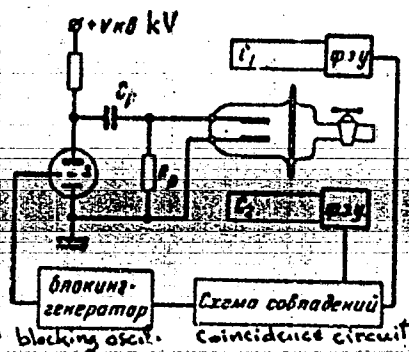


Some characteristics of ....

5/120/63/000/001/006/072  
E032/E314

SUBMITTED: April 2, 1962

Fig. 1:



Card 4/8

AID Fr. 993-8 19 June

*BAYUKOV, Yu. D.*

A NEW SPARK COUNTER (USSR)

Bayukov, Yu. D., G. A. Laksin, D. A. Suchkov, and V. V. Telenkov.  
Pribory i tekhnika eksperimenta, no. 2, Mar-Apr 1963, 45-47.

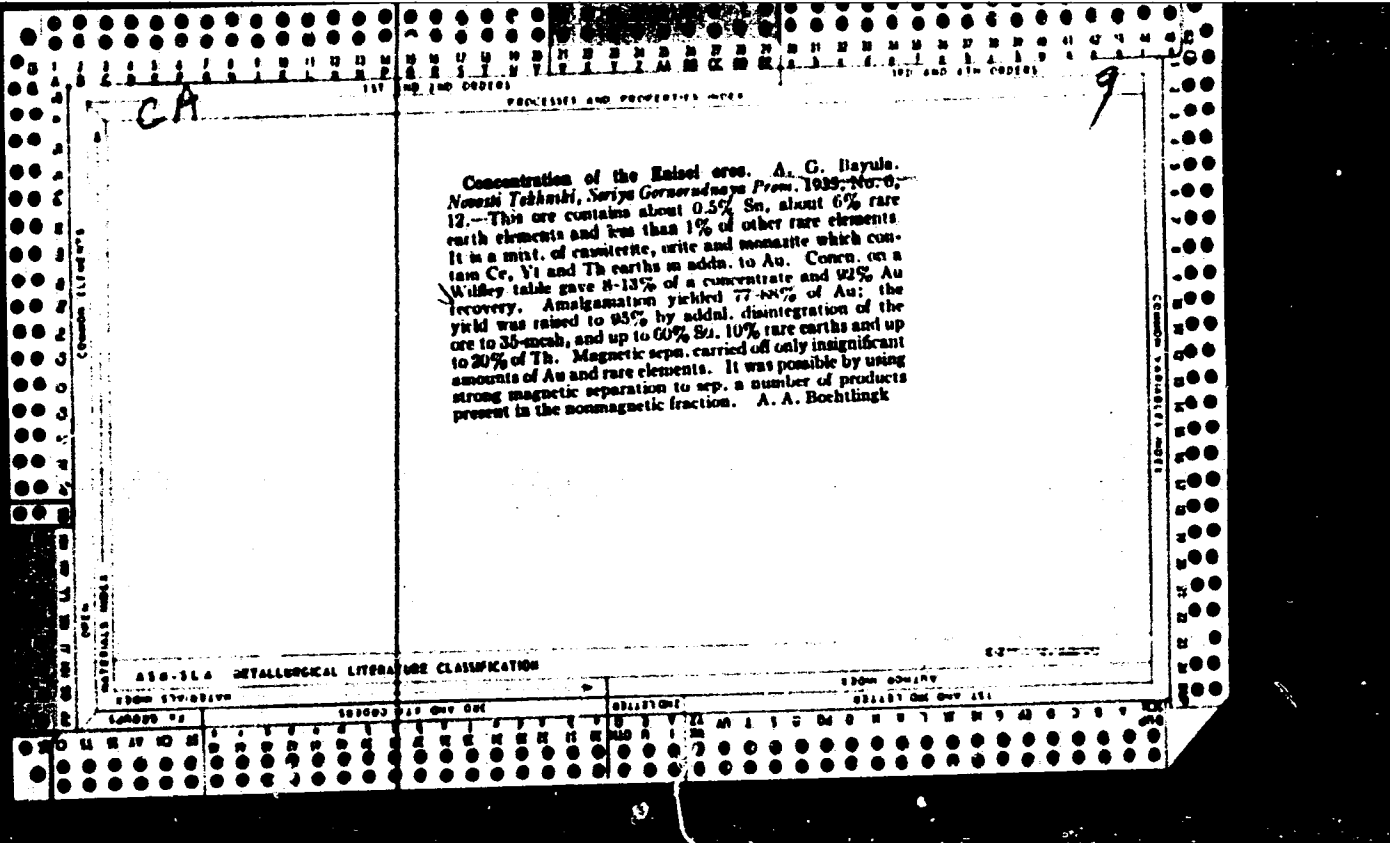
S/120/63/000/002/009/041

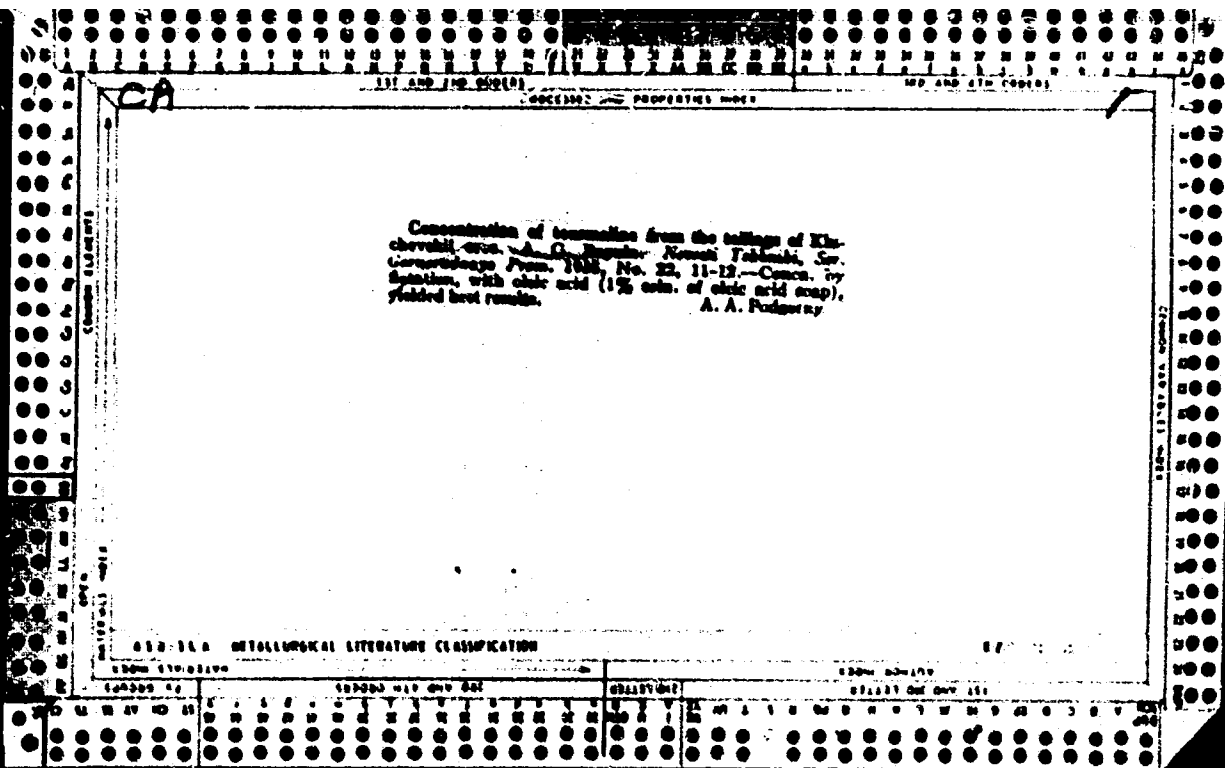
A new spark counter with a high voltage power supply for recording secondary  $\pi$ -mesons generated in the reaction  $\pi^- + p \rightarrow \pi^+ + n$  is described. The counter, characterized by the small amount of matter in the path of the incident particles, consists of 8 electrodes, placed into a cylindrical brass case, forming 4 spark gaps. The electrodes are made of aluminum foil 7  $\mu$  thick stretched between steel rings. The spark counter is evacuated to a pressure of  $10^{-1}$  to  $10^{-2}$  mm Hg and then filled with neon gas until atmospheric pressure is reached. The sparks are photographed in two mutually perpendicular directions. The recovery time for the generator which produces the high-voltage pulses is about 1 sec. [CS]

