

USSR / Microbiology - Microbes Pathogenic to Humans
and Animals

F-4

Abs Jour: Referat. Zh. Biol., No. 1, 1958, 745

tuberculous culture of mouse type Ov 584 -- 4
times. Individual ranges of weight in animal
omentum within each group were more pronounced
the higher the level of the strain's residual
virulence.

Card 2/2

USSR / Microbiology - Microorganisms Photogenic to Humans and Animals. F-4

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38478.

Author : Nakhimson, L. I., Gnevysheva, E. F.

Inst : Not given.

Title : Repeated Desensitizing BCG Vaccinations Against Tuberculosis.

Orig Pub: Zh. mikrobiol., epidemiol. i immunobiologii, 1957, No 7, 23-28.

Abstract: A cutaneous weekly vaccination of guinea pigs for a period of 44 weeks by a fresh liquid culture of BCG, containing 20 mg microorganisms/ml., retarded development of lethal generalized infection,

Card 1/2

NAKHIMSON, L.I., ROZENBERG, A.M.

Increase in the effectiveness of enteral BCG vaccination. Zhur.
mikrobiol. epid. i immun. 29 no.9:58-64 S'58 (MIRA 11:10)

1. Iz Gosudarstvenno kontrol'nogo instituta imeni Tarasevicha.
(BCG VACCINATION,
enteral, increased effectiveness (Rus))

NAKHIMSON, L.I., prof.; GNEVYSHEVA, Ye.F.

Comparative studies of various BCG strains. Probl.tub. 37 no.6:
91-98 '59. (MIRA 13:2)

1. Iz laboratorii protivotuberkuleznykh preparatov (zaveduyushchiy
L.I. Nakhimson) Gosudarstvennogo kontrol'nogo instituta syvorotok
i vaksin imeni Tarasevich (direktor L.S. Ogloblina).
(MYCOBACTERIUM BOVIS)

NAKHIMSON, L.I.; KOZHEVNIKOVA, T.P.

Differentiated evaluation of the immunogenicity of BCG vaccine under experimental conditions. Zhur.mikrobiol.epid.i immun. 33 no.5:35-41 My '62. (MIRA 15:8)

1. Iz Gosudarstvennogo kontrol'nogo instituta meditsinskikh biologicheskikh preparatov imeni Tarasevicha.
(BCG VACCINATION)

NAKHIMSON, L.I.; KOZHEVNIKOVA, T.P.; ROZENBERG, A.M.

Serviceability period of the dry BCG vaccine. Vak. 1 syr. no.1:179-
184 '63. (MIRA 18:8)

1. Gosudarstvennyy kontrol'nyy Institut Im. Tarasevicha.

NAKHIMSON, L.I., doktor med. nauk; ROZENBERG, A.M., kand. med. nauk

Phtivazid resistant BCG strain and its characteristics. Probl.
tub. 41 no.9: 61-67 '63 (MIRA 17:4)

1. Iz laboratorii protivotuberkuleznykh preparatov (zav. -
doktor med. nauk L.I.Nakhimson) Gosudarstvennogo kontrol'nogo
instituta meditsinskikh biologicheskikh preparatov imeni L.A.
Tarasevicha (dir. - L.S. Ogloblina), Moskva.

NAKHIMSON, L.I., doktor med.nauk; ROZENBERG, A.M., kand.med.nauk

Effect of tuberculin desensitization on tuberculosis resistance in BCG-vaccinated guinea pigs. Probl. tub. no.2:84-87 '64.

(MIRA 17:12)

1. Kontrol'nyy institut meditsinskikh biologicheskikh preparatov imeni L.A.Tarasevicha, Moskva.

NAKHIMSON, L.I.; KOZHEVNIKOVA, T.P.; YABLOKOVA, T.E.

Effect of lasting storage in lyophilized state on the basic properties of the ECG vaccinal strain. Zhur. mikrobiol., epid. i immun. 42 no.1:52-57 Ja '65. (MIRA 18:6)

1. Gosudarstvennyy kontrol'nyy institut meditsinskikh biologicheskikh preparatov im. L.A. Tarasevicha.

LENIN, I.M., doktor tekhn. nauk, prof.; MALASHKIN, O.M., kand.
tekhn. nauk; SAMOL', G.I., kand. tekhn. nauk; MEL'KUMOV,
T.M., doktor tekhn. nauk, prof.; NAKHIMSON, V.A., red.
izd-va; YEGORKINA, L.I., red.izd-va; EL'KIND, V.D., tekhn.
red.

[Fuel feed systems of motor-vehicle and tractor engines]
Sistemy toplivopodachi avtomobil'nykh i traktornykh dvi-
gatelei. Moskva, Mashgiz, 1963. 312 p. (MIRA 16:12)
(Motor vehicles--Fuel systems)
(Tractors--Fuel systems)

NAKHIMZHAN, Oskar Emzich; SOBOLEVSKIY, V.I., kand. geol.-miner. nauk,
red.; MANOLE, M.G., red.; TYAGUNOVA, Z.I.; red.; PLAKSHE,
L.Yu., tekhn. red.

[Dictionary of mineralogical terms in five languages] Piatiazych-
nyi slovar' mineralogicheskikh nazvaniy. Pod red. Sobolevskogo,
V.I. Moskva, Glav. red. inostr. nauchno-tekhn. slovarei Fizmatgiza,
1962. 347 p. (MIRA 16:3)
(Dictionaries, Polyglot) (Mineralogy--Dictionaries)

NAKHIN, B.

84-9-37/47

AUTHOR: Nakhin, B.

TITLE: An Unselfish Deed (Samootverzhenny postupok)

PERIODICAL: Grazhdanskaya Aviatsiya, 1957, Nr 9, p. 35 (USSR)

ABSTRACT: Aircraft commanders Mozhayev and Tsarev and acting chief engineer of the airport, comrade Teneshev, are commended for their devotion to duty: they saved the hydroplane which was torn away from the mooring in the sea-plane base of the Salekhard airport. This was caused by wind blowing with a velocity of 20 meters per second.

AVAILABLE: Library of Congress

Card: 1/1

NAKHINSON, I.M.; LEV, A.S.

Rapid method of determining bacteriological pollution of
water by means of impressions of microcolonies. Lab, delo
5 no.2:43-44 Mr-Apr '59. (MIRA 12:5)
(WATER--BACTERIOLOGY)

ACC-NR: AP6021585

(N)

SOURCE CODE: UR/0402/66/000/003/0372/0372

AUTHOR: Nakhinson, I. M.; Dobraya, T. Ye.; Yashek, Kh. N.

ORG: Virology Laboratory, Kharkov Regional Epidemiological Station (Virusologicheskaya laboratoriya Khar'khovskoy oblastnoy sanepidstantsiya)

TITLE: Influenza viruses identified at the Virology Laboratory of the Kharkov Regional Epidemiological Station in 1965

SOURCE: Voprosy virusologii, no. 3, 1966, 372

TOPIC TAGS: virology, influenza virus, A2 virus, B virus, *VIRUS, HISTOLOGY*

ABSTRACT:

Eleven strains of influenza virus were isolated from living and dead tissues. Ten of these were type A2 and one, type B viruses. They were successfully freed from the tissue culture cells by trypsinization, while use of hydrocortisone was ineffective for isolating viruses.

[W.A. 50; CBE No. 10]

SUB CODE: 06/ SUBM DATE: none/

Card 1/1

NAKHLAS, S.M.

Consultation. Tekst, prom. 20 no.1:95 Ja '60.
(MIRA 13:5)

1. Glavnyy mekhanik fabriki imeni F.E.Dzerzhinskogo.
(Textile machinery)

NAKHLIK, B.

Nakhlik, B.

"Investigation of the vapor-stream injector." Min Higher Education USSR.
Moscow Order of Lenin and Order of Labor Red Banner Higher Technical
School imeni Bauman. Moscow, 1956. (Dissertation for the Degree of
Candidate in Technical Sciences).

