

Unhybridized Plants - Commercial. Oleiferous.  
Sugar-Bearing.  
REF. JOUR: *Agrobiologiya*, No. 3, 1959, No. 20402

AUTHOR : Gorenkov, P.A.; ~~Sazhko, M.M.~~  
INST. : All-Union Inst. of Bast Crops  
TITLE : The Effect of Potassium Nutrient on the  
Formation of the Hemp Yield.

ORIG. PUB.: *Agrobiologiya*, 1957, No.6, 82-89

ABSTRACT : Field and Vegetation experiments conducted by the All-Union Scientific Research Institute of Bast Crops have shown that K intensifies the growth and speeds up the development of hemp. The duration of the period from the 3-leaf pair stage to flowering is shortened, as is the budding period. The vegetation period with NPK is on the whole reduced by 11-18 days in comparison with NP and by 16-25 days in comparison with unfertil-

CARD: 1/3

CLASS. : M  
SUBJECT : Cultivated Plants.  
AUTHOR : Ref Zhur -Biologiya, No. 5, 1959, No. 20402  
EDITOR :  
TITLE :

ORIG. PUB.:

ABSTRACT : ized ground. The gap between the male and female hemp plants' ripening is shortened. The male and female hemp requirements in potassium nutrition vary. With an absence of K the yield from the male plant is lowered by 62-64%; from the female by 33-41%. The male hemp demands an intensified potassium diet from the very beginning of vegetation, the female plant only during budding; reduced K content during the period from shoots to the

CARD : 2/5

Cultivated Plants.

REF. JOUR : Ref Zhur-Biologiya, No. 5, 1959, No. 20402

AUTHOR :

INST. :

TITLE :

ORIG. PUB.:

ABSTRACT : 3 leaf pair stage increased the productivity of the female plant. A deficiency of K is especially marked in the presence of an abundance of N. Supplementary application of K during the vegetation period incompletely eliminates stunting of growth and retardation of development in the male hemp plant. --D.B. Vakhnistrov

CLASS: 3/3

USSR / Cultivated Plants. Plants for Technical Use. M-6  
Sugar Plants.

Abstr Jour: Ref Zhur-Biol., 1958, No 16, 73054.

Abstract: N was applied in solution. Repetitions were 8-12 fold. Before the beginning of the light stage, hemp needs a strong supply of P and moderate one of N. A strong supply of P in the beginning stages of development checks the harmful influence of abundant N feeding. From the budding phase, hemp needs much N. The earlier N is applied in the vegetation period, the better the seed formation which occurs. With late application of N, the formation of seeds is delayed and the harvest of common hemp decreased. Exclusion and decrease in N dosage in the beginning of development weakens the intensity of fiber accumulation. -- A. M. Smirnov.

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100

YURCHAK, I.Ya., kand. tekhn. nauk; ZAKHAROV, V.P.; SAZHKO, V.P.; REZNIKOV,  
L.G.; KLEYNER, M.B.

Organizing assembly lines in Ukrainian porcelain manufacture. Trudy  
GIKI no.3:31-52 '56. (MIRA 11:5)  
(Ukraine--Ceramic industries) (Pottery) (Assembly line methods)

S/631/60/000/001/006/014  
B117/B147

AUTHORS: Baraboshkin, A. N., Sazhnov, V. K.  
TITLE: Behavior of vanadium-oxide - carbon anodes in electrolysis  
of chloride melts  
SOURCE: Elektrokimiya rasplavlennykh solevykh i tverdykh  
elektrolitov, no. 1, 1960, 43-47

TEXT: The dissolution of vanadium-oxide - carbon anodes in chloride melts was studied. Anodes were made of pure vanadium pentoxide mixed with coaltar in benzene medium. After benzene evaporation, cylindrical electrodes were molded from the dry mixture at 1.0 - 1.5 tons/cm<sup>2</sup> pressure. They were annealed below a carbon layer, the annealing temperature being slowly (100°/hr) raised to 800°C. Vanadium pentoxide was reduced to trioxide. The carbon content of the individual batches varied between 12.5 and 29.8% and their weight by volume varied between 1.6 and 2.1 g/cm<sup>2</sup>. The electrolysis of oxide - carbon anodes was studied in a pyrex glass vessel

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Behavior of vanadium-oxide - carbon ...

S/631/60/000/001/006/014  
B117/B147

at  $680 \pm 10^\circ \text{C}$ . An equimolar mixture of sodium and potassium chlorides was used as electrolyte. Pure nitrogen was passed through the apparatus, and thus an inert medium for transferring the anodic gases was obtained. At the beginning of electrolysis dissolution took place with formation of  $\text{V}^{3+}$  ions only. Tetravalent vanadium seems to form as soon as the anode potential approaches the potential of chlorine separation. This corresponds to data by Laitinen (Ref. 12, see below). Summary: It was shown that oxide - carbon anodes during electrolysis dissolved in the chloride melt to form  $\text{V}^{3+}$  and  $\text{V}^{4+}$  ions, i. e., ions without oxygen. The electrolytes obtained can be used for producing metallic vanadium. The authors obtained a vanadium - lead alloy (64% V) by means of electrolysis. The deposit showed a widely ramified, steel-gray, dendritic structure. The laboratoriya elektrokhimii Ural'skogo filial AN SSSR (Laboratory of Electrochemistry of the Ural Branch AS USSR) is mentioned, where the behavior of thorium, beryllium, titanium, and calcium-oxide - carbon anodes during electrolysis of chloride melts was studied in detail. There are 2 figures, 2 tables, and 12 references: 9 Soviet and 3 non-Soviet. The reference to the English-

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Behavior of vanadium-oxide - carbon ... S/631/60/000/001/006/014  
B117/B147

language publication reads as follows: Ref. 12: H. A. Laitinen, J. W.  
Pankey. J. Am. Chem. Soc., 81, 1053, 1959.

Card 3/3



MASHIN, A.R.; SAZHNOV, V.Ya.; ANDREYEV, P., red.; LUKASHEVICH, V., tekhn.red.

[Reinforced concrete and local building materials in rural construction; experience of the Voroshilov Collective Farm in the Bazernyy Karabulak District] Zhelezobeton i mestnye stroitel'nye materialy v sel'skom stroitel'stve; opyt kolkhosa im.Voroshilova Bazarno-Karabulakskogo r-na. [Saratov] Saratovskoe knizhnoe izd-vo, 1957. 93 p. (MIRA 11:12)  
(Reinforced concrete construction)

KORYTNYI, David Markovich; ZEVAKIN, F.N., nauchnyy red.; SAZIKOV,  
M.I., red.; PEREDERIY, S.P., tekhn. red.

[Mechanization and automation of machining on lathes] Mekhani-  
zatsiia rabot na tokarnykh stankakh. Moskva, Proftekhizdat,  
1962. 151 p. (MIRA 16:3)  
(Turning) (Automation)

TSVETKOV, Vasilii Sergeevich; SAZIKOV, M.I., red.

[Repairing the PD-10 starting engine] Remont puskovogo  
dvigatel'ia PD-10M. Moskva, Biuro tekhn. informatsii.  
1963. 22 p. (MIRA 17:9)

VOSHCHANOV, Konstantin Pavlovich; KIRILLOV, Ivan Ivanovich; CHERNYAK, V.S.,  
nauchnyy red.; SAZIKOV, M.I., red.; DORODNOVA, L.A., tekhn.red.

