

L 00709-66 EWA(h)/EWT(1)/EWT(m)/EWP(h)/T/EWP(t) IJP(c) JD/JG/GS

ACCESSION NR: AT5020467

UR/0000/64/000/000/0205/0218

AUTHOR: ^{44,55}Vyatkin, A. P.; ^{44,55}Ivleva, O. M.; ^{44,55}Krasil'nikova, L. M.; ^{44,55}Presnov, V. A. ^{44,55}
 (Professor); ^{44,55}Sullivan, B. A.; ^{44,55}Yakubanya, M. P.

TITLE: Process of formation and structure of alloyed contacts of gallium
arsenide with gold and silver ²⁷

SOURCE: Mezhvuzovskaya nauchno-tekhnicheskaya konferentsiya po fizike poluprovod-
nikov (Poverkhnostnyye i kontaktnyye yavleniya), Tomsk, 1962, ^{44,55} Poverkhnostnyye i
kontaktnyye yavleniya v poluprovodnikakh (Surface and contact phenomena in semi-
conductors). Tomsk, Izd-vo Tomskogo univ., 1964, 205-218

TOPIC TAGS: gallium arsenide, gold alloy, silver alloy, semiconductor research,
 semiconducting material

ABSTRACT: The authors study the process of formation, structure and some proper-
 ties of fused gallium arsenide contacts with gold and silver. The melting points,
 coefficients of thermal expansion and microhardness of the various alloys formed at
 the semiconductor-metal contact were measured. Alloys of gallium arsenide with
 silver have a melting point of 750-760°C. The melting point of the gallium arsen-
 ide-gold alloy produced in a vacuum is 350-360°C, while that produced in an argon
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atmosphere is 575°C. This indicates that the composition of alloys of gallium arsenide with gold depends on the conditions under which the alloys are formed. Alloys with gold prepared in argon showed the least change in the coefficient of linear expansion. Alloys produced in vacuum have coefficients of linear expansion close to those of the pure metals. All the alloys differ considerably in their expansion coefficients from gallium arsenide, which may be the reason for the considerable thermal stresses which arise in alloyed contacts of gallium arsenide with gold and silver. Microhardness for all alloys is considerably lower than that of gallium arsenide. X-ray structural analysis shows that the gallium arsenide-silver contacts are composed of eutectic silver and polycrystalline GaAs. The interaction between gallium arsenide and gold in vacuum produces a chemical compound. The gallium arsenide-gold contact produced in argon gas is composed of eutectic gold and gallium arsenide. Contacts of gallium arsenide with gold and silver may be used as ohmic contacts. Orig. art. has: 7 figures, 3 tables.

ASSOCIATION: Sibirskiy fiziko-tehnicheskiy institut pri Tomskom gosudarstvennom universitet im V. V. Kuybysheva (Siberian Physicotechnical Institute at the Tomsk State University) 14,55

SUBMITTED: 06Oct64

ENCL: 00

SUB CODE: MM, SS

NO REF SOV: 010

OTHER: 000

Card ^{KK} 2/2

AW 159-68-5-12/55

AUTHORS: Vyatkin, A. P. and Selivanov, B. A.

TITLE: Preparation of Plane Alloyed Contacts with Germanium (Polucheniye ploskikh splavnykh kontaktov s germaniyem)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, fizika, 1958, Nr 5, pp 60-64 (USSR)

ABSTRACT: Properties of semiconducting devices depend on the geometry of the p-n junction. The properties of the junction itself are determined by the degree of wetting of germanium by the metal used and the mutual solubility of the two. The present paper deals with the causes of formation and ways of elimination of undissolved patches in junctions of germanium with indium. Such patches depend on the method of preparation of indium and germanium, on the crystal orientation of the germanium surface and on the heat treatment applied in alloying. Good wetting depends not only on the purity of the germanium surface but also on the purity of indium. The authors etched indium before alloying and they found that a picric acid etchant was most effective. After etching with picric acid the indium surface becomes mirror-clean and the structure of indium can be clearly seen (Fig. 1a - indium before etching, Fig. 1b - after etching). M. P. Yakuben' found that the structure which can be seen after etching represented mono-

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Preparation of Plane Alloyed Contacts with Germanium

crystalline grains of indium. The authors studied the process of wetting of germanium by etched and unetched indium, using germanium surfaces of various orientations, such as (111), (110), (100). Various methods of alloying were also tried. Alloying was carried out with the apparatus described in Ref. 4, which makes it possible to photograph the indium drop in various stages of alloying. From these photographs the angle of wetting could be determined. After producing alloyed contact, the indium was etched away with hydrochloric acid and the contact surface was then studied under the microscope. The authors make the following conclusions from the results obtained. 1) If unetched indium discs are used, then there will be always some patches of the contact surfaces which are not wetted by indium (Fig. 2). Better results are obtained when either etched discs or unetched spheres of indium are used. The best results are achieved by the use of etched spheroidal lumps of indium; in this case no unwetted areas were found (Fig. 3). Similar results were obtained for an alloy of indium with 0.5% of gallium. Additional gallium reduces

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SC 7155-98-5-12/35

Preparation of Plane Alloyed Contacts with Germanium.

the wetting ability of indium (Fig.4). 2) The effect of crystal orientation of the germanium surface appears in the anisotropy of wetting; the smallest angle of wetting is obtained when the (111) surface is used. This is shown in Fig.5, which gives the temperature dependence of the angle of wetting of germanium by indium for the (111) (curves 1 and 3) and (110) (curve 2) planes. To achieve the best p-n junctions, the authors suggest using spheroidally-shaped etched indium and (111) germanium surfaces. The temperature rise in the process of alloying should be about 250-300°C per hour. The junction diameter was of the order of 2 mm when 10-12 mg of indium were used. The authors thank V. A. Presnov who directed this work. There are 5 figures and 7 references, 4 of which are Soviet and 3 English.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V.Kuybysheva (Siberian Physico-Technical Institute at Tomsk State University im. V.V.Kuybyshev)

SUBMITTED: March 20, 1958.

Card 3/3

BRAGINSKIY, Vladimir Abramovich; SELIVANOV, D.G., red.

[Shrinkage and precision of plastic parts] Usadka i tochnost' detalei iz plastmass. Leningrad. Pt.1. [Shrinkage of plastic parts; verbatim record of a lecture] Usadka detalei iz plastmass; stenogramma leksii. 1963. 42 p.
(MIRA 17:5)

BRAGILSKY, Vladimir Abramovich; SELIVANOV, D.G., red.

[Shrinkage and precision of plastic parts] Usadka i
tochnost' detalei iz plastmass. Leningrad. Leningr.
dom nauchno-tekhn. propagandy. Pt. 2. [Precision of
plastic parts] Tochnost' detalei iz plastmass; ste-
rogramma lektsii. 1964. 39 p. (MIRA 17:7)

KONTOROVICH, P.G.; KURBATOV, V.A. (Sverdlovsk); GUTMAN, A.Ya. (Moskva);
DEYNEGA, A.V. (Kiyev); ISACHKIN, B.Ya. (Penza); NETRONINA, N.G.
(Tambov); PONOMAREV, V.S. (Izhevsk); SELIVANOV, D.P. (Korsun'-
Shevchenkovskiy, Cherkasskaya obl.); KOLIKOV, A.F. (Kalinin);
SHOR, Ya.A. (Moskva); IVANOV, M.I. (Tula)

Discussion of the new mathematics curricula. Mat. v shkole no.3:
4-20 My-Je '59. (MIRA 12:9)
(Mathematics)

SELIVANOV, F.

Three pages from life. Kryl. rod. 16 no.10:14-15 0 '65.
(MIRA 18:12)

SELIVANOV, F.

