

GUDKOVICH, Z.M.; NIKOLAYEVA, A.Ya.

Some results of studying the ice drift by the use of drifting radio
beacons. Probl. Arkt. i Antarkt. no.8:11-17 '61. (MIRA 15:3)
(Arctic regions--Sea ice) (Radio beacons)

NIKOLAYEVA, A.Ya.

Using wind data in compiling barometric charts. Probl. Arkt. i
Antarkt. no.12:55-99 '63. (MIRA 16:7)
(Arctic regions—Atmospheric pressure)

~~NIKOLAYEV, A.O.; NIKOLAYEVA, D.A.~~

New source of menthol. Med.prom. 12 no.4:21-24 An '59.
(MIRA 11:5)

1. Kishinevskiy gosudarstvennyy universitet.
(MINT (BOTANY) (ESSENCES AND ESSENTIAL OILS))

NIKOLAYEV, A.G.; ~~NIKOLAYEV, D.A.~~

Salvia peppermint in the selection of peppermint varieties with
a high menthol content. *Med. prom. SSSR* 14 no.12:17-22 D '60.
(MIRA 13412)

1. Kishinevskiy gosudarstvennyy universitet.
(PEPPERMINT)

NIKOLAYEVA, D. A., GOGOL, O. N., KUBRAK, M. N., BOONINA, Z. S.,
and NIKOLAYEV, A. G. (USSR)

"Chemical Variability in some Essential Oil Plants as a Result of
Interbreeding."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

KALECHITS, I.V.; NIKOLAYEVA, D.Kh.

Using stationary catalyst for destructive hydrogenation of high-molecular raw materials. Report 1: Liquefaction of certain components of tars and hydrogenates of coals in the presence of VCl_2 catalyst. Trudy Vest.-sib.fil.AN SSSR no.4:130-136 '56.

(Catalysts) (Hydrogenation)

(UDCA 9:12)

(Transition sulfides)

NIKOLAYEVA, D.Kh.; SIDOROV, R.I.

Study of the composition of industrial liquid-phase hydrogenates. Report No.2: Composition of the slime of the heavy-oil hydrogenate of the moderate temperature tar from Cherekhovo coal. Trudy Vost.-Sib.fil.AN SSSR no.18:14-20 '59.
(MIRA 12:10)

(Coal-tar products)

SIDOROV, R.I.; NIKOLAYEVA, D.Kh.; TROTSEKO, Z.P.

Study of the composition of industrial liquid-phase hydrogenates.
Report No.3: Composition of the tar hydrogenate obtained at 450°.
Trudy Vost.-Sib.fil.AM SSSR no.18:21-31 '59. (MIRA 12:10)
(Coal-tar products)

SIDOROV, R.I.; TROTSENKO, Z.P.; NIKOLAYEVA, D.Kh.

Study of the composition of industrial liquid-phase hydrogenates.
Report No.4: Composition of a hydrogenate of Chereukhovo coal.
Trudy Vost.-Sib.fil.AN SSSR no.18:32-41 '59. (MIRA 12:10)
(Coal-tar products)

NIKOLAYEVA, D.Kh.

Rate of hydrogenation of petroleum asphaltene. Trudy Vost.-Sib.
fil.AN SSSR no.18:78-80 '59. (MIRA 12:10)
(Asphalt) (Chemical reaction, Rate of)

33609

3/678/61/000/038/009/009

A057/A126

11.0132

AUTHORS:

Kalechits, I.V., Okladnikova, Z.A., Nikolayeva, D.Kh.

TITLE:

On the problem of relative hydrogenation rates of polycyclic aromatic hydrocarbons

PERIODICAL:

Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromati-cheskikh uglevodorodov v protsesse destruktivnoy gidrogenizatsii., 112 - 124

TEXT:

The relative hydrogenation rates of diphenyl, naphthalene, anthracene, phenanthrene, pyrene, chrycene, and corenene were determined in the presence of a nickel catalyst, or an industrial-iron catalyst in order to obtain direct proof on the effect of the condensation degree on hydrogenation rates of aromatic hydrocarbons. Hydrogenation rates of hydrocarbons were investigated before. The present experiments with a nickel catalyst were carried out to compare results with those obtained by M.S. Menteov [Ref. 3: Usp. khim., 7, 1635 (1938)] and Losovoy and Senyavin [Ref. 4: ZhOZh, 10, 1834 (1940); Ref. 5: ZhOZh, sb. I, 254 (1953)]. Hydrogenations on a nickel catalyst were carried out in a 1 1

Card 1/2

NIKOLAYVA, E., studentka III kursa.

Thermal analysis of chlorites. Ser.stud.rab. SAGU no.8:37-47
'54. (MIRA 9:5)

(Chlorites)

GUSEV, S.I.; NIKOLAYEVA, E.M.

Amperometric determination of molybdenum with a solution of
vanadium (II) salts. Zhur. anal. khim. 19 no.6:715-720 '64.
(MIRA 18:3)

1. Permakiy gosudarstvennyy meditsinskiy institut.

GUMVUSHEV, M.A.; NIKOLAYEVA, E.S.

Olivin and pyrope inclusions in Yakutian diamonds. Min. zhurn.
no. 12: 1440-1447 '58. (MIRA 13:2)

1. Amkinskaya ekspeditsiya Yakutskogo geologicheskogo
upravleniya.
(Yakutia--Chrysolite) (Yakutia--Pyrope)

OSVUSHEV, M.A. & NIKOLAYEVA, E.S.

*Solid inclusions in diamonds of Yakutian deposits. Trudy
IAPG 1962. Ser.geol. no.6:97-105 '61. (MIRA 14:9)
(Yakutia—Diamonds)*

NIKOLAYEVA, G. A.

Mashiny i pribory [Machinery and instruments]. Mashgiz, 1953. 146 p.

SO: Monthly List of Russian Acquisitions, Vol. 6 No. 8 November 1953

FIOLATINA, G.A. [deceased]

Approximate construction of conformal transformations by the method
of conjugate trigonometric series. Trudy mat. inst. 59:236-266
'59. (MIRA 12:9)

(Conformal mapping) (Fourier series)

KALINENKO, V.O.; BELOKOPIYTOVA, O.V.; NIKOLAYEVA, G.G.

Bacteriogenic formation of ferromanganese nodules in the
Indian Ocean, *Okeanologiya* 2 no.6:1050-1059 '62.
(MIRA 17:2)

1. Institut okeanologii AN SSSR.

RYABCHIKOV, P.I.; NIKOLAYEVA, G.G.

