

RYZHKOY, D.A.

Modernization of industrial equipment is the way to fulfill the
seven-year plan ahead of schedule. Mashinostroitel' no.5:2-4 My
'60. (MIRA 14:5)

1. Pervyy zamestitel' predsedatelya Mosoblsovnarkhoza.
(Industrial management) (Automation)

S/117/60/000/005/001/013
A004/A002

AUTHOR: Ryzhkov, D. A., First Vice-President of Mosoblsovnarkhoz

TITLE: Technical Re-Equipment, the Way to Fulfil the Seven-Year Plan ^{1/4}
Ahead of Schedule

PERIODICAL: Mashinostroitel', 1960, No. 5, pp. 2-4

TEXT: The author states that the total industrial production of the Moscow Oblast' enterprises increased by 9% in 1959. This was achieved mainly on account of an increase in labor efficiency, while the working time was reduced and about 30% of the employees were transferred to a seven-hour work day. In connection with the target set, to reach a production level by 1963 which is planned for 1965, the Technical-Economical Council of the Moscow Oblast' Sovnarkhoz carried out a careful analysis of 960 items produced by the mechanical engineering and electrical engineering industries. As a result of these investigations, plans were made to withdraw obsolete designs from production and to modernize others. Thus of 479 basic designs in machine construction 80 will be changed and another 30 modernized. In heavy machinery and transportation machinery construction, 11 out of a total of 194 standard

Card 1/3

S/117/60/000/005/001/013
A004/A002

Technical Re-Equipment, the Way to Fulfil the Seven-Year Plan Ahead of Schedule

designs will be changed and 25 modernized. In 1959 the enterprises of the sovnarkhoz planned the manufacture of 55 pilot models of new machines although there are plants which did not come up to the modernization target, e. g. the Dmitrovskiy zavod frezernykh stankov (Dmitrovsk Milling Machine Plant) could not manufacture the pilot model of the modernized "692A" key groove milling machine. The Kolomenskiy zavod tyashelogo stankostroyeniya (Kolomna Heavy Machine Tool Plant) developed a new vertical turning and boring machine for components up to 4,000 mm diameter, the Bolshevikiy mashinostroitel'nyy zavod (Bolshev Mechanical Engineering Plant) manufactured a number of new pasteurizers and refrigerators for milk, the klimovskiy mashinostroitel'nyy zavod (Klimovsk Mechanical Engineering Plant) brought out five new models of looms for cotton and linen fabrics. The efficiency of the new "AT-175-V" automatic loom exceeds that of the old "AT-175-I" model by 12.5%. The author points out that more than 137 plants are being specialized and the production programs of another 84 are being streamlined in order to speed up the technical advance. Coordinated deliveries are being organized in order to cut down unnecessary transportation within the territory of the sovnarkhoz. An important point is the substitution of obsolete equipment for new machinery, since the plants of the Mechanical

Card 2/3

S/117/60/000/005/001/013
A004/A002

Technical Re-Equipment, the Way to Fulfil the Seven-Year Plan Ahead of Schedule

Engineering Administration by 1959 still possessed 32% of metal cutting machine tools and 35% of forging and pressing equipment which is older than 20 years. The technical re-equipment plan of the Seven-Year Plan requires the installation of 25,000 new highly efficient special machine tools and the modernization of another 54,000 in the Moscow Oblast' Sovnarkhoz. Large-scale mechanization and automation of production processes is one of the most important problems which has to be solved by the Administration. In 1959, 79 automated plants, shops and sections were built, the target figure for 1960 is 121. In 1959, 32 automatic and semi-automatic production lines were introduced, while the corresponding figure for 1960 is 76. Up to 1965, the percentage of manual work in assembly shops of mechanical engineering plants is to be lowered from 65.8% to 33%, in foundry shops from 56 to 35%, while this percentage will be reduced from 58 to 20% in the electric engineering and instrument-making industries. Besides, about 8,000 new and efficient devices will be produced and 250 gang-machining sections organized.

Card 3/3

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4

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RYZHKOV, D.I.; DIKUSHIN, V.I., akademik, redaktor.

[Results of eliminating vibrations in rapid machining] Opyt
ustraneniia vibratsii pri skorostnom tochenii. Moskva, Izd-vo
Akademii nauk SSSR, 1953. 22 p. (MLRA 7:6)
(Cutting tools) (Vibration)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R00144652001

RYZHKOV, D.I.: SOKOLOV, Yu.N., inzhener, retezetschik, MUSHIN, M.I.,
kandidat tekhnicheskikh nauk, dotsent, redaktor; POPOVA, S.M.,
tekhnicheskiy redaktor

[Elimination of vibrations in high-speed metal cutting] Opyt
ustраненияи вибраций при скоростном резании металлов. Москва,
Гос. научно-техн. изд-во машиностроит. и судостроит. лит-ры,
1954. 53 p. (MILRA 7:10)

(Machine tools--Vibration)

USSR/Engineering - Tool design

Card 1/1 : Pub. 128 - 10/38

Authors : Klushin, M. I., and Ryzhkov, D. I.

Title : Attenuation of vibration of the machined component by a method of grinding an anti-chatter chamfer of the cutting edge

Periodical : Vest. mash. 9, 37-41, Sep 1954

Abstract : A cutting tool having a chamfer of 0.1 - 0.3 mm with a negative rake of 80-85 degrees was designed to assist the attenuation of low-frequency vibrations. Laboratory tests were conducted to find the effect of this tool on the time between re-grinds. It was proven that this new tool form creates a relation between cutting force components and cutting speed which resists generation of self-excited vibrations from which tool chatter originates. Graphs; diagrams.

Institution :

Submitted :

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RYZHKOY, D.I., inzh.

Multi-cut turning. Mashinostroitel' no.2/3:26-29 N-D '56.
(MIRA 12:1)

1.TSentral'nyy nauchno-issledovatel'skiy institut tekhnologii
i organizatsii proizvodstva Ministerstva radiotekhnicheskoy
promyshlennosti SSSR.

(Turning)

SOV/124-57-8-9818

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 8, p 168 (USSR)

AUTHOR: Ryzhkov, D. I.