Stronger than death. Voen. znan. 38 no.4:23-24 Ap '62.
(Kursk, Battle of, 1943) (MIRA 15:4)

SSELIVANOV, F. A.

Dissertation defended for the degree of Candidate of Philosophical Sciences
at the Institute of Philosophy

"Essence of Ethical Qualities and the Specific Character of Morals."

Vestnik Akad. Nauk, No. 4, 1963, pp. 119-145

SELIVANOV, Fedor Tikhonovich; GUDKOVA, N., red.; TROYANOVSKAYA, N.,
tekh.red.

[Men of the Sixth Guards Army] Gvardeitsy. Moskva, Gos.izd-vo
polit.lit-ry, 1960. 190 p. (MIRA 13:11)
(World War, 1939-1945--Campaigns)

SELIVANOV, Fedor

One of sixteen. Voен. znan. 37 no.10:9-10 0 '61. (MIRA 14:9)
(World War, 1939-1945)

SELIVANOV, Fedor

There are only two of them. Voen.znan. 38 no.12:8-9 D '62.
(MIRA 15:12)

(Markauskene, Danute Iurgiovna)
(Nozdracheva, Martena Semenovna)

S. S. VANDOV, G. A.

PHASE I BOOK EXPLOITATION

SOV/3899

Kompleksnaya mekhanizatsiya i avtomatizatsiya proizvodstva; iz opyta zavodov Penzenskogo sovnarkhoza (Overall Industrial Mechanization and Automation; From Experience of Factories Under the Penza Council of the National Economy) [Penza] Penzenskoye knizhnoye izd-vo, 1959. 230 p. Errata slip inserted. 2,000 copies printed.

Ed.: V. Tsar'kov; Tech. Ed.: Ye. Voronkova.

PURPOSE: This collection of articles is intended for the general reader interested in the mechanization and automation of machine-tool production

COVERAGE: The efforts of industrial workers of the Penza district to fulfill ahead of time the objectives set forth in the Seven Year Plan are discussed in these 11 articles. The need for complete automation in the production of machine tools and instruments is strongly emphasized. No personalities are mentioned. There are no references.

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Card 2/3

Overall Industrial Mechanization and Automation (Cont.) SOV/3899

FOR OVERALL IMPROVEMENT IN PRODUCTION TECHNIQUES

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[Engineer]. Method of Processing Parts Grouped According to the Type of
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- Kagan, I.Z., and V.P. Kholkin, On the Road of Technical Progress 200
- Tulayeva, A.G. [Candidate of Chemical Sciences]. Raise the Level of
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- Polyakov, A.A. [Economist]. Groups and Individual Shock Workers of
Communist Labor Should Get Constant Professional Technical
Assistance 221

AVAILABLE: Library of Congress

Card 3/3

VK/rem/gmp
8-11-60

SELIVANOV, G.I.

Forest shelterbelts on the Volga Valley railroad. Zhel. dor.
transp. 38 no.9:83-85 S '56. (MLRA 9:10)

1. Zamestitel' nachal'nika distantsii zashchitnykh lesonasazhdeniy,
Saratov.

(Railroads--Snow protection and removal)
(Windbreaks, shelterbelts, etc.)

SULLIVANOV GI

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IRML

980 AEC-1r-2266
 THE POSSIBILITY OF OCCURRENCE OF μ^+ -MESON
 PENETRATING RADIATION DURING COLLISIONS BE-
 TWEEN HIGH ENERGY PROTONS AND NUCLEI. A. N.
 Novikoy, R. M. Pontecorvo (Pontekoroy), and G. I. Sullivanov (Sullivanov). Translation of a pre-print from
 P.N. P. Ac. of Sci., U.S.S.R. by M. B. Karelitz. 7p.
 "The abnormal scattering" of μ mesons cannot be ex-
 plained by interaction between the nucleon field and the
 field of (μ, μ^0) pair. It is also concluded that the
 "structural" theory of mesons as proposed by Wentzel is
 not correct and that the contribution of (μ, μ^0) pair inter-
 action to the nuclear forces is insignificant. (auth)

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SELIVANOV, G. I.

USSR/Nuclear Physics - Hyperons

FD-2960

Card 1/1

Pub. 146 - 1/28

Author : Balandin, M. P.; Balashov, B. D.; Zhukov, V. A.; Pontekorvo
[Pontecorvo], B. M.; Selivanov, G. I.

Title : Possibility of the formation of Λ^0 particles by protons with
energies up to 700 Mev

Periodical : Zhur. eksp. i teor. fiz., 29 September 1955, 265-273

Abstract : The authors attempt to observe the formation of Λ^0 particles
during collision of protons with energies of 670 Mev with carbon
nuclei. In principle the experiments permitted them to record
 Λ^0 particles decaying according to the following scheme: $\Lambda^0 \rightarrow$
 $n + \pi^0$. They detected gamma rays from the decay of Λ^0 mesons by
means of a telescope consisting of scintillational and Cherenkov
counters. They find that the cross section of formation of Λ^0
particles has a value approximately equal or less than 10^{-31}
 $\text{cm}^2/\text{nucleon}$. They draw conclusions concerning the mechanism gov-
erning the formation of Λ particles. The authors thank V. V
Krivitskiy and A. I. Mukhin for assistance in setting up the col-
limator. Ten references, mainly western and to Otchet IYAP AN
SSSR.

Institution : Institute of Nuclear Problems, Academy of Sciences USSR [IYAP AN SSSR]
Submitted : June 2, 1955

USSR/Nuclear Physics - Mu meson production

FD-3273

Card 1/1 Pub. 146 - 32/44

Author : Novikov, A. N.; Pontecorvo, B. M.; Selivanov, G. I.

Title : Possibility of the formation of penetrating radiation (μ^0 mesons) in collisions of high-energy protons with nuclei

Periodical : Zhur. eksp. i teor. fiz., 29, No 6(12), Dec 1955, 889-892

Title : A communication based upon the results of a work carried out in 1954 and earlier described in Otchet Instituta Yadernykh Problem AN SSSR (Reports of the Institute of Nuclear Problems, Acad. Sci. USSR). The authors propose here that the virtual process $(N) \rightarrow (N) + (\mu, \mu)$ (N: nucleon) takes place, as also indicated by others (e.g. R. E. Marshak, Mesons physics, 1952). They describe experimental arrangement, consisting of target, collimator, deflecting magnet, telescope of scintillation counters serving as monitor, telescope of proportional counters serving as detector of penetrating radiation, convertor, counter filled with BF_3 , etc. They call attention to related work of B. Feld et alii (Phys. Rev., 96, 1386, 1954), noted just as they completed the work described here. They remark on the agreement of results. Eight references, all Western but one (cited above).

Institution: Institute of Nuclear Problems, Academy of Sciences USSR

Submitted : July 15, 1955

SELIVANOV, G. I.

USSR/Physics - π^0 - mesons

Card 1/1 Pub. 22 - 16/59

Authors : Pontekorvo, B. M., and Selivanov, G. I.

Title : Formation of π^0 - mesons with neutrons

Periodical : Dok. AN SSSR 102/2, 253-256 May 11, 1955

Abstract : The results of experiments conducted with the help of the sychro-cyclotron of the Institute of Nuclear Problems are described. The experiments were conducted to study the processes by which π^0 -mesons are formed by neutrons acting on hydrogen and some complex nuclei. Eleven references: 5 USA and 6 USSR (1950-1955). Diagrams; graphs; table.

Institution : Acad. of Sc., USSR, Institute of Nuclear problems

Presented by : Academician L. A. Artsymovich, April 26, 1955

SELIVANOV, G. I.

USSR/ Nuclear Physics

Card 1/1 Pub. 22 - 20/62

Authors : Pontekorvo, B. M., and Selivanov, G. I.

Title : Generation of π^0 -mesons on hydrogen and deuterium by neutrons of 400 Mev (energy.)

