ANTONISHIN, N. V.

Thermal inertia of a thermistor in circuits for the measure-
ment of fluctuating quantities. Insh.-fiz. zhur. 6 no.1:46-53
Ja '69.   (MIRA 16:1)

1. Energeticheskiy institut AN BSSR, Minsk.

(Thermistors)   (Electric circuits)

L 17142-63   BDS
ACCESSION NR: AP3000450   S/0170/63/006/005/0124/0127

AUTHOR: Antonishin, N. V.

TITLE: Electric thermoanemometer with a semiconductor pickup

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 6, no. 5, 1963, 124-127

TOPIC TAGS: electric thermoanemometer, thermistor, thermistor bridge, resistance bridge

ABSTRACT: An electric thermo-anemometer employing a thermistor as the thermal element has certain advantages over similar instruments employing a metallic filament. In particular, the circuit is much more simple. The thermistor, forming one of the arms of a resistance bridge, is heated to a certain overtemperature by the current flowing through it. Change in the conditions of heat transfer between the thermistor and the medium in which it is placed affects its temperature and hence its resistance. The current is varied to compensate this change in resistance and the measured value of the current makes it possible to determine the heat transfer coefficient instantaneously. The design of the circuit components and the effect of the thermal inertia of the thermistor are described. The circuit is illustrated in Fig. 1 of the Enclosure. Orig. art. has: 9 formulas and 1 figure.
           ASSOCIATION: Institute of Heat and Mass Transfer
Card 1/4

ANTONISHIN, N.V.; ZABRODSKIY, S.S.

Heat transfer of a surface immersed into a developed
nonuniform fluidized bed. Inzh.-fiz. zhur. 6 no.11:97-104
N '63.   (MIRA 16:11)

1. Institut teplo- i massoobmena AN BSSR, Minsk.

ANTONISHIN, N. V.; ZABRODSKIY, S. S.

"Heat transfer from heated surfaces in a fluidized bed."

"report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Inst of Heat & Mass Transfer, AS BSSR.

EMILOVICH, V. I.; ANTONISHIN, N. V.

"Acoustic doppler effect in application to unsteady heat- and mass-transfer investigations."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, 4-12 May 1964, Minsk.

Inst of Heat & Mass Transfer, AS BSSR.

ZABRODSKIY, S. S.; ANTONISHIN, N. V.; GULYUK, A. M.; NEMKOVICH, V. A.

"Rapid reduction heating of metallic blanks in the fluidized bed of an inter-
mediate heat exchanger."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12
May 1964.

Inst of Heat & Mass Transfer, AS BSSR.

L. 5240-66   EWT(m)/EPF(c)/T   WE

ACC NR: AP5026351   SOURCE CODE: UR/0318/65/000/010/0020/0023

AUTHOR: Antonishin, V. I.; Grinenko, B, S.

ORG: Lvov Polytechnic Institute (L'vovskiy politekhnicheskiy institut)

TITLE: Sulfonation of petroleum resins

SOURCE: Neftepererabotka i neftekhimiya, no. 10, 1965, 20-23

TOPIC TAGS: petroleum product, sulfonation, resin, ion exchange resin

ABSTRACT: In order to study the mechanism of sulfonation of petroleum resins, a sulfonation of resins obtained from bitumen was carried out. The action of sulfuric acid and oleum gives rise to reactions of sulfonation, sulfone formation, oxidation, and condensation. Oxidation involves the detachment of side alkyl and cycloparaffin substituents with the formation of carboxyl and phenol-hydroxyl groups in the structure of the sulfonated product, and the evolution of carbon dioxide and water of reaction. Oxidative dehydrogenation of six-membered naphthene rings to aromatic ones and oxidative condensation of the resinous sulfonated product also take place. The sulfonated product has ion-exchange properties and can be used as a cation-exchange material. The optimum conditions for preparing a product with high ion-exchange properties are given. Orig. art. has: 3 figures and 1 table.

SUB CODE: FP / SUBM DATE: 00 / ORIG REF: 004 / OTHER REF: 001

Card 1/1   UDC: 665.545.53:66.094.524.52

0901   1384

ANTONISHIN, V.I.; GRINENKO, B.S.

Sulfonation of asphaltenes. Izv. vys. ucheb. zav.; neft' i gaz. 8
no.5:47-49 '65.   (MIRA 18:7)

1. L'vovskiy politekhnicheskiy institut.

BLAIR, A.

    "Light By Air Story", A. B, (. . . . , . . . ,
Cetcbr 1 , B   nt, Ru ria)

    At: Mr thly Ilst f nt   re an Acm t rs (al), F,   . ,   . ,
Marh 1965, Uncl.

New Soviet Performance Glider with Loaded Wings", Aufrecht ...
p. 15, (Illustrated Circle, Vol. 7, No. 11, October 11..., ... , Romania)

See: Monthly List of ... Foreign Selections, (...), 12, Vol. 1, No. 3,
Sera. 1.35, Vol.

ANTONIU, AL.

The Blue Falcons (Among Students of an Air Force Training School).
Aripile Patriei (The Wings of the Fatherland), #6:,:June 55

ANTONIJ, AL.

New Records of the Republic: A Flight with the "Partizan" Two-seater Glider. Arilile Patriot (The Wings of the Fatherland), #6;0:June 56

PITIS, I., dr; FOCSAMEANU, A., dr inz.; ANTONIU, M.; WOYNAROWSKI,
Zbigniew, doc. inz. [translator]

Studies on mold resistance of some electroinsulating compounds.
Przegl elektrotechn 39 no.12:472-474 D'63.

1. Instytut Elektrotechniki, Bukareszt (for Pitis, Focsameanu,
Antoniu). 2. Politechnika, Gdansk (for Woynarowski).

ANTONIU, I.

Activity of electrodynamic Wattmeters from the point of view of deformation.
p. 547. STUDII SI CERCETARI DE ENERGETICA. Bucuresti.
Vol. 5, no. 3/4, July/Dec. 1955.

SOURCE: East European Acessions List, (EEAL), Library of Congress,
Vol. 5, No. 11, November, 1956.

ANTONIU, I.

Application of Laplace or Carson transformations in operational calculus used in electrotechniques. p. 578. STUDII SI CERCETARI DE ENERGETICA. Bucuresti.

Vol. 5, no. 3/4, July/Dec. 1955.

SOURCE: East European Accessions List, (EEAL), Library of Congress, Vol. 5, No. 11, November, 1956.

ANTONIU, I. S.

   /Vector/ Representation Operators of Symmetrical Polyphase Systems.
ELECTROTEHNICA (Electrical Engineering), #8:364:Aug 55

ANTONIU, I.

Identification of deforming phenomena in industrial electric plants.

P. 93, (Academia Republicii Populare Romine. Institutul de Energetica. Studii Si Cenctari de Energetica. Vol1.7, no. 1, 1957, Bucuresti, Rumania)

Monthly Index of East European Accessions (EEAI) IC. Vol. 7, no. 2, February 1958

ANTONIU, I.; POMIRLEANU, M.; FEDEANU, C.

Functioning of an induction motor with squirrel cage under deferading conditions of tension. In French. p.239.

