

I 34546-65

ACCESSION NR: AP5000350

SUBMITTED: 20May64

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ENCL: 00

SUB CODE: NP

NR REF SOV: 009

OTHER: 006

Card 3/3

L 20070-88 EWT(4)/EWT(n)/EWP(k)/ENP(h)/EWF(v)/EWF(l) AC

ACC NR: AT6015888

SOURCE CODE: UR/3138/65/000/402/0001/0012

AUTHOR: Myrtasymova, L. A.; Rudik, A. P.

ORG: none

TITLE: Optimum distribution of control elements

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 402, 1965. Optimal'noye raspolozheniye regul'yatorov, 1-12

26
BX1

TOPIC TAGS: optimization, nuclear reactor control

ABSTRACT: The Pontryagin theory of optimal control is applied to the optimization of the spatial distribution of reactor fuels. In reactor theory one finds two well known problems that are solved by the classical variational calculus, under the assumption that the varying function is not bounded from above. They are the problems of the minimum critical mass and the problem of optimum distribution of control elements. The first of these problems was solved by Kochurov on the assumption that the varying concentration of fuel is bounded from above. The solution of the second problem is carried out in this paper. That is, to find that distribution of control elements of a given construction where the number of control elements for a specified criticality of the system is minimum. The problem solution appears as two-group approximation for the reactor in the form:

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143070-56
ACC NR: AT6015888

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$$\frac{d^2N}{dz^2} - \frac{1+u}{L_0^2} N = -n$$

$$\frac{d^2\eta}{dz^2} - \frac{\eta}{\tau} = -\frac{K}{L_0^2} \frac{1}{\tau} N,$$

where N and n are the density of the thermal and moderating neutrons respectively, K_0 and L_0^2 are the coefficients of reproduction and squared length of diffusion in the breeding agent (without control elements), τ is the squared length of moderation (assuming τ does not depend on the introduction of the control elements) and $u(z)$ is the varying function ("control"), proportional to the effective number of atoms of the absorber in a unit length (assuming that the control elements absorb only thermal neutrons). The magnitude of $u(z)$ can vary within the limits

$$0 < u(z) < u_{\max},$$

where u_{\max} uniquely determines the type of regulators. One searches for the minimum of the following integral:

$$M = \int_0^H u(z) dz,$$

where $Z=0$ is the center of the reactor and $Z=H$ is the half-height of the reactor.

Orig. art. has: 2 figures, 17 formulas.

SUB CODE: 207 181 SUBM DATE: none

Card 2/2 hs

ACC NR: AT6031151

SOURCE CODE: UR/3138/66/000/416/0003/0012

AUTHOR: Kochurov, B. P.; Rudik, A. P.

10
B+1

ORG: none

TITLE: The problem of the maximum power of a reactor

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii.

Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 416, 1966.

Zadacha o maksimume moshchnosti reaktora, 3-12

TOPIC TAGS: maximum principle, one group problem, reactor fuel distribution, reactor power, optimum atomic fuel distribution, optimum process theory

ABSTRACT: The maximum principle is applied to the solution of a one-group problem on the optimum distribution of a fissionable material along the height of a reactor to obtain maximum reactor power under the thermal restrictions imposed on the surface of the fuel rod. A reactor is shown to be optimum when the density of the fuel on its periphery is the maximum permissible, and, in its central zone, is in accord with the prevailing thermal restriction. The authors thank V. G. Bolt'yanskiy and L. N. Bol'sheva for their discussion of the mathematical aspects of

Card 1/2

ACC NR: AT6031151

O -

the theory of optimum processes. Orig. art. has: 11 formulas and 4 figures.
[Authors' abstract]

[SP]

SUB CODE: 20/ SUBM DATE: 24Jan66/ ORIG REF: 002/ OTH REF: 001/

awm
Card 2/2

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

IGMEN, B.L.; GORSHKOV, L.B.; RODNIK, A.P.

Weak interactions in opposing electron beams. Zhur. eksp. i teor. fiz. 47 no.5:1905-1918. N°164. (MIRA 18:2)

I. Institut teoreticheskoy i eksperimental'noy fiziki.

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

RUDIK, A.P.; SIMONOV, Yu.A.

New method for studying the characteristics of Feynman diagrams.
Zhur. eksp. i teor. fiz. 45 no.4:1016-1029 O '63. (MIRA 16:11)

1. Institut teoreticheskoy i eksperimental'noy fiziki.

L 10590-65 EWT(1) GW

ACCESSION NR: AP4045508

S/0026/64/000/009/0095/0095

AUTHOR: Arabadzhı, V. I. (Professor, Minsk); Rudik, K. I. (Minsk)

B

TITLE: Echo from a large forest

53.

SOURCE: Priroda, no. 9, 1964, 95

TOPIC TAGS: echo, echo sounding, sound reflection, forest, sound propagation,
acoustic spectrum

ABSTRACT: The study of an echo in the atmosphere can give useful data on the reflecting surface and the medium through which the sound propagates. The paper describes a simple experiment in which the echo from a large pine forest located on a hill was recorded and its spectrum analyzed. The direct sound of a locomotive whistle and its echo from the forest were both recorded using a tape recorder. The records obtained were analyzed at Moscow University using an acoustic analyzer. The maximum energy in the sound spectrum of various locomotive whistles occurs at frequencies of 0.5-1.2 kcps, while the maximum energy in the echo spectrum in both cases occurs at one frequency only (0.8 kcps). This fact indicates the special features of the reflecting surface. It is concluded that the major role in the production of an echo is played not by the tree stems but by their crowns. Comparison of the acoustical spectra shows a marked increase in the absorption of high-

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L 10590-65

ACCESSION NR.: AP4045508

frequency components with increasing distance between the sound source and the forest. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

0
SUB CODE: GP, ES

NO REF SOV: 000

OTHER: 000

Card 2/2

S/159/62/000/001/016/032
E075/E535

AUTHORS: Arabadzhi, V.I. and Rudik, K.I.

TITLE: On klydonograms of interacting electrodes

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
no. 1, 1962, 103-104 + 2 plates

TEXT: A number of experiments were made for the purpose of elucidating the changes in the character of the klydonograms of interacting electrodes at various air pressures. The klydonograms were produced on black and white and coloured photo-emulsions of normal sensitivity. The voltage onto the electrodes was applied using a spring-operated circuit breaker (exposure time 10^{-5} sec). The gap was 35 mm and voltages between 5 and 15 kV were applied. Photographs show the development of a discharge with two corona emitting electrodes, each of which was supplied with either a positive or a negative voltage. It was found that a decrease in the air pressure leads to straightening and thickening of the streamer channels; ; the conditions of development of the discharge in the neighbourhood of the electrodes of differing polarities equalize at first and then

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On klydonograms of ...