Periodical : Dok. AN SSSR 102/3, 495 - 497, May 21, 1955

Abstract : The results of a series of experiments which were conducted in order to clarify process of π^0 - meson formation are discussed. Neutrons of 400 Mev (nominally) obtained by impacts of protons with beryllium nuclei in a synchrocyclotron were used for the experiments. Eleven references: 4 USSR, and 7 USA (1951-1955).

Institution : The Acad. of Sc., USSR, Institute of Nuclear Problems

Presented by: Academician L. A. Artsymovich, April 24, 1955

Selivanov, G. I.

MW
Possibility of the formation of Λ^0 particles by protons with energies up to 700 m.e.v. M. P. Balandin, B. D. Balashov, V. A. Zhukov, B. M. Pontecorvo, and G. I. Selivanov. Soviet Phys., JETP 2, 98-105(1956)(Engl. translation). See C.A. 50, 2313c. B. M. R.

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SELIVANOV, G. I.

Possibility of the formation of penetrating radiation
(μ^+ mesons) from the collision of high-energy protons with
nuclei. A. N. Novikov, B. M. Pontecorvo, and G. I.
Selivanov. *Soviet Phys., JETP* 2, 754-7 (1956) (English
translation).—See C.A. 50, 14374c. B.M.P.

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BALANDIN, M.P.; GREBINNIK, V.G.; SELIVANOV, G.I.

[Synchronizing the operation of a bubble chamber and a
synchrocyclotron] Sinkhronizatsiia raboty puzyr'kovoï kamery
s sinkhrotsiklotronom. Dubna, Ob"edinennyi in-t iadernykh issl.,
1961. 12 p. (MIRA 15:1)
(Bubble chamber) (Synchrotron)

BLOKHINTSEVA, T.D.; VASILENKO, A.T.; GREBINNIK, V.G.; ZHUKOV, V.A.;
LIBMAN, G.; NEMENOV, L.L.; SELIVANOV, G.I.; YUAN' ZHUN-FAN
[Yuan Jung-fang]

[Eight-liter hydrogen-deuterium bubble chamber in a magnetic
field] Vos'militrovaia vodorodno-deiterievaia puzyr'kovaia
kamera v magnitnom ple. Dubna, Ob"edinennyi in-t iadernykh
issl., 1961. 20 p. (MIRA 15:1)
(Bubble chamber) (Magnetic fields)

BLOKHINTSEVA, T.D.; GREBINNIK, V.G.; ZHUKOV, V.A.; LIBMAN, G.;
NEMENOV, L.; SELIVANOV, G.I.; YUAN' ZHUN-FAN
[Yuan Jung-fang]; SARANTSEVA, V.R., tekhn. red.

[Interaction between π^- -mesons and hydrogen at an energy
of 340 Mev] Vzaimodeistvie π^- -mezonov s vodorodom pri ener-
gii 340 Mev. Dubna, Ob"edinennyi in-t iadernykh issl., 1962.
27 p. (MIRA 15:10)
(Nuclear reactions) (Mesons) (Hydrogen)

SELIVANOV, G. I.

3

21/6/50
AUTHORS:

Blodintsova, T.I., Vasilenko, A.P., Orblansk, V.G.,
Zherinov, V.A., Kuznetsov, L.I.,
Selivanov, G.I.,

TITLE:

An eight litre hydrogen-expansion bubble chamber in a
magnetic field

PERIODICAL: Priroda i tekhnika, no.5, 1960, 51-59

TEXT: A detailed description of the apparatus is given. Essentially it consists of two cylindrical chambers, the inner space being the working volume and the outer space for temperature control. The inner cylinder is of copper to improve heat transfer and the outer cylinder, together with most of the casing, is constructed from M100 (AISI 304) stainless steel. Observation ports at the ends of the inner cylinder consist of discs of BK-5 (LK-5) glass 40 mm thick and with an aperture of 280 mm. Detailed drawings are given of the expansion apparatus and the associated two stage double acting electromagnetic valve. The normal gas pressure for operating the expansion apparatus is 7 atm and the degree of expansion can be altered by changing the
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06/0/100

An eight litre hydrogen...

quantity of liquid hydrogen...
 electric lamp...
 system for...
 for liquid hydrogen...
 the working volume...
 standard MC-4...
 liquid nitrogen...
 Cracks were observed...
 time was less than 5...
 with liquid hydrogen...
 During operation...
 consumed. A photograph...
 collision of a...
 been used satisfactorily...
 20000 stereo photographs...
 has performed about 70000...
 The dead time of the...
 ASSOCIATION: 00513R001547720015-9 (Joint...
 RESEARCH: Department of...
 06/0/100

S/120/62/000/005/010/036
E192/E382

AUTHORS: Balandin, M.P., Grebinnik, V.G. and Selivanov, G.I.
TITLE: Synchronization of the operation of a bubble chamber
with a synchrocyclotron
PERIODICAL: Pribery i tekhnika eksperimenta, no. 5, 1962,
60 - 64

TEXT: The usual method of designing the synchronization circuit for a bubble chamber relies on a number of series-connected binary circuits and in this system the spread of the fronts of the triggering pulses can amount to 3% of the total duration of the delay pulse. This, in practice, produces an additional time error of about 0.9 μ s, which completely obscures the growth period of the bubbles to visible dimensions. The system described does not suffer from the above fault due to the production of a coincidence between the internal signal and the synchronization pulse in the final stage. The photographic exposure time is matched with the instant of passage of the beam to within 10^{-4} sec. The system is provided with a "type-of-operation" switch which permits the actuating of the system by

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Synchronization of the operation.. E192/E382

the start pulses obtained from the photo pick-up of the accelerator (external actuation) or by trigger pulses produced by an internal generator. In either case, the system can operate continuously or only once. The internal drive is useful during the testing and adjustment of the system and permits testing the chamber independently of the accelerator. In order to provide definite intervals for the growth of the bubbles after passage of the beam through the accelerator the instant of producing the illumination pulse is made variable. Also, relative time-spacing of the other control pulses is unaltered. This is achieved by providing a delay circuit at the input of the system for the synchronization pulses. The synchronization pulses from the accelerator appear at intervals of 8 - 12 μ s, whereas the operating cycle of the chamber is 2 - 5 sec. Stable operation of the system as a whole is therefore achieved by blocking it for the duration of the operating cycle as soon as a start pulse is received. The blocking pulse is produced by a special forming circuit which blocks the chamber for a duration of 0.5 - 30 sec. A single start pulse triggers therefore two independent channels:

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Synchronization of the operation.. E192/E382

a system for forming pulses for controlling operation of the electromagnetic valve and a unit for producing the illumination pulse. Both channels comprise delay circuits permitting the shifting of the inception of expansion, the starting of contraction and the instant of triggering of the spark tube. It is possible to select the optimum position of the illumination pulse by shifting the instant of expansion. There are 6 figures. ✓

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy
(Joint Institute for Nuclear Research)

SUBMITTED: December 9, 1961

Card 3/3

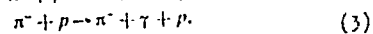
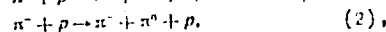
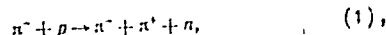
SELIVANOV, G.I.