TITLE: A Universal Dynamometer for the Measurement of the Cutting Force
and the Vibration of a Lathe (Universal'nyy dinamometr dlya izmereniya
sil rezaniya i vibratsii pri tochenii)

PERIODICAL: Tr. Gos. tsentr. n.-i. in-ta tekhnol. i organiz. proiz-vva M-va
radiotekhn. prom-sti SSSR, 1956, Nr 3, pp 62-71

ABSTRACT: Bibliographic entry

Card 1/1

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CIA-RDP86-00513R001446520014-4
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RYZHCKOV, D.I.; KOLCHANOV, V.A.

Studying the high-temperature reduction of molten ores by
methane. Ispol'. tverd. topl., ser. maz. i gaza no. 5:
178-181 '64 (MIRA 19:2)

"APPROVED FOR RELEASE: Thursday, September 26, 2002
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CIA-RDP86-00513R001446520014-4
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CHUKHANOV, Z.F.; KONDAKOV, V.V.; KALYUZHNYY, V.V.; RYZHONKOV, D.I.;
SPEKTOR, A.N.; STROKOVSKIY, L. Kh.; KHORZHEMO, A.L.; YARKHO, Ye.N.
KUNAKOV, N. Ye.

Pilot plant for the study and application of the hear regenerating
direct process of cast iron and steel production. Ispol'. tverd.
topl., ser. maz. i gaza no. 5:182-192 '64 (MIRA 19:2)

RYZHkov, Dmitriy Ivanovich; KUDINOV, V.A., kand.tekhn.nauk, retsenzent;
KLUSHIN, M.I., dotsent, kand.tekhn.nauk, red.; MOROZOVA, M.N.,
red.izd-va; KL'KIND, V.D., tekhn.red.; GORDEYEVA, L.P., tekhn.red.

[Vibrations due to metal cutting and methods for their elimination]
Vibratsii pri rezanii metallov i metody ikh ustraneniia. Moskva,
Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1961. 171 p.
(MIRA 14:4)

(Metal cutting--Vibration)

S/057/61/031/002/009/015
B020/B056

117200

AUTHORS: Kogarko, S. M., Ryzhkov, D. L.

TITLE: Investigation of the amplification of compression waves in combustion

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 2, 1961, 211-216

TEXT: It was the purpose of the present work to study the possibility of amplifying compression waves formed during combustion in a closed volume, in combustion of mixtures of fuels and air, enriched in oxygen, at reduced pressure. The experimental arrangement used is described in detail in Ref. 2. For measuring the pressure change in the vessel during combustion and the compression waves, an optical and mechanic differential indicator and a piezo quartz indicator with an eigenfrequency of about 25 kc/sec was used. The piezo-quartz indicator was connected to the cathode oscillograph 3HO-1 (ENO-1), on whose screen also the change in pressure in the explosion vessel was recorded on the photographic film. The fuel content α in the mixture was varied within the range of 0.56 to 1.75. The results obtained by studying the amplification factor

Card 1/6

89163

S/057/61/031/002/009/015
B020/B056

Investigation of the amplification ...

of the compression waves K^2 for the initial pressure $P_0 = 760$ mm Hg during the combustion of benzene in nitrogen-oxygen mixtures having a varying oxygen content in dependence on the composition of the mixture are given in Fig. 3. Fig. 4 graphically shows the investigation of the change in

K^2 in dependence on initial pressure during the combustion of benzene in nitrogen-oxygen mixtures having an oxygen content of 40 and 45%. Fig. 5, by way of comparison, graphically shows the dependence of K^2 on the composition of the mixture α for benzene and hexane during combustion in a nitrogen-oxygen mixture at $O_2 = 40\%$ and an initial pressure of 760 mm Hg.

From the results obtained it follows that during relaxation in the combustion zone, temperature and pressure rise. The amplification coefficient of the compression waves K^2 rises considerably with an increase of the oxygen content and, at 45% it attains a value of about 1.65; the highest value of K^2 is found during the combustion of a mixture with a composition varying between $0.65 \leq \alpha \leq 0.75$. Compression waves occur and are most easily amplified during the combustion of enriched fuel

Card 2/6

S/057/61/031/002/009/015
B020/B056

Investigation of the amplification ...

mixtures ($0.65 \leq \alpha \leq 0.75$). With a given oxygen content in the N_2-O_2 mixture, the highest combustion temperature in mixtures is attained with $0.90 \leq \alpha \leq 0.95$. At constant combustion temperature within the range investigated in which the initial density of the mixture changes, K^2 changes nearly linearly with increasing density. The amplification coefficient of the compression waves in the combustion of various fuels in the same N_2-O_2 mixture with 40% O_2 depends on the chemical structure of the fuel.

There are 5 figures and 2 Soviet-bloc references.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR, Moskva (Institute of Chemical Physics of the AS USSR, Moscow)

SUBMITTED: January 27, 1960

Card 3/6

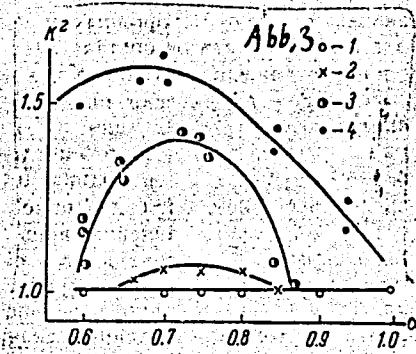
89163

S/057/61/031/002/009/015
B020/B056

Investigation of the amplification ...

Legend to Fig. 3: dependence of the amplification coefficient K^2 on the composition of the mixture α in the combustion of benzene in N_2-O_2 mixture.

- 1 - 21% O_2 + 79% N_2 ,
- 2 - 25% O_2 + 75% N_2 ,
- 3 - 30% O_2 + 70% N_2 ,
- 4 - 45% O_2 + 55% N_2 .



Card 4/6

S/057/61/031/002/009/015
B020/B056

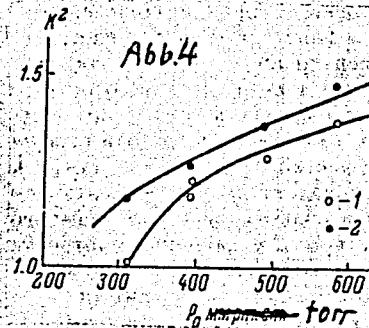
Investigation of the amplification ...