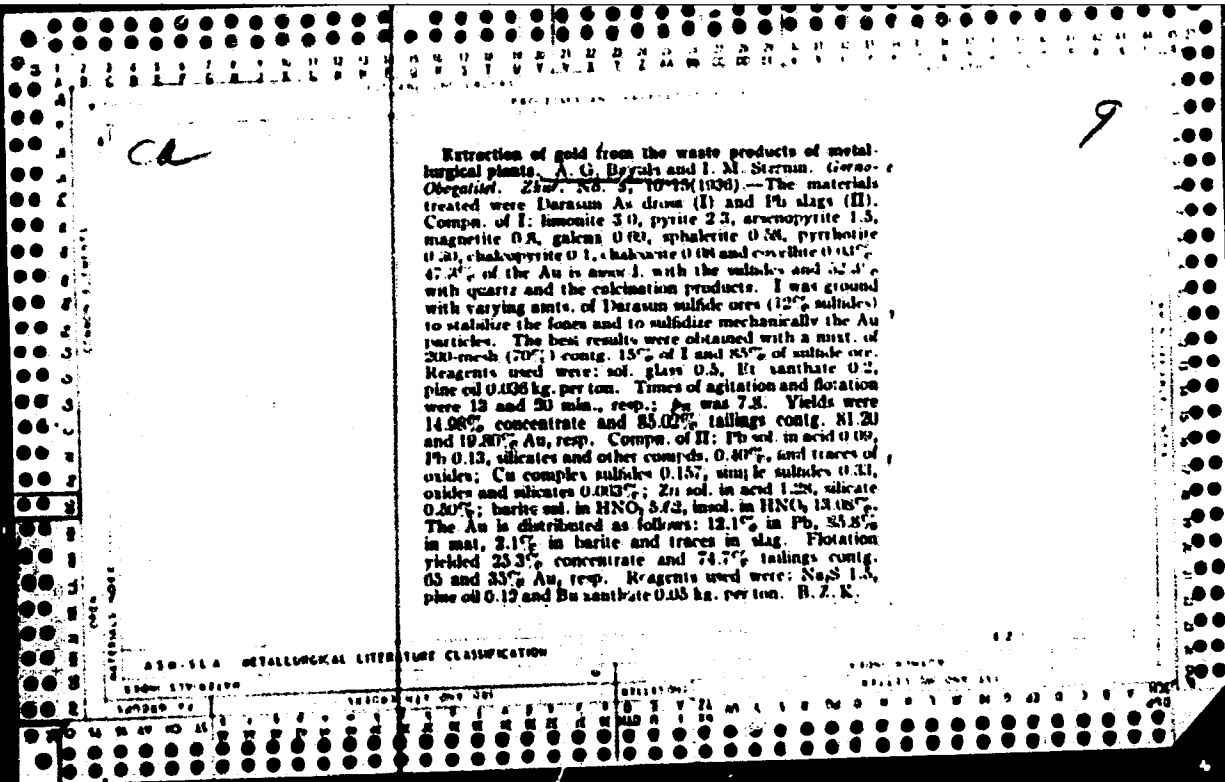
Card 1/1

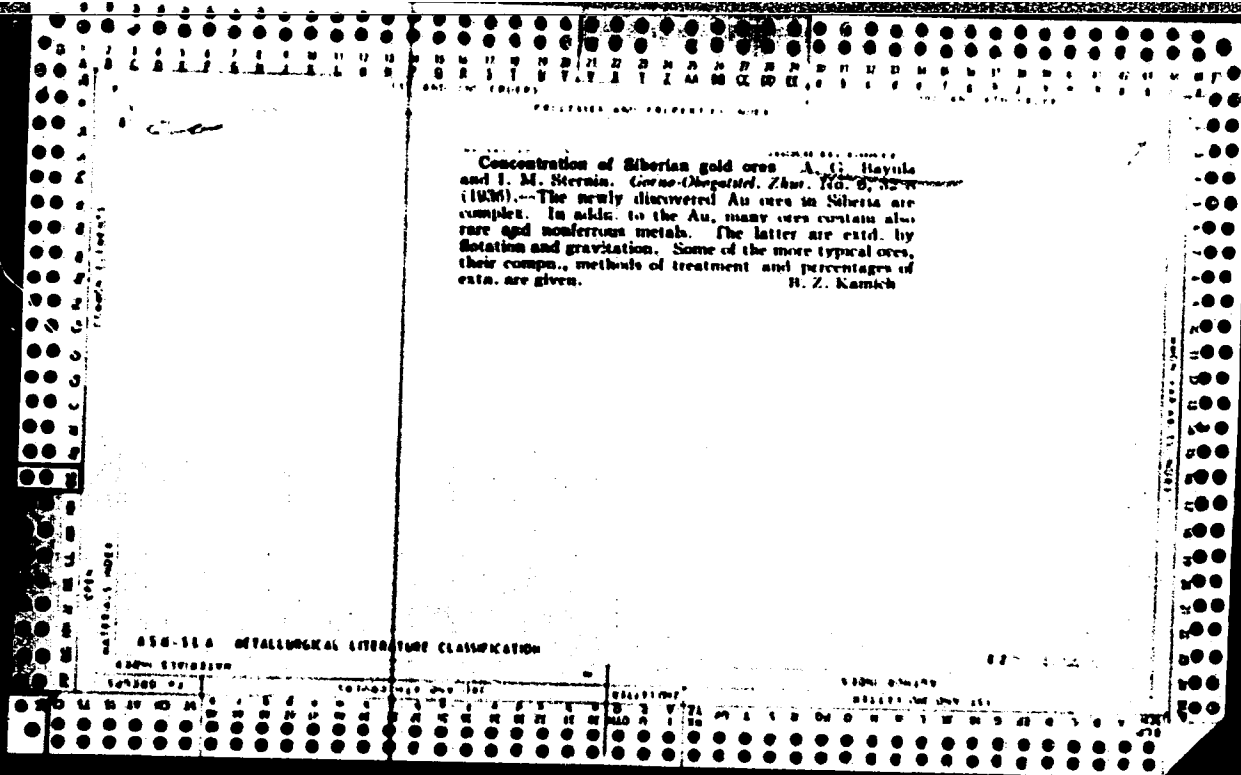
BAYUL, Ye., inzh.; GRADIL', V., inzh.

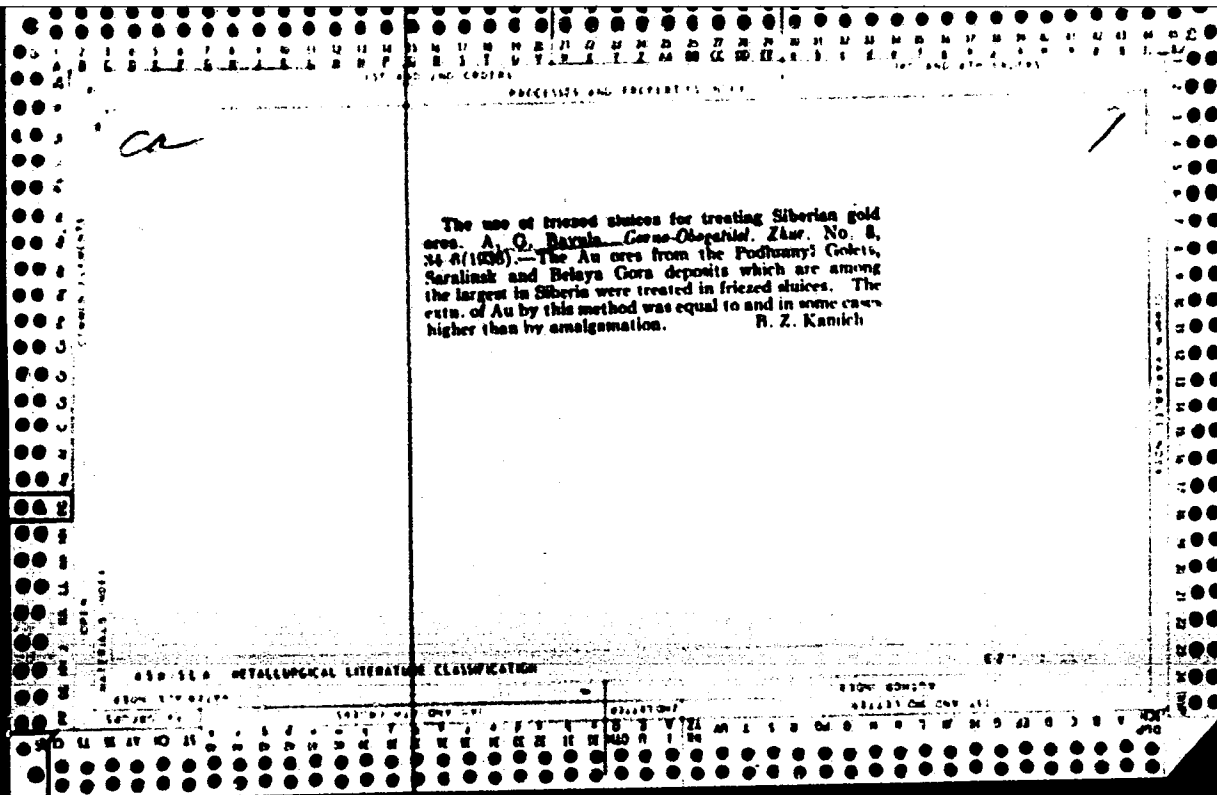
Manufacturing stockings and socks from the "Elastic" fibers.  
Prom. Arm. 4 no.7:53-55 Jl '61. (MIRA 14:7)  
(Leninakan—Hosiery industry)