Settling of the larvae of the wood borer *Teredo navalis* L.
(Mollusca, Teredinidae) and water temperature in Gelendzhik Bay
of the Black Sea. Trudy Inst. okean. 70:179-185 '63.
(MIRA 17:7)

L 37157-66

ACC NR: AP6017283

This corresponds in principle to feasibility of locating the moderating inserts directly behind the lead shield of the thermal column of the IRT-2000 reactors in thermal-neutron fluxes $(1 - 2) \times 10^{13}$ neut/cm² sec. Orig. art. has: 2 figures, 13 formulas, and 6 tables.

SUB CODE: ¹⁸20/ SUMM DATE: 00/ ORIG REF: 010/ OTH REF: 005/

Card 2/2 of

SHLYK, A.A.; MASHENKOV, V.A. [Mashankou, V.A.]; NIKOLAYVA, G.N. [Nikalneva, H.N.]; PRIDNIKOVA, I.V. [Prudnikava, I.V.]; KUKHTENKO, T.V. [Kukhtsenka, T.V.]

Investigating the reaction of alkaline splitting of chlorophyll
method of studying the localisation of tagged carbon. Vestnik
AN BSSR. Ser. biol. nav. no.3:37-46 '61. (MIRA 14:10)
(CHLOROPHYLL)

SHLYK, A.A.; NIKOLAYEVA, G.N.; VLASNOV, L.I.; GOLNEV, T.N.

Chlorophyllide formation in the extraction of chlorophyll from
green leaves with aqueous acetone. Dokl. AN BSSR 5 no.8:364-
368 Ag '61. (Dokl. 14:8)

1. Laboratoriya biofiziki i isotopov AN BSSR, Institut biologii
AN BSSR.

(Chlorophyll) (Extraction (Chemistry))

SHYK, A. A. and NIKOLAIYVA, G. E.

"Manifestations de l'hétérogénéité de la chlorophylle dans le métabolisme des feuilles."

(The Existence of Metabolic Heterogeneity of Chlorophyll in Vivo)

report presented at the Intl. Colloq. on Photosynthesis, Gif-sur-Yvette, France, 23-27 Jul 1968.

SHYK, A. A. - Lab of Biophysics and Isotopes, Acad. Sci. Belorussian SSR

S/026/62/COO/012/003/007
D036/D114

AUTHORS: Shlyk, A.A., Vlasenok, L.I., Stanishevskaya, Ye.M. and
~~Nikolayeva, G.N.~~

TITLE: Light and the formation of chlorophyll in green foliage

PERIODICAL: Priroda, no. 12, 1962, 91-94

TEXT: The role of light in chlorophyll formation in green leaves is discussed. It is shown how regeneration of chlorophyll was proved by the marked atom method. V.L. Kaler and G.M. Podchufarova from the authors' laboratory extracted protochlorophyllide from leaves and showed that it is stored in darkness. Further tests showed that light is required only for converting protochlorophyllide into chlorophyllide, and not for phytol formation. Light is not needed in the conversion of chlorophyll "a" into chlorophyll "b". The existence of at least two types of chlorophyll "a", differing in spatial arrangement of their molecules, is ascribed by the authors to the continuity of the regeneration process. On the basis of experiments in extracting marked chlorophyll molecules with solvents of increasing polarity, they consider that the newly formed molecules combine

Card 1/2

3573L

S/O20/62/143/002/021/022
B144/B138

27.11.40

AUTHORS:

Shlyk, A. A., and Nikolayeva, G. N.

TITLE:

Metabolic heterogeneity of chlorophyll in a plant

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 2, 1962, 460 - 463

TEXT: Combining of C¹⁴ tagged atoms by fractional extraction (1), chlorophyllase (2), and photodecolorization (3) was studied to confirm the hypothesis of metabolic heterogeneity of chlorophyll (CH). 1) Green leaves of sugar beet were exposed for 10 - 30 min to C¹⁴O₂ and after an interval of 10 - 30 min subjected to fractional extraction by petroleum ether containing 0.5, 2, and 10 or 20% ethanol (extracts I-IV), and finally by a 1:1 ethanol-acetone mixture. Specific activity (SA) of extract I was twice as high as the almost equal SA of extracts II - IV. 2) Partial hydrolysis of CH by chlorophyllase was studied in beet leaves (repeated acetone treatment and centrifugation). Chlorophyllase mainly affects CH contained in young molecules, which is easily extractable. SA in extracts was reduced by ~1/6 compared with controls. 3) Clivia leaves were exposed

Card 1/3

Metabolic heterogeneity ...

S/020/62/143/002/021/022
B144/B138

for 20 - 120 min to $C^{14}O_2$, dissolved in $1/15$ M K_2HPO_4 , filtered, centrifuged, suspended in $1/15$ M K_2HPO_4 and the filtrate diluted with glycerin (4 : 6). After separation of a control portion the rest of the homogenate was exposed for 1 - 2 hrs to 250,000 lux in an epidiascope. $\sim 1/5$ - $1/2$ of CH was decolorized. Determination of SA again resulted in a reliable reduction. All three approaches prove that young CH molecules in green leaves are, at least partially, in a particular state and can be easily differentiated from old molecules; C^{14} was predominantly assimilated in them and their removal led to a SA reduction in the remaining pigment. This fact also proved the absence of exchange between young and old CH molecules. A difficult future task is the elucidation of the apparently lower metabolic heterogeneity of CH b, the SA of which is 5 - 10 times less than that of CH a. L. I. Vlasenok is thanked for assistance. There are 3 tables and 19 references: 13 Soviet and 6 non-Soviet. The four most recent references to English-language publications read as follows: A. A. Krasnovsky, Ann. Rev. Plant Physiol., 11, 363 (1960); C. S. French, J. Myers, Carnegie Inst. Wash. Year Book, 58, 323 (1959); Govindjee, E. Rabinowitch, Science, 132, 355 (1960); M. Holden, Biochem. J., 78, 359 (1961).

Card 2/3

ABSTRACT: Very high pressure in the point of contact between a cutting tool and

... performance being ...
 ... standard conditions and with
 ... and, the ...
 ... have used the ...
 ... graphs and a figure.

...
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 ...
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66521

SOV/137-59-7-15998

12. 2100

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 7, p 250 (USSR)

AUTHORS: Boykov, G.P., Nagodyayeva, N.N., Nikolayeva, G.V.

TITLES: Quasi-Stationary Heating of a Plate With Additional Walls

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1958, Vol 101, pp 55 - 58

ABSTRACT: Information is given on a method of determining thermal and physical characteristics of a substance. The method is based on the quasi-stationary process of heating-up a body. The experimental installation is based on the theory of heating up an unbounded plate of the investigated material under the effect of a constant heat flow. The transmission of the constant flow into the plate is brought about by constant-power electric heaters pressed against the lateral surfaces of the plate. An additional non-conducting thin wall is placed between the metallic plate and the heater. After a certain period following initial heating of the plate, a quasi-stationary process takes place, i.e. the difference between the temperatures on two spots of the system remains the same, but the temperature on each spot changes according to a linear law. This is confirmed by experimental data. The plate thick-

C xi 1/2

4

SHULYOVA, G.V.; STOLYKOVA, I.G.

