

PANOV, B.S.

Fluorite of the southwestern margin of the Donets Basin. Lit. 1 pol.
iskop. no.3:104-117 My-Je '64. (MIRA 17:11)

1. Donetskii politekhnicheskii institut.

PANOV, Boris Semenovich; POPRAVKO, K.A., otv. red.; ALYAB'YEV,
N.Z., red.

[Fluorite in the Donets Basin] Fluorit v Donetskom
Basseine. Khar'kov, Khar'kovskii gos. univ., 1965. 98 p.
(MIRA 18:12)

BUTURLINOV, N.V.; PANOV, B.S.; KOBELEV, M.V.; KARPOV, G.F.

New data on Devonian igneous activity in the southwestern
margin of the Donets Basin. Dokl. AN SSSR 156 no. 4:817-
820 Je '64. (MIRA 17:6)

1. Donetskii politekhnicheskii institut. Predstavleno akademikom
D.S.Korzhinskim.

PANOV, B.S.

Find of copper mineralization in Devonian sediments of the southwestern margin of the Donets Basin. Min. sbor. no.15:331-334 '61. (MIRA 15:6)

1. Donetskiy politekhnicheskiy institut, Donetsk.
(Donets Basin--Copper ores)

PANOV, B.S.

Fluorite in Donets Basin Devonian sandstones. Dop. AN URSR
no.8:1099-1102 '63. (MIRA 16:10)

1. Donetskii politekhnicheskii institut. Predstavleno akademikom
AN UkrSSR N.P. Semenenko [Semenenko, M.P.].
(Donets Basin--Fluorite)

BUTURLINOV, N.V.; PANOV, B.S.

Igneous rocks and ore formation in the Donets Basin. Zap.Vses.min.
ob-va 88 no.4:419-429 '59. (MIRA 12:11)

1. Donetskiy industrial'nyy institut, g. Stalino.
(Donets Basin--Petrology)

PANOV, B.S.

Fluorite in the carbonate formation of the southwestern border of
the Donets Basin. Dokl. AN SSSR 147 no.5:1172-1174 D '62.

(MIRA 16:2)

1. Donetskii politekhnicheskii institut. Predstavleno aka-
demikom N.M. Strakhovym.

(Donets Basin--Fluorite)

PANOV, B.S.

Structure and ore-bearing potential of the Chegarnikskiy dome in
the Nikitovka mercury deposits of the Donets Basin. Zap.Vs.min.ob-va
86 no.3:365-374 '57. (MLRA 10:9)

1. Donetskiy industrial'nyy institut, g. Stalino.
(Donets Basin--Ores) (Donets Basin--Geology, Structural)

PANOV, B.V., kand.tekhn.nauk

Strengthening steel parts by the method of double work hardening.
Metalloved. i term. obr. met. no.1:7-12 Ja '63. (MIRA 16:2)
(Steel--Cold working)

1. PANOVA, B. V.
2. USSR (600)
7. Effect of the Length of the Arm of Bending Moment on the Concentration of the Strain in Chamfers, Herald of Machine Construction No. 1, Jan 53

9. Compilation of Information of the USSR Machine and Machine Tools Industry Contained in Soviet Publications. ATIC. ~~██████████~~

S/572/61/000/007/006/006
D221/D302

AUTHOR: Panov, B.V., Candidate of Technical Sciences, Docent
TITLE: The fatigue resistance of work hardened shafts
SOURCE: Raschety na prochnost' ; teoreticheskiye i eksperimental'nyye issledovaniya prochnosti mashinostroitel'nykh konstruktsiy. Sbornik statey no. 7, 1961, 390 - 405

TEXT: The results are reported of experiments, carried out for revealing the relative effectiveness of through and surface work hardening of plain shafts as well as shafts with stress concentrations. The specimens were made of steel 20 and tested in the HY - 3000 (NU-3000) machine. Some samples were left without treatment, whereas the others were subject to work hardening by preliminary torsion in K - 50 machine beyond the yield limit and to various stresses of work hardening, σ_h . The tests corresponded to TOCT (GOST) 2860 - 45, and amounted to 5 million cycles. The maximum increase of fatigue strength of plain specimens was obtained after achieving a stress of work hardening equal to 90 % of ultimate strength in



Card 1/3

S/572/61/000/007/006/006
D221/D302

The fatigue resistance of ...

torsion. The specimens with a ring recess were made of steel 20 with higher mechanical properties. Some were left without treatment, and the remainder were twisted to various degrees with subsequent groove turning. Furthermore, two batches from steel 65Г (65G) which has a higher strength and lower plasticity were produced in untreated as well as work unhardened and grooved form. The experiments demonstrate that the fatigue strength of shafts with a groove is not smaller after work hardening by torsion, compared to plain specimens. This proves that the sensitivity of the material to the undercutting is little affected by work hardening. In the case of workpieces in steel 65G it was less affected than in steel 20. In addition three batches of plain specimens in the latter steel were produced and tested in the NU-3000 machine. Their blanks were annealed, and one batch was left untreated, whereas the second batch was twisted and then turned to finish size. The third batch was burnished by a roller. All specimens were finally subject to artificial ageing. The test then indicated that the fatigue limit of untreated specimens and those which were work hardened by twisting and rolling attained the following proportions: 100, 120 and 132%. In addition specimens of three batches of plain shafts were machined in



Card 2/3

SOV/129-58-10-11/14

AUTHOR: Panov, B. V., Candidate of Technical Sciences^a
TITLE: Increasing the Strength of Steel Components by Twisting
(Povysheniye prochnosti stal'nykh detaley skruchivaniyem)
PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 10,
pp 50-56 (USSR)

ABSTRACT: On the basis of theoretical and experimental results the following conclusions are arrived at:

1. Work hardening of steel specimens increases the strength, the yield point and the fatigue strength even in cases in which the stresses caused by the work hardening are tangential and the stresses due to loading during operation are normal.
2. There is a possibility of calculating in advance the yield point of work hardened smooth specimens by applying the hypothesis of strength which reflects the influence of tangential as well as of normal stresses.
3. Application of work hardening is most effective in the case of soft steels; for harder steels it is more advantageous to improve the strength by heat treatment.

The increase in strength after work hardening by torsion is the same as after work hardening by rolls or shot

Card 1/2

S/129/63/000/001/002/017
E193/E383

AUTHOR: Panov, B.V., Candidate of Technical Sciences

TITLE: Increasing the strength of steel parts by the method of double work-hardening

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no. 1, 1963, 7 - 12

TEXT: Mechanical surface-hardening (e.g. by shot-peening) brings about an increase in the fatigue strength of metals, whereas work-hardening by deformation affecting the entire volume of a metal part increases mainly its resistance to static loads. The object of the present investigation was to study the effect of these treatments, applied singly and together, on the strength and fatigue properties of steel parts. Steel 15, containing 0.15% C, 0.57% Mn, 0.15% Cu and traces of Si and annealed at 900 °C, was used in the first stage of the investigation in which the effect of various modes of work-hardening on the static strength was studied. Three series of test pieces were used. Volume work-hardening of the specimens in the first series was affected by plastic deformation in torsion under a stress $\tau_H = 55 \text{ kg/mm}^2$;
Card 1/4

Increasing the strength . . .

