

L 07440-67 EWP(k)/EWP(m)/EWP(t)/ETI IJP(c) JD/HW
ACC NR: AP6030440 SOURCE CODE: UR/0420/66/000/006/0107/0109

AUTHOR: Lopatin, A. I.; Kas'yan, V. G.; Zhendubayev, V. N.

42
B

ORG: None

TITLE: A method for determining the shape of the workpiece during stamping 18

SOURCE: Samoletostroyeniye i tekhnika vozdushnogo flota, no. 6, 1966, 107-109

TOPIC TAGS: metal stamping, electronic measurement, metal deformation

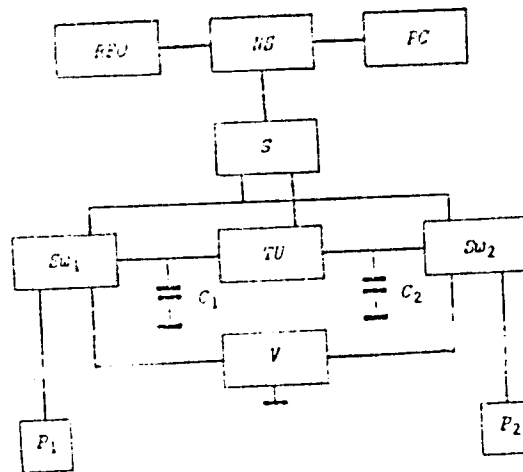
ABSTRACT: One of the important factors in calculating the parameters of high-speed stamping is the shape taken by the blank during the stamping process. The shape of the workpiece may be determined by measuring the time for sequential operation of contact pickups mounted on a single level. When the blank is moving at a high rate of speed (several hundred meters per second) with a small curvature (especially in the initial moment of motion) the problem arises of measuring short time intervals with little difference between them. The pulse-count chronometer with capacitor time transfer shown in the figure is proposed for measurement of these time intervals. A start signal is sent from pickup P₁ through switch Sw₁ to charge capacitor C₁ from DC voltage source V. A signal is simultaneously sent to shaper S which generates a signal closing noncontact switch NS which operates reference frequency oscillator RFO and pulse

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ACC NR: AP6030440

counter PC. At this point PC begins to count pulses from RFO. With operation of pickup P_2 , a stop signal is sent through Sw_1 terminating the charging of capacitor C_1 which is charged to voltage ϕ in the time T_1 being measured. At the same time, a signal is sent through switch Sw_2 to charge capacitor C_2 . This capacitor is charged until the voltage on its plates is equal to the voltage ϕ on the plates of capacitor C_1 . At this point the threshold unit TU operates and sends a signal through shaper S to switch NS terminating the pulse counting operation. If the capacitance of C_2 is larger than that of C_1 , the time for charging C_2 will be greater than that required for charging C_1 . Therefore this time interval may easily be measured with high accuracy using a pulse count chronometer with moderate reference frequency. A formula is given for determining the relative error in measurement of short time intervals using this type of instrument. It is found that the error is determined by the time transformation factor. Orig. art. has: 1 figure, 7 formulas.



SUB CODE: 13, 09/ SUBM DATE: none/ ORIG REF: 003

Card 2/2

LOPATIN, A.N.; L'VOV, D.K.; BABKIN, P.S.

Case of recurrent tick-borne encephalitis. Vop.virus. 7
no.6:741 N-D '62. (MIRA 16:4)

1. Krasnodarskiy meditsinskiy institut.
(ENCEPHALITIS)

LOPATIN A.N.

FASTOVSKAYA, E.I.; L'VOV, D.K.; LOPATIN, A.N.

Epidemiological data on tick-borne encephalitis in the construction zone of the Krasnoyarsk Hydroelectric Power Station. Med.paraz. i paraz.hol. 27 no.1:14-20 Ja-F '58. (MIRA 11:4)

1. Iz otdeleniya epidemiologii i organizatsii bor'by s malyariyey i drugimi parazitarnymi zabolevaniyami Instituta malyarii meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G.Sergiyev, zav. otdeleniyem M.G.Bashina)

(ENCEPHALITIS, epidemiology

tick-borne encephalitis in construction zone, statist. (Rus))

ARTAMONOV, K.F. ; KOSTYUCHENKO, E.V.; KROSHKIN, A.N.; LOPATIN, A.S.

Experiment with filtering rock-fill dams in Kirghizistan. Izv.
AN Kir. SSR. Ser. est. i tekhn. nauk 5 no.3:79-101 '63.

LOPATIN, A.S.

Some indices in favor of intravenous infusion of aminazine in
schizophrenia patients. Vop.klin., patog. i lech. shiz. no.1:88-
90 '64. (MIRA 18:5)

1. Otdel shizofrenii (zav. - prof. L.L.Rokhlin) i otdel psikho-
farmakologii (zav. - kand.med.nauk G.Ya.Avrutskiy) Gosudarstven-
nogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva
zdravookhraneniya RSFSR i Moskovskaya oblastnaya psikhiatricheskaya
bol'nitsa imeni V.I.Yakovenko (glavnyy vrach - G.F.Moskalenko).

133-58-4-23/40
AUTHORS: Dorokhov, V. I. and Lopatin, A. V., Candidates of
Technical Science and Molotkov, V. A., Engineer

TITLE: On the Evaluation of the Quality of Boiler Plate
(K otsenke kachestva kotel'nogo lista)

PERIODICAL: Stal', 1958, Nr 4, pp 348-352 (USSR)

ABSTRACT: The evaluation of the quality of boiler plate (up to 25 mm thick) according to GOST 5520-50 based on the examination of fracture for laminations is discussed. On the basis of evidence collected on the Works imeni Il'ich during the inspection of the plate and special investigations carried out in order to establish the nature of laminations and the influence of testing conditions on the results obtained the following conclusions are drawn: 1) on evaluating the quality of boiler steel according to laminations observed in the fracture of test specimens, it is necessary to differentiate laminations of the first type, i.e. such laminations which physically exist in the steel in the form of breaks of continuity before the tests, and laminations of the second type which are formed during the break of the specimen in places of liquations (segregation) strips. 2) The appearance of laminations

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On the Evaluation of the Quality of Boiler Plate 133-58-4-23/40

of the second type depends on the temperature of the test, spread of applying the load, structural state of the metal of the specimen and other test conditions. All factors promoting brittle fracture of the specimen lead to a decrease of dimensions and number of such laminations or even to their complete disappearance. Therefore, the evaluation of the quality of steel from the appearance of fracture without taking into consideration test conditions cannot be considered as reliable.

3) Therefore, the test for fracture according to GOST 5520-50 should be replaced by an investigation of the macrostructure of plate. 4) In view of the development of the production of thick plate GOST 5520 should be extended to plates up to 200 to 250 mm thick. In view of a large range of thickness of boiler plates, scales of macro-structures for various thickness ranges should be included into the standard. For plates 50 to 150 mm thick the scale used on the works imeni Il'ich (Fig.7) can be used. There are 7 figures and 2 references, both of which are Soviet. In the editorial note further discussion on the subject is invited.