Colorimetric method for the determination of rhenium and its preliminary separation by methyl ethyl ketone. Inform. sbor. VSEBI no.18:31-35 '59. (MIRA 13:11)
(Rhenium--Analysis) (Ketones)

NIKOLAYEVA, G. V.

Interoceptive effects from the intestines on the gastric motor function. *Fisiol zh. SSSR*. 37 no 4:461-467 July-Aug. 1951. (CML 21:7)

1. Department of Hospital Therapy of Ivanovo Medical Institute and the Department of Normal and Pathological Physiology of Ivanovo Agricultural Institute.

NIKOLAYEVA, G.V.

Mechanism of interoceptive effects of the intestines on motor function of the stomach. *Fiziol. zh. SSSR* 39 no. 1:52-59 Jan-Feb 1953. (CML 24:2)

1. Department of Hospital Therapy of Ivanovo Medical Institute and Department of Normal and Pathological Physiology of Ivanovo Agricultural Institute.

ИИР ОЛ П.С.В.Т., стр. 4.

NIKOLAYVA, G.V.

Disorders of gastric and small intestinal functions in experimental pathology of the rectum and caecum. Terap. arkh. 26 no.5:47-54 8-0 '54.

(MIRA 6:2)

1. Is kafdry gosital'noy terapii (sav. sasluzhenyy doktorel' nanki prof. A.N.Fredtchenkiy) Ivanovskogo meditsinskogo instituta i kafdry normal'noy i patologicheskoy fiziologii (sav. doktor biologicheskikh nauk prof. S.S.Poltyrev) Ivanovskogo sel'skokhozyaystvennogo instituta.

(RECTUM, diseases,

exper. lesions, eff. on gastric motor & secretory & small intestinal motor funct.)

(CAECUM, diseases,

exper. lesions, eff. on gastric motor & secretory & small intestinal motor funct.)

(STOMACH, physiology,

eff. of caecal & rectal exper. lesions on motor funct.)

(INTESTINE, SMALL, physiology,

eff. of caecal & rectal exper. lesions on motor funct.)

(GASTRIC JUICE,

secretion, eff. of caecal & rectal exper. lesions)

NIKOLAYEVA, G. V. Doc Med Sci -- (diss) " On the functional
interrelationship between ~~some~~ ^{certain} sections of ^{the} gastrointestinal
tract ^{under} normal and pathological ^{conditions.} ~~cases~~ Ivanovo, 1957. 20 pp
20 cm. (Academy of Medical Sciences USSR).
(KL, 21-57, 105)

-2-

MYSLYAYEVA, A.V., kand. med. nauk; ZAKHVATKINA, I.A.; SVERDLOV, S.L.;
 ANDREYEV, I.D., dotsent; GENADINNIK, I.S., kand. med. nauk;
 KUZNETSOV, A.A., NIKOLAYEVA, G.Y., prof.; SILAKOVA, V.V., dotsent;
 SHALYAN, N.P.; FRIDMAN, I.N., dotsent; CORBYLEV, M.K.; SIGAL,
 Ye.S., zasluzhennyy vrach RSFSR; KNELOPOVA, L.N.; GABOV, A.A.;
 LILAYEV, V.A.; MAKAREVICH, Ya.A., kand. med. nauk; SHLEPIN, A.S.;
 SHOLEV, M.H.; PEVZNER, G.I.; SILAYEV, Yu.S.

Abstracts. Sovet. med. 27 no.68140-145 Je'63 (MIRA 17:2)

1. Is kafedry propedevtiki ~~svetovannikh~~ boleney i patologicheckoy anatomii Kazakhskogo meditsinskogo instituta (for Myslyayeva, Zakhvatkina).
2. Is Novosytkovskoy meshrayonnoy bol'nitsy Bryanskoy oblasti (for Sverdlov).
3. Is kafedry normal'noy anatomii II Moskovskogo meditsinskogo instituta (for Andreyev).
4. Is kafedry obshchey khirurgii i kafedry rentgenologii Chelyabinskogo meditsinskogo instituta (for Genadinnik, Musnetsov).
5. Is kafedry propedevticheskoy terapii Ivanovskogo meditsinskogo instituta (for Nikolayeva, Silakova).
6. Is Lovoserskoy rayonnoy bol'nitsy Murmanskoy oblasti (for Shalyan).
7. Is kafedry hospital'noy terapii Bashkirskogo meditsinskogo instituta i terapevticheskogo otdeleniya ~~ey~~ bol'nitsy (for

(Continued on next card)

BARENKOVA, S.V.; NIKOLAYEVA, I.F.

Disorders of the body image in localization of the focus in the
left cerebral hemisphere. Zhur. nevr. i psikh. 61 no.5:696-704
'61. (MIRA 14:7)

1. Institut nevrologii (dir. - prof. N.V.Konovalov) AN SSSR,
Moskva.

(PERCEPTION, DISORDERS OF)

LUNEV, D.K.; MAKSUDOV, G.A.; NIKOLAYEVA, I.F.

Memory disturbances in cerebrovascular disorders of the vertebro-
basilar system. Zhur. nevr. i psikh. vol. 64 no.5:641-646 '64.
(MIRA 17:7)

1. Institut neurologii (direktor - prof.N.V.Konovalev) AMN SSSR,
Moskva.

SUBBOTINA, A.A.; NIKOLAYEVA, I.F.; VOLOD'KO, Ye.S.

Manufacture of products out of sawdust without using binders.
Der. prem. 14 no.10:9-10 0 '65. (MIRA 18:12)

1. Kostromskoy fanernyy kombinat.

NIKOLAYEVA, I. I.

IA 317

~~Chemistry - Cellulose, Decomposition~~
Chemistry - Decomposition

"Inhibition of Oxidized Cellulose Decomposition," O. P. Golova, V. I. Ivanov, I. I. Nikolayeva, 4 pp

"Dok Ak Nauk" Vol LVIII, No 4

Macromolecules are unstable, particularly in solutions, but when they are acted on by reagents, even when in the soft state, they are decomposed into molecules of even smaller dimensions. Authors explain this phenomenon. Article was presented at the Fourth Conference on High Molecular Compounds, in Moscow, 1946. Submitted by Academician A. N. Nesmeyanov, 21 Mar 1947.

3877

NIKOLAYEVA, I. I.

Golova, O. P., Ivanov, V. I., and Nikolayeva, I. I. "Molecular weight of cellulose and the appearance of frictional action during its acidifying decomposition," in symposium: *Issledovaniya v oblasti tsellyulozy i yeye sputnikov*, Moscow-Leningrad 1948, p. 27-35 - Bibliog: 10 items.

