

Radioactive Isotopes and Nuclear (Cont.)

SOV/5592

Tech. Ed.: A. S. Polosina.

PURPOSE : The book is intended for engineers and technicians dealing with the problems involved in the application of radioactive isotopes and nuclear radiation.

COVERAGE: This collection of 39 articles is Vol. 4 of the Transactions of the All-Union Conference of the Introduction of Radioactive Isotopes and Nuclear Reactions in the National Economy of the USSR. The Conference was called by the Gosudarstvennyy nauchno-tekhnicheskiy komitet Sovet Ministrov SSSR (State Scientific-Technical Committee of the Council of Ministers of the USSR), Academy of Sciences USSR, Gosplan SSSR (State Planning Committee of the Council of Ministers of the USSR), Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (State Committee of the Council of Ministers of the USSR for Automation and Machine Building), and the Council of Ministers of the Latvian SSR. The reports summarized in this publication deal with the advantages, prospects, and

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development of radioactive methods used in prospecting, surveying, and mining of ores. Individual reports present the results of the latest scientific research on the development and improvement of the theory, methodology, and technology of radiometric investigations. Application of radioactive methods in the field of engineering geology, hydrology, and the control of ore enrichment processes is analyzed. No personalities are mentioned. There are no references.

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POPOV, N.V.

Data on the epidemiological effectiveness of living influenza monovaccine
A2. Vop. virus. 7 no. 1:47-50 Ja-F '61. (MIRA 14:4)
(INFLUENZA)

POPOV, N.V., red.; DUDKO, G.N., red.; SHENDAREVA, L.V., tekhn. red.;
KOLOMEYER, V.Z., tekhn. red.

[Furniture for modern appartments] Mebel' dlia kvartir novogo
tipa. Moskva, 1959. 293 p. illus. (MIRA 14:5)

1. Russia(1923- U.S.S.R.) Glavnoye upravleniye standartnogo
dcmostroitel'stva. TSentral'noye byuro tekhnicheskoy informatsii.
(Furniture--Catalogs)

GULYAYEV, V.I.; POPOV, N.V., red.; KOLOMEYER, V.V., tekhn.red.

[Mechanization in furniture finishing operations] Opyt
mekhanizatsii protsessov otdelki mebeli. Moskva, TSentr.
biuro tekhn.informatsii Glavstandartdoma, 1958. 63 p.
(MIRA 13:1)

(Furniture industry)

SLUTSKIY, S.B., inzh.; POPOV, N.V., red.; KOLOMEYER, V.Z., tekhn.red.

[Furniture manufacture in Finland] Proizvodstvo mebeli v
Finlandii. Moskva, Tsentr.biuro tekhn.informatsii Glav-
standartdoma, 1959. 22 p. (MIRA 13:1)
(Finland--Furniture industry)

POPOV, N.V., inzh., retsenzent; PETUKHOV, P.Z., doktor tekhn.nauk,
retsenzent; SUSLOV, N.I., inzh., red.; DUGINA, N.A., tekhn.
red.; UVAROVA, A.F., tekhn.red.

[Developing the use of plastics in the manufacture of machines]
Rasshirenie vozmozhnostei primeneniia plastmass v konstruktsiakh
mashin. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry,
1959. 183 p. (MIRA 13:3)
(Plastics) (Machinery industry)

YEROZOLIMSKIY, B.G.; VOYTSIK, L.R.; POPOV, N.V.; SHKOL'NIKOV, A.S.

New methods for studying wells based on the use of impulse
neutron sources. *Neft.khoz.* 36 no.11:21-28 N '58.

(MIRA 11:12)

(Neutrons) (Prospecting--Geophysical methods)

11(0)

AUTHOR: Yerozolimskiy, B.G., Voytsik, L.R., Popov, N.V., and Shkol'nikov, A.S. SOV/93-58-11-4/15

TITLE: New Oilfield Exploration Methods Employing Pulse Generating Neutron Sources (Novyye metody issledovaniya burovykh skvazhin, osnovannyye na ispol'zovaniy impul'snykh neytronnykh istochnikov)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 11, pp 21-28 (USSR)

ABSTRACT: The article notes the development of neutron generators for radioactivity well logging in the Soviet Union and America [Ref 1-4] and analyzes the possible employment of such units in pulse operation as well as the development of new exploration methods based on pulse generating neutron sources which will enable one to study the unsteady processes of neutron and reservoir rock interaction. Understanding of the processes taking place in the medium around the source after its emission of a short pulse of neutrons [Ref 5,6] will make it possible to find the ways of utilizing the pulse method for solving the geophysical problems of oilfields. One of these possible methods is the determination of the formation's porosity and its fluid mineralization by measuring the nonstationary field of thermal neutrons. This requires finding the dependence of the thermal neutron stream on the time which is presented by Fig. 2 as the curve of $n(t)$, where n is the number of thermal neutrons registered by the tracer and t - the time.

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New Oilfield Exploration Methods (Cont.)

307/93-58-11-4/15

Function $n(t)$ is computed from the theory of diffusion [Ref 7] and expressed by the formula
$$n(t) = \frac{C}{(Dt)^{3/2}} e^{-\frac{r^2}{4Dt} - \frac{t}{\tau}}$$
, where D is the

coefficient of neutron diffusion in a medium depending primarily on the reservoir rock's hydrogen content and τ - the life span of the thermal neutrons depending somewhat on the hydrogen content and to a greater extent on the water mineralization due to its chlorine content. Among the other possible new methods that can be developed with impulse generating neutron sources are those which may be based on measuring the slowing down time of the neutrons, as well as on determining which reservoir rock contain carbon by means of inelastic scattering gamma ray spectra [Ref 8-10]. The unit employed in oilfield exploration methods based on pulse generating sources is presented by Fig. 1. There are 2 figures and 10 references, 4 of which are Soviet and 6 English.

Card 2/2

POPOV, N.V., red.

[Mechanization of technological processes in furniture
manufacturing] Mekhanizatsiia tekhnologicheskikh protsessov v
mebel'nom proizvodstve. Moskva, Tsentral'noe biuro tekhn.
informatsii Bumazhnoi i derevoobrabatyvaiushchei promyshl, 1958. 36 p.
(MIRA 11:12)

(Furniture industry)

GULYAYEV, B.B., doktor tekhn.nauk, prof.; POPOV, N.V., inzh.

Investigating the state of sulfur in liquid steel. Izv. vys. ucheb.
zav.; chern.met. no.5:29-32 My '58. (MIRA 11:7)

1. Leningradskiy nauchno-issledovatel'skiy institut.
(Desulfuration) (Steel--Metallurgy)

POPOV, N.V.

Studying the results of weather observations. Geog. v shkole 21 no.3:
33-41 My-Je '58. (MIRA 11:6)

(Weather)

Field diary
POPOV, N.V., kand.biolog.nauk (Novocherkassk)

October in the lower Don Valley. Priroda 46 no.10:124-125 0 '57.
(MIRA 10:10)

(Don Valley--Autumn)

8-100, 04

TIMOFEEV, Valentin Aleksandrovich; POPOV, N.V., nauchnyy red.; SOKOLOVA,
M.A., red.; OSTRIROV, N.S., tekhn.red.

[Cabinetwork] Krasnoderevnye raboty. Moskva, Vses. uchebno-
pedagog. izd-vo Trudrezervizdat, 1957. 350 p. (MIRA 11:2)
(Cabinetwork)

POPOV, N.V.

POPOV, N.V.

Wind-driven waterworks. IUn.tekh.no.12:23-27 D '57. (MIRA 10:12)

1. Direktor Kiselevskoy semiletney shkoly.
(Windmills) (Pumping stations)

POPOV, N.V., inzhener.

