and lenses] Mikroskopy i lupy. 1950. 87 p. (MIRA 16:4)

1. Moscow. Vsesoyuznaya vystavka otechestvennogo priborostroyeniya, 1948.
(Calculating machines--Catalogs)
(Microscopes--Catalogs) (Lenses--Catalogs)

BEL'SKIY, D.D.

Measurement errors of dial and lever-type indicators with racks.
Izm.tekh. no.7:60 Jl '62. (MIRA 15:6)
(Recording instruments—Testing)

OMEL'CHENKO, F.; BEL'SKIY, E.

We are repairing our dredge. Kolyma 21 no.2:8 F '59.
(MIRA 12:7)

1.Draga No.173 priiska im. Gastello (for Omel'chenko). 2.Draga No.174 priiska No.174 (for Bel'skiy).
(Dredging machinery--Maintenance and repair)

BEL'SKIY, G.M. (Severomorsk)

Dermographism in exudative pleurisy. Klin.med. 38 no.10:41-42 O '60. (MIRA 13:11)
(DERMOGRAPHIA) (PLEURISY)

BEL'SKIY, G.P., podpolkovnik

Important condition for the care of material. Vest.protivovozd. obor. no.9:61-63 S '61. (MIRA 14:8)
(Communications, Military--Maintenance and repair)

BEL'SKIY, G.V.; SHAVLO, S.G.

Some regularities in the distribution of metallic elements in rocks of the central Kalba. Uzb.geol.zhur. no.5:43-49 '61.

1. Institut geologii AN Uzbekskoy SSR.
(Kalba Range--Metals)

BEL'SKIY, G.V.

Methods of studying the distribution of metal elements in rocks as revealed by the studies in the Altai. Trudy Alt.GMNII AN Kazakh.SSR 12:70-75 '62. (MIRA 15:8)
(Altai Mountains--Rocks--Analysis)

BEL'SKIY, G.Ye.; BUDARINA, E.M., red.izd-va; TEMKINA, Ye.L., tekhn.red.

[Stability of compressed steel rods with flexible fixed ends] Ustoichivost' szhatykh stal'nykh sterzhnei s uprugimi zashchemleniiami kontsov. Moskva, 1959. 144 p. (Akademiia stroitel'stva i arkhitektury SSSR. Institut stroitel'nykh konstruktsii. Nauchnoe soobshchenie no.10) (MIRA 13:3)
(Elastic rods and wires)

BEL'SKIY, G.Ye.

Commission on Metal Construction Elements of the Council of Coordination. Izv. ASiA no. 3:133 '60. (MIRA 13:12)

1. Uchenyy sekretar' Komissii po metallokonstruktsiyam Soveta po koordinatsii Akademii stroitel'stva i arkhitektury SSSR.
(Electric lines--Poles)

GEMMERLING, A.V., doktor tekhn.nauk; BEL'SKIY, G.Ye., kand.tekhn.nauk

Bearing capacity of frames under elastoplastic conditions.
Trudy TSNIISK no.7:33-62 '61. (MIRA 15:3)
(Structural frames--Testing)

BEL'SKIY, G.Ye., kand.tekhn.nauk

Theoretical and experimental investigations of the deformability and stability of elastically clamped rods. Trudy TSNIISK no.7: 125-185 '61. (MIRA 15:3)

(Elastic rods and wires)

BEL'SKIY, G.Ye., kand.tekhn.nauk

Stability of centrally compressed rods and frames under elasto-plastic conditions. Trudy TSNIISK no.7:239-267 '61.
(MIRA 15:3)

(Elastic rods and wires) (Structural frames)

BEL'SKIY, G. Ye. Cand Tech Sci -- "Strength of rods and frames within ~~the~~ ~~range~~ and beyond the limit of elastic deformations." Mos, 1961 (Min of Railways USSR. Mos Order of Lenin and Order of Labor Red Banner Inst of Engineers of Railroad Transport im I. V. Stalin "MIIT"). (KL, 4-61, 194)

BEL'SKIY, G.Ye.; DIONISIADI, L.N.

Investigation of mechanical properties of high-strength steels. Prom. stroi. 43 no.9:40-44 '65. (MIRA 18:9)

BEL'SKIY, I.

The machines came. Mest.prom.i khud. promys. 3 no.1:29 Ja '63.
(MIRA 16:2)

1. Direktor Kiyevo-Svyatoshinskogo zavoda khimicheskikh izdeliy.
(Kiev—Chemical industry—Equipment and supplies)

BEL'SKIY, I.F.; SHUYKIN, N.I.; GRUSHKO, I.Ye.; SHOSTAKOVSKIY, V.M.

Interaction between esters of β-tetrahydrofurylpropionic acid and its α-alkyl-substituted derivatives and phosphorus tribromide. Izv. AN SSSR. Ser. khim. no.9:1670-1671 '65. (MIRA 18:9)