[Machines and apparatuses for the flame machining of metals]  
Mashiny i apparatura dlia gazoplammenoi obrabotki metallov.  
Moskva, Proftekhizdat, 1963. 122 p. (MIRA 16:6)  
(Gas welding and cutting—Equipment and supplies)

KUDRYAVTSEV, Petr Radionovich; TOCHELOVICH, N.F., spets. red.; SAZIKOV, M.I., red

[Repairing the NSh gear pumps] Remont shasterenchatykh nasosov  
NSh. Moskva, Biuro tekhn. informatsii, 1963. 54 p.

(MIRA 18:5)

KRYSIN, Anatoliy Mikhaylovich; NAUMOV, Ivan Zakharovich;  
KUDRYAVTSEV, P.A., nauchn. red.; SAZIKOV, M.I., red.;  
TOKER, A.M., tekhn. red.; PERSON, M.N., tekhn. red.

[Assemblyman] Slesar' mekhanosborochnykh rabot. Moskva,  
Proftekhizdat, 1963. 324 p. (MIRA 16:12)  
(Machine-shop practice)

KOROLEV, Nikolay Alekseyevich; SAZIKOV, M.I., red.

[Reconditioning of the cylinder head of the GAZ-51 motor-trucks and other aluminum parts of motor-vehicle engines]  
Vosstanovlenie golovki tsilindrov avtomobilia GAZ-51 i drugikh aliuminievykh detalei avtotraktornykh dvigatelei.  
Moskva, Biuro tekhn. informatsii, 1963. 21 p.  
(MIRA 17:9)

41851

S/263/62/000/006/004/015  
I008/I208

26.2191  
AUTHOR:

Sazima, Miroslav

TITLE:

A remote air-velocity meter

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 32. Izmeritel'-  
naya tekhnika, no.6, 1962, 34, abstract 32.06.204P.  
(Czech. patent, class 42o,15, no.94928, April 15, 1960)

TEXT: The device consists of an anemometer suspended from a uni-  
versal joint. The suspension is designed to register the number of  
the anemometer by means of a chopping element, while the changes in  
the position of the yokes of the universal joint with respect to  
some fixed reference position are recorded by a resistance trans-  
ducer. The electric wires are led outside by means of a special  
connecting element. The chopping element consists of the axle of  
the anemometer connected to a circular plate, in the guide of which  
a small ball, held in place by another stationary plate, is rolling.  
An electric contact inserted in the moving plate is connected to  
the anemometer's axle, while the contact in the stationary plate

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S/263/62/000/006/004/015  
I008/I208

A distant air-velocity meter

is connected to a battery. The connecting element is constructed in a similar way, but in it the point contacts are replaced by ring contacts; small balls roll on these rings, thus ensuring, independently of the position of the yokes of the universal joint, a permanent contact. As a resistance transducer serves a coil of metallic wire, on which a small ring, connected to one of the yokes of the universal joint, slides. As the position of the yoke alters, the position of the small ring alters as well, and thus alters the resistance of the coil. There are 6 figures. ✓

[Abstracter's note: Complete translation.]

Card 2/2

SAZIMA, V.

The production cost of milk.

p. 17 (Rolnicke Hlasy, Vol. 11, No. 9, Sept. 1957, Praha, Czechoslovakia)

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

SAZIMA, V.

A schedule for drafting one-year production plans.

p. 8 (ROLNICKE HLASY) Vol. 11, no.11, Nov. 1957,  
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,  
March 1958

SAZMA, A.

A switchboard for emergency lighting. Elektrotechnik 17 no.11:322 N  
'62.

1. KPU, Ceske Budejovice.

JEBAVY, Zdenek; BARTOS, Vladimir; NERAD, Vladimir; SKAUNIC, Vladimir;  
FIXA, Bohumil; KOMARKOVA, Olga; SAZMOVA, Vera; HRADSKY, Miklas.

Analysis of salivary secretion and some electrolytes in the  
saliva in relation to age. Sborn. ved. prac. lek. fak. Karlov.  
univ. (Hrad. Kral.) 6 no.5:suppl.:609-618 '63

I. Stomatologicka klinika (prednosta: prof. MUDr. L. Sazama, CSc.);  
I. interni klinika (prednosta: prof. MUDr. F. Cernik) a II. in-  
terni klinika (prednosta: prof. MUDr. V. Jurkovic), Karlova  
Universita v Hradci Kralove.

SAZONENKO, M. K., KAYUSHIN, L. P., LVOV, K. M., GOLUBEV, I. M., and  
KOFMAN, Y. B. (USSR)

"Free Radicals in Muscle and Muscle Proteins."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

SAZONENKO, M.K.

Photodynamic stimulation of frog skeletal muscle. Biofizika 8  
no.6:681-689 '63. (MIRA 17:7)

I. Institut biologicheskoy fiziki AN SSSR, Moskva.

VAN LIN-FAN [Wang Ling-fang]; L'VOV, K.M.; SAZONENKO, M.K.; KAYUSHIN,  
L.P.; GOLUBEV, I.N.

Role of free radicals in muscle contraction. Biofizika 7 no.4:  
479-480 '62. (MIRA 15:11)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(MUSCLES--MOTILITY) (RADICALS (CHEMISTRY))



SAZONENKO, M.K.

Electron paramagnetic resonance of free radicals in photosensitized skeletal muscles. Biofizika 10 no.2:252-260 '65. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

BLIZNYUKOV, Yuriy Nikolayevich; BOCHKAREV, Vladimir Ivanovich;  
BURACHKOVSKIY, Vladimir Vladimirovich; GIBREYKH, Lazar'  
Isaakovich; DUBROVSKIY, Viktor Fedorovich; ISMAILOV,  
Sadykh Ismail-ogly; SAZONENKO, Petr Alekseyevich; SMIRNOV,  
Arseniy Sergeyeovich; SYROMYATNIKOV, Yevgeniy Sergeyeovich;  
SUSLENNIKOV, Nikolay Mikhaylovich; KAYESHKOVA, S.M., ved.  
red.; TROFIMOV, A.V., tekhn. red.

[Practice of innovators in drilling and exploiting oil wells]  
Opyt novatorov burenilia i ekspluatatsii neftiarykh skvazhin.  
Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi  
lit-ry, 1961. 67 p. (MIRA 15:3)

1. Moscow. Tsentral'noye byuro promyshlennykh normativov po  
trudu.  
(Oil well drilling) (Automatic control)  
(Oil fields—Equipment and supplies)

SAZONENKOV, Pavel-Il'ich; KOSTYAMIN, B.N., red.; CHERNYAYEV, P.N., red.;  
LAVRENOVA, N.B., tekhn.red.

[Repair of ship mechanisms] Remont sudovykh mekhanizmov.  
Moskva, Izd-vo "Morskoi transport," 1959. 249 p.

(MIRA 14:2)

(Ships--Maintenance and repair)

SAZONIK, Kh.V.

Carbothion in the control of the Colorado beetle. Zashch.  
rast. ot vred. i bol. 8 no.3:26 Mr '63. (MIRA 17:1)

1. Zaveduyushchiy laboratoriyey Vsesoyuznoy stantsii po  
raku kartofelya, Chernovtsy.

SAZON-YAROSHEVICH, A. Yu., zasluzhennyy deyatel' nauki, professor.

Theoretical and practical considerations on the approach to the  
cranial cavity. Vop.neirokhir. 18 no.6:3-8 N-D '54 (MIRA 8:4)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii  
Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.  
(BRAIN, surgery,  
approach)

SHCHERBININ, A.N., inzh.; SAZONENKO, P.A., inzh.

Improving the safety catch for drum coils. Bezop. truda v prom.  
2 no.8:40 Ag '58. (MIRA 12:7)  
(Oil fields--Equipment and supplies)

SHCHERBININ, A.I.; SAZONENKO, P.A.