Legend to Fig. 4: dependence of the amplification coefficient K^2 on the initial pressure in the combustion of benzene in a N_2-O_2 mixture.

Composition of the mixture $\alpha = 0.56$

1 - 40% $O_2 + 60\% N_2$,

2 - 45% $O_2 + 55\% N_2$.



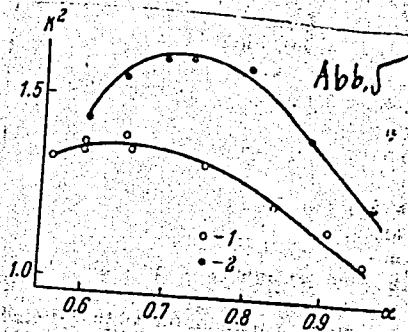
Card 5/6

89163

Investigation of the amplification ...

S/057/61/031/002/009/015
B020/B056

Legend to Fig. 5: dependence of the amplification coefficient K^2 on the composition of the mixture α in the combustion of benzene and hexane in a N_2-O_2 -mixture (40% O_2 + 60% N_2) at an initial pressure of $P_I = 760$ mm Hg
1 - benzene, 2 - hexane.



Card 6/6

KOGARKO, S.M.; RYZHKOV, D.L.

Investigating and amplification of compression waves in combustion.
Zhur. tekhn. fiz. 31 no.2:211-216 F '61. (MIRA 14:4)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.
(Combustion) (Waves) (Airplanes—Jet propulsion)

KRAVTSEV, A., rabochiy; BELYAYEV, I.; BRYLYAKOV, V.; RYZHKOV, F.;
SEMENENKO, B.

Correspondence conference of our readers. Okhr.truda i
sots.strakh. 5 no.1:26 Ja '62. (MIRA 15:2)

1. Bezhitskiy staleliteynyj zavod, g. Bryansk (for Kravtsev).
2. Laboratoriya ventilyatsii i obspylivaniya vozdukh
Ural'skogo nauchno-issledovatel'skogo i proyektного instituta
mednoy promyshlennosti (for Belyayev, Brylyakov, Ryzhkov,
Semenenko).

(Industrial hygiene—Periodicals)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4
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RYZHKOV, F., izobretatel'; YAKOVLEV, K., inzh.; LEROV, E., inzh.

A moving plant. Izobr. i rats. no.8:14-15 Ag '61. (MIRA 14:9)
(Building materials)

A.C.S

Press for dry-pressing brick. P. D. Rybnikov. Russ.
No. 730, March 31, 1940. GSh. 10.01.—The press consists of a rotating cylinder on whose periphery are radially arranged molds. After the molds are filled, they are automatically closed and pressed.

M. H.

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4

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RYZHKOV, F.D., izobretatel'; SOLOVSKIY, B.L., izobretatel'

Not a grain lost. Izobr. i rats. no.l:12 Ja '62.
(MIRA 14:12)

(Grain--Transportation)

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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

DERBIN, L.A.; RYZHKOV, E.I.; ODINTSOVA, L.I., red.; BOL'SHAKOVA, L.A.,
tekhn. red.

[Agriculture] Sel'skoe khozaiistvo. [Arkhangel'sk] Arkhangel'skoe
knizhnoe izd-vo, 1958. 35 p.
(Archangel Province--Agriculture)

"APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4

APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4"

YERMOLAYEV, A.A., inzhener; RYZHKOV, F.N., inzhener; SIDOROV, P.S., inzhener.

Experience in ventilating mines after large-scale explosions.
Bezop.truda v prom. 1 no.5:10-12 '57. (MIRA 10:7)

1. Unipromed' (for Yermolayev and Ryzhkov). 2. Degtyarskiy rudnik
(for Sidorov).
(Mine ventilation) (Mine explosions)

RYZHKOV, F. N.

"Study of Tailings from Concentration Mills and of Granulated Slag for the Purpose
of Using Them as Embedding Material in Ural Copper Mines." (Dissertation for Degree of
Candidate of Technical Sciences) Min Higher Education USSR, Sverdlovsk Mining Inst
imeni V. V. Vakhrushev, Sverdlovsk, 1955

SO: M-1036 29 Mar 56

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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOV, P.N.; USTINENKO, I.G.

Filling mined areas with wastes from an ore-dressing plant. Gor. zhur.
no. 3:59-61 Mr '56. (Mine filling) (MLRA 9:7)

RYZHKOY, F.N.

Dust and gas pollution of the air in strip mining using automobile
transportation. Gor.zhur.no.10:54-56 0 '56. (MLRA 9:12)

1. Unipromed'.
(Strip mining) (Air--Pollution) (Dump trucks)

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CIA-RDP86-00513R001446520014-4

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CIA-RDP86-00513R001446520014-4"

IL'YENKO, V.G.; RYZHKOV, F.N., redaktor; SMOLDYREV, A.Ye., redaktor
izdatel'stva; EVENSON, I.M., tekhnicheskiy redaktor

[Control apparatus for dust removers] Kontrol'naia apparatura
puleventiliatsionnoi sluzhby. Moskva, Gos.nauchno-tekhn.izd-vo
lit-ry po chernoi i tsvetnoi metallurgii, 1957. 81 p. (MLRA 10:9)
(Mine dusts)

RYZHKOY, F.N., kand.tekhn.nauk; SEMENENKO, B.A., gornyy inzh.

Number of measures for keeping down dust in mining ore deposits.
Sbor. rab. po silik no.3:41-45 '61. (MIRA 15:10)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy
promyshlennosti.

(Mine dusts)

RYZHKOV, F.N., inzh.; YERMOLAYEV, A.A., inzh. [deceased]

Results of the introduction of suction-type ventilation. Bezop.truda
v prom. 6 no.8:22-23 Ag '62. (MIRA 16:4)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy
promyshlennosti.

(Mine ventilation)

RYZHKOV, F.N.; MARKOV, A.L.; YAKSHINA, L.I.