SO: U-2868, *Letopis Zhurnal'nykh Statey*, No. 1, 1949

NIKOLAYEVA, I.I., Cand Med Sci -- (diss) "Cephon[®] as
an industrial poison of celluloid ^{paraffin} ~~paraffin~~." Perm'
1957, 15 pp (Perm' State Med Inst) 250 copies (KL, 32-58,112)

AP 5004 307

6/0191 1687000/00270819/0012

Plasticheskiye massy, no. 7, 1961, 9-12

ABSTRACT: Ethylene and propylene were copolymerized with a Ziegler-Natta catalyst in order to study the molecular weight distribution, composition, and viscosity of the copolymers and the mutual effects of molecular weight and composition on the properties of the copolymers.

viscosity, and the latter parameter is not recommended for
molar weight in this type of copolymer. 2, 12, art. has: 5 tables, 5 figures
and 7 formulas.

ABSTRACT: None

NIKOLAYEVA
GOLOVA, O.P.; PAKHOMOV, A.M.; NIKOLAYEVA, I.I.

Transformation of cellulose at high temperatures. Report No.4:
Effect of the polymerisation degree of cellulose on the formation
of levoglucosan. Izv.AN SSSR Otd.khim.nauk no.4:519-521 Ap '57.
(MIRA 10:11)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Polymerisation) (Cellulose) (Levoglucosan)

PAKHOMOV, A.M.; GOLOVA, O.P.; NIKOLAYEVA, I.I.

Thermal decomposition of trimethylcellulose in a vacuum. *Izv.*
AN SSSR Otd.khim.nauk no.4:521-523 Ap '57. (MIRA 10:11)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Thermochemistry) (Cellulose)

MERLIS, N.M.; GOLOVA, O.P.; SALDAEE, E.M.; NIKOLAYEVA, I.I.

Application of anionites for removing substances concomitant to levoglucosan from the products of thermal decomposition of cellulose in vacuum. Izv.AN SSSR.Otd.khim.nauk. no.7:680-681 J1 '57.
(MIRA 10:10)

1.Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Ion exchange) (Levoglucosan) (Thermochemistry)

NIKOLAYVA, I.I., assistant

Toxicological evaluation of camphor vapors. Gig. i ssn. 22 no.11:
83-86 # '57. (MIRA 11:1)

1. Is kafedry gigiyeny truda Permskogo meditsinskogo instituta.
(CAMPICOR, off.
toxic eff. on mice (Rus))

GOLOVA, O.P.; KRYLOVA, R.G.; NIKOLAYEVA, I.I.

Mechanism of the thermal decomposition of cellulose in a vacuum.
Part 1: Comparative study of the thermal decomposition of cotton
cellulose and cellulose hydrate. Vysokom. soed. 1 no.9:1295-1308
8 '59. (MIRA 13:3)

1. Institut leza AN SSSR.
(Cellulose.)

GOLOVA, G.F.; KRYLOVA, R.G.; NIKOLAYEVA, I.I.

Mechanism of the thermal decomposition of cellulose in a vacuum. Part
2: Inhibition of the thermal decomposition. Vysokom. soed. 1 no.9:
1305-1308 8 '59. (MIRA 13:3)

1. Institut leza AN SSSR.
(Cellulose)

MAYAT, H.S.; GOLOVA, O.P.; NIKOLAYEVA, I.I.

Mechanism of cellulose oxidation by atmospheric oxygen in alkaline medium. Chemical composition of the oxidation products. Vysokom.sood. 5 no.6:873-874 Ja '63. (MIRA 16:9)

1. Institut vysekemolekulyarnykh soedineniy AN SSSR.
(Cellulose) (Oxidation)

MAYAT, N.S.; NIKOLAYEVA, I.I.; GOLOVA, O.P.

Mechanism of the oxidative degradation of cellulose in alkaline media.
Part 2: Mechanism of the oxidation of cellulose by molecular oxygen in
an alkaline medium. *Vysokom.sped.* 6 no.9:1693-1699 3 '64.

(MIRA 17:10)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

NIKOLAYEV, I. I.

2c

L.S.G.-65 277(0)/277(1)/277(2) P-4/P-4

2/0/01/15/000/004/000/000

ACCESSION NO: AF5009311

AUTHORS: Shalovaya, L. P.; Nikolayev, I. A.; Vozlovskaya, L. N.; Il'chenko, P. A.; Semenova, A. S.; Nikolayev, I. I.

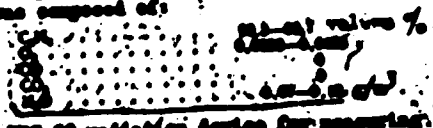
24

TITLE: Polydispersion and structure of medium pressure polyethylene

SOURCE: Plasticheskiye massy, no. 4, 1965, 5-10

TOPIC TAGS: polyethylene, fractionation, dispersion characteristics, (Michal) Gmelin method / URS 50 radiation device, N117 viscosimeter

ABSTRACT: The fusion viscosity of fractionated and unfractionated medium pressure polyethylene was studied along with molecular weight distributions and structural phenomena of various fractions. The polyethylene fractionation was carried out by the Michal method. The ethylene was composed of:



Special test equipment included a URS-50 radiation device for measuring degree of crystallization and an N117 machine for determining fusion viscosity. It was found

L 45664-65

ACCESSION NO: AP3009311

that the degree of crystallization of the first fractions (the large molecular fractions) is a little lower than that of unfractionated polyethylene. X-ray diffraction curves (2θ relation) are given for several sample fractions. A study was made of turbidity characteristics of the polyethylene in hexane and tetralin solutions, and graphs were plotted showing the quantity $c/(\tau - \tau_0)$ versus C , where C is the solution concentration, τ is the solution turbidity, and τ_0 is the solvent turbidity. Additional measurements of the speed of displacement under stress at 1900 were made for both the fractionated and unfractionated specimens. The authors found that: 1) the molecular weight distribution of medium pressure polyethylene can be described by Tung's equation (L. H. Tung, J. Polymer Sci., 24, 339, 1957); 2) there are indications of high macromolecular stiffness of medium pressure polyethylene; 3) the interlayer distance is independent of molecular weight; 4) the shape of the fusion flow curve depends on the polydispersion characteristics; and 5) the temperature coefficient of fusion viscosity of polyethylene varies with the molecular weight. Orig. art. has: 12 figures and 3 tables.

ASSOCIATION: none

CLASSIFIED: OO

EXCL: OO

SEC CLASS: UN

NO NEW COPY: OOO

GROUP: OTH

Dist. 4/3/74

SHALAYEVA, L.F.; DOMAREVA, N.M.; ANDREYEVA, I.N.; VESELOVSKAYA, L.N.;
NIKOLAYEVA, I.I.; GOL'DENBERG, A.L.