S/139/62/000/001/016/032
E073/E535

become somewhat more favourable at the negative electrode. At pressures below 50 mm Hg the klydonograms of interacting electrodes become thickened diffuse-light emitting columns, which are stretched along the line of distribution of the electrodes. Interesting corona phenomena were observed on a film onto the surface of which sulphur and iron powder was deposited in the form of small mounds prior to the discharge. The obtained results are useful for understanding the process of development of small scale electric discharges. There are 2 figures.

ASSOCIATION: Minskiy pedinstitut im. A.M. Gor'kogo
(Minsk Pedagogic Institute imeni A. M. Gor'kiy)

SUBMITTED: January 2, 1961

Card 2/2

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

ARABADZHI, V.I.; RUDIK, K.I.

Klydonograms of interacting electrodes. Izv.vys.ucheb.zav.;fiz.
no.1:103-104 '62. (MIRA 15:6)
(Electric discharges)
(Electrodes)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

S/159/63/000/001/013/027
E202/E420

AUTHORS: Arabadzhi, V.I., Rudik, K.I.

TITLE: Electrification of dust in the atmosphere

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Fizika,
no.1, 1963, 85-88

TEXT: The authors discussed the importance of the contact electrification of aerosols and showed that this mechanism could explain the intensity of ionization in the low layers of the atmosphere. An experiment involving lowering towards the Earth an artificial dust cloud was studied. The volume of ionization was measured by means of an instrument consisting of a cylindrical receiving condenser, an electrometer multi-stage circuit and a recorder. The internal electrode of the receiving condenser was amber insulated, while the external one was earthed to the chassis. Air drawn in from the surroundings entered the internal cylinder and, after passing through a cotton wool filter which collected its charges, left the apparatus through a special bush in the lower part of the condenser. A full circuit diagram and the component values of the instrument are given. A special relay was used to collect the charge from the internal electrode after different

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S/139/63/000/001/013/027
E202/E420

Electrification of dust ...

periods of time, viz. 8, 23 and 40 seconds. This discharge produced a current pulse in the electrometer tube, the magnitude of which was proportional to the charge on the condenser. A double diode was used to differentiate between the signs of the pulse; from the double diode the pulses were fed to a linear peak voltmeter with 100 μ A galvanometer in the anode circuit. The periodic operation of the relay was attained by means of an audio frequency generator with a step-up transformer. The instrument, which could be energized from mains or from a battery, was capable of measuring a current of 1.4×10^{-14} A. Road, peat, flour, coal and red-lead dust were used with the particle size distribution ranging from 9 to 68 μ and the population of about 35 to 63 p.p.cm³. The cloud was created at a height of 2 to 4 m above the surface. All dusts showed a negative volume charge with a maximum value of 2×10^{-7} cgse/cm³. It was concluded that a single large particle carried 3 to 6 elementary charges. Comparing their results with those of Obolenskiy and Steger, the authors concluded that the descent of a dust cloud gives rise to a volume charge smaller by 1 to 2 orders than in the case of the same cloud rotating (or

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S/139/63/000/001/013/027
E202/E420

Electrification of dust ...

rising). It is further concluded that the contact charging of aerosols in clouds is preferentially due to ion capture from the ambient medium. There is 1 figure.

ASSOCIATION: Belorusskiy tekhnologicheskiy institut imeni S.M.Kirova (Belorussian Technologic Institute imeni S.M.Kirov)

SUBMITTED: September 9, 1961

Card 3/3

RUDIK, P. A.

Physical education of Soviet youth is an inalienable part of Communist education
Moskva, Znanie, 1953. 30 p. (Vsesoiuznoe obshchestvo po rasprostraneniu
politicheskikh i nauchnykh znanii. Seriya 2, no. 8) (53-37234)

(Continued on next card)

RUDIK, P.A.

All-Union conference on the psychology of sports. Vop.psichol. 2 no.3:
115-121 My-Je '56.
(Psychology, Physiological) (Physical education and training)
(MLRA 9:9)

RUDIK, Petr Antonovich, pref.; LUKASHIN, Yu. S., red.; DOTSENKO, A.A., tekhn. red.

[Psychology] Psichologija. Moskva, Gos. izd-vo "Fizkul'tura i sport," 1958. 500 p. (MIRA 11:11)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR (for Rudik). (Psychology)

RUDIK, P.A.

Second All-Union Conference on the Psychology of Sports. Vop.
psichol. 4 no.5:175-181 S-O '58. (MIRA 11:12)
(Sports---Psychological aspects)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

RUDIK, P.A.

In the Moscow branch of the All-Union Psychological Society.
(MIRA 14:3)
Vop.psikh. 7 no.1:188-190 Ja-F '61.
(Sports—Psychological aspects)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

RUDIK, Petr Antonovich; DOBROV, A.A., red.; DOTSENKO, A.A., tekhn. red.

[Psychology; abridged course] Psikhologiya; kratkii kurs. Moskva,
Fizkul'tura i sport, 1962. 238 p. (MIRA 15:6)
(PSYCHOLOGY)

RUDIK, R.A.

Third All-Union Conference on the Psychology of Sport. Vop. psichol.
6 no.5;165-168 8-0 '60. (MIRA 13:11)
(Sports—Psychological aspects)

SUSLOVSKIY, O.[Suslovs'kyi, O.], red.; RUDIK, S.[Rudyk, S.], red.;
BURKATOVSKAYA, TS.[Burkatovs'ka, TS.], tekhn. red.; NEDOVIZ,S.,
tekhn. red.

[The spring of communism] Vesna komunizmu [al'bom]. L'viv, L'viv-
s'ke knyzhkovo-zhurnal'ne vyd-vo, 1961. 141 p. (MIRA 15:11)
(Lvov Province---Views)

RUDIK, V.A.

Epigenetic changes in lower Cretaceous terrigenous sediments in the
Sultan-Sandzhar anticline area. Trudy VNIGNI no.30:97-106 '61.
(MIRA 14:9)
(Uzbekistan--Rocks, Sedimentary)

RUDIK, V.A.

Rhythmic stratification of Lower Cretaceous sediments in western
and southwestern Uzbekistan. Biul. MOIP Otd. geol. 40 no. 6:
(MIRA 19:1)
91-96 N-D '65.

RUDIK, V.B.; SHNEYGEL'BERG, A.Ya.

