

"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001343

RABOTNOV, B.A., inzh.; KORMILOV, A.M., inzh.

Efficient use of welding equipment. [Trudy]LMZ no.11:LM-118 '62.
(MIRA 17:12)

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0013438

RABOTNOV, B.A., inzh.

Correcting defects in a steel casting of heat resistant steel. [Brick]
LMZ no.11:323-334 '64. (MIRA 17:12)

"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0013438

RABOTNOV, N.K. inzhener.

Action of suspended water on soils. Izv. VNIIG no.45:161-165 '51.
(MIRA 10:3)

(Water, Underground) Soil mechanics)

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0013438

BABASHEVICH, O.A.; RABOTNOV, N.X.

Mastering the production of flamin. Med.prom. 13 no.7:41-46
J1 '59. (MIRA 12:10)

1. Leningradskiy khimiko-farmatsevticheskiy zavod No.1.
(CHOLACONWS)

YEGOROVA, V.I.; RABOTNOV, N.K.; SLAVYANOV, Yu.N.; FILIPIN, N.A.

Testing tablets for hardness. Med.prom. 13 no.12:26-29 D '59.
(MIRA 13:4)

1. Leningradskiy khimiko-farmaceuticheskiy institut,
(ТАКИМФ (ХФНИИ))

83741

S/056/60/038/004/034/048
B006/B056

24.6520

AUTHORS:

Davydov, A. S., Rabotnov, N. S., Chaban, A. A.

TITLE:

Rotational Energy and Moments of Inertia of Nonaxial Nuclei 19

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 38, No. 4, pp. 1311 - 1315

TEXT: A. S. Davydov, G. F. Filippov, and Y. S. Rostovskiy developed a theory of the rotational states of nonaxial nuclei (Refs. 1,2). They showed that the ratios of the energies of all rotational levels to the energy of the first excited spin-2 level can be uniquely determined if the corresponding ratios for the second excited spin-2 level are known from the experiment. It was further found that the relative probabilities of electric quadrupole transitions between rotational levels may also be determined from these ratios. These results were obtained on the assumptions that a) the inner state of the nucleus does not change during its rotation (adiabatic approximation), and b) the main moments of inertia of the nucleus can be expressed by the parameters A and γ : X

Card 1/3

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Rotational Energy and Moments of Inertia of S/056/60/038/004/034/048
Nonaxial Nuclei B006/B056

$I_i = A \sin^2(\gamma - 2\pi i/3)$, $i = 1, 2, 3$. This formula corresponds to the hydrodynamic nuclear model. The authors therefore described this approximation as hydrodynamic. The authors now investigate the question as to the manner in which these results change if the simplifying assumptions are abandoned. The rotational states of nonaxial nuclei with arbitrary (three) main moments of inertia are investigated in adiabatic approximation. It is shown that in general the rotational energy ratio may be expressed by two parameters: by ξ , the energy ratio of two spin-2 levels, and by η , a parameter depending on the character of the collective motions causing nuclear rotation; $\xi = E_2(2)/E_1(2) > 1$, $\eta = a_1 a_2 a_3 / E_1^3(2)$.

In the following, the energies of all rotational states are expressed by the dimensionless ξ : $\xi = E/E_1(2)$. Thus, the following relations hold for the spin-2 and spin-3 states as, e.g., $\xi(3) = 1 + \xi$, $\xi_1(5) = 4 + \xi$, $\xi_2(5) = 1 + 4\xi$. The energies of other rotational levels cannot be given as functions of ξ alone, but they are functions of ξ and η . For the spin-4 and spin-6 states, the corresponding formulas are given. With

Card 2/3 X

83741

Rotational Energy and Moments of Inertia of S/056/60/038/004/034/048
Nonaxial Nuclei B006/B056

formula (5) the following inequalities are given for ξ and γ :

$\xi^2(3 - \xi) \leq 54\xi \leq 3\xi - 1$, ($1 < \xi \leq 3$) and $0 \leq 54\xi \leq 3\xi - 1$, ($\xi \geq 3$); these inequalities result from the demand that the roots of the equation

$x^3 - \frac{1}{2}(1 + \xi)x^2 + \frac{1}{3}\xi x - \gamma = 0$ be positive and real. Fig. 1 shows the possible values of the ratios $\varepsilon_1(4)$ and $\varepsilon_2(4)$ for different values of the parameters ξ and γ , which are defined by (5); Fig. 2 shows the same for $\varepsilon_1(6)$. The experimental points are plotted in each case for a number of heavy nuclei. The numerical experimental data taken from Refs. 4-8 are given in a table. There are 2 figures, 1 table, and 9 references: 5 Soviet, 3 Dutch, and 1 US. X

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: November 19, 1959

Card 3/3

L-13635-63 EWT(m)/BDS AFETC/ASD
ACCESSION NR: AP3003125

S/0056/63/044/006/1950/1952

52

AUTHOR: Usachev, L. N.; Pavlinchuk, V. A.; Rabotnov, N. S.

TITLE: Determination of the fission threshold from experiments on the (d, pf) and (Gamma, f) reactions

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1950-1952

TOPIC TAGS: fission thresholds, deuteron induced fission, gamma induced fission

ABSTRACT: The experimental data on the energy dependence of the cross sections of the reaction (d, pf) on the nuclei U²³³, U³⁵, and Pu²³⁹, at excitation energies lower than the neutron binding energy in the compound nucleus, are interpreted under the assumption that when the fission channel is fully open the fission width is much larger than the radiation width, in agreement with estimates made by the Bohr-Wheeler formula. It is shown that the converse assumption (fission width much smaller than radiation width), which was actually used previously in such an analysis, leads to fission threshold values that are lower than the true ones by several hundred keV. It is noted that to determine the threshold it is necessary to know much more accurately the energy dependence of the barrier penetrability, which furthermore can be different for different thresholds. All the considerations advanced in the article should also be applied to thresholds determined from the Card 1/2. *Results.*

L 9106-65 ESD(t)/AFWL/RAEM(t)/BED
ACCESSION NR: AT4048278

(3)
8/0000/64/000/000/0001/0004

AUTHORS: Bondarenko, I. I.; Kuznetsov, V. F.; Nesterov, V. G.;
Pavlinchuk, V. A.; Prokhorova, L. I.; Rabotnov, N. S.; Smirenkin,
G. N.; Usachev, I. N.