Toward a revision of the existing standards for furniture. Der.
prom. 6 no. 4:3-4 Ap '57. (MLRA 10:6)

1. Tsentral'noye byuro tekhnicheskoy informatsii Minbumbrevproma
SSSR.

(Furniture industry)

26-10-41/44

120 120 1/10 1/1

AUTHOR: Popov, N.V., Candidate of Biological Sciences, Novocherkassk

TITLE: October in the Region of the Lower Don (Oktyabr' na nizhnem pridon'ye)

PERIODICAL: Priroda, 1957, No 10, pp 124-125 (USSR)

ABSTRACT: According to the author, the best time of the year on the lower Don river is the month of October. During the first ten days of October, you still get the impression that trees and orchards are green, that nature is still at its best. In the second half of the month the "Indian Summer" period begins with occasional autumn frosts. Maples and other trees turn yellow. They shed their leaves and only the fall dandelion continues to blossom. At that time of the year light snowfalls sometimes occur.

AVAILABLE: Library of Congress

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L 47377-66 EAT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HW

ACC NR: AR6028531 SOURCE CODE: UR/0276/66/000/005/B047/B047

AUTHOR: Atroshchenko, E. S. ; Kofman, A. P. ; Mantaroshin, A. P. ;
Nagornov, G. M. ; Popov, N. V. ; Ryadinskaya, I. M.

26
B

TITLE: A possibility of using explosion energy for strengthening tractor lug
tracks

SOURCE: Ref. zh. Tekhnologiya mashinstroyeniya, Abs. 5B314

REF SOURCE: Sb. Materialy Nauchn. konferentsii. Sovnarkhoz Nizhne-Volzhsk.
ekon. r-na. Volgogradsk. politekhn. in-t. T. 1. Volgograd, 1965, 284-287

TOPIC TAGS: tractor, lug track, explosion energy

ABSTRACT: The use of explosion energy for strengthening tractor lug tracks was
found to be feasible. A diagram for strengthening the lugs was shown. The use of
explosive cords is considered to be the most acceptable from the engineering
aspect. Studies were made of the effect of the medium on the magnitude and

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UDC: 621.789:621.81

Card 2/2

POPOV, N.V.

Studying the results of weather observations. Geog. v shkole 21 no.3:
33-41 My-Je '58. (MIRA 11:6)

(Weather)

POPOV, N.V., kandidat biologicheskikh nauk, dotsnet; SHIK, M.M., redaktor.

[Phenological observation in the school] Fenologicheskie nabludeniia v shkole. Izd.2., ispr. Moskva, Gos.uchebno-pedagog.izd-vo, 1953. 215 p.

(MLRA 7:3)
(Phenology)

POPOV, N.V.

How to teach students about annual seasonal changes. Geog. v
shkole no.6:47-52 N-D '53. (MLRA 6:12)
(Seasons--Study and teaching)

POPOV, N.V., kandidat biologicheskikh nauk.

Phenological observations by schoolchildren. Est. v shkole no.2:
82-86 Mr-Ap '56. (MLRA 9:7)
(Nature study) (Phenology)

POPOV, N.V., kandidat biologicheskikh nauk (Novocherkassk).

In the lower Don area. Priroda 45 no.3:127-128 Mr '56.
(Don Valley--Climatology) (MIRA 9:7)

ACC NR: AM7003014

(A)

Monograph

UR/

Popov, N. V.; Yufin, V. A.

Pipeline transportation, 1964-1965 (Truboprovodnyy transport, 1964-1965) Moscow /VINITI/ 66, 0102 p. illus., biblio. 1,500 copies printed.

TOPIC TAGS: pipeline transportation system, storage tank, corrosion protection, pipeline construction

PURPOSE AND COVERAGE: The book covers problems connected with the development of pipeline transportation in the USSR and abroad. It analyses conditions and prospects of pipeline transportation in various countries and its increasing significance in the economics of the state. Experience in pipelinedesign, construction, automation, and measures taken to protect pipelines against corrosion are discussed. A description of oil tanks, gas storage tanks and reservoirs, and starting and terminal points of pipelines, is given.

TABLE OF CONTENT [abridged]:

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Ch. 1. Pipeline transportation situation in various countries -- 7

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- Ch. 2. Planning and designing of pipelines -- 26
- Ch. 3. Construction of pipelines -- 37
- Ch. 4. Operation of pipelines -- 41
- Ch. 5. Automatization of main pipelines -- 53
- Ch. 6. Protection of pipelines from corrosion -- 70
- Ch. 7. Oil tanks and reservoirs -- 84
- Ch. 8. Gas storage tanks -- 91

Literature -- 101

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 026/ OTH REF: 122

Card 2/2

I. 08713-67 EWT(1) JK
ACC NR: AP6033920

SOURCE CODE: UR/0177/66/000/010/0065/0066

AUTHOR: Popov, N. V. (Lieutenant colonel; Medical corps); Kuznetsov, V. B.

ORG: none

10
8

TITLE: Rapid influenza diagnosis using fluorescent antibodies

SOURCE: Voyenno-meditsinskiy zhurnal, no. 10, 1966, 65-66

TOPIC TAGS: human ailment, influenza, diagnostic medicine, fluorescent antibody method

ABSTRACT: The use of the fluorescent antibody method for the diagnosis of type A₂ influenza was compared with standard methods with respect to speed, accuracy, and ease. Results showed the serological method to be more sensitive in influenza diagnosis, but in view of the rapidity of the fluorescent antibody method the use of both, one for rapid preliminary diagnosis and the other for confirmation, is recommended. Orig. art. has: 2 tables. [W.A. 50]

SUB CODE: 06/ SUBM DATE: none

Card 1/1 nst

UDC: 616.921.5-078

POPOV, N.V., podpolkovnik meditsinskoy sluzhby

Experience in seroprevention of influenza. Voen.-med. zhur.
no.3:81-82 '65. (MIRA 18:11)

VINOGRADSKIY, V.F., kand. tekhn. nauk; ZAKHAROV, Ye.N., nauchn.
red.; POPOV, N.V., red.

[Vacuum planing of scantling parts in continuous multiple-
line processing on automatic lines] Vakuumnoe bazirovanie
bruskovykh detalei pri mnogopotochnom sposobe obrabotki
na avtomaticheskikh liniakh. Moskva, TSentr. nauchno-
issl. in-t informatsii i tekhniko-ekon. issledovani po
lesnoi, tselliulozno-bumazhnoi, derevoobrabatyvaiushchei
promyshl. i lesnomu khoz., 1964. 23 p. (MIRA 18:5)

SUKHOVA, A.V.; SLUTSKIY, L.B., nauchn. red.; POPOV, N.V., red

[Methods for testing furniture for strength and durability]
Metody ispytaniya mebeli na prochnost' i dolgovechnost'.
Moskva, TSentr. nauchno-issl. in-t informatsii i tekhniko-
ekon. issledovaniy po lesnoi, tselliulozno-bumazhnoi, derevo-
obrabatyvaishchei promyshl. i lesnomu khoz., 1964. 47 p.
(MIRA 18:5)

1. Vsesoyuznyy proyektno-konstruktorskiy i tekhnologicheskii
institut mebeli (for Sukhova).

POPOV, N.V., inzh.; BRAUN, M.P., doktor tekhn.nauk; VINOKUR, B.E., kand.tekhn.nauk; SOKOL, A.N., kand.tekhn.nauk; ZALETSKIY, G.I., kand.tekhn.nauk

Optimum composition and heat-treatment conditions of steels for tractor parts. Mashinostroenie no.4:49-52 JI-Ag '65.

(MIRA 18:8)

DELLE, V.I., kand. arkhitektury; CHEREPAKHINA, A.N., arkhitektor;
RUBANENKO, B.R., red.; POPOV, N.V., red.

[New furniture models; according to the results of the first round of the Second All-Union Competition for the Best Furniture Models for Residential and Public Buildings] Novye obraztsy mebeli; po rezul'tatam pervoi ocheredi II Vsesoiuznogo konkursa na luchshie obraztsy mebeli dlia zhilykh i obshchestvennykh zdaniy. Moskva, 1962. 326 p. (MIRA 17:9)

1. Tsentral'nyy institut tekhnicheskoy informatsii i ekonomicheskikh issledovaniy po lesnoy, bumazhnoy i derevoobrabatyvayushchey promyshlennosti. 2. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Rubanenko).