Study of the polydispersity and structure of the copolymer of ethylene
with propylene. Plast. massy no.2:2-12 '65. (MIRA 18:7)

L 34855-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c) EB/CG/DC

ACC NR:AP6019679

SOURCE CODE: UR/0292/66/000/006/0047/0051

AUTHOR: Dolkart, V. N. (Candidate of technical sciences); Michalova, I. I. (Engineer); Stepanov, V. N. (Engineer); Novik, G. Kh. (Candidate of technical sciences) 17/3

ORD: none

TITLE: Arithmetic unit of a VUKHM-1 control computerSOURCE: Elektronika, no. 6, 1966, 47-51

TOPIC TAGS: arithmetic unit, control computer, digital computer

ABSTRACT: The high-speed parallel-type arithmetic unit (AU) uses semi-conductor devices and consists of four registers: an AU-register proper, a sum register, a quotient-multiplier register, and an auxiliary register. Block diagrams of the AU and the first two registers are shown. The addition and subtraction operations and their completion operations are detailed. The use of only one trigger-type accumulator is a distinguishing feature of this AU. Other registers have fixed storage elements. Such a structure permits obtaining a large number of superoperational storage elements with minimum equipment; hence, this structure may prove suitable for multiprogram computers. With a sufficiently high speed of the

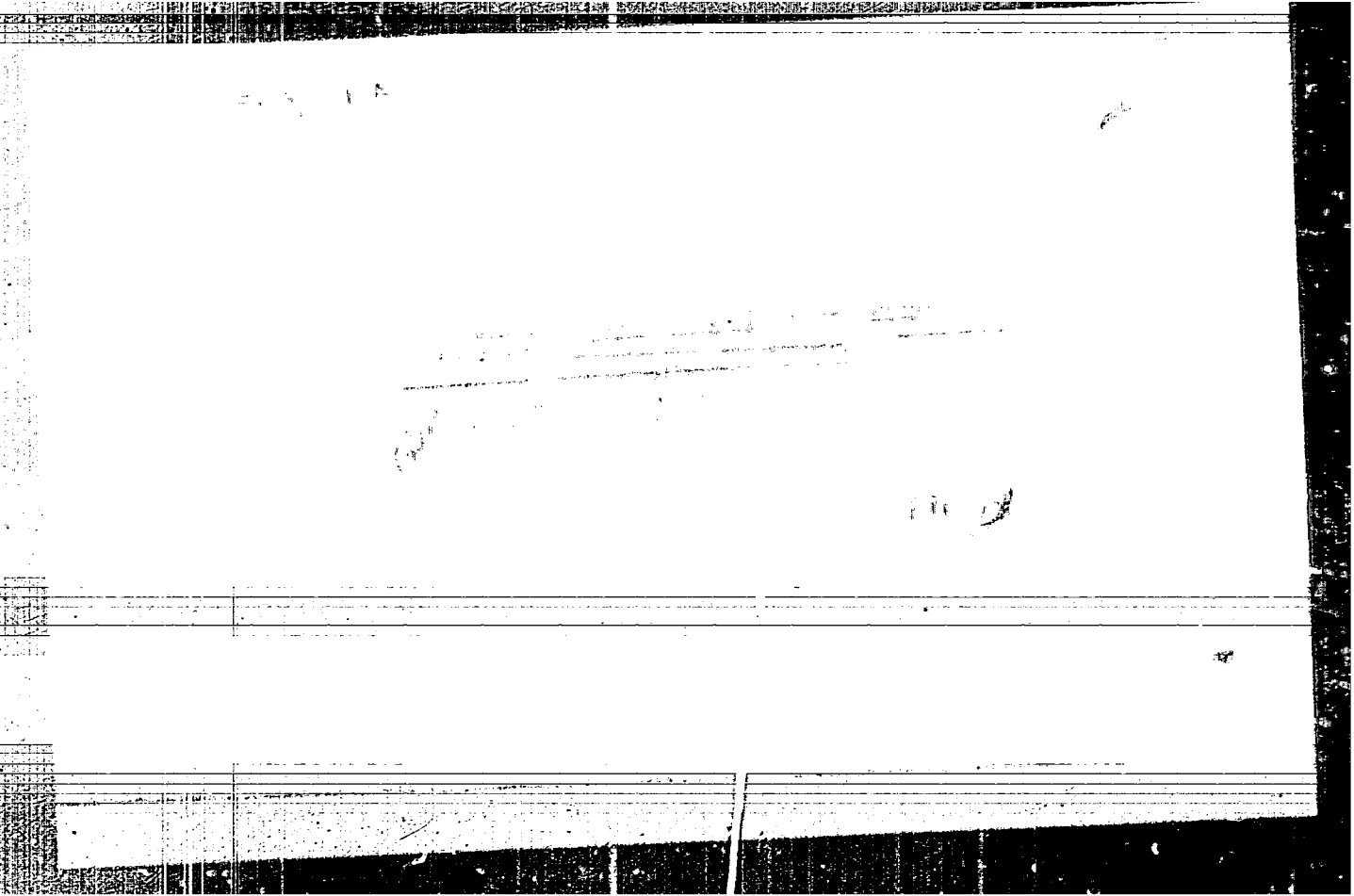
Card 1/2

USSR: GSI.14-983.0.001;

VOLGIN, V.I.; NIKOLAYENA, I.I.

Parasitism of predatory mites of the genus *Neccheyletiella* Baker,
1949 (Acarina, Cheyletidae). Trudy Zool. inst. 35:350-304 '65.
(MIRA 19:1)

1. Zoologicheskii institut AN SSSR.



NIKOLANNA, I.N.

Air permeability of turf-Podzolic soils in various farm lands
under different moisture conditions. Pochvevedenie no.6:92-99
Ag '62. (MIRA 16:1)

1. Pochvennyy institut imeni V.V.Dokuchayeva.
(Soil moisture) (Gases in soils)

BAKHTIN, P.U.; NIKOLAYEVA, I.N.; VOLOTSKAYA, V.I.

Shear strength, the coefficient of friction, and the cohesion of
dark Chestnut soils and southern Chernozem soils. Pochvovedenie
no.11:68-78 N '63. (MIRA 16:12)

1. Pochvennyy institut imeni V.V. Dokuchayeva.

NIKOLAYEVA, I.N.

Air conditions of loamy turf-Podzolic soils in various land tracts. Pochvovedenie no.1:66-78 Ja '64. (MIRA 17:3)

1. Pochvennyy institut Dekuchayeva.

BAKHTIN, P.U., kand. sel'skokhoz. nauk; VOLOTSKAYA, V.I.; NIKOLAYEVA, I.N.