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E193/E383

surface-hardening was carried out with a roll (40 mm dia., profile radius 2 mm) pressed under a load of 100 or 150 kg against the specimen rotated on a lathe at 140 r.p.m., the rate of feed of the hardening roll being 0.08 mm/rev. When both these treatments were applied (the so-called "double-hardening treatment"), surface-hardening was applied last. The specimens of the second and third series (made of steel 15 in the 'as-received' condition) were work-hardened under a wide range of conditions and then aged for 2 h at 200 °C. The various properties of specimens of the first series, before (figures in brackets) and after the double-hardening treatment are given below: tensile yield stress (35) and 63.3 kg/mm²; UTS (61.7) and 75.5 kg/mm²; elongation (in tension) (21.3) and 7.5%; shear yield stress (27.6) and 60 kg/mm²; shear strength (60) and 64.2 kg/mm²; shear strain (190) and 90%. The hardened and heat-treated specimens of the second and third series were subjected to tensile and torsion tests. The results indicated that in the case of parts operating under static tensile or shear stresses the increase in the resistance to deformation brought

Card 2/4

Increasing the strength

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E193/E383

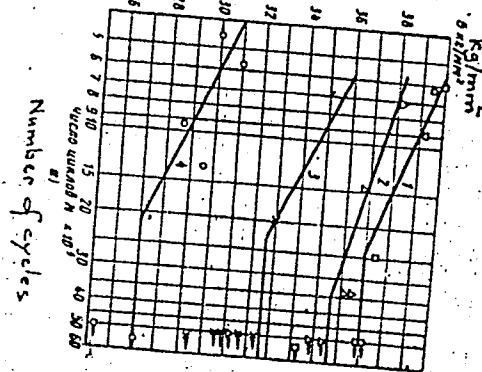
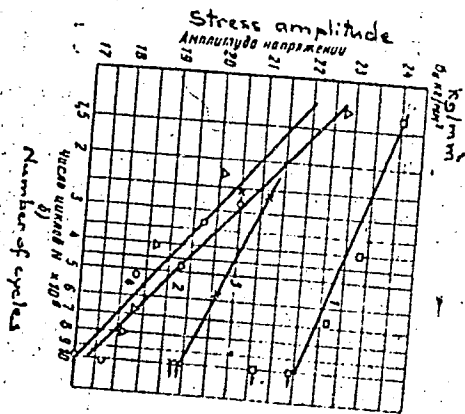
about by surface-hardening was marginal, double work-hardening was of doubtful value and sufficient increase in the mechanical properties could be achieved by volume work-hardening alone. In the second stage of the investigation, the effect of double work-hardening treatment on the fatigue properties of steel was studied. Three series of unnotched and one series of notched specimens were used. In addition to steel 15, steel 30X (30Kh) (0.25% C, 0.12% Si, 0.57% Mn, 1.03% Cr) was used. The fatigue tests were conducted under bending, tensile and shear (torsion) stresses. Typical results obtained for unnotched specimens of steel 15, tested under bending and tensile stresses, are reproduced in Figs 2a and b, respectively, the various curves relating to test pieces given the following mechanical treatment: 1) double work-hardening; 2) surface work-hardening; 3) volume work-hardening; 4) no hardening treatment. Conclusions: a substantial increase in the maximum permissible stresses applied to steel parts operating under repeated loads can be attained in many cases, by preliminary double work-hardening treatment of the type studied by the present author. There are 2 figures and 4 tables.

Card 3/4

Increasing the strength

S/129/63/000/001/002/017
E193/E383

Fig. 2:



Card 4/4

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

Fatigue strength of workhardened rollers. Rasch.na prochn.
no.7:390-405 '61. (MIRA 14:11)

(Steel--Fatigue)

DURIC, D.; KILIBARDA, M.; MANOV, I.

Distribution and elimination of polonium. Arh. hig. rada 14
no.4:317-325 '63.

1. Institut za medicinu rada Socijalističke Republike Srbije,
Beograd.

RADIOBIOLOGY

YUGOSLAVIA

KILIBARDA, M.; MARKOVIC, B.; ZIVANCEVIC, S. and PANOV, D.; Institute of Occupational Medicine of the Socialist Republic of Serbia (Institut za medicinu rada SRS,) Belgrade.

"Osmotic Resistance of Leukocytes Following Fractionated X-Irradiation of Rats."

Zagreb, Arhiv za Higijenu Rada i Toksikologiju, Vol 16, No 4, 1965; pp 353-356.

Abstract [English summary modified]: Whole-body irradiation in rats exposed to X-rays 1 r per min, 3 mA 70 kV for 20 minutes weekly for 20 weeks was followed by a progressive fall in osmotic resistance and longevity of white blood cells. Table, graph, 2 Soviet and 7 Western references; ms received 21 Jan 65.

KUCHERYAYEV, V. A.; PANOV, D. A.

"On the Question of the Cause of the Anomalously Fast
Losses of Electrons from Plasmas in Ogra. "

Report presented at the Conference on Plasma
Stability, Culham UK, 17-22 Sep '62

PANOV, D.A.

Larvel feeding of the bream in Rybinsk Reservoir. Trudy Inst. biol.
vodokhran. no.3:176-181 '60. (MIRA 14:3)
(Rybinsk Reservoir--Bream) (Larvae--Fishes)

PANOV, D. A.: Master Biol Sci (diss) -- "The biology of the young of the
~~Black Sea salmon~~
Black Sea salmon during the river period of their life". Moscow, 1958.
12 pp (Kaliningrad Tech Inst of the Fish Industry and Economy), 135 copies
(KL, No 3, 1959, 109)

PANOV, D.A.

The unity of the Black Sea salmon and brook trout schools.
Nauch.dokl.vys.shkoly; biol.nauki no.1:46-48 '58 (MIRA 11:8)

1. Predstavlena kafedroy rybovodstva Moskovskogo tekhnicheskogo instituta rybnoy promyshlennosti i khozyaystva im. A.I. Mikoyana.
(BLACK SEA--SALMON)
(CHERNAYA RIVER--TROUT)

PANOV, D.

Article by the Director of the Scientific Information Institute of the USSR Academy of Sciences, D. Panov: "Study More Fully the Achievements of Science and Technology."

Pravda, March 15, 1955, page 2

SECRET

PANOV, D.; USHAKOV, I.

Joint conference of the societies of operations research of the
U.S.A. and Canada. Izv. AN SSSR. Tekh. kib. no.1:198-199 Ja-F
'65. (MIRA 18:4)

Panov, D. A.

USSR/Nuclear Physics

C-5

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11239

Author : Bezrukov, L.S., Panov, D.A., Timoshuk, D.V.

Inst : Not Given

Title : Dependence of the Transverse Cross Section of the Reaction $\text{Li}^7(d, p)\text{Li}^8$ on the Deuteron Energy in the Interval 1.1 -- 4 Mev.