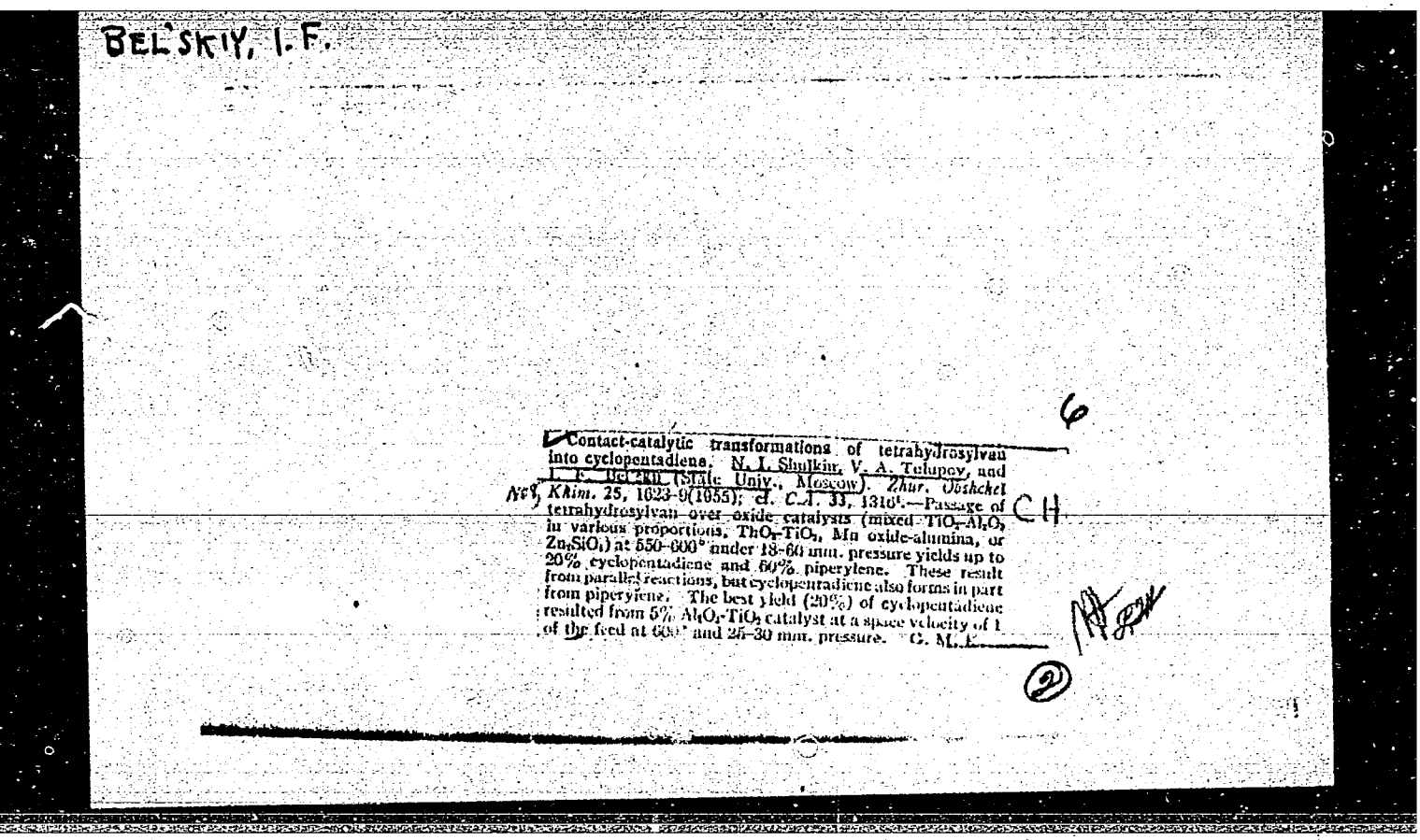
1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

BEL'SKIY, I.F.

SHUYKIN, N.I.; TULUPOV, V.A.; BEL'SKIY, I.F.

On the hydration of the furan ring. Zhur.ob.khim.25 no.6:1175-1178 Je'55. (MIRA 8:12)

1. Moskovskiy Gosudarstvennyy universitet
(Furan) (Hydration)



BEL'SKIY, I. F.

6

Contact-catalytic transformations of tetrahydrosylvan into cyclopentadiene. N. I. Shuikin, V. A. Tulupov, and I. F. Bel'skii (State Univ., Moscow). *Zhur. Obshchel Khim.* 25, 1623-9(1955); cf. *C.A.* 33, 1316⁶.—Passage of tetrahydrosylvan over oxide catalysts (mixed TiO_2-Al_2O_3 in various proportions, ThO_2-TiO_2, Mn oxide-alumina, or Zn_2SiO_4) at 550–600° under 18–60 mm. pressure yields up to 20% cyclopentadiene and 60% piperylene. These result from parallel reactions, but cyclopentadiene also forms in part from piperylene. The best yield (20%) of cyclopentadiene resulted from 5% Al_2O_3-TiO_2 catalyst at a space velocity of 1 of the feed at 600° and 25–30 mm. pressure. G. M. K.