Card 2/2
ASSOCIATION: Zavod im. Il'icha (Works imeni Il'ich)
1. Metal plates--Quality control 2. Metal plates--Test results
3. Metal plates--Inspection 4. Boilers--Material

LOPATIN, A.V.

All-purpose automatic bending machines. Standartizatsiia
24 no.6:53 Je '60. (MIRA 13:7)
(Machine tools)

LOPATIN, A.V.

Forging and pressing equipment. Standartizatsiia 25 no.9:46-47
S '61. (MIRA 14:9)
(Forging machinery--Standards)

LOPATIN, A.V.

Presses for baling metal scrap. Standartizatsiia 25 no.12:45-
46 D '61. (MIRA 14:11)
(Power presses--Standards)

LOPATIN, A.V.

Sheet-bending hydraulic presses. Standartizatsia 28
no.3:46-47 Mr'64.

SOV-127-58-9-15/20

AUTHOR: Lopatin, A. Ya., Mining Technician

TITLE: Replacing the Forward Head of the PR-30k Perforator with the Forward Head of the TP-4 Perforator (Zamena peredney golovki perforatora PR-30k peredney golovkoy perforatora TP-4)

PERIODICAL: Gornyy zhurnal, 1958, Nr 9, p 76 (USSR)

ABSTRACT: To avoid the loss of time and money in drilling steel, drill operator I. Ya. Sil'man of the "Veselyy" Mine of the Zapsib-zoloto Trust replaced the forward head of PR-30k perforator by the forward head of the TP-4 perforator. This helped to avoid breaking the stems and water conduits. It also reduced by 4 times the cost of drilling the steel.

ASSOCIATION: Rudnik "Veselyy" (Mine "Veselyy")

1. Drills--Applications 2. Drilling machines--Equipment 3. Mines
--Equipment

Card 1/1

LOPATIN, B. A.

USSR/Electricity
Voltmeter, Vacuum Tube
Bridges, Electrical Measurement
Aug 48

"Stable Tube Voltmeter," B. A. Lopatin, Sci Res
Stage Nat Inst, 2 pp

"Zavod Lab" Vol XIX, No 8

PA 3/49724
Mentions disadvantages of using symmetrical bridge
with tubes in parallel for electrochemical, photo-
electric, heat and biological measurements (Wald,
US Patent No 1232879, 1916). Describes own tube volt-
meter based on symmetrical bridge with two tubes
in series and negative return link in each tube
circuit. Gives circuit diagram, photograph, and

USSR/Electricity (Contd)
Aug 48

curves of stability and sensitivity.

3/49724

LOPATIN, E. A.
(Direct current lamp galvanometer)
Leninrad, Gos. energ. izd-vo, 1952. 189 p. (13-10724)

TR872. G 165

1. Galvanometer.

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Apparatus, Plant Equipment, and
Unit Operations

2000
2000
2000
Classification of electronic measuring apparatus used for
electrochemical methods of analysis. R. A. Lopatin.
Trudy Komissii Anal. Khim., Akad. Nauk S.S.S.R., Otdel.
Khim. Nauk 4(7), 216-51(1962).—The basic principles, ad-
vantages, and disadvantages of all types of app. used for
electrochem. analysis are described in detail. 19 references.
Burilla Mayerle

BR 6/16/54

LOPATIN, B.A.

~~XXXXXXXXXX~~
A three-stage electronic voltmeter. Izv. tekhn. no.5:25-27
S-O '55. (Voltmeter) (MIRA 9:1)

LOPATIN, B.A.; GULIN, A.V.

Apparatus for the accurate measurement of the electric conductance of solutions. Zav.lab. 29 no.8:1014-1015 '63. (IHEA 16:9)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.
(Solution (Chemistry)) (Electric conductivity)

GRANITSKAYA, L.A.; LOPATIN, B.A.

Semiconductor high-frequency apparatus for measuring electric
conductivity and titration. Zav. lab. 29 no.9:1145-1146 '63.
(MIRA 17:1)

1. Sibirskoye otdeleniye AN SSSR.

LOPATIN, B.A.

Attachment to the EPP-79 electronic device for measuring and
recording changes of e.m.f. and electric conductivity. Zav.lab.
29 no.11:1388-1389 '63. (MIRA 16:12)

LCPATIN, Boris Alekseyevich ALABYSHEV, A.F., retsuzent;
SOBOLEVSKIY, K.M., retsuzent; KRASILENKO, V.A.,
retsuzent; KRYUKOV, I.A., dok. sci.; ZAKHAROVA, N.N.,
red.

[Conductometry; measurement of the electrical conductivity
of electrolytes] Konduktometriya; izmerenie elektr. provod-
nosti elektrolitov. Novosibirsk, Redaktsiya i izdatel'stvo
otdel Sibirskogo otd-niya AN SSSR, 1964. 278 p.

(REF ID: A1833)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya
AN SSSR (for Kryukov). 2. Leningradskiy politekhnicheskii
institut im. M.I.Kalinina (for Alabyshev). 3. Institut
avtomatiki i elektrometrii Sibirskogo otdeleniya AN SSSR
(for Sobolevskiy, Krasilenko).

KRUTOYARSKIY, M.A.; LOPATIN, B.G.; BYSTROVA, G.A.; UKHANOV, A.V.; DUKHANIN,
S.F.; ZABURDIN, K.S.

Kimberlites in the Omonos and Ukukit Basins. Trudy NIIGA 65:79-
105 '59. (MIRA 13:12)

(Omonos Valley--Kimberlite)

(Ukukit Valley--Kimberlite)

TABUNOV, S.M.; LOPATIN, B.G.

Kimberlites in the Luchakan Valley. Trudy NIIGA no. 125:135-159
'61. (MIRA 16:7)
(Luchakan Valley—Kimberlite)

LOPATIN, B.G.

Sinian sediments in the southeastern and eastern slopes of the
Anabar Uplift. Inform. sbor. NIICA no.32:21-28 '62.
(MIRA 16:12)

BELEN'KIY, L.I.; LOPATIN, B.G.

Transformations of aluminum chloride etherate in acylation reactions.
Izv. AN SSSR Otd. khim. nauk no. 5: 934-937 My '63. (MIRA 16:8)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Aluminum chloride) (Acylation)

LOPATIN, B. S., Cand Med Sci (diss) -- "The effect of streptomycin on the vestibular analyzer under experimental conditions (Morphological investigation)".
Ivanovo, 1960. 19 pp (Ivanovo State Med Inst), 200 copies (KL, No 14, 1960, 137)

LOPATIN, B.S.

Some experimental data on the effect of streptomycin on the
vestibular analyzer. Vest.otorin. 22 no.3:27-33 My-Je '60.

(STREPTOMYCIN)

(VESTIBULAR APPARATUS)

(MIRA 13:10)

LOPATIN, B.S.

"AI-1" aerosol inhalator adapted to otolaryngological electric
suction. Zhur. ush. nos. i gorl. bol. 21 no.4:80 J1-Ag '61.

(MIRA 15:1)

1. Iz kafedry bolezney ukha, gorla i nosa (zav. - prof. K.G.Borshchev)
Ivanovskogo meditsinskogo instituta.

(OTOLARYNGOLOGY APPARATUS AND INSTRUMENTS)

LOPATIN, B.S.