REVUE D'ELECTROTECHNIQUE ET D'ENERGETIQUE. JOURNAL OF ELECTROTECHNICS AND ENERGETICS. (Academia Republicii Populare Romine. Institutul de Energetica) Bucuresti, Rumania
Vol. 3, no. 2, 1958.

Monthly list of Eastern European Accession Index (EEAI) LC vol. 9, No. 11
November 1959
Uncl.

ANTONIU, Ion, S., prof. dr. ing. (Bucharest)

The equivalent circuit of three winding transformers.
Electrotehnica 9 no.7:221-227 Jl '61.

1. Institutul politehnic, Bucuresti.

ANTONIU, Ion S.; STANCIULESCU, Florin

    Correlation between the deformation phenomena and nonlinearity
    of electric circuits. Studii cerc energet 11 no.4:701-716 '61.

AUTHOR: Antoniu, Ion S.

TITLE: Use of complex Fourier series in the study of a
deforming regime

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika,
no.22, 1962, 10-11, abstract 22 A 37. (Bul. Inst.
politehn. Bucuresti, v.23, no.1, 1961, 155-160)
(French; summaries in Russian, English and German)

TEXT: Use is made of the complex Fourier series for voltages
and currents

$$u(t) = \sum_{k=-\infty}^{\infty} \bar{U}_k \exp(jk\omega t) \quad \text{and}$$

$$i(t) = \sum_{k=-\infty}^{\infty} I_k \exp(jk\omega t),$$

where $\bar{U}_k$ and $\bar{I}_k$ are found from the general expression

Card 1/6

Use of complex Fourier series ...   S/196/62/000/022/001/007
E032/E114

$$\bar{C}_k = \frac{1}{T} \int_{T_0}^{T_0+T} f(t) \exp(-jk\omega t)\, dt,$$

to determine the average value over a period T of functions $f_1(t)$ and $f_2(t)$, which are such that

$$M = \frac{1}{T} \cdot \int_0^T f_1(t)\, f_2(t)\, dt =$$

$$= \frac{1}{T} \int_0^T \left[\sum_{k=-\infty}^{\infty} \bar{C}_k \exp(jk\omega t) \right] \left[\sum_{k=-\infty}^{\infty} \bar{D}_k \exp(jk\omega t) \right]\, dt.$$

This may be presented in the form

Card 2/6

Use of complex Fourier series ...

$$M = \sum_{k=-\infty}^{\infty} \bar{C}_k \bar{D}_k \cdot \frac{1}{T} \int_0^T \exp\left[j(k+k)\,\omega t\right]\,dt +$$

$$+ \sum_{\substack{k,\ell=-\infty \\ k\neq\ell}}^{\infty} \bar{C}_k \bar{D}_k \cdot \frac{1}{T} \int_0^T \exp\left[j(k+\ell)\,\omega t\right]\,dt = M_1 + M_2 .$$

It is shown that

$$I_2 = \frac{1}{T} \int_0^T \exp\left[j(k+\ell)\,\omega t\right]\,dt = 1/j(k+\ell)\,\omega t \times$$

$$\times \left\{ \exp\left[j(k+\ell)\,\omega t\right] - 1 \right\} .$$

When $k + \ell = N \neq 0$

$\exp(jN\omega t) = \exp(j2\pi N) = \cos 2\pi N + j \sin 2\pi N = 1$

Card 3/6

Use of complex Fourier series ...   S/196/62/000/022/001/007
                                       E032/E114

and hence the integral vanishes and when $N = 0$ indeterminacy is
obtained which may be resolved by means of the 'Hospital's rule
and it is found that $I_2 = 1$. Hence it follows that

$$M = \sum_{k=-\infty}^{\infty} \bar{C}_k \bar{D}_k \ .$$

Assuming that $f_1(t) = f_2(t) = i(t)$ or $u(t)$ give the active value
of the current or voltage and $f_1(t) = u(t)$ and $f_2(t) = i(t)$,
one can find the average power

$$P = \sum_{k=0}^{\infty} U_k I_k \cos \varphi_k$$

Replacement of $\bar{U}_k$ and $\bar{I}_k$ by their complex conjugates $\bar{U}_{-k}$ and
$\bar{I}_{-k}$ yields the reactive power

$$Q = \sum_{k=0}^{\infty} j (\bar{U}_{-k} \bar{I}_k - \bar{U}_k \bar{I}_{-k}).$$

Card 4/6

Use of complex Fourier series ...   S/196/62/000/022/001/007
E032/E114

It is shown that the total power S satisfies the orthogonal
expression $S^2 = P^2 + P_f^2$, where P_f is the (Budeanu)
fictitious power. The latter, in its turn, consists of two
orthogonal terms, namely, the reactive power Q and the
deformation power D.   Thus, $D^2 = S^2 - P - Q^2$.
In view of the above,

$$D^2 = 4 \left[\sum_{k=0}^{\infty} \bar{U}_k \bar{U}_{-k} \right] \left[\sum_{k=0}^{\infty} \bar{I}_k \bar{I}_{-k} \right] - \left[\sum_{k=0}^{\infty} (\bar{U}_k \bar{I}_{-k} + \bar{U}_{-k} \bar{I}_k) \right]^2 -$$

$$- \left[\sum_{k=0}^{\infty} j (\bar{U}_{-k} \bar{I}_k - \bar{U}_k \bar{I}_{-r}) \right]^2$$

and hence one obtains the well-known expression

Card 5/6

Use of complex Fourier series ...   S/196/62/000/022/001/007
E032/E114

$$D^2 = \sum_{\substack{k, \ell = 0 \\ k \neq \ell}}^{\sim} \left[U_k^2 I_\ell^2 + U_\ell^2 I_k^2 - 2U_k U_\ell I_k I_\ell \cos(\psi_k \cdot \psi_\ell) \right]$$

ASSOCIATION: Bukharestskiy politekhnich. in-t, RNR
(Bucharest Polytechnical Institute, Rumanian PR)

[Abstractor's note: Complete translation.]

Card 6/6

ANTONIU, L.

Academician Professor Constantin L. Budeanu; an obituary. p. 111.

ELECTROTEHNICA. (Asociatia Stintifica a Ingierilor si Tehnicienilor din
Rominia si Ministerul Energiei Electrice si Industriei Electrotehnice)
Bucuresti, Rumainia, Vol. 7, No. 9, June 1959

Monthly list of East European Accessions (EEAI) LC Vol. 8, No. 9, Sept./1959

Uncl.

ANTONIU,M.

> Utilization of pressing powders. Electrotehnica 11 no.8:319
> Ag'63.

> 1. Institutul de Cercetari Electrotehnice.

ANTONIU, M

On a Certain Case of the Distribution of Velocities and Accelerations in the
Motion of a Rigid Body

Braier, Alfred; et Antoniu, Mihai. Sur un aspect de la
distribution des vitesses et des accélérations dans le
mouvement d'un solide rigide. Bul. Inst. Politehn. Iași
(N.S.) 2(6) (1956), 43-48. (Romanian. Russian and
French summaries)

3

L ... EWP(t)/EWA(j)/EPR/EWP(t)/EWP(b)   Ps-4   IJP(c)   JD/AB
ACCESSION NR: AP5017717

... tya, I. (Doctor); Itoniu, M. E. ...