Orig Pub : Atom. energiya, 1956, No 4, 149-150

Abstract : A measurement was made of the excitation function of the reaction $\text{Li}^7(d, p)\text{Li}^8$ for 4.0 ± 0.05 Mev deuterons from the 70 cm cyclotron of the Academy of Sciences, USSR. The yield of the reaction was determined from the β activity of the Li^8 . The multiply-repeating cycle of measurements consisted of exposing the target during one second, interruption (one second), and counting the β

Card 1/2

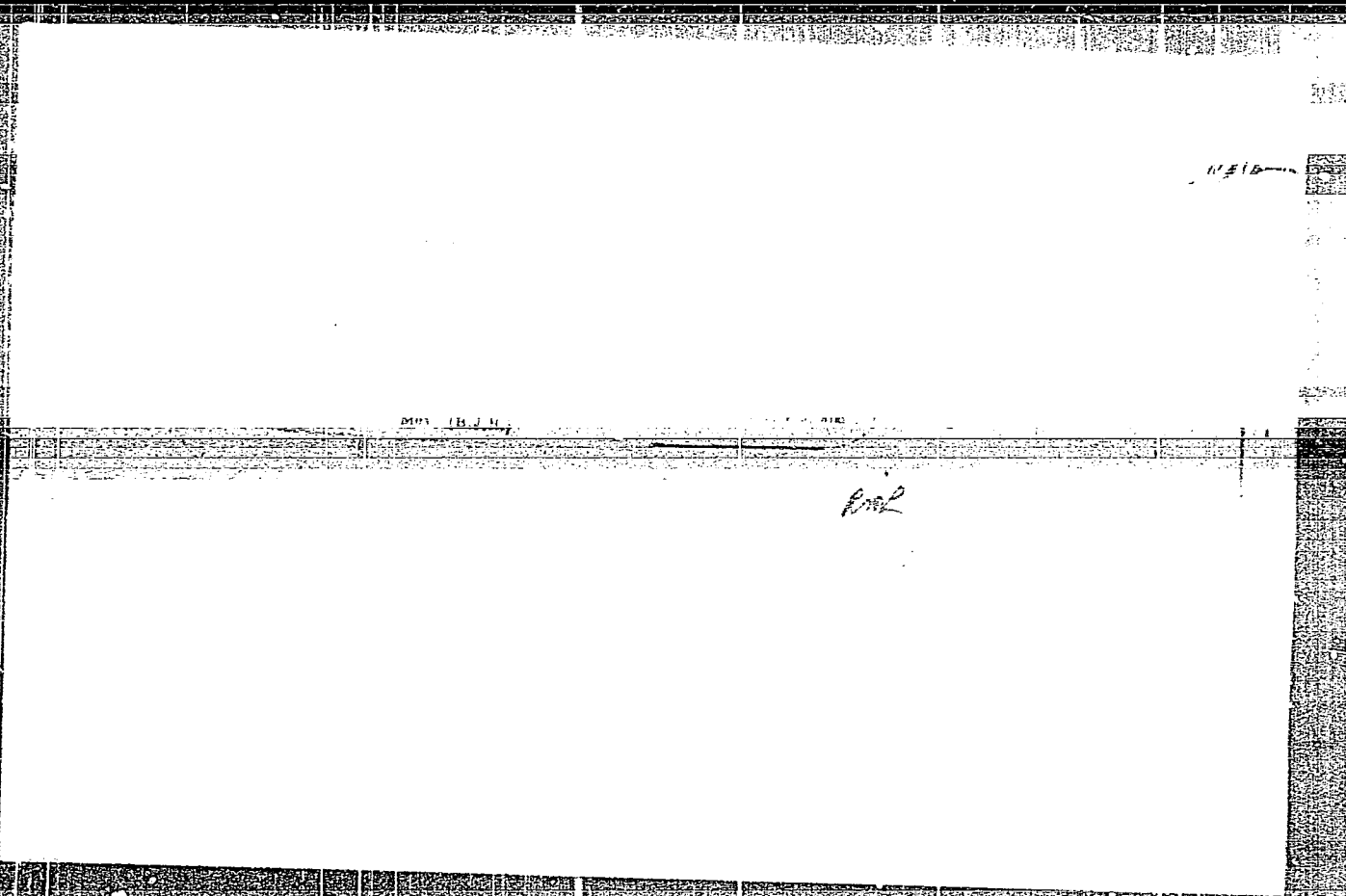
USSR/Nuclear Physics

C-5

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 11239

activity of the Li^8 for three seconds.

The excitation curve obtained has maxima at deuteron energies of 2.0, 2.5 and 3.7 Mev, corresponding to the levels of the intermediate Be^9 nucleus with energies 18.3, 18.7 and 19.6 Mev. Data on the existence of the Be^9 level with an energy 18.3 Mev coincide with the results of investigations of the $\text{Li}^7(d, n)\text{Be}^8$ reaction. (Referat Zhur Fizika, 1955, 24063)



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SOV/26-59-7-2/55

AUTHOR: Panov, D.A., and Semashko, N.N., Moscow

TITLE: Thermonuclear Magnetic Traps

PERIODICAL: Priroda, 1959, Nr 7, pp 13-18 (USSR)

ABSTRACT: The article describes how thermonuclear reactions are achieved and comments upon the principle of thermonuclear magnetic traps. In the USSR, the idea to use a thermonuclear magnetic trap in the shape of a straight cylinder with a longitudinal magnetic field with increased amplification toward its ends was first expressed by G.I. Budker in 1953. Recently the Institut atomnoy energii AN SSSR (Institute of Atomic Power of the AS USSR) has developed (under the guidance of I.N. Golovin) a large thermonuclear magnetic trap, the "Ogra" (diagram on p 17 and photo on p 18). It will serve for research into thermonuclear reactions. In the ionic supply chamber of the "Ogra's" injector, deuterium ions of as much as 200 kiloelec-

Card 1/2

4

66593

SOV/26-59-7-2/55

Thermonuclear Magnetic Traps

tron-volts are created. The trap's chamber made of non-magnetic steel is 1.4 m in diameter, and has several diffusion and sorption pumps. The "Ogra" is supposed to produce high-temperature plasma with a density of 10^{12} ions per cu cm. It will thus help to solve the problem of accumulation and holding back of the plasma in thermonuclear magnetic traps. There are 4 diagrams, 1 photo, 1 graph and 2 Soviet references.

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Card 2/2

PANOV, D.A.

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26.2212

S/053/61/073/004/005/007
B125/B201

AUTHORS: Golovin, I. N., Artemenkov, L. I., Bogdanov, G. F.,
Panov, D. A., Pistunovich, V. I., Semashko, N. N.

TITLE: Work with the thermonuclear installation "Ogra"

PERIODICAL: Uspekhi fizicheskikh nauk, v. 73, no. 4, 1961, 685-700

TEXT: The principal data concerning the installation "Ogra" were already published in 1958 by I. V. Kurchatov, "O nekotorykh rabotakh Instituta atomnoy energii AN SSSR po upravlyayemym termoyadernym reaktsiyam" (Atomnaya energiya 5, 105 (1958)). Both this paper and I. N. Golovin's lecture in London (1959) are presupposed to be known. Pinch current strength and conditions required for a dense plasma to accumulate in the "Ogra". In "pinch" operation, the density of plasma is made equal or larger than the density of hydrogen. The accumulation of hot plasma in the "Ogra" is above all dependent upon the following four cross sections:
(a) the dissociation cross section σ_d of a molecular ion H_2^+ in hydrogen,
(b) the cross section σ_d^* of the dissociation of a molecular ion H_2^* by

Card 1/6

22292
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 B125/B201

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Work with the thermonuclear...

protons, (c) the cross section σ_{ex} of the charge exchange of protons in hydrogen, (d) the cross section σ_{ion} of hydrogen ionization by protons. The values of σ_d used by the authors in 1958 had been measured by

N. V. Fedorenko at LFTI (Leningrad Institute of Physics and Technology) in 1957. For conditions in the "Ogra", the equations for the balance of ions and neutrons read,

$$\frac{\alpha}{\Omega} J (n_0 \sigma_x + n \sigma_n^*) \mathcal{L} = n_0 n \sigma_n v, \quad (2,1)$$

$$\frac{1}{\Omega} J q = n_0 n \sigma_n v e + \frac{P}{\Omega} n_0. \quad (2,2)$$

