

AVERINA, Ye.F.

Properdin in the blood serum of tuberculosis patients during therapy with antibacterial preparations and tuberculin. Vop. med. khim. 10 no.1:46-53 Ja-F '64.

(MIRA 17:12)

1. Therapeutical Clinic, State Medical School, Kuybyshev and District Antituberculosis Dispensary, Kuybyshev.

AVERINA, Ye.P.; BORKHOVETSKAYA, A.A.

Properdin in the blood of patients with tuberculosis of the lungs. Lab. delo 10 no.5:276-278 '64. (MIRA 17:5)

1. Fakul'tetskaya terapevticheskaya klinika (zaveduyushchiy - prof.N.Ye.Kavetskiy) Kuybyshevskogo meditsinskogo instituta i sanatoriy "Lesnoye" (glavnyy vrach - A.Ye.Pavlotskiy) Kuybyshevskoy oblasti.

AVERINA, Ye.P., and IIVANOVA, I.I.

Treatment of tuberculosis of the lungs by the tuberculin method of electrophoresis combined with antibacterial preparations. Probl. tub. no.2:52-56 '64. (MIRA 17:12)

1. Fakul'tetskaya terapevticheskaya klinika (zav. - prof. N.Ye.Kavetskiy) Kuybyshevskogo meditsinskogo instituta i Kuybyshevskiy oblastnoy protivotuberkuleznyy disanser.

SHUYKIN, N.I.; NARYSHKINA, T.I.; RASHCHUPKINA, Z.A.; AVERINA, Ye.Ye.

Catalytic dehydrogenation of metnylcyclopentene. Neftekhimia  
3 no.6:859-863 N-D '63. (MIRA 17:3)

1. Institut organicheskoy khimii AN SSSR im. N.D.Zelinskogo.

L 5590-66 EWT(d)/EWT(m)/WP(k)/EWP(2)/LWA(c)/T/EWP(b)/SVA(d)/LPA(w)/LPA(v)/EWP(t)

ACC NR: AP5009782 IJP(c) <sup>MuW</sup> JG/HM/JD SOURCE CODE: UR/0133/65/000/004/0375/0378 <sup>62</sup>

AUTHOR: Gladshiteyn, L. I.; Averina, Z. N. <sup>44.55</sup>

ORG: Proyektstal'konstruktsiya <sup>44.55</sup>

TITLE: High-strength heat-treated bolts made of economically alloyed structural steel

SOURCE: Stal', no. 4, 1965, 375-378 <sup>11</sup>

TOPIC TAGS: metal hardening, tensile strength, alloy steel, high strength steel, structural steel, tempering, metal heat treatment <sup>44.55, 10</sup>

ABSTRACT: The authors studied the effect of heat treatment on the tensile strength of bolts made from nine types of nickel-free structural steel. These grades of steel were divided into three classes: 1) the most economic silicon-manganese, chrome-silicon-manganese and chrome steels 35GS, 25G2S, 30KhG2S and 40Kh; 2) chrome, chrome-manganese and chrome-silicon-manganese steels with additions of carbide-forming components (molybdenum and vanadium) of three melts (A, B and V); 3) carbon steels 45 and 80S (for comparison). Preparation of the specimens and testing methods are explained. For most of the steels studied, two maxima were observed in the strength of hardened bolts as a function of annealing temperature. In most cases, bolts which were quenched without annealing had low strength; the specimens underwent brittle destruction without any noticeable development of plastic deformation, and there was a