... ontributions to the study of the corrosive effect of sea water on sheet
aluminum and aluminum-magnesium alloys

SOURCE: Metalurgia, no. 10, 1964, 440-442

TOPIC TAGS: metal sheet, seawater corrosion, corrosion protection, aluminum,
aluminum alloy, magnesium alloy

ABSTRACT: The authors report on a study which involved the exposing of various ...

ASSOCIATION: Institutul de cercetari si proiectari electrotehnica (Electrotechnical
Planning and Research Institute)

Card 1/2

L 54488-65
ACCESSION NR: AP5017717

SUBMITTED: 00   ENCL: 00   SUB CODE: IN

NO REF SOV: 000   OTHER: 004   JPRS

Card: 2/2

ANTONIU, R., ing.

Considerations on the discharge conditions of waste waters
in natural watercourses from the standpoint of the content of
organic materials. Meteorologia hidrol gosp 6 no.1:53-60 '61.

ANTONIU, R., ing.

Standardisation of the conditions of disposal of waste waters
in surface waters. Meteorologia hidrol gosp 7 no.4:274-279
'62.

ANTONIU,R., Ing.; POPA,N., dr.; WISNER,M., dr.

Conclusions drawn from the investigations carried out, 1960-
1962, on the conditions for using sewage for irrigation.
Meteorologia hidrol. gosp. 8 no.2:1-72 '63

ANTOSIU, R., ing.

Aspects of using waste water for irrigation in Poland.
Hidrotehnica 8 no.12:451-460 D'63.

ANTONIU, R., ing.

> Third Conference on Waste Water Utilization for Irrigation,
> September 9-14, 1963, Budapest. Hidroteh apele meteor 9
> no.1:42-43 Ja '64.

ANTONIU, R.; POPA, M.; WISNER, M.; SIMOTA, H.; GHEDERIM, V.; MARCULESCU, I.

Research work carried out in 1962 on Tusla-Constanta experiment
fields in connection with conditions of sewage for irrigation
purposes. Studii port epur apelor 5:195-262 '64.

ANTONIU, R.; MIHAIL, M.; VAICUM, L.; MURGOCI, C.; CUTE, E.; HINCU, S.; BUSNITA,
Th.; TALAU, V.; ARDELEANU, I.; RUSU-PANDELESCU, M.; PARASCHIVESCU, A.

Studies on the possibility of improving the sanitary conditions of
the lakes surroundin; Bucharest. Studii prot epur apelor 5:263-332
'64.

ANTONIU, R., ing.; SALAY, G., ing.; DROCAN, N., dr.; GHEDERIM, V., ing.
BONCIU, G., biolog; MARCOCI, S., biolog; MARCULESCU, I.,
radiochimist.

Studies on the conditions of utilizing domestic waters and
sewage for irrigation of agricultural areas, made on the
experimental grounds at Tuzla, Constanta region, in 1961.
Studii prot epur apelor 4:61-147 '63.

ANTONIUK, Sergiusz, ins,

Problem of water losses in the networks and household instal-
lations of apartment houses. Gas woda tech sanit 36 no.6:
217-219 Je '62.

1. Naczelny inzynier Miejskiego Przedsiebiorstwa Wodociagow
i Kanalizacji, Bialystok.

ANTONIV, H. inzh., VELCHEV, Sr., inzh.

Electromechanical polishing of tempered and untempered steel
parts. Mashinostroene 12 no.10:17-21 O'63.

ANTONIY, A.K.

Cultivation of forage beans in the Latvian S.S.R. Zemledelie 24
no.2:42-45 F '62.   (MIRA 15:3)

1. Latviyskiy nauchno-issledovatel'skiy institut zemledeliya.
          (Latvia—Beans)

DZLAVROVA, I.K.; ANTONKIN, E.; BRYNZOVA, Z.; DEMICHEVA, N.; ZERENKOVA, L.;
TARASOVA, V.; YANKEVICH, O.

Comparative evaluation of various media for determining the toxigenic
properties of diphtheria bacilli in vitro. Lab. delo 6 no.4:48 Jl-
Ag '60.   (MIRA 13:12)

1. Kafedra mikrobiologii Smolenskogo meditsinskogo instituta.
   (BACTERIOLOGY--CULTURES AND CULTURE MEDIA)   (DIPHTHERIA)

AUTHOR: Antonnikov, A.F., Engineer   SOV-98-58-2-8/21

TITLE: The Local Increase in the Specific Water Discharge of the
            Bottom Water of Hydroelectric Power Plants and Ways of Pre-
            venting It (Mestnoye uvelicheniye udel'nykh raskhodov vody
            v nizhnem b'yefe gidrouzlov i mery bor'by s nim)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1958, Nr 2, pp 31-36 (USSR)

ABSTRACT: I.P. Linchevskiy was the first to notice an increase in the
            specific water discharge along the "bottom water" in a three-
            dimensional flow /Ref. 1_7. The author deals with research
            to obtain a quantitative and qualitative estimate of the in-
            crease in such discharges in laminar and spatial flows, as
            well as to work out efficient measures to eliminate turbu-
            lent currents in the bottom water and to ensure the smallest
            possible erosion of the bottom behind the aprons. Tests were
            carried out on 2 models of a spillway of one of the planned
            hydroelectric centers. They proved that the main character-
            istics of a spatial flow is the depth at the apron. At low
            depth, the flow runs freely. The speed slows down and the
            specific discharge decreases according to the length of flow
            of the bottom water. Turbulent currents are accompanied by
Card 1/2   a substantial increase of the specific discharges and deep

SOV-98-56-2-8/21

The Local Increase in the Specific Water Discharge of the Bottom Water of
Hydroelectric Power Plants and Ways of Preventing It

erosion of the bottom behind the aprons. Both in the spatial
and the laminar flows, bottom erosion behind the apron ceases
when the speeds near the bottom attain values below the
erosion limit. To compare the results of actual research
with those of calculations, the author quotes several examples
of bottom erosion from the water at hydrotechnical centers.
To prevent turbulent currents, stream-directing structures
(spreaders) which would eliminate the flow of water from by-
whirlpools into the transitional flows are required. Tests
have proved that the erection of stream directing structures
with buttresses of over 5 m is the most effective measure
for preventing an increase in the specific water discharges
and strong erosive action behind the apron.
There are 7 sets of diagrams, 2 graphs,1 table and 6 Soviet
references.

1. Power plants--USSR   2. Water--Turbulence   3. Water--Control
systems   4. Power plants--Model test results

Card 2/2

ANTONNIKOV, A. F., Cand of Tech Sci -- (diss) "Use 1 Increase of Water
Intake in Under Water Hydro Units and Measures for Controlling It,"
Moscow, 1959, 25 pp (Moscow Institute of Engineers of Water Manage-
ment im V. R. Vil'yams) (KL, 2-60, 112)

ANTONNIKOV, A.F., inzh.

Designing and establishing the length of the concrete lining in
tailraces of hydraulic engineering structures. Gidr.stroi. 30
no.2:38-41 F '60.   (MIRA 13:5)
                (Hydraulic engineering)

BULGARIA

Evg. ANTONOV, (Col., MC)(Polkovnik od meditsinskata sluzhba.)