Results of testing water stemming in a copper mine.
Gor. zhur. no.12:49-51 D '62. (MIRA 15:11)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti (for Ryzhkov, Markov).
2. Sverdlovskiy institut gigiyeny truda i professional'noy patologii (for Yakshina).

(Degtyarka region—Blasting—Equipment and supplies)

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RYZHKOV, F.N.

Automatically-rotated stopper for hammer drills. Gor.zhur. no.3:
68-69 Mr '60'. (MIRA 14:5)

1. Unipromed, Sverdlovsk
(Rock drills)

22(5)

SOV/127-59-4-13/27

AUTHORS: Ryzhkov, F.N. and Lukinskiy, Yu.I.

TITLE: The Results of Research on the Aeration of Mining Chambers in the Dzhezkazgan Mine. (Rezul'taty issledovaniy po provetrivaniyu kamer na Dzhezkazganskom rudnike.)

PERIODICAL: Gornyy zhurnal, 1959, Nr 4, pp 57-60 (USSR)

ABSTRACT: Unipromed' Institute made extensive research into the aeration of pits and mining rooms at the Dzhezkazgan Mine. All the tested and presently-used aeration schemes were found to be quite inadequate. Only about 15-20% of the pumped air reached the side drifts, and it took 5-10 hours to evacuate fumes and dust caused by the blast. In principle all the aeration schemes are similar. The fresh air is pumped through the main shaft in the cross-cuts of the haulage level, passes into the haulage drifts equipped with the ventilating doors and, through the headings into the side-

Card 1/2

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CIA-RDP86-00513R001446520014-4
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RYZHKOY, F.N.; BELYAYEV, I.A.

Dust in air entering the mine and methods to purify it. Trudy
Unipromedi no.2:96-101 '57. (MIRA 11:11)
(Mine ventilation) (Air--Purification)

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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOV, F.N.; SEMENKO, B.A.

Dust control in large cross-section horizontal drifting. Gor. zhur.
no.9:59-61 S '57. (MIRA 10:9)

1. Unipromed'.

(Mine duste)

RYZHKOV, O.A.; DAVLYATOV, Sh.D.; EGAMBERDYEV, E.

Tectonic structure of anticlinal elevations of the Kyzyl-Kum.
Dokl. AN Uz.SSR no.5:23-26 '59. (MIRA 12:8)

1. Institut geologii AN UzSSR. Predstavлено членом-корреспон-
дентом AN UzSSR G.A.Mavlyanovym.

(Kyzyl-Kum--Geology, Structural)

RYZHKOV, G.A.

Hygienic evaluation of schoolrooms facing different directions
under climatic conditions prevailing in Balkhash. Zdrav.Kazakh.
17 no.9:11-16 '57. (MIRA 12:6)

1. Iz kafedry obshchey gigiyeny Kazakhskogo gosudarstvennogo
meditsinskogo instituta.
(BALKHASH--SCHOOL HYGIENE)

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CIA-RDP86-00513R001446520014-4"

GURGENOV, G.I., kapitan meditsinskoy sluzhby; RYZHKOV, G.A., starshiy
leytenant meditsinskoy sluzhby

Adapter for the Zeiss apparatus for the filtration of water
samples. Voen.med.zhur. no.5:89 My '59. (MIRA 12:8)
(WATER SUPPLY,

adapter for Zeiss appar. for filtration of
water samples (Rus))

RYZHkov, Grigoriy Fedorovich, kand. ekonom. nauk; SUCHIL'NIKOV, N.G.,
red.; SARMATSKAYA, G.I., red. izd-va; LOBANKOVA, R.Ye.,
tekhn. red.

[Economic aspects of the wood chemistry and hydrolysis industry]
Ekonomika lesokhimicheskoi i gidroliznoi promyshlennosti. Mo-
skva, Goslesbumizdat, 1961. 236 p. (MIRA 15:1)
(Wood—Chemistry) (Hydrolysis)

"APPROVED FOR RELEASE: Thursday, September 26, 2002
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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOY, G.F.

Complete utilization of wood from forestry clearing stocks.
Sbor.rab.sib.lesokhim. no.2:118-126 '58. (MIRA 12:8)
(Wood waste) (Wood-using industries)

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CIA-RDP86-00513R001446520014-4"

Ryzhkov, G. F. "For a progressive Michurinist direction in forest work," Sbornik
trudov po les. khoz-vu, Issue 1, 1949, p. 3-6.

SO: U-3736, 21 May 53, (Letopis 'Zhrurnal 'nykh Statey, no. 18, 1949).

"APPROVED FOR RELEASE: Thursday, September 26, 2002
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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOV, G. I.

"Investigation of the Stressed State and Endurance of the Caterpillar Chain of a Tractor." Cand Tech Sci, Leningrad Inst of Mechanization of Agriculture, Leningrad, 1953. Dissertation (Referativnyy Zhurnal--Mekhanika Moscow, Feb 54)

SO: SU 186, 19 Aug 1954

"APPROVED FOR RELEASE: Thursday, September 26, 2002
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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

SEREDENKO, B.N.; RYZHKOV, G.I.

Tension in the links of caterpillar chains of tractors. Trudy
LPI no.193:217-229 '58.
(Caterpillar tractors)

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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHkov, G. M. (nach. Sushin, P.). insho.

Experimental heat treating of ball bearing steel. Stal' 24
no. 12(1228-1229) 0 '64. (MIRA 18:2)

1. Zlatoustovskiy metallurgicheskiy zavod.

"APPROVED FOR RELEASE: Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOV, Geniy Mikhaylovich; TSYMBALIST, N.N., red.izd-va;
KOROVINA, N.A., tekhn. red.

[The annealer] Otzhigal'shchik. Moskva, Metallurgizdat,
1963. 130 p. (MIRA 16:7)
(Annealing of metals)

RYZHKOV, Ivan Ivanovich, kand. ekonom. nauk, starshiy nauchnyy sotr.;
KOBA, M., red.; GAVRILETS, D. [Havrylets', D.], tekhn. red.