Friction coefficient of the sliding of soil over metal for basic
soil types in the U.S.S.R. Trakt.i sel'khoz Mash. no.6831-33
Je'64 (MIRA 1787)

KANTOROVICH, B.V., doktor tekhn. nauk, prof., otv. red.;
BANKVITSER, A.L., red.; NIKOLAYEVA, I.N., red.

[New methods for fuel burning and problems of the theory
of combustion] Novye metody szhiganiya topliv i voprosy
teorii goreniya. Moskva, Nauka, 1965. 205 p.

(MIRA 18:12)

1. Akademiya nauk SSSR. Institut goryuchikh iskopnykh.

KHREBTOV, Aleksandr Ivanovich; PERAKHIN, F.A., doktor Geol.-
miner. nauk, otv. red.; NIKOLAYEVA, I.N., red.

[Geothermal conditions and thermal waters in central
Ciscaucasia] Geotermicheskie uslovia i termal'nye vody
tsentral'nogo Predkavkaz'ia. Moskva, Nauka, 1965. 108 p.
(MIRA 19:1)

LUMBA, V.S.; NIKOLAYEVA, I.N.

Potentiometric method of determining the free acid and alkali
content of lubricating greases. Trudy VNI SP no. 7:459-469
'59. (MIRA 12:10)
(Lubrication and lubricants) (Potentiometric analysis)

PANFILOV, Nikolay Dement'yevich; NIKOLAYEVA, I.N., red.; MEDVEDEVA,
R.A., tekhn. red.

[Apparatuses for clubs] Apparatura kluba. Moskva, Sovet-
skaia Rossiia, 1963. 230 p. (Bibliotekha v pomoshch sel'-
skomu klubnomu rabotniku, no.11) (MIRA 16:12)
(Amateur motion pictures—Equipment and supplies)
(Sound—Apparatus)

ILLARIONOV, Aleksey Alekseyevich; KAIGANOV, M.I., otv. red.;
NIKOLAYEVA, L.N., red.

[Petrography and mineralogy of ferruginous quartzites in
the Mikhaylovskoye deposit of the Kursk Magnetic Anomaly]
Petrografiia i mineralogiia zhelezistykh kvartsitov
Mikhailovskogo mestorozhdeniia Kurskoi magnitnoi anomalii.
Moskva, Nauka, 1965. 162 p. (MIRA 18:6)

PROTOD'YAKONOV, Mikhail Mikhailevich; NINOLAYEVA, I.N., rec.

[Properties of ore-forming minerals and their electron structure] Svoistva porodoobrazuiushchikh mineralov i ikh elektronnoe stroenie. Moskva, Nauka, 1965. 85 p. (MIRA 18:7)

MARCHENKO, I. M., and others; MARCHENKO, V. N. V., akademik, civ. red.:
NIKOLAYEVA, I. N., red.

(Increasing the efficiency of blasting operations in extract-
ing minerals) Uvelichenie effektivnosti vryva pri dobyvanii
polsnykh tekopaemykh. Moskva, Nauka, 1965. 221 p.
(MIRA 18:8)

KOROTKOVA, G.P.; NIKOLAYEVA, I.P.

Regenerative ability of extremities in chick embryos at
different developmental stages. *Russk. dokl. vuz. shkoly;*
biol. nauki no. 3:66-70 '58. (MIRA 11:12)

1. *Prezentatsiya imeditsiny embriologii Leningradskogo gosudar-*
stvennogo universiteta imeni A.A. Zhukova.
(Embryology—Birds) (Regeneration (Biology)) (Poultry)

BOGDAN, A.K.; KRICHINSKAYA, Ye.D.; NIKOLAYEVA, I.P.

Method for injections into the blood vessels of mammalian
embryos. Arkh. anat. gist. i embri. 41 no.8.97-100 kg 61.
(MIRA 15:6)

1. Kafedra embriologii (zav. - prof. B.P. Tokin)
Leningradskogo universiteta.
(EMBRYOLOGY-EQUIPMENT AND SUPPLIES)
(INJECTIONS)

TRACHENKO, A.I.; NIKOLAYEVA, L.P.

New occurrences of alder in Moldavia. Izv. AN Mold. SSR no.10:84-88
'69. (MIRA 18:5)

SHAPIRO, I.S., inzh.; ANTOKHINA, R.I., inzh.; NIKOLAYEVA, I.V., inzh.

Gas-arc underwater cutting of metals. Svar. proisv. no.2:27-28
P '63. (NISA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut avtogennoy obrabotki metallov.
(Underwater welding and cutting)

BELOUS, N.Sh.; NIKOLAYEVA, I.V.

Iron phosphate formations in the central part of the Western
Siberian iron-ore basin. Trudy Inst.geol.i geofiz.Sib.otsd.AN
SSSR no.4:85-96 '60. (MIRA 15:7)
(Siberia, Western--Iron phosphates)

NIEDLAJWA, I.V.

Seminar of the workers of the Alcohol, and liqueur and
vodka industry of the Ukraine. Spirt.prom. 26 no.5:
46-47 '60. (MIM 13:7)
(Ukraine--Liquor industry)

TEREKHINA, E.E.; SHELATVA, L.V.; VOYVODKIN, V.V.

Application of the electronic paramagnetic resonance method to the study of the molecular structure of coals. Zhur. strukt. khim. 1 no.1:99-102 Ky-Je '68. (NIRA 13:8)

**1. Institut khimicheskoy fiziki AN SSSR.
(Coal) (Paramagnetic resonance and relaxation)**

TIKHOMIROVA, N.N.; MARKIN, M.I.; NIKOLAYEVA, I.V.; VOYEVODSKIY, V.V.

Interaction between molecular oxygen and the free valences of coal.
Probl. khim. i kat. 10:426-428 '60. (MIRA 14:5)

1. Institut khimicheskoy fiziki AN SSSR.
(Oxygen) (Charcoal)

BELOUS, I.Kh., et. nauchn. sotr.; KAZANSKIY, Yu.P.; VLOVIN, V.V.;
KLYAROVSKIY, V.M.; KUZNETSOV, V.P.; NIKOLAYEVA, I.V.;
NOVOZHILOV, V.I.; SENDERZON, E.M.; AKAYEV, M.S.; BABIN,
A.A.; BERDNIKOV, A.P.; GORYUKHIN, Ye.Ya.; NAGORSKIY, M.P.;
PIVEN', N.M.; BAKANOV, G.Ye.; GEBLER, I.V.; SMOLYANINOV,
N.M.; SMOLYANINOVA, S.I.; YUSHIN, V.I.; D'YAKONOVA, N.D.;
MEZAPOV, N.M.; KASHTANOV, V.A.; GOL'BERT, A.Y.; SIDOROV,
A.P.; GARFASH, A.A.; BYKOV, M.S.; BORODIN, L.V.; RYCHKOV,
L.F.; KUCHIN, M.I.; SHAKHOV, F.N., glav. red.; SHEFAKOVSKAYA,
L.I., red.