3

5/056/62/042/003/045/049
B100/B102

24 0700
 AUTHORS: Blokhintseva, T. D., Grebinnik, V. G., Zhukov, V. A.,
 Libman, G., Nemenov, L. L., Selivanov, G. I., Yan Jung-fang
 TITLE: Measurement of the total cross section of the (π^-p) reac-
 tion with 340-Mev π^- -mesons
 PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
 no. 3, 1962, 912-913

TEXT: The reactions



have been studied at energies of the primary π^- mesons of 340 ± 15 Mev with the aid of a 25-cm liquid-hydrogen chamber in a magnetic field of 12,000 gauss. The respective total cross sections were determined as $\sigma_1 = 1.24 \pm 0.14$ mb, $\sigma_2 = 0.13^{+0.06}_{-0.04}$ mb, $\sigma_3 = 0.07^{+0.03}_{-0.00}$ mb. In the

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 P106/1102

Measurement of the total cross ...

determination of the cross section of reaction (3) only cases where the energy of the emitted gamma quantum was higher than 100 Mev were considered. In order to obtain a representation of the contribution of the different isotopic states in the cross sections of the reactions (1) and (2), the latter are written down in the form

$$\sigma_1 = \frac{1}{9} \left[\frac{1}{5} |A_2^i|^2 - 2 \sqrt{\frac{2}{5}} \operatorname{Re}(A_2^i A_0^i) + 2 |A_0^i|^2 \right] + \frac{1}{9} (|A_1^i|^2 - 2 \operatorname{Re}(A_1^i A_0^i) + |A_0^i|^2),$$

$$\sigma_2 = \frac{1}{10} |A_2^i|^2 + \frac{1}{9} \left[\frac{1}{2} |A_1^i|^2 + 2 \operatorname{Re}(A_1^i A_0^i) + 2 |A_0^i|^2 \right],$$

where A_K^i denotes the invariant isotopic amplitudes (superscript refers to total isotopic spin of entire system, subscript denotes total isotopic spin of the system of two pions). The cross sections of the reactions (1) and (2) permit with some assumptions to infer the following about the magnitudes and phases of the isotopic amplitudes: (a) if the amplitudes

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B108/B102

Measurement of the total cross ...

$A_1^{1/2}$ and $A_1^{3/2}$ are zero, then the $A_2^{3/2}$ will be considerably smaller than $A_0^{1/2}$: $5.1|A_2^{3/2}|^2 \leq |A_0^{1/2}|^2 \leq 5.7|A_2^{3/2}|^2$; (b) if it is considered that σ_1 and σ_2 are determined mainly by $A_1^{1/2}$ and $A_1^{3/2}$, then the phase shift of these amplitudes is about 180° , and their moduli are connected by the relation $|A_1^{3/2}| \approx 2|A_1^{1/2}|$. For incident pion energies of 340 Mev the maximum total energy (c.m.s.) of two pions is 400 Mev. If the case (a) applies, one may state that the pions in the energy range 200-400 Mev will interact mainly in states with total isotopic spin $T = 0$ and not with $T = 2$. Professor B. M. Pontekorvo and P. F. Yermolev are thanked for advice and discussions. There are 5 references: 2 Soviet and 3 non-Soviet. The references to English-language publications read as follows: J. Deahl et al. Proc. of the 1960 Ann. Int. Conf. on High Energy Phys. at Rochester, 1960, p. 185; H. J. Schnitzer. Preprint, 1961; B. G. Barish et al. Bull. Amer. Phys. Soc., II, 6, 523, 1961.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

Card 3/4

B/056/63/044/001/022/067
B104/B144AUTHORS: Blokhintseva, T. D., Grebinnik, V. G., Zhukov, V. A.,
Libman, G., Nemenov, L. L., Selivanov, G. I., Yuan Jung-fanTITLE: Interaction of π^- mesons with hydrogen at 340 MevPERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 1, 1963, 116-126

TEXT: The reactions $\pi^- + p \rightarrow \pi^- + \pi^+ + n$, $\pi^- + p \rightarrow \pi^- + \pi^0 + p$, and $\pi^- + p \rightarrow \pi^- + \gamma + p$ were studied with a 25 cm liquid hydrogen bubble chamber in a 12,000-oe magnetic field. The π^- meson beam was generated in the synchrocyclotron of the Laboratoriya yadernykh problem OIYaI (Laboratory of Nuclear Problems OIYaI), the meson energy was 340 ± 15 Mev. 1400 two-pronged stars were found in 16,000 stereoscopic photographs. Those listed in Table 2 complied with the following conditions: (1) the angle α between the track of the incident particle and the central plane of the chamber must not exceed $\pm 4^\circ$; (2) the π^- meson track must not be shorter than 10 mm; (3) the distance between the point of interaction and the boundary of the visible range of the working volume of the chamber.

Card 1/3

Interaction of π^- mesons with ...

S/056/63/044/001/022/067
B104/B144

must not be smaller than 20 mm; (4) the azimuthal angle of a negative particle must not exceed 70° ; (5) the noncomplanarity of elastic interactions must not exceed 3° . The angular distributions and the energy distributions of the secondary particles suggest an effect due to resonance of the spin with the isospin $3/2$. A steep increase of the $\pi\pi$ interaction cross section with a total isospin $T = 0$ was found by analyzing the energy distribution in the $(\pi^+\pi^-)$ c.m.s. There are 10 figures and 2 tables. ✓

ASSOCIATION: Ob'yedinenny institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: August 4, 1962

Card 2/3

3/056/63/044/001/022/067
B104/B144

Interaction of π^- mesons with ...

	(1)	(2)	(3)
$\pi^+ p \rightarrow \pi^+ \pi^+ n$	108	1.24 ± 0.14	1.00
$\pi^+ p \rightarrow \pi^+ \pi^0 p$	11	$0.13^{+0.06}_{-0.04}$	0.19
$\pi^+ p \rightarrow \pi^+ \gamma p$	8	$0.08^{+0.03}_{-0.06}$	—
$\pi^- + p \rightarrow \pi^0 + n$	8	—	—
$\begin{matrix} \nearrow \\ \gamma \\ \searrow \\ e^+, e^- \end{matrix}$			
Упругое πp -рассеяние	764	7.52 ± 0.55	—

Table 2. Interaction cross sections.

Legend: (1) Number of events; (2) σ_{total} , millibarn, experimental;

(3) σ_{total} , theoretical.

Card 3/3

SELIVANOV, G. I.

S/056/63/044/002/019/065
B102/B186

AUTHORS: Blokhintseva, T. D., Grebinnik, V. G., Zhukov, V. A.,
Libman, G., Memenov, L. L., Selivanov, G. I., Yüan Jung-fang

TITLE: The total π^- -p-reaction cross-sections at π^- energies of
276 Mev

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 2, 1963, 498-499

TEXT: The total cross-sections of the reactions $\pi^- + p \rightarrow \pi^- + \pi^+ + n^+$ and
 $\pi^- + p \rightarrow \pi^- + \pi^0 + p$ were measured at $E_{\pi^-} = 276 \pm 10$ Mev in the lab system
in a 25-cm liquid-hydrogen bubble chamber placed in a magnetic field.
Among 6000 photographs made 5 events of the first, and one of the second
reaction were found. The cross sections were:

$$\sigma_1 = 0.4^{+0.2}_{-0.3} \text{ mb} \quad \text{and} \quad \sigma_2 = 0.08 \pm 0.08 \text{ mb}$$

The results are in close agreement with the theoretical predictions of
Card 1/2

The total π^-p -reaction ...

S/056/63/044/002/019/065
B102/B186

H. Schnitzer (Phys. Rev. 125, 1059, 1962). There is 1 figure.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint
Institute of Nuclear Research)

SUBMITTED: September 24, 1962

Card 2/2

BLCKHINTSEVA, T.D.; GREBENNIK, V.G.; ZHUKOV, V.A.; KRAVTSOV, A.V.; LIBMAN, G.;
NEMENOV, L.L.; SELIVANOV, G.I.; YUAN' ZHUN-FAN [Yuan Jung-fang]

Determining the contribution of the $3/2, 3/2$ isobar to inelastic
 π -p-interaction processes at the π -meson kinetic energy of 344
MeV. IAd. fiz. 1 no.1:103-112 Ja '65. (MIRA 18:7)

1. Ob'yedinenny institut yadernykh issledovaniy.

SELIVANOV, G. I.