SLUTSKIY, M.B., nauchn. red.; BUICH, N.I., red.

[Joining particle boards] sklepeniye drevnno-stroinicheskoy
plit. Moskva, 1964. 17 p. (ind 1871)

1. Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut
informatsii i tekhniko-ekonomicheskikh issledovaniy po lesnoy,
tsellyulozno-bumazhnoy, derevoobrabatyvayushchey pro-
myshlennosti i lesnomu khozyaystvu.

POPOV, Nikolay Vasil'yevich; DIN'KO, F.M.[Dyn'ko, F.M.], red.;
~~LIPCHAK, N.K.[Lypchak, N.K.]~~, tekhn. red.

[In the name of the 22d Congress of the CPSU]Imeni XXII z'izdu
KPRS. Kyiv, Vyd-vo Tsk LKSMU "Molod'," 1962. 61 p.
(MIRA 15:12)

(Ukraine--Efficiency, Industrial)
(Agriculture--Labor productivity)

VENOV, A. (1964) Geograficheskiy opisanie [Geographic description] of the
KNOYAN, A. (1964), p. 1-10.

[Geography of Gorbung Province, Geographic Institute of
USSR Academy of Sciences, Moscow, 1964, 100 p., 100
56 p. (1964) (1964) (1964)]

POFOV, N.V., kand.biologicheskikh nauk (Novocherkassk)

Conducting phenological observations. Biol. v shkole no.2: 60-63
Mr-Ap '62. (MIRA 15:2)

(Crops and climate)

GORLANOV, M.G., prepodavat.; POKAZAN'YEV, Aleksandr; ADAKOV, V.V., kand. ist. nauk; retsenzent; EULAGINA, G.A., kand. ist. nauk, retsenzent; BOROZDIN, Ye.A., red.; ZAVAROV, S.I., red.; POPOV, N.Ye., red.; ROGOZHNIK, V.N., red.; SILENSKIKH, T.N., red.; TARIKO, A.N., red.; KOLOSNITSYN, V., redaktor; MAKSIMOVA, E., tekhn. red.

[Revda stories; from the history of the Revda Hardware Manufacturing and Metallurgical Plant] Revdinskie vyli; iz istorii Revdinskogo metiznometallurgicheskogo zavoda. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1960. 154 p. (MIRA 15:8)

1. Sekretar' Revdinskogo gerodskogo komiteta Kommunisticheskoy partii Sovetskogo Soyuz (for Silenskikh).
(Revda--Metallurgical plants)

POPOV, Nikola, inzh. (Sofiya)

News of foreign engineering. Za rul. 21 no.6:30-31 Je '63.
(MIRA 16 :11)

POPOV, O.A., inzh.; GLOTOV, N.M., kand.tekhn.nauk; ZAVRIYEV, K.S., kand.tekhn.nauk; SHPIRO, G.S., kand.tekhn.nauk

Concerning the revision of the chapter "Pile foundations from consolidating piles" of the Construction Norms and Regulations. Transp.stroi. 15 no.10:46-47 0 '65.

(MIRA 18:12)

1. Gosudarstvennyy ordena Trudovogo Krasnogo Znameni proyektno-izyskatel'skiy institut po proyektirovaniyu bol'shikh mostov (for Popov).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut transportnogo stroitel'stva Ministerstva transportnogo stroitel'stva (for Zavriyev).
3. Vsesoyuznyy zaochnyy politekhnicheskiy institut (for Shpiro).

STAVRAKOV, Ye.Kh., inzh.; POPOV, O.A., inzh.

New designs of the anchors for clusters of prestressed wire.
Transp. stroi. 12 no.8:56-57 Ag '62. (MIRA 15:9)
(Concrete reinforcement)

S/019/61/000/013/035/075/
A154/A128

AUTHORS: Popov, O.A., and Agayev, A.G.

TITLE: A method of reducing nickel oxide

PERIODICAL: Byulleten' izobreteniy, no. 13, 1961, 44

TEXT: Class 40a, 4301. No. 139444 (689566/22 of December 19, 1960).
A method of reducing nickel oxide, distinguished by the fact that, in order to increase the productivity of the electrode anode melting furnaces and increase the technological indices of the process, the hot nickel oxide, obtained in roasting furnaces, and the solid reducing agent are fed into a fluidized-bed furnace, where the recirculating reducing gas of this furnace is blown through them.

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ALEKSEYEV, Yuriy Vasil'yevich; POPOV, Oleg Andreyevich; GLADKOV, V.A.,
red.; KOVRAYSKIY, K.Ye., spets. red.; SYCHEVA, V.A., tekhn.
red.

[Experience in semicontinuous smelting] Opyt polunepreryvnoi plav-
ki. Murmansk, Murmanskoe knizhnoe izd-vo, 1962. 23 p.
(MIRA 15:12)

(Nickel--Electrometallurgy)

ALEKSEYEV, Yu.V.; ASTAF'YEV, A.F.; POPOV, O.A.; Primali uchastiye:
AGAYEV, A.G.; REBROV, A.G.; KULAKOV, N.N.

Adopting the roasting of nickel concentrates in a fluidized bed at
the "Severonikel'" Combine. TSvet. met. 36 no.7:35-42 J1 '63.
(MIRA 16:8)

(Nickel--Metallurgy) (Fluidization)

KRYL'TSOV, Yevgeniy Ivanovich, kand. tekhn. nauk; POPOV, Oleg
Aleksandrovich, inzh.; GOLUBKOVA, Ye.S., red.; BODANCOVA,
A.P., tekhn. red.

[Reinforced-concrete bridges abroad] Zhelezobetonnye mosty
za rubezhom. Moskva, Avtotransizdat, 1963. 233 p.
(MIRA 16:12)

(Bridges, Concrete)

YEVGRAFOV, Georgiy Konstantinovich; LYALIN, Nikolay Borisovich; PROTASOV, K.G., prof., retsenzent; GNEDOVSKIY, V.I., prof., retsenzent; BOGOMOLOV, P.I., dots., retsenzent; KRAMAREV, S.Ya., dots., retsenzent; NIKITIN, M.K., dots., retsenzent; SIL'NITSKIY, Yu.M., dots., retsenzent; KOZ'MIN, Yu.G., kand.tekhn.nauk, retsenzent; KRYL'TSOV, Ye.I., kand.tekhn.nauk, retsenzent; POPOV, O.A., inzh., retsenzent; ZELEVICH, P.M., inzh., red.; BOBROVA, Ye.H., tekhn. red.

[Calculations for bridges according to limiting states] Raschety mostov po predel'nym sostoianiam. Moskva, Transzheldorizdat, 1962. (MIRA 15:9)

335 p.

1. Kafedra "Mosty i tonneli" Leningradskogo instituta inzhenerov zheleznodorozhnogo transporta (for Protasov, Gnedovskiy, Bogomolov, Kramarev). 2. Gosudarstvennyy proyektno-izyskatel'skiy institut po proyektirovaniyu i izyskaniyam bol'shikh mostov (for Kryl'tsov, Popov).

(Bridges—Design)

POPOV, O.G.

Importance of the tomographic method of examining the spine in the detection of metastases of cancer. Vop. onk. 10 no.10:39-45 '64.
(MIRA 18:8)

1. Iz rentgeno-radiologicheskogo otdela instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (zav. otdelom - prof. I.I.Tager; direktor instituta - deystvitel'nyy chlen AMN N.N.Blekhnin). Adres avtora: Moskva, V-409, Kashirskoye shosse, 6, Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR.

POPOV, O.I.

System for automatic switching-in of auxiliary power and automatic reclosing for electric motors supplying self needs of electric power plants. Energetik 10 no.1:26-28 Ja '62.

(MIRA 14:12)

(Electric power plants--Electric equipment)
(Electric protection)

POPOV, O.I.; FEDOROVA, Ye.O.