Functional and morphological changes in the vestibular analyzer
appearing under the influence of streptomycin. (Experimental studies).
Otolaryng. Pol. 16 no.1:63-73 '62.
(STREPTOMYCIN pharmacol)
(VESTIBULAR APPARATUS pharmacol)

MYASOYEDOV, Ye.S.; BORSHCHEV, K.G.; YELISYEVA, A.M.; LOPATIN, B.S.;
ADEL'SON, Ye.N.; BROVKINA, M.A.; PAIMTSEVA, T.D.

Lowering the incidence of angina and rheumatic fever under the
conditions of the cotton spinning and weaving industry. Sov.med.
25 no.5:114-120 My '62. (MIRA 15:8)

1. Iz kafedr gospital'noy terapii (zav. - prof. Ye.S.Myasoyedov),
fakul'tetskoy terapii (zav. - prof. A.M.Yelisoyeva), bolezney ukha,
gorla i nosa (zav. - prof. K.G.Borshchev) Ivanovskogo gosudarstven-
nogo meditsinskogo instituta (dir. - dotsent Ya.M.Romanov) i mediko-
sanitarnoy chasti Melanzhevogo kombinata (glavnyy vrach T.D.
Paimtseva).

(RHEUMATIC FEVER) (STREPTOCOCCAL INFECTIONS) (TONSILS--DISEASES)
(TEXTILE WORKERS--DISEASES AND HYGIENE)

LOPATIN, B.S., dotsent; GORYUNOVA, G.N.

Benign tumor of the main bronchus in a nine-year girl.
Zhur.ush., nos. i gorl.bol. 23 no.3876-77 My-Je'63.

(MIRA 16:7)

1. Iz kafedry bolezney ukha, gorla i nosa (ispolnyayushchiy
obyazannosti zaveduyushchego-dotsent B.S.Lopatin) i kafedry
propedevtiki i fakul'tetskoy pediatrii (zav.-dotsent O.M.Lago)
Ivanovskogo gosudarstvennogo meditsinskogo instituta.

(BRONCHI--TUMORS)

LOPATIN, B.S., dotsent

Foreign body retained in the nose for 30 years. Zhur. ush., nos.
i gor. bol. 24 no.2:83- Mr-Ap '64 (MIRA 18:1)

1. Iz kafedry bolezney ukha, gorla i nosa (ispolnyayushohiy
obyazannosti sav. - dotsent B.S. Lopatin) Ivanovskogo meditsin-
skogo instituta.

LOPATIN, B. V.

PA 26/49T44

USSR/Engineering
Concrete, Reinforced

Jan 49

"A Simple Method of Strengthening Parts of the Productive Equipment in the Manufacture of Reinforced Concrete Structures," B. V. Lopatin, $\frac{1}{2}$ p

"Stroitel; Prom" No 1

Method is to install gas pipes in structures before concrete is poured. Pipes should be 20-25 mm in diameter, and are set about 1-1.5 meters apart. This not only tends to increase strength of structure, but also affords method for making simple supports for factory equipment which might be installed in future.

26/49T44

1. LOPATIN, B. V.

2. USSR 600

4. Pipe

7. Suspending pipelines on reinforced concrete construction, Elek. sta, 23, No. 12, 1952.

9. Monthly List of Russian Accessions, Librart. of Congress, April 1953, Uncl.

LOPATIN, B. V.

Calculation of the Strength of Shell Channels

The author examines the operation of arched constructions both with and without braces. He shows that the pressure at the upper point of the arch is a combination of the weight of the covering and the concentrated force on the upper surface, the latter being distributed uniformly at an angle of 45° in all directions. The pressure of the ground at an arbitrary point of the arch is considered radial and is assumed to vary in a linear manner. (RZhMekh, No. 6, 1955) Sb Nauch. Tr. Ivanovsk. Energ. in-ta, No. 5, 1953, 46-51.

SO: Sum. No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

LOPATIN, B.V., dotsent, kandidat tekhnicheskikh nauk; MYAKISHEV, I.S.,
kandidat tekhnicheskikh nauk, nauchnyy redaktor; PROSTOSZEDOV, A.P.,
redaktor; TOKER, A.M., tekhnicheskiy redaktor.

[Heating networks; construction elements and their calculation]
Teplovye seti; stoitel'nye konstruktzii i ikh raschet. Moskva, Gos.
isd-vo lit-ry po stoit. i arkhitekture, 1954. 251 p. (MIRA 8:2)
(Heating from central stations)

Lopatin, B. V.

AID P - 2087

Subject : USSR/Electricity

Card 1/1 Pub. 26 - 29/29

Author : Skvortsov, A. A., Kand . of Tech. Sci.

Title : B. V. Lopatin. Heating Networks, Building Structures
and their calculation. Moscow, Government Publishing
House of Literature on Construction and Architecture, 1954,
252 pp. (Book Review).

Periodical: Elek. sta., 4, 62-64, Ap 1955

Abstract : A critical review of this manual which can be used as a
textbook. Although the book contains abundant informa-
tion, the author of the review points out many inaccuracies
and suggests that it be used "with caution".

Institution: None

Submitted : No date

LOPATIN, B. V.

2175. Lopatin, B. V., The statics of barrel vaults irregularly loaded with a radial pressure (in Russian), *Sb. nauch. tr. Ivanovsk. energ. in-sta* 6, 3-9, 1955; *Ref. Zh. Mekh.* 1956, Rev. 1922.

Castiglione's method is applied to the analysis of rigid, double-hinged and three-hinged circular arches loaded with a radial pressure the intensity of which increases from the foot to the crown of the arch. The influence of compression of the arch on the bending moments is neglected.

Curves of the moments along the vault with and without hinges are given. For comparison, the case of a two-hinged vault with movable abutments is considered.

Courtesy: *Referativnyi Zhurnal* N. I. Bezukhov, USSR
Translation, courtesy Ministry of Supply England

OP/6

SOV/124-57-9-10866

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 9, p 147 (USSR)

AUTHOR: Lopatin, B. V.

TITLE: Elastic-plastic Eccentric Tension (Uprugo-plasticheskoye vnetsentrennoye rastyazheniye)

PERIODICAL: Sb. nauchn. tr. Ivanovsk. energ. in-ta, 1957, Nr 7, pp 22-31

ABSTRACT: The eccentric tension in the principal plane of a rectangular-cross-section rod is studied. The material of the rod is assumed to possess idealized elastic-plastic properties. Relationships are given for determining the position of the neutral axis and the magnitudes of the prevailing stresses under plastic and elastic-plastic strain. Differential equations for the flexed axis of a shaft subjected to eccentric tension are derived for the elastic and plastic-yield regions, and expressions are given for the determination of its maximum flexure under various tensile loads, eccentricities, and shaft dimensions.

Yu. A. Rakovshchik

Card 1/1

SOV/124-58-3-3473

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 3, p 126 (USSR)

AUTHOR: Lopatin, B. V.