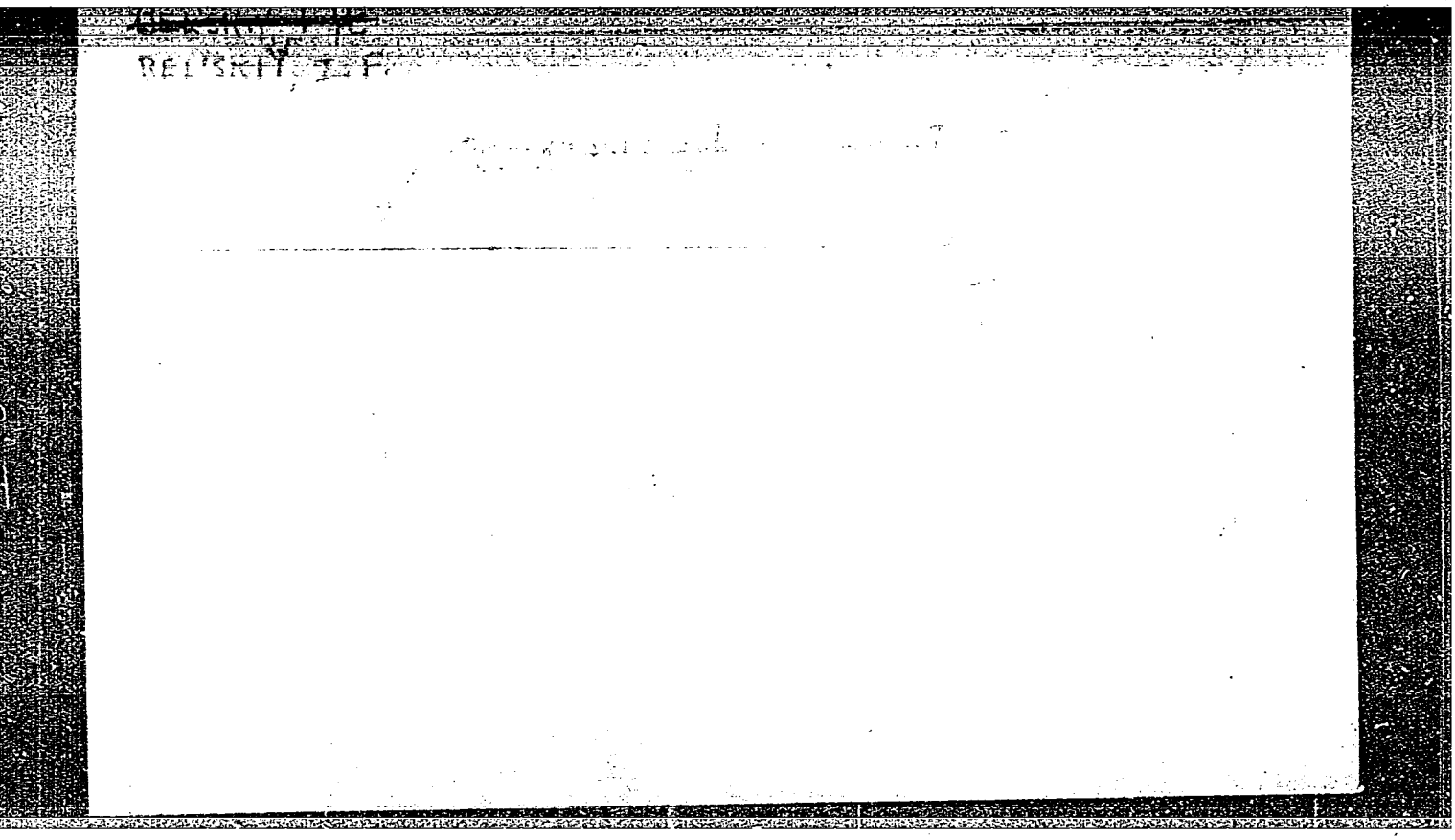
CH

2

SHUYKIN, N.I.; BEL'SKIY, I.F.

Disclosure of the tetrahydrofuran cycle with aluminum halides.
Izv.AN SSSR.Otd.khim.nauk no.6:747-748 Je '56. (MLRA 9:9)

1.Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk SSSR.
(Furan) (Aluminum halides)



BEL'SKIY, I. F.

B-9

Category: USSR

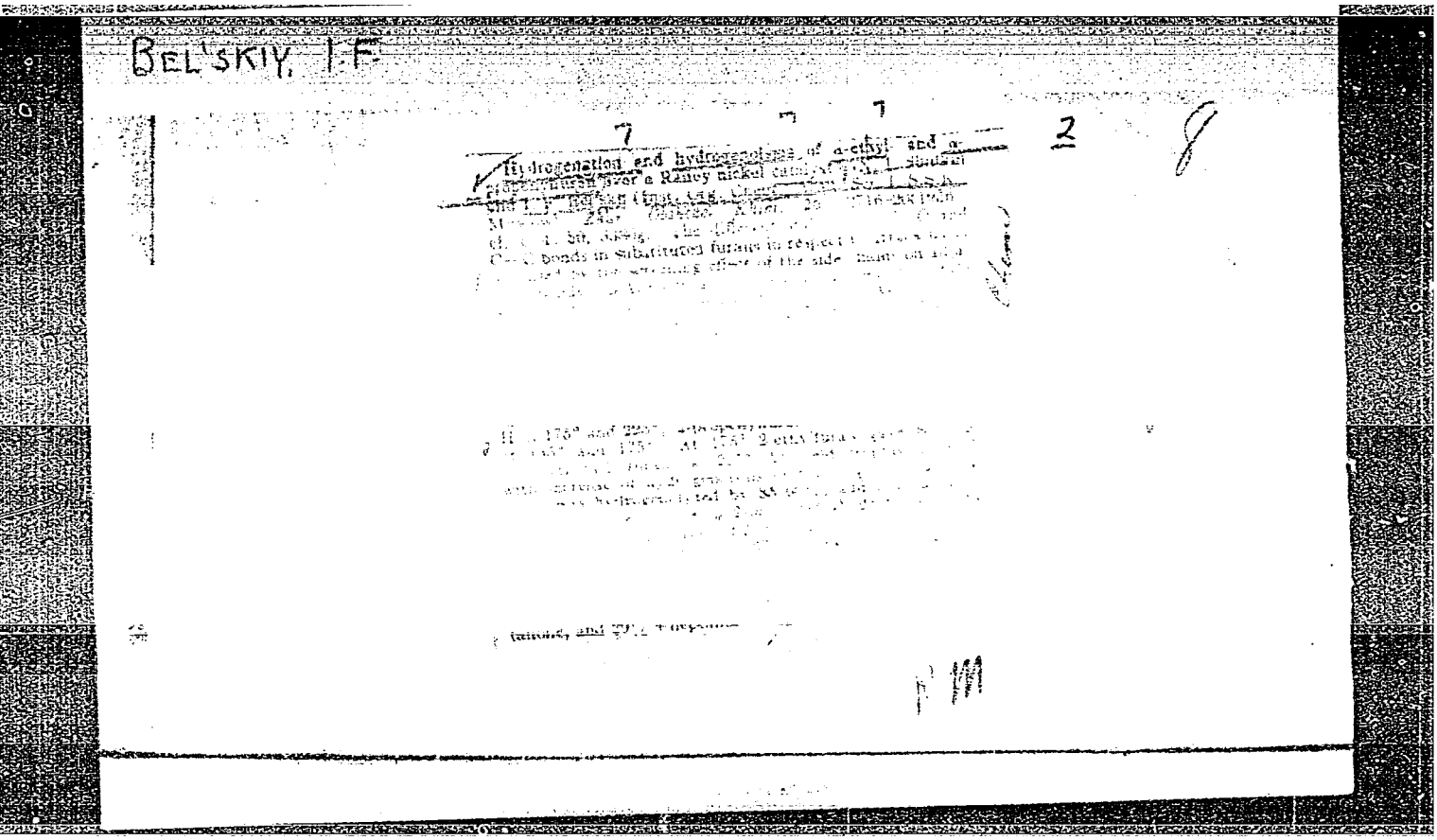
Abs Jour: Zh--Kh, No 3, 1957, 7592

Author : Shiykin, N. I., Grushko, I. Ye., and Bel'skiy, I. F.
Inst : Academy of Sciences USSR
Title : On the Utilization of a Nickel Catalyst in the Kizhner Decomposition of Hydrazones.