Submerged arc welding of ring joints. Mashinostroenie no.6:
105-106 N-D '62. (MIRA 16:2)
(Electric welding)

RUDIK, Ye. A.

MALKIMAN, I.V., RUDIK, Ye.A. [deceased] (Moskva)

Mechanism of formation and healing of experimental gastric ulcer
in dogs [with summary in English]. Arkh.pat. 20 no.5:46-49 '58
(MIRA 11:6)

I. Iz laboratori fiziologii i patologii pishchevareniya (zav.
doktor med.nauk S.I. Filippovich) Instituta fiziologii AMN SSSR
(dir. - deystvitel'nyy chlen AMN SSSR prof. V.N. Chernigovskiy).
(PEPTIC ULCER, experimental,
genesis & healing in dogs (Rus))

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

LUNTS, Ye.B., inzh.; RUDIK, Ye.P., inzh.

MBM drilling machine. Stroi. i dor.mash. 10 no.12:5-7
(MIRA 19:1)
D '65.

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

1. RUDIK, Ye. A.
 2. USSR - (600)
 4. Pneumogastric Nerve
 7. Morphological changes in the stomach in resection of the vagus nerve. Arkhiv. pat. 14, No. 6, 1952.
9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

✓ Experimental atophan ulcers in dogs. I. V. Malkiman
and E. A. Rudik (Inst. Physiol., Acad. Med. Sci. U.S.S.R.,
Moscow). *Arkh. Patol.*, 17, No. 1, 39-45 (1955).—The
administration of atophan to dogs for 10-15 days in doses
of 0.1-0.2 g./kg. produces gastric ulcers in all exp'l. animals
and duodenal ulcers in some. Smaller doses will do the same
if the period of administration is prolonged. The location
and macro- and microscopic pictures of human ulcers are
identical with those of atophan-produced ulcers in the dog.
Atophan administered in the doses indicated acts on the
central and intramural nervous systems causing prolonged
and persistent circulatory disturbances in isolated sections
of the vascular and capillary systems of the stomach, pre-
dominantly in the subepithelial layer of the gastric mucosa
(subepithelial hemorrhages). Vasmotor disturbances arise
which impede the tissue nutrition. This leads to lowered
resistance of the gastric wall and to a consequent partial
wall autodigestion. B. S. Levine.

ZAMYCHKINA, K.S.; RUDIK-GNUTOVA, Ye.A.; GRODZENSKIY, D.E.; BELORYBKINA, L.I.

Absorption of phosphorus in the digestive tract and its utilization
the body in experimental hepatitis of various origins. Med.rad. 1
no.3:63-71 My-Je '56. (MLRA 9:10)

1. Iz Instituta normal'noy i patologicheskoy fiziologii (dir. -
deystvitel'nyy chlen AMN SSSR prof. V.N.Chernigovskiy) AMN SSSR.

(PHOSPHORUS, metab.

absorp. in gastrointestinal tract & utilization by
system in exper. hepatitis in dogs)

(HEPATITIS, exper.

absorp. of phosphorus by gastrointestinal tract &
utilization by system in dogs)

ZAMYCHKINA, K.S.; RUDIK-GNUTOVA, Ye.A.; MARTSEVICH, M.S.

Effect of sodium salicylate on the digestive organs. Biul.eksp.
biol. i med. 42 no.11:19-23 N '56. (MLRA 10:1)

1. Iz instituta normal'noy i patologicheskoy fiziologii (dir. -
deystvitel'nyy chlen AMN SSSR prof. V.N.Chernigovskiy) AMN SSSR,
Moskva, Predstavлено deystvitel'nym chlenom AMN SSSR V.N.Chernigovskim.

(GASTROINTESTINAL SYSTEM, eff. of drugs on,
sodium salicylate (Rus))

(SODIUM SALICYLATE, effs
on gastrointestinal system (Rus))

ANISIMOV, I.I.; SHENYANSKIY, K.A.; RUDIK, G.T.

Specific prophylaxis of brucellosis in cattle on collective
and state farms in Stalino Province. Veterinariia 32 no.5:
25-29 My '55. (MLRA 8:7)

- 1.Nachal'nik vetetdela Stalinskey oblasti (for Anisimov).
 - 2.Direktor mezhsevkhezney laboratorii (for Shenyanskiy).
 - 3.Starshiy vetrach sevkheza imeni OKtyabr'skoy revolyutsii
(for Rudik).
- (STALINO PROVINCE--BRUCELLOSIS IN CATTLE--PREVENTIVE INOCULATION)

RUDIK, Ye. A.

COUNTRY : USSR V
CATEGORY : Pharmacology and Toxicology. Cholinergic Agents
ABS. JOUR. : RZhBiol., No. 5 1959, No. 23152
AUTHOR : Malkiman, I. V.; Rudik, Ye. A.
INST. :
TITLE : On the Mechanism of the Formation and Healing
of Experimental Gastric Ulcer in Dogs
ORIG. PUB. : Arkhiv patologii, 1958, 20, No 5, 46-49
ABSTRACT : Atophan (A) introduced perorally in a dose of 0.2 g/kg produces in dogs, in 100% of cases, ulcers of the stomach and duodenum, which resemble ulcers of man. Atropine in a dose of 0.6-0.8 ml of 1:1,000 solution, when introduced subcutaneously for a prolonged period into the stomach through the fistula, or perorally with milk twice daily, prevents the formation of ulcers due to the introduction of A, and in the presence of an ulcer contributes to its rapid

Card:

1/2

RUDIK, Ye.A.

Morphological changes in the stomach in resection of the vagus nerve.
Arkh. pat., Moskva 14 no.6:59-63 Nov-Dec 1952. (CLML 23:4)

1. Of the Morphological Laboratory of the Department of Vegetative Physiology (Head -- I. P. Razenkov, Active Member AMS USSR), Institute of Physiology of the Academy of Medical Sciences USSR, Moscow.

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

Technika Izmereniya Razmerov v Mashinostroenii (Technics of Measuring Dimensions in Machinery Construction), Moscow, 1949.

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

RUDIKOV, N.I., aspirant

Methods of the diagnosis of rabies and infectious encephalomyelitis
in horses. Veterinariia 41 no.4:14-16 Ap '64.

(MIRA 17:8)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.