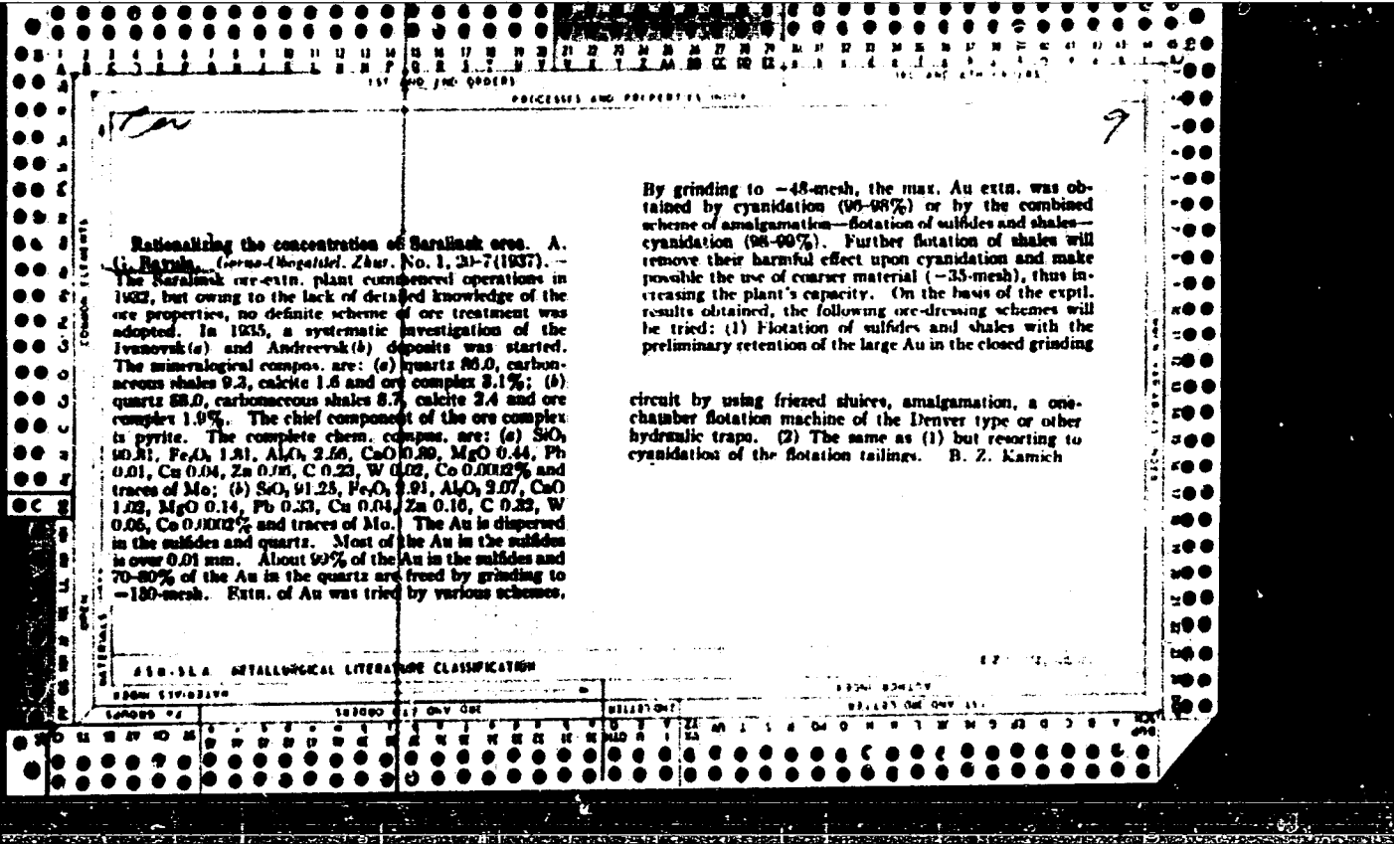


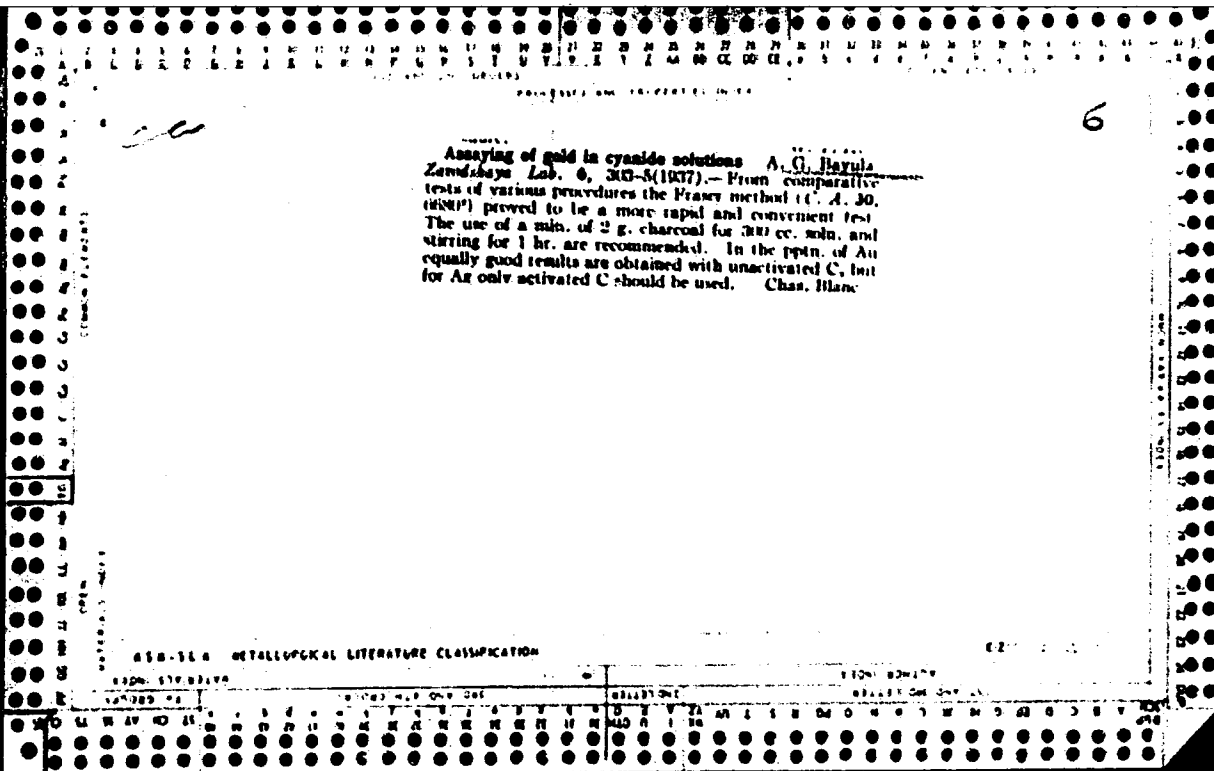


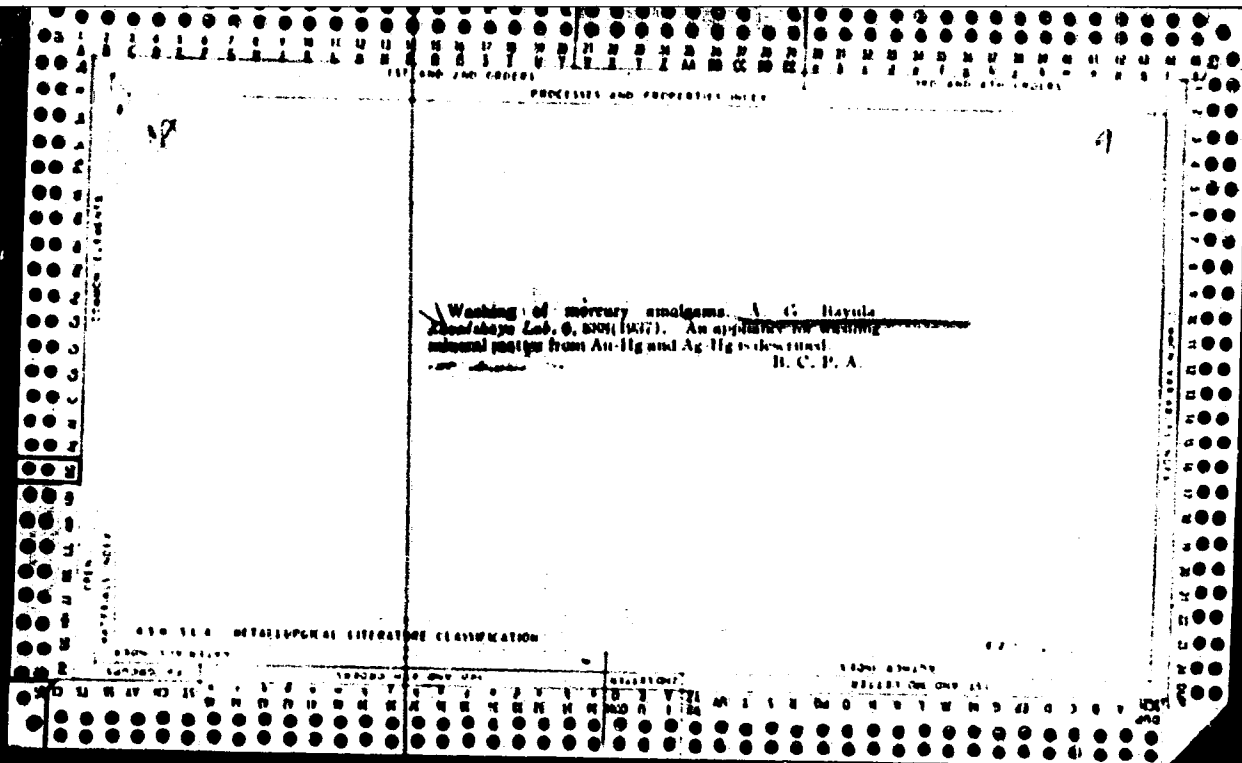


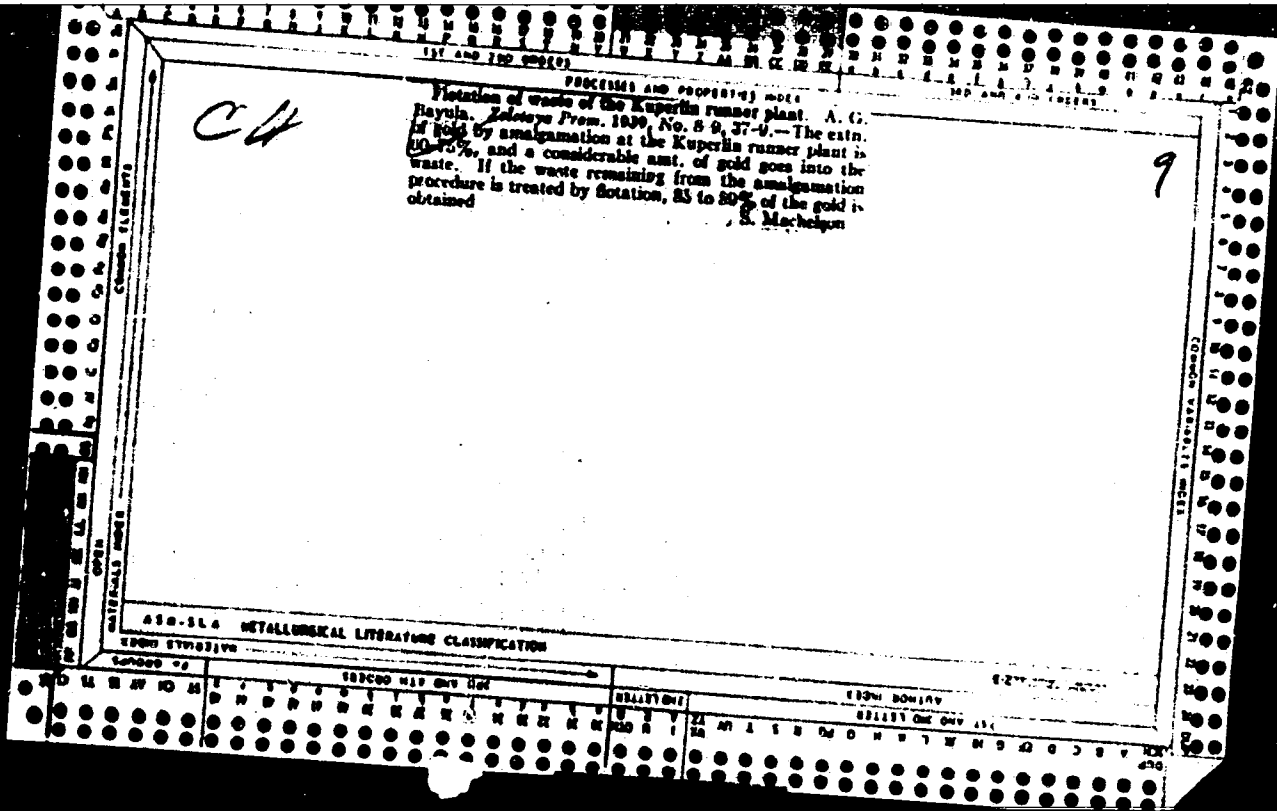


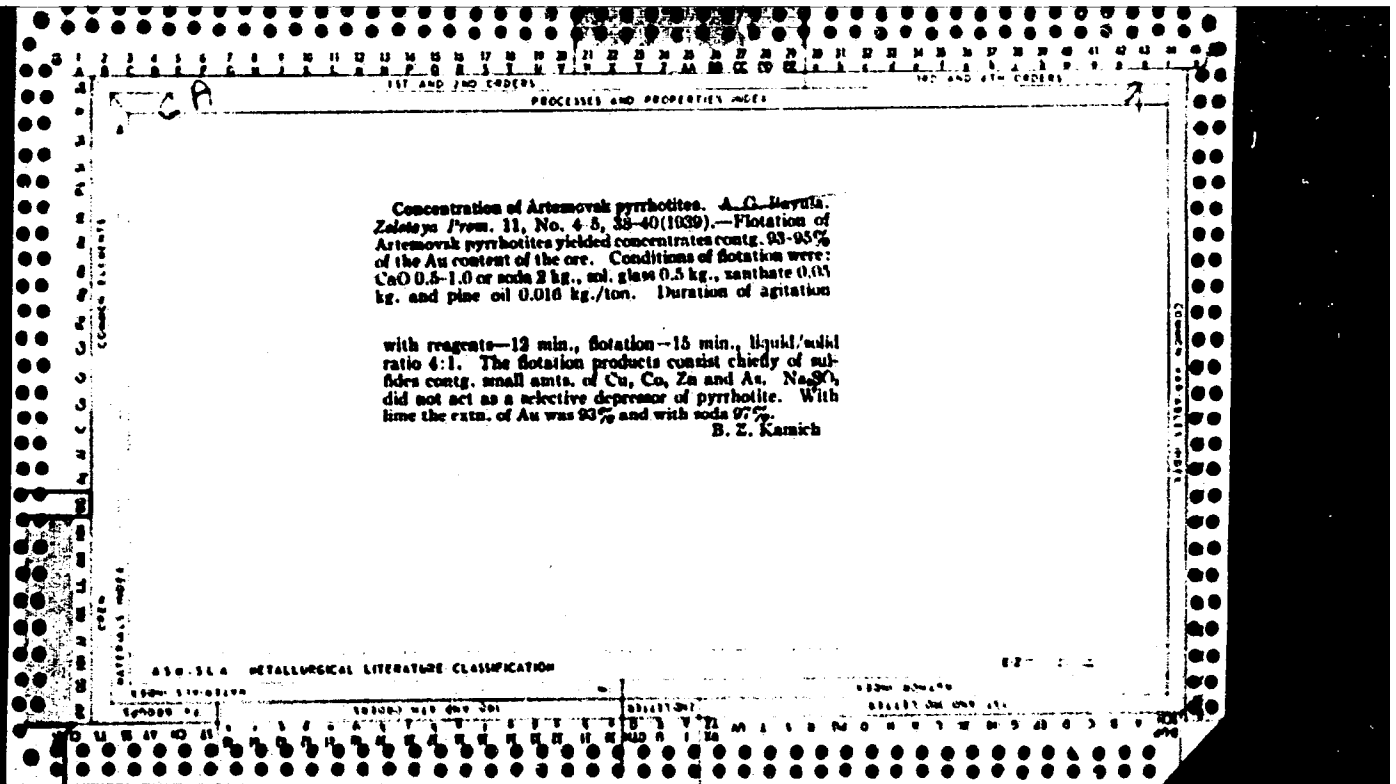












<p><b>CA</b></p>		<p><b>7</b></p>
<p><b>PROCESSES AND PROPERTIES - MET</b></p>		
<p>Pine shavings as a substitute for a frothing agent.  A. G. Bayula and V. V. Shulina. <i>Tsvetnoye Met.</i> 10, No. 18/19, 35 (1911); <i>Chem. Zentr.</i> 1944, II, 1007. Phd. abst.</p> <p>tests were made with a Au ore in the presence of pine shavings and xanthate but without pine oil. Parallel flotation tests were made with xanthate and pine oil but without the pine shavings. As satisfactory flotation was obtained in the first series of tests as in the second. An abundant froth was obtained with the xanthate and pine shavings. The consumption of shavings was 5 kg. per metric ton of ore. The use of a small amt. of shavings (0.5-1.0 kg./ton) along with the frothing agent reduced the amt. of the latter required and promoted stabilisation of the froth in the presence of small amts. of sulfides in the ore.  M. G. Moore</p>		
<p><b>ASS-15A METALLURGICAL LITERATURE CLASSIFICATION</b></p>		
<p><b>1200000</b></p>		<p><b>1200000</b></p>

*ca*
9

Approved and Protected Note

Concentration of Manganese in Kansas S.R. | manga-  
nese ores. A. G. Bayle. *Geol. Soc. Amer.*, 120, No. 6, 30-1  
(1916).—The low-grade manganese minerals in a finely dis-  
persed mass or as concretions. The concretions consist  
of an outer layer of soft, brownish-brown powder  
(making up 8% by wt. and containing 33.41% of Mn), a  
second layer (70-80% by wt. and containing 35% of Mn) hard  
and difficult to crush, a thin layer of weakly cemented  
yellow quartz sand (amounting to 11-20% by wt. and  
contg. 10.00% of Mn), and the nucleus of the concretion  
and consisting of a loose quartz sand contg. approx.  
0.15% of Mn. The av. Mn content of the concretions  
is 30.5-31.8%. The concretions should be hand-picked  
at the mine, crushed, and screened. The sand, amount-  
ing to approx. 30% and contg. an av. of 7.7% of Mn  
should be discarded, leaving the crushed hard material with  
a Mn content of approx. 37%.  
M. Hoesch

010-51A METALLURGICAL LITERATURE CLASSIFICATION
0-27-712-12100

INDEX SYMBOL
FORM NUMBER

SOURCE	SUBJECT DIVISION	SERIES	NUMBER
M	M	M	M
M	M	M	M
M	M	M	M

~~BAYULA, A.G.~~