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UDC: 621.992 : 66.046

L 8550-66

ACC NR: AP5009782

wide scatter in strength values. An increase in annealing temperature to 400-500°C increases the ductility of the bolt material, which is ordinarily accompanied by an increase in strength and a reduction in scattering of the test values. Ductility is still further increased and scatter is reduced to a minimum when the annealing temperature is increased to 600°C. However, in this case the tensile strength of the specimens falls sharply. The tendency to brittle breaking increases with the diameter of the bolts. Bolts made of steel in the first and third classes did not give the required strength properties. Bolt specimens 18 mm in diameter made of 80S steel annealed at 400 and 500°C showed a tensile strength of 160 kg/mm<sup>2</sup>. However, bolts made from this grade of steel show an extremely low hardenability so that an increase in bolt diameter to 22 mm is accompanied by a noticeable reduction in strength. Steels in the second class gave the best results. Tensile strengths of 160-200 kg/mm<sup>2</sup> were attained after annealing at 200°C, and also at 400°C for B and V steels. All these bolts showed an increase in brittleness and a reduction in breaking stress at an annealing temperature of 300°C. Steels A and B were the most brittle of this class. The data show that the maximum strength level of hardened and tempered bolts made of a given steel is basically determined by three factors: carbon content, hardenability, and resistance to brittle breaking in the hardened state. Alloying with 0.1-0.3% vanadium and molybdenum increases the ductility and strength of hardened bolts. Orig. art. has: 7 figures, 2 tables.

SUB CODE: MM,AS/      SUBM DATE: 00/      ORIG REF: 003/      OTH REF: 000

jw

Card 2/2

AVERINA, Z.V.

Exchange of experiences on methods of conducting lessons on pharmacognosy in a pharmacy school. Apt. dolo 10 no.5:72-74 S-0 '61. (MIU 14:12)

1. Ul'yanovskoye farmatsevticheskoye uchilishche.  
(PHARMACOGNOSY--STUDY AND TEACHING)

AVERINA, Z.V.

Practical work on pharmacology at the Uliianovsk School of Pharmacy.  
Apt. delo 13 no.2:52-53 Mr-Apr 64.

(MIRA 17:12)



ATKINSON, W. A.

ATKINSON, W. A. -- "Isolation, Purification, and Concentration of a Chicken  
Sarcoma Virus." *Canad Biol Sci, Acad Med Sci USA*, 11, Pt. 54  
(*Zhurnal Nauchn Issledovaniya*, 22 Jan 54.)

Doc. ID: 10, 2 July 1964

AVERINTSEV, Sergey Vasil'yevich, 1875- , professor, zaslushennyy deyatel' nauki.

[Course in zoology; textbook for teachers' institutes. Vol. 1: Invertebrates]  
Kurs zoologii; uchebnik dlia uchitel'skikh institutov. Moskva, Gos. uchebno-  
pedagog. izd-vo, 1952. (MLHA 7:6)  
(Invertebrates)

AVERINTSEV, S. V. (PROF)

State of biology teaching and the most immediate tasks. Est. v shkole No. 4,  
1952.

SO: MLRA. November 1952.

*Dr. Biological Sci  
Prof. Moscow Oblast Pedagogical Inst.*

AVERINTSEV, Sergey Vasil'yevich, zasluzhennyy deyatel' nauk Uzbekskoy SSR;  
RYBAKOVA, N.T., redaktor; MAKHOVA, N.N., tekhnicheskiy redaktor

[Zoology course; manual for pedagogical and teacher's institutes]  
Kurs zoologii; uchebnik dlia pedagogicheskikh i uchitel'skikh in-  
stitutov. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosvet-  
shchenia RSFSR. Vol. 2 [Chordata] Khordoveye. 1955. 456 p.  
(Chordata) (MLRA 8:6)

AVERINTSEVA, V.I.

[Instruments for testing the quality of bast fiber] Pribory dlia  
opredeleniia kachestva lubianogo syr'ia. Moskva, Gislepprom, 1954.  
112 p. (MLRA 7:12D)

SHIRYAYEV, V.L.; AVERKH, V.V.; GRIGOR'YEVA, V.M.; BACHURINA, V.G.;  
SNEZHNOVA, L.P.; YE-MOLOVA, O.B.; OGLOBLINA, L.S., red.;  
YAKOBSON, L.M., red.

[Antibiotics; collection of methodological instructions of the  
supervision and standardization of antibiotic preparations] Anti-  
biotiki; sbornik metodicheskikh ukazani po kontroliu i standarti-  
zatsii antibioticheskikh preparatov. Pod red. L.S.Ogloblinoi i  
L.M.Iakobson. Moskva, 1959. 134 p. (MIRA 15:3)

1. Gosudarstvennyy kontrol'nyy institut meditsinskikh biologi-  
cheskikh preparatov.

(ANTIBIOTICS)

TOCHILIN, S.; AVERKIN, A.; FRANKEL, A.