Orig Pub: Izv. AN SSSR, Section on Chemical Sciences, 1956, No 5, 622-624

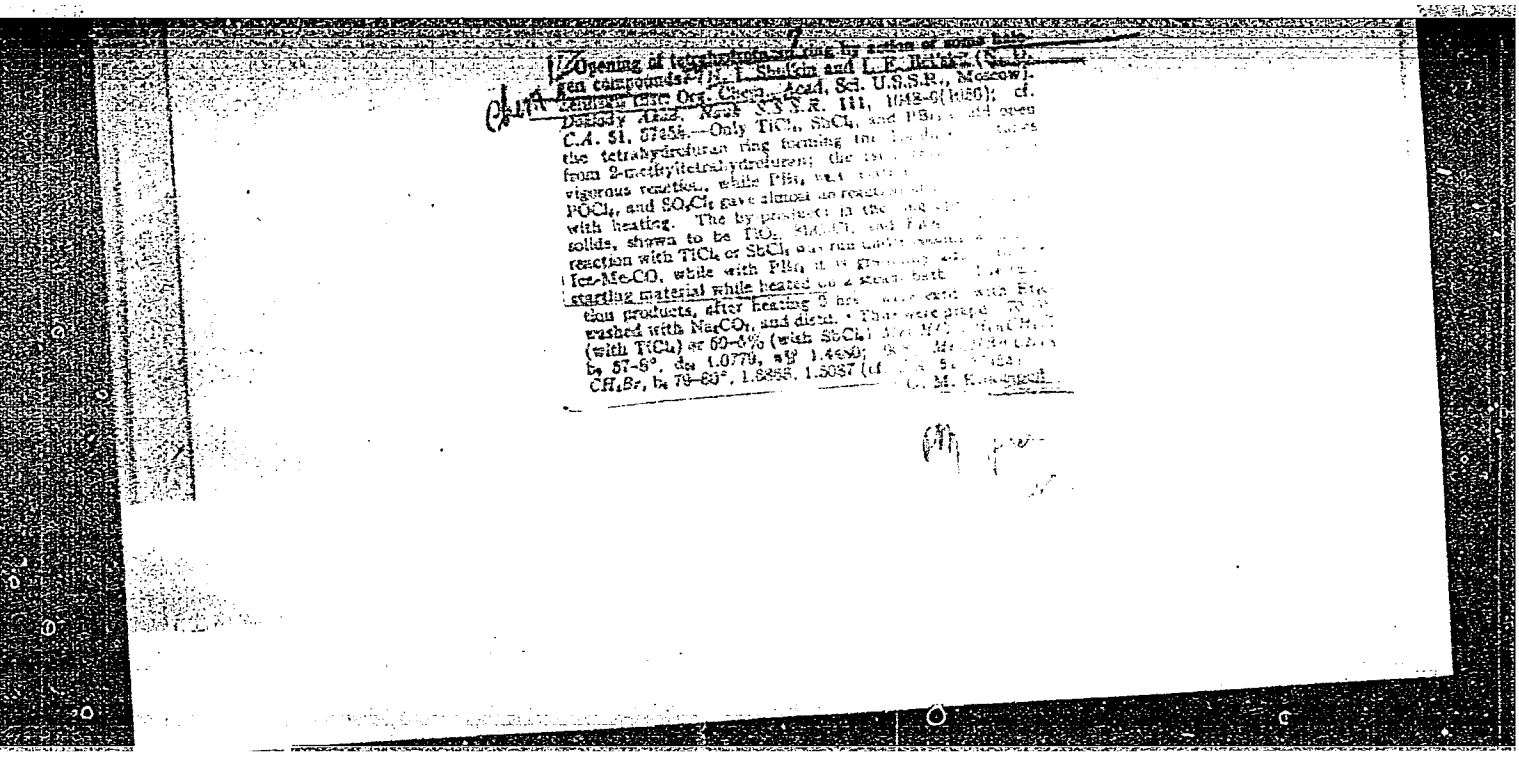
Abstract: The catalytic decomposition of the hydrazones of cyclohexenylcyclohexanone and α -acetylfuran in the presence of platinized alumina (20% Pt), reduced nickel-alumina catalyst (30%Ni), or Ni-mud has been investigated. It was found that finely dispersed Ni-catalysts give product yields which are not lower than those obtained with platinum catalysts.

Card : 1/1



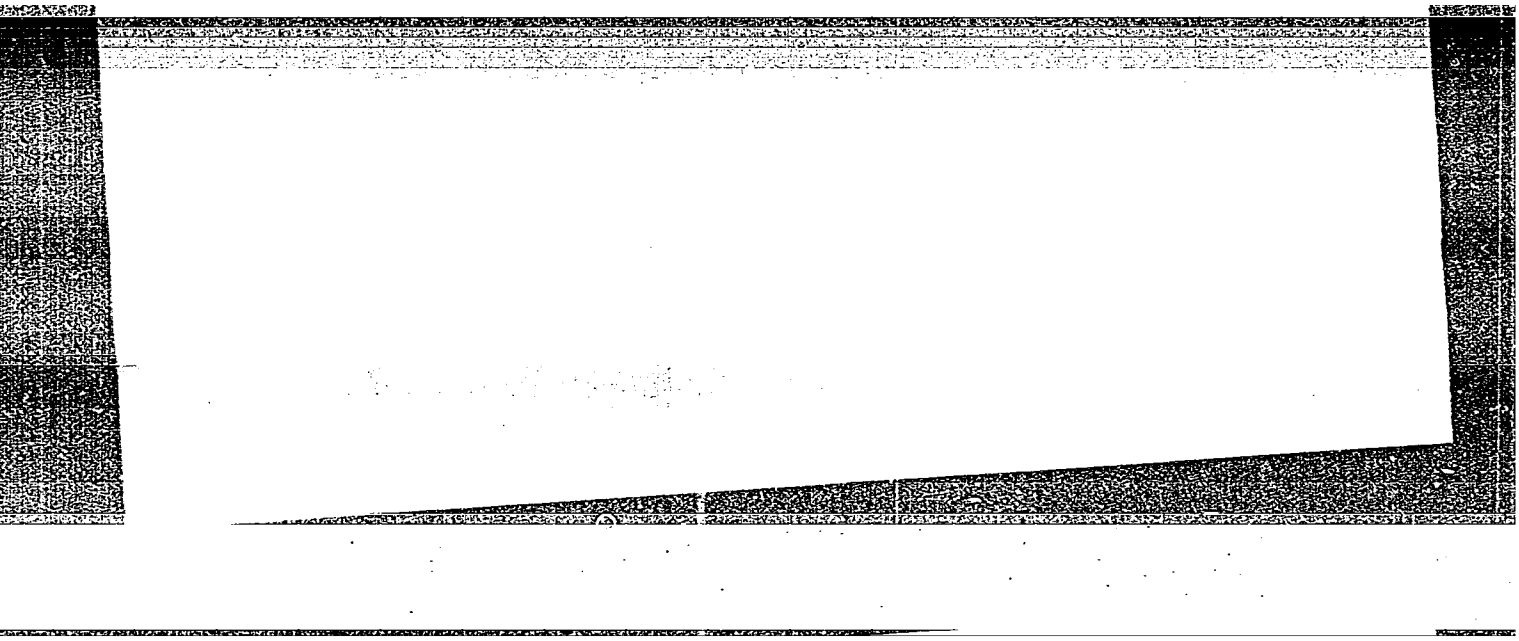
BEL'SKIY, I.F.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000204520008-0"