The equation for the pinch current reads:

$$J_{nep} = \frac{1}{4} \frac{q}{\epsilon a^2} \frac{\Omega}{\mathcal{L}^2} \frac{v \sigma_n^*}{\sigma_n \sigma_n^*} \left\{ 1 - \frac{\alpha \mathcal{L}}{q} \frac{1}{\Omega} \frac{\sigma_n^*}{v \sigma_n} P \right\}^2 \quad (2,3)$$

for the density of plasma or hydrogen at the pinch:

$$n_{nep} = \frac{1}{2} \frac{q}{\epsilon a \mathcal{L}} \frac{\sigma_n}{\sigma_n \sigma_n^*} \left(1 - \frac{\alpha \mathcal{L}}{q} \frac{1}{\Omega} \frac{\sigma_n^*}{v \sigma_n} P \right). \quad (2,4)$$

Card 2/6

22292

S/053/61/073/004/005/007
B125/B201

Work with the thermonuclear...

and

$$n_{0 \text{ nep}} = \frac{1}{2} \frac{q \sigma_{\pi}}{\alpha \mathcal{L} \sigma_{\pi} \sigma_{\pi}} \frac{\left(1 - \frac{\alpha \mathcal{L} 1 \sigma_{\pi}^*}{q \Omega v \sigma_{\pi} P}\right)^2}{1 + \frac{\alpha \mathcal{L} 1 \sigma_{\pi}^*}{q \Omega v \sigma_{\pi} P}} \quad (2.5)$$

respectively. The plasma-filled volume in the "Ogra" amounts to $\Omega = 8 \cdot 10^6 \text{ cm}^3$. Fig. 1 shows the principal cross sections characterizing the accumulation of a plasma in the "Ogra". Reference is made to measurements carried out by V. A. Simonov at the Nauchno-issledovatel'skiy vakuumnyy institut (Vacuum Scientific Research Institute). Part 3 deals with the stability, the space charge, and the cooling of ions by electrons. M. S. Ioffe and V. G. Tel'kovskiy have studied the adjusting instability (perstanovochnaya neustoychivost'). According to O. B. Firsov, a strong asymmetry of the plasma may, in case of a positive azimuthal drive, lead to an ordered flux of ions toward the chamber wall. Part 4 deals with results of experiments made with the "Ogra": at the time while the present paper was written, certain parts of the "Ogra" were redesigned with a view to amplifying the induced flux of H_2^+ ions, and to improving

Card 3/6

22292

Work with the thermonuclear...

S/053/61/073/004/005/007
B125/B201

the vacuum conditions. I. G. Goncharov and Yu. N. Dnestrovskiy have devised a method of measuring very low electron densities in the "Ogra". V. T. Karpukhin has developed and built an interferometer operating on the 3-cm wavelength and serving for the measurement of the highest electron densities. There are always two plasma components in the chamber, a "hot" one and a cold one, the density of the cold component being considerably higher than that of the "hot" one if the pressures of remanent gases

exceed 10^{-7} mm Hg. At pressures below 10^{-7} mm Hg, the densities of the two components become equal. The cold component has a considerably longer life than the hot one. The apparatus constructed by A. N. Karkhov permits receiving the magnetic radiation of ions in the whole spectrum.

Yu. L. Sokolov has worked out special spectrometers for measuring the energy of plasma electrons from ultraviolet recombination radiation and from bremsstrahlung in the range of 1000-1 A. Part 5. Conclusions: From experiments with the "Ogra": in the case of weak amperages in the trap (10-20 milliamperes) the ion motion fits well the theory of motion of single particles, and the mean free path of molecular ions is longer than one kilometer. By a proper choice of the form of the magnetic field

Card 4/6

22292

S/053/61/073/004/005/007
B125/B201

Work with the thermonuclear...

it is possible to augment the mean free path even further, and to accumulate a plasma to proton densities of 10^7 cm^{-3} . Currents of 300 to 400 milliamperes can be reached. If necessary, it is possible, by improving the vacuum conditions, to reduce the current required for a very dense plasma to some dozen milliamperes if the energy of H_2^+ ions is raised to 250-260 kev. Thus, the problem of accumulation of hot plasma with a density of 10^9 fast ions per cm^3 and even more is by no means solved as yet. Research work has so far only reached the limit of those plasma densities, below which the ions move as non-interacting particles, and above which the hydrodynamic properties of plasma and the collective interactions of particles make themselves noticeable. The processes taking place in the "Ogra" have not been completely clarified by experiments. For example, it has not yet been explained why the plasma potential in some variants of the experiments attains dozens of kilovolts. Various possible explanations are offered. There are 12 figures and 15 references: 5 Soviet-bloc and 10 non-Soviet-bloc. The two most recent references to English-language publications read as follows:
G. F. Bogdanov, D. A. Panov, N. N. Shemasko, Life time of fast ions in

Card 5/6

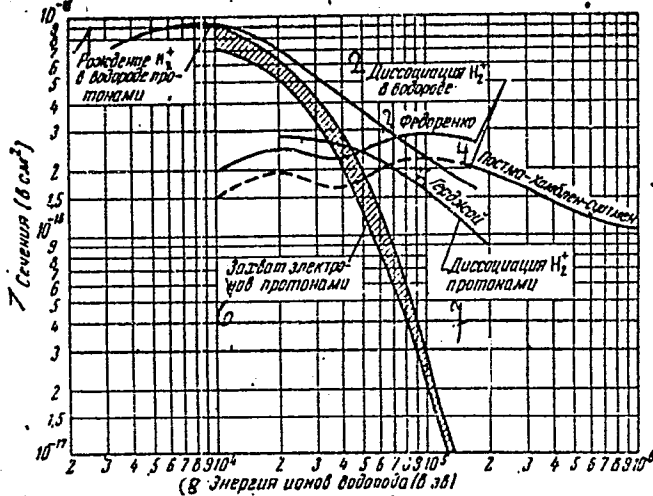
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B125/B201

Work with the thermonuclear...

Ogra, J. Nucl. Energy, part C, III, 106 (1961); R. F. Post, R. E. Ellis, E. C. Fird, and M. N. Rosenbluth, Stable Confinement of a high temperature plasma, Phys. Rev. Lett. 4, 166 (1960).

Legend to Fig. 1: The most important cross sections determining the process of plasma accumulation in the "Ogra": 1, cross sections (cm²); 2, production of H₂⁺ in hydrogen by protons, dissociation of H₂⁺ in hydrogen; 3, Fedorenko; 4, Postma-Hamblen-Suitman; 5, Gerjoy; 6, capture of electrons by protons; 7, dissociation of H₂⁺ by protons; 8, energy of hydrogen ions (ev).



Card 6/6

ACCESSION NR: AT4025312

S/0000/63/000/000/0223/0232

AUTHORS: Kucheryayev, Yu. A.; Panov, D. A.

TITLE: Use of electron and ion beams for the measurement of the electric field of the space charge of the 'Ogra' plasma

SOURCE: Diagnostika plazmy* (Plasma diagnostics); sb. statey. Moscow, Gosatomizdat, 1963, 223-232

TOPIC TAGS: plasma research, plasma confinement, plasma sheath, particle collision, field intensity, magnetic mirror, space charge

ABSTRACT: Two methods are described for measuring the field of plasma space charge. In one method the deflection of the electron beam due to drift in crossed electric and magnetic fields is measured, while in the other method the electric-field pickup is a beam of cesium ions moving in the boundary region between the plasma and the chamber wall. The measurements were aimed at determining the

Card 1/1

ACCESSION NR: AT4025312

field distributions and the collective processes occurring in an "Ogra" device. The electron source used was a three-electrode gun placed in one of the magnetic mirrors of the "Ogra," and the electron beam receiver was a television-tube screen with low persistence. The construction and operation of the apparatus are briefly described. The quantities measured were the radial distribution of the radial component of the electric field of the plasma space charge, the electric field near the walls of the chamber, and the correlation of the electric field near the cesium probe with the signal from the fast-ion detector. It is concluded that the use of interaction between the probe charges and electromagnetic fields of the plasma, and also of atomic and nuclear collisions with the plasma components, yields a variety of information on the plasma properties. An advantage of such diagnostics is the fact that it hardly disturbs the investigated object. Orig. art. has: 6 figures.