TITLE: Effect of the energy gap in the channel spectrum on the
fission process

SOURCE: Vliyaniye energeticheskoy shcheli v spektre kanalov na
protsess deleniya 1964, 8/-04 *

TOPIC TAGS: nuclear fission, fission cross section, fission pro-
duct, fission neutron, angular distribution, uranium, plutonium

ABSTRACT: The experiments reported constitute a later stage of a
study of the fission process (Yu. A. Blyumkina et al., Atomnaya
energiya, v. 15, 64, 250, 1963), and are intended to clarify further
the nature of the previously observed correlation between the irreg-
Card 1/3 * [no source given.]

L 910-85
ACCESSION NR: AT4048278

ularities in the energy dependences of the fission characteristics. The angular distribution of the cross section $\sigma_f(\theta)$ of the fission of U²³³, U²³⁵, and Pu²³⁹ by neutrons with energies between 0.08 and 1.25 MeV was measured by a procedure described elsewhere (V. G. Nesterov et al., Atomnaya energiya 16, no. 6, 1964). The data obtained on $\sigma_f(\theta)$ confirm the earlier results of the authors (V. G. Nesterov et al., Atomnaya energiya 10, 620, 1961 and 11, 248, 1961) and show that the correlated increases and decreases in the asymmetry $\sigma_f(0^\circ)/\sigma_f(90^\circ)$ correspond to abrupt changes in the angular distributions of the fission fragments. The various irregularities in the angular distributions at different fissioning-neutron energies are interpreted as being connected with the opening up of new fission channels. In particular, the change in the character of $\sigma_f(\theta)$ when U²³⁵ is fissioned by neutrons with $E_n < 0.3$ MeV is due to the opening up of fission channels with $k = 2$ (k -- projection of total angular momentum of the compound nucleus on the fission axis). It is also shown that, in contrast to earlier notions, new

Cord 2/3

b 9106-65

ACCESSION NR: AT4048278

fission channels can open up at energies up to the excitation energy at the saddle point ($E^* = 2.5$ MeV), where the energy gap of even-even nuclei is noticeable larger (~2.7 MeV) than in the equilibrium state. The presence of an energy gap in the level spectrum of the transition nucleus U^{236} can likewise explain the observed decrease in the number of secondary fission neutrons near 2.2 MeV. Other experimental data are interpreted in light of these results. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NR REF SOV: 004

OTHER: 007

Card 3/3

UDACHEV, I. N.; PAVLICHUK, V. A.; RABOTNOV, N. S.

Analysis of the observable distributions of resonance widths
in U²³³ and Pu²³⁹. Atom. energ. 17 no.1:22-27 J1 '64.
(MIRA 17:7)

L 20046-65 EWT(m) SSD/AFWL/ESD(t)/DIAAP EM
ACCESSION NR: AP5001270 S/0089/64/017/006/0479/0485

AUTHOR: Usachev, L. N.; Pavlinchuk, V. A.; Rabotnov, N. S.

TITLE: Channeling effects during fission of even-even compound nuclei 19

SOURCE: Atomnaya energiya, v. 17, no. 6, 1964, 479-485

TOPIC TAGS: channeling effect, compound nucleus fission, even parity nucleus, fission width, fission, compound nucleus, even even nucleus

ABSTRACT: The experimental data on fission of even-even compound nuclei in (d,pf), (r,f), and (n,f) reactions in the neighborhood of the threshold were analyzed. It was assumed that the average fission width is described by the Bohr-Wheeler formula. When analyzing the data of the (d,pf) reaction from this assumption, it unambiguously follows that, first, there are at least two sets of spins and parities of fission nucleus for which the fission thresholds differ by 0.6—0.8 Mev and, second, these thresholds are higher than formerly supposed. The data of the (γ ,f) reaction were analyzed with the supplementary assumption that the photoabsorption cross section depends very little

Card 1 / 3

L 20046-65

ACCESSION NR: AP5001270

on the energy in the range of the order of 1 Mev as compared with the exponential growth of fission width in the region $E\gamma = 5 - 7$ Mev. Investigation also led to considerably higher values of photofission thresholds than those accepted heretofore; furthermore, the fission barrier at quadrupole photoabsorption is 0.6--1.0 Mev lower than the barrier of dipole photofission. On comparing the results of the (d,pf) and (γ ,f) reactions, it can be said that the first rise in fission in the (d,pf) reaction corresponds to channeling of even parity while the second corresponds to channeling at odd parity. All these results are in agreement with the structure of fission channeling presented by O. Bohr if the distance between the rotational bands of even and odd parity $A_1 \approx 0.6 - 1.0$ Mev. With such an arrangement of fission channeling, the Bohr-Wheeler formula describes quantitatively the experimental data for average fission widths of reaction (n,f)

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of this nucleus has odd parity. Only one triplet formula.

ASSOCIATION: none

Card 2/3

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L 1954-66 EWT(m)/EWA(h)
ACCESSION NR: AT5024113

UR/3150/65/000/012/0001/0012 37

35

34

AUTHOR: Rabotnov, N. S.; Smirenkin, G. N.; Soldatov, A. S.; Usachev, L. N.;
Kapitsa, S. P.; Tsipenyuk, Yu. M.

TITLE: Angular photofission anisotropy and parity of the ground state of plutonium-239 19

SOURCE: Odninsk. Fiziko-energeticheskiy institut. Doklady, no. 12, 1965. Uglovaya anizotropiya fotodeleniya i chetnost' osnovnogo sostoyaniya plutoniya-239, 1-12

TOPIC TAGS: nuclear fission, plutonium, ground state, bremsstrahlung

ABSTRACT: The angular distributions of fragments resulting from the photofission of Pu^{239} were measured by γ quanta of the bremsstrahlung of a microtron in the range of limiting energies of $E_{\max} = 5.4-7.9$ Mev. At $E = 5.4, 5.65$, and 5.9 Mev, anisotropic angular distributions of the form $W(\sigma) = \frac{a}{a+b} \sin^2 \sigma$ were observed. The maximum anisotropy, which corresponds to $b = -0.192$, was recorded at $E = 5.65$ Mev. Comparison of the results with data on the fission of Pu^{238} by neutrons permits the determination of the parity of the ground state of Pu^{239} relative to

Card 1/2

L 1954-66
ACCESSION NR: AT5024113

the parity of the ground state of the even-even nucleus. Data on the fission agree with the positive parity of the ground state of Pu^{239} , which follows from spectroscopic data. Orig. art. has: 2 figures, 1 table, 10 formulas.