Winches used in refitting tackle units in oil wells. Bezop, truda v  
prom. 2 no. 11:35-36 N '58. (MIRA 11:11)

1. Trest Kavkazneftegazrazvedka.  
(Oil wells—Equipment and supplies)

SAZONENKO, V.P., inzhener; OSTAPENKO, V.V., inzhener.

Efficient grooving on the 330 rolling mill. Stal' 16 no.8:716-721  
Ag '56. (MLRA 9:10)

1.Zavod imeni Dzerzhinskogo.  
(Rolls (Iron mills))



SOV/137-58-8-16858

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 91 (USSR)

AUTHOR: Sazonenko, V.P.

TITLE: Rationalization of Grooves on 330 and 280 Merchant Mills with the Purpose of Increasing Output Capacity (Ratsionalizatsiya kalibrovok na melkosortnykh stanakh 330, 280 s tsel'yu povysheniya proizvoditel'nosti)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii. Ukr. resp. pravl., 1957. Vol 2, pp 138-145

ABSTRACT: A description is provided of the rationalization of groovings (G) of 330 and 280 merchant mills, the result of which was a pronounced increase in the output capacity of these mills. The new G for the rolling of symmetrical and asymmetrical angles, channels, and flanged rings envisage the rolling (R) of these shapes in 5 passes instead of 7 with the old G. Under these conditions, the strip is passed through each stand only once instead of 2-3 times with the old G. In the new G for angle sections, an edging pass is provided in the 1st stand to make it possible to control the width of the ingot delivered to the 2nd stand and to mechanize the delivery of the ingot to the following

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SOV/137-58-8-16858

Rationalization of Grooves on 330 and 280 Merchant Mills (cont.)

groove by means of screw-type pull guides and repeaters. Reduction in the number of passes in the R of Nr 5 channel was accomplished by using an original slitting pass on the 450 roughing stand. This pass was built so that a rectangular billet wedges into it across its width. Instead of the usual slitting rib it has a broad rib with 2 cutting edges. This type of slitting pass has good bite, produces less reduction of flange cross-section, and, despite the wedging effect, results in absolutely negligible processing in width. The second channeling groove in the R sequence is also built on the principle of lateral wedging of the strip, and this facilitates lengthening of the flanges. The subsequent grooves are standard. The use of the new G for Nr 5 channels doubled the output of the mill. The reduction in the time required to R a single strip resulted in an increase in R temperature, and this reduced energy consumption and almost totally eliminated breakage of rolls, wobblers, and collars. The G of window-frame section Nr 2, a shallow channel measuring 55x25x4x3 mm, was improved in the same way. The G of flanged ring Nr 203 and that of the roughing lines of the 280 and 330 mills were improved in the same way.

1. Steel--Processing
2. Rolling mills--Operation
3. Rolling mills--Performance

S.G.

Card 2/2

ALEKSANDROV, P.A.; DOLZHENKOV, F.Ye.; VORONTSOV, N.M.; BAT', Yu. I;  
TSUKANOV, G.E.; SAZONENKO, V.P.; CHEPELEV, P.M.; KRUGLYAK, P.F.

Working out the grooving of rolls and auxillary equipment for  
the rolling of Z-shaped pile planks. Trudy Ukr. nauch.-issl.  
inst. met. no.6:133-156 '60. (MIRA 14:3)  
(Rolls(Iron mills))(Rolling(Metalwork))

SAZONETS, I.Z., inzh.

Manufacture of silicalcite roofing tiles. Stroi. mat. 7 no.2:29  
F '61. (MIRA 14:3)  
(Sand-lime products) (Tiles, Roofing)

KHIZHNYAK, P.A.; SAZONIK, Kh.V.

How the treatment of soil with emulsified leather oil affects the causative organisms of potato wart. Zashch.rast.ot vred.i bol. 4 no.3:49 My-Je '59. (MIRA 13:4)

1. Direktor stantsii po raku kartofelya Vsesoyuznogo nauchno-issledovatel'skogo instituta, g.Chernovtsy (for Khizhnyak). 2. Zaveduyushchiy otdelom toksikologii Vsesoyuznogo nauchno-issledovatel'skogo instituta zashchity rasteniy, g.Chernovtsy (for Sazonik).  
(Potato wart)

LIPSITS, D.V., kand.biolog.nauk; KHIZHNYAK, P.A., kand.sel'skokhoz.nauk;  
SAZONIK, Kh.V.

Effect of gamma radiation on potato wart. Zashch.rast.ot vred.i  
bol. 4 no.6:47-48 N-D '59. (MIRA 15:11)

1. Vsesoyuznaya stantsiya po raku kartofelya Vsesoyuznogo instituta  
zashchity rasteniy, g. Chernovtsy. 2. Zaveduyushchiy otdelom  
toksikologii Vsesoyuznoy stantsii po raku kartofelya Vsesoyuznogo  
instituta zashchity rasteniy, g. Chernovtsy (for Sazonik).  
(Plants, Effect of gamma rays on) (Potato wart)

CHIGAREV, G.A.; PANYUSHKINA, A.M.; KAYUDIN, I.A.; SAZONIK, Kh.V.; YUREVICH,  
I.A.

Field tests of dieldrin against the Colorado beetle. Zashch. rast.  
ot vred. i bol. 7 no.3:53-54 Mr 162. (MIRA 15:11)  
(Potato beetle—Extermination) (Dieldrin)

SAZONIK, Kh.V.

Fall soil disinfection against potato wart. Zashch. rast. ot vred.  
i bol. 4 no.5:49 S-O '59. (MIRA 16:1)

1. Vsesoyuznaya stantsiya po raku kartofelya Vsesoyuznogo  
instituta zashchity rasteniy, Chernovtsy.  
(Potato wart) (Soil disinfection)



PLOTNIKOV, A.Ye., kand.tekhn.nauk; SAZONKIN, V.V., inzh.

Operational efficiency of the turbine of an air refrigerating plant.  
Khol. tekhn. 38 no.4:14-18 J1-Ag '61. (MIRA 15:1)  
(Turbines) (Refrigeration and refrigerating machinery)

KHIZHNYAK, P.A.; SAZONIK, Kh. V.

Proposals by the All-Union Station for Potato Wart. Zashch.  
rast. ot vred. i bol. 6 no.10:19 0 '61. (MIRA 16:6)

1. Direktor Vsesoyuznoy stantsii po raku kartofelya,  
Chernovtsy (for Khizhnyak). 2. Zaveduyushchiy otdelom  
toksikologii Vsesoyuznoy stantsii po raku kartofelya,  
Chernovtsy (for Sazonik).

(Potato wart)

BONDIN, V.P.; SVECHNIKOV, I.D.; CHIGAREV, G.A.; SAZONNIK, Kh.V.; SANIN, V.A.;  
FOMYUK, M.K.

Possible methods for aerial chemical control of the Colorado  
beetle. Zashch. rast. ot vred. i bol. 6 no.9:47-49 s '61.  
(MIRA 16:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut Grazhdanskogo  
vozdushnogo flota, Vsesoyuznyy institut zashchity rasteniy i  
Ukrainskiy nauchno-issledovatel'skiy institut zashchity rasteniy.  
(Aeronautics in agriculture) (Potato beetle--~~ter~~mination)

KORSHAK, V.V.; MOZGOVA, K.K.; SHKOLINA, M.A.; NAGDASEVA, I.P.;  
BERESTNEV, V.A.; Primali uchastiye: YEGOROVA, Yu.V.;  
ZASECHKINA, A.P.; VOLKOVA, A.I.; SAZONKINA, M.T.