"Most Frequent Mycotic Diseases in the Army and Their Prevention."

Sofia, Voenno Meditsinsko Delo, Vol 16, No 1, Feb 1963; pp 28-33.

Abstract: Comprehensive statistical data about superficial mycoses in
the Bulgarian armed forces and civilian population. Morbidity is
extremely high; highest in the Turkish minority areas and among
Bulgarians of Mohammedan religion. Of 1664 military personnel screened
in the Sofia garrison, 682 (41%) had epidermophytosis pedis (22% of
first-year recruits, 65% of 2- or 3-year servicemen.) Scalp, beard and
other skin mycoses are also widespread. Comprehensive data about the
species involved, epidemiologic patterns; outline of 12-point program
to counteract situation. Diagram, no references.

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ANTONOV, A.; STEFANOV, S.

Receiving ultrashort waves. p.9.
(RADIO I TELEVIZIIA, Vol. 6, no. 7, 1957, Sofia, Bulgaria.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 12, December 1957 Uncl.

ANTONOV, A.

"Self-Screwing Mandrel." p. 18,
(RATIONALIZATSIIA, Vol. 4, No. 9, Sept. 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

AID P - 3595

Subject   : USSR/Aeronautics

Card 1/1   Pub. 58 - 12/26

Author   : Antonov, A.

Title   : More light soaring gliders!

Periodical   : Kryl. rod.,   11,   16-17,   N 1955

Abstract   : This article belongs to the series of answers to a
                 question "What kind of mass-produced glider do we
                 need?" The author, a designer, discusses the
                 characteristics of light gliders. Some figures are
                 given.

Institution   : None

Submitted   : No date

ANTONOV, A.

Protection of two-phase electric motors. p. 9. RATSIONALIZATSIIA
(Institut za ratsionalizatsiia) Sofiya. Vol. 6, No. 1, Jan. 1956

SOURCE: EEAL   LC Vol. 5, No. 11, Nov. 1956

ANTONOV, A.

"Two-component electric-induction dynamometer for a lathe."

p. 24 (Ratsionalizatsila) Vol. 7, no. 1, Jan. 1957
Sofiia, Bulgaria

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

ALIMOV, A., mayor

True to Lenin's legacy. Kom.. Vooruzh. Sil 4 no.16:84-85
Ag '64.   (MIRA 17:10)

1. Pomoshchnik nachal'nika Glavnogo politicheskogo upravleniya
Bolgarskoy Narodnoy armii po rabote sredi komsomol'tsev.

S/058/62/000/004/111/160
A061/A101

AUTHORS: Nadzhakov, G., Antonov, A., Zadorozhnyy, G.

TITLE: Conditions for dark conservation of photoelectret photopolarization

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 41, abstract 4E357
             (Dokl. Bolg. AN, 1961, 14, no. 4, 329-332, English summary)

TEXT: The conditions for dark conservation of photopolarization in photo-
electrets consisting of single crystals or polycrystals of S, of polycrystalline
anthracene, of powdery S - CdS mixtures, and of a pressed anthracene - CdS mix-
ture were investigated. The initial depolarization current on illumination of
the polarized photoelectret was taken as the measure of photopolarization. The
initial decrease of polarization is slowed down when the polarizing voltage is
increased. The drop of photopolarization of the polycrystalline anthracene
electret subjected to high pressure is slowed down when pressure is increased
to 2 t/cm^2. The degree of photopolarization drops at the same time. With
electrets subjected to a pressure > 1 t/cm^2, where the density of the photo-
electret mass does not change any more, the characteristics of conservation and

Card 1/2

Conditions for dark conservation ...

S/058/62/000/004/111/160
A061/A101

the degree of photopolarization do not change any longer. This is explained by
the decrease of the number of electrons localized in shallow traps connected with
the surface of individual crystalline particles of the electret.

V. Lyubin

[Abstracter's note: Complete translation]

Card 2/2

S/058/62/000/004/113/160
A061/A101

AUTHORS: Kashukeyev, N., Antonov, A., Zadorozhnyy, O.

TITLE: On stationary distribution of the electric charge in photoelectrets

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 41, abstract 4E359
              (Dokl. Bolg. AN, 1961, 14, no. 4, 333-336, English summary)

TEXT: An expression is derived for the heterocharge density distribution
along the photoelectret with a single type electron traps. It is found that
the resulting charge is located in narrow zone $\sim 10^{-5}$ cm thick, near the elec-
trode. The dependence of the constant photoelectret charge on both the intensity
of polarizing light and the strength of polarizing electric field is examined.
The expression for the photoelectret charge is the same as the one obtained by
E. I. Adirovich (RZhFiz, 1961, 11E129).

                                                        V. Lyubin

[Abstracter's note: Complete translation]

Card 1/1

S/058/62/000/004/112/160
A061/A101

AUTHORS: Kashukoyev, N., Antonov, A., Zadorozhnyy, G.

TITLE: Theory of thermal depolarization of photoelectrets

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 41, abstract 4E358
               (Dokl. Bolg. AN, 1961, v. 14, no. 5, 447-450, English summary)

TEXT: The conditions for thermal depolarization of a photoelectret,
polarized by illumination until steady state is attained, are analyzed. Dark
depolarization is considered to consist in the transition of electrons from the
traps, in which they were captured, to the conduction band, their subsequent
motion in the electric field of polarized charges, and their re-capture by free
traps or their recombination with free holes. On the assumption that the re-
capture process prevails over that of recombination, an exponential relation for
the drop of the photoelectret charge with time is obtained for the case of poor
filling of the traps: $\sigma \approx \sigma_{const} \exp(-\alpha t)$ $\cdot$ σ_{const} is the constant charge in
photopolarization, $\alpha = 4\pi e \, u_n \tau Q / \varepsilon$, where u_n is the electron mobility, τ is
the electron lifetime with respect to the trapping, Q is the concentration of
electrons liberated from the traps in the unit time, and ε is the dielectric

Card 1/2

Theory of thermal depolarization of photoelectrets

constant. By assuming the electron mobility to be temperature-independent, the relation $\alpha(T) = const \cdot T^{3/2} \exp(-W/kT)$ is obtained, where W is the energy depth of the traps. The possibility of graphically determining W is indicated.

V. Lyubin

[Abstracter's note: Complete translation]

Card 2/2

S/194/62/000/006/089/232
D413/D308

24.7700

AUTHORS: Kashukeyev, N., Antonov, A., and Zadorozhnyy, G.

TITLE: On the theory of the thermal depolarization of
             photo-electrets

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
             no. 6, 1962, abstract 6-3-59 p (Dokl. Bolg. AN, v.14,
             no. 5, 1961, 447-450)

TEXT: A general equation is derived for the depolarization that
occurs in darkness. The assumption is made that the electrons freed
from traps and migrating into the conductive zone recombine with
stationary holes. The paper investigates the concentration of free
electrons during depolarization in the dark, starting with a notion
of the mechanism of the processes taking place when the electrodes
are short-circuited. It is assumed that the trapping of electrons
predominates over the recombination of electrons with holes, and
that the concentration of trapped electrons is considerably lower
than the concentration of traps. The results of the calculation per-
mit a graphical determination of the depth of the local trapping
Card 1/2

ANTONOV, A.