2
ASSOCIATION: Fiziko-energeticheskiy institut GKIAE (Physica and Energetics Institute GKIAE); Institut fizicheskikh problem (Institute of Physical Problems).

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NO REF Sov: 003

OTHER: 009

Card 2/2

PEROGORODNIKOV, A.A.; RABOTNOV, R.D.

Miniature unit for pulse magnetization of permanent magnets.
Izv.vys.ucheb.zav.; prib. 7 no.6:113-116 '64.

(MIRA 18:2)

1. Leningradskiy elektrotekhnicheskiy institut imeni Ul'yanova
(Lenina). Rekomendovana kafedroy elektoizmeritel'noy tekhniki.

RABOTNOV, S. N.

THE THERMAL AND ELECTRIC CONDUCTIVITIES OF METAL AND POLY-CRYSTALLINE SUBSTANCES FROM 100° TO THE MELTING POINT. V.E. MIKRYUKOV AND
S. N. RABOTNOV. UCHENYE ZAPIS'I, MOSKOV OP. TIA LENINA
GOSUDARST. UNIV. M.V. LOMONOSOVA, FIZIKA 74, 1: 7-79(1944). An
app. is described that allows a simultaneous dethn. of thermal
cond. λ (cal./cm. degree sec.) and elec. cond. k (cm./ohm) of
metals to 1300°. Values are given for λ and k of polycryst. Cu between 324° (0.840 and 25.7×10^4) and 970° (0.738 and 10.41×10^4), of polycryst. Bi between 9.2 (0.0289 and 0.558×10^4) and
228.0° (0.0266 and 0.316×10^4), of a single Pb crystal between
132.0° (0.0852 and 3.27×10^4) and 277.0° (0.0792 and 2.12×10^4), of polycryst. Pb between 117.0° (0.0816 and 3.32×10^4)
and 266.8° (0.0724 and 2.133×10^4) of polycryst. Cd between 119.6°
(0.229 and 8.442×10^4) and 262.6° (0.217 and 5.464×10^4), of
a single crystal of Zn between 121.1° (0.337 and 12.019×10^4)
and 277.1° (0.268 and 7.896×10^4), of polycryst. Zn between

4

(Continued)

comes closer to the exact compn. S_3I_2 ; this may indicate existence, at lower temps., of compds. even richer in S than S_3I_2 , and their increasing dissocn. at higher temps. The 5 compds. listed are also indicated by the singular points on the d. isoconcentrate, and, even more strikingly, on the $\partial d/\partial x$ curve; here, the first 4 compds. are indicated by discontinuous jumps, SI_6 by a sharp peak (at 85.7 atom % I). (2) The system Se + I in CS_2 was investigated in the same way, at a total concn. $Se + I = 0.007$ g. atom/l. The isoconcentrates reveal 3 compds.: Se_3I_2 (new compd.), sharp peak of σ , discontinuous jump of $\partial d/\partial x$; SeI_2 , sharp min. of σ , sharp min. of $\partial d/\partial x$; SeI_4 , sharp peak of σ discontinuous jump of $\partial d/\partial x$. The often asserted compd. Se_2I_2 is not revealed by the isoconcentrates; possibly, this alleged compd. is but a stoichio-

(Continued)

(Continued)

metric mixt. of $\text{Se}_2\text{I}_2 + \text{SeI}_2$ or else a highly unstable mol. compd. of the two iodidos; at the compn. corresponding to Se_2I_2 , the σ curve has an S-shaped bend. (3) The isoconcentrates of $\text{S} + \text{Se}$ in CS_2 , at a total concn. $\text{S} + \text{Se} = 0.004$ g. atom/l., show only one compd., SSe_2 (sharp peak of σ , discontinuous jump of $\sigma d/dz$). (4) By analogy with the chlorides of S, the iodides are formulated ISI , S:SI_2 , and S:Si:SI_2 , and similarly for the iodides of Se. The compd. SSe_2 is formulated SeSSe , i.e., in electronic notation, $[\text{Se}:\text{S}:\text{Se}]$. The obvious possibility of resonance forms is illustrated by the structures



Immediate source clipping

M. Thon

RABOTNOV, S. N. Cand. Physicomath. Sci.

Dissertation: "Determination of the Heat and Electric Conductivities of Certain Metal Mono-and Polycrystals from 100° to their Melting Points." Moscow Order of Lenin State U. imeni M. V. Lomonosov, 23 Apr. 1947.

SO: Vechernaya Moskva, Apr. 1947 (Project #17836)

RABOTNOV, T. A.

"On the age composition of populations in desert plants." (n. 435) by Rabotnov, T. A.

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologii) Vol. XXII, No. 3, 1946.

RAICHTOV, T. A.

Jul/Aug 1987

URSS/Geologie - Plants
URSS/Geologie - Grass

"Investigation of Age and Life Span of Perennial
Grasses," T. A. Radotnov, 16 pp

"Uspishi Sovremennoy Biologii," Vol XIV, No 1 (4)

In present research much emphasis is put on exacting
clock. Clock in 1941 determined that this grass
lived 100 years. When to Leonardo da Vinci some
years ago he was asked what was life? -
various conclusions were reached and it was later
found that grasses in Asia had a life span of
more than 50 years, while at home were many
such grasses as *Agropyrum desertorum*, which
lived 110 years and *Agropyrum desertorum*, which
lived 8-110 years of 8-7 years. The earliest method

of determining age was yearly rings but this not
always true because of the age. *Agropyrum desertorum* has
annual grasses in semi-arid and semi-humid
regions in the Arctic and on high mountains.

23379

RABOTNOV, T. A.

USSR/Medicine - Botany
Medicine - Life, Duration

Oct 1947

"The Length of Life of *Agasyllis Latifolia* (M. B.)
Boiss. and *Libanotis Montana* All., T. A. Rabotnov,
Botanical Inst imeni V. L. Komarov, Acad Sci USSR,
Leningrad, 4 pp

"Dok Akad Nauk SSSR" Vol LVIII, No 1

Gives result of experiment: Having determined the
age of the generative specimens of these two plants,
their longevity and virginity (the period from the
sprouting of the seed to blooming) can be explained.
Submitted by Academician V. N. Sukachev, 10 Apr 1947.