Preparation of graft copolymers. Part 12. Vysokom.soed. <sup>5</sup>  
no.2:171-175 F '63. (MIRA 16:2)

1. Institut elementoorganicheskikh soyedineniya AN SSSR.  
(Polymers)

SAZONOV, A.

Improving the working conditions of welders. Avt. transp. 38  
no. 5:54 My '60. (MIRA 14:2)  
(Welding--Hygienic aspects)

ROVBA, M.P.; SAZONOV, A.F.

Closed injury to the abdomen with an isolated rupture of the pancreas.  
Zdrav.Bel. 8 no.7:80 J1 '62. (MIRA 15:11)

1. Iz khirurgicheskogo otdeleniya (zav. - M.P.Rovba) Grodnenskoj  
oblastnoy bol'nitsy (glavnyy vrach S.G.Dulayev).

(PANCREAS--RUPTURE)

PLATONOV, A.G.  
GUREVICH, Abram Natanovich; PLATONOV, Yevgeniy Veniaminovich;  
SAZONOV, A.G., inzhener, redaktor; VERINA, G.P., tekhnicheskiy  
redaktor.

[Increasing the power of the TE 2 diesel locomotive] Povyshenie  
moshchnosti teplovoza TE2. Moskva, Gos.transp. zhel-dor. izd-vo,  
1956. 58 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut  
zheleznodorozhnogo transporta. Trudy, no.117). (MLRA 9:10)  
(Diesel locomotives)

AVDUKOV, M.I., inzhener; MAMCHENKO, V.P., inzhener; SAZONOV, A.G., inzhener,  
redaktor; VERINA, G.P., tekhnicheskii redaktor

[Manual for the steam locomotive crew] Pamiatka parovoznoi brigade.  
Izd. 2-oe, ispr. i dop. Moskva, Gos. transp. zhel-dor. izd-vo,  
1956. 134 p. (MIRA 10:1)  
(Locomotives)



RYLEYEV, G.S.; KRYUGER, P.K.; KAZAKOV, V.N.; VIL'KEVICH, B.I.; MERZHKO,  
V.G., inzhener, redaktor; SAZONOV, A.G., inzhener, redaktor;  
BOBROVA, Ye.N., tekhnicheskii redaktor

[Management and operation of diesel locomotives] Teplovoznoe khoziai-  
stvo. Moskva, Gos. transp. zhel-dor. izd-vo, 1956. 311 p. (MLRA 9:12)  
(Diesel locomotivss)

SAZONOV, A G

SIVAK, Vladimir Yefimovich, inzhener; SAZONOV, A G, inzhener, redaktor;  
BOBROVA, Ye.N., tekhnicheskiy redaktor

[Increasing mileage of locomotives between repairs] Uvelichenie  
probegov teplovozov mezhdru remontami. Moskva, Gos.transp.zhel-dor.  
izd-vo, 1957. 80 p. (MLRA 10:8)  
(Locomotives)

SAZONOV, L.A.G.

BENEDIKT, O.V.; BASHUK, I.B.; ZOROKHOVICH, A.Ye.; SAZONOV, inzh., red.;  
VERINA, G.P., tekhn.red.

[Electric drives in diesel- and gas-turbine locomotives equipped  
with a. c. machinery] Elektricheskie peredachi teplovozov i  
gazoturbovozov s mashinami peremennogo toka. Moskva, Gos. transp.  
zhel-dor. izd-vo 1958. 78 p. (Moscow. Moskovskii institut inzhenerov  
zheleznodorozhnogo transporta. Trudy, no.106). (MIRA 11:4)  
(Locomotives--Electric driving)

ISAAKYAN, Ogenes Nikolayevich, prof., zasluzhennyy deyatel' nauki i  
tekhniki [deceased]; GURSKIY, Pavel Antonovich, prof., doktor  
tekhn.nauk; SAZONOV, A.G., inzh., red.; KHITROV, P.A., tekhn.red.

[Traction calculations] Tiagovye raschety. Moskva, Gos.transp.  
zhel-dor.izd-vo, 1959. 358 p. (MIRA 12:12)  
(Locomotives)

GROMOV, Sergey Alekseyevich; SAZONOV, A.G., inzh., red.; MEDVEDEVA,  
M.A., tekhn.red.

[Main diesel locomotive electric generators] Glavnye generatory  
teplovozov. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va  
putei soobshchenia, 1960. 81 p. (MIRA 14:1)  
(Diesel locomotives) (Electric generators)

KAMENEV, Nikolay Nikolayevich, inzh.; BYZSEYEVA, L.A. [translator];  
MERLIS, V.M. [translator]; SHIVEL'MAN, N.M. [translator];  
SAZONOV, A.G., inzh., red.; MEDVEDEVA, M.A., tekhn.red.

[Converting steam locomotive depots into depots for diesel locomotives; translated articles] Pereustroistvo parovoznykh depo v teplovoznnye; sbornik perevodnykh statei. Sost. N.N. Kamenev. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshchenia, 1960. 174 p.

(MIRA 14:4)

(Railroads--Roundhouses)

ARTIZANOV, Ye.A., inzh.; DORFMAN, Yu.I., inzh.; ZASLAVSKIY, Ye.G.,  
inzh.; KUSHNER, B.I., inzh.; PLUTSNER-SARNO, Yu.N., inzh.;  
SMOL'YANINOV, A.Ye., inzh.; SPTVAK, Ya.L., inzh.; STRUNGE,  
B.N., inzh.; EPSHTEYN, A.S., inzh.; SAZONOV, A.G., inzh.,  
red.; USENKO, L.A., tekhn. red.

[The TE10 diesel freight locomotive] Gruzovoi teplovoz TE10.  
Moskva, Transzheldorizdat, 1962. 171 p. (MIRA 15:10)  
(Diesel locomotives)

MAMCHENKO, V.P., inzh.; RYAZANTSEVA, T.A., inzh.; DROZDOV, N.A., kand. tekhn. nauk, retsenzent; AYZINBUD, S.Ya., kand. tekhn. nauk, retsenzent; POLULEKH, V.K., inzh., retsenzent; STOLYARCHUK, I.V., kand. tekhn. nauk; GOROKHOVIKOV, L.M., kand. tekhn. nauk; SAZONOV, A.G., inzh., red.; CHEREPASHENETS, R.G., inzh., red.; USENKO, L.A., tekhn. red.

[Operation of locomotives] Eksploatatsiia lokomotivov. Moskva, Transzheldorizdat, 1963. 415 p. (MIRA 16:12)  
(Locomotives) (Railroads--Mar. ~~1963~~)



GLAGOLEV, Nikolay Matveyevich; KURITS, Aleksandr Ariyevich;  
VODOLAZHCENKO, Vitaliy Vasil'yevich; BARTOSH, Yevgeniy  
Tarasovich; SAZONOV, A.G.; red.

[Internal combustion engines and gas turbines for diesel  
locomotives] Teplovoznnye dvigateli vnutrennego sgoraniia  
i gazovye turbiny. Izd.2., perer. Moskva, Transport,  
1965. 400 p. (MIRA 18:6)

LENNER, Boris Markovich; LEBEDEV, Viktor Pavlovich; PALKIN,  
Aleksandr Prokof'yevich; SAZONOV, A.G., red.

[Diesel D trains; working principles, operation, main-  
tenance and repair] Dizel'nye poezda D; ustroistvo,  
ekspluatatsiia i remont. Moskva, Transport, 1965. 346 p.  
(MIRA 18:2)

KUZ'MIN, V.A.; SAZONOV, A.G.