ANONYMOUS, No. 11 "Effect of Field Protecting Forest Strips, Irrigation, and of
the Quality of the Soil on the Quality of Wheat."*(dissertation for
Degree in Agricultural Engineering defended at Non-Affiliated Educational Institutions)
Institute of Agrarian Education, Voronezh Agricultural Inst., Voronezh, 1953
Date of signature: 1953, 12 Jun 53
Place: Voronezh, No. 36, 12 Jun 53

* For Degree of Candidate in Agricultural Sciences

14(5)

SOV/127-59-2-9/21

AUTHORS: D'yachenko, V.F., and Rudim, A.N., Engineers

TITLE: Problems of Transportation and the General Plan
of Mining at the KMA (Voprosy transporta i general'-
nogo plana rudnikov KMA)

PERIODICAL: Gornyy zhurnal, 1959, Nr 2, pp 42-47 (USSR)

ABSTRACT: The authors discuss the following problems concerning the Kursk Magnetic Anomaly mine fields (KMA):
1) Placement and coordination of the auxiliary installations (repair bases, supply, transport, depots);
2) the most suitable placement of the concentrating mills; 3) the most economical surface-transport network; 4) the development of the main RR lines in harmony with the stage of mining. A discussion of these topics then follows according to the areas:
1) The area of Staryy Oskol. 2) The Mikhaylovskiy area. 3) The area of Belgorod. In the last paragraph the prospective transportation-development in the iron-ore basin between Kursk and Belgorod is

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SOV/127-59-2-9/21

Problems of Transportation and the General Plan of Mining at the
KMA

covered. The skip elevator in shaft Nr 3 of the Yuzhno-Korobkovskiy mine will have a capacity of 3 million tons of quartzites yearly. This mine will get a crushing-concentrating mill, a plant for agglomeration of the concentrate, central mechanical workshops, storehouses, and storages of timber. The Lebedinskiy mine is being constructed in such way that the expected increase of mining from 2.5 to 4 million tons yearly will be possible. All RR in the area of Staryy Oskol will have standard (Soviet) gage. The opening operations in the soft-rock layers of the Lebedinskaya open pit are being done with powerful dredgers, and hydromonitors. Mud is being driven off by water thru special pipes. The transport of the hard chalk will be carried out by electric RR trucks. Dump trucks (automobile) will be used at deeper levels. A table shows the advantages of dump trucks over electric locomotives of

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SOV/127-59-2-9/21

Problems of Transportation and the General Plan of Mining at the
KMA

the IV-KP-1 type. The Mikhaylovskoye deposits are 100 km from Kursk and 105 km from Orel. The 50 km long RR between Mikhaylovskaya and Arbuzovo is completed. Electric RR transport will be used in the mine to a depth of 80 or 85 m. An experimental belt-conveyer line will be installed. The Yakovlevskoye ore deposits lie about 30 km North of Belgorod. The over-all freight traffic in this area will be about 1,000 heavy RR cars per 24 hours. About 15 million tons of ore are to be hauled. Traffic is to be controlled thru a centralized dispatcher system. A RR connecting the mining area with the RR station Tomarovka (between Belgorod and Gotnya) will be built. Probably also another RR line, connecting the site with the RR station Oboyan' will be built. The mine-prospecting work in the area has reached such a stage that new mines can be opened (the 2nd

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SOV/127-59-2-9/21

Problems of Transportation and the General Plan of Mining at the
KMA

part of the Lebedinskiy mine, the Yakovlevskiy mine,
and Yuzhno-Lebedinskoye and Stoylenskoye deposits). The
Belgorod - Kursk stretch of the Southern RR must be
moved, as it crosses ore fields. There are 3 charts
and 1 table.

ASSOCIATION: Yuzhgiproruda, Khar'kov

Card 4/4

RUDIN, A.

Collective farms obtain qualified builders. Sel'stroi.12
no.12:28 D '57. (MIRA 10:12)

1. Direktor Severo-Osetinskoy odnogodichnoy shkoly stroitel'nykh
masterov (desyatnikov).
(North Ossetia—Building trades--Study and teaching)

RUDIN, A.

School for collective farm builders. Sel', strel' no.3:16 Mr '56.
(MLRA 9??)

I. Direktor Severo-Osetinskoy shkoly strel'tel'nykh masterov.
(Ossetia--Building trades--Study and teaching)

RUDIN, A.B.; FOKHT, A.S.

Some kinetic characteristics of the process of electron transfer in
photosynthesis. Biofizika 10 no.2:236-241 '65. (MIRA 18:7)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta
imeni Lomonosova i Moskovskiy fiziko-tehnicheskiy institut.

RUNDKVIST, A.K.; BLEKHMAN, I.I.; RUDIN, A.D.

Theory of the critical gap of inertial crushing and grinding machines.
(MIRA 14:8)
Obog. rud 6 no.2:34-37 '61.
(Crushing machinery)

BLEKHMAN, I.I.; RUDIN, A.D.; RUNDKVIST, A.K.

Conditions of motion with the runnin-in of grinding media
in vibrating crushing and grinding machines. Obog. rud 6
no.3:37-41 '61. (MIRA 14:11)

(Crushing machinery)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

RUDIN, A.D.

Dynamics of triple mass electric vibration grizzlies and conveyers.
Obog. rudi 6 no.1:34-41 '61. (MIRA 14:8)
(Screens (Mining)) (Vibrators)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

RUDIN, A.N.

Gas industry of Central Asia and prospects for developing it.
Gaz. delo. no.13-7 '63. (MIRA 16:8)

1. Sovet po koordinatsii i planirovaniyu raboty sovetov narodnogo
khozyaystva Sredneaziatskogo krupnogo ekonomicheskogo rayona.
(Soviet Central Asia—Gas, Natural)

107-57-2-33/56

AUTHOR: Rudin, D.

TITLE: Avometer. For Beginners (Avometr. Dlya nachinayushchikh)

PERIODICAL: Radio, 1957, Nr 2, pp 28-32 (USSR)

ABSTRACT: An avometer is a multipurpose electrical measuring instrument for measuring direct current, DC and AC voltages, resistance, and sometimes alternating current. A single-pointer galvanometer serves to measure every above quantity. Elementary descriptions are given of the galvanometer, the DC voltmeter, the AC voltmeter, the DC ammeter, and the ohmmeter. Galvanometers with a full-scale deflection sensitivity of 50 to 200 μ a are recommended for use in avometers. The TT-1 avometer has 10-, 50-, 250-, and 1,000-v ranges. The voltage multiplier principle is explained in detail. Input resistance of the voltmeter and the usage of voltmeter for measuring voltages in various circuits are discussed. Germanium diodes (DG-Ts), and selenium or cuprous-oxide rectifiers are recommended for the AC voltmeter. The universal-shunt principle is explained in connection with the AC ammeter. The circuit and the measurement range of the ohmmeter are discussed in detail. The article concludes with a description of construction methods, and gives the overall circuit of the amateur-type avometer. There are 14 figures and 1 Soviet reference in the article.