TITLE: Radial Strains of the High-speed Rotating Disks of Induced-draft Fans (Radial'nyye deformatsii bystro vrashchayushchikhsya diskov dymososov)

PERIODICAL: Sb. nauchn. tr. Ivanovsk. energ. in-ta, 1957, Nr 7, pp 31-41

ABSTRACT: The deformations of disks of various design types are determined, including designs with and without an opening and with and without a hub.

Reviewer's name not given

Card 1/1

LOPATIN, B.V., kand.tekhn.nauk

Load on fixed bearings of heating pipes. Izv.vys.ucheb.zav.; energ.
no.6:113-121 Je '58. (MIRA 11:9)

1.Ivanovskiy energeticheskiy institut im. V.I. Lenina.
(Heating pipes) (Strains and stresses)

LOPATIN, B.V., dots, kand. tekhn. nauk

Channelless laying of underground heat ducts. Izv. vys. ucheb. zav. ;
energ. no. 8:91-100 Ag '58. (MIRA 11:11)

1. Ivanovskiy energeticheskiy institut imeni V.I. Lenina.
(Heat engineering)

IOPATIN, B.V.; LYAMIN, A.A.

Canalless installation of heating pipelines in a sand and cement
filling. Vod. i san. tekhn. no. 12:14-19 D '58. (MIRA 11:12)
(Heating pipes)

LOPATIN, R.V.

All-Union conference on the corrosion and protection of metals.
Bun. prom. 33 no.9:29 S '58. (MIRA 11:10)
(Corrosion and anticorrosives--Congresses)

LOPATIN, B.V., dotsent, kand.tekhn.nauk

Designing the fastenings of exhaust-fan rotar disks to bushings.
Izv.vys.ucheb.zav.; energ. 2 no.4:131-139 Ap '59.
(MIRA 12:9)

1. Ivanovskiy energeticheskiy institut imeni V.I.Lenina. Pred-
stavlena kafedroy soprotivleniya materialov i detalay mashin.
(Fans, Electric)

LOPATIN, B.V., kand.tekhn.nauk, dotsent

Erection of pipelines for heating systems above ground.
Izv. vys. ucheb. zav.; energ. 5 no.1:99-104 Ja '62.
(MIRA 15:2)

1. Ivanovskiy energeticheskiy institut imeni V.I.Lenina.
Predstavleno kafedroy soprotivleniya materialov.
(Heating from central stations)
(Pipelines)

AUTHORS: Nazarov I. M. (Deceased), Bergelson, L. D., 72-28-5-...
Badenkova, L. P., Lopatin, B. V.

TITLE: Derivatives of Acetylene (Proizvodnyye atsetilena).
192. Hydrogenation Stereochemistry of Acetylene glycols
(192. Sterekhimiya gidrirovaniya atsetilenovykh
glikoley)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 5,
pp. 1132-1143 (USSR)

ABSTRACT: It is known that the catalytic hydrogenation of acetylene
compounds mainly leads to the cis-ethylenes (Reference 1).
It was, however, noticed several times that besides these
also transisomers form; the quantities of which apparently
depend on the nature of the acetylene compound, on the
catalyst and the hydrogenation conditions (References
2 - 14). In connection with the stereochemical investiga-
tions of the addition reactions to the triple bonds car-
ried out by the authors it was of interest to determine
exactly the amounts of the transolefines which form in
the catalytic hydrogenation of disubstituted acetylenes
and to check if an isomerization of the cis-ethylenes

Card 1/3

Derivatives of Acetylene.

79-28-5-3/69

192. Hydrogenation Stereochemistry of Acetyleneglycol

takes place on the conditions of hydrogenation. Tetramethylbutindiol (2,5 - dimethylhexine - 3 - diol - 2,5) and butindiol were used as objects of investigation. Butindiol and 2,5 - dimethylhexine - 3 - diol - 2,5 (tetramethylbutindiol in hydrogenation convert through Pd/CaCO₂ into mixtures consisting of stereo-isomeric ethyleneglycols which have 10-20% transforms. In the hydrogenation of butindioldiacetate 30-40% transisomers form. The formation of the transform is probably not caused by the isomerization of the cis-olefines, but by the participation of the free radicals in the hydrogenation process. It is proved by a considerable polymerization occurring parallel in the hydrogenation of butindiol and of its acetate. Cis- and trans-tetramethylbutenediols represent a stable crystalline complex in which the glycol isomers are connected with one another by the hydrogen bond. In unpolar solvents this complex is practically not dissociated. An analogous complex is supplied by the trans-tetramethylbutenediol with tetramethylbutindiol. Tetramethylbutenediol hydrogenizes quicker through palla-

Card 2/3

79-28-5-3/69

Derivatives of Acetylene

192. Hydrogenation Stereochemistry of Acetyleneglycol

dium as catalyst than does tetramethylbutenediol, while the butindiol absorbs hydrogen more slowly than butenediol.

There are 5 figures, 1 table and 34 references, 9 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii AN - SSSR
(Institute for Organic Chemistry, AS USSR)

SUBMITTED: July 27, 1957

Card 3/3

LUPATIN, B.V.

0599

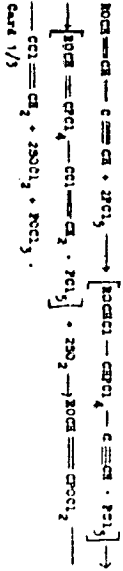
S 1650 220911887, U66 5/09/60/02/009/016/027/11
R01/R086

AUTHORS: Shostakovskiy, M. P., Gusev, I. I., Shumakov, I. M.,
Belitskiy, G. S., and Lupatin, B. V.

TITLE: Synthesis of Compounds of the Type of 1-Alkyl-2-
oxo-3-chlorophosphinoyl-4-chlorobutadienes-1,4

PERIODICAL: Doklady Akad. Nauk SSSR, 1960, Vol. 150, No. 9,
pp. 2036 - 2038

NOTE: The present paper deals with the reaction of ethyl-2-vinyl-
butyrate with PCl_5 (a reaction that has not been described as
yet); they present the following scheme: X



Such a reaction was described by them in Ref. 3. Upon studying the
reaction of ethyl-2-vinylbutyrate with PCl_5 , they devised a
method of synthesizing 1-alkyl-2-oxo-3-chlorophosphinoyl-4-chloro-
butadienes-1,4 (Ref. 4). The resultant compounds are viscous liquids
which readily turn yellow, have a sharp odor, and are stable at low
temperatures. The authors made supplementary experiments to check the
periodicity. The authors made supplementary experiments to check the
structure of the compound synthesized. On the basis of the infrared
spectrum the hydroxy structure may be regarded as proved (Ref. 4).
The splitting of the absorption band of the double bond in the
present compounds may be interpreted in different ways but the
opinion that the band is split into two bands is supported by
the fact that the bands have different assignments which are
shown in the diagram. Reaction is made of A. I. Demegolov. There are
2 tables and 8 references: 7 Soviet and 1 British.