Structure of single-layer fabrics. Izv. vys. ucheb. zav.;
tekhn. tekst. prom. no.4:63-68 '62. (MIRA 15:10)

1. Moskovskiy tekstil'nyy institut.

(Weaving)

SELIWANOV, G.I.

Changes in the diameter of twist cotton yarn taking place during various tension conditions. Izv.vys.ucheb.zav.; tekhn.tekst.prom. no.1:23-26 '63. (MIRA 16:4)

1. Moskovskiy tekstil'nyy institut.
(Yarn---Testing)

SELIVANOV, G.I.

Effect of the number of layers on the physicomachanical characteristics of multilayer linen weave fabrics. Izv.vys.ucheb.zav.; tekhn. tekst.prom. no.3:77-81 '63. (MIRA 16:9)

1. Moskovskiy tekstil'nyy institut.
(Textile fabrics—Testing)
(Weaving)

DZHAKUPBAYEV, A.N.; SHEPELEV, S.F.; SELIVANOV, G.I.

Gas condition in workings of the Tekeli Mine in the case of a
developed endogenic underground fire. Trudy Inst.gor.dela AN
Kazakh.SSR 9:188-197 '62. (MIRA 15:8)
(Tekeli region (Kazakhstan)--Mine fires)

SELIVANOV, Gonnadiy-Yevgen'yevich; KAZANTSEV, Mikhail Yevgen'yevich;
GORELOV, V.M., inzh., retsenzent; ROZIN, A.I., inzh., red.

[Problems and exercises on metal cutting and metal-cutting tools]
Sbornik zadach i uprazhnenii po rezaniu metallov i rezhushchemu
instrumentu. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.
lit-ry, 1961. 182 p. (MIRA 15:1)
(Metal cutting--Study and teaching)

SELIVANOV, I.; YABLONSKIY, L.

Mechanized construction yard for producing supports by the method
of centrifugation. Zhil.-kom. khoz. 7 no.2:9-10 '57. (MLRA 10:4)
(Electric lines--Poles) (Precast concrete)

SELIVANOV, I. & KRIGOSHEIN, .

The distillation of water for storage batteries. No 9.

Tankist, No 12, 1948.

SOV/136-58-8-17/27

AUTHORS: Medvedev, V.K., Artemov, V.A. and Selivanov, I.A.

TITLE: Improvement of the Thermal Condition of the Reverberatory Furnace at the Kirovgrad Copper-Smelting Kombinat (Uluchsheniye teplovogo rezhima otrazhatel'noy pechi Kirovgradskogo medeplavil'nogo kombinata).

PERIODICAL: Tsvetnyye Metally, 1958,³¹ Nr.8, pp.70-72 (USSR)

ABSTRACT: A group of workers at the Kirovgrad Copper-smelting Kombinat proposed an improved burner construction for the reverberatory furnace. The old burners (Fig.1) ("Copper Queen", medium pressure) had a central fuel oil pipe and an annular air pipe (air at 150-200 mm Hg gauge). The new burner (Fig.2) has a further annulus fed with converter air (at 0.8-1 atm. gauge) to improve atomization and combustion. The addition of high-pressure air should have reduced drop size, according to Prof. Selivanov's calculations. Preliminary tests showed that the flame length (8.5 m) was within the optimal value recommended by I.D. Semkin and M.D. Shabli. Operating results have shown a fuel saving of 0.00396 tons/ton of charge.

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SOV/136-58-8-17/27

Improvement of the Thermal Condition of the Reverberatory Furnace
at the Kirovgrad Copper-Smelting Kombinat

The fuel feed rate is 2.5-3.2 tons/hour, the converter-
air flow being 36 nm³/min. There are 2 figures.

ASSOCIATION: Kirovgradskiy med'kombinat (Kirovgrad Copper-Smelting
Kombinat).

1. Furnaces--Design
2. Furnaces--Equipment
3. Furnaces--Performance

Card 2/2

S/13/60/000/012/003/015
A054/A027

AUTHORS: Bas'yas, I.P., Vyaznikova, T.A., Kokubarov, V.D., Dikhteyn, Ye.
I., Saliyanov, L.A., Katarzychev, A.B., and Nazarov, E.S.

TITLE: Optimum Working Conditions for Basic Bricks of Open-Hearth
Furnaces

PERIODICAL: Stal', 1960, No. 12, pp. 1096-1097

TEXT: In order to investigate the factors influencing the useful life of magnesite-chromite bricks used for open-hearth furnace roofs, tests were carried out in the Magnitogorsk Metallurgical Combines (1957-1959) with furnaces fired a) with smelt only, (blast-type furnaces); b) with blast-furnace coke and an addition of 30 kg/ton of tar ("gas-type" furnaces); c) with blast-furnace coke and an addition of 500-700 kg/ton of coal tar, ("mixed-type" furnaces). The tests served to determine the temperature of the magnesite-chromite bricks at various distances from the working surface of the roof, the composition of the atmosphere under the roof, the quantity and composition of dusts and the rate of the accretion in bricks. For these purposes the following devices were employed: PM (PMP) type photoelectric pyrometer, platinum-rhodium and platinum thermocouples, mounted in a 75 x 75 x

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450 mm magnesite-chromite rod, the hot junctions of the thermocouples being at 0, 10, 15 and 30 mm distance from the working surface. When the hot junction was placed immediately on the surface, it was protected by a silicon-rich cap, with a wall 0.8 mm thick; a single PM (GMP-3) type and for random tests BVM-2 (VM-2) type analyzers were used. The melting dust under the roof was collected by a water cooled detachable test tube connected in series with water filters, gaucetars and syringes. For introducing the apparatus in the under-roof area, 7 openings, (80-83 mm) were made in the roof. In the tests the relationship between the character of temperature change of the working roof surface and the duration of break in firing, the opening of the charging doors, the time during which cold materials are in the furnace, the duration of various processes and that the useful life of the roof in the first place depended on the kind of fuel used, on the place where fuel was fed in the furnace, and on thermal loads. The shortest useful life was observed for smelt-fired furnaces, working under unfavorable atmospheric conditions: CO was frequently, carbohydrates were occasionally found in the roof zone. Even when

Card 2/4

part of the gas fuel was replaced by a liquid (as 500-700 kg/hour) the useful life of the roof was shortened, mainly when charging smelt or tar through tuyeres mounted at the external sides of the brick tanks. Hydrocarbons are harmful because the carbonization of the bricks acts as a catalyst and promotes their decomposition during heating and thereby also the activation of oxidation-reduction processes which deteriorate the iron-rich zones of the refractory bricks. When firing with partly liquid or all-liquid fuel the temperature conditions are also adversely affected because the velocity of temperature changes on the working surface increases during reversing (up to 500°C/min), the temperature drop can attain 200°C and more in this interval; the cooling time of the roof increases during charging while the temperature can decrease to 1,500°C and lower. When cooling below 1,500-1,450°C, the refractory bricks deteriorate considerably under the effect of temperature change, because the working zones of refractory material pass from a stable plastic heat-resistant condition into a brittle, non-heat-resistant state. As, however, in some cases cooling even below 1,000°C (for lining during repair) does not increase deterioration of the bricks, it can be assumed that actually not cooling itself, but its accompanying phenomena, such as speed

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3/15/69/000/012/003/015
AD34/AG21

Optimum Working Conditions for Basic Bricks of Open-Heart Furnaces

and frequency of heat charges during the non-heat-resistant period of the working zones in refractory bricks are the course of their decomposition. The best operating conditions of the roof are when it is not cooled below 1500°C. However, with the present methods of charging high-capacity furnaces this can be obtained only by extending the charging time or by intensifying the combustion of fuel. When having to cool the roof under 1450-1500°C during charging, the number of reversals should preferably be reduced by intensifying combustion as much as possible, and by increasing the intervals between coverings. As the changes in the composition of the refractory roof, recurring for 7-9 minutes, also add to the decomposition of the refractory bricks, care should be taken to prevent any reducing medium from entering this area, not even for a short time. Refractory bricks deteriorate more quickly in the first phase of the furnace campaign than in the subsequent phase. This shows that decomposition takes place quickly when there are refractory bricks with a high content of iron oxides in the working area. There are 6 figures, 6 tables and 3 Soviet references.