Opening of tetrahydrofuran ring by action of some halogen compounds / B. L. Shulkin and L. F. Hatch (N. D. Zelinskii Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). Doklady Akad. Nauk S.S.S.R. 111, 1048-9(1956); cf. C.A. 51, 17458.—Only $TiCl_4$, $SbCl_5$, and PBr_3 [illegible] the tetrahydrofuran ring forming the [illegible] from 2-methyltetrahydrofuran; the [illegible] vigorous reaction, while PBr_3 [illegible] $POCl_3$, and SO_2Cl_2 gave almost no reaction [illegible] with heating. The by-products in the [illegible] solids, shown to be TiO_2, [illegible] reaction with $TiCl_4$ or $SbCl_5$ [illegible] for-MeCO, while with PBr_3 it is [illegible] starting material while heated on a steam bath [illegible] thus products, after heating 3 hrs. [illegible] washed with Na_2CO_3, and dried. [illegible] (with $TiCl_4$) at 60–6% (with $SbCl_5$) [illegible] b. 87–8°, d_4^{20} 1.0779, n_D^{20} 1.4490; [illegible] CH_2Br_2, b. 79–80°, 1.8855, 1.5087 (d [illegible] M. Kosolapoff.

BEL'SKIY, I. F, Cand Chem Sci -- (diss) "Catalytic ~~Hydrogenolysis~~ Hydrogenolysis of ~~the Homologous Compounds of Furan.~~ Furan Homologs." Mos, 1957. 10 pp 22 cm. (Academy of Sciences USSR, Inst of Organic Chemistry im N. D. Zelinskiy), 130 copies (KL, 25-57, 109)



APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000204520008-0"

Catalytic Hydrogenolysis of Furan Compounds

79-2-27/58

reason for that should be sought in the shielding effect of the side group on the neighboring C-O and C-C bonds. The hydrogenolysis reaction of furan homologues is recommended as a method for the obtainment of certain less accessible alkyl alcohols and ketones.

There are 19 references of which 9 are Slavid

ASSOCIATION: USSR Academy of Sciences, Institute of Organic Chemistry

PRESENTED BY:

SUBMITTED: March 24, 1956

AVAILABLE: Library of Congress

Card 2/2

On the Interaction of Tetrahydrofuran with Silicon Tetrachlorid. 20-2-35/67

robutanol as well as sicilic acid. The correctness of the assumed structure is confirmed by the fact that the entire quantity of tetrahydrofuran and approximately half the quantity of the silicon-tetrachloride enters into the reaction if it is carried out by equimolar quantities of these substances. Thsu 1.4-dichlorobutane and Di (δ-clorobutoxy)-dichlorosilane develop from this as the main products. Furthermore, the carrying out of the reaction is described in detail.
The reaction under consideration can serve as a method for producing oxygen-containing silico-organic and clorine-substituted aliphatic alcohols.
(With 9 citations from publications).

ASSOCIATION Institute for Organic Chemistry "N.D.Zelinsky" of the Academy
PRESENTED BY
SUBMITTED 27.1o.1956
AVAILABLE Library of Congress
Card 2/2

BEL'SKIY, I.F.

20-2-37/67

AUTHOR: SHUYKIN, N.I., Corresponding Member of the Academy and BEL'SKIY, I.F.

TITLE: The Catalytic Hydrogenolysis of Sylvan on varied Catalysts.
(Kataliticheskiy gidrogenoliz sil'vana na razlichnykh katalizatorakh.- Russian)

PERIODICAL: Doklady Akademii Nauk SSSR 1957, Vol 115, Nr 2, pp 330-332 (U.S.S.R.)

ABSTRACT: The hydrogenolysis reaction of furan homologs depends on three factors, namely on the operating conditions, the nature of the catalyst and on temperature. In the sylvan hydration in the liquid phase an copper chromite the furan cycle is split to almost the same extent on the ether bonds 1 - 2 and 1 - 5. As a result develop pentanol-1 and -2. In contrast to that the sylvan hydrogenolysis in the liquid phase on the Adams platinum catalyst occurs only in the direction of a splitting of the C--O bond 1-5. The same is true for the hydrogenolysis in the gas phase on nickel and copper catalysts, however there develops no alcohol, but a ketone (pentanone-2). In earlier works the authors studied the same reaction of furan homologs in the gas phase

CARD 1/4

20-2-37/67

The Catalytic Hydrogenolysis of Sylvan on Varied Catalysts.