Podzolic soils in the Chara Trough (northern Transbaikalia).  
Pochvovedenie no.11:11-20 N '65. (MIRA 18:12)

1. Institut geografii Sibiri i Dal'nego Vostoka. Submitted  
June 14, 1964.

ABAKUMOVSKIY, D.D., inzh.; VIKHMAN, Yu.L., inzh.; VODOVOZOV, A.I., inzh.;  
ZORIN, R.P., inzh.; IGNATCHENKO, Ye.A., inzh.; LITINSKIY, M.E., inzh.;  
SAZONOV, A.I., inzh.; PRITULA, V.A., inzh.; POMAZKOV, S.A., inzh.;  
FRUKHTBEYN, L.I., inzh.; SAPOZHNIKOV, N.M., inzh.; MASYUK, A.I., inzh.;  
YANKELEV, L.F., inzh.; BASHILOV, M.M., otv. red.; LATINSKIY, M.E., red.;  
POLOSINA, A.S., tekhn. red.

[Handbook for builders and assemblers of the petroleum industry]  
Spravochnik stroitelia-montazhnika neftianoi promyshlennosti. Mo-  
skva, Gostoptekhizdat, 1946. 250 p. (MIRA 15:4)

1. Russia(1923- U.S.S.R.)Narodnyy komissariat neftyanoy promysh-  
lennosti. Glavnoye upravleniye. 2. Narodnyy komissariat neftyanoy  
promyshlennosti SSSR (for all except Bashilov, Latinskiy, Polosina).  
(Petroleum industry)

SAZONOV, A.I.

Formation of superrefractional conditions during precipitations  
caused by atmospheric fronts. Izv.vys.ucheb.zav.; radiofiz. 1  
no.3:162-164 ' 58. (MIRA 12:1)

1. Sibirskiy fiziko-tehnicheskii institut.  
(Radio meteorology)

9.1000

30133  
SOV/112-59-23-48568

Translation from: Referativnyy zhurnal Elektrotehnika, 1959, Nr 23, p 183, (USSR)

AUTHORS: Bobrovnikov, M.S., Sazonov, A.I., Starovoytova, R.P.

TITLE: Excitation of Oscillations With a Fringe Radiation in Infinitely Long Wire and Plane

PERIODICAL: Tr. Sibirsk. fiz.-tekhn. in-ta, 1958, Nr 36, pp 381 - 388

ABSTRACT: A diffractive method of studying antennas is proposed on a model consisting of an infinitely long hollow conductor excited by two ringshaped slots fed from inside. At a distance between the slots equal to

$$\frac{2\pi l}{\lambda} = (2n + 1) \frac{\pi}{2},$$

where l is the half-distance between the slots, a fringe radiation only with a lobe diagram will be observed. A formula for the magnetic component of the field is derived. Also in this case there is a lobe radiation diagram. Methods of measurement

Card 1/2

80433  
SOV/112-59-23-48568

Excitation of Oscillations With a Fringe Radiation in Infinitely Long Wire  
and Plane

and the equipment are described. The diagrams obtained for current density and  
radiation field agree fairly well with the theory. W

Ye.I.S.

Card 2/2

SAZONOV, A.I.

Studying the refraction of radio waves in the lower levels of the  
atmosphere at low angles of incline. Uch.zap.TGU no.36:79-81 '60.  
(MIRA 14:5)

(Radio waves)



06543  
SOV/142-2-2-19/25

9(3), 24(3)  
AUTHOR:

Sazonov, A.I.

TITLE:

Measuring Slow Fluctuations of the Arrival Angles of Centimeter Waves

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1959, Vol 2, Nr 2, pp 252-253 (USSR)

ABSTRACT:

The author describes a phasometric method of measuring slow fluctuations of the arrival angles, which does not require bulky antenna reflectors and multi-channel receivers. Figure 1 shows a block diagram of the measuring equipment. There are three paraboloids with 52 cm openings, spaced vertically at distances of 1.5 m. Further a calibrated electrical phase shifter, a receiver, a synchroscope and a cut-out switch are used. The latter disconnects any of the three paraboloids. The paraboloid antenna system is rotated around its axis, whereby the phase shift is measured. The author discusses some of the possible errors, for example the ground reflection. Other errors may be caused by the type of equipment used. The author

Card 1/2

SAZONOV, A.I.

Method of measuring the reflection coefficient of the earth and of inversion layers. Izv. vys. ucheb. zav.; radiotekh. 3 no.4:517-518  
Jl-Ag '60. (MIRA 13:10)

1. Rekomendovano Laboratoriyey radiofiziki Sibirskogo fiziko-  
tekhnicheskogo nauchno-issledovatel'skogo instituta pri Tomskom  
gosudarstvennom universitete im. V.V.Kuybysheva.  
(Radio--Antennas) (Radio waves)

81121

S/142/60/000/01/015/022

E140/E555

9.9000; 3.5000

AUTHOR: Sazonov, A.I.

TITLE: The Effect of Ultrarefractive Layers on the Magnitude of the Angle of Radio Refraction  $\phi$

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, Nr 1, pp 117 - 119 (USSR)

ABSTRACT: Measurements were carried out of the slow variations of refractive angle in the formation of surface and elevated ducts over wooded broken terrain. The experiments were carried out in 1956 and 1957 using the signal reflected from a passive reflector at an elevation of 7' at a distance of 19.2 km from the transmitter on wavelength 5.2 cm. The measuring equipment has been described in Ref 2. Detailed discussions of the meteorological conditions on two dates (August 16, 1956 and April 12, 1958) and the duct-propagation conditions existing on those dates is presented. The author considers that surface ducts are determined by the local weather while elevated ducts are mainly determined by the meteorological conditions of moving air masses.

At elevation angle 7' the angle of radio refraction in  $\chi$

Card1/2

81121

S/142/60/000/01/015/022

E140/E335

The Effect of Ultra-refractive Layers on the Magnitude of the Angle of Radio Refraction

individual cases of duct propagation exceeds the value of the true elevation angle by a factor of 3. Deviations of refractive angle have smooth character and durations from 15 min to 1 hour for the surface ducts and has an oscillating character for elevated ducts. The variations of magnitude and sign of the refractive angle are in good agreement with the variations of weather conditions on the tract and may possibly be used for radio methods of weather analysis. There are 4 figures and 3 Soviet references.

SUBMITTED: March 2, 1959, initially  
April 2, 1959, after revision.

X

Card 2/2

86802

S/142/60/000/003/017/017  
E192/E482

9.9000  
9.9810

AUTHORS: ~~Sazonov, A.I.~~ and Kolosov, A.V.

TITLE: Calculation of the Angle of Radio Refraction at Small Elevation Angles

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, No.3, pp.409-412

TEXT: The refraction error at small elevation angles can be determined as (Ref.6)

$$\alpha \approx \frac{1}{2} \Delta \quad (1)$$

where  $\Delta$  is the angle of full refraction which is equal to the difference between the incidence angle  $\varphi_2$  at the point of observation and the incidence angle  $\varphi_1$  at the point where the object is situated. Consequently, for determining the refraction error it is necessary to know the change of the angular coefficient of the normal to the phase front during the propagation of radio waves in a non-homogeneous medium or the trajectory of a ray. The equation for the trajectory is in the form (Ref.5)

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E192/E482

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Calculation of the Angle of Radio Refraction at Small Elevation Angles

$$x = \int_0^y \frac{du}{\sqrt{u + p^2 + ug(u)}}, \quad (2)$$

Eq. 8.63  
(2)

where  $x$  and  $y$  are the distance and the height in normalized units and

$$g(u) = \frac{h_1 a^*}{2 \epsilon_0} \left[ \frac{\epsilon - \epsilon_0}{h} - \left( \frac{d\epsilon}{dh} \right)_0 \right]$$