Height of riffles on concentration tables. Soob. DVFAN SSSR no.7:  
12-16 '55. (MIRA 10:4)

1. Dal'nevostochnyy filial im. V. I. Komarova AN SSSR.  
(Ore dressing)



BAYUIA, A.G., kandidat tekhnicheskikh nauk.

Feasibility of establishing an index of technical effectiveness  
and best indexes for the ore dressing process. Ugol' 31 no.10:33-36  
0 '56. (MLRA 9:11)

1. Dal'nevostochnyy filial Akademii nauk SSSR,  
(Ore dressing)

137-58-6-11336

Flotation of Settling-tank Residues at Plants Milling Complex Ores

ethyl xanthate 0.05, acidol 0.15. The Pb and Zn concentrates obtained after roasting and flotation contain 42-45% Pb or Zn respectively.

A.Sh.

1. Ores--Processing
2. Ores--Flotation

Card 2/2

MOROZOVA, O.V.; BAYULA, A.O.; VINOKUROVA, Ye.A.; KOZLOV, V.N.

Frothing agents from wates of gum-turpentine production. Gidroliz.  
i iosokhim. prom. 10 no.8:10-12 '57. (MIRA 10:12)

1. Dal'nevostochnyy i Ural'skiy filialy AN SSSR.  
(Flotation) (Turpentine industry)

BAYULA, A.G.; SHIGEL'KOVA, O.P.; ALBKHINA, K.N.

Flotation of liptobiolithic and humus types of coal. Soob.  
DVFAN SSSR no.9:35-41 '58. (MIRA 12:4)

1. Dal'nevostochnyy filial im. V.L.Komarova AN SSSR.  
(Coal preparation) (Flotation)

**RAYULA, A.G.**

**Efficient arrangement for the flotation of ores of nonferrous metals. Soob. DVPAN SSSR no.9:43-51 '58. (MIRA 12:4)**

- 1. Dal'nevostochnyy filial im. V.I.Komarova AN SSSR.  
(Nonferrous metals) (Flotation)**

BAYULA, A.G.

Behavior of accessory minerals on the concentration table. Izv.  
Sib.otd.AN SSSR no.12:47-48 '59. (MIRA 13.5)

1. Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR.  
(Ore dressing)

BAYULA, A.G.; YAMPOL'SKAYA, M.Ya.; L'VOVA, R.T.

Flotation of fluorite from silicate ores of the Far East. Izv.  
Sib.otd.AN SSSR no.2:38-45 '60. (MIRA 13:6)

1. Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR.  
(Fluorite) (Flotation)

BAYULA, A.G.

Efficient systems for concentrating ores containing tin. Soob.DVTAN  
SSSR no.10:135-141 '59. (MIRA 13:11)

1. Dal'nevostochnyy filial imeni V.L.Komarova Sibirskogo otdeleniya  
AN SSSR. (Tin—Metallurgy) (Ore dressing)



BAYULA, A.G.; ALEKHINA, E.N.

Application of the phase analysis of lead and zinc compounds to a study of mixed ores of nonferrous metals. Soob.DVFAH SSSR no.10:264-268 '59. (MIRA 13:11)

1. Dal'mevostochnyy filial Sibirskogo otdeleniya AN SSSR.  
(Lead ores) (Zinc ores)

BAYULA, A.G.; IOZINSKAYA, V.S.