AVAILABLE: Library of Congress

Card 1/1

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

RUDIN, D.

"Avometers." Radio no. 2:28-32 F '57.
(Radio measurements)

(MIRRA 10:3)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

RUDIN, D. I. and M.S. RAPORT

O ratsional'noi skheme moshchnogo aviatsionnogo dvigatelia. (Tekhnika vozduzhnogo flota, 1943, no. 1/2, p. 1-8, diagrs.)

Title tr.: A rational scheme of a high powered aircraft engine.

TL504.T4 1943

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

RUDIN, D.N.

Tendentssi razvitiia aviatsionnogo motorostroeniia, (Tekhnika vozduzhnogo flota, 1943,
no.4/5, p. 1-8, illus., diagrs.)

Title tr.: Trends in aircraft engine construction.

TL504.Th 1943

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

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

1. Uch. dok., kand. f. med. Nauk.

2. Changes in the hemodynamics of the pulmonary circulation in patients with chronic pulmonary edema. Prof. eksp. biol. i med. 60 no.8:25-28 Ag '65.
3. On the question of the role of the heart in the development of chronic pulmonary edema. (MIFPA 18:9)
4. Uchebnoye posobie po kardiologii i kardiologicheskoy patologii (zav., prof. Ya.A. Lazaris)
5. Kardiologicheskaya meditsinskaya instituta.

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

RUDIN, E.P.

Case of surgical treatment of a pulsating arteriovenous hema-toma of the common carotid artery. Khirurgiia 39 no.7:131-132
Jl'63 (MIRA 16:12)

1. Iz khirurgicheskogo otdeleniya 4-y Gorodskoy bol'nitsy
(glavnnyy vrach A.Ya. Demidova, konsul'tant - prof. A.I.Labbok)
Karagandy.

RUDIN, E.P. (Karaganda)

Effect of extirpation of the stellate ganglia on the development of acute pulmonary edema. Pat. fiziol. eksp. ter. 7 no.5: 55-58 S-0'63
(MIRA 17:2)

1. Iz kafedry patologicheskoy fiziologii (zav. - prof. Ya.A. Lazaris) Karagandinskogo meditsinskogo instituta.

RUDIN, G.I.

Special characteristics of Radchenkovo petroleum. Geol. nefti
Supplement to no. 7:40-42 '58. (MIRA 11:8)

1. Institut mineral'nykh resursov AN SSSR.
(Poltava Province--Petroleum--Analysis)

RUDIN, G.I.

DISSSERTATIONS FOR DEGREES IN SCIENCE AND ENGINEERING
DEFENDED AT USSR HIGHER EDUCATIONAL INSTITUTIONS

Knizhnaya L-topis'
Book Registe., No. 40

October 1, 1955

Moscow

RUDIN, G. I.: "The physicochemical characteristics of the Crimean
oils and their stratigraphic time relationships". Moscow, 1955.
Acad Sci USSR, Inst of Petroleum.

1/1
Geo

D

gpm
sept

RUDIN, G.

Changes in the properties of petroleum of Maykop and Miocene
deposits in the Kerch Peninsula. Geol. nefti 1 no.3:61-63 Mr
'57. (MLRA 10:8)

(Kerch Peninsula--Petroleum geology)

21038

9,9100 (also 1046)

S/058/61/000/005/046/050
A001/A101

AUTHOR: Rudina, M.P.

TITLE: Preliminary results of measuring radio wave absorption in the ionosphere

PERIODICAL: Referativnyy zhurnal, Fizika, no 5, 1961, 393, abstract 5Zh522 ("Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te", 1959, no 37, 394-396)

TEXT: The author presents the results of measuring absorption in the ionosphere by the vertical probing method, conducted at Tomsk according to the IGY program. The range of the ionospheric station was from 1 to 16 Mc, however the photorecording of reflected signals was carried out at a frequency of 2.2 ± 0.2 Mc. The measurements were carried out every day about noon and midnight. To determine absorption coefficient from the single reflection from the E-layer in daytime, double reflections from the F₂-layer during night hours were used. The reflection coefficient from the F₂-layer in the night time varied from 0.4 to 1. The author presents the curve of absorption diurnal course with a maximum of ~ 16 db at about 2 p.m. of local time.

[Abstracter's note: Complete translation.]

Card 1/1

GAGARIN, Yuri Alekseyevich, Geroy Sovetskogo Soyuza; BORZUNOV, S.M., red.;
RUDIN, M.Z., red.; BUKOVSKAYA, N.A., tekhn. red.

[Road to outer space; notes of the Soviet astronaut-pilot] Doroga v
kosmos; zapiski letchika-kosmonavta SSSR. Moskva, Voen.izd-vo M-va
obor.SSSR, 1961. 237 p. (MIRA 14:12)

(Astronautics)

SOROKIN, Zakhar Artemovich, Geroy Sovetskogo Soyuza; RUDIN, M.Z.,
polkovnik, red.; MUHANOVA, M.D., tekhn. red.

[Master of blue altitudes] Khoziain sinikh vysot. Moskva,
(MIRA 17:2)
Voenizdat, 1964. 45 p.

TITOV, German Stepanovich, Geroy Sovetskogo Soyuza; KAMANIN, N.P.,
general-leytenant aviatsii, red.; POZHUNOV, S.M.,
polkovnik, red.; RUDIN, M.Z., polkovnik, red.; MURASHOVA,
L.A., tekhn. red.

[Aviation and space] Aviatsiya i kosmos; rasskaz letchika-
kosmonavta SSSR. Moskva, Voenizdat, 1963. 244 p.
(MIRA 16:4)

(Titov, German Stepanovich, 1935-)

L 2279-66 EWT(m)/EPA(w)-2/EWA(m)-2
ACCESSION NR: AP5016923

IP(c) DM

UR/0089/65/018/006/0555/0559
621.384.611

AUTHOR: Kazanskiy, G. S.; Mikhaylov, A. I.; Rubin, N. B.; Tsarenkov, A. P.