Eq. (A)

where  $\epsilon$  is the permittivity of the troposphere and  $a^*$  is the equivalent radius of the earth. On the other hand, the parameter  $p$  is defined by

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E192/E482

Calculation of the Angle of Radio Refraction at Small Elevation Angles

$$\mu = \sqrt[3]{\frac{ka^2}{2} \cos \gamma}$$

Eq.  
(B)

where  $\gamma$  is the zenith angle. By solving Eq.(2) for  $y = y_1$  and  $y = 0$ , it is possible to determine  $\tan \varphi_1$  and  $\tan \varphi_2$ . The difference of the tangents of  $\varphi_1$  and  $\varphi_2$  is then determined and the final formula for  $\alpha$  is

$$\alpha \approx \frac{v}{2} - \frac{y_1 + y_1 g(y_1)}{2d^2 (2\xi + v)} \tag{5}$$

Eq.  
(5)

$$d = \sqrt{\frac{ka^2}{2}}$$

Eq  
(C)

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S/142/60/000/005/017/017  
E192/E482

Calculation of the Angle of Radio Refraction at Small Elevation Angles

and  $\nu$  is the central angle. Eq.(5) was checked experimentally at the wavelength of 3.2 cm. The experimental results together with the calculated values are indicated in 2 tables. By comparing the results, it is found that in the case of increased "normal" and negative refraction the calculated results are in good agreement with the experimental data. In the case of super-refraction, there is a considerable discrepancy between the experiment and the calculated values. There are 2 tables and 8 Soviet references.

ASSOCIATION: Ionosfernaya laboratoriya Sibirskogo fiziko-  
tekhnicheskogo instituta (Ionospheric Laboratory of  
the Siberian Physicotechnical Institute)

SUBMITTED: July 2, 1959

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24384  
24384  
S/142/60/007/005/011/015  
E192/E382

9,9300 (1036)

AUTHORS: Sazonov, A.I. and Stetsenko, O.A.

TITLE: Dependence of the Radio Refraction Angle on the Wavelength During Formation of Elevated Tropospheric Waveguides

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, Vol. 3, No. 5, pp. 515-516

TEXT: Investigation of the radiowave refraction angle in the troposphere is of importance in the determination of the errors of the positions of targets in space. The angle of reflection was determined by the methods of geometrical optics in a number of works (Ref. 1 - A.V. Shabel'nikov - Radiotekhnika i elektronika, 1956, Vol. 1, No. 3, p. 277; Ref. 2 - D.M. Vysokovskiy - do- p. 274 and Ref. 3 - V.Fannin and K. Dzhen - Voprosy radiolokatsionnoy tekhniki, 1957, Vol. 5, No. 41, p. 164). In this work, the solution of the wave equation with  $\epsilon$ -profiles approximated by the non-symmetrical Epstein model is used for determining the dependence of the refraction angle on the wavelength and the

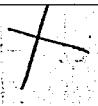
Card 1/6

20

37

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E192/E382



Dependence of the ....

parameters of the elevated waveguide provided that the position angles of the target are small and that the target is situated in the centre of the waveguide or above it. It is known that during an inclined incidence of an electromagnetic wave onto the layer whose permittivity as a function of height is given by

$$\epsilon(z) = \epsilon_1 + (\epsilon_2 - \epsilon_1) \frac{e^{\xi}}{1 + e^{\xi}} + \epsilon_3 \frac{e^{\xi}}{(1 + e^{\xi})^2}, \quad (1)$$

the expression for the refracted wave is in the form (Ref. 4 - P.S. Epstein - Proc. of the National Academy of Sciences 1930, Vol. 16, No. 10, p. 627):

$$E_{np} = e^{ikpx + ksz} (1 + e^{kz/s})^d F_1(a + b + d, a - b + d, 2a + 1, e^{-kz/s}). \quad (2)$$

where  $\xi = kz/s$ ,  $s$  being a parameter which expresses the thickness of the layer in  $\lambda/2\pi$  units. In Eq. (2):

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Dependence of the ....

$$a = is\sqrt{\epsilon_1} \cos \varphi = ia_1, \quad b = is\sqrt{\epsilon_2 - \epsilon_1 \sin^2 \varphi}$$

$$d = \frac{1}{2} - \frac{1}{2} \sqrt{1 + 4s^2 \epsilon_3}$$

which of the hypergeometric equation  
/are the parameters/and  $\varphi$  is the glancing angle. In  
general, it is sufficient to consider only the first two  
terms of the series so that the equation for the phase front  
can be written as:

$$\Phi(x, z) \approx K\sqrt{\epsilon_1} x \sin \varphi + K\sqrt{\epsilon_1} z \cos \varphi + \text{arc tg} \frac{2a_1(b_1^2 + d^2 - a_1^2 - d)}{(1 + 4a_1^2)e^{-kz/s} + a_1^2 - b_1^2 - d^2 - 4a_1^2 d} \quad (3)$$

Since the medium is isotropic, the direction of the ray  
corresponds to the direction of the normal to the wave surface.  
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E192/E382

Dependence of the ....

The angle of the tangent to the ray can be found from:

$$\operatorname{tg} \beta = \left( \frac{\Phi'_z}{\Phi'_x} \right)_{x_0, z_0} \quad (4)$$

where  $x_0$  and  $z_0$  denote partial derivatives. This angle can thus be expressed by:

$$\operatorname{tg} \beta \approx \left\{ 1 + \frac{2s^2(\epsilon_2 - \epsilon_1 + \epsilon_3)(1 + 4s\epsilon_1 \cos^2 \varphi) e^{-kz_0/s}}{(1 + 4s^2 \epsilon_1 \cos^2 \varphi) \left( e^{-kz_0/s} + \frac{1}{2} \sqrt{1 + 4s^2 \epsilon_3 - \frac{1}{2}} \right) - s^2(\epsilon_2 - \epsilon_1 + \epsilon_3)^2} \right\} \quad (5)$$

The above expression determines the relationship between the angle  $\beta$  and the parameters of the non-symmetrical layer of the Epstein type, the wavelength and the glancing angle. The total refraction angle is:

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S/142/60/003/005/011/015  
E192/E382

Dependence of the ....

$$\alpha \approx \frac{1}{2} (\beta - \varphi) \quad (6)$$

On the basis of Eqs. (5) and (6) it was possible to calculate curves giving the dependence between the refraction angle and the wavelength for actual  $\epsilon$ -profiles. An example of such a curve is shown in Fig. 1.6 This was calculated for  $\epsilon_1 = \epsilon_2 = 1.000681$ ,  $\epsilon_3 = 48 \cdot 10^{-6}$  and the layer thickness of 80 m. There are 1 figure and 9 references: 7 Soviet and 2 non-Soviet. The English-language reference: quoted is: Ref. 4 (quoted in text).

ASSOCIATION: Laboratoriya radiofiziki Sibirskogo fiziko-  
tekhnicheskogo NII pri Tomskom gosuniversitete  
im. V.V. Kuybysheva (Radiophysics Laboratory  
of the Siberian Physicotechnical Scientific  
Research Institute of Tomsk State University)

Card 5/6

23263

S/058/61/000/006/055/063  
A001/A101

9.9822

AUTHOR:

Sazonov, A.I.