A possibility of explaining the phenomena in the photoelectrets
by means of their photodipole polarisation. Doklady BAN 15
no.5:467-470 '62.

1. Predstavleno akad. Kh. Khristovym.

ANTONOV, A.

Photoelectrets. Nauka i tekh mladezh 15 no.1:5-7 Ja '63.

ANTONOV, A.

Kinetics of the photodepolarization current in the photoelectret
of monocrystals sulfur. Doklady BAN 16 no.2:129-132 '63.

1. Predstavleno akad. G. Nadzhakovym, chl. Redaktsionnoy
kollegii, "Doklady Bolgarskoy akademii nauk."

ANTONOV, A.

Application of the Zeeman method in the measurement of electret electric fields. Doklady BAN 17 no.4:381-384 '64.

1. Predstavleno akad. G. Nadzhakovym.

NADZHAKOV, G.; ANTONOV, A.; ZADAROZHNYY, G. [Zadarozhnii, G.]; KONOVA, A.;
    PAKEVA, S.; YUSKESELIYEVA, L. [IUskeselieva, L.].

A new type of two-layer electret. Doklady BAN 17 no.4:365-368 '64.

ANTONOV, A.

Electric field of a dipole polarized photoelectret. Doklady
BAN 17 no.5:541-548 '64

1. Predstavleno akad. G. Nadzhakovym

848. Oxygen-resistant rubber. A. ANTONOV.
Koka Prom., Bulgaria, 1961, No. 8, p. 10-21, Refused.
Zhur. Khimiya, 1966, No. 10. abs. 36006. 6323152

BULGARIA/Chemical Technology - Caoutchouc, Natural and   H-31
              Synthetic. Rubber.

Abs Jour   : Ref Zhur - Khimiya, No 24, 1958, 83695

Author   : Antonov, A.
Inst   : -
Title   : The Chemical Plasticization of Caoutchoucs.

Orig Pub   : Leka promishlyanost, 1957, 6, No 9, 10-14.

Abstract   : The theories of the action of chemical plasticizers (CF)
            upon caoutchouc were examined and experiments were carried
            out to find optimum conditions for plasticization. The CP
            can be arranged in the following descending series:
            renacite-IV > Renacite-V > thio-β-naphthol > captax.
            A plasticizing action depends upon the amount of CP but in
            the case of renacites and thio-β-naphthol an increase
            in dosage above 0.5% (as to the caoutchouc) is not expe-
            dient. The optimum temperature for the treatment is
            $105 \pm 5°C.$; with its decrease the action of CP weakens and

Card 1/2

BULGARI./Chemical Technology. Chemical Products and Their
        Applications. Leather. Fur. Gelatine. Tanning
        Materials. Industrial Proteins.

Abs
Abs Jour: Ref Zhur-Khim., No 8, 1959, 29956.

Author : Antonov, A. and Petrov, N.
Inst   :
Title   : Leather Substitutes of the Paperboard Type.

Orig Pub: Leka Promishlenost, 7, No 2, 10-11 (1958)
          (in Bulgarian)

Abstract: The authors describe pilot plant tests on the produc-
          tion of paperboard type leather substitutes from
          sole leather croppings (C) (vegetable tanned) and
          35% SKS-30 latex. The process is operated as follows:
          the C are soaked in a 2% (on the weight of the C)

Card 1 : 1/3

MIKOV, A.

"Ozone aging of rubber and its vulcanites."

p. 16. (Caska Promishlenost, Vol. 7, No. 7, 1954, Sofiia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 12, Dec 58

ANTONOV, A.

Manufacturing latex and its application. p. 13

LEKA PROMISHLENOST. (Ministerstvo na lekata promishlenist) Sofia, Bulgaria.
Vol. 8, no. 7, 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 11, Nov. 1959
Uncl.

L 36027-66   T/EWP(t)/ETI   IJP(c)   JD

ACC NR: AP6027347   SOURCE CODE: BU/0011/65/018/012/1087/1090

AUTHOR: Nadzhakov, G.; Antonov, A.; Pakova, S.; Konova, A.

ORG: none

TITLE: Conservation of the homocharge during the dark polarization of sulfur monocrystals

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 12, 1965, 1087-1090

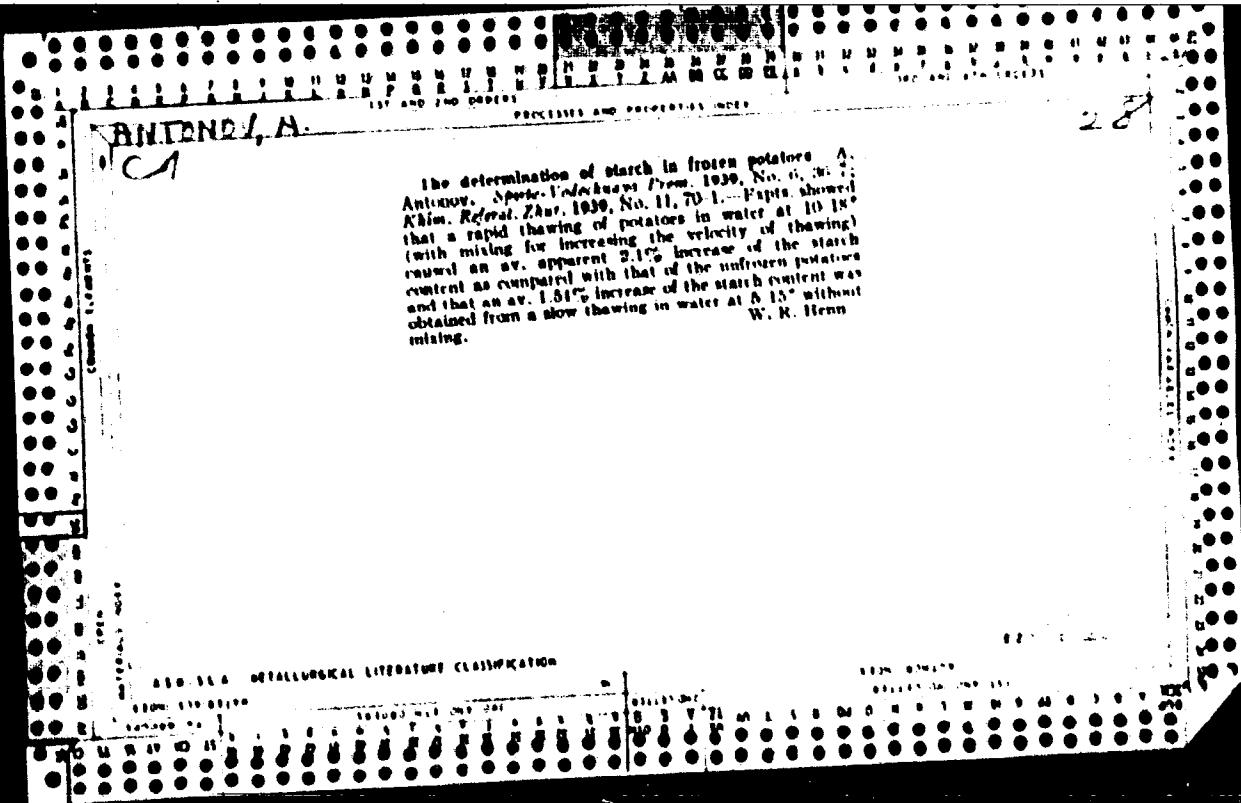TOPIC TAGS: dielectric polarization, photoelectret, electric field, single crystal