Knizhnaya letopis'
No. 21, 1956. Moscow.

MAKHLOPIN, N. I. Cand. of Vet. Sci.
State Institute of Veterinary Dermatology
"On necrobacillosis of lower parts of the
extremities of sheep."
SO: Veterinariia 25(12), 1948, p. 13

NAKHLUPIN, Yu. G.

Hoof Diseases of Sheep, Moscow, State Agricultural Press, 1950, 80 pages with illustrations, 1 ruble 40 kopeks, Copies -- 15,000.

SO: [REDACTED] Report, U-4724, Sept. 30, 1953, [REDACTED] (Veterinaryiya, No. 4, Apr. 1951, pp. 60-61, Moscow.)

1. NAKHILUPINA, A. G.
2. USSR (600)
4. Leghorns (Poultry)
7. Kuchino leghorns. Ptitsevodstvo no. 2 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

USSR/Farm Animals - Domestic Fowls.

Q-4

Abs JCur : Ref Zhur - Biol., No 7, 1958, 30977

Author : Volkov D.I., Gorodkova N.Ye., Nakhlupina A.G.,
Shapovalov Ya. Ya.

Inst : -

Title : A New Breed Group of Chickens of an All-Purpose Type -
Kuchinskiye Yubileynyye.
(Novaya porodnaya gruppa kur obshchepol'zovatel'nogo
tipa - kuchinskiye yubileynyye).

Orig Pub : Ptitsevodstvo, 1957, No 6, 19-23

Abstract : The methods of raising the breed and the characteristics
of its exterior, meat quality, egg-laying capacity
(about 175 eggs a year), and area of occurrence are des-
cribed.

Card 1/1

PENIONZHKEVICH, E.E., prof., doktor biologicheskikh nauk; SAVEL'YEV, I.K.,
kand.sel'skokhozyaystvennykh nauk; TRET'YAKOV, M.P., prof.,
doktor sel'skokhozyaystvennykh nauk; MAKHLUPINA, A.G., kand.
sel'skokhozyaystvennykh nauk

Zagorsk group of chicken breeds. Ptitsevodstvo 8 no.8:23-29
Ag '58. (MIRA 11:10)

(Poultry breeds)

NAKHLUPINA N. Ye.

USSR / Farm Animals. Poultry.

Q-4

Abs Jour: Ref Zhur-Biol., No 23, 1958, 105749.

Author : Nakhlupina, N. Ye., Shapovalov, Ya. Ya.

Inst : Not given.

Title : Experience in the Breeding of All-Purpose Fowl Breeds at the Kuchinsk Fowl-Sovkhoz.

Orig Pub: Ptitsevodstvo, 1956, No 8, 15-19.

Abstract: Data concerning live weight, egg production and weight of eggs of the hens of the following breeds are given: New Hampshires, Avstralorps, and White Plymouth Rocks, which are being raised on the Kuchinsk Poultry Sovkhoz since 1945. The conditions of their management and feeding are likewise described. As a conclusion it is pointed out that on the other farms these breeds of chickens did not develop as might be expected

Card 1/2

GRIGORES KU, I.; NAKHMAN, M.

Reflection of Cu-Sn alloys produced by the simultaneous condensation
of vapors of the components on a backing. Fiz.tver.tela 1 no.5:
808-813 My '59. (MIRA 12:4)
(Copper-tin alloys--Optical properties)

NAKHMAN, Yu.V., inzh.

Effect of wet steam on the efficiency of a turbine stage. Izv.
vys. ucheb. zav.; energ. 6 no.3:109-111 Mr '63. (MIRA 16:5)

1. Tsentral'nyy kotloturbinnyy institut imeni I.I.Polzunova.
(Steam turbines)

NAKHMAN, Yu.V., inzh.

Equations for analyzing the flow of wet steam. Izv. vys. ucheb.
zav.; energ. 6 no.9:59-65 S '63. (MIRA 16:12)

1. Tsentral'nyy kotloturbinnyy institut imeni I.I. Polzunova.

PAVLOVSKIY, G.I.; BRATUTA, E.G.; NAKHMAN, Yu.V.

Rate of a subsonic moist-steam flow through cascades of nozzles.
Inzh.-fiz. zhur. 7 no.12:79-82 D '64 (MIRA 18:2)

1. Politëkhnichesky institut imeni Lenina, Khar'kov.

BAYVEL', L.P., inzh.; ZILBER, T.M., inzh.; KOSYAK, Yu.F., inzh.; LAGUNOV, A.S.,
inzh.; NAKHMAN, Yu.V., inzh.

Some results of the measurement of the degree of steam moisture
using an experimental low-pressure steam turbine. Energomashinostroeni
10 no.8:37-39 Ag '64. (MIRA 17:11)

KOSYAK, Yu.F., inzh.; NAKHMAN, Yu.V., inzh.; ZIL'BER, T.M., inzh.; YUDIN, A.N.,
inzh.

Study of the moisture collectors of low-pressure turbine stages.
Energomashinostroenie 11 no.9:10-12 S '65. (MIRA 18:10)

NAKHMANOVICH, A.L.; PONOMAREVA, A.T., kand.sel'skokhoz. nauk

Fertilizing system based on agrochemical mapping of soils. Zemle-
delie 25 no.9:42-46 S '63. (MIRA 16:9)

1. Kazakhskiy institut zemledeliya. 2. Predsedatel' kolkhoza imeni
XXII s'yezda Kommunisticheskoy partii Sovetskogo Soyuza, Dzhambul-
skoy oblasti (for Nakhmanovich).

(Kazakhstan--Soils--Composition)
(Kazakhstan--Fertilizers and manures)

VERESHCHAGIN, L.I.; VASIL'YEV, Ye.K.; NAKHMANOVICH, A.S.; KOTLYAREVSKIY, I.L.

Catalytic production method and some physical characteristics
of 2,4- and 2,6-dimethylpyridine and 2,4,6-trimethylpyridine.
Izv. Sib. otd. AN SSSR no.6:89-94 '59. (MIRA 12:12)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR.
(Pyridine)

KALABINA, A.V.; CHISTYAKOVA, G.G.; KARAVAYEVA, V.M.; SHEPOT'KO, O.F.;
NAKHMANTOVICH, A.S.

Synthesis and transformations of vinyl aryl ethers. Report No.9:
Preparation of vinyl ethers from phenols of tar obtained in the
semocoking of Chermkhovo coals. Izv. Fiz.-khim. nauch.-issl.
inst. Irk. un. 4 no.2:153-166 '59. (MIRA 16:8)

(Ethers) (Phenols) (Coal Tar)

24(7)

SOV/51-6-6-17/34

AUTHORS: Shergina, N.I., Kuznetsova, V.P., Nakhmanovich, A.S. and Kalechits, I.V.

TITLE: Absorption Spectra of Phenols in the Ultraviolet Region (Spektry pogloshcheniya fenolov v ul'trafiol'etovoy oblasti)

PERIODICAL: Optika i spektroskopiya, 1969, Vol 8, Nr 6, pp 803-806 (USSR)

ABSTRACT: Absorption spectra of 22 phenols have already been reported (Refs 5, 6). In the authors' laboratory a technique of quantitative determination of the composition of phenol mixtures C₆-C₈ (Ref 7) was developed and certain C₉ and higher phenols were prepared and studied (measurements were made using a quartz spectrophotometer SF-4 and pure iso-octane was used as the solvent). In this way experimental material on absorption spectra of 31 phenols was assembled: Fig 1 shows positions of the absorption maxima in all these phenols. In the majority of them the absorption maxima occur at 271, 272, 278, 279, 284 and 285 mμ. The table on p 805 shows the displacements of the wavelength of the fundamental maximum when various substituents are introduced at ortho-, meta- and para-positions. Introduction of methyl, ethyl, propyl and allyl at the ortho-position of the phenol hydroxyl group leads to a small bathochromic effect which is practically the same in all cases. Introduction to similar alkyl substituents at the meta-position

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Absorption Spectra of Phenols in the Ultraviolet Region

SOV/51-6-6-17/34

increases somewhat the bathochromic displacement. The greatest bathochromic effect is observed on introduction of alkyl substituents at the para-position. The same displacement is observed on introduction of alkyl substituents into ortho-, meta- and para-cresols. This shows that the length of the side chain of the substituent or presence of a double bond in it do not affect, to any great extent, the absorption curve, while the type of the substituent changes both the form and the position of the absorption bands. The authors discuss also other effects which can be deduced from the data of Fig 1 and relate them to molecular structure. There are 3 figures, 1 table and 8 references, 2 of which are Soviet, 4 English and 2 German.