ASSOCIATION: None

Card 2/01

SOROKIN, Yu.I.; PANOV, D.A.

Balance of the demand and consumption of food by the bream larvae
at various stages of their development. Dokl. AN SSSR 165 no.2:
454-456 N 165. (MIRA 18:11)

1. Institut biologii vnutrennikh vod AN SSSR. Submitted
January 4, 1965.

L 58311-62

07/71

ACCESSION NR: AT5010441

UR/3136/14/000761 (001/0.2)

AUTHOR: Panov, D. A.

TITLE: Investigation of a low density plasma produced in VGRA upon injection of molecular hydrogen ions

SOURCE: Moscow. Institut atomnoy energii. Doklady, no 635, 1964. Issledovaniya ionov vodoroda, 1-129

INDEX TAGS: plasma injection, plasma stability, hydrogen plasma, plasma accumulation, ionospheric, ionospheric, ionospheric

ABSTRACT: This is a Candidate's Dissertation devoted to research of low-density

plasma produced in VGRA upon injection of molecular hydrogen ions

Conditions occurring in the plasma, the charge, recombination, etc.

Card 1/2

L 58333-65

ACCESSION NR: AT5010441

not exert any direct influence on plasma containment in the trap. The subject headings are: 1. Introduction. 2. Kinetics of plasma accumulation. 3. Experimental conditions. 4. Measurement of the range of molecular ions and attempts at measuring the lifetime of atomic ions. Measuring of the density of fast ions. 5. General laws governing the filling of Ogra with ions. 6. Plasma potential. Loss of electrons from the trap. 7. Effect of alternating electric field on the plasma.

ments. E. B. Kadomtsev, Ye. P. Velikhov, A. I. Mikhaylovskiy, and the Ogra staff

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: ME

REF SOV: 013

OTHER: 026

Card 2/2

PANOV, D.A.

Feeding habits of the larvae of some species of fish in Rybinsk Reservoir. Vop. ekol. 5:157-158 '62. (MIRA 16:6)

1. Institut biologii vodokhranilishch AN SSSR, Borok.
(Rybinsk Reservoir--Larvae--Fishes)
(Rybinsk Reservoir--Fishes--Food)

PANOV, D. G.

"On the Origin and Periodicity in the Glaciations of the Earth," Dok. AN, 51, No. 5, 1946

FANOV, D. G.

FA 29T4

USSR/Arctic Studies

Ice

May/June 1947

"Handbook for Polar Men" by S. D. Lappo, Main Administration for the Northern Sea Route," D. G. Fanov, 2 pp

"Iz Vsesoyuz Geog Obshchestva" Vol LXXIX, No 3

This is a review of a 423-page book, which is of great value to anyone who expects to go into the Arctic regions. Many terms of geographical features, fauna and flora of the Arctic region, and methods for survival in the Arctic. Gives a description of sea ice, but no information regarding the forecasting of ice conditions. Gives the administrative divisions of the Soviet Arctic.

IA

29T4

PANOV, D.G. (Reviewer)

PA 22/19755

USSR/Geography
Arctic Studies

Nov/Dec 47

"Review of 'An Expedition on the Airplane SSSR-N-169,'" D. G. Panov, 3/4 p

"Iz v-s Geograf Obshch" Vol LXXIX, No 6

Book contains scientific results of 1941 Arctic flight. Published by Glavsevmorputi, 1946.

23/49755

PANOV, D. G.

"World Geomorphological Chart of Oceans and Seas", report presented by
D. G. Panov at one of the eight meetings of the Commission of Geomorphology
and Paleogeography in 1948.

SO: Trans #312, 15 Aug 51

1. PANOV, D. G.
2. USSR (600)
4. Geology and Geography
7. Fundamental Problems of Geomorphology, K. K. Markov,
(Moscow, Geography Press, 1948) Reviewed by D. G. Panov,
Sov. Kniga No. 3, 1949.

9. Report U-3081, 16 Jan. 1953. Unclassified.

PAROV, D. G.

21475

PAROV, D. G.

Sovremennyye problemy geomorfologii Arktiki.
Trudy Vtorogo Vsesoyuz. geogr. s"yezda. T. P.M., 1948
s. 341 - 58, s. kart. Bibliogr: 11, NAZV

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

PANOV, D. G.

"On the Problem of the Submarine Canyons," Zemlevedenia, t. 2 (42), 1948

U-1709, 27 Feb 52

PANOV, D. G.

Panov, D. G. "Landscapes of the Arctic in the Quaternary Period," Uchen
zapiski (Leningr. gos. ped. in-t im. Pokrovskogo), Vol. VI, 1949, p. 23-81
Bibliog: 83 items

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

PANOV, D. G.

Panov, D. G. "Geomorphology and gravimetry," Uchen. zapiski (Leningr. gos. ped. in-t im. Pokrovskogo), Vol. VI, 1948, p. 111-50 - Bibliog: 18 items

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

PANOV, D. G.

Panov, D. G. "The geographical distribution and types of epeirogenic movements," Uchen. zapiski (Leningr. gos. univ. im. Pskovskogo), Vol. VI, 1948, pp. 151-5 - Bibliog: 38 items

SO: U-3850, 16 June 53, (Letopis 'Shurnal 'nykh Statey, No. 5, 1949).

PANOV, D. G. (Review)

PA 10/49T97

USSR/Oceanology

Jul/Aug 48

"Review of 'Laptev Sea', by D. B. Karelin"
D. G. Panov, 1 p

"Izv-s Geograf Obshch" Vol LXXX, No 4

Book describes Laptev Sea and coastline.
Published by GlavSevMorPuti, 1947.

10/49T97

PANOV, D. G.

PA 10/49T48

USSR/Engineering
Navigation, Surface
Arctic Studies

Jul/Aug 48

"Review of 'On the Sibiriyakov and Litke Through the Arctic Ocean' by V. Yu. Vise," D. G. Panov, $\frac{1}{4}$ p

"Iz v-s Geograf Obshch" Vol LXXX, No 4

Describes voyages of "Sibiriyakov" and "Litke" and their importance in history of Northern Sea Route. Published by GlavSevMorPuti, 1946.

10/49T48

PANOV, D. G.

PA 10/49T96

USSR/Oceanology
Sea Bottoms

Jul/Aug 48

"Results of Charting the Sea Bottoms of the USSR Seas," D. G. Panov, 10¹/₂ pp

"Izv-s Geograf Obshch" Vol LXXX, No 4

Sea bottom relief is of four types: (1) tectomorphic; (2) lithomorphic; (3) relic; (4) contemporary accumulative and denuded. Describes progress of USSR in this field and future needs.

10/49T96

PANOV, D. G. (Review)

PA 26/49T49

USSR/Geography
Glaciation

Sep/Oct 48

"Review of D. M. Kolosov's 'Problems of Early
Glaciation of the Northeastern Part of USSR,
No 30,'" D. G. Panov, 1 1/2 pp

"Te v-s Geograf Obshch" Vol LXXI, No 5

Work makes good use of available material
and much interest is added by frequent refer-
ence to Kolosov's expeditions. Valuable addi-
tion to USSR geographical literature. Dis-
cusses geomorphological aspects of USSR, and
outlines some definite fields which need further

26/49T49

USSR/Geography (Contd)

Sep/Oct 48

Investigation. Glavremmortput, 1947, 167 pp, two
maps.