ABSTRACT: The creation of photoelectret states within dielectrics is accompanied by dark polarization, i.e., polarization in darkness by means of applied electric fields. During such polarization the surface may acquire hetero- as well as homocharges. G. Nadzhakov et al. (Dokl. BAN, 15, 1962, no. 8, 805) assumed earlier that the applied high voltage causes the ions within the dielectric to be absorbed. The present investigation studied, consequently, in more detail, the creation and decay (in time) of the homocharge during dark polarization of sulfur monocrystals. Diagrams present the time dependence of the polarization, depolarization, and homocharge decay with the applied voltage (1-5 kV) as parameter. The paper ends with a brief discussion of the results. Orig. art. has: 4 figures. [JPRS: 36,465]
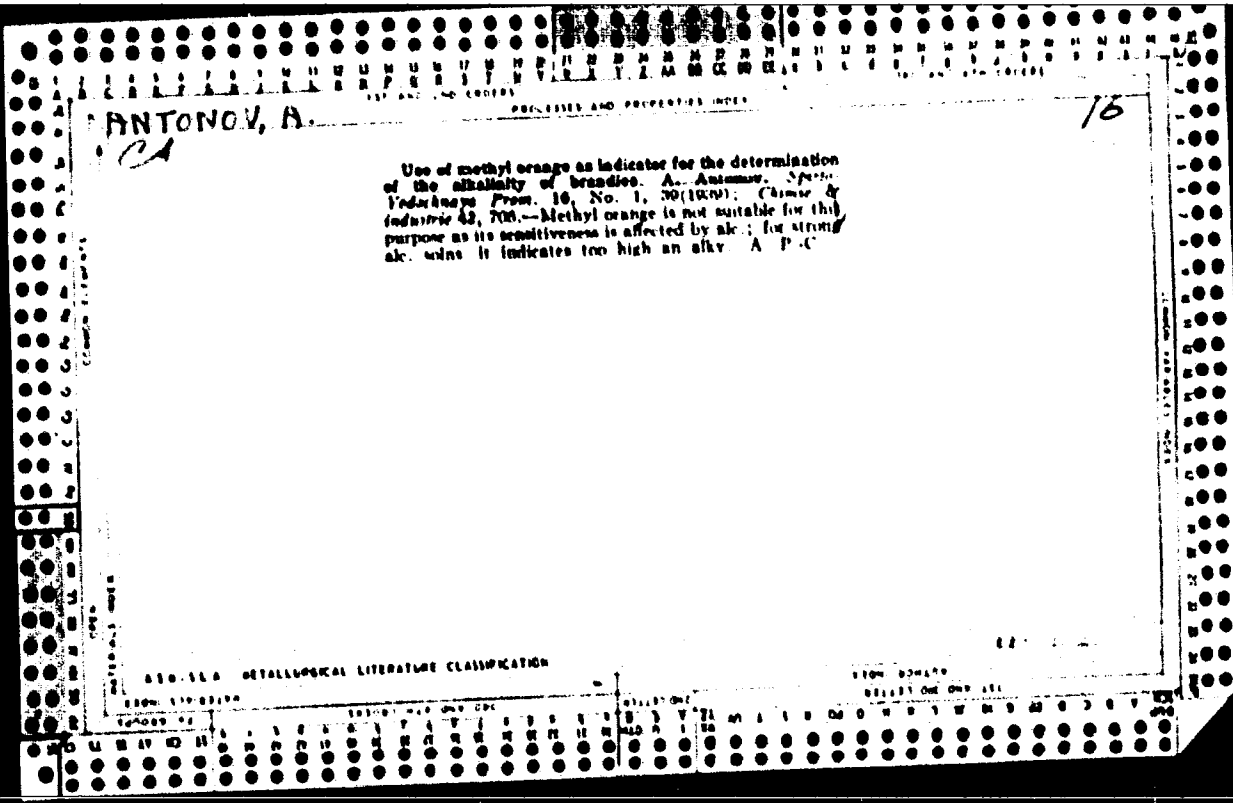
SUB CODE: 09, 20 / SUBM DATE: 21Sep65 / ORIG REF: 003 / SOV REF: 003
OTH REF: 002
Card 1/1

ANTONOV, A.
CA

The determination of starch in frozen potatoes.
Antonov. *Spohr. Iaboboxers Prem.* 1936, No. 6, 5;
Khim. Referat. Zhur. 1939, No. 11, 70-1.—Rapid showed
that a rapid thawing of potatoes in water at 10-18°
(with mixing for increasing the velocity of thawing)
caused an av. apparent 9.1% increase of the starch
content as compared with that of the unfrozen potatoes
and that an av. 1.51% increase of the starch content was
obtained from a slow thawing in water at 5-15° without
mixing.   W. K. Henn

METALLURGICAL LITERATURE CLASSIFICATION

ANTONOV, A.

76

Use of methyl orange as indicator for the determination of the alkalinity of brandies. A. Antonov. *Spirt. Vodochnaya Prom.* 16, No. 1, 30(1939); *Chimie & Industrie* 43, 706.—Methyl orange is not suitable for this purpose as its sensitiveness is affected by alc.; for strong alc. wine it indicates too high an alky. A. P. C.

METALLURGICAL LITERATURE CLASSIFICATION

ANTONOV, N.

CA

PROCESSES AND PROPERTIES WITH

Using a hygrometer for rapid determination of moisture
in grain. N. Antonov. Spirts-Vodochnaya Prom. 17.
No. 7, 30(1910).—Use of a hygrometer simplifies moisture
detn. in raw grain. A procedure is described.
Julian F. Smith