At the March exhibitions and fairs. Vnesh. torg. 41 no. 3:24-26  
'61. (MIFA 14:2)

(Leipzig--Germany--Exhibitions)  
(Utrecht, Netherlands--Exhibitions)  
(Cairo--Agriculture--Exhibitions)

24,7600  
24,7700

81780

S/181/60/002/02/25/033  
B006/B067

AUTHORS: Averkin, A. A., Sergeyeva, V. M., Shelykh, A. I.

TITLE: Influence of Uniform Pressure on the Electrical Conductivity and Thermoelectromotive Force of  $In_2Te_3$

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 2, pp. 347-349

TEXT: Among the sphalerite-like crystallizing semiconducting compounds there are some of the composition  $A_2^{III}B_3^{VI}$  which have defects at the sites of the metal atoms.  $In_2Te_3$ , which has been investigated by the authors, also belongs to them. The investigations of the authors yielded the surprising result that in the isoelectronic series of semiconductors which crystallize sphalerite-like and have almost equal lattice parameters, the properties of  $In_2Te_3$  deviate essentially from those of the right and left neighbors, and that they are governed by completely different rules. Hence, e.g., the carrier mobility in  $In_2Te_3$  is anomalously small

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Influence of Uniform Pressure on the Electrical S/181/60/002/02/25/033  
Conductivity and Thermoelectromotive Force of B006/B067  
 $\text{In}_2\text{Te}_3$

(10-45  $\text{cm}^2/\text{v}\cdot\text{sec}$  for electrons) as well as the thermal conductivity of the lattice. According to Ye. D. Devyatkova and I. A. Smirnov, it amounts to 0.002 cal/cm.sec.deg at 20°C. The authors investigated the influence exercised by the strong defectiveness of the lattice on the change of the electrical properties with uniform pressure (7000  $\text{kg}/\text{cm}^2$ ) in the temperature range 20-60°C. The  $\text{In}_2\text{Te}_3$  samples had a size of 7 · 3 · 2  $\text{mm}^3$ , the electric contacts were made of pure tin. The temperature in the pressure chamber was kept constant by means of an ultrathermostat (accuracy: 0.2°C). Paraffin was chosen as pressure transmitting medium. As may be seen from Fig. 1, the electrical conductivity of an intrinsic  $\text{In}_2\text{Te}_3$  sample decreases with increasing pressure, passes through a minimum  $\sigma_{\text{min}}$ , and increases again with further increasing pressure.  $\sigma_{\text{min}}$  somewhat differs in the various samples, and with increasing temperature it is shifted toward higher pressures. The  $\sigma(P)$  curve shows a hysteresis which is particularly marked in samples with impurity conductivity

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LX

S/120/61/000/006/038/041  
E034/E485

AUTHORS: Averkin, A.A., Bogomolov, V.N.

TITLE: A high-pressure chamber

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1961, 147-148

TEXT: A chamber is described suitable for measurements of electrical properties of materials under pressure, with a volume of several ml in which a pressure of 30 atm can be developed with a 15 ton press. The piston which applies the pressure moves in a cylinder which is fully immersed in the pressure transmitting fluid. As the piston travels downwards an increasing pressure is applied to the outside walls of the cylinder. A sketch of the apparatus is given. The cylinder is screwed into the body of the chamber 10 bedding on sealing rings 3. Pressure is applied to the outside of the cylinder by fluid which leaks into the thread clearances. The cylinder and piston sealing parts are finished to an accuracy of 0.05 mm and the diameter of the piston plunger is 0.2 mm less than that of the cylinder. The bottom of the vessel is sealed by a conical stopper with sealing ring. Lead-in wires are sealed into a groove in the stopper with epoxide resin. A cone of 10 mm  
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A high-pressure chamber

S/120/61/000/006/038/041  
E034/E485

diameter can accommodate up to 12 electrodes. With teflon glands the friction loss is about 10%. The tube has been used in studies of the Hall effect and of the conductivity of germanium under pressure. Acknowledgments are expressed to V.K. Verzilov for assistance. There are 2 figures and 3 Soviet-bloc references.