TITLE: Phase bunching of a beam of charged particles during capture in the acceleration process in the OIYaI proton synchrotron

SOURCE: Atomnaya energiya, v. 18, no. 6, 1965, 555-559

TOPIC TAGS: particle acceleration, bev accelerator, cyclic accelerator, proton accelerator, proton beam

ABSTRACT: A method for increasing the capture by turning on beforehand a high-frequency accelerating field is proposed. The frequency of the accelerating field is varied to match deflection of the orbit in the "quasi-betatron" mode. The capture efficiency is thus increased by bunching the particles in an azimuthal direction. This bunching consists of drawing into the capture process some of the particles which under normal conditions would be outside the stability region. The application of the high-frequency field prior to the injection of the particles produces a phase bunching effect. The efficiency of the phase bunching depends on the width of the energy spectrum and on the angular spread of the injected beam. This phase bunching mode is relatively critical to the tuning. A frequency deviation by

Card 1/2

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ACCESSION NR: AP5016923

10

0.3% offsets any gain that can be obtained from the capture. Calculation of the bunching effect are presented, and it is concluded that the results can be employed in accelerators designed for long-duration and many-turn injection. "The authors thank A. B. Kuznetsov for a useful discussion and advice, and also G. A. Bokov, G. P. Puchkov, and S. N. Yurov of the radio division of IVE OIYaI (laboratory of High Energy, Joint Institute of Nuclear Research) for help with the investigations of the accelerator mode." Orig. art. has: 6 figures and 6 formulas.

ASSOCIATION: none

SUBMITTED: 24 Jun 64

ENCL: 00

SUB CODE: NP

MR REF Sov: 003

OTHER: 000

Card 2/2 AP

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

RUDIN, N.G.

For better mastery of artistic textile design. Tekst.prom.15 no.8:
9-12 Ag'55. (MLRA 8:11)

(Textile design)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

RUDIN, N. G.

RUDIN, N.G., khudozhnik.

Dye artists are the creators of beautiful fabrics. Tekst.prom.
14 no.5:27-29 My '54. (MLRA 7:6)
(Dyes and dyeing)

RUDIN, V. D.

Rudin, V. D. - "A quantitative microchemical method of determining phosphoric acid," Trudy Stavrop. s.-kh. in-ta, Issue 3, 1942, p. 313-23 ---Bibliog: 9 items

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

RUDIN, D.V.; KISELEV, A.I.; RAPPOPORT, M.A.; YEROSHKIN, F.K.

Improving the coordination of main line and industrial transportation. Zhel.-dor.transp. 41 no.9:14-17 S '59.

(MIRA 13:2)

1. Nachal'nik gruzovoy sluzhby Sverdlovskoy dorogi (for Rubin).
2. Instruktor ot dela tyazheloy promyshlennosti, transporta i svyazi Sverdlovskogo obkoma Kommunisticheskoy partii Sovetskogo Soyuza (for Kiselev).
3. Glavnnyy inzhener gruzovoy sluzhby Sverdlovskoy dorogi (for Rappoport).
4. Zamestitel' nachal'nika transportnogo ot dela Sverdlovskogo sovnarkhoza (for Yeroshkin).

(Ural Mountain region--Railroads--Freight)

RUDIN, G. I.

RUDIN, G. I.: "The physicochemical characteristics of the Crimean oils and their stratigraphic time relationships". Moscow, 1955. Acad Sci USSR, Inst of Petroleum.
(Dissertation for the Degree of Candidate of Chemical Sciences)

SO: Knizhnaya Letopis', No. 40, 1 Oct 55

Rudin I.E.

Use of the dilatometric method for the study of the growth
of cast iron. B. P. Lapshin and L. G. Rudin. *Sbornik*

Sistem Leichnera, Inst. Technicheskikh Nauk 1955, No. 10,
61-8; *Referat. Zhur. Met.* 1956, Abstr. No. 0342. — The
effect of heating up to 700° on the growth of gray cast iron
(C 3.22, Si 2.46, Mn 0.65%), of tech. Fe, and of silicon steel
was studied. A. N. Pestov

452C
17.3.53

Rudin, L. E.

4E2C

18
The effect of microstructure and hardness of steel upon
the nitrided layer. L. E. Rudin. Sbornik Statei Leningrad.
Inst. Tsvetn. Met., Optika 1955, No. 10, 40-50; Referat
Zhur. Met. 1956, No. 3301. — The steel 25Kh6M was ni-
trided in a two-step temp. cycle: (1) 30 hrs. at 510° and
30% dissoe. of NH₃ and (2) 40 hrs. at 550° and 45% dis-
soe. of NH₃. The original microstructure and hardness
of the steel do not det. the hardness of surface layer. Most
preliminary treatments do not affect the depth of the ni-
trided layer, but annealing decreases the depth somewhat.

Alexis N. Pestoff

PG 11

SOV/137-58-7-14461

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 75 (USSR)

AUTHOR: Rudin, M.

TITLE: Peculiarities of Casting of Steel Into Round Ingots Employed in
the Manufacture of Seamless Pipes (Osobennosti razlivki stali
v kruglyye slitki dlya proizvodstva besshovnykh trub)

PERIODICAL: Tekhn.-ekon. byulleten' Soveta narodnogo khozyaystva Chel-
yabinskogo ekon. administrat. r-na, 1957, Nr 2, pp 11-13

ABSTRACT: The author describes measures undertaken to reduce the amount of spoilage occurring in the manufacture of seamless pipes: The changeover from circular to polygonal cross section in ingots reduced surface stresses which appear during their cooling and thus prevented the formation of breaks in the crust; data are presented which show that the amount of spoilage in the case of round molds is twice as great as that in the case of polygonal molds; the output ratio of first-class pipes produced from polygonal ingots exceeds the output of identical pipes from round ingots by 5.5%; the design of a mold for pipe ingots with 23 sides is shown. By displacing the sprue opening from the middle of the mold toward its center line - a distance

Card 1/2

SOV/137-58-7-14461

Peculiarities of Casting of Steel Into Round Ingots (cont.)

of 50 mm - the spoilage due to cracks was reduced 1.8 times. The introduction of a method whereby the temperature of steel is measured with the aid of immersion thermocouples made it possible to regulate the rate of casting without impairing the properties of the metal; when the S content increases from 0.025% to 0.050%, the amount of cracks per smelting is doubled. Tables showing the S content and the S/Mn-content ratio in finished metal are given; it was established that the optimal S content in the fuel oil must not exceed 0.8%.

N.S.

1. Pipes--Production 2. Steel--Casting 3. Pipes--Quality control

Card 2/2

AUTHOR: Vorob'yev, L., and Rudin, M. SOV-3-58-10-6/23

TITLE: The Road to Science (Put' v nauku)

PERIODICAL: Vestnik vysshey shkoly, 1958, Nr 10, pp 38 - 40 (USSR)

ABSTRACT: The authors give a short review of the development and activity of the Students' Scientific Society of the Leningrad Technological Institute imeni Lensoveta. The society was founded in 1903 and comprises at present 59 circles led by renowned scientists. The present number of members exceeds 1,000.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut imeni Lensoveta (Leningrad Technological Institute imeni Lensoveta)

Card 1/1

RUDIN, M.