ASSOCIATION: Vostochnyy Institut ogneuporov (Eastern Institute of Refractory Material), Magitogorskiy metallurgicheskiy kombinat (Magitogorsk Metallurgical Combine)

Card 4/4

SELIVANOV, I.A.; AVENIROV, M.I.

Jerusalem artichoke as a prospective forage crop for Perm
Province. Uch. zap. Per. gos. un. 13 no.1:19-23 '60.
(MIRA 14:11)

(Perm Province--Jerusalem artichoke)

BELOV, G.V.; SMILYANSKY, I.A.; MATURCHUK, E.H.; KRYLOVA, I.Ye.

Aerodynamic protection of reverberatory furnace roofs. TSvet.
met. 38 no.2:24 F '65. (MIRA 18:3)

SELIVANOV, Igor' Nikolayevich; CHEREVOVSKIY, I.K.

[Every worker should know economics] Ekonomicheskie znaniia kazhdomu rabochemu. Petrozavodsk, Karel'skoe knizhnoe izd-vo, 1964. 49 p. (MIRA 18:1)

SELIVANOV, I. I.

26333 Kran "pioner" s udlinennoy streloy. Mekhanizatsiya stroit-va, 1949,
No. 3, s. 16-17.

SO: LETOPIS' NO. 35, 1949

14(2)

PHASE I BOOK EXPLOITATION

SOV/2919

Selivanov, I.I., and A.I. Burger

Stroitel'nyye mashiny (Building Machinery) Leningrad, Gosstroyizdat, 1958. 310 p. 25,000 copies printed.

Reviewers: A.I. Ivanov, Engineer, and A.L. Shokov, Engineer; Scientific Eds.: V.S. Timofeyev, Engineer, and A.M. Lekhttsind, Engineer; Ed. of Publishing House: M.Ya. Kaplan; Tech. Ed.: Ye.A. Pul'kina.

PURPOSE: This is a textbook for students in industrial and civil engineering.

COVERAGE: Machines, mechanisms, and equipment used in the building industries are described and illustrated. I.I. Selivanov, Engineer, wrote the first four parts of the book. Parts 5 to 12 were written by A.I. Burger, Engineer. No personalities are mentioned. There are no references.

Card ~~1/11~~

SOV/136-59-3-9/21

AUTHORS: Baymakov, A.Yu. and Selivanov, I.M.

TITLE: An Experiment in Operating an Industrial Apparatus for Zone-melting Tin (Opyt puska i ekspluatatsii promyshlennoy ustanovki dlya zonnoy plavki olova)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 3, pp 32 - 37 (USSR)

ABSTRACT: The results of laboratory experiments indicated that zone-melting of wide flat specimens was possible. In the laboratory zone-melting was carried out in quartz vessels 280 x 190 x 15 mm, using overhead Silit resistance heaters (Figure 1). At first, insulating bricks were placed all round the apparatus but this formed a wide molten zone in the centre (Figure 1a). This was overcome by removing insulation from under the centre of the vessel. For the experimental industrial apparatus a vessel 480 x 190 x 15 mm was at first used. The apparatus was redesigned with the help of A.S. Ivannikov, A.M. Yegorov and L.L. Meshkov of the Novosibirsk Lead Works. It consisted of a graphite vessel 1220 . 400 mm, taking 60 kg Sn. The bottom of the vessel was tilted (Figure 2). The vessel was in a case on a portable stand and asbestos cement plates were

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SOV/136-59-3-9/21
An Experiment in Operating an Industrial Apparatus for Zone-melting
Tin

used as supports and insulators. The middle was open to the air. The speed of traverse of the vessel under the heaters was 16, 22, 33 or 44 mm/h and the return speed was 190 mm/min. The heaters were 900 mm long with a resistance of 3.5 Ω each. The distance between the heaters and the metal could be varied from 1 to 3 mm. The current was controlled by an autotransformer. Electrolytically refined tin was used. The zone width was not greater than 65 mm with the solid-metal interface vertical. There were six heaters, 190 mm between each. One cycle is shown in Figure 4. After moving 190 mm, the vessel returns to its original position so that the first zone is under the second heater, the second zone under the third heater and so on. It stays in this position for 15 minutes to allow the zone under the first heater to become molten before the next cycle begins. After the second cycle the zones have moved another 190 mm and after six cycles the first zone reaches the end. The maximum purification is obtained after 40 cycles.

Card2/4 The table gives the spectrographic analysis of the zone-

SOV/136-59-3-9/21

An Experiment in Operating an Industrial Apparatus for Zone-melting Tin

refined tin. No elements were detected. The yield of pure metal is 60% of the length but because of the sloping bottom it is 85% by volume. The production obtained is 145 kg/month using 40-45 kWh/kg tin. During zone-melting the tin is covered from the very beginning by a thin but strong oxide layer. This plays an important part as it absorbs heat easily and protects the tin from contamination and further oxidation. This enables industrial zone-melting of tin without a protective atmosphere. The purity of the tin obtained was measured by an electrical method by the Institut fizicheskikh problem AN SSSR (Institute of Physical Problems of the Ac.Sc., USSR) and found to be 99.9998% Sn. The described method is recommended for metals with melting points less than 600 - 650 °C which form a protective oxide film. Results indicate the possibility of refining bismuth, indium and zinc by similar methods.

Card3/4

SOV/136-59-3-9/21

An Experiment in Operating an Industrial Apparatus for Zone-melting Tin

There are 4 figures, 1 table and 3 Soviet references.

ASSOCIATIONS: Institut Gipronikel' (Baymakov);
Novosibirskiy olovozavod (Novosibirsk Lead Works)
(Selivanov)

Card 4/4

SEMEVANOVA, I.Ya.

Method for compacting the edges of particle layers in preliminary
pressing. Ber. prom. 14 no.2025-26 F 165.

(MIRA 18:6)

DERBENEVA-UKHOVA, V.P.; BUSLAYEV, M.A.; KALMYKOV, Ye.S.; KON', Ya.S.;
MARUASHVILI, G.M.; MASLOV, A.V.; NETSKIY, G.I.; PIRUMOV, Kh.N.;
POKROVSKIY, S.N.; SELIVANOV, K.B.

Problems of the sanitary-epidemiological service in the control
of parasitic diseases in various zones of the U.S.S.R. Med.
paraz. i paraz.bol. 28 no.3:287-294 My-Je '59. (MIRA 12:9)
(PARASITIC DISEASES, prev. & control,
in Russia (Rus))

SURVILLO, V.L.; ALYAMOVSKIY, M.I., redaktor; SELIVANOV, K.I., redaktor;
FRUMKIN, P.S., tekhnicheskiy redaktor.