on a skeleton nickel-aluminium catalyst and proved that thereupon takes place a hydrogenolysis not only of the ether-, but also of the carbon-carbon bonds in the furan cycle. All furan homologs with an alkyl- or alkenyl substituent in an α-position are subject to hydrogenolysis in three directions. A scheme for this is given. At 175°C and below the furan cycle undergoes a hydrogenolysis only in directions I and II (of the scheme), above 235°C also in direction III. The present paper gives test results of the sylvan hydrogenolysis in the gas phase in the presence of various catalysts: platinum (15%) and palladium (10%) on charcoal, Adkins copper chromite, nickel (30 %) on aluminiumoxide and skeleton nickel-aluminium catalyst. The results of this study lead to the conclusion that the direction and depth of the hydrogenolysis of the furan cycle essentially depends on the nature of the catalyst. Platinum on charcoal possesses the selective ability to carry out the hydrogenolysis of the cycle in sylvan only on the ether bond 1 — 5. The presence in the reaction products only of pentanone-2 and unchanged sylvan shows that at 275°C the hydrogenolysis reaction on the platinum catalyst occurs incomparably faster than the hydrogena-

CARD 2/4

The Catalytic Hydrogenolysis of Sylvan on Varied Catalysts.

tion of the double bonds in the cycle. Pentanone-2 practically forms with a quantitative yield in relation to the sylvan that entered the reaction,. In contrast to that the palladium catalyst proves much more effective in the hydration of double bonds of the cycle and shows only insignificant activity in the hydrogenolysis of the ether bond. Just as on platinum, the furan cycle in the presence of a palladium catalyst is subject to hydrogenolysis only on the C--O bond 1--5, whereby pentanone-2 develops. Copper-chromium catalyst shows a rather weak activity in the hydration and hydrogenolysis at 275° C. In contrast to the hydrogenolysis on copperchromite in the liquid phase which leads to the formation of two alcohols, the reaction here in the gas phase takes place only in the direction of a splitting of the ether bond which does not border the side group. The mentioned skeleton catalyst and nickel on aluminumoxyde differ widely with regard to their ability to carry out the

CARD 4/4

The Catalytic Hydrogenolysis of Sylvan on Varied Catalysts.

hydrogenolysis of the furan cycle. On the latter about 15 % ketones form at 275°C; 85 % of the catalysate consist of unchanged sylvan, n-pentane and high-boiling compounds. This indicates that the processes of farreaching decomposition of the furan ring and the formation of molecules of complex composition is favored by this catalyst. On the skeleton nickel aluminium catalyst the hydrogenolysis takes place in three directions. These results are in agreement with those obtained earlier. Thus only the skeleton catalyst is able to carry out the reaction as well in the direction of splitting the ether bond 1-5, as of a conjugate splitting of the linkages 1-5 and 4-5, and of 1-5 and 3-4. This permits to obtain aliphatic ketones of various structure from alkyl furans.
(3 Slavic references)

ASSOCIATION: Institute for organic chemistry im.N.D.Zelinskiy of the Academy of Sciences of the USSR.
(Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk SSSR)

PRESENTED BY: -
SUBMITTED: 27.3.57
AVAILABLE: Library of Congress.

BEL'SKIY, I. F.

AUTHORS: Shuykin, N. I., Corresponding Member of the AN SSSR and Bel'skiy, I. F. 20-4-26/51

TITLE: The Hydrogenolysis of Furane Homologues on a Platinum Catalyst (Gidrogenoliz gomologov furana na platinovom katalizatore)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 4, pp. 621-624 (USSR)

ABSTRACT: After an exhaustive review of references the authors make the comprising statement that the hydrogenolysis of the furane cycle in a general case depends on the nature of the catalyser, furthermore on the character of the lateral substituent, on the temperature and on the phase (Liquid and vaporous) in which the reaction takes place. The authors investigated the reaction of the α-substituted furane homologues in the vapour phase on 15% platinum, deposited on activated birch coal. The length of the lateral chain of the furane homologues was chosen from C_1 up to C_5 in order to be able to evaluate the influence of the chain length of the alkyl lateral group on the character of the hydrogenolysis. It was found that the furane cycle under these conditions at 275°, independently of the chain length, splitted at the C-O-binding 1-5 which is not adjacent to the lateral group. Here aliphatic ketones are formed with yields of 90-95% of the theoretically possible yield. At this temperature (275°) no alkyl tetrahydro-furanes were found. However, at 230° from the hydrated α-n-propyl furane beside heptanon -4 also α-npropyl-tetra-

Card 1/2

The Hydrogenolysis of Furane Homologues on a Platinum Catalyst. 20-4-26/51

hydro-furane was obtained in a quantity of 16% of the catalyst weight. Thus the lower temperature favors the reaction of the hydrogenization of the double bindings in the furane cycle, whereas an increased temperature is favorable for the hydrogenolysis of the ether binding 1-5. In the experimental part the usual data are given. Final conclusions: It was found that in the case of hydration of the α-alkyl furanes in the vapor phase on platinized coal a slective hydrogenolysis of the furane cycle on the C-O-binding 1-5 takes place, a fact by which aliphatic ketones with high yields are formed.
There are 2 tables, and 8 references, 1 of which is Slavic.

ASSOCIATION: Institute for Organic Chemistry imeni N. D. Zelinskiy AN USSR (Institut organicheskoy khimii im. N. D. Zelinskogo Akademii Nauk SSSR)

SUBMITTED: July 1o, 1957

AVAILABLE: Library of Congress

Card 2/2

BEL'SKIY, I.F.

20-5-24/48

AUTHORS: Shuykin, N. I., Corresponding Member AN USSR, Bel'skiy, I. F. and Tyan' Sin-Khua

TITLE: Hydrogenolysis of α - Methyl-α'-Ethylfuran on Platinized Charcoal (Gidrogenoliz α-metil-α'-etilfurana na platinirovannom ugle)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 5, pp. 808 - 810 (USSR)

ABSTRACT: For the purpose of comparison the authors investigated the hydrogenolysis of silvan at various catalysts. The furan ring in silvan can be splitted at a platinum-, palladium-, and copper-chromium catalyst in the vapor phase at 275° at an ether binding not adjoining to a lateral group. This leads to the formation of methylpropylketone. Only the platinum catalyst shows the power of splitting the furan ring selectively at the C--O- binding without any secondary processes. In contrast to all these catalysts the skeleton-Ni-Al-catalyst has specific powers to carry out the hydrogenolysis of the furan ring in the direction of cracking of the ether binding 1 - 5 as well as 1 - 5 and 3 - 4. In the last case ketones are produced which contain in the molecule 1 or 2 carbon atoms less than the initial alkylfuran had. This is to be called the "conjugated" hydrogenolysis. In all cases the influence of the la-