Measurement of the radiation spectra of the atmosphere and the
terrestrial surface in the 2 - 6 μ region from altitudes up to
4 km. Opt. i spektr. 18 no.3:512-514 Mr '65.

(MIRA 18:5)

36953

S/196/62/000/007/005/007
E032/E514

3.5150
AUTHORS:

Meyngard, P.N., Popov, O.I. and Sholokhova, Ye.D.

TITLE:

A recording photoelectric apparatus for the measurement of the transparency of air in the visible part of the spectrum

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no.7, 1962, 5, abstract 7V22. (Sb. "Aktinometriya i atmosfer. optika". L., Gidrometeoizdat, 1961, 152-159)

TEXT:

The photoelectric apparatus $\Phi M-45$ (FM-45), in which the light flux is measured at two distances, was developed for the measurement of the absolute value of the transmission coefficient of air. A modulated light beam produced by a hot-filament lamp (6 V, 7.7 W) is divided into two parts by a system of lenses and mirrors. One of them is focused into a parallel beam and is passed through the layer of the atmosphere, finally reaching the photocell (type CUB-51, STsV-51). The second part of the beam reaches the photocell directly and is used as the comparison beam. The two beams are shifted in phase by 180°. The photocell output, which is proportional to the

Card 1/2

+

POPOV, O. I.; FEDOROVA, Ye. O.

"Some data on the emission spectra of the atmosphere in the region between 2 and 6 microns."

report presented at the Atmospheric Radiation, Leningrad, 5-12 Aug 64.

POPOV, O.I.; FEDOROVA, Ye.O.; SHOLOKHOVA, Ye.D.

Transparency measurement of the lower atmosphere in the
ultraviolet and visible regions of the spectrum. **Izv.**
AN SSR. Ser. geofiz. no. 3:478-486 Mr '61. (MIRA 14:2)

1. Opticheskiy institut im.S.I. Vavilova.
(Atmospheric transparency)

POPOV, O. I. Cand Phys-Math Sci -- (diss) "Study of the transparency of haze in various sections of the spectrum in ^{the range} ~~regions~~ of 0.3 to 1 μ by means of the photoelectric method." Len, 1958. 12 pp (State Optical Inst im S. I. Vavilov), 130 copies (KL, 14-58, 109)

88-

POPOV, O.I.

51-5-8/11

AUTHOR: Popov, O.I.

TITLE: Transparency of the Lower Layers of the Atmosphere in Different Parts of the Spectrum in the Region 0.3 to 1μ .
(Prozrachnost' niznikh slojev atmosfery v otdel'nykh uchastkakh spektra v oblasti ot 0.3 do 1 mk)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol.III, Nr 5, pp.504-513 (USSR)

ABSTRACT: The aim of the present work was to investigate the transparency of mist in different meteorological conditions (different visibilities) and in that region of the spectrum where the loss of radiant energy is due primarily to scattering. From the experimentally determined spectral transparency of the atmosphere a calculation is made of the typical dimensions and the number of scattering particles per unit volume of air for different visibilities. The method adopted was to measure the ratio of the transmission coefficients in the near infra-red and the ultra-violet to the absorption coefficients in the visible. A second apparatus was used to measure the absolute values of the coefficients in the visible. The apparatus is shown in Fig.3. Radiation from a source S passes through a modulating disc D_M , and is reflected by the spherical

Card 1/4

Transparency of the Lower Layers of the Atmosphere in Different Parts of the Spectrum in the Region 0.3 to 1μ .

mirror, R_1 towards a distant mirror, R_2 (not shown in the figure). Light reflected from R_2 is collected by the spherical mirror R_4 and with the help of the mirror R_3 is focussed on the half-silvered plate, P. The light reflected by P is transmitted by the filter, F_2 , and is recorded by the photoelectric cell φ_2 . The light transmitted by P passes through the filter F_1 and is intercepted by the photoelectric cell φ_1 . The photoelectric cells are connected in such a way that the signals from them are in antiphase. The difference between the signals from these cells is amplified by the narrow band amplifier, Y, and after a phase-sensitive rectification is shown on a visual meter. Electrical circuits are based on those developed by M.G. Boldyrev and K.K.Polevitskiy. Measurement consists in equalising the signals from φ_1 and

Card 2/4

51-5-8/11

Transparency of the Lower Layers of the Atmosphere in Different Parts of the Spectrum in the Region 0.3 to 1μ .

P_2 by means of a special potentiometer attached to ψ_1 .

In order to find the ratio of the coefficients of absorption from the two spectral regions defined by the filters F_1 and F_2 , it is necessary to carry out the equalising procedure at two distances. A DC mercury lamp was used as the source and measurements were carried out at the following wavelengths: 313 , 546 and $1014 m\mu$. Experimental data were obtained, using these lines for visibilities from 1.5 to 60 km. On the basis of 100 measurements of the transparency of the atmosphere on a country site it was concluded that, knowing the transparency in the visible region for visibilities from 1.5 to 30 km, it is possible to predict the values of the transparency for the whole wavelength range from the ultra-violet to the near infra-red. Curves are given of absorption as function of wavelength in the region 310 to $1000 m\mu$ for visibilities between 1.6 and 58 km. The results show that the scattering of ultra-violet visible and near infra-red radiation is inversely proportional to λ^2 and λ and is therefore quite different from

Card 3/4

51-5-8/11

Transparency of the Lower Layers of the Atmosphere in Different Parts of the Spectrum in the Region 0.3 to 1μ .

that predicted by the Rayleigh formula. The diameter of the particles most often met with was of the order of 0.20 to 0.30μ which is in good agreement with results of direct measurements of particle sizes. Calculations of the size and number of particles per unit volume have shown that when the meteorological visibility changes, the number of scattering particles also changes whilst their size changes relatively slowly.

Thanks are given to Prof. N.G. Boldyrev. There are 9 figures, 1 table and 11 references, 3 of which are Slavic.

SUBMITTED: March 23, 1957.

AVAILABLE: Library of Congress.

Card 4/4

POPOV, O. I.
~~POPOV, O. I.~~

Transparency of the lower atmosphere layers in various regions
of the spectrum from 0.3 to 1 . Opt.1 spektr. 3 no.5:504-513
H '57. (MIRA 10:12)

(Atmospheric transparency)

GERSHUN, A.A., doktor tekhnicheskikh nauk, professor ; POPOV, O.I.,
inzhener

The problem of light diffusion through mat glass. Sveto-
tehnika 1 no.1:3-8 F '55. (MIRA 8:9)

1. Gosudarstvennyy opticheskiy institut
(Light--Scattering)

L 36328-65 EWT(1)/FCC GW
ACCESSION NR: AP5006442

S/0051/65/018/003/0512/0514

AUTHOR: Popov, O. I.; Fedorova, Ye. O.

18
B

TITLE: Measurement of the radiation spectra of the atmosphere and of the earth's surface in the 2-6 micron region from altitudes up to 4 km

SOURCE: Optika i spektroskopiya, v. 18, no. 3, 1965, 512-514

TOPIC TAGS: earth radiation, infrared radiation, radiation spectrum, atmosphere radiation, airplane measurement/ LI-2 aircraft

ABSTRACT: [The authors report the results of a series of airborne measurements made in 1961-1963. In 1961, the authors used a mirror monochromator with an LiF prism, described elsewhere (Opt.-mekh. promyshl. no. 8, 1962). It was later replaced by a more highly perfected specially developed aerial semi-automatic spectrometer with diffraction grating. The spectral width of the slit used in most of the experiments was 0.07 μ in the entire investigated range from 2 to 6 μ . The radiation receivers were liquid-nitrogen-cooled PbSe and PbTe photoresistances. The spectra were recorded with a loop oscillograph. The measurements were made relative to a cold black body at liquid-nitrogen temperature. The measured

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L 36328-65
ACCESSION NR: AP5006442

0

spectra were calibrated in absolute units against unheated-black-body spectra recorded periodically during the course of the measurements. The black-body temperature was monitored with an electric thermometer. Type LI-2 airplanes were used for the flights. Typical plots of the signals at different altitudes are presented. The results show that the radiation of the earth's surface, observed from 0.2 km, is close to a black-body radiation at the earth's temperature in the entire range from 3 to 6 μ . Some irregularities are caused by reflection of solar radiation from the earth and by differences in the brightness of the earth along the airplane path. With increasing altitude, gaps appear in the spectrum from the earth's surface, in the regions of the CO₂ and H₂O absorption bands (4.3 and 6.3 μ). For these wavelengths, the earth's radiation is absorbed by a small thickness of the atmospheric layer near the earth, and the instruments measure the radiation from the cooler layers of the atmosphere in their direct vicinity. The radiation of the atmosphere, on the other hand, is maximal in the absorption bands and very small in the 4.6 to 4.7 μ transparency window. The radiation also has a seasonal variation. Orig. art. has: 2 figures. [02]

ASSOCIATION: none

Card 2/3

FOMICHEV, M.M., inzh.; TYUKHMENEV, Yu.S., inzh.; POPOV, O.M., inzh.