/2

METALLURGICAL LITERATURE CLASSIFICATION

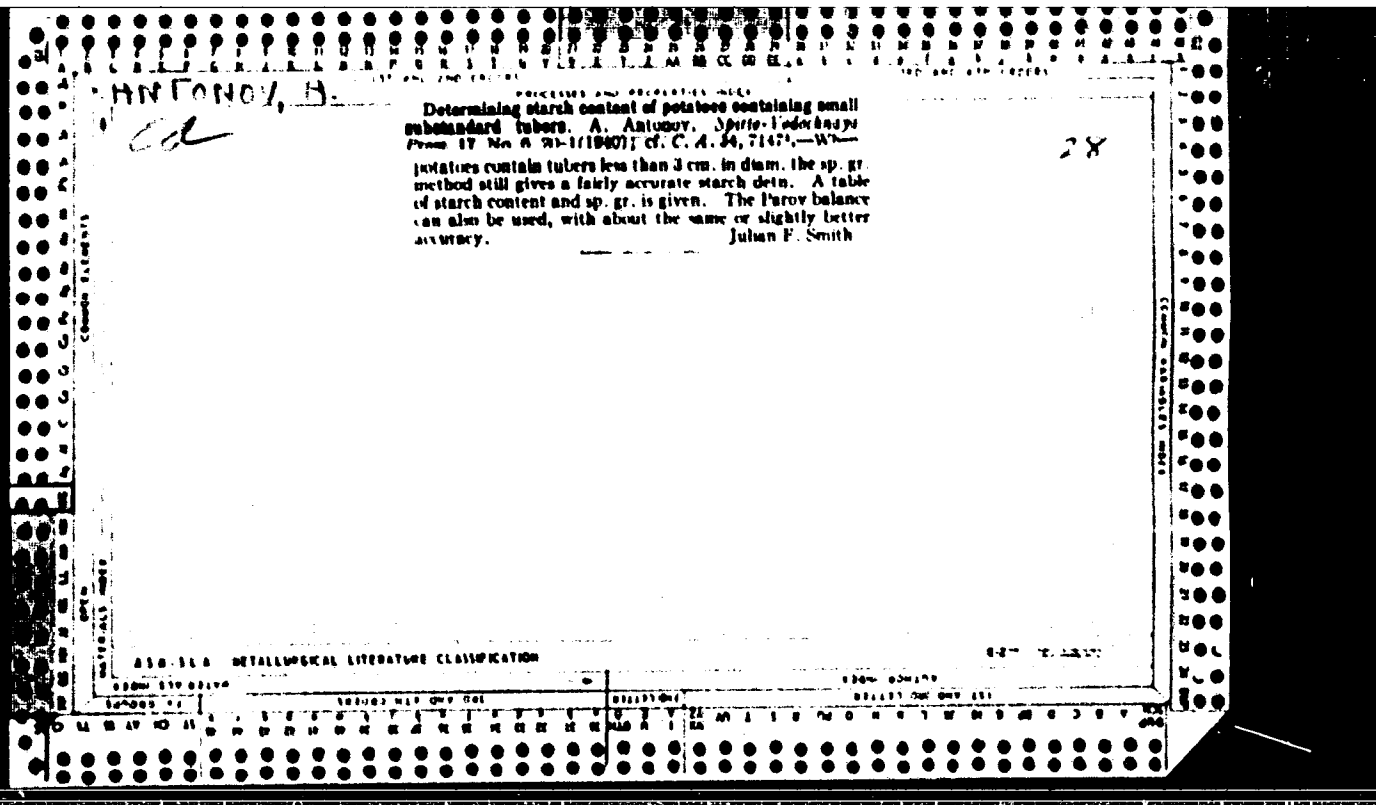ANTONOV, B.

12

The influence of the hardness of the water and other factors on the results of the determination of starch in potatoes. A. Antonov and A. Penuti. *Spirto-Vodochnaya Prom.* IV. No. 1-2, 25-6 (1940); *Chem. Zentr.* 1940, II, 2353; cf. C. A. 33, 8344. — In the detn. of starch in potatoes by use of the balance of Parov and Reimann, lower values were obtained when hard water was used than when distd. water was used. Thus when the starch content was found to be 23.0% with distd. water, the use of water of 31.52° hardness gave a result of 22.4% and water of 78.4° hardness gave a result of 22.0%.   M. G. Moore

METALLURGICAL LITERATURE CLASSIFICATION

ANTONOV, B.

Determining starch content of potatoes containing small substandard tubers. A. Antonov. *Spirto-Vodochnaya Prom.* 17, No. 6, 30-1(1940); cf. C. A. 34, 7147.—When potatoes contain tubers less than 3 cm. in diam. the sp. gr. method still gives a fairly accurate starch detn. A table of starch content and sp. gr. is given. The Parov balance can also be used, with about the same or slightly better accuracy. — Julian F. Smith

CZECHOSLOVAKIA/Cultivated Plants - Grains.   M-2

Abs Jour   : Ref Zhur - Biol., No 7, 1958, 29697

Author   : Antonov, A.
Inst   : -
Title   : The Results of Winter Rye Variety Testing in 1955-1956

Orig Pub   : Za vysokou urodu, 1957, 5, No 16, 377-378.

Abstract   : No abstract.

Card 1/1

CZECHOSLOVAKIA/Cultivated Plants - Grain..   M-4

Abs Jour   : Ref Zhur - Biol., No 9, 1958, 39212

Author   : Antonov, A.
Inst   : -
Title   : The Agrotechny of Winter Rye.

Orig Pub   : Za vysokou urodu, 1957, 5, No 17, 387-389.

Abstract   : No abstract.

Card 1/1

- 36 -

CZECHOSLOVAKI./Cultivated Plants. Grains.   H

Abs Jour : Ref Zhur-Biol., No 15, 1958, 68149

Author   : Basl, V., Antonov, A.
Inst   : -
Title   : Data on Experiments with Dutch Pea Varie-
           tios (in Czechoslovakia).

Orig Pub : Za vysokou urodu, 1957, 5, No 19, 446-447

Abstract : No abstract.

Card   : 1/1

40

Card   : 1/1

NADZHAKOV, G., akad.; ANTONOV, A.; ZADOROZHNYY, G. [Zadorozhni, G.]

Influence of excitation on the photoelectret polarization of monocrystal sulfur in dark. Doklady BAN 15 no.8:805-808 '62.

1. Chlen Redaktsionnoy kollegii, "Doklady Bolgarskoy Akademii nauk" (for Nadzhakov).

L 26021-66

ACC NR: AP5022954 (A)   SOURCE CODE: UR/0317/65/000/002/0032/0033

AUTHOR: Antonov, A. (Major general of engineering-technical service;
Professor; Doctor of technical sciences)

ORG: None

TITLE: Wheels or caterpillar tracks

SOURCE: Tekhnika i vooruzheniye, no. 2, 1965, 32-33

TOPIC TAGS: motor vehicle, vehicle component

ABSTRACT: The advantages and disadvantages of using wheels and
caterpillars for military motor vehicles are discussed. The compar-
ative performance of wheels and caterpillars were evaluated by tak-
ing into consideration the vehicle maneuverability and road-endur-
ance, the operating time between general overhauls, the cost and per-
fection of design, the maintenance and the repair. It is easier to
cope with rough ground by using caterpillar vehicles while on hard
and dry roads, preference must be given to multi-axle wheeled vehi-
cles. A caterpillar vehicle requires less space for turning around

Card 1/2

L 26021-66

ACC NR: AP5022954

than does a wheeled vehicle. Its construction makes it more conven-
ient for maneuvering in narrow passages. The operating period of
caterpillar vehicles is shorter because their bands and gears wear
out sooner than the tires and gears of a vehicle carried on two or
three axles. With the increase of the number of axles (sometimes up
to seven), the advantage of a multi-axle system in an operating peri-
od disappears. Their construction becomes more complicated and ex-
pensive and they require more time for overhauling, care and repair
than a caterpillar system driven by only two wheels. Usually, multi-
axle vehicles are higher and their stability is lower. It is more
difficult to adjust their design to deep river crossings and make
waterproof their transmission drives. On the other hand, the need
for frequent replacements of caterpillar bands makes their use un-
economical. In conclusion, the author states that each type of ve-
hicle motion has its peculiar advantages and doubts that one type
will be able to exclude the other in spite of all improvements in
the future.