[Production funds of industrial enterprises] Vyrobnychi fondy pro-
myslovykh pidpryiemstv. Kyiv, Derzh. vyd-vo polit. lit-ry, URSR,
1961. 37 p.
(MIRA 14:11)

1. Institut ekonomiki AN USSR (for Ryzhkov).
(Capital)

TYUTYUNNIKOV, B.N., prof., doktor tekhn.nauk; NOSKOV, B.A., dotsent, kand.
tekhn.nauk; RYZHIKOV, I.V., kand.tekhn.nauk; PEPENKO, V.D., assistent;
BOGDAN, I.V., inzh.

Liquid water glass mixtures. Izv.vys.ucheb.zav.; mashinostr. no.4:
60-63 '60. (MIRA 14:4)

1. Khar'kovskiy politekhnicheskiy institut.
(Soluble-glass)

"APPROVED FOR RELEASE: Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHIKOV, K.M.; NAZAROVA, N.S.

Phyocephalus sexalatus and *Spirocerca lupi* as reservoir parasites.
Trudy Gel'm. lab. 9:249-252 '59. (MIRA 13:3)
(Nematoda)

"APPROVED FOR RELEASE: Thursday, September 26, 2002
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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHIKOV, K.M.

Helminth fauna of the swan Cygnus bewickii Yarrell, 1830.
Trudy Gel'm. lab. 9:234-242 '59. (MIRA 13:3)
(VILYUY VALLEY--WORMS, INTESTINAL AND PARASITIC)
(PARASITES--SWANS)

"APPROVED FOR RELEASE: Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHIKOV, K.M.; GUBANOV, N.M.

Cestode fauna of birds of the order Anseriformes in Verkhoyansk
District (Yakutia). Trudy Gel'm. lab. 9:243-248 '59.

(MIRA 13:3)

(Verkhoyansk District--Cestoda) (Parasites--Water birds)

RYZHIN, G. T.

Mekhanizatsiya slozhnykh model'nykh rabot. (Vestn. Mash., 1951, no. 6,
p. 50-52)

Refers to the experience of Stakhanovites in the Ural S. Ordzhonikidze
heavy machine-building plant.

Mekhanization of complex pattern making.

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of
Congress, 1953.

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4"

RYZHKOY, I., Geroy Sovetskogo Sovsky

Motar crews. Voen. znan. 25 no.11:19-20 N '49. (MIRA 12:12)
(Motars (Ordnance))

RYZHKOV, I.

Ryzhkov, I. and Shafranskii, V. Certain problems accounting for the mechanization
of heavy labor. p. 20.

SO: Herald of Statistics (Vestnik), No. 2, 1951

"APPROVED FOR RELEASE: Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOV, I.V., kand. tekhn. nauk; SYCHEV, I.S., inzh.

Improving the shakeout of water glass mixtures. Mashinostroenie
no.5:47-50 S-0 '63. (MIRA 16:12)

1. Khar'kovskiy politekhnicheskiy institut.

"APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4

APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4

ALEKSANDROVA, Valentyna Petrivna; RYZHKOV, Ivan Ivanovich

[Capital assets and production potential of industrial enterprises and their use] Osnovni fondy i vyrobnychi potuzhnosti promyslovych pidpremstv ta ikh vykorystannia. Kyiv, Akad. nauk URSR, 1957. 58 p.
(MIRA 15:10)
(Industry)

RYZHKOY, Ivan Ivanovich; DUBOSARSKAYA, Mariya Teodorovna [Dubosars'ka,
M.T.]; GORELIK, L.Ye. [Gorelik, L.E.], doktor ekonom.nauk,
otv.red.; VELIKOKHAT'KO, O.T., red.izd-va; MIL'OKHIN, I.D.,
tekhn.red.

[Economic efficiency of new techniques in the Ukrainian
textile industry] Ekonomichna efektyvnist' novoi tekhniki
v tekstyl'nii promyslovosti URSR. Kyiv, Vyd-vo Akad.nauk
URSR, 1959. 74 p. (MIRA 12:6)
(Ukraine--Textile industry)

"APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4

APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4"

ALEKSANDROVA, Valentina Petrovna; RYZHKOV, Ivan Ivanovich; SHKURATOV, O.I.,
red.

[Effectiveness of advanced methods of work in Ukrainian industry]
Efektivnist' peredovych metodiv pratsi v promyslovosti Ukrains'koj
RSR. Kyiv, 1958. 39 p. (Tovarystvo dlia poshyrennia politychnykh
i naukovykh znan' Ukrains'koj RSR. Ser. 4, no.9). (MIRA 12:2)
(Ukraine--Efficiency, Industrial)

RYZHKOV, I.I., kand.ekon.nauk; CHERNYAYEV, A.A.

Type of factory for the initial treatment of flax. Tekst.prom.
18 no.10:57-58 O '58. (MIRA 11:11)

1. Starshiy inzh. Gosplans USSR (for Chernyayev).
(Flax) (Textile factories)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4"

RYZHKOV, I.I., kand.ekon.nauk; CHERNYAYEV, A.A.

Growth prospects for the bast fiber industry in the Ukrainian S.S.R.
Tekst. prom. 18 no.6:5-6 Je '58. (MIRA 11:7)

1. Starshiy inzhener Gosplana Ukrainskoy SSR.
(Ukraine--Bast)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4"

BELYASHOV, N.M.; GLEBOV, A.V.; NGUYEN, T'YEN FUONG; RYZHKOV, I.P.;
KAZANTSEV, M.I., glav. red.; TOPORKOV, D.D., otv. red.;
IVKIN, N.M., red.; KOBZAR', P.N., red.; YEFIMOV, I.A., red.;
SAGUNOV, P.G., red.

[Iron and titanium ore deposits in the Democratic Republic
of Vietnam] Mestorozhdeniya zheleznykh i titanovykh rud
Demokraticeskoi Respubliki V'etnam. [By] N.M.Beliashov i
dr. Alma-Ata, Kazakhskii nauchno-issl. in-t mineral'nogo
syr'ia, 1963. 83 p. (MIRA 17:9)

RYZHEKOV, I.V., kand., tekhn.nauk

Improving the fluidity of water glass mixtures. Mashinostroenie
no.1:49-51 Ja-F '64. (MIRA 17:7)

"APPROVED FOR RELEASE: Thursday, September 26, 2002
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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOY, I.Ye.; PEN'KOVA, N.I.