An automatic noncontact ATR-1 temperature regulator for grain
driers. Vest. elektroprom. 33 no.9:24-26 S '62. (MIRA 15:10)
(Grain—Drying) (Temperature regulators)

SOV/135-59-6-16/20

25(1)

AUTHOR: Popov, U. P., Engineer

TITLE: New Torches for Hand Argon-arc Welding

PERIODICAL: Svarochnoye Proizvodstvo, 1959, Nr 6, pp 42-43 (USSR)

ABSTRACT: The article describes new inventions of torches: GRAD-200, and GRAD-400. Figure 1 shows torch GRAD-400. The plan of torch GRAD-200 is given in Figure 2. The torches have been constructed for hand argon-arc welding of single parts of different kinds of metals - in different positions and inaccessible places - by Wolfram electrodes. Small weight, water-cooling from the inside, and unscrewable ceramic tops are the advantages of the new torches. The low weight is due to the new aluminum construction. The new torches have been introduced at several plants and are recommended by the authors. There are 1 diagram and 1 photograph.

Card 1/1

POPOV, O.S., SOKOL'SKIY, D.V.

Hydrogenation of tetramethylbutynediol on Raney nickel under increased pressure. Dokl. A N SSSR 105 no.4:731-734 D '55.

(MLRA 9:3)

1. Deystvitel'nyy chlen AN KazSSR (for Sokol'skiy); 2. Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova, Alma-Ata.
(Butynediol) (Hydrogenation)

POIUKHIN, P.I., kand.tekhn.nauk; POPOV, O.S., kand.tekhn.nauk

Investigating deformations in oblique girder grooves. Stal'
20 no. 12:1108-1112 D '60. (MIRA 13:12)

1. Moskovskiy institut stali. (Deformations (Mechanics))
(Rolling mills)

POPOV, O.S.

AID P - 1880

Subject : USSR/Meteorology and Hydrology

Card 1/1 Pub. 71-a - 23/26

Author : Martynov, S. I. and Popov, O. S.

Title : Are our theorists departing from the practitioners

Periodical : Met. i gidro., no.2, 59-60, 1955

Abstract : A critical review of the new edition of *Nastavleniya Gidrometeorologicheskim stantsiyam* (Directives for Hydrometeorological Stations). Many errors have not been corrected, some requirements are impossible to fulfill, others are too vague, and some definitions are incorrect. The authors strongly recommend the publishing of a new, revised edition.

Institution : None

Submitted : No date

Popov, O. S.

5000

2

Hydrogenation of tetramethylbutynediol on Raney nickel at super-atmospheric pressures. O. S. Popov and D. V. Sokol'skii (*Dokl. Akad. Nauk SSSR*, 1955, 106, 731-734).—The rates of hydrogenation of tetramethylbutynediol in 0.1 N-NaOH on a Raney Ni catalyst were measured at H₂ pressures up to 3 atm. and temp. 0–80°, and at the same time the changes in potential of the catalyst were recorded (cf. Sokol'skii and Druz, *ibid.*, 1950, 73, 949). In the first stage of the reduction the reaction is of zero order with respect to the acetylenic alcohol, but in the second stage (when tetramethylbutenediol is being hydrogenated) the rate varies approx. as the 0.5 power of the concn.—in this stage the catalyst becomes less anodic. Rate of reaction is throughout proportional to H₂ pressure. The energy of activation in the second stage is considerably greater than that in the first. A qualitative explanation of the results in terms of adsorption theory is given.

F. W. Kirkcaldie

PM

POPOV, O. S.

608

Chem

Hydrogenation of tetramethylbutynediol on Raney nickel catalyst at elevated pressure. O. S. Popov and D. V. Sokol'skii (S. M. Kirov State Kazakh Univ., Alma-Ata). Doklady Akad. Nauk S.S.S.R. 105, 731-4(1955).—Kinetic and potential curves were detd. for hydrogenation of tetramethylbutynediol over Raney Ni. At 20°, 40°, 60°, or 0° the curves invariably show a rate break after intake of 1 mole H; the rate declines and the catalyst potential declines. The product at this point is a cis-trans mixt. of the olefinic diols. The rate is zero order with respect to the amt. of substrate in the 1st half of the process, but the hydrogenation of the olefinic diols has a rate corresponding to 0.5 order; the order with respect to H is approx. 1st order; a rise in temp. accelerates the 1st half of the process more than the 2nd. The activation energy declines slightly with increase of H pressure to 3 atm. and with a rise in temp.

G. M. Kosolapoff

PM

Popov, O.S.

51000

Hydrogenation of tetramethylbutynediol on Raney nickel at super-atmospheric pressures. O. S. Popov and D. V. Sokol'skii (*Dokl. Akad. Nauk SSSR*, 1955, 166, 731-734). The rates of hydrogenation of tetramethylbutynediol in 0.1 N-NaOH on a Raney Ni catalyst were measured at H₂ pressures up to 3 atm. and temp. 0-60°, and at the same time the changes in potential of the catalyst were recorded (cf. Sokol'skii and Draz, *ibid.*, 1950, 73, 949). In the first stage of the reduction the reaction is of zero order with respect to the acetylenic alcohol, but in the second stage (when tetramethylbutynediol is being hydrogenated) the rate varies approx. as the 0.5 power of the concn. - in this stage the catalyst becomes less anodic. Rate of reaction is throughout proportional to H₂ pressure. The energy of activation in the second stage is considerably greater than that in the first. A qualitative explanation of the results in terms of adsorption theory is given.

L. W. Kuznetsov

Handwritten initials or signature.

POPOV, O. S., Cand Tech Sci (diss) -- "Investigation of the deformation of metal in obliquely placed beam calipers". Moscow, 1959. 20 pp (Min Higher and Inter Spec Educ RSFSR, Moscow Order of Labor Red Banner Inst of Steel im I. V. Stalin), 120 copies (KL, No 9, 1960, 125)

Допов. С.С.

PHASE I BOOK EXPLOITATION 50W/4782

Moscow. Institut stali
Produktivo i obrabotka stali i splavov (Production and Treatment
of Steel and Alloys) Moskva, 1960. 462 p.
(Series: Itsi Soorniki, 39) 2,100 copies printed.

Ed.: Ye. A. Borok. Ed. of Publishing House: S. I. Zingeri. Tech.
Ed.: M. K. Kozlov. Doctor of Technical Sciences; R. N. Grigor'yan,
Glinov, Candidate of Technical Sciences; V. P. Yel'yutin, Professor,
Doctor of Technical Sciences; A. M. Kildin, Professor, Doctor of
Doctor of Chemical Sciences; I. M. Kildin, Professor, Doctor of Technical
Doctor of Chemical Sciences; B. D. Lyubimov, Professor, Doctor of Technical
Technical Sciences; A. P. Lyubimov, Professor, Academy Member, Academy of Technical
Sciences; I. M. Pavlov, Corresponding Member, Academy of Technical Sciences;
USSR; and A. K. Pokhval'skiy, Professor, Doctor of Technical Sciences.