Card 2/3

ASSOCIATOR: Institut organicheskoy khimii Akademi nauk SSSR
(Leningrad, ul. Leninskaya, 29)
Science USSR

SCHEDULED: August 13, 1959

Card 3/3

SHOSTAKOVSKIY, M.F.; GUSEYNOV, I.I.; SHMONINA, L.I.; VASIL'YEV, G.S.
LOPATIN, B.V.

Synthesis of compounds of the type of 1-alkoxy-2-oxychlorophosphine-
3-chloro-1,3-butadienes. Zhur. ob. khim. 30 no.9:2836-2838 S '60.
(MIRA 13:9)

1. Institut organicheskoy khimii Akademii nauk SSSR.
(Butadiene)

SHOSTAKOVSKIY, M.F.; BOGDANOVA, A.V.; USHAKOVA, T.M.; LOPATIN, B.V.

Vinyl compounds in diene synthesis. Stereospecific orientation of the diene synthesis of vinyl aryl ethers condensed with cyclopentadiene in relation to the temperature. Dokl.AN SSSR 132 no.5:1118-1121 Je '60. (MIRA 13:6)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR. Predstavleno akademikom B.A. Kazanskim.
(Ethers) (Cyclopentadiene)

53610

2209 only

84667

S/O20/60/135/001/020/030
BO16/BO67

11.2.210

AUTHORS:

Shostakovskiy, M. F., Corresponding Member AS USSR,
Chekulayeva, I. A., Kondrat'yeva, L. V., and Lopatin, B.V.

TITLE:

Structure and Some Properties of the Products of Interaction Between Diacetylene and Alkyl Amines

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 1, pp.101-104

TEXT: In studying the reaction of diacetylene with primary and secondary alkyl amines (Ref. 1) the authors observed that the N-alkyl-diamino-1,4-butadienes-1,3 and the N,N-dialkyl-amino-1-butenines-3, respectively, are the main products. The authors succeeded in isolating the geometric isomers of N,N-diethyl-amino-1-buten-1-ine-3 (I and II) from the reaction of diacetylene with diethyl amines. The chemical transformations and the data of spectral analysis prove that I and II have cis- and trans-structures, respectively. On heating, isomer I passes over into II. The UV spectrum of II is more intensive than that of I. In the IR spectrum of I, no absorption bands were observed in the range of from 800 to 1000 cm^{-1} , in the IR spectrum of II, however, an intensive absorption band is observed at 945 cm^{-1} which is characteristic of a trans-configuration (Table 1).

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Structure and Some Properties of the Products S/020/60/135/001/020/030
of Interaction Between Diacetylene and B016/B067
Alkyl Amines

Furthermore, an intensive absorption band is observed in the spectrum of substance I at 692 cm^{-1} which is interpreted as the CH-vibrational deformation of the isomer. In spectrum II, no corresponding band exists in this region. The IR spectra of the isomers I and II were taken on a spectrophotometer of the type UR-10. The pictures showed that the bands of the double bond are split into two components. The intensities of the components are not equal. Substance I and II may only be geometrical or place isomers: $(\text{C}_2\text{H}_5)_2\text{NCH}=\text{CH}-\text{C}=\text{CH}$ and $\text{CH}_2=\text{CN}(\text{C}_2\text{H}_5)_2-\text{C}\equiv\text{CH}$. In the range $885-895\text{ cm}^{-1}$ and $3075-3095\text{ cm}^{-1}$ of the IR spectrum of both substances, no absorption bands are observed which are characteristic of a terminal double bond. This confirms the cis-trans isomerism. On the basis of the investigation of products of the addition of amines (III), alcohols (IV), and mercaptans (V) to I and II, the place isomerism seems to be excluded (see Scheme). In the reaction of n-amyl amine with the isomers I and II, 1,4-amino-substituted butadienes (III) were formed under analogous conditions which

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Structure and Some Properties of the Products S/020/60/135/001/020/030
of Interaction Between Diacetylene and B016/B067
Alkyl Amines

had the same physico-chemical constants, formed the same picrates, and also had similar IR spectra. The IR spectra of products of the addition of butyl alcohol (IV) and ethyl mercaptan (V) to I had no absorption bands corresponding to the terminal double bond. This excludes the presence of this bond in the initial isomers. Hence, the addition with the formation of I is the most essential point in the reaction of diacetylene with diethyl amine. This agrees with the results obtained by the ion reaction of the thiols with diacetylene which is stereospecific and proceeds according to the method of the "trans-addition" rule. N-butyl-diamino-1,4-butadiene-1,3 (VI) with cis-cis configuration of the substituents with respect to the double bonds is the main product resulting from the reaction of diacetylene with n-butyl amine. The structure of VI was confirmed by a diene synthesis and by data of spectral analysis. IR spectra of butadiene VI in a polar and a non-polar solvent showed that the position of the absorption bands of $>C=N$ and $>C=C<$ bonds was only slightly influenced (Table 2). The Raman spectrum showed only one line in the region of 1600 cm^{-1} . The bond $>C=N$ (1684 cm^{-1} in the IR spectrum) was also present

Card 3/4

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Structure and Some Properties of the Products S/020/60/135/001/020/030
of Interaction Between Diacetylene and Alkyl Amines B016/B067

in a second substance which was formed in a small amount in the reaction of diacetylene with n-butyl amine. This substance will be further investigated. There are 1 figure, 3 tables, and 3 references: 2 Soviet and 1 US.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR
(Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: July 18, 1960

Card 4/4

SHOSTAKOVSKIY, M.F.; BOGDANOVA, A.V.; USHAKOVA, T.H.; LOPATIN, D.V.

Vinyl compounds in the diene synthesis. Report No. 4: Comparative characteristics of the dienophilic activity of vinyl and thiovinyl ethers, and optical study of the adducts obtained. Izv. AN SSSR. Otd. khim. nauk no. 1:120-127 Ja '61. (MIRA 14:2)

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

VOL'KENSHTEYN, Yu.B.; LOPATIN, B.V.; PETUKHOV, V.A.

Study of the composition of products of bromination of 2-thienyl-
ketones in the presence of an excess of aluminum chloride. Izv.
AN SSSR.Otd.khim.nauk no.10:1879-1883 0 '61. (MIRA 14:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Ketones) (Bromination)

SHUYKIN, N.I.; LOPATIN, B.V.; LEBEDEV, B.L.

Determination of compounds of the furan and tetrahydroxyfuran series
by infrared spectroscopy. Zhur.anal.khim. 16 no.5:639-642
S-O '61. (MIRA 14:9)

1. Zelinsky Institute of Organic Chemistry, Academy of Sciences
U.S.S.R., Moscow.

(Furan--Spectra)

LOPATIN, B.V.

Reliable protection of digesters against corrosion. Bum.
prom. 36 no.12:13-14 D '61. (MIRA 15:1)
(Autoclaves--Corrosion)

34991
S/190/62/004/003/011/023
3110/3144

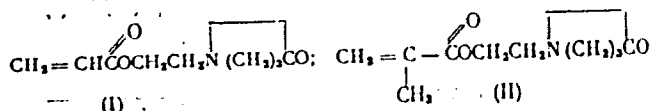
15.8070

AUTHORS: Sidel'kovskaya, F. P., Zelenskaya, M. G., Shostakovskiy, M. F.,
Lopatin, B. V.