RUDIN, M. I. Ekonomicheskoe polozhenie SSSR. II.
I. The economic condition of the USSR. II. The Ural-Kuznetsk Combine.
Shanghai, Emigrantskaia biblioteka, 1934. 144 p.

Cyr. 4 HD93

RUDIN, M.A., inzh.

New machine tools designed by the Vitebsk Comintern Plant.
Mash.Bel. no.4:3-9 '57. (MIRA 11:9)
(Vitebsk--Machine tools--Design)

LISOV, Ivan Ivanovich, master parashyutnogo sporta SSSR; POZDNYAYEV, K.I.,
redaktor; RUDIN, M.Z., podpolkovnik; MEDNIKOVA, A.N.,
tekhnicheskij redaktor

[Winged infantry; stories, sketches, recollections] Krylataia
pekhota; rasskazy, ocherki, vospominania. Moskva, Voen.
izd-vo M-va obor. SSSR, 1956. 197 p. (MLRA 10:4)
(Parachutists)

RUDIN, N.G.,khodozhnik

Artistry of skilled Jacquard weave specialists in the "Zaria
Sotsializma" linen combine. Tekst.prom. 18 no.4:51-53 Ap '58.
(Jacquard weaving) (Textile design) (MIRA 11:4)

RUDIN, Naum Grigor'yevich; KUPRIN, A.V., retsenzent; GOL'DSHTEYN, Eh. A.
redaktor; MVDVEDEVA, L.A., tekhnicheskiy redaktor

[Guide to a knowledge of color] Rukovodstvo po tsvetovedeniiu.
Moskva, Gos. nauchno-tekhnn. izd-vo M-va legkoi promyshl. SSSR,
1956. 45 p. and 25 plates (in portfolio) (MLRA 10:5)

1. Chlen-korrespondent Akademii khudozhestv SSSR. (for Kuprin)
(Color)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

RUDIN, N.G.

Master of print designs for textile fabrics. Tekst. prom. 21
no. 4:70-71 Ap '61. (MIRA 14:7)
(Textile design)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

RUDIN, N.G.

Let us continue artistic traditions in the manufacture of Pavlov
shawls. Tekst. prom. 16 no.3:14-16 Mr '56. (MLRA 9:6)
(Shawls) (Textile printing)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

RUDIN, N.C.

Decorative art. Tekst.prom.16 no. 10:46-48 o '56.
(Textile design)

(MLRA 10:1)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1

SILAYENKOV, Ye.S., kand. tekhn. nauk; ZARIN, R.A., inzh.; RUDIN, V.V., inzh.

Practices in maintenance of gas-concrete elements. Anal. prikl. issled. i povr. stroy. kon. no.2:137-152 '64. (MIRA 12:5)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001445920014-1"

RUDIN, S., inzhener.

Standardizing and modernizing parts for the service force.
Mor. flot 7 no.4:9-14 Ap '47. (MLRA 9:6)
(Ships--Maintenance and repair)(Naval architecture--Specification)

MASLOV, Vyacheslav Andrianovich; LUKOVITSEV, A.A., inzh., red.; PETUKHOV, P.Z., doktor tekhn.nauk, red.; RUDIN, S.I., inzh., red.; SUSTAVOV, M.I., inzh., red.; KHRISANOV, M.I., kand.tekhn.nauk, red.; SARAFANNIKOVA, G.A., red.izd-va; MARCHENKOV, I.A., tekhn.red.

[Increasing labor productivity in assembling mechanical equipment]
Povyshenie proizvoditel'nosti truda na montazhe mekhanicheskogo
oborudovaniia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1960. 105 p. (Bibliotekha slesaria-montazhnika, no.10).
(MIRA 14:2)

(Machine-shop practice)

RUOKKA, J.

Card 22

102000 26152115	01/01
11/92/0	\$0.021/60/000/002/005/010 1584023
ADRESSEES:	Simeon, I.I., Academician of the AS USSR, Director, V.P.; Simeon, V.N., Director, V.P.
FROM:	Influence of Initial Disturbances on the Development of Turbulent Stream Conditions When Air Moves Through Tubes.
PENTAGONAL: Dopovidi Akademii Nauk Ukrayinskoj Relyans'koj Sotsialistychnoj Respubbliki, 1960, No. 2, pp. 173 - 176.	
TEXT:	This paper presents the results of experiments studying the nature of velocity pulsations in a tube with various ratios of artificially generated turbulence of initial stream and their effect on the hydraulic resistance. The following conclusions were drawn: allowances should be made for the initial disturbances of streams when calculating heat transfer and hydraulic resistance for a fluid moving through relatively short tubes. Effects of artificial turbulence are particularly great at the transition stage. Initial disturbance does not affect the relative length of tubes, the length being dependent on the magnitude of initial disturbance and the Reynolds number; artificial disturbance does affect the value of the coefficient of hydraulic resistance within the range
Card 1/2	
of Reynolds numbers from 2,000 - 5,000; at higher values (three of their effect on the stream passing through a tube (having a length of 30 diameters) is within the limits of the measurement error. The experimental stand included a 4,000 mm long round tube having 50 mm inner diameter. Initial disturbance was created with the help of perforated disks of 3, 5 and 10 mm in diameter, installed in the intake tube section. Disturbances were measured and recorded by an FA-5A (FA-5A) electric thermocouplemeter. At Reynolds numbers from 700 to 10,000, Figure 1 shows oscillograms giving the dependence of velocity pulsations in the intake area on the Reynolds numbers (disk with 3 mm perforations, coefficient of damping $\beta = 0.5$). Figure 2 gives the range of critical Reynolds numbers where Figure 3 shows the dependence of the relative axial pulsation on the coefficient of damping. Figure 4 shows how average relative velocity pulsations change along the length of a tube with a 10 mm perforated disk. There are 8 figures. PUBLICATION: Izdatelstvo "Atomizdat" AN UkrSSR (Institute of Heat Power Engin. Division of the AS UkrSSR)	
RECORDED:	December 11, 1979

RUDIN, Sill'vestr Nikolayevich; DUGINA, N.A., tekhn. red.

[Manual for an assembly fitter] Spravochnik slesari-montazhnika. Moskva, Mashgiz, 1962. 221 p. (MIRA 15:7)
(Machine-shop practice)

ACC NR: AR0036148

(N)

SOURCE CODE: UR/0398/66/000/010/V021/V021

AUTHOR: Pavlenko, V. G.; Rudin, S. N.