52T52

58/4978

RABOTNOV, T. A.

USSR/Biology

Fertilizers

Plants

Sep/Oct 48

"Effect of Mineral Fertilizers on the Vegetation of Subalpine Meadows," T. A. Rabotnov,
Fodder Inst, Moscow, 12 pp

"Zem. Zhur" Vol XXXIII, No 5

Results of two experiments conducted at
Stavropol Experimental Livestock Sta to determine effect of repeated applications of mineral
fertilizers (ammonium sulfate, potash salt,
superphosphate) on yield and composition of
meadowland grasses.

78/4978

1. A.

33993 Otdelnyye voprosy i metody izuchenija zhiznennogo tsikla mnogodelchnikh trav
anisokli rasvitye i sostavlich po polozheniye. - V. 1: G. A. Babotnov. Nauch.-tekhn. Zajedstv. (Sovet. Akademiya Nauk, Glav. Upravlenie nauchno-tekhnicheskimi issledovaniyami), 1949, S. 1-140.

SO: Letopis' Zhurnal'nykh Statej, Vol. 45, Moskva, 1949

RABOTNOV, T. A.

25084 RABOTNOV, T. A. Vozrastnoy Sostav Populyatsiy Nekotorykh Rasteniy Subal'piyskikh
Lugov. V Sb: Voprosy Kormodobyvaniya. Vyp. 2 M., 1949, S. 43-50.

SO: Letopis', No.33, 1949

RABOTNOV, T. A.

USSR/Scientists - Shennikov, A. P. Biology

Mar/Apr 49

"The Sixtieth Birthday of A. P. Shennikov," Ye. M. Lavrenko, T. A. Rabotnov,
9 $\frac{1}{2}$ pp

"Botan Zhur" Vol XXXIV, No 2

Shennikov was born in a village in Vologodsk District. Entered Natural Sci Sec of Petersburg U. Headed Various Research Studies on meadows in Simbirsk and Vologodsk districts. Since 1925 he has worked at Bot Inst imeni V. L. Komarov, Acad Sci USSR. He is director of "Borok" Biol Sta. Received doctor's degree in biology in 1935. Has been awarded various honors and medals, and was made a corresponding member of Acad Sci USSR in 1948. A list of 73 works by him is appended.

PA 2/50T108

RABOTNOV, T. A.

RABOTNOV, T.A.

Problems in the study of population composition for phytocoenological purposes. Probl.bot. no.1:465-483 '50. (MIRA 8:11)
(Botany--Ecology)

RABOTNOV, F. A.

"New Data on the Duration of Life and the Age Composition of Populations of Semi-shrubs and Perennial Grasses." (p. 158) by Rabotnov, F. A.

SO: Progress of Contemporary Biology, Vol. XXIX, No. 1, Jan-Feb. 1950.

RIBOTROV, T. A., ZOSIMOVSKAYA, T. V.

Meadows

Use of herbicides in control of meadow weeds, Korm. baza 3 №. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

RABOTNOV, T. A.

Meadows

New handbook on meadow cultivation ("Meadow cultivation." Prof. L. A. Chugunov. Reviewed by T. A. Rabotnov). Korm. baza 3 no. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified

RABOTNOV, T. A.

(3)

Meteorological Abst.
Vol. 5 No. 1
Jan. 1954
Part 1
Climatology and
Bioclimatology

551.58.63

5.1-258 Ramenskii, L. G., TSatsenkin, P. A. and Rabotnov, T. A. K voprosu o sel'skokhoziaistvennoi klimatologii. [On the problem of agricultural climatology.] *Vsesoiuznoe Geograficheskoe Obshchestvo, S.S.S.R., Izvestiya*, 84(3):501-502, Sept./Oct. 1952. DLC—A more intensive investigation of climate in relation to agriculture is proposed. The topics requiring special study are: the effect of radiation, of the atmosphere and of the aqueous and soil environment upon plant growth and development; the relationship of the individual climatic variables and their geographic distribution to agricultural regions; the microclimates of localities; changes in weather and forecasting possibilities; crop yield forecasting and climatic amelioration. In addition, all the indicators used by agricultural climatology should be biologically and ecologically based, and be completely independent of calendar dates. Subject Heading: 1: Agricultural climatology.—J.L.D.

1. RABOTNOV, T. A.
2. USSR (600)
4. Lopatin, V. D.
7. "Aquatic rice." V. D. Lopatin. Reviewed by T. A. Rabotnov. Korm baza No. 1 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Unclassified.

RABOTNOV, T.A.

Method of studying mutual relations between the components of mixed sowings. Bot. zhur. 38 no.2:273-275 Mr-4p '53. (MLRA 6:6)

1. Vsesoyuznyy Institut kormov im. akad. V.R. Vil'yamsa, Moskva.
(Grasses) (Botany--Ecology)

ALMAZOVA, D.I.; RABOTNOV, T.A.

Biology of the horse sorrel (*Rumex confertus* Willd.). Biul.MOIP
Otd.biol.58 no.6:47-54 '53. (MLRA 7:1)
(Weeds)

~~RABOTNOV, T.~~

S.P.Smelov; on the occasion of his 60th birthday. T.A.Rabotnov.
Bot. zhur. 39 no.6:927-933 N-D '54. (MLRA 8:2)

1. Vsesoyuznyy Nauchno-issledovatel'skiy institut kormov, Moscow.
(Smelov, Sergei petrovich, 1894-)

RABOTNOV, T.A.; ALMAZOVA, D.I.

Causes of slow development of young plants in meadow biocoenosis.
Dokl.AN SSSR 94 no.2:333-335 Ja '54. (MLRA 7:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov im.
V.B.Vil'yama. (Botany--Ecology)

RABOTNOV, T.A.