TITLE: New acrylic and methacrylic acid esters

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 3, 1962, 359-362

TEXT: A synthesis of α, β -unsaturated esters with lactam rings



was developed to produce new monomers and polymers and to study the effect of the lactam ring on the acrylic ester double bond and on polymer properties. The lactam ring is introduced into saturated esters by the action of N-(β -hydroxyethyl)-pyrrolidone (P) on fatty acids or their acid chlorides. Esterification of acrylic and methacrylic acid (AA, MA) with P is more difficult than that of saturated acids. AA and MA chlorides and P form esters with < 55 % yields (optimum conditions; 1.5 hrs, 70°C, CHCl₃)

Card 1/2

New acrylic and methacrylic acid esters

S/190/62/004/003/011/023
B110/B174

and CCl_4 as solvents, soda (or NH_3) to bind HCl) and sometimes additional small amounts of high-boiling products of unknown structure. The esters I and II are mobile liquids soluble in water, ethanol, methanol, acetone, and benzene, saponifiable in alkali, insoluble in ether and petroleum ether. They polymerize at $40^\circ C$, but withstand long-time storage at room temperature. IR spectra taken with an MKC-14 (IKS-14) spectrophotometer (NaCl prism) showed two carbonyl groups and one $=CH_2$ double bond. Solid polymers insoluble in organic substances and water, are obtained with azoisobutyric acid dinitrile. With benzoyl peroxide, only polymers from I insoluble in organic substances and water, could be produced within 12 hrs at $60-62^\circ C$. There are 1 figure, 1 table, and 4 references: 1 Soviet and 3 non-Soviet. The most important reference to English-language publications reads as follows: G. N. Stempel et al. J. Amer. Chem. Soc., 72, 2299, 1950.

ASSOCIATION: Institut organicheskoy khimii AN SSSR im. N. D. Zelinskogo
(Institute of Organic Chemistry AS USSR imeni N. D. Zelinskij)

SUBMITTED: February 23, 1961

Card 2/2

VOL'KENSHTEYN, Yu.B.; LOPATIN, B.V.; PETUKHOV, V.A.

Spectral study of the complex of 2-acetothienone with aluminum chloride. Izv. AN SSSR. Otd.khim.nauk no.5: 917-919 My '62.

(MIRA 15:6)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Ketone--Spectra) (Aluminum chloride)

SIDEL'KOVSKAYA, F.P.; ZELENSKAYA, M.G.; SHOSTAKOVSKIY, M.F.; LOPATIN, B.V.

New esters of acrylic and methacrylic acids. Vysokom.soed. 4
no.3:389-392 Mr '62. (MIRA 15:3)

1. Institut organicheskoy khimii AN SSSR imeni N.D.Zelinskogo.
(Acrylic acid) (Methacrylic acid)

S/048/62/026/010/012/013
B117/B186

AUTHORS: Lopatin, B. V., and Yakovlev, I. P.

TITLE: Determination of the number of methyl and methylene groups in organic compounds containing hetero-atoms by infrared spectroscopy

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 10, 1962, 1288-1290

TEXT: A study was made of infrared spectra ($2800-3100\text{ cm}^{-1}$) of compounds belonging to the furane and tetrafurane series, of boranes and diboranes, and of organo-silicon and organo-germanium compounds in CCl_4 containing O, S, B, Si, and Ge as hetero-atoms. The number of methyl and methylene groups was determined from absorption bands corresponding to the asymmetric stretching vibrations of the CH_2 groups and to the doubly degenerate stretching vibrations of the CH_3 groups. In most cases the position of these bands agreed with averaged data from publications (L. Bellami, *Infrakrasnyye spektry molekul* (Infrared spectra of molecules), p. 16, IL, 1957): $2962 \pm 10\text{ cm}^{-1}$ for the CH_3 groups, and
Card 1/2

Determination of the number of ...

S/048/62/026/010/012/013
B117/B186

2926 \pm 10 cm⁻¹ for the CH₂ groups. Conclusions: Hetero-atoms produce various effects; for example, the absorption band frequency of the CH₃ and CH₂ groups is noticeably influenced by O, S, and B, but is hardly affected by Si and Ge. The greatest change in frequency was established in the groups closest to the hetero-atom. Hetero-atoms lower the absorption band intensity to a greater extent than alkanes, the effect of O, S, and B being stronger than that of Si and Ge. When several hetero-atoms are present in the molecule their action becomes stronger, but it diminishes rapidly with increasing length of the alkyl radical and virtually ceases when there are more than two links. It is shown that the methods developed for alkanes can also be used to determine the number of CH₃ and CH₂ groups in compounds containing hetero-atoms, but the intensity drop of the two groups closest to the hetero-atom must be allowed for and a corresponding correction has to be made. Using the method proposed by R. N. Jones (Spectrochim. acta, 9, 235 (1957)), it was possible to examine the structure of products obtained by alkylating furane and tetrahydrofurane and to determine the number of CH₃ and CH₂ groups with a relative error of 10-15%. There are 2 figures and 1 table.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinsky of the Academy of Sciences USSR)

Card 2/2

SERGEYEVA, L.L.; SHORYGINA, N.N.; LOPATIN, B.V.

Nitration of lignin and model compounds containing an arylcarbinol group. Izv.AN SSSR.Otd.khim.nauk no.7:1295-1302 J1 '62.
(MIRA 15:7)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Lignin) (Nitration) (Alcohols)

LOPATIN, B.V., kand.tekhn.nauk, dotsent

Settling of the supports of guyed steam pipelines. Izv.vys.ucheb.,
zav.; energ. 5 no.4:114-117 Ap '62. (MIRA 15:5)

1. Ivanovskiy energeticheskiy institut imeni V.I.Lenina. Predstavlena
kafedroy soprotivleniya materialov.
(Pipelines) (Steampipes)

SHOSTAKOVSKIY, M.F.; ZELENSKAYA, M.G.; SIDEL'KOVSKAYA, F.P.; LOPATIN, B.V.

Lactones and lactams. Report No.22: N-acryloyl lactams.
Izv.AN SSSR.Otd.khim.nauk no.3:505-510 Mr '62. (MIRA 15:3)

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

LOPATIN, B.V., kand.tekhn.nauk

A certain mistake in a standard plan. Prom.stroi. 40 no.8:57
'62. (MIRA 15:11)
(Precast concrete construction--Standards)

GUSEYNOV, I.I.; LOPATIN, B.V.; VASIL'YEV, G.S.; ORLOVA, L.V.; SHOSTAKOVSKIY, M.F.

Spectra and structure of 1,2,3,-phosphorus-containing heterosubstituted
1,3-butadienes. Izv.AN SSSR.Otd.khim.nauk no.9:1550-1554 S '62.
(MIRA 15:10)

1. Institut organicheskoy khimii im. N.D.Zelinakogo AN SSSR.
(Butadiene—Spectra)

LOPATIN, B.V.; YAKOVLEV, I.P.