TITLE: Frictional resistance of a ship in shallow flowing water and under laminar flow conditions

SOURCE: Ref. zh. Vodnyy transport, Abs. 10V131

REF SOURCE: Tr. Novosib. in-ta inzh. vodn. transp., vyp. 25, 1966, 42-49

TOPIC TAGS: shipbuilding engineering, hydrodynamics, drag coefficient, laminar flow

ABSTRACT: Graphic results are presented on a calculated system of equations characterizing the motion of a fluid between the bottom of a ship and a river's bottom. The ship is considered at rest, and the river's bottom to be moving opposite to the ship's direction of motion. Since the deviation of the drag coefficient caused by the water current does not exceed $\pm 4\%$ of its value without current, its effect on the ship's resistance under laminar flow conditions can be ignored. The current speed between the boundary layers of a ship's bottom and a river's bottom can rise by 30% of its value, determined by neglecting the generation of boundary layers. The tangential stress on the ship's bottom can increase by more than 10 times during motion in shallow water. The ship's speed relative to the water has to be corrected by a factor <1 for a flow which has changed from a laminar to a three dimensional condition.

SUB CODE: 13/ SUBM DATE: none/

Card 1/1

UDC: 629.12:532.517.2

L 36282-66 EWT(d)/EWP(h)/EWP(l) JXT(CZ)
ACC NR: AT6014307 (N)

SOURCE CODE: UR/3191/64/000/015/0015/0037

AUTHOR: Pavlenko, V. G.; Rudin, S. N.

44
B+1

ORG: none

TITLE: Investigation of the friction resistance of ships in shallow water, taking flow into account. Friction resistance of an infinitely wide ship (basic equations)

SOURCE: Novosibirsk. Institut inzhenerov vodnogo transporta. Trudy, no. 15, 1964.
Gidromekhanika sudna (Hydromechanics of ships), 15-37

TOPIC TAGS: ship friction, friction resistance, friction coefficient, motion equation, laminar boundary layer

ABSTRACT: The friction resistance of ships in shallow water, taking flow into account, has been investigated. The basic equations describing the motion of fluid between the ship's bottom and the river bottom were expanded for exceptional cases when there is laminar flow in the boundary layers of the vessel and the river bottom and when there is turbulent motion in smooth and rough boundaries of the flow. Numerical integration methods are given to compute a concrete numerical example concerning an increase of the friction resistance in shallow water, the mutual effect of the boundary layers of the ship's bottom and the river bottom, and verification of the assumed laminar flow. Orig. art. has: 9 figures and 103 formulas. [Based on authors' abstract.]

[NT]

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 006. OTH REF: 001

Card 1/1 A/S UDC: 532.526:629.12 transportation 14

LUKOVITSEV, Aleksey Alekseyevich; PETUKHOV, P.Z., doktor tekhn. nauk,
red.; RUDIN, S.N., inzh., red.; SUSTAVOV, M.I., inzh., red.;
KHRISANOV, M.I., kand. tekhn. nauk, red.; DUGINA, N.A.,
tekhn. red.

[Efficient methods for installing machines on a foundation]
Ratsional'nye sposoby ustanovki mashin na fundament. Izd.2.
Moskva, Mashgiz, 1962. 53 p. (MIRA 16:1)
(Machinery--Foundations)

RUDIN, Sil'vestr Nikolayevich; DUGINA, N.A., tekhn. red.

[Assembling devices] Montazhnye prispособления. Izd.2.
Moskva, Mashgiz, 1962. 94 p. (Biblioteka slesaria-
montazhnika, no.8) (MIRA 16:1)
(Fixtures (Mechanical devices))

ANIKIN, Nikolay Aleksandrovich; DROBYSHEVSKAYA, Nadezhda Ivanovna;
DUDINOV, Vladimir Alekseyevich; KON'KOV, Arkadiy
Sergeyevich; KONYUKHOV, Sergey Mikhaylovich; MESHCHERINOV,
Fedor Ivanovich; POLETSKIY, Aleksandr Timofeyevich; POLYAKOV,
Gleb Maksimovich; SAL'NIKOV, Oleg Alekseyevich; CHERNOBAY,
Dmitriy Gavrilovich; GAVRILOV, P.G., kand. tekhn.nauk, retsen-
zent; NEFED'YEV, G.N., kand. fiz.-mat. nauk; SOKOLOV, V.M.,
kand. fiz.-mat. nauk; SOKOLOVSKIY, V.I., kand. tekhn. nauk;
RUDIN, S.N., inzh.; EYDINOV, M.S., kand. tekhn. nauk; DUBITSKIY,
G.M., doktor tekhn. nauk, red.; ZAKHAROV, B.P., inzh., red.;
KONOVALOV, V.N., kand. tekhn. nauk, red.; PERETS, V.B., kand.
tekhn. nauk, red.; ROZENBERG, I.A., kand. ekonom. nauk, red.;
STEPANOV, V.V., kand. tekhn. nauk, red.; SUSTAVOV, M.I., inzh.,
red.; SHABASHOV, S.P., kand. tekhn. nauk, red.; DUGINA, N.A.,
tekhn. red.

[Handbook for inventors and innovators] Spravochnik dlja izobre-
tatelya i ratsionalizatora. [By] N.A.Anikin i dr. Izd.3., ispr.
i dop. Moskva, Mashgiz, 1962. 791 p. (MIRA 16:1)
(Technological innovations—Mechanical engineering)

RUDIN, Sil'vestr Nikolayevich; DUGINA, N.A., tekhn. red.

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(Cranes, derricks, etc.)

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PETUKHOV, P.Z., doktor tekhn.nauk, red.; RYABOV, A.N., inzh., red.;
SUSTAVOV, M.I., inzh., red.; KHRISANOV, M.I., kand.tekhn.nauk,
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A.A., inzh., red.; PETUKHOV, P.Z., doktor tekhn.nauk, red.;
RUDIN, S.N., inzh., red.; SUSTAVOV, M.I., inzh., red.;
KHRISANOV, M.I., kand.tekhn.nauk, red.; SHABASHOV, P.A., kand.
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NEYMAN, Vladimir Aleksandrovich; GORSHKOV, S.N., inzh., red.; LUKOVTSIEV, A.A., inzh., red.; PETUKHOV, P.Z., doktor tekhn.nauk, red.; RUDIN, S.N., inzh., red.; SUSTAVOV, M.I., inzh., red.; KHRISANOV, M.I., kand.tekhn.nauk, red.; MAKAROV, Ye.M., red.izd-va; DUGINA, N.A., tekhn.red.

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