Card 2/2

NARKHMAUOVZCH, A.S.

S (S)

C/000/99/005/05/000/010
FOUO/ROO

H. I. Nurmaja, T. P. Kuvitskii, A. G. Zakharenko, I. V. Zakharenko

Studies on Ultraviolet Spectra of Phenolic Compounds

Russ Zhurh Khim Fiz, 1969, Vol 45, Nr 5, Pt 2, 1-25

This study describes the spectral effects produced by various substituents like the hydroxyl group (OH), methyl (CH₃), ethyl (C₂H₅), and propyl (C₃H₇) groups on the ultraviolet spectra of phenolic compounds. The authors report on the effects of such substituents on the absorption maxima and molar absorptivities of the compounds. The study was carried out using a Beckman DU-40 ultraviolet spectrophotometer equipped with a 1000-Watt tungsten lamp and air cooling. The solvent is benzene. The slit width is 0.25 to 1.0 mm, the cell is 1 cm. The wavelength of the analytical method is about 1.75. A substitution method is used to determine the molar absorptivities of the compounds. The absorption bands found are: 2,4-dihydroxyphenol, 2,6-dihydroxyphenol, and 2,4,6-trihydroxyphenol. The substituents in the para position

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possesses a stronger effect than that in the ortho or meta position. p-Toluenes or xylenes substituted artificially with ortho or meta related compounds can be practically determined by the ultraviolet spectra method. Table 1 shows the physical constants of 21 phenolic compounds explored. Table 2 shows the absorption ratios and peak heights of the 21 phenolic compounds. Table 3 illustrates the displacement effects of substituents on the ultraviolet spectra of phenolic compounds. Table 4 shows the analytical results of determining the molar absorptivities of various phenolic compounds. Table 5 shows the analytical results of artificial mixtures. There are 11 figures showing absorption curves of various phenolic compounds and curves of various artificial mixtures. There are 21 references (6 American, 11 Russian, 3 German, 1 Japanese, 1 British, 1 Chinese).

Card 2/2

OKIADNIKOVA, Z.A.: NAKHMANOVICH, A.S., SHERGINA, N.I.

Infrared spectroscopic investigation of the chemical mechanism governing the transformations of the high molecular fraction of semicoke tar under conditions of destructive hydrogenation. Trudy Vost.-Sib.fl.AN SSSR no.26:39-44 '59. (MIRA 13:6)
(Coal tar--Spectra) (Hydrogenation)

S/678/61/000/038/004/009
AO57/A126

AUTHORS: Sidorov, R.I., Trotsenko, Z.P., Nakhmanovich, A.S.

TITLE: Investigation of the composition of industrial liquid-phase hydrogenation products. Report 5. Investigations of the composition of mixtures of aromatic hydrocarbons of the liquid-phase hydrogenation products obtained from heavy oil of medium-temperature tar of Cheremkovo coal

PERIODICAL: Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromatischeskikh uglevodorodov v protsesse destruktivnoy gidrogenizatsii., 68 - 76 ✓

TEXT: Mixtures of aromatic hydrocarbons were investigated, separated from an industrial liquid-phase hydrogenation product of a heavy oil of medium-temperature coal tar from Cheremkovo, which was studied already in an earlier paper [Ref. 1: Trudy Vostochno-Sibirskogo filiala SO AN SSSR, Seriya khimicheskaya, 18, 5 (1959)]. The purpose was to determine the homologous series of

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S/678/61/000/038/004/009
A057/A126

Investigation of the composition.....

aromatic hydrocarbons and their quantity in these mixtures. The mixtures were distilled on laboratory rectification columns, and the fractions obtained were specified by refraction indices, specific and molecular weight, by ultra-violet absorption spectra, and qualitative picric acid tests. Some fractions were identified by the n-d-M method (Van Nes - Van Westen's method). Tetralin was determined by N.D. Zelinskiy's dehydrogenation method. Tabulated results of 56 fractions of samples 1 - 3 show a content (in relation to the total neutral part of the product) of homologous series of: 7.7% benzene, 7.4% indane, 14.6% tetralin, and naphthalene. No compounds of the homologous series of diphenyl and cyclohexylbenzene could be observed. The fractions of sample 4 (boiling at 210 - 320°C) show a considerable complex composition. They contain a small amount (0.3%) of compounds of the benzene series, compounds with one aromatic and one naphthenic ring, compounds with two aromatic rings (among these naphthalene), and some with simultaneous two aromatic and one naphthenic ring (probably acenaphthenes, and possibly fluorenes). Fractions boiling above 320°C contain neutral oxygen compounds of a homologous series represented by the formula $C_nH_{2n-18}O$. By chromatographic separation of a fraction boiling at 420° - 520°C, an oxygen compound containing C - 87.6%, H - 6.26%, and O - 6.14%

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Investigation of the composition.....

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was isolated. Assuming also a single oxygen atom in the molecule, the authors suggest the formula $C_nH_{2n-24}O$ for the homologous series. Thus, apparently, the latter belongs to the aforementioned type of oxygen compounds, but contains a fourth benzene ring. There are 1 figure and 3 tables.

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33607

S/678/61/000/038/007/009

A057/A126

5.3300

AUTHORS: Sidorov, R.I., Khvostikova, A.A., Nakhmanovich, A.S.,
Shergina, N.I.

TITLE: Investigation of the composition of industrial liquid-phase
hydrogenation products. Report 8. Composition of highly con-
densed aromatic hydrocarbons

PERIODICAL: Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya
khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromati-
cheskikh uglevodorodov v protsesse destruktivnoy gidrogenizat-
sii., 95 - 102

TEXT: The composition of high-molecular aromatic hydrocarbons, pres-
ent in a liquid-phase hydrogenation product obtained from medium-temperature
semicoke tar, is investigated and the content of hydrocarbon "types" determined
in the present paper, which is part of a series of reports. The investigation
concerns a liquid-phase hydrogenation product obtained under industrial conditions
from a heavy oil of medium-temperature tar of Cheremkovo coal. The product con-
tained 4.6% water, 10.9% phenols, 2.4% bases and loss, and 82.1% neutral oil.

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S/678/61/000/038/007/009
A057/A126

Investigation

The latter was separated by fractional distillation, initially at atmospheric pressure up to 320°C (69.7%) and then the fraction in vacuum at 360 - 420°C (20.0%). This fraction was then chromatographically separated into four concentrates and thoroughly investigated. A total amount of 0.55% pyrenes, 2.48% phenanthrenes, and 0.56% anthracenes was found. The latter two were determined by means of the Van Nes - Van Westen n-d-M method. Ultraviolet spectra of the liquid fraction indicate that compounds with condensed aromatic rings are prevailing. According to the n-d-M method they are chiefly of the 2A1N type, containing apparently homologues of tetrahydroanthracene, tetrahydrophenanthrene, and acenaphthene, i.e., compounds with two condensed aromatic rings. Also smaller amounts of the phenyltetralin, and fluorene type may be present. The study proved that the graphical method for the determination of composition has to be completed by data of ultraviolet spectra for high boiling hydrocarbon mixtures. The composition of the concentrate shows that compounds with two, or three naphthenic rings are absent, and the types 2A1N, 3A, 3A1N, and 4A are prevailing. There are 3 figures and 5 tables. ✓

Card 2/2

KALECHITS, I.V.; NAKHMANOVICH, A.S.; KAZANTSEVA, V.M.