Infrared spectroscopy method for determining the number of methyl and methylene groups in organic compounds containing a heteroatom. Izv. AN SSSR.Ser.fiz. 26 no.10:1288-1290 0 '62. (MIRA 15:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Heterocyclic compounds) (Chemical structure)
(Spectrum, Infrared)

SHOSTAKOVSKIY, M. F.; CHEKULAYEVA, I. A.; KONDRAT'YEVA, L. V.; L
LOPATIN, B. V.

Interaction of diacetylene with amino alcohols and amines.
Report No. 3: Stereochemistry of the addition of alkyl amines
and dialkyl amino alcohols to the triple bond of diacetylene
and 1-buten-3-yne. Izv. AN SSSR Otd. khim. nauk no. 12:2217-
2220 D '62. (MIRA 16:1)

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

(Amines) (Alcohols) (Butadiyne)
(Butenyne)

SHOSTAKOVSKIY, M.F.; SIDEL'KOVSKAYA, F.P.; AVETISYAN, A.A.; ZELENSKAYA,
M.G.; LOPATIN, B.V.

N-vinylthiopyrrolidone. Dokl. AN SSSR 153 no.5:1089-1092
D '63. (MIRA 17:1)

1. Institut organicheskoy khimii im. N.D. Zelinskogo
AN SSSR. 2. Chlen-korrespondent AN SSSR (for Shostakovskiy).

KONDRAT'YEVA, L.V.; CHEKULAYEVA, I.A.; SHOSTAKOVSKIY, M.F.; LOPATIN, B.V.

Addition of unsaturated amines to diacetylene. Izv.AN SSSR.
Ser.khim. no.1:160-162 Ja '64. (MIRA 17:4)

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

GOL'DFARB, Ya.L.; VOL'KENSHTEYN, Yu.B.; IOFATIN, B.V.

Bromination and chloromethylation of 2-thiophenealdehyde in the presence of an excess of aluminum chloride. Zhur. ob. khim. 34 no. 3:969-977 Mr '64. (MIRA 17:6)

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

SERGEYEVA, L.L.; SHORYGINA, N.N.; LOPATIN, B.V.

Nitration of model lignin compounds: 1-veratryl-3-propanol
and 1-guaiacyl-3-propanol. Izv. AN SSSR Ser. khim. no.7:1254-
1260 JI '64. (MIRA 17:8)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

ANTIK, L.V.; KLABUNOVSKIY, Ye.I.; BALANDIN, A.A.; LOPATIN, B.V.; PETUKHOV, V.A.

Synthesis and transformations of dihydrodioxotribenzotriptycene.
Izv. AN SSSR Ser. khim. no.7:1260-1267 JI '64.

(MIRA 17:8)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

i. 36960-66 EWT(m)/EWP(j) WW/JW/RM
ACC NR: AP6014889 SOURCE CODE: UR/0076/65/039/012/2868/2876

AUTHOR: Shorygin, P. P.; Lopatin, B. V.

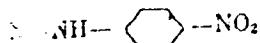
ORG: AN SSSR, Institute of Organic Chemistry (AN SSSR, Institut organicheskoy khimii)

TITLE: Spectroscopic investigation of aromatic nitroamides

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 12, 1965, 2868-2876

TOPIC TAGS: spectrophotometric analysis, aromatic nitro compound

ABSTRACT: The following reasons can be advanced for the splitting of the bands of the nitro group: 1) in the solutions there exist two forms of the molecules, to which correspond somewhat differing frequencies of the nitrogroup (associated and non-associated molecules; rotational isomers); 2) the same type of molecule has two forms of vibration, with the significant participation of the nitro group (in a special case-- Fermi resonance); and, 3) one of the components does not belong to the vibrations of the nitro group. For compounds of the type



a characteristic is the presence in the range of frequencies of the

UDC: 543.42

Card 1/2

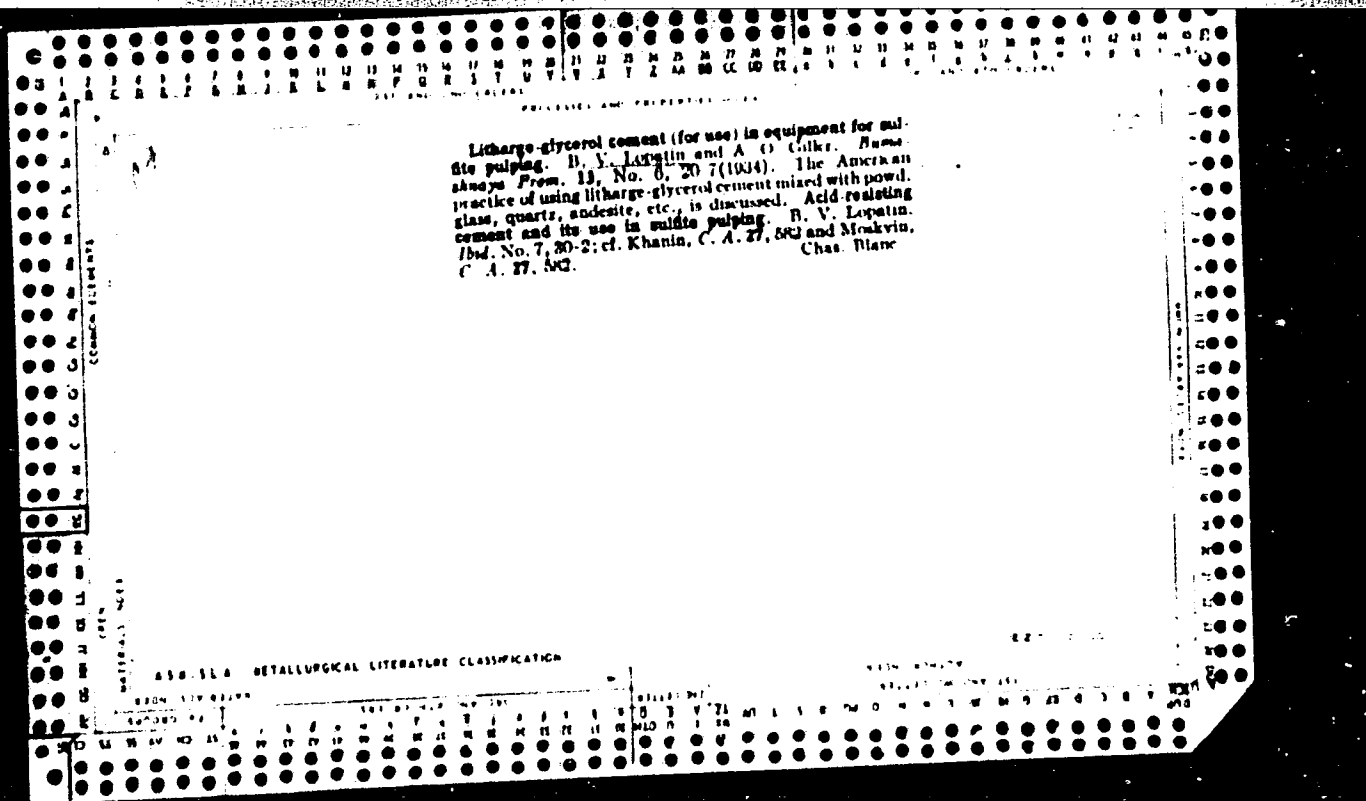
L 36960-66

ACC NR: AP6014889

nitro group of two bands which are very sensitive to the influence of the medium (solvents, temperature). The redistribution of the intensity between the components with changes in the medium indicates that both components belong to the nitro group. A more probable explanation of these particularities of the spectrum is a change in the vibrations due to a convergence of the frequencies of the "nitro group vibration" and another vibration in "active" solvents. The frequency of the valence vibrations in n-amino derivatives of nitrobenzene is substantially lower than in nitrobenzene and n-alkyl derivatives; in this case, alkalation of the amino group has a greater effect on the frequency of the nitro group than does NH_2 . Orig. art. has: 2 figures and 2 tables.