TITLE:

An investigation of radio wave refraction in the atmosphere lower layers at small elevation angle

PERIODICAL:

Referativnyy zhurnal, Fizika, no. 6, 1961, 392, abstract 6Zh521 ("Uch. zap. Tomskiy un-t", 1960, no. 36, 79 - 81)

TEXT:

The observed values of refraction angle are compared with the results of calculating the refraction integral for 15 parabolic M profiles. Deviations of experimental values from calculated ones do not exceed the summary errors of radio and meteorological measurements. The calculations warrant the following conclusions: 1) at small elevation angles, the magnitude and sign of refraction angle uniquely depend on the altitude distribution of refraction index. This circumstance can be used for a radio engineering method of probing refraction properties of the troposphere lower layers; 2) a satisfactory agreement between experimental values of refraction angle and calculations based on the concepts of geometrical optics was obtained on a 19.2-km long route at small altitudes of the target and receiving antenna.

J

[Abstracter's note: Complete translation]  
Card 1/1

SAZONOV, A.M.

Efficient methods of protecting workings under the conditions of the  
"Gorskaia" Mine No.1/2. Ugol' Ukr. 5 no.7:6-10 J1 '61.  
(MIRA 15:1)

1. Glavnyy marksheyder shakhty No.1/2 "Gorskaya" tresta Pervomay-  
skugol'.

(Donets Basin--Coal mines and mining--Safety measures)  
(Rock pressure)

SAZONOV, A.M., inzh.

Development of shearing processes in side rocks in hard headings  
lying above stopes. Izv. vys. uch. zav.; gor. zhur. 5 no.6:  
32-36 '62. (MIRA 15:9)

1. Donetskij ordena trudovogo Krasnogo Znameni politekhnicheskij  
institut. Rekomendovana kafedroy marksheyderskogo dela.  
(Rock pressure) (Coal mines and mining)



*Sazonov, A.M.*

KUZAKOVA, M.V., kandidat meditsinskikh nauk; SAZONOV, A.M.

Anatomical basis for cutting out calf muscle flaps for grafts in chronic osteomyelitis. Vest. khir. 76 no.11:55-60 '55 (MLRA 9:4)

1. Iz kafedry operativnoy khirurgii (zav.-professor A.P. Nadein) Leningradskogo instituta usovershenstvovaniya vrachey imeni S.M. Kirova.

(OSTEOMYELITIS, surg.

muscle flap transpl. to bone lesions)

(MUSCLES, transpl.

in osteomyelitis, flap transpl. to bone lesions)

(TRANSPLANTATIONS

musc. flaps, to bone lesions in osteomyelitis)

SAZONOV, A.M.

Studying the vascularization and innervation of gluteal muscles for surgical purposes. Vest. khir. 76 no.11:64-67 '55. (MIRA 9:4)

1. Iz kafedry operativnoy khirurgii (zav.-prof. A.P. Nadein)  
Leningradskogo instituta usovershenstvovaniya vrachey imeni S.M.  
Kirova.

(BUTTOCKS, musc.  
vascularization & innervation, surg. anat.)

SAZONOV, A.M.

CHECHULIN, A.S., dots. (Leningrad, Nevskiy pr., 22/24, kv. 161); SAZONOV, A.M.;  
MASIOV, S.I.

Pancreatic necrosis following splenectomy [with summary in English].  
Vest. khir. 80 no.2:72-77 F '58. (MIRA 11:3)

1. Iz 1-y kafedry khirurgii (i.o.zav.-dotsent A.S.Chechulin) i  
kafedry operativnoy khirurgii (zav.-prof. A.P.Nadein) Leningradskogo  
gosudarstvennogo ordena Lenina instituta usovershenstvovaniya vrachey  
im. S.M.Kirova.

(SPLEEN, surg.

excis. in portal hypertension, postop. pancreas  
necrosis (Rus)

(PANCREAS, gangrene, after splenectomy in portal  
hypertension (Rus)

(PORTAL HYPERTENSION, surg.  
splenectomy, postop. pancreas necrosis (Rus)

SAZONOV, A.M.

Experimental data on coronary-carotid perfusion in general  
moderate hypothermia. Eksp. khir. i anest. 9 no.3:80-82  
My-Je '64. (MIRA 18:3)

1. Kafedra torakal'noy khirurgii i anesteziologii (zav. - prof.  
S.A. Gadzhiev) Leningradskogo instituta dlya usovershenstvovaniya vrachey.

GADZHIYEV, S.A.; VORONOV, A.A.; SAZONOV, A.M.

Atrial septal defects; diagnosis and surgical treatment. Khirurgiia  
no.10:48-53 '64. (MIRA 18:8)

1. Kafedra grudnoy khirurgii i anesteziologii (zav. - prof. S.A.  
Gadzhiyev), Leningrad.

SAZONOV, A.M., assistant

Electromagnet of a radiospectrometer for observing nuclear  
magnetic and electronic paramagnetic resonance. Izv. LETI  
no.52:141-151 '64. (MIRA 18:9)

L 1317-66 EWT(m) DIAAP

ACCESSION NR: AP5012547

UR/0181/65/007/005/1389/1392

AUTHOR: Sazonov, A. M.; Grigor'yev, S. B. <sup>44,55</sup> <sub>44,55</sub>

27  
245

TITLE: Concerning the time dependences of the establishment of equilibrium magnetization of a nuclear spin system under the influence of ultrasound

SOURCE: Fizika tverdogo tela, v. 7, no. 5, 1965, 1389-1392 <sup>19,44,55</sup>

TOPIC TAGS: spin system, ultrasonic effect, magnetization, nmr spectroscopy, spin lattice relaxation

ABSTRACT: The reason for the investigation is that the time dependence of the decrease in the amplitude of nuclear magnetic resonance signals under acoustic saturation has not been reported in the literature before, although such relations can yield additional information concerning the nuclear spin system. The authors therefore consider the time dependence of the saturation of a NMR signal under the influence of ultrasonic oscillations. By writing the relative amplitude of the signal in the form

$$A(t)/A_0 = b + (1 - b)\exp(-t/T_1zb),$$

it is shown that the value  $T_1$  can be determined from the experimentally plotted time dependence of the NMR signal saturation directly by experimentally determining the parameters  $A(t)/A_0$ ,  $b$ , and  $z$  ( $A$ --amplitude,  $b$ --constant,  $T_1$ --spin-lattice re-

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L 1317-66

ACCESSION NR: AP5012547

relaxation time, z--radio-frequency field saturation factor). Values of 11 sec, 19.3 Mcs, and 4.4 are obtained for  $T_1$ , for the dynamic quadrupole coupling constant, and for the antiscreeing factor of  $Na^{23}$  in NaCl, respectively. The results are comparable with those published by others. Orig. art. has: 1 figure and 6 formulas. 3

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut im. V. I. Ul'yanova (Lenina) (Leningrad Electrotechnical Institute) 44,55

SUBMITTED: 17Nov64

ENCL: 00

SUB CODE: SS

NR REF SOV: 001

OTHER: 010

Card 2/2



I 9240-66 EWP(1)/T/EWP(k) IJP(c) WW/GG  
ACC NR: AP5022751 SOURCE CODE: UR/0181/65/007/009/2877/2879

AUTHOR: Grigor'yev, S. B.; Sazonov, A. M. 56  
B

ORG: Leningrad Electrical Engineering Institute im. V. I. Ul'yanov (Lenin) (Leningradskiy elektrotekhnicheskiy institut)

TITLE: Effect of ultrasonic excitation on nuclear magnetization in a paramagnetic material

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2877-2879

TOPIC TAGS: theoretic physics, nuclear magnetic resonance, paramagnetic material, ultrasonic effect

ABSTRACT: An equation is derived for the total nuclear magnetization of a unit volume in a paramagnetic material taking account of population changes in energy sub-levels due to the effect of acoustic oscillations. A general solution of this equation shows that the intensity of the nuclear magnetic resonance signal, which is proportional to nuclear magnetization, decreases exponentially after acoustic pumping is started, approaching equilibrium. Orig. art. has: 7 formulas.