Influence of the bond multiplicity on the hydrogenation
kinetics of polycyclic hydrocarbons. Kin. i kat. 4 no.3:
395-403 My-Je '63. (MIRA 16:7)

1. Institut nefte- i uglekhimicheskogo sinteza Sibirskogo
otdeleniya AN SSSR.

(Hydrocarbons) (Hydrogenation)
(Chemical bonds)

KALECHITS, I.V.; NAKHMANOVICH, A.S.

Hydrogenation kinetics of polycyclic hydrocarbons. Dokl. AN
SSSR 148 no.4:835-838 F '63. (MIRA 16:4)

1. Institut nefte- i uglekhimicheskogo sinteza Sibirskogo
otdeleniya AN SSSR. Predstavleno akademikom A.A. Balandinym.
(Hydrocarbons) (Hydrogenation)

BR

ACCESSION NR: AT4010611

S/3051/63/000/000/0166/0170

AUTHOR: Nakhmanovich, A. S.; Kalechits, I. V.

TITLE: Hydrogenation of polycyclic hydrocarbons and heterocyclic compounds over a platinum catalysts in the liquid phase

SOURCE: Kataliticheskiye reaktsii v zhidkoy faze. Trudy* Vsesoyuznoy konferentsii. Alma-Ata, 1963, 166-170

TOPIC TAGS: hydrogenation, catalytic hydrogenation, polycyclic hydrocarbon hydrogenation, heterocyclic ring hydrogenation, Adams platinum, catalytic hydrogenation solvent effect

ABSTRACT: In a continuation of earlier work, the authors studied the catalytic hydrogenation of benzene, biphenyl, tetracene, anthracene, naphthalene, 2,7-dimethylnaphthalene, 2,6-dimethylnaphthalene, 1,2-benzanthracene, pyrene, chrysene, phenanthrene, pyridine, quinoline, dipyridyl and quinaldine using Adams platinum in glacial acetic acid. The results at a hydrogen pressure of 2.5 atm. (abs.) showed that all of the reactions were first order with respect to hydrogen and 0 order with respect to the hydrogen acceptor. Figures for the rate constants, activation energies and bond multiplicities are given, and the relationship between structure and rate of hydrogenation is discussed. In another series of experiments,

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ACCESSION NR: AT4010611

hydrogenation in glacial acetic acid and decalin was compared and the latter was found to be strongly inhibitory, especially for the hydrogenation of naphthalene, anthracene and biphenyl. This is due to the fact that the decalin takes up a significant proportion of the active surface of the catalyst. Orig. art. has: 2 tables.

ASSOCIATION: Institut nefte- i uglekhimicheskogo sinteza Sibirskogo otdeleniya AN SSSR (Institute of Petroleum and Organic Chemical Synthesis, Siberian Section, AN SSSR)

SUBMITTED: 00

DATE ACQ: 25Jan64

ENCL: 00

SUB CODE: CH

NO REF SOV: 004

OTHER: 001

Card 2/2

NAKHMANOVICH B. M.

16

CA

fermentability of raffinose by yeasts of the race "Ya" during the manufacture of alcohol from molasses. B. M. Nakhmanovich and L. V. Kochkina (Liquor Inst., Kiev). *Biotekhnika* 16, 523-7(1951).--The "Ya" yeasts decomp. raffinose in aq. soln. to form fructose and melibiose. The fructose is fermented as completely and as rapidly as sucrose. The melibiose remains unaltered in the soln. The salts and N compds. in molasses do not affect the rate and completeness of the raffinose fermentation. H. Priestley

Kiev Affil., All Sci Res Inst. Alcohol

NAKHAMANOVICH, B.M.

Effect of stirring on the intensity of fermentation of syrup solutions. A. P. Berenshtein and B. M. Nakhmanovich. *Trudy Kiev. Filiala Vsesoyuz. Nauch.-Issledovatel. Inst. Spirtovol. Prom.* 1953, No. 1, 89-101; *Referat. Zhur., Khim.* 1954, No. 50842. — Laboratory expts. showed that stirring hastened appreciably the fermentation of syrups, particularly during the finishing stages when alc. is formed from intermediate products of sugar decompn. It also increased the yield of alc. because of more thorough sugar fermentation and did not affect the multiplication of yeast or its quality. Periodic shaking had a similar effect but to a much lesser degree. The beneficial effect of stirring is attributed to the removal of excess CO₂ from the mash, equal distribution of yeast, and the products of their activity and nutrients in the fermented liquid. M. Hoch

BERENSHTEYN, A.F.; NAKHMANOVICH, B.M.

Effects of mixing on fermentation activity of yeast cells, *Saccharomyces cerevisiae*, strain Ya, in nutrient molasses mash. *Mikrobiologiya* 22, 179-84 '53. (MLBA 6:3)
(CA 47 no.22:12750 '53)

1. All-Soviet Research Inst. Alcohol Ind., Kiev.

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✓ The recovery of spent wash in the fermentation in the acetone-butyl alcohol production. B. M. Nakhmanovich, S. G. Malinkin, K. K. Dokhlikov, and V. V. Semrevich (Acetone-Butyl Plant, Dokshukinsk). *Spirovaya Trava* 21, No. 4, 11-14 (1955).—Expts. were made with spent wash which showed the usual analysis for dry matter, reducing matter, pentosans, lactic and acetic acid, and N-contg. matter. It was found that in 2-3% cultures any addn. beyond 25% spent wash would act deleterious, but in 20% cultures up to 40% could be added. The findings were

applied for several months in actual plant operations, with no untoward results, for mashes both based on wheat and rye, as brought out by the final analyses for acetone, BuOH, and EtOH. Werner Jacobson

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~~NAK~~ NAKHMANDOVICH-B.M.

Bacteriophage of the acetone-butanol organism Clostridium acetobutylicum. B. M. Nakhmanovich, S. G. Malinkin, and V. V. Saakevich (Acetone Works, Dokshinsk). *Mikrobiologiya* 25, 77-83(1958).—Sudden fermentation stoppages, with normal pH but with lysis of *C. acetobutylicum* cultures, were traced to a specific bacteriophage with titer (most active specimen) 10^{12} . Fermentation stopped in 4 hrs. after inoculation with the phage, which loses activity slowly at room temp. or in repeated inoculations but keeps well around 0°. Complete inactivation takes 20 min. at 120°. Some cells become acclimated to the phage.

Julian F. Smith

MS 3

NAKHMANOVICH, B M

3007 Determination of acetone, butanol and
ethanol in mixtures. B M Nakhmanovich et al
N A Pyramshin

1-75

NAKEMANOVICH, B.M.

Partial substitution of food stuffs in the acetone-butyl industry.
Spir. prom. 23 no.4:10-14 '57. (MLRA 10:5)

1. Dokshukinskiy atsetonovyy zavod.
(Raw materials) (Acetone) (Butyl alcohol)

NAKHMANOVICH, B.M.; MALINKIN, S.G.; KOCHKINA, L.V.

Causes for different yields of solvents from rye and wheat starch in
acetone-butyl production. Trudy TSNIISP no.6:82-89 '58.
(MIRA 14:12)

(Starch) (Acetone) (Butyl alcohol)

NAKHMANOVICH, B.M.: SHCHEBLYKINA, N.A.

Quantitative determination of acetone, butyl and ethyl alcohols in
their co-existence. Trudy TSNIISP no.6:90-97 '58. (MIRA 14:12)
(Acetone) (Butyl alcohol) (Ethyl alcohol)

YAROVENKO, V.L.; NAKHMANOVICH, B.M.; SHCHEBLYKINA, N.A.; SHCHEBLYKIN, N.P.