Studying the effect of arsenic on the results of determining tin by  
the iodometric method. Soob. DVTAN SSSR no. 12:49-52 '60.

(MIRA 13:11)

1. Dal'nevostochnyy filial imeni V.L. Komarova Sibirskogo otdeleniya  
AN SSSR.

(Arsenic)

(Tin--Analysis)

(Iodometry)

BAYULA, A.G.; LOZINSKAYA, V.S.

Studying the possibility of producing lightweight sintered materials from andesite basalts of the Maritime Territory. Soob.DVFAN SSSR no.13:51-55 '60. (MIRA 14:3)

1. Dal'novostochnyy filial im. V.I.Komarova Sibir'skogo otdeleniya AN SSSR.

(Maritime Territory--Basalt) (Stone, Cast)

BAYULA, A.G.; GRYAZNOVA, V.T.

Use of chlorinated roasting for the production of highly standardized tin products from polymetallic ores of the Maritime Territory. Scoop. DVPAN SSSR no. 15:43-46 '62. (MIRA 17:9)

1. Dal'nevostochnyy filial imeni Komarova Sibirskogo otdeleniya AN SSSR.

S/032/62/028/002/010/037  
B101/B110

AUTHORS: Bayula, A. G., and Mel'nikova, N. M.  
TITLE: Determination of tin in materials of high silicic acid content  
PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 2, 1962, 166  
TEXT: To eliminate the effect of silicic acid, and to lower its adsorption properties, tin is reduced with the twofold excess of metallic aluminum (2 - 4 g of Al for a weighed portion of 1 g). In this case, separation of silicic acid is not necessary. To increase the accuracy of tin titration by iodine, oxygen is kept off by a simple vessel stopper. [ Abstracter's note: Complete translation. ]  
ASSOCIATION: Dal'nevostochnyy filial Sibirskogo otdeleniya Akademii nauk SSSR (Far Eastern Branch of the Siberian Department of the Academy of Sciences USSR)

Card 1/1

.BAYULA, A.G.; CHUPAKHIN, N.I.; ZAKASOVSKAYA, M.V.; YAROSHEVSKAYA, N.F.

Concentration of poor carbonate-phosphate ores of the Tigrovaya  
Pad' deposit. Soob. DVFAN SSSR no.17:27-31 '63.

(MIRA 17:9)

1. Dal'nevostochnyy filial im. V.L. Komarova Sibirskogo otdeleniya  
AN SSSR.

BAYULA, A.G.; MEL'NIKOVA, N.M.

Possibility of a complex dressing of collective concentrates using chlorinated roasting at low temperatures. Soob. DVFAN SSSR no.17: 33-37 '63. (MIRA 17:9)

1. Dal'nevostochnyy filial im. V.L. Komarova Sibirskogo otdeleniya AN SSSR.

S/075/60/015/004/027/030/XX  
B020/B064AUTHORS: Bayulescu, G., Lazár, C., and Cristescu, C.TITLE: The Problem of Organic Reagents for Osmium ✓PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 4,  
pp. 505 - 506

TEXT: L. Chugayev (Ref. 1) showed that a red color appears when solutions containing osmium in the form of  $\text{OsO}_4$  or chlorosmate are heated in the presence of thiourea and some drops of HCl, due to the formation of the compound  $[\text{Os}(\text{H}_2\text{N} - \text{CS} - \text{NH}_2)_6] \text{Cl}_3 \cdot \text{H}_2\text{O}$ . Z. Bardoděj (Ref. 5) regards  $\text{CS}$  as the functional-analytical group for Os and Ru. He found that  $\text{OsO}_4$ , together with  $(\text{H}_2\text{N})_2\text{CS}$ ,  $\text{CS}(\text{NHC}_6\text{H}_5)_2$ , and  $\text{H}_2\text{NCSNHNH}_2$ , gives a red color, and with  $\text{H}_2\text{NCSNHC}_6\text{H}_5$ ,  $\text{CS}(\text{NHCH}_3)_2$ ,  $\text{SC}[\text{N}(\text{CH}_3)_2]_2$ ,  $\text{NH}_4\text{SCN}$ , and  $\text{NaCSN}(\text{C}_2\text{H}_5)_2$  a violet color. The authors aimed at studying the reactions of osmium with two substituted thiourea

Card 1/3



The Problem of Organic Reagents for  
Osmium

S/075/60/015/004/027/030/XX  
B020/B064

derivatives: 4-acetyl amino benzaldehyde thiosemicarbazone (I) and 4-nitrobenzaldehyde semicarbazone (II). Compound I is used for the treatment of tuberculosis, under the name "Tebezon" or TB<sub>1</sub>. Reagent I is used as a 0.1% solution in 1% NaOH, and reagent II, as a 0.05% solution in 1% NaOH. Both solutions are used when still fresh. Under the above-described conditions, osmium, together with reagent I, forms a brown precipitate which dissolves after the addition of ethyl alcohol to a yellow-brown solution whose color depends on the osmium concentration. A red-brown solution results from reagent II after the addition of ethyl alcohol. A perpendicular Pulfrich photometer was used to determine osmium. The maximum optical density was obtained in both cases with the filter M<sub>43</sub> (4360 Å). The results are given in a table and in Figs. 1 and 2. When using reagent I it is possible to determine 1.2 - 14.7  $\gamma$  Os/ml. and with reagent II, 0.49 - 8.60  $\gamma$  Os/ml. Both reagents are more sensitive than thiourea which permits the determination of 8 - 40  $\gamma$  Os/ml. The increase in sensitivity may be explained by the presence of the nitro group causing an increase of the polarity of groups in the para position. There are 2 figures 1 table, and

Card 2/3

The Problem of Organic Reagents for  
Osmium

S/075/60/015/004/027/030/XX  
B020/B064

6 references: 1 French, 2 US, 1 Austrian, 1 Czech, and 1 German.

ASSOCIATION: Universitet im. K. I. Parhona, Bukharest (Rumyniya)  
(C. I. Parhon University, Bucharest (Rumania))

SUBMITTED: November 25, 1959



Card 3/3

SEREBROV, M.A., kand.meditsinskikh nauk; BAYUN, V.N., starshiy nauchnyy  
sotrudnik

Potentiated anesthesia as a method for combatting shock. Ortop.  
travm.i protez. 21 no.4:66-67 Ap '60. (MIRA 13:9)

1. Iz mediko-fiziologicheskogo otdela (nach. - M.A. Serebrov)  
TSentral'noy nauchno-issledovatel'skoy laboratorii po gornospasa-  
tel'noy delu (nach. - K.Yu.Kaminskiy).  
(SHOCK) (ARTIFICIAL HIBERNATION)

SEKEROV, M.A.; GORDEYEVA, A.P.; BAYUN, V.N.

True rupture of the healthy heart. Khirurgiia 36 no.3:120-121  
Fr '60. (MIRA 13:12)

(HEART--DISEASES)

BAYUNCHIKOV, V. A., NOVIKOV, B. A.

"Possibilities in Applying a Hydraulic Percussion Turbo-Drill in Geological Exploration"

(New Developments in the Methods and Techniques of Geological Exploration)  
Leningrad, Gostoptekhizdat, 1958. 423 p. (Series: Its: Sbornik trudov I)

BA YUHCHIKOV, V.A.; NOVIKOV, B.A.

Possibility of using the hydraulic perforation method in  
geological prospecting. Trudy VITR no.1:413-421 '58.  
(MIRA 12:1)

(Boring machinery)

SHITIKHIN, V.V.; KURMASHEV, A.M.; BAYUNCHIKOVA, Z.V.; STOLYAROV, A.G.,  
red.izd-va; BYKOVA, V.V., tekhn.red.

[Exploratory directional drilling] Burenie napravlemnykh geol-  
ogorazvedochnykh skvazhin. Moskva, Gosgeoltekhizdat, 1960.  
119 p. (MIRA 15:5)

(Boring)

BAYUNOV, V.I.; PODMOSHENSKIY, V.P.

High-voltage pulse generator using high-frequency magnetic  
materials for charge ignition. Zav.lab. 28 no.5:627-628 '62.  
(MIRA 15:6)

(Electric generators)



BAYNEOV, V.I.; DEMIDOV, M.I.; FODMOSHENSKIY, I.V.

Spectrochronograph with image converter. Usp.nauch.fst. 9:76-78  
'64. (MIRA 18:11)

11061-66 EWT(1)/EWA(h) IJP(c)

ACC NR, AT3001388

SOURCE CODE: UR/3180/64/009/000/0076/0078

AUTHOR: Bayunov, V. I.; Demidov, M. I.; Podmoshenskiy, I. V.

ORG: none

TITLE: Spectrochronograph with an image converter 25

61  
B+1

SOURCE: AN SSSR. Komissiya po nauchnoy fotografii i kinematografii. Uspekhi nauchnoy fotografii, v. 9, 1984. Vysokoskorostnaya fotografiya i kinematografiya (High-speed photography and cinematography), 76-78 and insert facing page 81

TOPIC TAGS: image converter, plasma diagnostics, spectrographic camera

ABSTRACT: Using PIN-type converters with an amplifier, the authors constructed an attachment to mass produce spectrographs for the high speed recording of various portions of the spectrum, i. e., they developed an electron optical spectrochronograph. In order to make the instrument as versatile as possible, a high degree of variation was provided for in camera speed and scanning speed. The resulting complexity of the electronic control circuits required the use of 50 electron tubes, 9 semiconductor triodes, and 62 diodes. The instrument permits the photographing of portions of the spectrum up to 10 mm long at frequencies from 1 thousand to 10 million frames/sec for a total number of frames of 3 to 16 and linear scanning with a time resolution to up to  $10^{-9}$  sec. Other features and the operation of the apparatus are described. Experi-

Card 1/2

L 1X061-66

ACC NR: AT6001388

ence with the spectrochronograph shows that the high sensitivity of instruments with image converters and the reliable electrical synchronization with the phenomenon being photographed make them irreplaceable in optical studies of plasma. Orig. art. has: 4 figures.

SUB CODE: 17,14. SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 000

Card *2/2*

GRINENKO, G.3.; BAYUNOVA, V.I.; PODOBRAZHNYKH, S.D.; MAKSIMOV, V.I.