ASSOCIATION: Institut poluprovodnikov AN SSSR  
(Institute of Semiconductors AS USSR)

SUBMITTED: April 28, 1961

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20145

9.4300 (and 1147, 1155, 1158)

S/181/61/003/002/043/050  
B102/B201

AUTHORS: Averkin, A. A. and Bogomolov, V. N.

TITLE: Device for the study of galvanomagnetic effects under all round compression

PERIODICAL: Fizika tverdogo tela, v. 3, no. 2, 1961, 627-629

TEXT: When semiconductors or other materials are examined for the influence exerted by all round pressure upon effects requiring the use of a magnetic field, the fact that the pressure vessel is placed inside the magnetic field represents a major difficulty confronting the experiment. The vessel must be made of a nonmagnetic material, and therefore will display a lesser solidity, whereby an upper limit is set to the pressure applied. With a view to bypassing these difficulties, the authors worked out a special device, described here, to serve for the study of magnetic effects in all round pressure. The design is presented in Fig. 2 and offers the advantage of the magnetic field being produced inside the pressure vessel which can be made of magnetic material. The field itself is produced between the two coil cores 3 and 6 by coils 2 which are like

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Device for the study of ...

S/181/61/003/002/043/050  
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wise placed within the vessel wall 1; the specimen is placed in the window of ring 4 which is made of nonmagnetic material. Electrodes 5 are poured in with ЭА-6 (ED-6) epoxy resin which is a good and very stable insulator after polymerization. From 8 to 12 electrodes can be applied to the core which is of the order of 10 mm in diameter and has the shape of a cone. It is properly insulated from the vessel and may serve as an additional electrode. The inhomogeneity of the magnetic field can be reduced by a corresponding form of the slit but still requires that the specimen be fixed within the slit. This is, however, not important when measuring relative quantities. Both method and device were checked by examining the pressure dependence of the Hall effect and magnetic resistance on n-type Ge (resistivity 40 ohm.cm) at pressures up to 15,000 kg/cm<sup>2</sup>. The specimen dimensions were 6 x 5 x 1.5 mm<sup>3</sup>. A previous investigation had shown that at 35°C the material passed over into the region of intrinsic conductivity. The device described here (3 mm gap width, 2000 oersteds) was introduced into the chamber (12 x 40 mm); pressure was transmitted hydraulically. Measurement results are presented in Fig. 3. It is concluded from them that the width of the forbidden band increases linearly up to  $5.2 \cdot 10^{-6}$  eV/kg.cm<sup>-2</sup>, a value that excellently fits those found by

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2011,5

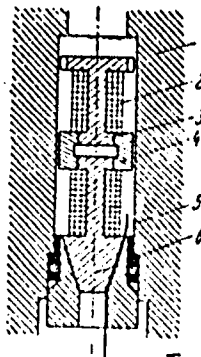
Device for the study of ...

S/181/61/003/002/043/050  
B102/B201

other authors. A. R. Regel' is thanked for advice and interest displayed. There are 3 figures and 7 references: 5 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors of the AS USSR, Leningrad)

SUBMITTED: July 5, 1960



4

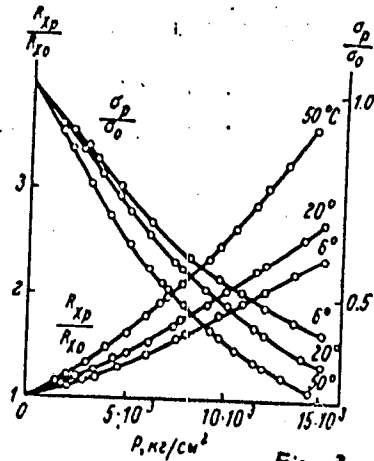
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Fig. 2

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Device for the study of ...

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Fig. 3  
Диаг. 3 Зависимость отклоняющего

Fig. 3

24.7700 26.253c2

24977

S/181/61/003/006/026/031  
B102/B214

X

AUTHORS: Averkin, A. A., Moyzhes, B. Ya., and Smirnov, I. A.