Analysis of the battery method of fermenting in the manufacture of
butyl alcohol and acetone. Spirt. prom. 24 no.5:5-11 '58.
(Butyl alcohol) (Acetone) (MIRA 11:9)

NAKHMANOVICH, B.M.

Pentose hydrolysis of corncobs. Zhur. prikl. khim. 31 no.10:1572-1577
0 '58. (MIRA 12:1)

1. Nauchno-issledovatel'skaya laboratoriya Dokshukinskogo atsetonovogo
zavoda.

(Pentoses) (Corncobs) (Hydrolysis)

NAKHMANOVICH, B.M.; SHCHEBLYKINA, N.A.

Fermentation of pentoses from corncob hydrolysates by *Clostridium acetobutylicum* [with summary in English]. *Mikrobiologiya* 28 no.1: 99-104 Ja-F '59. (MIRA 12:3)

1. Dokshukinskiy atsetonovyy zavod, Nauchno-issledovatel'skaya laboratoriya.

(*CLOSTRIDIUM ACETOBUTYLICUM*)

(PENTOSE)

NAKHMANOVICH, B., kand.tekhn.nauk

Corn instead of flour. WTO 2 no.7:22 J1 '60. (MIRA 13:7)
(Corn (Maize)) (Synthetic products)

NAKHMANTOVICH, B. (Riga); SHCHEBLYKINA, N. (Riga); KALNINA, V. (Riga); PELSIS, D. (Riga)
Acetone-butyl fermentation of cornstalk hydrolyzates obtained by
the Riga method. In Russian, Vestis Latv ak no.3:135-140 '60,
(EEAI 10:7)

1. Akademiya nauk Latvyskoy SSR, Institut lesokhozyaystvennykh
problem i khimii drevesiny.
(Acetone) (Butyl alcohol) (Fermentation) (Corn(Maize))

^M
NAKHMANOVICH, B. (Riga); SHCHEBLYKINA, N. (Riga)

Study of hydrolyzates of agricultural plant refuse in acetone-butanol fermentation. In Russian. Vestis Latv ak no.5:125-128 '60. (EFAI 10:7)

1. Akademiya nauk Latvyskoy SSR, Institut lesokhozyaystvennykh problem i khimii drevesiny.
(Fermentation) (Plants) (Acetone) (Butyl alcohol)

NAKHMANOVICH, B.M.; SHCHEBLYKINA, N.A.

Use of raw vegetable wastes in the production of solvents.
Spir. prom. 26 no.1:31-33 '60. (MIRA 13:6)
(Vegetables) (Dokshukino--Solvents)

YAROVENKO, V.L.; NAKHMANOVICH, B.M.; SENKEVICH, V.V.

Theory of the continuous acetone - butyl alcohol fermentation.
Spiri.prom. 26 no.6:6-9 '60. (MIRA 13:11)
(Fermentation)

NAKHMANOVICH, B.M.; SHCHEBLYKINA, N.A.

Fermentation of calcium salts of acetic and butyric acids by
Clostridium acetobutylicum. Mikrobiologiya 29 no.1:67-72
Jan-F: '60. (MIRA 13:5)

1. Dokshukinskiy zavod, Nauchno-issledovatel'skaya laboratoriya.
(CLOSTRIDIUM metab.)
(ACETATES metab.)
(BUTYRATES metab.)

YAROVENKO, V.L.; NAKHMANOVICH, B.M.; SHCHEBLYKIN, N.P.; SENKEVICH, V.V.

Study of continuous acetone-butyl fermentation caused by
Clostridium acetobutylicum. Mikrobiologiya 29 no. 4:581-586
Jl-Ag '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut spirtovoy
promyshlennosti.

(CLOSTRIDIUM ACETOBUTYLICUM)

5.3500

77667
SOV/80-33-2-42/52

AUTHORS: Nakhmanovich, B. M., Sheheblykina, N. A.

TITLE: Brief Communications. The Study of Chemical Composition of Cobs of Several Species of Corn, as Pentosan Containing Raw Material

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2, pp 482-484 (USSR)

ABSTRACT: In the present work the chemical composition of 15 different species of corn cob, cultivated under the same soil and climatic conditions, was studied. Corn cobs containing a great amount of hydrolyzed polyssacharide are valuable industrial raw materials. There are 2 tables; and 6 Soviet references.

ASSOCIATION: Scientific-Research Laboratory of Dokshukinsk Acetone Plant (Nauchno-issledovatel'skaya laboratoriya Dokshukinskogo atsetonovogo zavoda)

SUBMITTED: July 29, 1959

Card 1/3

Brief Communications. The Study of
 Chemical Composition of Cobs of Several
 Species of Corn, as Pentosan Containing
 Raw Material

77667
 SOV/80-33-2-42/52
 Card 2/3

Table 1

a	b	c	d	e	f	g	h	i	j	k	l	m
n	11.11	44.1	32.8	76.9	40.1	45.8	29.5	1.27	1.19	—	+1.7	25.5
o	12.30	44.1	32.2	76.3	39.3	45.0	29.0	1.12	1.05	—	+0.9	23.0
p	13.51	42.6	29.4	72.0	39.0	44.7	26.5	1.48	2.30	—	+2.1	22.5
q	13.82	44.1	30.7	74.8	40.6	46.6	27.6	2.34	2.80	—	+2.5	23.4
r	12.21	44.1	28.7	72.8	40.1	45.9	25.8	2.38	2.37	—	+1.8	23.0
s	11.57	43.3	35.6	78.9	39.8	45.6	32.0	1.59	—	—	+2.3	23.0
t	11.84	43.3	28.7	72.0	41.9	48.0	25.8	2.32	2.70	2.79	+4.7	22.5
u	15.06	44.6	28.1	72.7	38.5	44.1	25.3	2.16	2.60	—	-0.5	25.0
v	13.31	43.3	29.4	72.7	40.4	46.3	26.5	1.59	2.80	—	+3.0	25.0
w	13.08	44.2	32.7	76.9	38.8	44.5	29.1	1.56	2.10	4.82	+0.3	24.0
x	13.12	43.3	29.4	72.7	39.4	45.1	26.5	1.90	2.01	—	+1.8	25.0
y	14.61	43.0	32.2	75.2	40.4	46.3	29.0	1.73	2.66	—	+3.3	21.0
z	11.68	42.6	31.6	74.2	42.5	48.7	28.4	1.08	2.40	1.30	+6.1	24.0
aa	11.64	44.1	29.2	73.3	40.9	46.9	26.3	1.26	3.69	—	+2.8	27.0
bb	11.52	44.6	31.1	75.7	41.8	47.8	28.0	1.73	2.10	—	+3.2	25.0

Brief Communications. The Study of
Chemical Composition of Cobs of Several
Species of Corn, as Pentosan Containing
Raw Material

77667
SOV/80-37-2-42/52

Table 1. Analysis of several species of corn cobs.
(a) Type of corn; (b) moisture; (c) easily hydrolyzed
(based on glucose); (d) difficultly hydrolyzed (based
on glucose); (e) total (easily and difficultly
hydrolyzed); (f) pentosanes; (g) pentosanes (based
on pentose); (h) cellulose; (i) total nitrogen
content; (j) ash content; (k) uronic acids; (l)
difference between pentoses and easily hydrolyzable
material; (m) amount of cobs (in % based on corn
ears); (n) Local white seed corn; (o) Cabardine
white "zubovidnaya"; (p) VIR-25; (q) Krasnodar 1/49;
(r) Cabardine 5/56; (s) Cabardine 7/56; (t)
Cabardine 8/56; (v) K_2ZnF_2 ; (w) Dneprovsk 3; (x)
Dneprovsk 3/56; (y) Dneprovsk 56; (z) Uspekh;
(aa) Collective; (bb) Sterling-Dneprovsk.