Cyclization of 5-methyl-3-(p-anisyl)-2-carbomethoxy-1-ketocyclopentane-2-acetic acid and its derivatives. Part 15. Zhur. org. khim. 1 no. 12:2140-2146 D '65 (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni Ordzhonikidze. Submitted November 12, 1964.

BAYUROVA, A. S.

23688

RANNEYE VYAVLENIYE RAKA SHEYKI MATKI PUTEM MASSOVYKH PROFILAKTICHESKIKH  
OSMOTROV ZHENSHCHIN. AKUSHERSTVO I GINEKOLOGIYA, 1949, No. 4, s. 13-18.

SO: LETOPIS' NO. 31, 1949.

Translation - "Earlier Detection of Cancer of the Uterine Neck through  
Mass Prophylactic Examination of Women," ★

Obstetrical and Gynecological Clinic, Stalingrad Medical Inst.

EXCERPTA MEDICA Sec 9 Vol. 9/10 Surgery Oct 55

§628. BAYUS E. and NIKOLOFF N. \* The importance of myotonography and myotonometry in surgery and traumatology - especially in the evaluation of muscular atrophy  
KHIRURGIA (Sofia) 1954, 7/5 (264-272) Graphs 7 illus. 2 (Bulgarian text)

The importance and practical value of myotonographic and myotonometric methods in the evaluation of changes taking place in the muscles are exposed. Two apparatuses, the Sirmay myotonometer and the myotonograph have been employed to this end. The mechanisms as well as the technique in using them are briefly described. This method has served the authors in estimating the state of muscles in atrophy, oedema, endarteritis, after transplantations etc., and has also contributed to building up a correct prognosis, which sometimes was not possible with the clinical data alone.

Conforty - Sofia

SIRMAY, Ye., doktor med.; BAYUS, Ye. (Budapesht)

Letter to the editor. Arkh.anat.gist.i embr. 33 no.3:102  
Jl-S '56. (MIRA 12:11)  
(BUDAPEST--PHYSIOLOGICAL LABORATORIES)

*BAYUSHEVA, M.I.*  
BAYUSHEVA, M.I.

Conditions for formation and methods of calculation of maximum runoff in the territories of northern and central Kazakhstan. Study GGI no.61:262-286 '57. (MIRA 10:12)  
(Kazakhstan - Runoff)



BAYUSHEVA, M.I.

Experimental study of factors controlling the runoff resulting  
from the melting of snow. Trudy GGI no.71:87-95 '59.

(MIRA 12:5)

(Runoff)

(Flowing)

BAYUSHEVA, M.I.; PAVLENKO, G.V.

Average annual and maximum runoff of rivers in the southern regions  
of Western Siberia. Trudy Transp.-energ.inst. Sib. otd. AN SSSR no.13:  
15-49 '61. (MIRA 15:6)

(Siberia, Western--Runoff)

KHAYKIN, G.; BAYUSHKIN, A.

Our labor productivity is growing. Sel'.stroi. 16 no.2:21-22  
F '62. (MIRA 15:12)

1. Predsedatel' soveťa Kalininskoy oblastnoy mezhkolkhoznoy organizatsii (for Khaykin).
  2. Glavnyy inzhener Kalininskoy oblastnoy mezhkolkhoznoy organizatsii (for Bayushkin).
- (Construction industry - Labor productivity)

ALEKSEYEV, A.G.; BAYUSHKIN, S.N.; MARKELOV, V.V.; NEBESNYI, A.D.; SOKOLOV, D.V., inzh., red.; VOLNYANSKIY, A.K., glav. red.; TARAN, V.D., red.; SEREBRENNIKOV, S.S., red.; MIKHAYLOV, K.A., red.; STAROVEROV, I.G., red.; VOLODIN, V.Ye., red.; NIKOLAYEVSKIY, Ye.Ya., red.; CHEKHOV-SKAYA, T.P.; red. izd-va; BOROVNEV, N.K., tekhn. red.

[Concise manual on electric wiring operations] Kratkii spravochnik proizvoditelia elektromontazhnykh rabot. Pod red. D.V.Sokolova. Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1961. 311 p. (MIRA 14:10)

1. Moscow. Gosudarstvennyy proyektnyy institut Tyazhpromelektroproyekt.

(Electric wiring—Handbooks, manuals, etc.)

BAYVAROVSKAYA, Yu.V.; PREOBRAZHENSKAYA, A.I.; STARKOVA, L.M.; SEVAST'YANOVK,  
Ye.S.

Obtaining a growth stimulant from the oils of Perm Province.  
Nefteper. i neftekhim. no.7:8-9 '63 (MIRA 17:7)

1. Permskiy neftepererabatyvayushchiy zavod.

BAYVAROVSKAYA, Yu.V.; ZUBKOVA, N.A.; PREOBRAZHENSKAYA, A.I.

Efficient rectification of gasoline and the sampling of aromatic hydrocarbons in catalytic reforming. Neftoper. i neftekhim. no.4: 26-27 '65. (MIRA 18:5)

1. Permskiy neftepererabatyvayushchiy zavod.

KORSUNSKIY, M.I., doktor fiziko-matematicheskikh nauk, professor; LAGUNOV, A.S.,  
kandidat tekhnicheskikh nauk; BAYVEL', L.P., kandidat tekhnicheskikh  
nauk; SINEL'NIKOV, A.N., kandidat tekhnicheskikh nauk.

Indicator for registering changes in clearances in steam turbines.  
Energomashinostroenie 3 no.5:26 My '57. (MLRA 10:6)  
(Steam turbines)

S/115/60/000/05/25/034  
B007/B011

AUTHORS: Korsunskiy, M. I., Lagunov, A. S., Bayvel', I. P.,  
Sinel'nikov, A. N.

TITLE: Use of Radioactive Isotopes for the Measurement of Vapor  
Moistness 19

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 5, pp 50-52

TEXT: A method of measuring vapor moistness is offered here. It bases on the determination of vapor density after absorption of  $\beta$ -particles. A radioactive sulfur isotope was used for the purpose. Investigations were first conducted in the laboratory. Source activity and counter were selected, the optimum distance between isotope and counter as well as the absorption coefficient were determined. The experimental setup shown in Fig. 1 served for the investigations. The setup is briefly described along with the investigation course. An aluminum vessel prepared for the purpose and shown in Fig. 2 was used as source. Radiometer B-2 (B-2) served as recording device. To determine the vapor density it was necessary to determine the mass absorption coefficient of

Card 1/3



Use of Radioactive Isotopes for the  
Measurement of Vapor Moistness

S/115/60/000/05/25/034  
B007/B011

electrons for which no data were found in publications. The mass absorption coefficient  $\mu'$  was first determined in the experimental way in the laboratory as the tangent of the inclination angle of curve

$\ln \frac{I}{I_0} = f(qd)$ .  $I_0$  is the intensity of the electron beam before passing

through the material layer, and  $I$  the intensity after passing through a layer of a thickness  $d$ .  $q$  is the absorber density. In this way,

$\mu' = 197 \text{ cm}^2/\text{g}$  was found for overheated vapor. The vapor density  $q$  was then determined from formula (4). With a view to testing the method described here, the system shown in Fig. 3 was assembled at the Khar'kovskiy turbinnyy zavod (Khar'kov Turbine Works). The section through the measured portion is shown in the same figure and described. In this test,  $\mu' = 200 \text{ cm}^2/\text{g}$  was found for overheated vapor which fits the value obtained in the laboratory. The moistness degree  $\varphi$  was determined from the  $\mu'$  and  $q$  values obtained. It is pointed out in conclusion that the investigations carried out have proven the possibility of measuring the mean moistness in a vapor flow without drawing off,

Card 2/3

Use of Radioactive Isotopes for the  
Measurement of Vapor Moistness

S/115/60/000/05/25/034  
B007/B011

irrespective of the state and the drop size of the moistness contained  
in the vapor. There are 3 figures and 1 table.

✓  
C

Card 3/3

KORSUNSKIY, M.I.; LAGUNOV, A.S.; BAYVEL', L.P.; SINEL'NIKOV, A.N.

Using radiotopes in measuring the humidity of steam.  
Izm.tekh. no.5:50-52 My '60. (MIRA 14:5)  
(Radiotopes--Industrial applications)

BAYVIL, L. P., KORSUNSKIY, M. I., and LOGUNOV, A. S.

"The Application of Radioactive Isotopes for the Control of Parameters of Moving Wet Steam"

paper presented at the All-Union Seminar on the Application of Radioactive Isotopes in Measurements and Instrument Building, Frunze (Kirgiz SSR), June 1961)

So: Atomnaya Energiya, Vol 11, No 5, Nov 61, pp 468-470

KORSUNSKIY, M.I.; LAGUNOV, A.S.; BAYVEL', L.P.

Using induction transducers in measuring displacements at high temperatures. Izv. tekhn. no.8:16-19 Ag '63. (MIRA 16:10)

BAYVEL', L.P., inzh.; ZIL'BER, T.M., inzh.; KOSYAK, Yu.F., inzh.; LAGUNOV, A.S.,  
inzh.; NAKHMAN, Yu.V., inzh.

Some results of the measurement of the degree of steam moisture  
using an experimental low-pressure steam turbine. Energomashinostroeni#  
10 no.8:37-39 Ag '64. (MIRA 17:11)



ACCESSION NR: AP5002403

the disk speed is equivalent to an increase in the gap (by 10 -60%). For a given speed, the above effect is lower for lower magnetic field strength. For a given larger gaps. It is recommended that the induction sensors used in power turbines be calibrated for speed. Orig. art. has: 3 figures, 4 formulas, and 3 tables.