Changes in the meadow from year to year. Biul. MOIP. Otd.
biol. 60 no.3:9-30 My-Je '55. (MIRA 8:9)
(Pastures and meadows)

RABOTNOV, T.A., doktor biologicheskikh nauk, otvetstvennyy redaktor;
SPICHKIN, I.M., redaktor; NIKIFOROVA, A.N., tekhnicheskiy redaktor

[Use and improvement of hay fields and pastures; a collection of
articles from foreign periodical literature] Ispol'zovanie i
uluchshenie senokosov i pastbishch; sbornik perevodov iz inostran-
noi periodicheskoi literatury. Otv. red. T.A.Rabotnov. Moskva, Izd-
vo inostrannoi lit-ry, 1956. 474 p.
(Pastures and meadows)

LARIN, I.V.; AGABABYAN, Sh.M.; RABOTNOV, T.A.; LARINA, V.K.; KASIMENKO, A.F.; LYUBSKAYA, A.F.; VIKHREV, S.D., redaktor; ISAKOV, N.A., tekhnicheskij redaktor

[Forage plants of meadows and pastures of the U.S.S.R.] Kormovye rasteniiia senokosov i pastbishch SSSR. Pod red. I.V.Larina. Moskva, Gos. izd-vo sel'skhoz.lit-ry. Vol.3. [Dycotyledons (Geraniaceae - Compositae) Conclusions and discussions] Dvudol'nye (geranievye-slozhnootsvetnye) obshchie vyyody i zakliucheniia. 1956. 879 p. (MLRA 10:3)

1. Deystvitel'nyy chlen Vsesoyuznoy akademii Sel'skokhosyaystvennykh nauk imeni V.I.Lenina. (for Larin)
(Botany) (Forage plants)

RABOTNOV, T.

RABOTNOV, T. Using 2, 4-d Chemical for improving the pastures which are over-grown with bushes. Tr. from the Russian. p. 29. Vol. 11, no. 12, Dec. 1956
KOOPERATIVNO ZEMEDELIE. Sofiia, Bulgaria

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4 April 1957

RABOTNOV, T.A.

"Methods of surveying and measuring vegetation" [in English] by
Dorothy Brown. Reviewed by T.A.Rabotnov. Bot. zhur. 41 no.9:1375-1379
S '56. (MLRA 9:11)

1. Vsesoyuznyy institut kormov, Moskva.
(Meadows and pastures) (Botanical research)
(Brown, Dorothy)

RABOTNOV, T.A.

Life cycle of the Siberian ragweed (*Heracleum Sibiricum L.*) [with
summary in English] Biul. MOIP. Otd.biol. 61 no.2:73-81 Mr-Ap '56.
(OKA VALLEY--RAGWEED) (MIRA 9:8)

COUNTRY	: USSR
CATEGORY	: Meadow Cultivation L
ABS. JOUR.	: RZBiol., No. 19, 1958, No. 86931
AUTHOR	: Larin, I.V.; Rabotnov, T.A.
INST.	: Not given
TITLE	: Wild Forage Vegetation in the USSR. (A Review of the Three Volume Monograph "Fodder Plants in the Grasslands and Pastures of
ORIG. PUB.	: Vestn. s.-kh. nauki, 1957, No. 4, 9-20, 21-22
ABSTRACT	: No abstract
 * the USSR").	
CARD:	1/1

РНБОУ НИИ Т.А.

RABOIN, T.A. doktor biologicheskikh nauk; SMELOV, S.P., doktor biologicheskikh
nauk.

Meadow rotations. Zemledelie 5 no.8:77-84 Ag '57. (MLRA 10:9)
(Pastures and meadows)

"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001343

Frolkin, M.V.

FROLKIN, M.V., optynik; RABOTNOV, T.A., doktor biol. nauk.

Rowan, excellent vitamin feed. Nauka i pered. op. v sel'khoz. ?
no.12:56 D '57. (MIRA 11:1)

(Rowan)

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0013438

COUNTRY : USSR
CATEGORY : Meadow Cultivation.
ANS. JOUR. : RZhBiol., No. 3, 1959, No. 10814
L
AUTHOR : Rabotnov, T. A.
INST. : Moscow Society of Nature Investigators.
TITLE : The Principal Forms of Variability in Meadow Vegetation.
ORIG. PUBL. : Byul. Mosk. o-va ispyt. prirody. Otd. biol., 1957, 62,
No. 5, 93-103.
ABSTRACT : Some problems are discussed of the seasonal variability of
meadow vegetation associated with man's activity, varia-
bility under the influence of the changes in the condi-
tions of the growth as the result of the vital activity
of the plants, and variability connected with the life
cycle of the plants. The basic methods in the control of
the variability of meadow vegetation should be directed
at the acceleration of the replacement of less valuable
plant communities with the more valuable ones and with a
continuous preservation of the most valuable ones. This
can be achieved by: 1) the creation of favorable and

CARD: 1/2

RABOTNOV, T.A.

Method of determining the amount of viable seeds buried in meadow
soils. Bot. zhur. 43 no.11:1572-1581 N '58. (MIRA 11:11)

I. Vsesoyuznyy institut im. V.R. Vil'yamsa, st. Lugovaya Moskov-
skoy obl.
(Seeds) (Soils--Analysis)

RABOTNOV, T.A.

Method of working out ecological scales. Bot. zhur. 43 no.4:518-527
(MIRA 11:6)
Ap '58.

1. Vsesoyuznyy institut kormov, Moskva.
(Botany--Ecology)

RABOTNOV, T.A.

"Methods of fruit and seed dispersal" by R.E. Levina. Reviewed by
T.A. Rabotnov. Biul.MOIP.Otd.biol. 63 no.3:167-171 My-Je '58.

(MIRA 12:3)

(SEEDS--DISSEMINATION)
(LEVINA, R.E.)

RABOTNOV, T.A.

Life cycle of the crowfoots Ranunculus acer L. and R. auricomus L.
[with summary in English]. Biul.MOIP.Otd.biol. 63 no.6:77-86
(MIRA 12:1)
N-D '58
(CROWFOOT)

AUTHOR: Rabotnov, T. A. SOV/20-121-4-48/54

TITLE: The Change of the Composition of Grass on a Spring-Flooded Meadow in Response to the Introduction of Heracleum Sibiricum L. (Izmeneniye sostava travestoye poymennogo luga pri vnedrenii borshchhevika sibirskogo (Heracleum sibiricum L.))