Card 3/3

NAIEMANOVICH, B.M.; SENKEVICH, V.V.; YAROVENKO, V.L.

Use of butyl bacteria for the fermentation of nonedible raw material.
Spirt.prom. 27 no.1:22-25 '61. (MIRA 14:2)
(Fermentation)

LIPSHITS, V.V.; NAKHMANOVICH, B.M.; SENKEVICH, V.V.; MEL'NICHENKO, L.A.

Fermentation of pentose-hexose hydrolysates of vegetable wastes
in a mixture with molasses by butylic bacteria. Mikrobiologiya
30 no.2:323-327 Mr-Apr '61. (MIRA 14:6)

1. Institut mikrobiologii AN USSR, Kiyev i Nauchno-issledovatel'skaya laboratoriya Dokshukinskogo atsetonovogo zavoda.
(ACETONE) (BACTERIA)

YAROVENKO, V.L.; NAKHMANOVICH, B.M.; SENKEVICH, V.V.; SHCHEBLYKIN, N.P.

Continuous acetone-butyl fermentation with an extended battery
charging cycle. Izv.vys.ucheb.zav.; pishch.tekh. 2:98-104 '62.
(MIRA 15:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut spirtovoy i
likerovodochnoy promyshlennosti.
(Fermentation) (Acetone) (Butyl)

NAKHMANOVICH, Boris Markovich, kand. tekhn. nauk; PETUKHOVA, I.T.,
red.; BARGI, T.M., tekhn. red.

[Preparation of solvents from corncobs] Poluchenie rastvo-
ritelei iz kukuruznoi kocheryzhki. Nal'chik, Kabardino-
Balkarskoe knizhnoe izd-vo, 1963. 53 p. (MIRA 16:10)
(Solvents) (Corncobs)

NAKHMANOVICH, B.M.

Determining fermenting sugars in beet-sugar molasses. Spirt.prom.
29 no.2:29-31 '63. (MIRA 16:3)

1. Dokshukinskiy atsetonomy zavod.
(Molasses) (Sugars—Analysis)

SHCHEBLYKIN, N.P.; NAKHMANOVICH, B.M.

Complete utilization of raw materials in the Dokshukino Acetone
Plant. Spirt. prom. 29 no.7:27-31 '63. (MIRA 16:12)

1. Dokshukinskiy atsetonovyy zavod.

NAKHMANOVICH, B.M.; LIPSHITS, V.V.; PAVLOVICH, L.A.

Fermentation of vegetable waste hydrolysates mixed with molasses by *Clostridium acetobutylicum*. Prikl. biokhim. i mikrobiol. 1 no. 6:635-639 N-D '65. (MIRA 18:12)

1. Institut mikrobiologii i virusologii AN UkrSSR. Submitted July 11, 1965.

NAKHMANOVICH, E.M.; YAROVENKO, V.I.; SHECHEBLYKIN, N.P.

Maintaining sterile conditions in the continuous acetone-butyl fermentation. *Ferm. i spirt.prom.* 31 no.5:28-33 '65.

(MIRA 18:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy Institut fermentnoy i spirtovoy promyshlennosti (for Nakhmanovich, Yarovenko).
2. Dokshukinskiy atsetenc-butilovyy zavod (for Shechblykin).

NAKHMANOVICH, MA

GERASIMOV, A.; NAKHMANOVICH, M.

Successfully complete bond payments. Fin.SSSR 16 no.4:41-43 Ap '55.
(Bonds) (MLRA 8:3)

SHINEV, I.S., kand.ekonomicheskikh nauk; NAKHMANOVICH, M.B., starshiy
nauchnyy sotrudnik

Efficient administration of forestry and lumbering in the sparsely
wooded regions of the country. Trudy TSNIIME no.32:3-38 '62.
(MIRA 15:5)

(Forests and forestry)

PROCESSES AND PROPERTIES INDEX

Methods for the clarification of sugar solutions for purposes of analysis. M. I. NASHMANOVICH AND S. L. BERMAN. *Monograph* 134 pp. (in Russian, with English summary).—This pamphlet reviews the previous literature concerning the effect of various clarifying agents on the rotation of the constituents of beet and cane products, and on the detn. of the polarization or of the sucrose content. The reagents considered are Pb salts (neutral, basic and dry Pb acetate, basic nitrate), animal char and decolorizing carbons, compds. of Al, Mg, Hg and W, oxidizing and reducing agents and acids; Wiechmann's electrolytic method is also given. A bibliography of 327 references is appended. . . . F. W. ZERRAN

1929

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

ca 28

NAKHMANOVICH, M. I. AND BERMAN, S. L.: Methods of Clarifying Sugar Solutions Preparatory to Polarizing Them (in Russian). Kiev, U. S. S. R.: Inst. for Sugar Industry. Reviewed in *Intern. Sugar J.* 31, 622(1923).

ASME-ISA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

27

CO

Investigation of the conditions for increasing the velocity of crystallization in "sugar loaves." M. I. NAKHMANOVICH AND I. P. ZHUKHMAN *Nauk. Zapiski Trud. Prom. 9, 450-92(1930)*.—A no. of expts. in different refineries in Russia showed that velocity of crystn. in sugar loaves greatly increases with a sharp decrease of the temp. The most convenient temp. in the cooling rooms is +8°-+10°. In summer the low temp. can be maintained with the aid of ventilating fans. The increased rate of the cooling does not affect the quality of the refined sugar. The hardness and the color of the latter remain practically the same as during the cooling of the sugar loaves at the higher temps. The bleaching of the sugar is normal. A no. of tables and diagrams are included.

V. V. BAIKOV

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Processes and Properties Index

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

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LL LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ

Processes and Properties Index

28

the quality of the sweet (wash) water from the bone-black filters. M. I. NAKHMANOVICH AND I. P. ZELIKMAN. *Nauk. Zapiski Tashkent. Prirodn. 10, 61 74 (1931).*—
 With a no. of expts. the following conclusion can be drawn: With decrease of the density, the proportion of non-sugars increases. The sweet water washes out from the chars the coloring matters adsorbed in the early stages of the filtration. Washing should be stopped when the sweet water decreases to 2.6 Brix (1.5-1.6% of sugar).
 V. E. BAIZOV

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

FROM 519-0121A

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

FROM 519-0121A

1ST AND 2ND GROUPS PROCESSES AND PROPERTIES INDEX

28

ca

Study of the bone-black filtration process. M. I. NAKHMANOVICH AND K. K. LYUBITSKIY. *Nauk. Zapiski Tsukrovos Prom.* 14, 127-70(1931). The smaller grains of bone black increase the decolorizing effect. After 20 hrs. of filtration the decolorizing power of large-size grains of bone black decreased 67% and small-size grains 42%. The smaller grains require less wash water. The decolorizing power decreases with increased adsorption of the color from highly colored liquors is smaller than from liquors with less color. Therefore, highly colored liquors should be of lower pH. The temp of the liquors has little effect upon decolorization. From 65° to 85° filtration. The decolorizing effect increases only by 23%. The pH of the acid liquors increases after filtration. The final pH of the liquors after filtration is generally very close to 7.5. The acid reaction of the liquors increases the reducing substances; with alk reaction they are decreased. The bone black adsorbs the reducing substances better from the acid liquors. Double filtration gives a greater decolorization effect: When 2 connected filters are filled with newly regenerated char, the double filtration gives 24% more decolorization than the single one. V. K. BAIKOV

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
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The iodometric method for the determination of glucose. M. I. NAKHMANOVICH, S. L. BERMAN AND H. O. LYUBIN. *Nauk. Zapiski Tsukrovol Prom* 14, 485-82 (1931). The iodometric method was improved by replacing the buffer soln. (0.2 M NaHCO₃ Na₂CO₃) with 25 cc. of 0.1 N NaOH. The complete method of analysis and a no. of tables showing the results of expts. are given. V. K. BAIKOV