ASSOCIATION: Khar'kovskiy politekhnicheskoy institut im. V. I. Lenina  
(Khar'kov Polytechnic Institute)

SUBMITTED: 10Feb64

ENCL: 00

SUB CODE: PR, EM

NO REF SOV: 003

OTHER: 000

Card 2/2



L 08501-07 ENP(m)/ENT(1)/ENT(m) WW

ACC NR: ARG029468

SOURCE CODE: UR/0196/66/000/006/G006/G006

AUTHOR: Lagunov, A. S.; Bayvel', L. P. 11  
B

TITLE: Investigation of the two phase medium flow through pipes by observing the attenuation of Beta radiation //

SOURCE: Ref. zh. Elektronika i energetika, Abs. 6G35

REF SOURCE: Vestn. Khar'kovsk. politekhn. in-ta, no. 2(50), 1965, 91-96

TOPIC TAGS: pipe flow, flow analysis, flow characteristic, beta radiation

ABSTRACT: The flow of wet steam was studied by directing a narrow beam of  $\beta$ -radiation through the cross section of a pipe. The source of radiation and the radiation receiver were placed on the opposite sides of the steam pipe directly on its inner walls. The water film thickness on the pipe surfaces was determined by comparing the calculated absorber surface density with the density found by radiation attenuation. According to the experimental data, the film thickness is a function of pressure and water content of the steam and is independent of the steam velocity. [Translation of abstract] M. Vinogradov

SUB CODE: 20

*me*  
Card 1/1

UDC: 532.542

~~BAK~~, A.; VONDRAK, E.

Regeneration of the articular cartilage following transarticular  
osteosynthesis with metal wire. Ortop., travm.i protes. no.7:  
32-35 '61. (MIRA 14:8)

1. Iz kafedry patologicheskoy anatomii (zav. - dotent V. Valakh)  
i khirurgicheskoy kliniki (dir. - prof. V. Rapant) meditsinskogo  
fakul'teta Universiteta im. Palatskogo, Olomuts, Chexoslovakiya.  
(INTERNAL FIXATION IN FRACTURES) (CARTILAGE)

BAYYEROVA, G. [Bayerova, G.]; BAYYER, A. [Bayer, A.]; MALINSKIY, I.  
[Malinsky, J.]; ZAPLETAL, B.

Functional significance of the epiphysial pigment (electron-  
optical study). Arkh. anat., gist. i embr. 48 no.1:18-21  
Ja '65. (MIRA 18:11)

1. Kafedra gistologii (zav.- dotsent M. Obruchnik), kafedra  
patologicheskoy anatomii (zav.- dotsent V.Valakh),  
neyrokhirurgicheskoye otdeleniye fakul'tetskoy bol'nitsy  
Universiteta imeni Palatskogo (zav.- B.Zapletal), gorod  
Olomouts, Chekhoslovakiya.

BAYYER, B. Yu.

Use of Uryvasv's rating flume. Trudy OGI no. 77:122-128  
'60. (MIRA 13:5)

(Flow meters--Testing)

SUEBOTKIN, M.I., kand.tekhn.nauk; TOKAREVA, L.G., inzh.; BAYYER, I.Ye.  
inzh.

Concrete supports for potassium mine shafts. Mont.i spets.rab.  
v stroi. 24 no.12:17-19 D '62. (MIRA 15:12)

1. Nauchno-issledovatel'skiy institut stroitel'noy promyshlennosti.  
(Potassium) (Mine timbering) (Concrete--Corrosion)

BAYYER, K, Cand Chem Sci--(disc) " Interaction of alpha-nitroketons  
with nitroolefins." Len, 1958. 12 pp (Min of Education RSFSR. Len State  
Pedagogical Inst in A.I. Gorksen. Chair of Organic Chemistry), 150 co-  
pies (ML, 49-58, 120)

-10-

BAYER, M.Ya., inzh.

In reference to the letter from the Candidate of Engineering Sciences  
B. V. Ovsianikov published in "Energomashinostroenie" no.5, 1958.  
Energomashinostroenie 5 no.3:22,41 Mr '59. (MIRA 12:3)  
(Hydraulic turbines)

BAYYER, O.N.

Non-saturation method of ammonium sulfate production. Koks i khim.  
no.11:50-53 '62. (MIRA 15:12)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy  
koksokhimicheskoy promyshlennosti.  
(Coke industry--By-products) (Ammonium sulfate)



STOMAKHIN, A.Ya. (Moskva); BAYYER, P. (Moskva); POLYAKOV, A.Yu. (Moskva)

Nitrogen solubility in liquid nickel and in alloys of nickel with  
chromium, molybdenum, and tungsten. Izv. AN SSSR. Met. no.4:37-45.  
JI-Ag '65. (MIRA 18:8)

BAYYER, Peter, arkhitektor

Electrical lighting of the Leipzig Opera House. Svetotekhnika 9  
no.5:13-15 My '63. (MIRA 16:7)

(Leipzig—Electric lighting)

L 2754-66 EWT(m)/T/EWA(m)-2  
ACCESSION NR: AP5024343

JR/0367/65/002/002/0287/0293

AUTHOR: Bayyar, V. M.; Khona, S. A.

TITLE: Photon emission during annihilation of heavy particles

SOURCE: Yadernaya fizika, v. 2, no. 2, 1965, 287-293

TOPIC TAGS: particle annihilation, heavy particle, fermion, photo emission, strong nuclear interaction

ABSTRACT: The authors study some of the characteristics of photon emission which takes place when a pair of fermions is annihilated into another pair of fermions. It is shown that hard photons are emitted chiefly by the original particles. Photon emission is analyzed in the center-of-mass system for the case of electromagnetic annihilation of a pair of fermions, since this makes the easiest example for tracing this type of emission process. Point fermions are assumed to be annihilated into an electron-positron pair. It is shown that the appearance of a peak in the cross section of the radiation by the original particles may be interpreted as conversion of a photon into an electron-positron pair during two-quantum annihilation of the pair of original particles. This same phenomenon is then analyzed in the

Card 1/2

L 2754-66

ACCESSION NR: AP5024343

laboratory coordinate system. Formulas are derived for the cross section of the process with regard to strong interactions, since this process may be used for studying the electromagnetic structure of the proton. "The authors are very grateful to V. M. Galitskiy for consultation." Orig. art. has: 3 figures, 28 formulas. 6

ASSOCIATION: <sup>44,55</sup>Novosibirskiy gosudarstvennyy universitet (Novosibirsk State University)

SUBMITTED: 17Mar65

ENCL: 00

SUB CODE: NP, OP

NO REF SOV: 002

OTHER: 002

*mlr*  
Card 2/2

L 5336-66 EWT(1)

ACCESSION NR: AP5021132

UR/0056/65/049/002/0662/0671

AUTHOR: <sup>44,65</sup>Bayyer, V. N.; <sup>44,55</sup>Galitskiy, V. M.

44  
4  
B

TITLE: Emission of two photons in electron collisions <sup>44,65</sup>

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 2, 1965, 661-671

TOPIC TAGS: bremsstrahlung, particle collision, photon emission

ABSTRACT: This is a continuation of earlier work by the authors (Phys. Lett. v. 13, 355, 1964), in which the cross section for emission of classical quanta was calculated. In the present paper the authors calculate the cross section for double bremsstrahlung in the center-of-mass system of the colliding particles, under the assumption that one of the photons is soft but the other can have arbitrary energy. The electron energy is assumed quite high, so that expansion in powers of the electron emission angle is possible. The principal terms of the expansions are calculated and the correction terms are estimated. The resultant expressions are useful for the calculation of various processes involving photons. By way of an example, the authors calculate to logarithmic accuracy the single-bremsstrahlung cross section for electron-electron or electron-positron collisions. Orig. art. has: 4 figures and 57 formulas.

Card 1/2

C901 1138

L 5336-66

ACCESSION NR: AP5021132

3

ASSOCIATION: Novosibirskiy gosudarstvennyy universitet (Novosibirsk State University) 44, 85

SUBMITTED: 11Mar65

ENCL: 00

SUB CODE: KP

NR REF NO: 000

OTHER: 002

Card 2/2 *md*

BAYYER, V.W.; KHOZE, V.A.

Photon emission due to the production of muon pairs in electron-positron collisions. Zhur. eksp. i teor. fiz. 48 no.3:946-951  
Mr '65. (MIRA 18:6)

1. Novosibirskiy gosudarstvennyy universitet.

BAYYER, V.N.; KHOZE, V.A.

Emission in two-particle electron-positron annihilation. Zhur.  
eksp. i teor. fiz. 48 no.6:1708-1716 Je '65. (MIRA 18:7)

1. Novosibirskiy gosudarstvennyy universitet.



~~BAYER, V.N.~~[translator].; SYROVATSKIY, S.I., red.; BURTSSEV, A.K., red.;  
SOKOLOVA, T.S., tekhn. red.

[Electromagnetic structure of atoms and nucleons; a collection of  
articles][translated from the English] Elektromagnitnaya struktura  
isler i nuklonov; sbornik statei. Moskva, Izd-vo inostr. lit-ry,  
1958. 204 p. (MIRA 11:11)

(Nuclear physics)

Category : USSR/theoretical Physics - Quantum Field Theory

B-6

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 174

Author : Bayyer, V.M.

Inst : Physics Institute, Ukraine SSR Academy of Science

Title : Nucleomesodynamics with Strong Coupling. II. Ground and Isobar States, Charge and Spin of the Nucleon.

Orig Pub : Zh.eksperim. i teor. fiziki; 1956, 30, No 2, 317-329

Abstract : The author considered a strong interaction of the symmetrical pseudo-vector type for the nucleon in a pseudo-scalar meson field. The nucleon is considered extended and infinitely heavy. In the calculation of the eigenvalues of the energy of the system it turns out that the two types of excitation that are most probable in the nucleon-mesons system are the creation of free mesons and the transitions to the isobar state. Unlike Part I, where all the calculations were made in the adiabatic approximation, the authors take approximate account of the non-adiabaticity, using perturbation theory. The methods developed by the authors make it possible to calculate the scattering of mesons by nucleons and the electromagnetic constants (anomalous magnetic moments) of the nucleons.

Card : 1/1

VIL'SON, Dzh. [Wilson, J.G.], red.; BAYER, V.M. [translator]; MAKSIMENKO, V.M. [translator]; SARYCHEVA, L.I. [translator]; BIRGER, N.G., red.; ROZENTAL', I.L., red.; NAKHIMSON, I.G., red.; KHAR'KOVSKAYA, L.M., tekhn.red.