TITLE: Change of electrical properties of PbSe under pressure

PERIODICAL: Fizika tverdogo tela, v. 3, no. 6, 1961, 1859 - 1862

TEXT: The authors investigated the effect of all-sided pressures of up to 9000 kg/cm<sup>2</sup> on thermo-emf  $\alpha$  and electric conductivity  $\sigma$  of p- and n-type PbSe samples at room temperature. Oil was used for transmitting the pressure, which was measured by a magnetic manometer. Temperature was measured by copper-constantan thermoelements. The temperature difference between the two ends of the samples was  $\sim 10^{\circ}\text{C}$ . The mean temperature deviation in the whole range of pressures was not more than  $0.2^{\circ}\text{C}$ . An a. c. probe was used to measure  $\alpha$ . The degeneracy was taken into account in calculating  $\alpha$ ,  $\sigma$ , the carrier concentration  $n$ , the effective mass  $m^*$ , and the carrier mobility  $u$  under the assumption that the mean free path  $l$  does not depend on the carrier concentration. The values obtained are collected in the table.  $m^*$  was calculated from the change of thermo-emf, i. e. by using the formulas

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Change of electrical...

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X

$$\alpha = \frac{k}{q} \left[ \frac{r+2}{r+1} \frac{F_{r+1}(\mu^*)}{F_r(\mu^*)} - \mu^* \right]; \quad \frac{1}{\alpha} \frac{d\alpha}{dP} = \frac{k}{aq} \left[ \frac{r+2}{r+1} \frac{d}{d\mu^*} \left( \frac{F_{r+1}}{F_r} \right) - 1 \right] \frac{d\mu^*}{dP}, \quad (1)$$

$$n = \frac{4\pi(2m^*kT)^{3/2}}{h^3} F_{1/2}(\mu^*); \quad \frac{d \ln n^*}{dP} = -\frac{1}{3} \frac{F_{-1/2}(\mu^*)}{F_{1/2}(\mu^*)} \frac{d\mu^*}{dP}, \quad (2)$$

when  $l$  depends on the energy in the form  $l(\epsilon) \sim \epsilon^r$ . Here  $F_r$  are the Fermi integrals and  $\mu^*$  the level of the chemical potential in  $kT$  units. It was assumed that  $r = 0$ . To obtain separately change in mobility connected with a change in  $\mu^*$ , the equivalent change in mobility for a nondegenerate sample was calculated from

$$\sigma = nqu_{non} = \frac{\Gamma(\frac{3}{2})}{\Gamma(r+1)} \frac{F_r(\mu^*)}{F_{1/2}(\mu^*)}; \quad \frac{d \ln \sigma}{dP} = \frac{d \ln u_{non}}{dP} - \frac{d}{d\mu^*} \left( \frac{F_r}{F_{1/2}} \right) \frac{d\mu^*}{dP}, \quad (3)$$

The following conclusions were drawn from the results of measurement:  
1) From the fact that the p- and n-type samples showed very similar changes of the effective masses (1.64 and 1.86 % per ton) it can be assumed that the bottom of the conduction band and the upper edge of the valence band are situated at one point of k-space, and the components of  
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Change of electrical ...

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S. 003/006/026/031  
B102/B214

the effective mass tensor are mainly determined by the matrix elements of momentum; in the principal axes  $\frac{\hbar^2}{m^*} = \frac{\langle \psi_e | \hat{p}_i | \psi_h \rangle \langle \psi_h | \hat{p}_i | \psi_e \rangle}{E_g}$  holds. The

subscripts e and h on the wave functions refer, respectively, to electron and hole,  $E_g$  is the forbidden band width, and  $m_0$  is the electron mass.