Card 1/3

Hydrogenolysis of α-Methyl-α'-Ethylfuran on Platinized Charcoal

teral-alkyl-substituent effects an almost complete incapability of the C--O-binding 1 - 2 of hydrogenolysis. Therefore it was interesting to investigate the comparing capability of the C--O-binding of the hydrogenolysis which are influenced by 2 alkyl groups with different lengths of the carbon chain. If the reaction at the ether bindings 1 - 2 or 1 - 5 mentioned in the title is carried out, heptanon-3 and heptanon-2 are bound to be produced correspondingly. The first substance was obtained at 235° in the vapor phase with a yield of 54 %, the latter with 36 %. N-heptan ($\sim$7%) was present in a considerably smaller quantity. Its formation is effected by a simultaneous hydrogenolysis of the furan ring at the C--O-bindings 1 - 2 and 1 - 5. The relative content of the two first ketones in the products of the hydrogenolysis leads to the conclusion that the ethyl group exercises a much more stabilizing influence on the adjoining C--formation than the methyl group. The experimental part with the usual data follows. There are 3 references, 2 of which are Slavic.

BEL'SKIY, I. F.

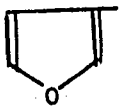
20-1-25/42

AUTHORS: Shuykin, N. I., Corresponding Member of the AN USSR and Bel'skiy, I. F.

TITLE: Note on the Selective Reduction of Alkyl-Furyl-Carbinoles to Alkylfuranes on a Palladium Catalyser (Selektivnoye vosstanovleniye alkilfurilkarbinolov v alkilfurany na palladiyevom katalizatore).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 1, pp. 95-97 (USSR)

ABSTRACT: The hydration reaction of compounds of the type



- CH-R (OH), where R may denote a hydrogen atom, a alkyl or an aryl radical, has been throughly investigated with respect to the multiplicity of compounds as well as to the number of the catalysers employed. According to the nature of the last and according to the structure of the compounds the hydration may take three directions:

Card 1/4 1) The double compounds of the furane cycle are the only

ones that are hydrated, in such a way as to produce alcohols of the tetrahydrofurance series. 2) The hydrolysis of the cycle takes place at one or at both C-O bindings, wherefrom "alkandioles" and alkanoles are produced. 3) The lateral group may be reduced entirely, the hydroxyl being replaced by a hydrogen atom. Finally, all or some of the abovementioned reactions can take place at the same time under certain conditions. A comparison is given between the nickel- platinum- and copper catalysers employed for these purposes. As it is well known, palladium represents an excellent catalyser of the double bindings of the furane cycle in the liquid as well as in the vapour phase. The attempt of the authors to hydrate the furane ring of the compounds mentioned in the title at palladisated coal lead to surprising results: Instead of a hydration of the double bindings in the furane cycle a hydrolysis of the C - OH bindings and the replacement of the hydroxyl group by a hydrogen atom took place. This lead to a conversion of the ethyl- and methyl-furyl carbinoles to the corresponding

Note on the Selective Reduction of Alkyl-Furyl-Carbinoles to Alkylfuranes on a Palladium Catalyser 20-1-25/42

α-propyl and α-ethyl furanes, yielding 70-80 % of the theoretically possible production. This ability to split forms a specific property of this type of compounds. It does not occur in pentanole 2 at much higher temperatures. It is a remarkable fact, that the hydroxyl group of the alkyl tetrahydrofurylcarbinoles is not even capable of reduction. Therefore the C - O binding is weakened only in alkylfurylcarbinoles to such an extent, that it is easily broken up by hydrogen on palla disated coal. The reason for this may be sought in the fact, that the C - O binding in the lateral chain is conjugated with the double binding of the furane cycle. Methods of production for the initial substances are given. The reaction of the reducing dehydroxylisation of the alkylfurylcarbinoles into alkylfurane constitutes a very interesting instance of the selective effect of the palladium catalyser. Apart from its theoretical interest it may be of great importance in a preparative respect, for it provides for an avoidance of the stage of the dehydration of the alkylfurylcarbinoles in the synthesis of the alkylfuranes, which, in general, does not proceed smoothly. There are 8 references, 2 of which are Slavic.

Card 3/4

Note on the Selective Reduction of Alkyl-Furyl-Carbinoles to Alkylfuranes on a Palladium Catalyser 20-1-25/42

ASSOCIATION: Institute for Organic Chemistry imeni N. D. Zelinskiy AN USSR (Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR)

SUBMITTED: July 10, 1957

AVAILABLE: Library of Congress

Card 4/4

Belskiy, I.F.

AUTHORS: Shuykin, N. I., Bel'skiy, I. F., 62-2-21/28

TITLE: The Catalytic Reduction of Alkylfurylcarbinols to Alkylfuranes. (Kataliticheskoye vosstanovleniye alkilfurilkarbinolov v alkilfurany)

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958, Nr 2, pp. 240-240 (USSR)

ABSTRACT: During the investigation of the hydrogenation of ethyl- and ethylfuryl-carbinols the authors discovered the interesting fact of the selective reduction of the above-mentioned compounds to α-ethyl- and α-propyl-furnaces. It was further found that the capability of the hydroxyl-group to substitute in hydrogen under the catalytic influence of palladium coal depends on the presence of the alkylfurylcarbinol cycle. In the reduction of isopropyl- and butylfurylcarbinols α-isobutyl- and α-imylfuranes with a yield up to 70% are produced. The experiment was performed in the vapor phase at 250-260°. There are 2 Slavic references.

Card 1/2

The Catalytic Reduction of Alkylfurylcarbinols to Alkylfuranes 62-2-21/28

ASSOCIATION: Institute for Organic Chemistry imeni N.D. Zelinskiy AN SSSR (Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk SSSR)

SUBMITTED: September 27, 1957

AVAILABLE: Library of Congress

1. Alkylfurylcarbinals to alkylfuranes-Catalysis 2. Alkylfuryl-carbinals-Reduction 3. Alkylfuranes-Production 4. Palladium coal catalyst-Applications

Card 2/2

62-58-3-9/30

AUTHORS: Shuykin, N. I. , Bel'skiy, I. F.