PURPOSE: This book is intended for technical personnel in industry,
scientific institutions and schools of higher education, dealing
with open-hearth and electric-arc steelmaking, metal rolling,
physical metallurgy, metallography, and heat treatment.
card 7/10

Also be used by students specializing in these fields.
COMMENT: The book contains results of theoretical and experiment-
al investigations of metallurgical and heat-treating processes
in open-hearth and electric furnaces. Data are included on the
following: desulfurizing of pig iron containing metals with solid
following the change of content of bases in the bath of the open-
hearth furnace in various periods of melting; intensification of
heat electric melting of steel; on rolling, the study of the
the nonuniformity of deformation; the dependence of the friction and
continuous rolling process; rolling on a number of rollers and
slipage coefficients in transporting of metals. Articles on
other problems in the field of the theoretical principles and techniques
physical metallurgy and the heat treatment of steel are also included of the articles.
of the heat treatment. References accompany most of the articles.
There are 201 references, both Soviet and non-Soviet.
card 2/10

- Gornik, S. J., Doctor, Candidate of Technical Sciences, V. M. Kozlov, Engineer, and Ye. I. Shchegolev, Engineer (Department of the Division of Metals and Alloys, Institute of Steel and Alloys) Investigation of the Diffusion Rate in Nickel-Based Alloys 381
- Polyubov, P. I., and O. S. Popov, Engineer (Department of Alloys) Investigation of the Deformation of Metals in Diagonal Rolling 400
- Gil'manov, B. T., Candidate of Technical Sciences (Department of Electrotechnology); Magnetskiy Viskozity of High-Speedly Alloys 422
- Zaslavskiy, M. P., Doctor of Chemical Sciences, and N. P. Zhuk, and Lyubimov, Candidate of Chemical Sciences (Department of Physical Metallurgy) Behavior of Iron and Steel in Oxidation or Reduction 438
- Dyrov, A. M., Doctor of Chemical Sciences, and M. Z. Korol', Candidate of Chemical Sciences (Department of Metallurgy) card 9/10

Papov, O.S.

1000

Effect of increased pressure of hydrogen on the rate of catalytic hydrogenation in solutions O. S. Papov and D. V. Sokol'skiĭ (Kazakh State Univ., Almaty, Kazakh SSR) *Izv. Akad. Nauk Kazakh SSR Ser. Khim. Nauk* 1955 2: 9. Kinetic curves of hydrogenation are given for tetraethylammonium I over Ni in 0.1N NaOH and over Ni on SiO₂, benzalacetone (II) over Raney Ni in 40% aq. EtOH 0.1N in Na₂SO₄, and benzalacetone over Ni on SiO₂ in the same solvent. The above compds. are hydrogenated selectively. Hydrogenation of the acetylenic glycol on Ni occurs at higher anodic potential than that of the ethylenic analog (III); i.e. the former glycol displaces more H from the surface than does the ethylenic glycol. With Ni-SiO₂ the hydrogenation stops at the ethylenic glycol step and the bonding of H to this catalyst is stronger. Hydrogenation of benzalacetophenone also depends on selective adsorption as shown by catalyst potential max. after uptake of 1 mole H. With Ni-SiO₂ catalyst only the olefinic bond is hydrogenated in this compd., apparently owing to the absence of centers capable of activating the carbonyl group. Hydrogenation of the triple bond in the acetylenic glycol and of the ethylene bond in benzalacetone over Raney Ni or Ni-SiO₂ follows zero order or near zero order reaction; in hydrogenation of the ethylenic glycol, the reaction is close to 1st order at 0° and approaches 0.5 order as the temp. is raised to 60°.

2

1/2

Popov, O.S., Sokol'skii, D.V.

Benzalacetone hydrogenation at the carbonyl group on Raney Ni approaches 1st order reaction. The above values of reaction order apply to the substrate. As to the order with respect to H, the reaction is of first order with the Raney Ni or Ni-SiO₂ for either the acetylenic or ethylenic glycols; for benzalacetonephenone the order of the reaction with respect to H is fractional but close to 1st order. The runs at 0-60° permitted the calcn. of activation energies (for each catalyst the activation energies are given resp. for I, 2, and 3 atm. H pressure) for 0-20° interval: I, Raney Ni, 4500 cal./mole, 4200, 3500; I, Ni-SiO₂, 4700, 7000, 7400; III, Raney Ni, 8500, --, 8200; II double bond, Raney Ni, 6800, 6700, 7000; II double bond, Ni-SiO₂, 7000, 8400, 8300; II carbonyl, Raney Ni, 6000, 6900, 6400. For 20-40° interval: I, Raney Ni, 2900, 9200, 3500; I, Ni-SiO₂, 6700, 7100, 5400; III, Raney Ni, 3400, 7900, 6600; II, double bond, Raney Ni, 5500, 6100, 6200; II double bond, Ni-SiO₂, 10,100, 8500, 9300; II carbonyl, Raney Ni, 4800, 5000, 5100. For 40-60° interval: I, Raney Ni, 0, 2600, 2200; I, Ni-SiO₂, 6300, 6700, --; III, Raney Ni, 2100, 1000, 4500; II double bond, Raney Ni, 2200, 4700, 4100; II double bond, Ni-SiO₂, 5000, 6000, 6000; II carbonyl, Raney Ni, neg. values. Since the mechanism of the reactions is detd. by selective adsorption and activation, the conditions of pressure, temp and concn. may be selected to promote a desired reaction course

2/2
PM

POPOV, O. S.

USSR/Chemistry - Catalysts, Acetylene Derivatives 21 Apr 52

"Catalytic Hydrogenation Under Constant Pressure,"
D. V. Sokol'skiy, O. S. Popov

"Dok Ak Nauk SSSR" Vol LXXXIII, No 6, pp 873-875

The effect of const hydrogen pressures from 1 to 3 atm was investigated potentiometrically in the hydrogenation of methylethyl acetylenyl carbinol on skeleton nickel. The results are shown graphically and in tables.

223T8

CP

Catalytic hydrogenation under constant pressure. D. V. Sokol'skii and O. S. Poggel. *Doklady Akad. Nauk S.S.S.R.* 83, 873-8 (1962). The rate of hydrogenation of methyl ethylthynylcarbinol (0.5 ml.) on a skeletal Ni catalyst (0.23) in an aq. 0.1 N NaOH soln. was investigated at 0, 20, 40, and 80°, under 2.0, 2.5, and 3.0 atm., at const. rate of agitation (500 oscillations/min.). Up to absorption of 1/2 of the total H₂, the reaction is of the zeroth order, the rate of absorption of H₂ remaining independent of the total amt. of H₂ absorbed. At 0° and at 20°, the rate is directly proportional to the pressure; at 40° and at 80°, an increase of the pressure by a factor of 1.5 causes an increase of the rate by a factor of 2 and 1.8, resp. At any temp., the e.m.f. (relative to the normal calomel electrode) is 10-20 mv. lower than the reversible H potential and remains const. in the course of the hydrogenation, the change of pressure notwithstanding; this is taken to indicate unchanging H₂ concn. on the catalyst surface. Increased pressure of H₂ apparently causes an increase of the d. of active centers. The difference in the rates of hydrogenation of the triple and the double bond, significant at 0° and at 20°, begins to disappear at higher temps. and pressures. If, at lower temps. and pressures, the triple bond displaces H from the surface (C.A. 44, 10467c), the reverse appears to take place at higher temps. and pressures. The difference ΔE between the reversible H potential and the e.m.f. during the hydrogenation is composed additively of the lowering ΔE due to removal of adsorbed H through its displacement by the triple bond. Relative to the rate of hydrogenation under 2 atm., taken as unity, the relative rates under 2.5 and 3.0 atm. are, at 20°, 1.15 and 1.21; at 40°, 1.65 and 1.97; at 80°, 1.36 and 1.78. Between 40° and 60°, thermal desorption becomes significant. The activation energies in the temp. ranges 0-20, 20-40, 40-60°, are: under 2 atm., 3.9, 2.7, 4.0; under 2.5 atm., 2.95, 5.6, —; under 3.0 atm., 2.5, 6.0, 3.7 kcal./mole. N. Thom