26/49T49

PANOV, D. G.

(Review)

PA 26/49T50

USSR/Geography
Arctic Studies

Sep/Oct 48

"Review of V. I. Akkuratov's 'In High Latitudes,'"
D. G. Panov, 1 p

"Iz v-s Geograf Obshch" Vol LXXX, No 5

Chronicles the experiences of a polar aviator,
1936-1946. Purely historical account of various
flights into the polar regions. Glavsevmorput,
1947.

26/49T50

1. PANOV, D. G.
2. USSR (600)
4. Physics and Mathematics
7. Great Northern Expedition. G. V. Yanikov. (Moscow, Geography Press, 1949).
Reviewed by D. G. Panov. Sov. Kniga, No. 2, 1950.
9. [REDACTED] Report U-3081, 16 Jan. 1953. Unclassified.

PANOV, D. G.

28277

Problemy geologii i geomorfologii polarnykh moryey SSSR. Uchen.
Zapiski (vresh). Arkt. mcr. uchili shchye. im. adm. makarova.) vyp.
1, 1949, S. 132-55 - Bibliogr: 33 nazv.

SO: IETOFIS NO. 34

PANOV, D. G.

25600 PANOV, D. G. O Proiskkhozhdenii I Istorii Rozvitiya Okeanov,. Voprosy
Geografii, SB 12, 1949, s 183-204

SO: Letopis' Zhurnal' Nykh Statey, Vol. 34, Moskva, 1949.

PANOV, D. G.

25575 Obzor osnovnoy literatury Po Voprosu proiskhozhdeniya i Razvitiya okeanicheskikh vpadin. Voprosy Geografii, SB. 12, 1949, S. 221-32--Bibliogr: 24 NAZV.

SO: Letopis' Zhurnal'nykh Statey, Vol. 34, Moskva, 1949

PANOV, D.G.

Division of the Arctic into physico-geographical regions. Uch.
zap. Izn. un. no. 124:314-370 '49. (MIRA 9:6)
(Arctic regions--Physical geography)

PANOV, D. G.

PA 175T24

USSR/Geophysics - Earthquakes Jul/Aug 50
Literature

"Review of G. P. Gorshkov's Book 'Earthquakes
in the Soviet Union,'" D. G. Panov

"Iz v-s Geograf Obshch" Vol LXXXII, No 4,
pp 423, 424

Favorable review of subject book, which gives
regional breakdown of earthquakes in the USSR.
Only criticisms are that author did not give
enough attention to reasons for earthquakes
and to earthquakes in the Arctic.

175T24

PANOV, D. G.

PA 175T73

USSR/Oceanography - Landscapes Nov/Dec 50

"Submarine Landscapes of the World Ocean,"
D. G. Panov

"Iz v-s Geograf Obschch" Vol. LXXXII, No 6,
pp 582-607

Makes first known attempt to analyze factors detg
formation of underwater landscapes and to outline
their major types. Details main characteristics
of following 5 landscape types: (1) offshore
zone of seas and oceans; (2) landscapes of the
bottom of sea basins; (3) zone of continental
shelf; (4) zone of continental slope (oceanic
semideserts); (5) zone of the bottom of oceanic
basins (oceanic cold deserts).

175T73

PANOV, D. G.

PA 175T25

USSR/Geophysics - Geomorphology
Paleontology Nov/Dec 50

"Review of 'Works (Vol 43) of the Institute of
Geography, Academy of Sciences USSR - Papers
on Geomorphology and Paleogeography,'" D. G
Panov

"Iz v-s Geograf Obshch" Vol LXXXII, No 6,
pp 627, 628

Reviewer states that symposium contains much
new interesting material on geomorphol and
paleogeog of the USSR. Some of the articles:
N. V. Dumitrasenko reported on ancient glaciation

175T25

USSR/Geophysics - Geomorphology
(Contd) Nov/Dec 50

of the Caucasus Minor, L. G. Kamardin described form
of micro-relief in the northern rim of the Dnepr
terraced valley, and P. V. Fedorov traced evolution
of mollusk fauna of the Caspian Basin in the quarter-
nary period

175T25

PANOV, D. G.

PA 196T70

USSR/Geophysics - Bibliography

Mar/Apr 51

"Review of D. G. Panov's Article 'On Submarine Landscapes of World Ocean,'" A. V. Zhivago

"Iz Ak Nauk, Ser Geog" No 2, pp 81-84

This article, appearing in "Iz v-s Geograf Oshch" No 6, 1950, is a 1st attempt to study interaction of hydrosphere and sea bottom. Discussed are factors forming the submarine landscapes, such as sunlight, thermal amplitudes and hydrodynamic activity. The article presents a progressive step in study of seas and oceans.

196T70

1. PANOV, D. G.
2. USSR (600)
4. Dipolichko, I. G.
7. "Climate and land surfaces of the past."
Izv. AN SSR. Ser. geog. No. 5. 1952
Pidoplichko, I. G.; Makeyev, P. S. Reviewed by Panov, D. G.

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

PANOV, D.G., Prof.

Ocean Bottom - Pacific Ocean

Origin of the greatest depths of the Pacific Ocean. Priroda 41 no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 *1952*, Uncl.

PA 244T86

USSR/Geophysics - Floating Ice Islands Feb 53

"Floating Ice Islands in the Polar Basin," Prof.
D. G. Panov, State U imeni Molotov

"Priroda" No 2, pp 113-114

Rotov/u/Donau

Describes ice conditions according to information
from K. O. Emery and R. Revelle's article "Large
Floating Islands of the Arctic Ocean," which ap-
peared in the Bulletin of the Geological Society
of America, Vol 62, 1951, No 3, p 325.

244T86

PANOV, D.G.

Neotectonic movements in the North Polar region. Dokl. AN SSSR 104
no. 3:462-465 S 155. (MIRA 9:2)

1. Rostovskiy gosudarstvennyy universitet imeni V.M. Melotova. Pred-
stavleno akademikom N.M. Strakhevym.
(Arctic regions--Geology, Structural)

PANOV, D.G.

Tectonics of the central Arctic. Dokl. AN SSSR 105 no.2:339-342 '55.
(MLRA 9:3)

1. Restovskiy na-Donu gosudarstvennyy universitet imeni V.M.
Moletova. Predstavleno akademikom N.S. Shatskim.
(Arctic regions--Geology, Structural)

PANOV, D.G.

~~Brief geomorphological outline of Antarctica. Izv. AN SSSR. Ser.~~
geog. no.6:17-35 N-D '56. (MIRA 10:1)

1. Rostovskiy gosudarstvennyy universitet.
(Antarctic regions--Physical geography)

PANOV, D.G., professor.

Forms of shore erosion of the TSimlyanskaya reservoir. Priroda 45
no.8:94-96 Ag '56. (MIRA 9:9)

1. Rostovskiy gosudarstvennyy universitet imeni V.M.Molotova.
(TSimlyanskaya Reservoir--Shore lines)

PANOV, D.G.

Geomorphological content of a hypsographic curve. Izv.Vses.geog.
ob-va 88 no.2:169-173 Mr-Apr '56. (MIRA 9:8)
(Physical geography)

PANOV, D.G.