TITLE: The Catalytic Hydrogenolysis of Furan Compounds (Kataliticheskiy gidrogenoliz furanovykh soyedineniy)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1958, Nr 3, pp. 309 - 315 (USSR)

ABSTRACT: With the example of the preceding experiments the authors this time performed the hydrogenation of the mixtures of some α-alkyl- and α-alkenyl-furans at 235°C. It was assumed that at this temperature an absolute splitting of the furan cycle must take place. Then products of the hydrogenolysis should form. This assumption was confirmed by the experiments. Moreover a new result of theoretical as well as practical importance was attained: It became evident that the C-C-bond 3-4 readily splits up at 235°C, but that at a lower temperature (175°C) a hydrogenolysis of this bond does not occur. In this experiment the hydrogenation of the mixture of α-n.butyl- and α-butenyl-furanes (235°C) was performed in a flow-system under ordinary pressure. In the presence of the

Card 1/2

62-58-3-9/30

The Catalytic Hydrogenolysis of Furan Compounds

skeleton nickel catalysts a complete splitting of the furan--cycle in these compounds takes place. It was further found that the furan-cycle in these compounds is subjected to hydrogenolysis in the direction of the split of the C-O bond 1-5, as well as in the direction of the split of the bond 1-5 and 4-5 as well as 1-5 and 3-4. It was found that the relative stability of the different bonds in the cycle of α-n.butyl- and α-n.amyl-furans depends on the length of the side chain. The authors obtained some data according to which the mechanism of the radicals of the hydrogenolysis reaction of the furan-cycle can be assumed. There are 3 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute for Organic Chemistry imeni N. D. Zelinskiy, AS USSR)

SUBMITTED: October 27, 1956

Card 2/2

BEL'SKIY, I.F.

AUTHORS: Shuykin, N. I., Bel'skiy, I. F. 62-58-4-22/32

TITLE: Hydration of Alkyl α-Furylcarbinols on Ni-ZnO-Catalysts (Gidrirovaniye alkil α-furilkarbinolov na Ni-ZnO-katalizatore)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1958, Nr 4, pp. 506-507 (USSR)

ABSTRACT: The hydration of alkylfurylcarbinols can take place in various directions according to the nature of the catalyst and the conditions of reaction. Lately the authors found (Reference 3) that the primary reaction in the hydration of alkylfurylcarbinols is not an hydration of binary bindings within the cycle but a reduction of the hydroxyl α-group which leads to the formation of α-alkylfurans. In the present paper the authors report on the investigated hydration of alkylfurylcarbinols in gas phase on a Ni-ZnO-catalyst. In this they found that this catalyst (like paladinized charcoal) effects as primary reaction the reduction of the hydroxyl group in alkylfurylcarbinols without touching the divisible bindings

Card 1/2

Hydration of Alkyl α-Furylcarbinols on Ni-ZnO--Catalysts 62-58-4-22/32

in the furan cycle.
There are 1 table and 3 references, 1 of which is Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute for Organic Chemistry imeni N. D. Zelinskiy, AS USSR)

SUBMITTED: November 18, 1957

AVAILABLE: Library of Congress

1. Alkylfurylcarbinols—Hydration 2. Ni-ZnO—Catalysts —Applications

Card 2/2

BEL'SKIY, I.F.

SHUYKIN, N.I.; BEL'SKIY, I.F.

Catalytic dehydration of tetrahydrofuran homologues. Dokl. AN Azerb. SSR 14 no.2:115-117 '58. (MIRA 11:4)

1.Institut organicheskoy khimii AN SSSR.
(Furan) (Dehydration (Chemistry))

SOV/ 20-120-3-31/67

AUTHORS: Shuykin, N. I., Corresponding Member, Academy of Sciences, USSR, Bel'skiy, I. F.

TITLE: Isomeric Transformation of γ-Oxides (Tetrahydrofuranes) of Aliphatic Carbonyl Compounds (Izomerizatsiya γ-okisey (tetragidrofuranov) v alifaticheskiye karbonil'nyye soyedineniya)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 3, pp. 548-551 (USSR)

ABSTRACT: Several chemical transformations of alkylene-oxides are under the action of various agents connected with an easily proceeding cleavage of the α-oxide cycle. The reaction mentioned in the title is among those well studied. It proceeds from a heating to 300-500° or lower temperatures in the presence of catalysts. Asymmetric α-oxides, which possess one or two alkyl-substituents at one single carbon atom of the cycle, by a cleavage of the cycle are isomerized preponderatingly at that binding, which links the oxygen atom to that carrying the substituent. This leads to the formation of aldehydes (Ref 1). No analogous reaction was knwon to take place with the compounds mentioned in the title. The catalysts, which

Card 1/3

Isomeric Transformation of γ-Oxides (Tetrahydrofuranes) of Aliphatic Carbonyl Compounds

are most active in the isomerization of α-oxides, with hydrofurane and its analogs lead to a dehydration reaction. It yields diene- and aromatic hydrocarbons. The authors performed the transformation reactions of tetrahydrofurane and of its α-substituents on platinated coal in the vapor phase at from 230-250°. They found that these substances under these conditions isomerize to aliphatic carbonyl compounds with a simultaneous cracking of the cycle at the C-O links. Conclusions: 1) The α-oxide ring (tetrahydrofurane ring) is capable of the last mentioned transformations, by which aliphatic carbonyl compounds are formed. 2) If an alkyl radical (CH_3, C_2H_5, n-C_3H_7) is present in an α-position of the tetrahydrofurane cycle, the isomerization of the γ-oxide primarily (up to 90-95 %) takes place with a cracking of the cycle at the C-O link. This leads to the formation of corresponding aliphatic ketones. 3) The aldehydes, which are produced in small amounts in the isomerization of tetrahydrofurane and of α-alkyltetrahydrofuranes, suffer a cleavage at the C-O link 1,2 and are subject to a decarbonylation to the corresponding paraffin hydrocarbons under the prevailing reaction conditions.