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 4, pp. 750-752 (USSR)

ABSTRACT: In autumn 1953 several meadow plants were resown on a meadow in the spring-flooded area of the Oka river (district of Moscow); among these plants was Heracleum sibiricum L. The author describes the state of the plant societies on the meadow and their development in the years 1951-1957. The obtained results make it possible to draw the following conclusions: 1) Heracleum sibiricum L. reproduce successfully by seeds on the mentioned type of meadows. 2) If a sufficient quantity of seeds which are lacking in the cenosis is available the composition of vegetation may be altered also without a preceding change of environment. The productiveness may remain unchanged but the intruder will according to its increase in quantity restrict the other com-

Card 1/3

SOV/20-121-4-48/54

The Change of the Composition of Grass on a Spring-Flooded Meadow in Response
to the Introduction of *Heracleum Sibiricum L.*

ponents or even displace them. It is true, however, that the favorable influence of the intruder upon the crop yield of some types will be smaller than its negative influence on other types. The intensity of influence exercised by the intruders depends on their number. The biological properties of the type are very important. Most of the types exercise their influence by a change of environment: Withdrawal of water, competition with respect to nutritive substances, screening off of light, secretions into the soil, the air, etc. 3) The rooting of the *Heracleum sibiricum L.* germs and their rapid development show that the vegetation area of the meadow, at least of the experimental lot was not completely covered. This is a widely-spread phenomenon. L. G. Ramenskiy (Ref 1) distinguished 4 degrees of saturation of plant cenoses. The period during which anyone of these components is lacking should be taken into account, further the intensity of colonization of the area of cenosis by that type. In the meadows of the spring-flooded area the insufficient saturation of cenoses is a periodical phenomenon. Plants, the seeds of which do not remain viable in the ground

Card 2/3

SOV/20-121-4-48/54

The Change of the Composition of Grass on a Spring-Flooded Meadow in Response
to the Introduction of Heracleum Sibiricum L.

may not be present in the meadows during a longer period although
conditions are favorable.

There are 1 table and 1 reference, 1 of which is Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut kormov im. V. R. Vil'yamsa
Vsесоyuзnоy Akademii sel'skokhozyaystvennykh nauk im. V. I.
Lenina (Scientific Research Institute of Herbage imeni V. R.
Vil'yams of the All-Union Academy of Agricultural Sciences imeni
V. I. Lenin)

PRESENTED: April 14, 1958, by V. N. Sukachev, Member, Academy of Sciences,
USSR

SUBMITTED: April 13, 1958

Card 3/3

RABOTNOV, T.A.

What could be considered a meadow? [with summary in English].
(MIRA 12:1)
Bot. zhur. 44 no.1:35-43 Ja '59.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov imeni V.I.
Vil'yamsa, Moskovskaya oblasti', st. Lazeypyn.
(Pastures and meadows)

H. Ellenberg's works on causal study of meadow vegetation. Bot. zhurn.
1954 no.5:634-638 My '59. (MIRI 12:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov iu. V.P.
Vil'yansk, stantsiya Lopovaya Kost'kovskoy oblasti.
(Pastures and meadows) (Botany--Ecology)
(Ellenberg, H.)

RADOTKOV, T.A.

Ivan Vasil'evich Larin's seventieth birthday. Bot.zhur. 44
no.6:85)-896 Je '59. (MIRA 12:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov im.
Vil'yama, stantsiya Iugovnaya Moskovskoy oblasti.
(Larin, Ivan Vasil'evich, 1889-)

RABOTNOV, T.A.

Effect of the yellow rattle Rhinanthus major Linn. on yields and
composition of the grass stand in bottom-land meadows. Biul. MOIP.
Otd. biol. 64 no.6:105-107 N-D '59. (MIRA 13:5)
(YELLOW RATTLE) (PASTURES AND MEADOWS)

RABOTNOV, T.A.

Significance of Darwin's works for the study of seed reproduction in meadow plants. Biul. MOIP. Otd. biol. 64 no.4:
47-51 J1-Ag '59. (MIRA 13:4)

(Pastures and meadows)

RABOTNOV, T.A.

"Some Problems in Increasing the Proportion of Leguminous Species in Permanent Meadows."

All-Union Scientific Research Institute of Fodder im. V.R.Vil'yams, Lobniya, Moscow Oblast!
report to be presented at the 8th Intl Grassland Congress, Reading, England, 11-21 Jul '60

RABOTNOV, T.A.

A new handbook on methods of geobotanical research ("Field geobotany,"
vol. 1. Reviewed by T.A. Rabotnov). Biul. MOIP. Otd. biol. 65
no. 4:132-137 Jl-Ag '60. (MIRA 13:10)
(BOTANY--ECOLOGY)

KONYUSHKOV, N.S., red.; RABOTNOV, T.A., red.; TSATSENKIN, I.A., red.;
SHLEPANOV, V.M., red.; ANTONOVA, N.M., tekhn. red.

[Methods of experimental work on meadows and pastures] Meto-
dika optrykh rabot na senokosakh i pastbishchakh. Pod obshchei
red. N.S.Koniushkova, T.A.Rabotnova, I.A.TSatsenkina. Moskva,
Sel'khozgiz, 1961. 287 p. (MIRA 15:2)

l. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut kor-
nov.

(Pastures and meadows)

RABOTNOV, T.A.

Some problems of studying dominant species in meadow phytocoenoses.
(MIRA 16:5)
Probl. bot. 6:103-109 '62.
(Plant communities)

RABOTNOV, T.A., doktor biolog. nauk

Improvement of meadows in areas of sufficient moisture. Zemledelie
25 no.12:19-26 D '63. (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov.

RABOTNOV, T. A.

Works of A. P. Shennikov in the field of grassland research.

Biul. MOIF. Otd. biol. 68 no. 3: 134-141 My-Je 1938

(MIRA 1738)

"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0013438

RABOTNOV, T.A.

Use of the principle of vegetational continuum in studying the
vegetation of Wisconsin (USA). Biul. MOIP. Otd. biol. 68
no.4:147-151 Jl.-Ag '63. (MIRA 16:10)

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0013438

RABOTNOV, T. A.

"Peculiarities of the structure of polydominant meadow communities."

report submitted for 10th Intl Botanical Cong, Edinburgh, 3-12 Aug 64.

Res Inst of Fodders, Lugovaya, Moscow Region.

RABOTNOV, T.A.

Articles on the methodology of vegetation study. Biul.MOIP.Otd.
biol. 69 no.2:142-144 Mr-Ap '64. (MIRA 17:4)

RABOTNOV, T.A.

Phytocoenology problems at the 10th International Botanical Congress. Biul. MOIP. Otd. biol. 70 no.2:137-149 Mr-Ap '65.