The ACh-252 threader of the left-way weft shuttle. Biul.tekh.-
ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. no.3:40-42
'62. (MIRA 15:5)

(Shuttles, Threading of)

"APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4

APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4"

RYZHKOV, V..

578. Moskovskiy metropoliten. M., Mosk. Rabochiy. 1954. 175s s ill. 20sm.
40,000 ekz. 3r-35k (55-1233) p

SO: Knizhnaya, Letopis, Vol. 1, 1955

"APPROVED FOR RELEASE: Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOV, K

527N/5

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Moskovskiy metropoliten (The Moscow subway) Moskva,
Moskovskiy Rabochiy, 1954.
172 p. illus.

"APPROVED FOR RELEASE: Thursday, September 26, 2002
RYZHKOV.....
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

KATTSEN, I. E. and K. S. RYZHKOV.....Moskovskii metropoliten. Moskva, Izd. Akademii
arkhitektury SSSR, 1948. 17 p. 41 plates. (Arkhitektura Strany Sovetov.)

DLC: TF847.M65K37

SO: LC, Soviet Geography, Part II, 1951/U_nclassified

1. RYZHKOV, K. S., Arch.
 2. USSR 600
 4. Moscow - Subways
 7. Aboveground waiting rooms of subway stations of the first section of the fourth division, Gor. khoz. Mosk, 23, No. 8, 1949.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Urcl.

"APPROVED FOR RELEASE: Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOV, K.S., glavnnyy arkhitektor Metroproyekta.

Architecture of the new Moscow Metro stations. Gor.khoz.Mosk. 25 no.2:32-34
F '51. (MLRA 6:11)
(Moscow--Subways) (Subways--Moscow)

"APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4

APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4"

RYZHKOV, K. S.

Subways -- Moscow

Architecture of stations and entrance halls of the second section of the great ring of
the Moscow subway. Gor. khoz. Mosk., 26, no. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, April 1952. Unclass.

"APPROVED FOR RELEASE: Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOV, K. Konstantin Sergeyevich; RAZINKOV, P., redaktor; IGNAT'YEVA, A.,
tekhnicheskiy redaktor.

[The Moscow Subway.] Moskovskii metropoliten. [Moskva] Moskovskii
ratochii, 1954. 172 p.
(Moscow--Subways)

RYZHKOV, K.S.

"APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

GUBANKOV, N.A.; RYZHKOV, K.S.

The Great Circle of the Moscow subway. Gor.khoz.Mosk. 28 no.3:7-10
Mr '54. (MIRA 7:6)

1. Nachal'nik Metrostroya (for Gubankov). 2. Glavnyy arkhitektor
instituta "Metrogiprotrans". (Moscow--Subways) (Subways--Moscow)

"APPROVED FOR RELEASE: Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKO^V, L.

Universal instrument. Pozh.delo 8 no.5:23 My '62. (MIRA 15:5)
(Valves--Testing)

RYZHKOV

APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4

APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4"

SHISHKIN, O.P.; RYZHKOV, L.I.

Relay, protection with a rectified operative current, and with the use
of switch operating solenoids. Energ.biul. no.11:19-29 N '54.
(Electric relays) (MILRA 7:11)

RYZHKOV, L.N.; KRIVANDIN, V.A.

Optimum dispersion of soot particles in the flame. Izv. vys. ucheb.
zav.; chern. met. 8 no.9;201-205 '65. (MIRA 18:9)

1. Moskovskiy institut stali i splavov.

"APPROVED FOR RELEASE: Thursday, September 26, 2002
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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

REPEKOV, I. M. & KUVALDIN, V. A.

Measuring midinfrared characteristics of a luminous flame.
Izv. vuz. fiz. zav. fizich. mat. 8 no.11 1970-1975 '65.
(MIRA 18:11)

1. Myakutskiy Institut sved. i planet.

RYZHKOV, L.P.

Respiratory metabolism of Sevan trout eggs. Dokl. AN Arm.
SSR 37 no.5:285-288 '63. (MIRA 17:9)

I. Sevanskaya gidrobiologicheskaya stantsiya AN Armyanskoy
SSR. Predstavлено akademikom AN Armyanskoy SSR G.Kh. Bunyatyanom.

Variation in the gas exchange of vimba fry produced by radioactive phosphorus. Izv. AN Arm. SSR. Biol. i sel'khoz. nauki 10 no.3: 101-104 Mr '57. (MLRA 10:5)

1. Sevanskaya gidrobiologicheskaya stantsiya Akademii nauk Armyanskoy SSR.
(Respiration) (Phosphorus--Isotopes) (Carp)

RYZHKOV, L.P.

Diurnal rhythm of gas exchange in some commercial fresh-water
fishes. Izv. AN Arm. SSR. Biol. i sel'khoz. nauki 10 no.12:79-88
D '57. (MIRA 11:2)

1. Sevanskaya gidrobiologicheskaya stantsiya.
(Fishes--Physiology)
(Respiration)

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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

GAMBARYAN, M.Ye., RYZHKOV, L.P.

Modified holders for using narrow-and wide-roll film in photomicrography. Lab.delo 4 no.3:47-49 My-Je '58 (MIRA 11:5)

1. Iz Sevanskoy gidrobiologicheskoy stantsii AN Armyanskoy SSR.
(PHOTOMICROGRAPHY)

RYZHKOV, L.P.

Experiment in incubating the roe of dead trout. Izv. AN Arm. SSR.
Biol. i sel'khoz.nauki 11 no.11:99-101 N '58 (MIRA 11:12)

1. Sevanskaya gidrobiologicheskaya stantsiya AN ArmSSR.
(Sevan, Lake--Trout) (Fish culture)

RYZHKOV, L.P.