SUB CODE: 07, 20/ SUBM DATE: 30Mar64/ ORIG REF: 004/ OTH REF: 007

Card 2/2 *ll*



LOPATIN, B.V.

Protection of the body of digesters against corrosion. Bum.prom.
35 no.8:14-15 Ag '60. (MIRA 13:8)
(Woodpulp industry--Equipment and supplies)
(Corrosion and anticorrosives)

LOPATIN, B.V.

"Swelling" of lining materials in sulfite digesters. *Bun.prom.*
35 no.12:11-12 D '60. (MIRA 13:12)
(Woodpulp)

LOPATIN, B.V.

Modern systems of lining digesters. Bum. prom. 36 no.9:30-31 5
*61. (MIRA 15:1)
(Papermaking machinery)

LOPATIN, B.V.

Striving ceaselessly for the quality improvement of digester
linings. Bum.prom. 37 no.1:15-16 Ja '62. (MIRA 15:1)
(Woodpulp industry---Equipment and supplies)

LOPATIN, B.V., inzh.

Preventing the corrosion of bimetal digesters. *Bum. prom.* 37
no.7:17-18 J1'62. (MIPA 17:2)

LOPATIN, B.V., inzh.

Important task for researchers. Bum. prom. [38] no.6:18 Je '63.

(MIRA 16:7)

(Laminated metals—Corrosion)

LOPATIN, B.V.

Improve the quality of acidproof ceramics. Bum. prom. 38
no.11:16-18 N '63. (MIRA 17:1)

LOPATIN, P.V.; IOPATIN, E.V.

Search for new materials for packing drugs; penetration of ultraviolet radiation through new materials used in packing drugs. Apt. delo 13 no.4:17-20. JI-Ag '64. (MIRA 18.2)

1. Farmatsyevticheskiy fakul'tet i Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

NOVOSEL'TSEV, V.; LOPATIN, G.

New type engine. Za rul. 14 no.5:20 Ag '56.
(Great Britain--Engines)

(MLRA 10:1)

KARASEV, K.; LOPATIN, G.

Alkyl-styrene paints. Sel'.stroil. no.11:13 M '62. (MIRA 15:12)

1. Nachal'nik laboratorii sinteticheskikh lakov i krasok
Vsesoyuznogo nauchno-issledovatel'skogo instituta novykh
stroitel'nykh materialov Akademii stroitel'stva i arkhitektury
SSSR (for Karasev). 2. Zamestitel' nachal'nika otdela
Rosproyekta Gosstroya RSFSR (for Lopatin).
(Paint)

LOPATIN, G., inzh.; SHURAN, I., inzh.

Simplified sheepfolds. Sel'. stroi. no.12:13 D '62.
(MIRA 16:1)

(Sheep houses and equipment)

LOPATIN, G. M.

176T70

USSR/Medicine - Dysentery
Children, Diseases

Jun 50

"Dysentery in Young Children," Prof G. M. Lopatin

"Feld'sher i Akusher" No 6, pp 9-13

Presents simple treatment of subject. Discusses course and types of dysentery, various therapies, including application of bacteriophage, antidysentery serum, new alc vaccine proposed by Prof Chernokhvastov, and vitamins. Measures for preventing contagion and epidemic outbreaks.

176T70

LOPATIN, G.M., professor (Moscow).

Therapy of infectious hepatitis in children. Vel'd. i akush. no.6:47-49
Je '53. (MLA 6:7)
(Liver--Diseases)

LOPATIN, G. M.

SMIRNOV, P.V., professor, redaktor; LOPATIN, G.M., redaktor; SACHEVA, A.I.,
tekhnicheskii redaktor

[Scarlet fever; etiology, pathogenesis therapy, and prophylaxis by
the use of antibiotics] Skarlatina; etiologiya, patogenez, lechenie
i profilaktika antibiotikami. Pod red. P.V.Smirnova. Moskva, Gos.
izd-vo med. lit-ry, 1954. 153 p. (MLRA 8:3)

1. Akademiya meditsinskikh nauk SSSR, Moscow.
(Scarlet fever) (Antibiotics)

S/598/60/000/004/013/020
D217/D302

AUTHORS: Reznichenko, V.A., Ogurtsov, S.V. Lopatin, G.S.
and Melikbekova, S.A.

TITLE: Study of titanium production by the thermal magnesium
method

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Titan i yego
splayv. No. 4. Moscow, 1960. Metallurgiya titana, 122-131

TEXT: The purpose of this work was to study the nature of processes occurring during reduction of $TiCl_4$ both under laboratory and close to production conditions. First of all, the distribution of the products of reaction was studied. The work was carried out in a laboratory reactor in the following sequence: 150-160 g of etched Mg was charged into the reaction vessel, the pressure reduced to $1 \cdot 10^{-3}$ mm Hg and purified argon passed to a residual pressure of 20-30 mm Hg. This procedure was repeated 3-4 times. Definite portions of $TiCl_4$ were transferred to the reactor at $750^\circ C$. After each transfer, the process was

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D217/D302

Study of titanium ...

interrupted and the reactor cooled to room temperature in an argon atmosphere. The reacting mass was cut longitudinally into two portions. One portion was used for photography and from the other, samples of the products of reaction were taken from various points and analyzed for Mg, Cl_2 , Ti, and in an aqueous extract, for Mg and Cl_2 . To study the dis-

tribution of metallic Ti, particularly with small tetrachloride consumption (2-15%), the method of taking color prints in chromotropic acid was used. The results obtained in laboratory investigations were verified under production conditions. It was found that the production of metallic Ti by the thermal Mg method is a complicated physico-chemical process. The distribution of the products of reaction during the process and the formation and growth of Ti sponge are the same under laboratory as under production conditions. The formation of the profile of the growing Ti sponge can be controlled by varying the rate of supply of $TiCl_4$.

Soaking the products of reaction after the end of the process had no effect on the grain size of Ti. The conglomeration of Ti particles into sponge is due to their adhesion to Mg. There exists a relationship

Card 2/3

Study of titanium ...

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between specific pressure and the rate of $TiCl_4$ supply which may be viewed as the reaction characteristic of the reduction process. By applying this reaction characteristic, it is possible to select the optimum rates of $TiCl_4$ supply to ensure maximum efficiency and a high recovery of Mg. Application of cooling enables $TiCl_4$ to be supplied at high average rates at any given temperature. There are 4 figures.

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