Genetic classification of the world-ocean bottom. Dokl. AN SSSR 108
no.6:1061-1064 Je '56. (MLRA 9:10)

1. Rostovskiy na Domu gosudarstvennyy universitet imeni V.M. Melotova.
Predstavleno akademikom N.M. Strakhovym.
(Ocean bottom)

PANOV, D.G.

Tectonics and the origin of the central Arctic Basin. *Biul.MOIP.*
Otd.geol. 32 no.1:21-37 Ja-F '57. (MLRA 10:5)
(Arctic regions)

ZHIROV, Nikolay Feodos'yevich; PANOV, D.G., doktor geogr. nauk,
prof., nauchn. red.; KUMKES, S.N., red.

[Atlantis; main problems of studies on Atlantis] Atlantida;
osnovnye problemy atlantologii. Moskva, Mysl', 1964. 430 p.
(MIRA 17:9)

PANOV, D. G.

AUTHOR

PANOV D.G.

20-1-43/54

TITLE

~~Certain~~ Peculiarities in the Tectonics of the
Bordering Parts of the Pacific Platform.

(Nekotoryye osobennosti tektoniki krayevykh chastey
tikhoookeanskoy platformy.- Russian)

PERIODICAL

Doklady Akademii Nauk SSSR 1957, Vol 115, Nr 1,
pp 157-160 (USSR)

ABSTRACT

According to a current opinion the major part of the bottom of the Pacific lying outside the andesite line forms a large plateau. The study of the relief of the bottom of the Pacific during recent years disclosed many of its peculiarities. Shatskiy showed that the exterior contours of the craters are determined by straight or slightly-curved lines of the extensive fractures of the earth's crust. Their individual sections in the bordering part of the craters form a number of exterior and interior angles with characteristic varied conditions of the relation between the plateau and fold formations. The Pacific plateau is in the west bordered by a broad belt of recent geosynclinal seas and accompanying islands and by the frontal deflections of the deepest oceanic trenches. The andesite line coincides in

CARD 1/3

20-1-43/54

Certain Peculiarities in the tectonics of the
Bordering Parts of the Pacific Platform.

position with the outer boundary of the geosynclinal region in the west and runs along the coasts of North and South America. Recent data on the morphology of the abyssal oceanic trenches indicate their great similarity. It is known that an anticlinal elevation of the bottom of the ocean runs along the outside border of the trench, parallel to it. It is accompanied by lines of fractures and a system of underwater mountains of volcanic origin. High seismism and the existence of reservoirs of deep-focal earthquakes indicate that the oceanic abyssal trenches belong to the lines of deep fractures of the earth's crust of a type known from deep ruptures of the continental surface. The boundaries of the Pacific plateau like those of continental plateaus have cornered contours with interior and exterior corners. Among the exterior corners the following, which are morphologically and structurally best known, can be separated:

1. the Aleuthian-Kamohatka;
2. the Karolinian;
3. the Central American exterior corner. In the region of the adjoining continent an active volcanism exists. The signs of a fresh submersion may easily be connected

CARD 2/3

20-1-43/54

Certain Peculiarities in the Tectonics of the
Bordering Parts of the Pacific Platform.

with the conception of the submersion of the entire Pacific platform in the Cainozoic. To the interior corners belongs the corner formed by the projection of fold formations in the region of the Fidshi and Samoa islands. These formations belong to the Australian orogeny which abruptly changes in extension here. The boundary of the platform is indicated here by the abyssal trenches of Tonga-Kermadec with the concomitant fractures. In the north the boundary is formed by the andesite line. The data given here give rise to the assumption that the rules governing the relation between platform- and fold-formations, determined by of the sea. Shatskiy, can be extended to the platforms of the bottom.
(2 Illustrations, 9 Slavic references)

ASSOCIATION: Rostov-na-Donu State University.
(Rostovskiy na Donu gosudarstvennyy universitet.-Russian)
PRESENTED BY: Shatskiy, N. S., Academician, December 25, 1956
SUBMITTED: 6.8.56
AVAILABLE: Library of Congress.
CARD 3/3

L 2h686-65 EWT(1) GW
ACCESSION NR: AP4049995

S/0011/64/000/007/0107/0109

AUTHOR: Panov, D.G.

TITLE: Tectonic map of the Arctic

SOURCE: AN SSSR Izvestiya Nauchno-Issledovatskogo Instituta

ABSTRACT: The Tectonic map of the Arctic region, Map No. 4014

of Sciences, Moscow, 1963, this paper presents a review of data on the tectonic

SECRET

PANOV, D. G.

PHASE I BOOK EXPLOITATION

464

~~BR~~

Geograficheskoye obshchestvo SSSR

Antarktika; materialy po istorii issledovaniya i po fizicheskoy geografii. (The Antarctic; Materials on the History of its Exploration and Physical Geography) Moscow, Geografiz, 1958. 445 p. 5,000 copies printed.

Resp. Eds.: Pavlovskiy, Ye. N., Academician; Kalesnik, S. V., Corresponding Member of the USSR Academy of Sciences; Ed.: Grishina, L. I.; Tech. Ed.: Gleykh, D. A.; Map Ed.: Kiseleva, Z. A.

PURPOSE: The book, written in a semi-popular style, is intended for the large circle of geographers interested in the Antarctic region.

Card 1/8

The Antarctic; Materials on the History (Cont.)

464

COVERAGE: The present volume, sponsored by the Geographical Society of the USSR, is a collection of articles authored by several geographers summarizing up to date information on the Antarctic region. It provides an account of exploration and discovery since the first Russian expedition into the Antarctic in 1819, and describes the region's geological and geomorphological structure, glaciation processes, and the water currents of the south polar seas. The last chapter contains a glossary of Antarctic place names which is appearing in Soviet literature for the first time. The book is profusely illustrated with diagrams, photographs, and maps.

TABLE OF
CONTENTS:

Editor's Note

3

Card 2/8

The Antarctic; Materials on the History (Cont.)	464
Shvede, Ye. Ye. Discovery of Antarctica by Russian Navigators in 1819-1821	5
Introduction	5
Preparation for the expedition	6
General plan of the expedition	30
Scientific results of the first Russian Antarctic expedition	43

An account is given of the first Russian Antarctic expedition and the discovery of the Antarctic Continent by Bellinsgauzen and Lazarev. Personnel, equipment, preparations for the trip, the plan of the expedition, navigation in the Antarctic waters and discoveries are described in detail. The hydrographic, cartographic, oceanographic, climatological and physical geographic observations carried on by the expedition are commented on in brief.

Card 3/8

The Antarctic; Materials on the History (Cont.)	464
Aleyner, A. Z. Basic Stages in the Geographic Exploration of the Antarctic	54
Discoveries along the Antarctic coast in the XIX century	54
Studies of the antarctic by land and sea during the first quarter of the XX century	66
Latest studies in the Antarctic by land, sea and from the air	78
Bibliography	90

The author provides brief accounts of the various expeditions, almost exclusively foreign, into the Antarctic from 1819 to 1954 and mentions the different bases established.

Aleyner, A. Z. History of the Cartography of the Antarctic and the Extent of its Cartographic Coverage	95
Cartographic representations of southern polar regions prior to the discovery of Antarctica by the Bellinsgauzen-Lazarev Russian expedition of 1819-1821	95

Card 4/8

The Antarctic; Materials on the History (Cont.)	464
Panov, D. G. Geomorphological Characteristics of the Antarctic Region	237
General description of Antarctic relief	237
Geomorphological regions and types of relief in the Antarctic	255
Conclusions regarding the geomorphological structure of the Antarctic region	281
Bibliography	285

The author describes the geomorphological structure of the Antarctic region, i.e. the Antarctic Continent, the antarctic and subantarctic islands, and the ocean floor between the continent and the islands.