COMMON ELEMENTS

NON-COMMON ELEMENTS

A.S.H.-S.L.A. 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

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PROCESSES AND PROPERTIES INDEX

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ca

The action of oxygen in the decomposition of alkaline solutions of sucrose. M. L. Nakhmanovich, S. L. Ber- man, M. S. Plakhotnik, I. I. Pietnik. *Nauk. Zapiski Tashirovi Prom.* 10, No. 32, 1-24(1933); cf. C. A. 28, 672. —CO₂-free air, blown through a 15% soln. of refined sugar heated with 0.4% CaO up to 90 during 3 hrs., decomp. 4.57% of sucrose. This was accompanied by formation of 0.77% Ca salts and decrease in alky. to 0.37% CaO. Unpurified air decomp. a smaller amt. of sucrose. The control expt. (with no air blown through the soln.) showed very little decompn. of the sugar. De- compn. is greater when the soln. contains a greater amt. of CaO. Heating of the soln. under the same conditions for 2, 4, 8, 16 and 24 hrs. with periodic addn. of Ca(OH)₂ for reestablishment of initial alky. showed that the process of oxidation is most intensive during the 1st 4 hrs. In the 1st hr. 0.6-0.8% of sucrose was decompd., 2.4% of Ca salts were formed and the color of the soln. attained 5 Stammer units. Without reestablishment of the initial alky., only 5.76% of sucrose was decompd. and 1.1% of Ca salts formed during 24 hrs. The color increased only up to 1.1 Stammer unit. The heating of a soln. in ab- sence of air decomp. 2.19% of sucrose after 24 hrs. The greater amt. of CaO in soln. increased the amt. of sucrose decompd. Without reestablishment of initial alky. the decompn. of sucrose is much slower. The effect of the air on more concd. solns. (30-60%) is much weaker. With increase of the temp. from 40° up to 100° under the same conditions, decompn. of sucrose increased from 1.44 to 4.1% and the Ca salts increased from 0.075 to 0.445%. The color increased. During manuf. the presence of the air during heating of the alk. solns. of sucrose may be the source of undetd. chem. losses. In order to decrease these losses it is advisable: (1) to control the satn. gas and check the amt. of contained O; (2) to exhaust the gas and to speed up the carbonation process, and also to control the temp. during the defecocarbonation; (3) in a process of microdotation to replace the air by CO₂.

V. E. Balkov

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ca

influence of the conditions of drying sugar beet cosettes in changing the pectin from an insoluble to soluble form. M. I. Nakhmanovich, S. L. Berman and M. S. Plakhotnik. *Nauch. Zapiski Sakharnoi Prom.* 37-38, 57 (6) (1934). --When the temp. of the cosettes during the drying period does not exceed 75°, sol. pectin increases very slightly. Dry cosettes contg. 5.5% moisture are stable and even 2 hrs. heating at 75° does not increase the original amt. of furfural-producing substances. Cosettes contg. more moisture (about 50%) are less stable because of hydrolysis of protopectins. Increase of temp. from 75° to 100° results in an accumulation of sol. pectin. Under the same conditions of drying, sol. pectin increases in thicker cosettes because of the slower dehydration.
V. B. Baikov

430-55A METALLURGICAL LITERATURE CLASSIFICATION

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<p>Pectins in sugar beets and in sugar manufacture. M. I. Nakhmanovich and S. L. Berman. <i>Nauch. Zapiski Sakhar'not Prom.</i> 12, Tech. Ser. No. 1/2, 11-27 (1935).— Araban, extd. with 70% alc. from hydropectin, is not hydrolyzed by heating 3 hrs. at 80° and pH 5.02. It remains intact after heating for 1 hr. at 85° in the presence of 0.2-0.3% CaO. All araban produced during defeca- tion and carbonation passes into the final molasses. V. E. Balkow 9</p>																									
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Observed changes in sugar beets during the vegetation period. M. I. Nakhmanovich and S. L. Bertman. *Nauch Zapiski Sakkarnoi-Prod., Tech. Ser.*, 13, 481-7 (1936). - Rapid increase of purity in sugar beets occurs during the early period of vegetation. Active acidity of the juice remains practically const. The amt. of total mark gradually increases while the sol. mark and pectin substances sharply decrease as ripening progresses. The amt. of albuminoids varies slightly, the fat content increases and colloids decrease during this period. Reducing substances decrease considerably at the time of ripening as does the total ash content. Na₂O decreases while CaO, MgO, Fe₂O₃, Al₂O₃ and P₂O₅ increase. V. P. Baklow

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99TH AND 100TH CODES

W *28*

Kinetics of decomposition reactions of glucose and fructose in presence of lime. M. I. Nakhmanovich and H. M. Nakhmanovich. *Nauch. Zapiski Sankharnoi Prom.* 4, 31 3-12 (1937).—The velocity of decomn. of glucose changes according to the law of unimol. reaction while fructose decomps. according to a reaction of the second order. Expts. show differences in velocity of decomn. of fructose and glucose at 20°, other conditions being exactly the same. Fructose decomps. about 3.5 times faster. The temp. coeff. for glucose is slightly greater than 6 at temps. between 20° and 30°.
V. E. Baikov

COMMON ELEMENTS

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Effect of some salts and sugars on crystallization of xylose sirups. M. L. Nakhmanovich, B. O. Lyubin, and D. M. Khal. Zhur. Priklad. Khim. (J. Applied Chem.) 23, 1331-5 (1951). Crystn. of xylose sirup is greatly accelerated by addn. of 0.5-2.0% Ca(OAc)₂; the sirup acquires a brown color, which becomes more intense with higher concns. of the salt. Ca formate causes a similar effect, but CaSO₄ hinders the initiation of crystn., but once started the process is more rapid than in controls. MgSO₄ shows no effect. Presence of other sugars and hemicellulose retards crystn.; arabinose is especially potent. Nonsugars cause a salting-out effect and hasten the crystn. in the beginning, but retard it in later stages. G. M. Koudapoll.

Nakhmanovich M.I., et al.

USSR/ Organic Chemistry - Naturally occurring substances
and their synthetic analogs

E-3

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11814

Author : Nakhmanovich M.I., Berman S.L.

Inst : Vologda Dairy Institute

Title : Enolization of Lactose in the Presence of Alkali (Communication 3).

Orig Pub : Tr. Vologod. molochn. in-ta, 1955, No 13, 193-201

Abstract : For a comparison of the capacity of different sugars to yield the enolic form, which may serve as a characteristic of their relative stability, experiments were carried out on heating lactose (I) in the presence of alkali, at temperatures close to 100°, and for lengths of time up to one minute. It was found that I has a high capacity for enolization which is probably connected with a more ready transition of I to the oxo-form, and consequently a higher reactivity, as well as with its biological significance and conversion to lactulose. To 10 ml of 0.25 M solution of I is added dry CaO to ~0.5 N concentration, and the slurry is placed into a glycerol bath (160°). Within 30-40 seconds the temperature of the solution reaches 95-98°, and heating

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USSR/ Organic Chemistry - Naturally occurring substances
and their synthetic analogs

E-3

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11814

I at 50° with NaOH, as a result of neutralization the % of enols is
decreased from 41.2 to 11.7 within 1 hour, and from 28.4 to 5.9%
within 2 hours.

Card 3/3

NAKHMANOVICH, Mark Il'ich, prof., doktor tekhn.nauk; BELIKOVA, L.S.,
red.; PEREDERiy, S.P., tekhn.red.