[Physics of cosmic rays; modern achievements] Fizika kosmicheskikh luchei; sovremennye dostizhenia. Sost. gruppy avtorov. Pod red. Dzh.Vil'sona. Moskva, Izd-vo inostr.lit-ry. Vol.3. 1958. 444 p.  
Translated from the English. (MIRA 13:6)  
(Cosmic rays)

BAYYER, V. N., CAND PHYS-MATH SCI, "PROBLEMS OF THE  
THEORY OF ELECTRON INTERACTION UNDER HIGH ENERGIES."  
NOVOSIBIRSK, 1960. (ACAD SCI, USSR, SIBERIAN DEPT,  
JOINT <sup>Acad</sup> ~~Sci~~ COUNCIL FOR PHYS-MATH AND TECH SCIENCES).  
(KL, 3-61, 202).

86913

S/056/60/039/005/030/051  
B006/B077

24.6900

AUTHORS:

~~Bayer, V. N.~~ Khriplovich, I. B.

TITLE:

A Scheme of Weak Interactions With Neutral Currents

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoj fiziki, 1960,  
Vol. 39, No. 5(11), pp. 1374 - 1380

TEXT: In order to eliminate experimentally forbidden processes from the weak interaction scheme, new prohibitions have been introduced. (e.g., the prohibition of neutral currents by Feynman and Gell-Mann); it is of interest to possess a scheme where, on one side, the class of possible weak interactions can be expanded, while forbidden processes are automatically excluded on the other. Such a scheme has been suggested by Bludman (Ref.3). It contains a number of new processes, and agrees with the known experimental data. Of course, there are other schemes available. This one is employed to examine the behavior of neutral currents introduced into the theory of weak interactions. Strange particles are neglected here. A space of charge of weak interactions is introduced, where the dublets ( $\nu_\mu$ ), ( $\nu_e$ ), and (pn) are studied assuming that

Card 1/3

86913

A Scheme of Weak Interactions With Neutral Currents S/056/60/039/005/030/051  
B006/B077

the weak interaction is invariant with respect to rotations in this space. Lepton-lepton and lepton-nucleon processes, and also nucleon-nucleon scattering are investigated. The scattering and annihilation cross sections due to weak interaction are calculated for collisions with particles of the same type. The Lagrangian of these processes is represented by  $L = L_+ + L_3$ , where  $L_+$  is the ordinary Lagrangian of weak interaction, and  $L_3$  is the new Lagrangian containing the interaction of neutral currents:

$$L_3 = (\bar{p}p)(\bar{\nu}\nu) - (\bar{n}n)(\bar{\nu}\nu) - \frac{1}{2}(\bar{p}p)(\bar{e}e) + \frac{1}{2}(\bar{n}n)(\bar{e}e) - \frac{1}{2}(\bar{p}p)(\bar{\mu}\mu) \\ + \frac{1}{2}(\bar{n}n)(\bar{\mu}\mu) + \frac{1}{4}(\bar{p}p)(\bar{p}p) + \frac{1}{4}(\bar{n}n)(\bar{n}n) + (\bar{\nu}\nu)(\bar{\nu}\nu) + \frac{1}{4}(\bar{e}e)(\bar{e}e) \\ + \frac{1}{4}(\bar{\mu}\mu)(\bar{\mu}\mu) + \frac{1}{2}(\bar{\mu}\mu)(\bar{e}e) - \frac{1}{2}(\bar{p}p)(\bar{n}n) - (\bar{\mu}\mu)(\bar{\nu}\nu) - (\bar{e}e)(\bar{\nu}\nu).$$

The cross sections are calculated, and the degree of longitudinal polarization in such nucleon-nucleon scattering events is estimated.

The values obtained are  $10^{-6} - 10^{-7}$  at energies of 200-300 Mev; a similar estimate for the lepton-lepton and lepton-nucleon scatterings

Card 2/3

86913

A Scheme of Weak Interactions With Neutral  
Currents

S/056/60/039/005/030/051  
B006/B077

yields values of the order of  $10^{-3}$  -  $10^{-4}$  at energies of some Bev.  
Ya. B. Zel'dovich is mentioned. There are 9 references: 4 Soviet, 3 US,  
1 British, and 1 Italian.

SUBMITTED: June 15, 1960

Card 3/3

S/056/61/040/002/033/047  
B112/B214AUTHORS: Bayyer, V. N., Kheyfets, S. A.

TITLE: Electron-electron scattering at large energies

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40,  
no. 2, 1961, 613-615

TEXT: An approximate calculation of the electron-electron scattering cross section at high initial energies  $E$  and at an angle of scattering  $\theta \gg m/E$  is made in the present paper following a method proposed by A. A. Abrikosov (Ref. 3: ZhETF, 30, 96, 386, 1956). In the determination of the cross section by the method of perturbation it is not possible to restrict oneself to the lowest order because the higher approximations contain the high value  $e^2 \ln^2(E/m)$ . According to a suggestion of Abrikosov, only those terms are taken into account, in which the highest powers of  $e^2 \ln^2(E/m)$  appear. For selecting such terms, certain conditions are formulated. If  $\omega$  is the maximum energy of the emitted photon, the

differential scattering cross section is given by:  $d\sigma = d\sigma_0 \exp\left[-\frac{8e^2}{\kappa} \ln \frac{E}{\omega} \ln \frac{E}{\omega}\right]$ .

Card 1/2



Electron-electron scattering...

S/056/61/040/002/033/047  
B112/B214

For  $\omega = E$  this formula goes over into the scattering cross section formula of Møller. The energy distribution of the emitted photons is given by

$$dn(\omega) = \frac{8e^2}{\pi} \frac{d\omega}{\omega} \ln \frac{E}{m}. \quad \text{For electrons with the energy } \varepsilon, \text{ the probability}$$

of energy loss in the interval  $\varepsilon \div \varepsilon + d\varepsilon$  is

$$dN(\varepsilon) = \frac{8e^2}{\pi} \ln \frac{E}{m} \frac{d\varepsilon}{\varepsilon} \exp\left\{-\frac{8e^2}{\pi} \ln \frac{E}{m} \ln \frac{E}{\varepsilon}\right\}. \quad \text{A. A. Abrikosov is thanked}$$

for criticizing the paper. There are 1 figure, 1 table, and 3 Soviet-bloc references.

SUBMITTED: August 20, 1960 (initially)  
November 19, 1960 (after revision)

Card 2/2

BAYYER, V.N.; KHEYFETS, S.A.

Behavior of the cross section of electromagnetic particle  
production at the threshold. Zhur. eksp. i teor. fiz.  
40 no.2:715-717 F '61. (MIRA 14:7)  
(Particles (Nuclear physics))

BAYYER, V.N.; SOKOLOV, V.V.

Presence of  $\pi^0$ -mesons in electromagnetic processes. Zhur. eksp.  
i teor. fiz. 40 no.4:1233-1234 Ap '61. (MIRA 14:7)  
(Mesons) (Electromagnetic theory)

BAYYER, V.N.; SYNAKH, V.S.

Formation of bimuonium in electron-positron collisions. Zhur.  
eksp. i teor. fiz. 41 no.5:1576-1581 N '61. (MIRA 14:12)

1. Institut yadernoy fiziki Sibirskogo otdeleniya AN SSSR.  
(Collisions (Nuclear physics))  
(Mesons)

S/053/62/078/004/003/004  
B102/B186

AUTHOR: Bayer, V. N.

TITLE: Electron-positron interactions at high energies

PERIODICAL: Uspekhi fizicheskikh nauk, v. 78, no. 4, 1962, 619-652

TEXT: The author discusses the most important results of high-energy accelerator experiments on electron-electron collisions and the conclusions from treating these problems by quantum electrodynamics. The results of the most important papers published in this field between 1951 and 1962 are reviewed. The following topics are treated: Head-on collision experiments on electron accelerators; Applicability of quantum electrodynamics at small distances (Calculation of radiative corrections to electrodynamic cross section; radiative corrections in higher perturbation-theoretical approximations; radiative corrections due to strong interactions; phenomenological investigation of the applicability of quantum electrodynamics at small distances); particle production in electron-positron collisions, investigation of structure and cross section of the process (Production of muon pairs; production of pion pairs; processes in which  $\pi^0$ -mesons are involved;

Card 1/2

Electron-positron interactions...

S/053/62/078/004/003/004  
B102/B186

production of K-mesons and baryons in electron-positron collisions; pair production of new particles (cf. Phys. Rev. 124, 1577, 1961)); Investigation of weak interactions in collision experiments with oppositely directed electron beams. There are 19 figures and 109 references.

Card 2/2

BAYYER, V.N.; KHRIPLOVICH, I.B.

Neutrino radioactivity and its role in astrophysical processes.  
Astron. zhur. 40 no.5:785-787 S-0 '63. (MIRA 16:11)

1. Institut yadernoy fiziki Sibirskogo otdeleniya AN SSSR.

TITLE: Colliding electron-electron, positron-electron, and proton-proton beams

SOURCE: International Conference on High Energy Accelerators, Dubna, U.S.S.R., 1977, Vol. 1, p. 100, 101p, 1977

TOPIC TAGS: high energy interaction, high energy plasma, particle acceleration

ABSTRACT: In the Institute of Nuclear Physics, Siberian Department, Academy of Sciences of the U.S.S.R., high energy electron-positron and proton-proton beams are colliding. The results of the experiments are reported.

Card 1/5





L 47304-65

ACCESSION NR: AT5007921

D

with a packing discharger of 100 kilovolts, and work stopped on the variant with

Card 3/5

L 47304-65  
ACCESSION NR: AT5007921

0

held in 1956. The presence of a field with two directions in an iron-less accelera-  
tor with central bumper permits the acceleration of particles toward opposite ends  
of the cavity, which makes possible the acceleration of particles in both directions

... All other developments are similar to those of the present invention...  
... The present invention is a further development of the present invention...  
... The present invention is a further development of the present invention...

... The present invention is a further development of the present invention...  
... The present invention is a further development of the present invention...

14 JUL 65

ACCESSION NR: AT5007921

ASSOCIATION: Institut yadernoy fiziki SO AN SSSR (Institute of Nuclear Physics,  
SO AN SSSR)

REMITTED: 29 AUG 65

ENCL: 01

FILE CODE

NR

NO REF SOV: 012

OTHER: 003

*YR*  
Card 5/5