Panov, D. G. Current glaciation in the Antarctic	288
Factors in the current development of glaciation in the Antarctic	289
Types of ice formations in the Antarctic	293

Card 6/8

The Antarctic; Materials on the History (Cont.)

464

Brief description of the areas of current glaciation in the Antarctic	298
Bibliography	317

The author discusses the types of ice formations and the background conditions and factors in the current glaciation of the Antarctic. At present only an estimated 0.02% of the surface of the Antarctic Continent is ice free, and together with shelf ice it covers an area of 13.5 million km². The Antarctic region comprises 87% of the total glaciated land surface of the Earth and 85% of its total glaciated area.

Buynitskiy, V. Kh. Waters and Ice Formations of the Antarctic	320
Waters	320
Ice formations	356
Extent of the ice cover in different parts of the Antarctic	393
Bibliography	405

Card 7/8

PA NOV, D.G.

Genetic types of islands. Nauch.dokl.vys.shkoly; geol.-geog.nauki
no.1:34-41 '58. (MIRA 12:2)

1. Rostovskiy universitet, geologo-geograficheskiy fakul'tet,
kafedra fizicheskoy geografii.
(Islands)

3(7)

AUTHORS:

Panov, D. G., Malik, S. A.

SOV/50-58-12-17/20

TITLE:

A Useful Help (Tsennoye posobiye)

PERIODICAL:

Metecrologiya i gidrologiya, 1958, Nr 12, p 51-57 (USSR)

ABSTRACT:

The first part of the "Kratkaya istoricheskaya spravka po razvitiyu gidrometeoslužby na Severnom Kavkaze (i smezhnykh s nim rayonov, vkhodyashchikh v obsluzhivayemuyu SK UGMS territoriyu)" (A short historical information on the development of the hydrometeorological service in the Northern Caucasus (and the adjacent districts within the competence of the SK UGMS)) is discussed. SK UGMS (Severo-Kavkazskoye Upravleniye gidrometeorologicheskoy sluzhby - Northern Caucasus Administration of the Hydrometeorological Service) published the information mentioned in its Informatsionnyy sbornik (information compilation), Nr 3 (21), 1958. Hitherto a summary on the history of the service under review in the Northern Caucasus, the lower Don and Volga has been lacking. It was very necessary since it contains important data on the development of hydrology, meteorology, and climatology of the area mentioned. The researchers of the Kafedra fizicheskoy geografii, Rostovskiy n/D gosudarstvennyy universitet

Card 1/2

A Useful Help

SOV/50-58-12-17/20

(Chair of Physical Geography of the Rostov and Don State University) hope for a successful conclusion of this valuable work. A. F. Belyayev one of the veterans of the service in the district mentioned has given particularly valuable assistance for this work.

Card 2/2

AUTHOR: Panov, D.G. SOV-11-58-9-6/14

TITLE: The Types of Plutonic Breaks on the Bottom of Oceans (Tipy glubinnykh razlomov na dne okeanov)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1958, 23, Nr 9, pp 84-86 (USSR)

ABSTRACT: Citing numerous Soviet and U.S. geologists, the author finds that plutonic breaks on ocean bottoms played an important role in the formation of different structures in the different oceanic basins. There are 22 references, 15 of which are Soviet and 7 American.

ASSOCIATION: Rostovskiy n/D gosudarstvennyy universitet (The Rostov-on-Don State University)

SUBMITTED: February 6, 1958

1. Oceanography 2. Ocean botton--Geology

Card 1/1

SOV/169-59-7-6807

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 7, p 42 (USSR)

AUTHOR: Panov, D.G.

TITLE: The Structure and the Neotectonic Development of the Ocean
Floors

PERIODICAL: Uch. zap. Rostovsk.-n/D un-ta, 1958, Vol 55, pp 285 - 307

ABSTRACT: The author distinguishes the fundamental types of structures of ocean floors as follows: 1) the marginal continental type, embracing the continental half; 2) the continental slope characterized by a sharp dipping of the base and increase in the thickness of the loose surface deposits (up to 3 km); 3) the oceanic ranges, subdivided into: a) fault-block ranges or vaulted ranges within the boundaries of platforms), b) geosyncline ranges (caused by recent folding, very much dissected, seismically active, showing recent volcanism); 4) oceanic plateaus, the structure of which comprises a cover of loose deposits of a thickness up to 500 - 700 m upon the granitic sub-structure or upon volcanic rocks; 5) oceanic platforms occurring in the main in depths of more than 4,000 - 5,000 m, show two types: a) platforms having a thick layer

Card 1/3

SOV/169-59-7-6807

The Structure and the Neotectonic Development of the Ocean Floors

(up to 2,500 m) of loose deposits (abyssal oceanic accumulative plains),
b) platforms having a less thick layer (up to 400 m) of loose deposits
(dissected abyssal oceanic plains). The former formations are characteristic
for the zones of recent submersion of the platform base, which was accompanied
by an active accumulation, and the latter characterizes the more steady zones
of the floor, which are subject in the course of the tectonic evolution to
intense breaking down, accompanied by the development of active volcanism;
6) the abyssal oceanic troughs are characterized by considerable variations in
the thickness of the loose deposits (from 500 m up to 12 km) and by the great
depth (20 - 29 km) of the Mohorovicic interface. The difference in the depth
of occurrence of the Mohorovicic interface beneath the continents (25 - 80 km)
and the oceans (8.5 - 12 km) is a fundamental demonstration of the difference
between the continental and oceanic structures. The present differences in
the structure of the earth's crust beneath the continents and oceans are not
age-long in the author's opinion, but caused by the evolution process, having
different directions, of the homogeneous "granitic" crust of earth. Breaks on
a planetary scale develop on the floor of the ocean under the effect of the

Card 2/3

SOV/169-59-7-6807

The Structure and the Neotectonic Development of the Ocean Floors

neotectonic movements. The wide-spread evolution of plane-crest mountains points to the recent sinking of the oceanic floor. The morphological features of the abyssal oceanic grooves testify their recent immersion. The similarity of the neotectonic evolution of the ocean floor and the continents, manifested in the presence of sections having different degrees of mobility and different directions of movement, distinctly points to the similarity of their structure. The division into "primary" and "secondary" oceans is devoid of substance: the ascendent evolution of the continent relief and the descending evolution of the ocean floor indicate the general process of evolution in the structure of the globe, which is accompanied by the equilibration on account of the displacement of the subcrustal masses. Bibl. 46 titles.

V.F. Kanayev ✓

Card 3/3

PANOV, D.G.

Age of the Pacific Ocean. Nauch.dokl.vys.shkoly; geol.-geog.
nauki no.2:3-9 '59. (MIRA 12:8)

1. Rostovskiy-na-Donu universitet, geograficheskiy fakul'tet,
kafedra fizicheskoy geografii.
(Pacific Ocean)

PANOV, D.G.

Morphological structure of the central part of the floor of the
Pacific Ocean. Dokl. AN BSSR 3 no.2:66-69 F '59.
(MIRA 12:5)

1. Predstavleno akademikom AN BSSR K.I. Lukashevym.
(Pacific Ocean)
(Submarine geology)

PANOV, D.G., prof.

Causes of different distribution of dry land in Arctic and
Antarctic regions. Inform. biul. Sov. antark. eksp. no.9:5-8
'59 (MIRA 13:3)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.
(Arctic regions--Geology, Structural)
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