[Reactions of monosaccharides] Reaktsii monosakharidov.
Moskva, Pishchepromizdat, 1960. 168 p. (MIRA 14:3)
(Monosaccharides)

33488

S/195/61/002/005/013/027
E111/E485

5.1190

AUTHORS: Temkin, M.I., Nakhmanovich, M.L., Morozov, N.M.
 TITLE: Kinetics and mechanism of isotope exchange and gas
 reacting on the surface of solids

PERIODICAL: Kinetika i kataliz, v.2, no.5, 1961, 722-726

TEXT: Use of isotopes as tracer atoms permits direct observation of the different stages in a catalysed reaction. The object of the present work was to illustrate, with simple examples, the relation between the kinetics of reactions on the surface of solids and the kinetics of isotope-exchange processes. The simplest heterogeneous catalysed reaction can be written as



where A and B are reactants, X and Y reaction products, () is a vacant site on the surface and (I) a chemisorbed intermediate particle. Addition gives the overall reaction



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Kinetics and mechanism ...

The cases considered are those of the reaction of watergas, on a magnetite catalyst at 400 to 500°C, the reaction of carbon with CO₂, the isotope exchange by oxygen or carbon between carbon mono- and dioxide, the exchange of deuterium between water vapours and hydrogen. All these reactions can be considered particular cases of a general equation. If the adsorbed intermediate obeys the Langmuir isotherm this equation is

$$\omega = \frac{\kappa_1 P_A \kappa_2 P_B - \kappa_{-1} P_X \kappa_{-2} P_Y}{\kappa_1 P_A + \kappa_{-1} P_X + \kappa_2 P_B + \kappa_{-2} P_Y} \quad (19)$$

where ω is the rate of the reaction, κ_1 the rate constant of the first stage in the forward direction, κ_{-1} that in the reverse direction (κ_2 and κ_{-2} - same for the second stage), P_A the partial pressure of A (or the product of their partial pressures if several substances participate, and so on). If the intermediate compound adsorption follows a logarithmic isotherm, then

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Kinetics and mechanism ...

$$\omega = \frac{1}{f} \cdot \frac{\pi}{\sin \alpha \pi} \cdot \frac{x_1^0 p_A x_2^0 p_B - x_{-1}^0 p_X x_{-2}^0 p_Y}{(x_1^0 p_A + x_{-2}^0 p_Y)^\alpha (x_{-1}^0 p_X + x_2^0 p_B)^{1-\alpha}} \quad (20)$$

Here x_1^0 is the value of x_1 at the greatest adsorption energy of the intermediate compound, and so on; α is the proportionality coefficient between the change in the adsorption energy and the activation energy; f is the ratio of the adsorption-energy change range to RT. Both equations correspond to steady-state conditions. Eq.(20) is supported by some experimental data at medium degrees of surface coverage by the intermediate compound (e.g. Ref.4: V.A.Yevropin, N.V.Kul'kova, M.I.Temkin, Zh. fiz. khimii, v.30, 1956, 348). The authors report unpublished work on the reaction $\text{HDO} + \text{H}_2 \rightleftharpoons \text{HD} + \text{H}_2\text{O}$ in a flow system with water containing 2.2 or 2.5 atomic % deuterium. Since $\text{PHDO} \ll \text{PH}_2\text{O}$ and $\text{PHD} \ll \text{PH}_2$, it follows from Eq.(20) that for this reaction

$$\omega = k_1 p_{\text{HDO}} \left(\frac{p_{\text{H}_2}}{p_{\text{H}_2\text{O}}} \right)^m - k_2 p_{\text{HD}} \left(\frac{p_{\text{H}_2\text{O}}}{p_{\text{H}_2}} \right)^{1-m} \quad (22)$$

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Kinetics and mechanism ...

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whereby $m = \alpha$. Integration after substituting $dp_{HDO}/d\tau$ for ω (where τ is the contact time) gives

$$k_1 (p_{H_2}/p_{H_2O})^{m-1} = \frac{\ln \frac{[D]_{H_2O}/[D]_{H_2} + p_{H_2}/p_{H_2O}}{[D]_{H_2O}/[D]_{H_2} - K^{-1}}}{\tau (p_{H_2}/p_{H_2O} + K^{-1})} \quad (23)$$

Here $K = k_1/k_2$ is the equilibrium constant for the reaction. The equation was verified by the fact that linear relations were obtained between $\log k_1 (p_{H_2}/p_{H_2O})^{m-1}$ and $\log p_{H_2}/p_{H_2O}$ at constant temperatures for a variety of catalysts (porous nickel, nickel foil, porous cobalt, palladium foil, porous copper, porous silver, porous ferrous-ferric oxide). The values of m obtained were little dependent on temperature and were 0.5, 0.6, 0.3, 0.3, 0.8 and 0.8 to 1.0 for Ni, Co, Pd, Cu, Ag and Fe_3O_4 respectively. This sequence of catalysts also corresponds to the sequence of the absolute rate constant values, i.e. those calculated per unit surface. In order of magnitude, the absolute rate constant for deuterium exchange between water vapour and hydrogen or magnetite coincides with that for isotope exchange between carbon and carbon

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Kinetics and mechanism ...

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dioxide at the same temperature. It was previously shown (Ref.3: N.V.Kul'kova, E.D.Kuznets, M.I.Temkin, Dokl. AN SSSR, v.90, 1953, 1067) that the latter similarly coincides with that for the water-gas reaction. This confirms the stepwise catalysis mechanism. D.A.Frank-Kamenetskiy and A.F.Semechkova are mentioned in the paper. There are 1 figure and 8 Soviet-bloc references.

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

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Card 5/5

NAKHMANOVICH, M.L.; MOROZOV, N.M.; BUADZE, L.G.; TEMKIN, M.I.

Kinetics of the catalytic exchange of deuterium between water vapor and hydrogen on various surfaces. Dokl. AN SSSR 148 no.6:1346-1349 F '63.

(MIRA 16:3)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Predstavleno akademikom N.M.Zhavoronkovym.
(Catalysis) (Water vapor) (Deuterium)

NAKHMANOVICH, M.M.; TIMOKHINA, V., redaktor; NATAPOV, M., tekhnicheskiy
~~redaktor~~

[Production of carriages and wagons] Proizvodstvo povozok i khodov.
Moskva, Vsesoiuznoe kooperativnoe izd-vo, 1954. 145 p. (MIRA 8:5)
(Carriage and wagon making)

AUTHOR: Nakhmanovich, V.E. SOV/106-59-5-3/13

TITLE: Amplitude and Frequency Distortions in Oscillators with Frequency-Keying (Amplitudnyye i chastotnyye iskazheniya v avtogeneratorakh pri chastotnoy manipulyatsii)

PERIODICAL: Elektrosvyaz', 1959, Nr 5, pp 25-31 (USSR)

ABSTRACT: Investigation of distortions at the source of frequency-modulated signals has not received much attention, although distortions arising in keyed-frequency oscillators with large frequency shift can reach considerable values. The author considers an oscillator circuit which is widely used in frequency radio-telegraphy. The basic circuit is shown in Fig 1. A capacitance is switched into and out of the circuit, generally through a resistance (r_1 and r_2 which represent the direct and inverse resistances of the relay). The equivalent impedance of the circuit can vary considerably, depending on whether the keyed capacitor is connected to the circuit via r_1 or r_2 . In the general case, this will lead to parasitic amplitude modulation but by correct choice of the keyed capacitance C_g and of the

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SOV/106-59-5-3/13

Amplitude and Frequency Distortions in Oscillators with Frequency-
Keying

resistances r_1 and r_2 this parasitic amplitude modulation can be eliminated. Therefore, it is assumed in the article that the circuit equivalent impedance remains unchanged during the frequency modulation process. At the instant the capacitance is connected or disconnected from the oscillator circuit, transients arise, the duration and intensity of which are determined by the phase of the oscillation in the circuit at the instant of commutation. This dependence of the transients on the phase of the oscillation causes parasitic amplitude modulation of the high-frequency signal and distortion of the fronts of the keyed "frequency-pulse". Because the phase of the high-frequency oscillation at the instant of commutation will have a random value, the duration and magnitude of the transients will change from one frequency-pulse to the next. To investigate the character of the transients, it is necessary to solve the differential equation describing the operation of

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