[West Siberian iron ore basin] Zapadno-Sibirskii zhelezorud-
nyi bassein. Novosibirsk, Red.-izd. otdel Sibirskogo otd-
niia AN SSSR, 1964. 447 p. (MIRA 17:12)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut geo-
logii i geofiziki. 2. Institut geologii i geofiziki Sibirskogo
otdeleniya AN SSSR (for Belous, Kazanskiy, Vdovin, Klyarovskiy,
Kuznetsov, Nikolayeva, Novozhilov, Senderzon). 3. Institut
gornogo dela (for Akayev). 4. Novosibirskoye geologicheskoye
upravleniye Ministerstva geologii i okhrany neдр SSSR (for
Babin, Berdnikov, Goryukhin, Nagorskiy, Piven').

(Continued on next card)

NIKOLAYEVA, I.V.

Lithofacies characteristics of iron ores in the Bakchar deposit.
Trudy Inst. geol. i geofiz. Sib. otd. AN SSSR no.28:60-70 '64.
(MIRA 17:11)

MAKIYEVSKIY, S.I.; NIKOLAYEVA, K.A.

Stratigraphic interrelationships of Pre-Cambrian sedimentary-
metamorphic rocks in the northwestern part of the Kola Peninsula.
Vop. geol. i min. Kol'. polnos. no.4:34-40 '63. (MIRA 16:10)

TOPOLYANSKAYA, S.I.; FEDOROVA, O.A.; NUKHAREVICH, A.F.; BRONSTEIN, R.B.;
GRINBERG, TS.B.; NIKOLAYEVA, K.O.; SPERANSKAYA, K.I.; IVANOVA, V.H.;
KISELEVA, V.P.; VIL'SHANSKAYA, F.L.; MATVEYEVA, V.N.

Finds of Salmonella reading. Zhur. mikrobiol. epid. i immun. 32
no.7:123 Je '61. (MIRA 15'5)

1. Is sanitarno-epidemiologicheskoy stantsii Kalininskogo rayona
Moskvy i Moskovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(SALMONELLA READING)

CHAYKOVA, E. S., KATYSHEV, P. N., PEREDOVAYA, N. I., SEMOVA, N. S.,
MILAZINOV, E. I., CULYAYEV, E. P., RYANOV, V. N., VASIL'KOVA, L. G.

"Basic hygienic premises in the field of legislature on
the sanitary protection of the soil of populated places."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists
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BATALOV, V.S., kand. tekhn. nauk; NIKOLAYEVA, K.L.; DRATT, Ye.A., inzh.

Obtaining high-strength concrete based on ordinary cement.
Det. 1 zhel.-bet. 8 no.7:294-297 J1 '62. (MIRA 15:7)
(Concrete—Testing)

YAKOVLEVA, Ye.K.; BASKINA, N.F.; BOBROVSKAYA, M.N.; KRESLINO, Ye.M.; MYAGER,
V.K.; SHKLYAROVA, E.D.; NIKOLAYEVA, K.N.

Use of hemohormonestimulin in the clinical aspects of neuroses. Akt.
vop.perel.krovi no.7:195-198 '99. (MIRA 13:1)

1. Klinika nevrosov i pograniichnykh sostoyaniy Gos.psikhonevrolo-
gicheskogo nauchno-issledovatel'skogo instituta imeni V.M. Bekhtereva
(direktor i nauchnyy rukovoditel' - chlen-korrespondent ANU SSSR
prof. V.N. Myasishchev).

(HORMONES, SEX)

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SHAKIN, H.I.; CHERNILOVSKAYA, I.M.; NIKOLAYEVA, K.N.

Mental hygiene work at industrial enterprises. Trudy Gos. nauch.-issl.
psikhonevr. inst, no.24:217-224 '61. (MIRA 15:5)

1. Dispansernoye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo
psikhonevrologicheskogo instituta imeni Bekhterava.
(INDUSTRIAL HYGIENE) (MENTAL HYGIENE)

NIKOLAYEVA, K.V.

Treating the nasopharynx with garlic phytoncides for preventing
influenza, tonsillitis and scarlet fever. *Pediatrics* no.8:76
Ag '57. (MIRA 10:12)

1. Is Sverdlovskogo gosudarstvennogo meditsinskogo instituta.
(GARLIC--THERAPEUTIC USE) (NASOPHARYNX)

NIKOLAYEVA, E.V., kand.med.nauk

Pharyngeal application of garlic phytoncides for scarlet fever patients suffering from chronic tonsillitis. Vop.okh.nat. i det. 1 no.3:54-58 My-Je '58. (NIRA 11:5)

1. Iz kafedry detskikh infektsionnykh bolezney (sav.-prof. V.S. Dubrova) Sverdlovskogo meditsinskogo instituta (dir.-prof. A.F. Zverev). (PHYTONCIDES) (SCARLET FEVER) (TONSILS--DISEASES)

NIKOLAYNA, K.V.

Role of the original state of the body in scarlet fever. Zhur.
mikrobiol.oid. i immun. 29 no.3:127 Nr '58. (MIRA 11:4)

1. In Sverdlovskogo meditsinskogo instituta.
(SCARLET FEVER)

KOZLOVA, Zinaida Aleksandrovna, nauchnyy sotr.; NIKOLAYKHA, Klavdiya
Yeliseyevna, nauchnyy sotr.; PURIN', Marta [Parins, Marta], nauchn.
sotr., kand. ekon. nauk; DEGLAV, F. [Deglavs, F.], akademik, red.;
TUSHNEVITS, V.S., kand. ekon. nauk, red.; LEVI, S., red.;
ZINKOVSAYA, A., tekhn. red.

[Policy of thrift and the organization of intrafactory cost ac-
counting in the metalworking enterprises of the Latvian S.S.R.]
Rechis ekonomii i organizatsiia vnutrifabricheskogo khorascheta
na predpriatiakh metallobrabatyvaushchei promyshlennosti
Latvishoi SSR. Riga, Izd-vo AN Latvishoi SSR, 1957. 208 p.
(MIRA 16:6)

1. Akademiya nauk Latvyskoy SSR (for Deglav).

(Latvia--Machinery industry--Accounting)

NIKOLAYEVA, Klavdiya Yeliseyevna. Prinizima uchastiyu BEYLINA, G.D.,
starshiy laborant. DNECH, V.S., kand.ekon.nauk, red.;
BESHKOVA, S., red.; PILADE, Ye., tekhn.red.