PCFCOV, G. S.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
General and Physical Chemistry

② Chem

Hydrogenation at constant pressure over platinum, palladium, and iridium. D. V. Sokol'skii and O. S. Popov. Doklady Akad. Nauk S.S.S.R. 93, 831-4 (1953).
Hydrogenation of MeEtC(OH)C:CH over Pt black at 0° gives an S-shaped rate curve; increase of H_2 pressure from 2 atm. to 3 atm. raises the rate 1.5-fold. Rise in temp. to 40° accelerates the reaction. At 2 atm. the 1st part of the reaction follows a zero-order rate, but in later stages at 2 atm. there is seen a break in the curve that is not seen at higher pressures. The catalyst potential rises by 5-10 mv. when the pressure is raised from 2 to 3 atm. With large amts. of the catalyst it becomes evident that the double bond is hydrogenated at a higher rate. Hydrogenation of $\text{Me}_2\text{C(OH)C:CH}$ over Pd- CaCO_3 shows more rapid addn. of H_2 to the triple bond than to the double bond, a definite break in the curve being observed; the catalyst potential at 1st drops by 200 mv., then rises; it reaches the satn. value at the end of the reaction. Rises in temp. and pressure accelerate the rate of hydrogenation markedly. Similar hydrogenation over Ir-C shows a 1st-order reaction course; increased pressure accelerates the reaction but slightly; the catalyst potential remains high and relatively const.
G. M. Kosolapoff

1. UNCLASSIFIED, D. V. Acad., PCPC7. (C).
2. USSR (600)
4. Hydrogenation
7. Catalytic hydrogenation under constant pressure. Dokl. Akad. Nauk SSSR 63 No. 6, 1952. UNCLASSIFIED.
Dokl. Akad. Nauk SSSR
Read. 25 Feb. 1952.
9. Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

27

BTR

11013* Catalytic Hydrogenation Under Constant Pressure.
(Russian.) D. V. Sokol'skii and O. S. Puzanov, *Doklady Akademii
Nauk SSSR, new ser.*, v. 83, Apr. 1952, p. 873-875.
Experimental hydrogenation of methylethylacetylene carbinol

on skeletal Ni at 0, 20, 40, and 50°C. and 2.0, 2.5, and 3.0
atm. was carried out in special equipment. Tables and graphs.

POPOV, G. S.

"High-Pressure Hydrogenation of Certain Unsaturated Compounds." Cand Chem Sci,
Kazakh State U, 10 Dec 54. (KP, 1 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

POPOV, O.S.

MARTYNOV, S.I.; POPOV, O.S.

Aren't our theorists losing touch with practical realities? Meteor. i
gidrol. no.2:59-60 Mr-Ap '55. (MIRA 8:7)

(Meteorology)

POPOV, O.I., inghener.

Photoelectric apparatus for measuring the transparency of
air. Svetotekhnika 3 no.1:20-22 Ja '57. (MLRA 10:2)

1. Gosudarstvennyy opticheskiy institut.
(Air) (Optical instruments)

POPOV, O. I.

USSR

335.361.1

6931. On the question of the dispersion of light by matt glasses. A. A. GERSHUN AND O. I. POPOV. Svetotekhnika, 1, No. 1, 3-7 (Feb., 1955) in Russian.

The theory is developed for the case of parallel rays falling on the polished side. Experimental measurements were made. It is concluded that matt glass may be represented by an infinity of humps and hollows with faces directed in different directions. The number of faces and their angles of inclination to the macro-surface were determined by the distribution function of the glass, which also mainly determines the distribution of transmitted energy. From knowledge of the distribution function it is possible to calculate theoretical indices of brightness of the matt glass for different practical applications. The distribution function of mechanically produced matt glass can be represented as a curve which is a function of two parameters, a main one and a subsidiary one which only influences the shape of the distribution function when the angle of incidence is 30°-40°. The empirical formula is

$$F(\delta) = (1 + a \tan^2 \delta) / (1 + k \tan^2 \delta)$$

where k is the main parameter and a is the subsidiary parameter, both of which are determined experimentally. The simplified formula

$$F(\delta) = 1 / (1 + k \tan^2 \delta)$$

may be used in most cases.

W. R. STOKER

①

POPOV, Ognian Tr., inzh., nauchnen sotrudnik

Minimizing the harmful effect of vibrations in concrete slab
vibrators. Tekhnika Bulg 13 no.10:30-32 '64.

1. NIIOTPr.

POPOV, O.V., inzhener; TOKAREV, G.P., inzhener

Equipment for service communication overhead trunk lines. Vest.
svyazi 15 no.8:7-10 Ag'55. (MIRA 8:12)

1. Montashno-ismeritel'nogo upravleniya tresta "Meshgoravvaz'stroy"
(Electric lines--Overhead)

Popov, O.V.

SABININ, Yu.A., kand.tekhn.nauk; BOCHAROV, Yu.I., inzh.; ZABOROVSKIY,
S.A., inzh.; ZVYAGIN, I.Ye.; inzh.; KULIKOV, S.N., inzh.; ~~POPOV,~~
O.V., inzh.

A motor drive with wide-range smooth speed control. Elektrichestvo
no.12:20-23 D '57. (MIRA 10:12)

1.Leningradskiy politekhnicheskii institut im. Kalinina.
(Electric driving)

POPOV, O.V.

Piercing holes in sheet-metal parts by explosives. Kuz.-shtam.
proizv. 4 no.7:18-24 JI '62. (MIRA 15:7)
(Explosives in sheet-metal work)

Printed in U.S.S.R.

THESE I BOOK EXPLANATION: SGT/5415

USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby
 Sposoby i volnyy rezhim povysheniya (tverzhal i vodor Region of the
 Earth's Surface) Khar'kov, Editsionnoye, 1968. 191 p. Format elip
 mounted. 600 copies printed.

Organizing Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri
 Sovete Ministrov SSSR.
 Eds. (Title Page): I. P. Gerasimov, Academician, M. I. Rudko, Doctor of Physics
 and Mathematics, and A. P. Dalgov, Doctor of Geographical Sciences;
 Ed.: M. M. Yemegoritskiy; Tech. Ed.: M. I. Brynman.

PERMITS: This publication is intended for geophysicists, geographers, climatologists,
 agronomists, and agriculturalists.

CONTENTS: The seventeen articles contained in this publication represent condensed
 versions of reports presented at the Conference on the Heat and Water
 Budget of the Earth's Surface, convened by the Glavnoye geofizicheskoye
 observatoriya im. A. I. Vovskova (Main Geophysical Observatory named
 A. I. Vovskov) in April 1959. Individual articles deal with the investigation
 of the thermal balance of the earth's surface, problems of the genesis
 of climate related to heat and moisture exchange, the indicators of heat and
 water balance in agriculture, and problems related to the effect of hydro-
 meteorological factors upon complex geographical processes and phenomena.
 No personalities are mentioned. References follow individual articles.

Uchenyye zadaniya, R. L., and Yu. I. Reuber [Institute Geografii
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PUSHEK, B.S., kand. geogr. nauk; POPOV, I.V., kand. geogr. nauk; OBRAZTSOV, I.N., inzh.; FEDOROV, N.N., kand. tekhn. nauk; GRUSHEVSKIY, M.S., kand. tekhn. nauk; KRIVOSHEY, B.Z., inzh.; POPOV, O.V., star. nauchnyy sotr.; PIKUSH, N.V., kand. tekhn. nauk; LEVIN, A.G., kand. tekhn. nauk; ZHIDIKOV, A.P., inzh.; GAVRILOV, A.M., kand. geogr. nauk; KONDRAT'YEV, N.Ye., kand. tekhn. nauk, red.; URYVAYEV, V.A., kand. tekhn. nauk, red.; SHATILINA, M.K., red.; SOLOVEYCHIK, A.A., tekhn. red.