Phytocenological problems at the Tenth International Botanical Congress. Ibid.:149-153

(MIRA 18:5)

LEBEDEV, D.V.; RABOTNOV, T.A.; ADO, M.I. (Moskva)

Reviews and bibliography. Bot. zhur. 50 no.7:1014-1025 Jl '65.
(MIRA 18:11)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad
(for Lebedev). 2. Vsesoyuznyy institut kormov, pochtovoye
otdeleniye Lugovaya, Moskovskaya oblast' (for Rabotnov).

RABOTNOV, T.A.

Dynamics of the structure of polydominant meadow associations.
Bot. zhur. 50 no.10:1396-1408 O '65.

(MIRA 18:12)

1. Vsesoyuznyy institut kormov, stantsiya Lugovaya Moskovskoy
oblasti.

RABOTNOV, T.A.

On the 60th birthday of Ivan Afanas'yevich Tsatsenko, 1905- .
Bot. zhur. 50 no.11:1654-1659 N '65.

(MIRA 19:1)

1. Vsesoyuznyy institut kormov, Lugovaya Moskovskoy oblasti.

RABOTNOV, T.A.; KRYLOVA, N.P.

Effect of some species of leguminous plants on the yield and
grass stand of an occasionally flooded meadow. Biul. MOIP.
Otd. biol. 70 no. 6:80-91 N-D '65 (MIRA 19:1)

RABOTNOV, V.T.

Stratigraphy of Late Pre-Cambrian sediments in the Olekma-Tokko
interfluve. Dokl. AN SSSR 156 no.6:1351-1354 Je '64.
(MIRA 17:8)

1. Tsentral'naya geologos'yemochnaya ekspeditsiya Yakutskogo
geologicheskogo upravleniya. Predstavлено akademikom A.L.
Yanshinyem.

RABOTNOI, V.T.; KHORST, M.R.

Some regularities in the change of the density and specific weight
of the Riphean (Sinean) sediments of southwestern Yakutia. Neftegaz.
(MIRA 18:5)
geol. i geofiz. no.1:34-37 '65.

I. Yakutskoye geologicheskoye upravleniye.

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

МЕЧТОВ, Ю.Н.

"Napryazheniya vo Vrashchayushchemya Diske, Snabzhennom Diametralnym Rebrrom,"
Prikladnaya Matematika i Mekhanika Tom 3 Vyp. 1 str. 67-74, 1939

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

ROBOTKOV, Yu.I.

"Ostevye Upravleniya Teoriy Obolochok," Doklady Akademii Nauk SSSR tom.
47 vyp. 2 str. 90-93, 1945.

RABOTNOV, Yu.N.

"Uravnenie Pogranichnoi Zony v Teorii Obolochek," Doklady Akademii Nauk
SSSR tom 47 vyp 5 str. 334 -336, 1945.

RABOTINOV, Yu. N.

"Uproshchennye Uravneniya Teorii Obolochek," Kniga : Tesizy Soveshchaniya po Teoriy Uprugosti, Stroitelnoi Mekhanike i Teorii Plastichnosti 25. - 26. 1946, str. 28 - 29.

Rabotnov, J. N. Local stability of shells. C.R. (Doklady)
Acad. Sci. URSS (N.S.) 53, 111-112 (1946).

Source: Mathematical Reviews, Vol 8, No. 2

Rabotnov, J. N. Bending of a cylindrical shell under a concentrated load. C. R. (Doklady) Acad. Sci. URSS (N.S.) 52, 299-300 (1946).

The author applies his equations for thin shells [same C. R. 47, 89-90, 329-331 (1945); these Rev. 7, 142] to the bending of a cylindrical shell under a concentrated load. However, the investigations of E. Reissner [J. Math. Phys. Mass. Inst. Tech. 23, 184-191 (1944); these Rev. 6, 195] show that, for points near the concentrated load, the effects of transverse shear cannot be neglected. The author neglects these effects; thus the calculation seems to be unsatisfactory.

H. S. Tsien (Cambridge, Mass.)

Source: Mathematical Reviews,

Vol. 8, No. 4

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

Source: Mathematical Reviews, Vol 8 No. 6

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

PA 12/49T42

RABOTNOV, Yu. N.

USSR/Engineering
Stress Analysis
Creep

Jun 48

"Computing Creep for Machine Parts," Yu. N.
Rabotnov, Inst of Mech, Acad Sci USSR, 12 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 6

Treats subject under following headings: (1) constant speed theory (a) theory of constant speed of plastic deformation; (b) theory of constant speed of deformation; (2) consolidation theory; (3) aging theory; (4) pure bending; (5) thick-walled tubes. Submitted 18 Mar 48.

12/49T42

Rabotnov, Yu. N.

Rabotnov, Yu. N. Some problems of the theory of creep.²⁴
Vestnik Moskov. Univ. 1948, no. 10, 81-91 (1948).

(Russian)

Various one-dimensional engineering formulations of the creep theory are enumerated and it is pointed out that none of these provide a simultaneous description of the intimately related phenomena of creep, relaxation, plastic heredity, work hardening, and the so-called "reverse" creep. A one-dimensional theory is next formulated, as an extension of

Source: Mathematical Reviews.

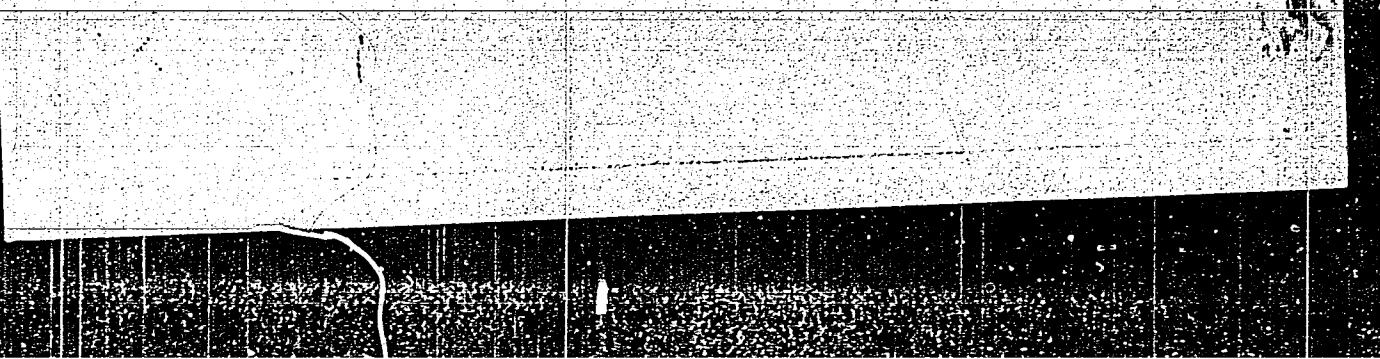
Vol. 12, No. 3

RABOTNOV, Yu. N.