[Fracticing economy in using materials in enterprises of the
metalworking industry of the Latvian S.S.R.] Reshin ekonomii
v ispol'zovanii materialov na predpriyatiyakh metalloobrabot-
yvaishchey promyshlennosti Latviskoy SSR. Fed. red. V.S.
Deisha. Riga, Izd-vo Akad.nauk Latviskoy SSR, 1960. 148 p.
(MIRA 15:5)

1. Institut ekonomiki AN Latvyskoy SSR (for Beylina).
(Latvia—Metal industries)

NIKOL'SKAYA, A.A.; NIKOLAYEVA, K.Ye.

Problems of premature birth as revealed by data from the Stavropol
Maternity Home for 1957-1958. Vop.akh. mat. i det. 6 no.3:82-87
Nr '61. (MIRA 14:10)

1. Iz kafedry akusherstva i ginekologii Stavropol'skogo meditsin-
skogo instituta (soveduyushchiy - prof. A.A.Nikol'skaya).
(INFANTS (PREMATURE))

SHIKHIYEV, I.A.; ALIYEV, M.I.; SADIYEV, S.I.; SICHKOOL', Sh.S.;
AKHUNDOVA, G.Ya.; KRASHCHITSKIY, V.P.; GUSKINOVA, M.A.;
MURRAYOVA, Kh.F.; KURBANALIEVA, T.Kh.; NIKOLAYEVA, L.

Synthesis and use of silicon naphthenic acids in the production
of butadiene-styrene rubber. Azerb.khim.sovr. no.5:65-68

'61.

(MIRA 15:5)

(Naphthenic acids) (Silicon organic compounds)
(Rubber, Synthetic)

NIKOLAYEVA, L.A., inzh.

Scientific technical conference on the automation of heating-boiler
rooms and the standardization of automatic control devices. Escop.-
truda v prom. 6 no.6:36-37 Jo '62. (MIRA 15:11)
(Boilers) (Automatic control)

NIKOLAYEVA, L.A.

Extraction of pectic substances from cured tobacco leaves. *Izv.vys.*
ucheb.sav.;pishch.tekh. no.4;40-43 '60. (MIRA 13:11)

1. Krasnodarskiy institut pishchevoy promyshlennosti. Kafedra tekhnologii tabaka.

(Tobacco curing)

(Pectin)

AUTHORS: Gorbacheva, I. N., Nikolayeva, L. A., 79-12-39/43
Preobrazhenskiy, N. A.

TITLE: Methods for the Synthesis of the Alkaloid Daurizine
(Puti sintesa alkaloida Dauritsina).

PERIODICAL: Zhurnal Obshchey Khimii, 1957, Vol. 27, Nr 12,
pp. 3367-3370 (USSR)

ABSTRACT: The synthesis of the methylether of the racemic alkaloid daurizine was realized by a simultaneous juncture of two isoquinoline cycles, starting from the corresponding diamide, with a subsequent hydration and methylation of the secondary nitrogen atom (see formulae I and II). Another synthesis consists of the interaction of two benzyltetrahydroisoquinoline derivatative (formula VII), with the formation of an ether bond of the two benzyl residua. In the present investigation, the synthesis of the chlorine hydrate of 1 - (4' - benzyloxy) - benzyl - 2 - methyl - 6,7 - dimethoxy - 1,2,3,4, - tetrahydroisoquinoline (formula VII, R = CH₂C₆H₅, X = B₁) is conducted. The benzyl group of the latter is removed by a catalytic process by a hydration and by the chlorine hydrate of the 1 - (3' - bromide - 4' - methoxy) - benzyl

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Methods for the Synthesis of the Alkaloid Daurizine

79-12-39/43

- 2 - methyl - 6,7 - dimethoxy - 1,2,3,4, - tetrahydroquinoline (formula VII, R = CH₃, X = Br) according to the scheme given here. The chlorine anhydride of the corresponding phenyl acetic acid (IV, R = CH₂C₆H₅, X = H and IV, R = CH₃, X = Br) was condensed with β- (3,4 - dimethoxy) - phenylethylamine (III). The amide obtained (V, R = CH₂C₆H₅, X = H and V, R = CH₃, X = Br) was closed by an action of phosphorous pentachloride with the formation of a dihydroisoquinoline derivative (VI, R = CH₂C₆H₅, X = H and VI, R = CH₃, X = Br) which was further subjected to a catalytic hydration and methylation with formalin in the presence of ascorbic acid. (VII, R = CH₂C₆H₅, X = H and VII, R = CH₃, X = Br). The scheme given here has the purpose of arriving at the synthesis of the optically active isomers of the alkaloid daurizine. There is 1 reference, 1 of which is Slavic.

Card 2/2

Moscow Inst. Fine Chem. Technology.

OTCHAROVA, I.M.; NIKOLAYEVA, L.A.; CHAMAN, Ye.S.; GOLOVCHINSKAYA, Ye.S.

Syntheses in the series of purine derivatives. Part 1: Preparation of 2,6-dichloro-9-methylpurine and synthesis of some derivatives of 1,9-dimethylhypoxanthine. Zhur.ob.khim. 32 no.6:2010-2015 Je '62.
(MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S.Ordnikovskiy.
(Purine) (Hypoxanthine)

GOLOVCHENSKAYA, Ye.S.; KOLGANOVA, O.A.; NIKOLAYEVA, L.A.; CHAMAN, Ye.S.

Synthesis in the series of purine derivatives. Part 4: Alkaline degradation of 1,3,9-trimethylxanthine derivatives. Zhur. ob. khim. 33 no.5:1650-1654 May '63. (MIRA 16:6)

1. *Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze. (Xanthine)*

ACCESSION NR: AP4044133

S/0129/64/000/008/0013/0015

AUTHOR: Polotnyuk, V. V.; Nihalayeva, L. A.

TITLE: Electron microscopic investigation of steel aging

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 8, 1964, 13-15, and insert facing p. 40

TOPIC TAGS: steel, steel aging, steel structure, electron microscopy, alloy steel, impact strength, hardness / steel jkp

ABSTRACT: Aging phenomena in jkp steel containing 0.18% C, 0.45% Mn, 0.028% S, 0.027% P, 0.008% Si, and 0.009% N were investigated microscopically to clarify further the relationship between the shape, size and distribution of microstructural formations and the hardness and other physical properties of steel. Steel samples retreated in various ways (normalization at 920C for 1 hr.; water-quenched from 690C for 1 hr.; water-quenched from 920C for 1 hr., tempered at 690C for 1 hr. and then water-quenched; or water-quenched from 690C for 1 hr. and aged at 250C for 1 hr.) were subjected to various combinations of aging conditions, from aging at 500C (and unspecified higher temperatures) for 1 hr. to aging at 20C for two years. The rather heterogeneous dependence of hardness and impact strength on aging temperature shown in the Enclosure was the clearest result of the study.

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