SUB CODE:19,13 / SUBM DATE: None / ORIG REF: 000 / OTH REF: 000

Card 2/2

ACC NR: AP7001227   (N)   SOURCE CODE: UR/0401/66/000/012/0022/0023

AUTHOR: Antonov, A. (Senior Sergeant, Commander of Launch Installation);
Dvoryaninovich, I. (Petty Officer First Class); Karasev, A. (Chief Petty Officer)

CRG: None

TITLE: Winter is a stern teacher

SOURCE: Starshina-serzhant, no. 12, 1966, 22-23

TOPIC TAGS: military training, military personnel, guided missile personnel, ord-
nance personnel, torpedo, equipment winterization, combatant ship

ABSTRACT: "Launcher operators take examinations." [A. Antonov] Frost and frozen
ground cause launcher crews great difficulties when launcher carriage spades cannot
be freed. It is recommended that preventive measures include the setting of fewer
spades, lubricating them, and preparing the ground for their pods with a mixture of
sand, or slag. The difficulties encountered with cables in cold weather, and the pre-
ventive measures taken, are described. Experienced launch batteries lubricate the
launcher thoroughly, and cover parts with oily rags.

     "Cuttermen are ready for freezing weather." [I. Dvoryaninovich] The procedures
used by enginemen and electricians of battle cutters to prepare for winter operations

Card 1/2

ACC NR: AP7001227

in the Red Banner Northern Fleet are described. Diesel care and maintenance are discussed and the importance of fire prevention measures is emphasized, as is the need to keep fuel free of water. Several instances of damage caused by carelessness are cited.

"Remember this, torpedoman!" [A. Karasov] The work required of torpedomen to maintain their weapons in readiness during the wintertime is complicated by a great many tests and additional operations. Antifreeze solutions must be carefully pre- pared and kept within strictly designated limits. Winter grades of lubricants must be used and grease fittings must be checked for water tightness. The results of care- lessness and failure to comply with regulations are cited, and the results obtained by strict compliance are noted with favor. Orig. art. has: 2 figures.

SUB CODE: 15/SUBM DATE: None

Cord 2/2

ANTONOV, A.; KORENFEL'D, I.

Highways and automotive transportation form a single transportation system. Avt.transp. 40 no.1:33-34 Ja '62.   (MIRA 15:1)

1. Nachal'nik Upravleniya avtomobil'nogo transporta i shosseynykh dorog Luganskogo sovnarkhoza (for Antonov). 2. Nachal'nik otdela planirovaniya Upravleniya avtomobil'nogo transporta shosseynykh dorog Luganskogo sovnarkhoza (for Korenfel'd).
                    (Transportation, Automotive)
                          (Roads)

ANTONOV, A.; YELINSON, A.; MYAGI, Kh.Ya. [Magi, H.]; KORROVITS, Kh.Kh.,
    red.; KUKIN, V.N., red.; EINBERO, K., tekhn. red.

[Catalog of standard estimates for building operations for the
construction in the Estonian S.S.R.] Ehitustoode uksushinnete
kataloog Eesti NSV ehitustele. Katalog edinichnykh rastsenok na
stroitel'nye raboty dlia stroitel'stva v Estonskoi SSR.   Izd.2.
Tallinn, Eesti Riiklik Kirjastus.   Vol.1.   1960.   754 p.
                                                (MIRA 15:2)
1. Estonian S.S.R. Riiklik Ehituse ja Arhitektuuri Komitee.
        (Estonia--Building--Estimates)

ANTONOV, H.

ANTONOV, A.; SAFONOV, B.

      Center for the exchange of advanced practices. Avt.transp. 39
      no.6:9-10 Je '61.   (MIRA 14:7)
          (Lugansk Province—Highway transport workers)

ANTONOV, A.

Institution combining technical education with practical work.
Avt.transp. 41 no.4:49 Ap '63.   (MIRA 16:5)
    (Lugansk—Automobile drivers—Education and training)

BUCHVAROV, B.; ANTONOV, A., tekhnich.sutrudnik; KLUCHKOVA, L., technic.
sutrudnik

Tobacco pitch in dermatological practice. Suvrem. med., Sofia 5
no.3:60-68 1954.

1. Is Klinikata sa koshni i venericheski bolesti pri Meditsinskata
akademiia I.P.Pavlov, Plovdiv (nav.: dots. B.Buchvarov).
        (SKIN, diseases,
           ther., tobacco pitch)
        (TOBACCO,
           pitch, ther. of skin dis.)
        (TARS,
           tobacco pitch, ther. of skin dis.)

IKONOMOV, Il; ANTONOV, An.

Problem of surgical approach to the hip joint. Khirurgiia, Sofia
8 no.10:873-877 1955.

1. Vissh meditsinski institut V.Chervenkov, Sofiia. Klinika
po ortopediia i travmatologiia, Direktor: prof. B.Boichev.
      (HIP, surgery,
          approach (Bul))

ANTONOV, A.

A new methof of surgical therapy of osseous deformities of the
extremities in children. Khirurgiia, Sofia 9 no.2:148-154 1956.

1. Vissh meditsinski institut V. Chervenkov, Sofiia Klinika po
ortopediia i travmatologiia. Direktor: prof. B. Boichev.
    (EXTREMITIES, abnormalities,
        surg., bone reconstruction in child. (Bul))
    (ABNORMALITIES,
        extremities, bone reconstruction in child. (Bul))

ANTCHOV, An.

One more case of Gaucher's disease. Suvrem.med.,Sofia 2 no.1:
76-80 '60.

1. Iz Okruzhnata bolnitsa - Burgas. Glaven lekar: ZH. Siakolov.
        (LIPOIDOSIS in inf.& child)

ANTONOV, Ant., inzh.

Enterprise for the development of electromedical apparatus.
Mashinostroene 11 no.6:34 Je '62.

ANTONOV, A.

Do you know the language of drawings? Nauka i tekh mladezh 14 no.4:10-12
Ap '62.

ANTONOV, A.A., inzhener.

Unit for strengthening wires of various shape through stressing.
Nov.tekh.i pered.op.v stroi. 19 no.4:19-20 Ap '57. (MIRA 10:7)
(Prestressed concrete)

CATEGORY   : Farm Animals.
                  The Swine.

ABS. JOUR.   : RZhBiol., No. 3, 1959, No.12089

AUTHOR   : Belkov, S. H.; Antonov,
INST.   : -
TITLE   : The Nutritive Value of Blood Corn. Ears.

ORIG. PUB.   : Vestn. s.-kh. nauki, 1958, No 2, 141-149

ABSTRACT   : When at Dubrovitsy (near Moscow) pigs were fed
                  silage prepared from whole ears, the outer
                  peel and the core were not consumed. By quant-
                  ity silage in the amount of 30 percent of the
                  nutritive ration mixed with other feed was
                  consumed well. The digestion of the silage's
                  organic matter amounted to 65 percent. At a
                  moisture of 69.5 percent, 1 kg of silage con-
                  tained 202 g of digestive organic matter and,
                  at 71.5 percent 163 g. The dry substance con-
                  tained 14.4 percent of protein, 3.5 percent

Card: : 1/2