[Deck mechanisms] Palubnye mekhanizmy. [Leningrad] Gos. izd-vo
sudostroit. lit-ry, 1951. 256 p. (MLRA 8:2)
(Ships--Equipment and supplies)

KHETAGUROV, Murat Gavrilovich; SELIVANOV, K. I., redaktor; SANDLER, N. V.
redaktor izdatelstvo; PETERSON, M. M., tekhnicheskii redaktor

[Refrigeration on ships] Sovremennye sudovye kholodil'nye
ustanovki. Leningrad, Izd-vo "Morskoi transport," 1956
133 p. (MLBA 10:5)
(Refrigeration on ships)

KHETAGUROV, Murat Gavrilovich; SELIVANOV, K.I., retsenzent; SURVILLO, V.L.,
otvetstvennyy redaktor; SANDLER, N.V., redaktor izdatel'stva;
PETERSON, M.M., tekhnicheskiy redaktor

[Ship auxiliary mechanisms, equipment and systems] Sudovye vspomoga-
tel'nye mekhanizmy. Ustroistva i sistemy. Leningrad, Izd-vo
"Morskoi transport," 1956. 473 p. (MLRA 10:4)
(Ships--Equipment and supplies)

SELIVANOV, K I

GENKIN, Mikhail Dmitriyevich; GRINKEVICH, Vladimir Kazimirovich; SELIVANOV, K.I., nauchnyy red.; ISAYEV, V.A., red.; FRUMKIN, P.S., tekhn.red.

[Noise in reduction gears of ship engines] Shum reduktorov sudovykh dvigatelei. Leningrad, Gos. soiznoe izd-vo sudostroit. promyshl., 1957. 79 p. (MIRA 11:3)
(Marine engines) (Noise)

PEVZNER, Boris Moiseyevich; LOMAKIN, A.A., prof., doktor tekhn.nauk, red.;
SELIYANOV, K.I., kand.tekhn.nauk, retsenzent; FOMICHEV, A.G., red.;
KONTOROVICH, A.I., tekhn.red.; FRUMKIN, P.S., tekhn.red.

[Centrifugal and axial marine pumps] Sudovye tsentrobezhnye i
osevye nasosy. Pod red. A.A. Lomakina: Leningrad, Gos. soiuznoe
izd-vo sudostroit.promyshl., 1958. 319 p. (MIRA 12:2)
(Pumping machinery)

KHETAGUROV, Murat Gavrilovich; SELIVANOV, K.I., kand.tekhn.nauk, spetared.;
SANDLER, N.V., red.izd-va; KOTLYAKOVA, O.I., tekhn.red.

[Auxiliary marine machinery and systems] Sudovye vspomogatel'nye
mekhanizmy i sistemy. Izd.2., perer. i dop. Leningrad, Izd-vo
"Morskoi transport," 1959. 411 p. (MIRA 13:9)
(Marine engineering)

KHETAGUROV, Murat Gavrilovich; SELIVANOV, K.I., spets. red.; SANDLER,
N.V., red. izd-va; DROZHZHINA, L.P., tekhn. red.

[Insulation of ship cold-storage rooms; theory and design]
Izoliatsiia sudovykh kholodil'nykh pomeshchenii; teoriia i
raschet. Leningrad, Izd-vo "Morskoi transport," 1961. 177 p.
(Refrigeration on ships) (MIRA 15:2)
(Cold storage--Insulation)

SKOBTSOV, Yevgeniy Aleksandrovich; IZOTOV, Anatoliy Dmitriyevich;
TUZOV, Leonid Vasil'yevich; SELIVANOV, K.I., inzh., retsenzent;
MISELEV, M.A., inzh., red.; ONISHCHENKO, R.N., red. izd-va;
PETERSON, M.M., tekhn. red.

[Methods for reducing the vibration and noise of diesel engines]
Metody snizhenia vibratsii i shuma dizelei. Moskva, Mashgiz,
1962. 191 p. (MIRA 15:12)
(Diesel engines) (Damping (Mechanics))

DOBROVOL'SKIY, Aleksandr Petrovich; ROZENFEL'D, L.M., doktor tekhn. nauk,
prof., reŕsentsent; SMIRNOV, A.I., inzh., reŕsentsent; SELIVANOV,
K.I., nauchnyy red.; OZEROVA, Z.V., red.; TŠAL, R.K., tekhn. red.

[Refrigerating installations on ships] Sudovye kholodil'nye
ustanovki. Leningrad, Sudpromgiz, 1962. 390 p. (MIRA 15:5)
(Refrigeration on ships)

PEVZNER, Boris Moiseyevich; SELIVANOV, K.I., kand. tekhn. nauk,
retsenzent; AERAMOVICH, G.F., kand. tekhn. nauk, nauchn.
red.; YEROMITSKAYA, Ye.Ye., red.

[Marine centrifugal and axial pumps] Sudovye tsentrobez-
nye i osevye nasosy. Izd.2., perer. i dop. Leningrad,
"Sudostroenie," 1964. 384 p. (MIRA 17:5)

SELIVANOV, K. P.

25904 Selivanov, K. P. O Ratsional'nom Islol'zovanii Protivomalyariynykh
Preparatov. Vracheb. Delo, 1948, No. 6, STB. 527-30.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

SELIVANOV, K. F. and NAZAROV, I. A.

"Hydrotechnical Antimalaria Measures in Connection With the Plan for Transforming Nature," Vrachebnoye Delo, Vol 6 1952, pp 527-530

SELIVANOV, K.P.

Results for 1952 in controlling helminthiasis, malaria, and diseases transmitted by mosquitoes in the Ukrainian SSR, and problems to be solved in the near future. Med.paraz.i paraz.bol. no.4:305-309 J1-Ag '53. (MLRA 6:9)
(Ukraine--Worms, Intestinal and parasitic) (Worms, Intestinal and parasitic--Ukraine) (Ukraine--Malarial fever) (Malarial fever--Ukraine) (Ukraine--Insects as carriers of contagion) (Insects as carriers of contagion--Ukraine)

SELIVANOV, K.P. (Ziyev)

The basic link in the epidemiological chain of trichinosis. Med.paraz.
i paraz.bol. no.6:543-546 N-D '53. (MLHA 6:12)
(Trichina and trichinosis)

SMLIVANOV, K.P. (Kiyev)

Methods of control and elimination of enterobiasis in children's
institutions. *Pediatrics*, no.6:30-33 N-D '55. (MLRA 9:6)

(ENTEROBIUS, infect.
in children's homes, prev. and control)

SELIVANOV, K.P.

Results of control of parasitic diseases in the Ukraine during
1954 and plans for 1955. Med.paraz. i paraz. bol.24 no.3:204-
207 J1-S '55. (MLRA 8:12)

(PARASITIC DISEASES, prevention and control
in Russia)

SELIVANOV, K.P. (Kiyev)

Control measures and elimination of enterobiosis in institutions
for children. Med. paraz. i paraz. bol. 24 no.4:362-363 O-D
'55. (MLRA 9:1)

(OXYURIASIS, prevention and control
in Russia, in child. institutions)

EXCERPTA MEDICA Sec.13 Vol.4/5 Pub.Health, Etc. May 58

SELIVANOV K.P.

1495. THE RESULTS OF THE 1951-1956 CAMPAIGN AGAINST PARASITIC DISEASES IN UKRAINIAN SSR, THE AIMS OF THE 1956-1960 CAMPAIGN AND A PLAN OF UNDERTAKINGS FOR 1956 (Russian text) - Selivanov K. P. MED. PARAZIT. 1956, 25/3 (207-209)

During the period 1951-1955 the incidence of malaria fell by 96.2%; in Kiev and south-eastern provinces of the Ukrain a reduction of the incidence of helminthiasis was observed and some success was achieved in the fight against enterobiasis (in 224 nurseries and similar children's institutions in 9 provinces this form of infestation was totally eliminated). In the north-western provinces, however, the results were poor (the special network of clinics having been almost totally destroyed) and no reduction of the incidence of ascariasis and trichocephaliasis has been achieved. The sixth five-year plan anticipates total elimination of malaria, taeniasis, marked reduction in the incidence of ascariasis and trichocephaliasis and elimination of enterobiasis from nurseries and other pre-school children's institutions. Intensification of the campaign against the larvae of *Musca domestica* and the blood sucking insects is foreseen. In order to fulfil the plan a wider educational campaign for medical workers in parasitology is necessary and anti-malarial and medical parasitology departments of epidemiologico-sanitary stations must be put on proper footing. (S)

Selivanov, K.P.
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Epidemiology of trichinosis. Med.paraz. i paraz.bol.supplement to
no.1:71 '57. (MIRA 11:1)
(TRICHINA AND TRICHINOSIS)

SELIVANOV, K.P.; GRITSAY, M.K.