[Investigation of unsteady flow of water in the Tvertsa and Oredezh Rivers] Issledovaniia naustanovivshegosia dvizheniia vody na rekakh Tvertse i Oredezh. Pod red. N.E. Kondrat'eva i V.A. Uryvaeva. Leningrad, Gidrometeor. izd-vo, 1961. 287 p. 6 charts (in pocket) (MIRA 14:8)

1. Leningrad. Gosudarstvennyy gidrologicheskiy institut.
(Tvertsa-River—Hydrology) (Oredezh River—Hydrology)

KONSTANTINOV, A.R.; POPOV, O.V.; PUSHKAREV, V.F.

Evaluating methods of determining evaporation and other components
of the water balance of farm fields. Trudy UkrNIGMI no.30:19-30
'61. (MIRA 15:1)

(Evaporation)
(Meteorology, Agricultural)

POFCV, G. V.

Dissertation: "Investigation of the Extrusion Process With Preheating for Box-Like
Articles." Cand Tech Sci, Moscow Aviation Technological Inst, 23 Apr 54. (Vechernyaya
Moskva, Moscow, 14 Apr 54)

SO: SUM 243, 19 Oct 1954

GORBUNOV, M.N., kandidat tekhnicheskikh nauk, dotsent; POPOV, O.V., kandidat tekhnicheskikh nauk; KATKOV, V.F., kandidat tekhnicheskikh nauk.

Preheated deep drawing of sheet metals. Trudy MATI no.29:5-27 '56.
(Deep drawing (Metalwork)) (MLRA 9:12)

POPOV, O.V., kandidat tekhnicheskikh nauk.

Determination of forces exerted in the deep drawing of hollow
articles. Trudy MATI no.29:62-76 '56. (MLBA 9:12)
(Deep drawing (Metalwork))

POPOV, O.V., kandidat tekhnicheskikh nauk.

Method of calculating and designing blank shapes used in the pre-heated deep drawing of box-like articles. Trudy MATI no.29:106-111 (MLRA 9:12)
'56.
(Deep drawing (Metalwork))

POPOV, O.V., kandidat tekhnicheskikh nauk; GORBUNOV, M.N., kandidat tekhnicheskikh nauk; KATKOV, V.F., kandidat tekhnicheskikh nauk.

Deep drawing of hollow objects with preheating. [Izd.] LONITOMASH
vol.40:97-113 '56. (MLRA 10:4)
(Deep drawing (Metalwork))

BLOKH, E.L.; POPOV, O.V.

Nonoptimal periodic codes for correcting single errors and
detecting binary errors. Radiotekhnika 19 no.5:78-79 My '64.
(MIRA 17:6)

1. Deystvitel'nyye chleny Nauchno-tekhnicheskogo obshchestva
radiotekhniki i elektrosvyazi imeni Popova.

L 17845-66 EWT(d)/FSS-2 JXT(bf)/GS

SOURCE CODE UR/0000/65/000/000/0097/0111

ACC NR: AT6004692

AUTHOR: Blokh, E. L.; Popov, O. V.; Turin, V. Ya.

52

B+1

ORG: none

TITLE: The study of the probability of transcending a given delay in feedback systems.
(Paper presented at the Scientific-Research Conference of the Faculty of the Moscow
Electrical Engineering Institute of Communications on 21 April 1964)

SOURCE: AN SSSR. Institut problem peredachi informatsii. Opoznanie obrazov.
Teoriya peredachi informatsii (Pattern recognition. Theory of information transmission).
Moscow, Izd-vo Nauka, 1965, 97-111

TOPIC TAGS: multichannel communication, communication coding, information theory

ABSTRACT: The article investigates the probability of message erasure which requires
the existence of a maximum allowable delay in feedback discrete channel systems. The
delay covers the time from the instant the message arrives at the input of the system to
the time the message is forwarded to the recipient. The speed of signal transmission
through the channels is assumed given. The message transmission is controlled by feed-
back with repeated demand, comparison, or combined operation. If after a given time

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Card 1/2

2

L 24526-66 EWT(d)

ACC NR: AP6006316

SOURCE CODE: UR/0413/66/000/002/0039/0039

AUTHOR: Popov, O. V.

29
B

ORG: none

TITLE: A method of correcting groups of errors in the transmission of digital information along two channels. Class 21, No. 177927

SOURCE: Izobreteniya, promyshlennyye obraboty, tovarnyye znaki, no. 2, 1966, 39

TOPIC TAGS: digital system, error correcting code

ABSTRACT: This Author Certificate presents a method for correcting groups of errors in the transmission of digital information along two channels with the aid of continuous codes. The method includes the forming of checking digits by the addition of the absolute value of two information and checking digits. The method increases the interference-free nature of the system. Each checking digit is formed from an information symbol transmitted after $2l$ digits up to the datum and from a checking digit transmitted after l digits. When the checking channel is operational, information symbols based on the checking addition in absolute value of the two checking symbols are formed in the receiving station. These two checking symbols are transmitted at l and $2l$ digits later than the datum. In the case of a defect of the information channel (when the signals received along this channel are obliterated), formed information symbols are fed to the output of the system.

Card 1/2

UDC: 621.394.14:621.398

Card 2/2 ULL

ACC NR: AT6035122

SOURCE CODE: UR/2536/66/000/065/0115/0129

AUTHOR: Popov, O. V. (Candidate of technical sciences); Yershov, V. I. (Candidate of technical sciences)

ORG: Aviation Technological Institute, Moscow (Aviatsionnyy tekhnologicheskii institut)

TITLE: Preparation of tubular control shafts with a new type of nozzle coupling

SOURCE: Moscow. Aviatsionnyy tekhnologicheskii institut. Trudy, no. 65, 1966. Novoye v tekhnologii shtampovki (Recent developments in stamping technology), 115-129

TOPIC TAGS: shaft coupling, stress analysis, tube joint, industrial research, aluminum alloy, aircraft equipment, hot upsetting

ABSTRACT: Standard methods of coupling shafts or rods are reviewed and the development of a new type of coupling for tubular shafts, produced by locally upsetting and threading the ends, is analyzed. Theoretical stress equations are derived for the principal stresses arising during the upset operation. The amount of thickening at the ends is dependent on the upset height. After upsetting, the ends were threaded; the heavier upset cross section prevented premature failure at the coupling joint. Experiments were conducted on a 30 ton press, at a crosshead speed of 10 cm/min, and a heating up time of 60 sec. A colloidal graphite suspension was used to lubricate the die. One of

UDC: 629.11.013.002.2:62-462

Card 1/2

ACC NR: AT6035122

the most important parameters of the process was the die thickness. Optimum thickening occurred at a critical ratio of die thickness to tube wall thickness. A duraluminum alloy (D16-T) was used; the tube dimensions were 20 x 18 mm at a die temperature of 500°C. The remainder of the tube was kept cool by a convection cooling head. The ends of some samples were compressed after upsetting; data on the relative thickening of differently sized tubes are presented. Mechanical testing of the final products was done both statically and dynamically. Results are given for coupling joints made by standard methods, and by hot upsetting and threading. The comparative tests showed the new type of coupling to be more reliable, lighter (by 10%), and easier to fabricate than the standard threaded or riveted couplings. The application of this new coupling is recommended for aircraft control rods. The technical procedures necessary for the production of the new rods are listed and the range of possible shapes produced are shown. Orig. art. has: 12 figures, 1 table, 6 formulas.

SUB CODE: 13,01/

SUBM DATE: none/

ORIG REF: 002

Card 2/2

POPOV, O.V.

Conference on problems of the pathogenesis, experimental prevention and treatment of radiation sickness. Med. rad. 8 no.4:
86-92 Ap'63 (MIRA 17:2)

POPOV, O. V.; MYASNIKOV, V. A.

Delayed feedback of voltage and electromagnetic moment of a
motor in a reversive electric drive. Sbor. rab. po vop. elektro-
mekh. no.10:290-304 '63. (MIRA 17:8)