Relation between gas exchange in young Sevan trout and the environmental temperature. Izv. AN Arm. SSR. Biol. nauki 13 no.2:17-26
F '60. (MIRA 13:7)

1. Sevanskaya gidrobiologicheskaya stantsiya Akademii nauk ArmSSR.
(FISHES—PHYSIOLOGY) (RESPIRATION)
(TEMPERATURE—PHYSIOLOGICAL EFFECT)

RYZHKOY, L.P.

Diurnal rhythm of oxygen consumption intensity in larvae and fry
of the Sevan trout. Izv. AN Arm. SSR. Biol. nauki 13 no.12:3-12
D '60. (MIRA 13:12)

1. Sevanskaya gidrobiologicheskaya stantsiya Akademii nauk Ar~~SSR~~
(SEVAN, LAKE—TROUT) (RESPIRATION)

RYZHKOY, L.P.

Effect of environmental conditions on the intensity of oxygen consumption by young trout in Lake Sevan. Dokl. AN Arm. SSR 33 no.1:31-34 '61. (MIRA 14:9)

1. Sevanskaya gidrobiologicheskaya stantsiya AN Armyanskoy SSR.
Predstavлено академиком AN Armyanskoy SSR V.O. Gulkanyanom.
(Sevan, Lake—Trout) (Respiration)

RYZHKOV, L.P.

Respiration in larvae and the young of Sevan trouts. Izv.
AN Arm. SSR. Biol. nauki 14 no.12:55-68 D '61. (MIRA 15:3)

1. Sevanskaya gidrobiologicheskaya stantsiya AN Armyanskoy
SSR.

(SEVAN, LAKE—TROUT)

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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

AVDEYEV, M.V., inzh.; RYZHKOV, N.A., inzh.

Distribution of temperature during weaving-arc build-up welding.
Svar. proizv. no.4:9-10 Ap '65. (MIRA 18:6)

1. Chelyabinskiy institut mekhanizatsii i elektrifikatsii
sel'skogo khozyaystva.

"APPROVED FOR RELEASE: Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

BYSTROVA, N.V.; GOSACHINSKIY, I.V.; YEGOROVA, T.M.; RYZHOV, N.F.

Neutral hydrogen in the region of Omega nebula NGC 6618. Izv. GAO
no.5:111-115 '64.

Fine structure of radio sources W43 and W51 from observations
with high angular resolving power. Ibid.116-320 '64.
(MIRA IV:11)

RIZHKOV, M.N.; CHAYKOVSKIY, G.N. (Nizhniy Tagil)

Traumatic rupture of a nonparasitic cyst in the spleen. Arkh.
pat. 26 no.2:78-80 '64. (MIRA 17:8)

1. Patologoanatomiceskoye i l-ye khirurgicheskoye otdeleniye
3-y Nizhne-Tagilskoy gorodskoy bol'nitsy (glavnny vrach M.M.
Fomin).

CHAYKOVSKIY, G.N. (Nizhniy Tagil, ul. Parkhomenko, d.9, kv.29);
RYZHKOV, M.N.

Massive hemorrhage from the duodenum and upper segment of the
small intestine. Vest. khir. 91 no.9:104-105 S'63. (MIRA 17:4)

1. Iz khirurgicheskogo (zav.-kand. med. nauk T.A. Grasmik) i
patologoanatomiceskogo (zav.-M.N. Ryzhkov) otdeleniy 3-y
gorodskoy bol'nitsy (glavnnyy vrach-M.M. Fomin) goroda Nizhnego
Tagila.

CHUGUNOV, Yu.D., SAF'YANOVA, V.M.; KUDRYASHOVA, N.I.; FLINT, V.Ye.;
RYZHKOV, M.V.; MAL'TSEV, M.I.

Testing the effect of a mixture of automobile exhaust gases
and insecticide dust for the formation of a protective zone
in a focus of cutaneous leishmaniasis. Vop.kraev.paraz.
Turk.SSR 3:153-156 '62. (MIRA 16:4)

1. Institut epidemiologii i mikrobiologii imeni N.F.Gamal'ya,
Moskva, i Okruzhnoy gospital' pogranichnykh voysk Turkmenskogo
okruga.

(SAND FLIES--EXTERMINATION) (GERBILS--EXTERMINATION)

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CIA-RDP86-00513R001446520014-4
CIA-RDP86-00513R001446520014-4"

RYZHKOV, M.P.; ZOLOTAREVSKIY, A.M.

Converting automatic electromechanical potentiometers to
electronicones. Izm.tekh. no.2:43 F '63. (MIRA 16:2)
(Potentiometer)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446520014-4"

RYZHKOV, M.V.; BRONZOV, O.O.; STEPANOV, A.P.

Nuclear magnetometer. Prib.i tekhnichesk. no.5:41-45 S-0 '60.
(MIRA 13:11)

1. Ural'skiy politekhnicheskiy institut.
(Magnetometer)

85340

S/120/60/000/005/008/051
E032/E514

9.6130

AUTHORS: Ryzhkov, M.V., Bronzov, O.O. and Stepanov, A.P.

TITLE: A Nuclear Magnetometer /9

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No.5, pp.41-45

TEXT: A description is given of a high-sensitivity magnetometer designed for measurements of variations in the Earth's magnetic field. A photograph of the apparatus is shown in Fig.1. In distinction to the forced precession which is observed when constant and radio-frequency magnetic fields are applied to a specimen, the "free precession" is defined as the precession of the macroscopic nuclear magnetization vector in a constant magnetic field, i.e. without the radio-frequency field. In the equilibrium state, the magnetization $M = \chi_o H$ of the nuclear paramagnetic is parallel to the applied constant field H and in order to obtain a precession of the magnetization vector, the latter must be artificially given a non-equilibrium orientation in the field H . In the Packard-Varian method (Ref.1) this is achieved by preliminary magnetization of the specimen by a large magnetic field H_p in a direction which is roughly perpendicular to the measured field H .