Problems of medical parasitology on the pages of the periodical
"Vrachebnoe Delo" in 1956. Med.paraz.i paraz.bol. 26 no.6:741-742
N-D '57. (MIRA 13:4)

(MEDICAL PARASITOLOGY)

SELIVANOV, K.P. (Kiyev).

The role of public health agencies in preventing and eradicating
malaria. Vrach.delo no.10:1081-1083 0 '58 (MIRA 11:11)
(MALARIA)

SHELIVANOV, K.P. (Kiyev)

The problem of the liquidation of enterobiasis can be solved.
Vrach.delo no.3:281-282 Mr '59. (MIRA 12:6)
(OXYURIASIS)

SELIVANOV, K.P. (Kiyev)

Taeniarhynchus infestation must be eradicated. Vrach.delo no.11:
1193-1195 N '59. (MIRA 13:4)

1. Ukrainskiy institut epidemiologii i mikrobiologii.
(TAENIA)

SELIVANOV, K.P. (Kiyev)

Methods for the reduction and elimination of ascariasis; a
discussion. Med.paraz. i paraz.hol. 28 no.2:216-221 Mr-Ap
'59. (MIRA 12:6)

(ASCARIASIS, prev. & control
in USSR (Rus))

SELIVANOV, K.P. (Kiyev)

Principal measures for the elimination of ascariasis. Vrach. delo
no.2:108-110 F '61. (MIRA 14:3)
(ASCARIDS AND ASCARIASIS)

SELIVANOV, K. V.

GAS PRESSURE WELDING OF RAILWAY WAGON PARTS. T. A. VLADIMIRSKII, K. V. Selivanov,
A. K. Shvyl'pov, and N. v. Pashkov. (Avtol Delo, 1949 No. 12, pp/ 16-19) (In Russian)

It has been found advantageous in the repair of railway wagon parts to replace the
forge and flash-welding processes previously used by gas pressure-welding, and
examples are given of the successful use of this method. SK

*A-U. Sci Res Inst. Railroad Transport, Cent Sci Res. Inst.,
Min. Communications*

SELIVANOV, K. V.

231T53

USSR/Metallurgy - Welding, Methods Oct 52

"Gas Pressure Welding of Pieces With Large Cross Section," T. A. Vladimirovskiy, Cand Tech Sci, K. V. Selivanov, Engr

"Avtogen Delo" ²³No 10, pp 14-18

Describes expts for establishing optimum conditions of welding large round and double-T shapes with area of cross section up to 8,000 sq mm. Presents results of static and impact bending tests of welded specimens and concludes that gas pressure method with properly

231T53

developed technology might be used successfully for welding pieces still larger than those of 8,000 sq mm cross section.

231T53

1. VLADIMIRSKIY, T. A.; SILIVANOV, K. V.; SHVYLPOV, A. K.
2. USSR 600
4. Oxyacetylene welding and cutting
7. New equipment for gas pressure welding, Avtog. delo, 24, No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SELIVANOV, K. V.

USSR/Engineering--Welding

Card 1/1 : Pub. 128--20/33

Authors : Vladimirovskiy, T. A., Can. Tech. Sci.; and Selivanov, K. V., Engineer

Title : Gas-pressure welding of locomotive piston and drive rods

Periodical : Vest. mash. 34/8, 68-71. Aug 1954

Abstract : An account is given of researches made of welded joints on defective piston and drive rods taken from locomotives in actual operation. The SGP-7u gas-pressure machine was developed for rods having a cross section of 6,500 to 8,000 mm². A description of this machine is given and data are presented on the quality of its work. Illustrations; graphs; table.

Institution :

Submitted :

Selivanov, K. V.

Repair of connecting and piston rods of locomotives by means of gas-pressure
welding; Moscow, Inst. transp. zhel-obr. 1976, 199. 54, 55 p. (59-8271)

18572-5.

Vysokaya i mashino-isledovatel'skii institut zhelezнодорожного транспорта.
Remont tyshel...1975 (Card 2 59-8271)

welding and cutting. I. Vladimirskii, T.A. II. Selivanov, K. V.
III. Galanova, A.S., ed.

SOV-135-58-2-7/18

AUTHORS: Tkachenko, F.S., Selivanov, K.V. and Shvylpov, A.K.,
Engineers

TITLE: Properties of Gas-Press Welded Joints of Cast and Rolled
Large-Section Metal (Svoystva soyedineniy litogo i prokat-
nogo metalla bol'shikh secheniy, vypolnennykh gazopressovoy
svarkoy)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 2, pp 25 - 28 (USSR)

ABSTRACT: The article presents results of experiments on² gas-press
welding of large-section (20,000 to 25,000 mm²) steel
parts, where rolled with cast, rolled with rolled , and
cast with cast parts were joined. Until now, this method
was used in the USSR and abroad only for joining round sec-
tions not over 8,000 to 10,000 mm², whereas the described
method obtains fully satisfactory joints in low-carbon steel
sections of 22,500 mm². The described experiments, super-
vised by T.A. Vladimirskiy, were performed on gas-press
equipment² developed by the TsNII for welding parts up to
50,000 mm² and with the use of a multiple flame torch
("MG-PR") with an acetylene consumption of 21,000 m³/hr.

(card 1/2

SOV-135-58-2-7/18
Properties of Gas-Press Welded Joints of Cast and Rolled Large-Section
Metal

Gas press welding is now being applied in locomotive building and parts welded by the described method are used for locomotives of the Northern and Far East railways. There are 5 tables, 3 graphs and 3 microphotos.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zh.-d. transporta (All-Union Scientific Research Institute of Railroad Transportation)

Card 2/2

1. Welded joints--Test results

. 135-58-8-9/20

AUTHORS: Tkachenko, F. S., Selivanov, K. V. and Shvylpov, A. K.,
Engineers

TITLE: New Machines and Torches for Gas-Press Welding (Novyye
stanki i gorelki dlya gazopressovoy svarki)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 8, pp 30 - 35 (USSR)

ABSTRACT: Information is given on special equipment, used for welding
railroad rolling-stock parts in the Soviet Union, developed
at TsNII MPS under the supervision of T. A. Vladimirskiy,
Candidate of Technical Sciences. The welding stand (fig.1-3)
equipped with a torch oscillating device for welding parts
with a cross-section area up to 50,000 sq mm. The "SGP-8u"
welding machine (fig.4) for the repair of large-size loco-
motive parts. Multiple flame torches such as: "MG-PR"
(fig.5) for welding and heat treatment of large-section
parts; "MG-120" (fig.6) for welding cylindrical parts up
to 120 mm in diameter; "MG-80" to weld rods up to 90 mm
in diameter; "MGD" (fig.7) and "MG-DS" (fig.8) for repair

Card 1/2

135-58-8-9/20

New Machines and Torches for Gas-Press Welding

of locomotive coupling poles. The technical characteristics of this equipment are given. There are 7 photographs and 1 diagram

ASSOCIATION: TsNII MPS

1. Welding--Equipment--Characteristics

Card 2/2

CHERRY, F.V., Inc.

Investigative gas and oxygen related items. Trans. 75MII 1PS

01.111:07-192 199.

(MIA 19:0)

(Gas welding and cutting)