3
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Rabotnov, Yu. N. The equilibrium of an elastic medium.
Itogi Nauki i Tekhniki. Pril. Mat. Meh.

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438



APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

PA 7/49T63

RABOTNOV, Yu. N.

Jul/Aug 48

USER/Engineering
Mechanics
Mathematics, Applied

"An Equal Resistance Disc," Yu. N. Robotnov,
Moscow, 2 pp

"Priklad Matemat i Mekhan" Vol XIII, No 4 - p. 403-4

Treats subject problem mathematically. Obtains
curves from which profile of disc can be found,
for both compressible and incompressible materials.
Submitted 16 Apr 1948.

7/49T63

RABOTNOV, YU., N.,

Pa. 150T17

USSR/Engineering - Awards
Literature

Sep 49

"Award of Prizes by the Presidium of the Academy of Sciences USSR to Scientific Workers
of Institutions of the Department of Technical Sciences" 1 p

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 9

Prizes of 7,500 rubles each were awarded at the 14 Jul 49 meeting to: A. A. Il'yushin,
Corr Mem, Acad Sci USSR, Inst of Mech, for work on supersonic flow of gas; Yu. N. Rabotnov,
Dr Physicomath Sci, Inst of Mech, for his work, "Slow Flow in Solid Substances"; V. M.
Fokelyev, Dr Chem Sci, Inst of Petroleum, for his work, "Viscosity of Stratified Petroleum";
and N. N. Rykalin, Dr Tech Sci, Sec for Sci Development of Problems of Elec Welding and
Electrothermics, for his work, "Thermal Principles of Welding, Part I."

Pa. 150T17

RABOTNIKOV, YU, N.

Soprotivlenie materialov. Uopushchено v kachestve uchebnika dlja universitetov. Moskva, Izd-vo Moskovskogo universiteta, 1950. 335 p., diagrs.

Title tr.: Strength of materials. Approved as a textbook for universities.

QA931.R33

SC: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

RABCTNOV, YU. N.

O rabotakh I. A. Odina v oblasti polzuchesti i relaksatsii. (Prikladnaya matematika i mehanika, 1950, v. 14, no. 2, p. 218-223)

Title tr.: On the work of I. A. Odina in the field of creep and relaxation.

QA801.P7 1950

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

RABOTNOV, Yu. N.

177T45

USSR/Mathematics - Elasticity

Mar/Apr 51

"Approximate Technical Theory of Elastic Plastic Shells," Yu. N. Rabotnov, Moscow

"Prik Matemat i Mekh" Vol XV, No 2, pp 167-174

Some simplifications are performed in conventional computation of elasticity of shells in order to find approx soln in cases where limits of elasticity are exceeded.

177T46

RABOTNOV, Yu. N.

Deformations (Mechanics)

Equilibrium of rods compressed out of proportion. Inzh.sbor. no. 11, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

RABOTNOV, Yu. N.

USSR/Mathematics - Stress and Strain Jan/Feb 52

"Stress and Strain During Continuous (Cyclic) Load," Yu. N. Rabotnov, Moscow, Inst of Mech, Acad Sci USSR

"Prik Matemat i Mekh" Vol XVI, No 1, pp 121, 122

Basic assumptions are that relations between stress and strain are similar to theory of small elastic-plastic deformations. Ratio between stress and strain is nearly linear and ratio of dissipated energy to max elastic energy is very small. The area of hysteresis loop does not depend on stress.

Received 19 Nov 51.

203768

Rabotnov, Yu. N.

U S S R .

1958. Zhukov, A. M., Rabotnov, Yu. N., and Churikov, F. S., Experimental testing of a few theories of creep (in Russian), Inzhener. Sbornik, Akad. Nauk SSSR 17, 163-170, 1953.

Creep experiments with copper are described and data obtained are compared with the predictions of two theories: the creep theory of strain hardening [Davenport, C. C., J. appl. Mech. 5, A-55, 1938; Popov, E. P., J. appl. Mech., 14, A-135, 1947] and the theory of aftereffect formulated by second author in his previous papers [Rabotnov, Yu. N., Prikl. Mat. Mekh. 12, p. 53, 1948; Rabotnov, Yu. N., Izv. Akad. Nauk SSSR Otd. tekhn. Nauk p. 780, 1948]. The general mathematical expression of this theory is

$$\varphi(\epsilon) = \sigma(t) + A \int_0^t K(t-\tau) \sigma(\tau) d\tau$$

where author accepts (without giving any physical explanation for his choice) $\varphi(\epsilon) = Ae^\alpha$ and $K(t-\tau) = k(t-\tau)^{-\beta}$ (α, β, K , and A are constants, characteristic for a given material).

Tests are carried out in the temperature range from 170 to

OVER

250°C for a number of stresses at each temperature. Duration of test was 30 hours. Also a number of tests were done with change of stress during the test.

Functions $\varphi(\epsilon)$ and $G(t)$ where $d/dt[G(t)] = K(t)$ are obtained graphically from the experimental data, and theoretical creep curves for constant as well as for variable during test stresses are built. The agreement is quite good with the experimental curves, but one should keep in mind that time of tests was comparatively short for creep experiments.

W. Sylwestrowicz, USA

2/2

JEP
JRW

RABOTNOV, YU. N.

USSR/Mathematics- Elasticity Theory

Sep/ Oct 53

"Calculation of the Profile of a Revolving Disk For Conditions of Creep."

Priklad Matem i Mekhan, Vol 17, No 5, pp 615- 618

Treats the problem of determining the profile of a revolving disk under conditions of stationary creep according to a given law of variation of stresses or strains along the radius. Assumes the temperature field to be polar-symmetrical and the law of creep to be arbitrary. Presented 24 Jun 53. Refers to a related work of Yu. N. Rabotnov ("Disk of Uniform Resistance," PMM, Vol 12, No 4, 1948.)

276T89

RABOTNOW, Yu. N.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Rabotnow, Yu. N.	"Strength of Materials" (textbook)	Moscow State University imemti M. V. Lomonosov

SO: W-30604, 7 July 1954