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A Nuclear Magnetometer

After the application of the auxiliary field the magnetization of the specimen increases in accordance with the law

$$M = M_0 [1 - \exp(-t/T_1)],$$

where $M_0 = \chi_0 H_p$ is the equilibrium magnetization. The time constant T_1 is called the thermal relaxation time and depends on the temperature and composition of the substance. For water $T_1 \sim 3$ sec (Ref.2). When the auxiliary field is switched off sufficiently rapidly, the magnetization vector is incapable of changing its magnitude and orientation in space and begins to precess around the measured field H . The precession frequency

ω_L is proportional to the magnitude of the measured field so that $\omega_L = \gamma H$, where γ is a constant independent of the external conditions and is practically equal to the gyromagnetic ratio of the nucleus, measured in strong fields. Only for very weak fields, of the order of the width of the nuclear resonance line, does the constant γ begin to depend on the field and temperature. The

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A Nuclear Magnetometer

variable magnetic flux associated with the precession of the magnetization vector induces in the coil surrounding the specimen an alternating e.m.f. of frequency ω_L . Thus, in order to measure the field strength, it is sufficient to measure the frequency of this emf. Hydrogen nuclei are convenient as the probe element since they have the maximum gyromagnetic ratio (except for tritium) and this gyromagnetic ratio is accurately known. The magnitude of the precessing magnetization vector will decrease with time owing to relaxation processes and this reduction can be described by the formula

$$M = M_0 \left[H_0 \exp(-t/T_2^*) + H \right]$$

After a few T_2^* the precession effect becomes unobservable and in the case of repeated measurements of H the precession must be periodically re-introduced. The block diagram of the magnetometer based on this effect, which was developed by the present authors, is shown in Fig.3. It consists of the probe, a commutator, a pre-amplifier, a time relay, a frequency meter and a supply block.

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A Nuclear Magnetometer

The probe is designed to have a sensitivity of about 2×10^{-6} Oe with a pass-band of 100 cps and has a single coil which is used both to produce the auxiliary field H_p and to pick up the precession signal. The coil has 900 turns and is wound on a thin-walled perspex cylinder 12 cm long and 9 cm in diameter. The cylinder is filled with distilled water. The relaxation time of the specimen T_1 was determined from the dependence of the initial signal amplitude on the time of magnetization. The transverse relaxation time T_2 (Ref.9) was determined from the rate of decay of the signal. Within the limits of experimental error it was found that $T_1 = T_2 = 2$ sec. The relaxation time was reduced to 0.7 sec by the addition of copper sulphate to the water. This corresponds to a time of measurement $T_m = 0.5$ sec and time of magnetization $T_p = 1$ sec. During the reception of the precession signal the coil is tuned to the expected frequency with the aid of a capacitor. With a single, fixed tuning, the probe can be used to measure the Earth's magnetic field in an interval of ± 0.017 Oe. In addition, the tuning can be altered so that other intervals can

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E032/E514

A Nuclear Magnetometer

be investigated. The commutator is set up on a separate panel and is used in a periodic switch over of the probe coil from the magnetizing battery to the amplifier and vice versa. The commutator consists of a power and a signal relay controlled with the aid of a time relay. The power relay controls the magnetizing current and the signal relay shunts the coil with a $39\text{ k}\Omega$ resistor and shorts the input of the amplifier. The power relay is switched off after a time T_p and a transient process takes place in the coil with a time constant of 2×10^{-4} . After a delay of 5 msec when the transient process has been damped out, the signal relay is switched off, opens the input of the amplifier and switches the probe coil to the amplifier input. The pre-amplifier has three stages consisting of 6M17 (6Zh1P) tubes. The amplification factor is 1500 and the noise factor 1.2. The design of the frequency meter is based on the requirement that with a sensitivity of 2×10^{-6} Oe the magnetometer should reliably measure precession frequency changes of 0.01 cps during the chosen time of measurement $T_m = 0.5$ sec. In order to ensure this accuracy in the measurement of frequency, use was made of the method described by Waters and Francis (Ref.13). X

Card 5/6

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A Nuclear Magnetometer

Typical diurnal variations in the Earth's magnetic field obtained on May 26, 1958 in the neighbourhood of the Kosulino Station, where the Earth's magnetic field is $H = 0.545$ Oe, are shown in Fig.5. For comparison, the dotted curve shows the diurnal variations as obtained by the local magnetic observatory. The relative error was found to be $5.5 \times 10^{-4}\%$ and the absolute error $1.3 \times 10^{-3}\%$. Acknowledgments are expressed to G. V. Skrotskiy for advice and interest and to A. I. Kolesnikov for preparing some of the parts of the magnetometer. There are 6 figures and 14 references: 4 Soviet and 10 English.

ASSOCIATION: Ural'skiy politekhnicheskiy institut
(Ural Polytechnical Institute)

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Card 6/6

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RYZHKOVA, N.F.; YEGOROVA, T.M.; GOSACHINSKIY, I.V.; BYSTROVA, N.V.

Observations of the galactic center in the continuous spectrum
at 1420 mc/s frequency and in the ~~the~~ hydrogen line. Izv. GAO
23 no.3:3-8 '64.

Calibration observations of some radio emission sources at
1420 mc/s frequency. Ibid.:25-30

(MIRA 17:11)

ACCESSION NR: AR5001312

S/0269/64/000/010/0048/0048

31
B

SOURCE: Ref. zh. Astronomiya. Otdel'nyy vypusk, Abs. 10, 51, 327

AUTHOR: Bystrova, Ch. V., Gosachinskiy, I. V., Yegorova, T. M., Ryzhkov, N. F.

TITLE: Observations of the radio sources W44 and W28 with high angular resolution on 21-cm waves

CITED SOURCE: Astron. tsirkulyar, no. 269, noyabrya 20, 1963, 1-3

TOPIC TAGS: radioastronomy, radio emission, radio source W44, radio source W28,
supernova

TRANSLATION: Observations of two surmised remnants of explosions of supernovae were made with an antenna having an angular resolution of 7'. It was found that a model of sources in the form of spherically symmetrical envelopes does not correspond to observational data. Absorption in the radio emission lines of these sources made it possible to estimate the distance to them. Two new sources have been discovered near W44. I. G.

SUB CODE: AA

ENCL: 00

Card 1/1

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YEGOROVA, T.M.; BIEKOV, N.F.

Receiver for 4 repetitions of intersteller instrument signals
at 21 cm. wavelength. The Volkov large radio telescope. Sov.
Cav 20 no.3:19-42 1964.