SUB CODE: 20/ SUBM DATE: 10Mar65/ ORIG REF: 002/ OTH REF: 005

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VERBITSKIY, V.A.; GANF, A.I.; SAZONOV, A.M.

A highly stable thermocontroller. Zav. lab. 31 no.9:1145-1146 '65.  
(MIRA 18:10)

1. Leningradskiy elektrotekhnicheskiy institut.

GRAMMAKOV, A.G.; OVCHINNIKOV, A.K.; LYUBAVIN, Yu.P.; OVCHINNIKOV, V.M.;  
SAZONOV, A.M.

Effect of the composition of uranium ores on the gamma-ray spectrum as  
recorded by a scintillation spectrometer. Atom.energ. 10 10.6:  
624-626 Je '61. (Uranium ores) (Gamma rays) (IRA 14:6)

BRAMMAKOV, A.G.; OVCHINNIKOV, A.K.; LYUBAVIN, Yu.P.; OVCHINNIKOV,  
V.M.; SAZONOV, A.M.

Effect of the density of uranium ores and of the thickness of  
the iron absorbing layer on the gamma-ray spectrum of the ores  
as recorded by a scintillation counter. Atom. energ. 11 no.1:  
69-71 J1 '61. (MIRA 14:7)

(Uranium ores) (Gamma rays--Spectra) (Scintillation counters)

SAZONOV, A.M.; SIRVIDAS, V.I.

Energy distribution of gamma radiation in solid medium. Atom. energ.  
15 no.5:420-422 N '63. (MIRA 16:12)

S/058/62/000/008/025/134  
A061/A101

21.2110

AUTHOR: Sazonov, A. M.

TITLE: Backscattering of gamma radiation

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 58, abstract 8B420  
(Izv. Leningr. elektrotekhn. in-ta, 1961, no. 46, 328 - 334)

TEXT: Investigation results are presented concerning the backscattering intensity of gamma radiation as a function of the atomic number of the scatterer and the energy of primary radiation. Cr<sup>51</sup>, Cs<sup>137</sup>, Zn<sup>65</sup>, Co<sup>60</sup> gamma-ray sources and Al, Ti, Fe, Cu, Cd, Pd graphite scatterers were used. The results obtained are represented graphically.

[Abstracter's note: Complete translation]

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L 19733-65 EWT(1) IJP(c)/AFWL/ASD(a)-5/RAEM(c)/ESD(t)  
ACCESSION NR: AR4045043 S/0275/64/000/006/V034/V035

SOURCE: Ref. zh. Elektronika i yeye primeneniye. Svodnyy tom, Abs. 6V206 B

AUTHOR: Sazonov, A. M.

TITLE: Methods for stabilizing magnetic fields

CITED SOURCE: Sb. Geofiz. priborostr. Vy p. 16. L., Gostoptekhizdat, 1963, 78-93

TOPIC TAGS: magnetic field, magnetic field stabilization

TRANSLATION: High-stability magnetic fields are required for mass spectrometers, magneto-optical instruments, magnetic alpha and beta spectrometers, magnetic-resonance and electron-paramagnetic-resonance spectrometers, etc. Often the use of permanent magnets is not warranted as they have a high field-strength temperature coefficient and do not produce strong and controllable field. The principal elements of a current stabilizer are: a reference resistor, a feedback amplifier, and a reference-voltage source. By using transistors and Si voltage-regulating diodes, a stability of  $10^{-6}$  can be attained. The transistors connected in parallel can be used for control; when high power is required, motor generators can be used. Hall generators with a temperature compensation can be used for

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ACCESSION NR: AR4045043

field stabilizers. As the current passing the Hall generator is proportional to the output voltage, the generator's stability must be by one order higher than the requisite stability of the magnetic field. Also the magnetic field can be directly stabilized by using the voltage induced in an exploring coil used in magnetic-flux measurements or by using the nuclear magnetic resonance phenomenon in which the h-f energy of a field modulated by a special sensor placed in the magnet gap is absorbed. Bibliography: 60 titles.

SUB CODE: EC , EM

ENCL: 00

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ACCESSION NR: AR4036340

S/0169/64/000/003/G007/G007

SOURCE: Referativnyy zhurnal. Geofizika, Abs. 3G42

AUTHOR: Belonogov, A. M.; Sazonov, A. M.; Serdyuk, A. S.; Marchenko, V. N.;  
Rusakov, A. F.

TITLE: A spectrometer for observation of electron paramagnetic resonance in  
solid bodies

CITED SOURCE: Sb. Geofiz. priborostr. Vy\*p. 16. L., Gostoptekhizdat, 1963,  
94-101

TOPIC TAGS: geophysics, geophysical instrument, electron paramagnetic resonance,  
mineralogy, spectrometer

TRANSLATION: It is noted that a study of the spectra of electron paramagnetic  
resonance in minerals makes it possible to determine the presence and composition  
of paramagnetic impurities, the valence and ground state of a paramagnetic ion,  
the type of crystal lattice, and in a number of cases to explain certain other  
properties, such as color, conductivity, etc. The authors describe an electron

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paramagnetic resonance spectrometer of the superheterodyne type designed for these purposes. The article includes a block diagram of this spectrometer and a brief description of the principal peculiarities of the apparatus by which it differs from earlier described instruments of this type. Circuit diagrams are given for the intermediate frequency preamplifier and the automatic tuner of the heterodyne klystron. The designed spectrometer has been used for a study of electron paramagnetic resonance in a number of natural compounds: spinel, corundum, beryl, apatite, sphene, cassiterite, etc. The measurements were made at room temperature by use of an electromagnet with a uniform magnetic field of at least  $10^{-4}$  gauss/cm (the diameter of the pole pieces is 200 mm), which was fed from a current stabilizer with a stability of  $10^{-5}$ . The instrument sensitivity was checked during the measurements using the signal from a standard specimen of diphenylpicrylhydrazil. The mean sensitivity of the spectrometer was approximately  $5 \cdot 10^{-9}$  mole of diphenylpicrylhydrazil. As an illustration of the results of the measurements the authors cite and briefly discuss spectral derivative curves of electron paramagnetic resonance in spinel and andradite. A. Frolov.

DATE ACQ: 17Apr64

SUB CODE: AS

ENCL: 00

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L 16688-65 EWT(1)/EEC(t) Feb IJP(c)/ESD(gs)/ESD(t)/RAEM(c)/RAEM(1)/SSD/  
 AFWL/ASD(a)-5/AS(mp)-2 S/0058/64/000/010/D037/D037  
 ACCESSION NR: AR5000778

SOURCE: Ref. zh. Fizika, Abs. 10D286

AUTHORS: Sazonov, A. M.

TITLE: Electromagnet of spectrometer for the observation of nuclear magnetic and electron paramagnetic resonance

CITED SOURCE: Izv. Leningr. elektrotekhn. in-ta, vyp. 52, 1964, 141-150

TOPIC TAGS: electromagnet, current stabilization, field stabilization, nuclear magnetic resonance, electron paramagnetic resonance

TRANSLATION: An electromagnet (type SP-78) is described, capable of producing a field in the range 100--10,000 Oe in the gap. The average inhomogeneity of the magnetic field in the working portion of the gap amounts to  $2 \times 10^{-5}$  Oe/cm. The stabilization of the electromagnet is effected by two independent circuits, one controlled by the

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ACCESSION NR: AR5000778

current and the other by the field. The current stabilization circuit ensures stability of the current in the magnet winding within 0.05%. The nuclear magnetic resonance method is used for field stabilization. The resultant stability is  $10^{-6}$ . A. Smirnov.

SUB CODE: EE, NP

EXCL: 00

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