2) The magnitude of the relative change of the effective mass on compression compared to the change of the atomic distances is also explained with the help of this zone scheme. The compressibility of PbSe is  $2.07 \cdot 10^{-6} \text{ cm}^2/\text{kg}$ . At  $1000 \text{ kg/mm}^2$  the atomic distance changes by 0.07 % while the effective mass changes by 4.8 %. 3) It is known from the theory of deformation potential that the effective mass changes on deformation to a greater extent than the constant of the deformation potential. This was confirmed here also as in Ref. 1 (Smirnov et al. PTT, II, 8, 1992, 1960). 4) It was found in Ref. 2 that  $m^* \propto T^{0.4}$ . It is now sought to find out which part of the change of  $m^*$  is directly determined by the thermal expansion and which by the lattice vibrations. It is found that for both these effects together  $\Delta m^*/m^* = 4.8 \%$  per ton, while

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S 161/01/003, 004/026/031  
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here  $\delta n/n^*$  = 1.8 % per ton pressure. This means that about 60 % of the change of  $n^*$  is related directly to the atomic vibrations, and about 40 % can be attributed to the thermal expansion. The quantity  $\alpha$  characterizing the efficiency of a substance in thermoelectric apparatus increases significantly with pressure. The authors thank Ye. D. Dovyatkova, G. Ye. Pikus, and A. R. Regel for discussions, and Ye. D. Nensberg for preparing the single crystals. There are 1 figure, 1 table, and 7 references: 5 Soviet-bred and 2 non-Soviet-bred.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors, AS USSR, Leningrad)

SUBMITTED: January 24, 1961

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Change of electrical...

24929

S/781/61/003/006/026/031  
B102/B214

Legend to the Table: 1) Number of the sample, 2) type of conductivity, 3) carrier concentration, 4) mean value for n-type samples, 5) mean value for p-type samples;  $u_{HER}$  = mobility in non-degenerate sample.

$$S = \frac{d \ln u_{HER}}{d \ln n^*}$$

№ образца (1)	Тип (2)	Концентрация носителей, см <sup>-3</sup> (3)	$\frac{m^*}{m_0}$ при 300° К	$\mu$ , км <sup>2</sup> /град. при 300° К [μv/deg]	$\mu_{HER}$	$\mu_{HER}^*$	$\frac{\mu_{HER}}{\mu_{HER}^*}$	$\frac{d \ln \mu_{HER}}{d \ln n^*}$	$\frac{d \ln \mu_{HER}^*}{d \ln n^*}$	$\frac{d \ln \mu_{HER}}{d \ln n^*} - \frac{d \ln \mu_{HER}^*}{d \ln n^*}$
71/2	n	3.7 · 10 <sup>18</sup>	0.935	202	572	955	-1.1	5.5	-1.94	-1.96
265	n	6.7 · 10 <sup>18</sup>	0.932	158	1100	1070	-1.07	4.6	-1.79	-1.81
(4) Средние значения для образцов n-типа.									-1.86	-1.88
23	p	8.9 · 10 <sup>17</sup>	0.946	334	115	815	-0.67	6.0	-1.78	-1.80
70	p	6.2 · 10 <sup>18</sup>	0.944	166	700	820	-1.1	4.6	-1.68	-1.69
909	p	1.96 · 10 <sup>19</sup>	—	115	1750	—	-1.13	3.65	-1.46	-1.80
(5) Средние значения для образцов p-типа									-1.64	-1.84

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AVERKIN, A.A.; BOGOMOLOV, V.N.

High-pressure chamber. Prib. i tekhn. eksp. 6 no. 6:147-148 N-D  
'61. (MIRA 14:11)

1. Institut poluprovodnikov AN SSSR.  
(High pressure research--Equipment and supplies)

AVERKIN, A.A.; KASIMOV, S.; NENSBERG, Ye.D.

Change in the electric properties of PbTe and PbS under pressure. Fiz.tver.tela 4 no.12:3667-3669 D '62. (MIRA 15:12)

1. Institut poluprovodnikov AN SSSR, Leningrad.  
(Lead telluride—Electric properties)  
(Lead sulfide—Electric properties)  
(High-pressure research)

AVERKIN, A. A.

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On thermal conductivity of the system of solid solutions PbTe-PbS.  
Ye. D. Devyatkova, V. V. Tikhonov, N. A. Smirnov.

Change of the electrical properties of PbSe, PbTe, and PbS under  
close pressure. A. D. Averkin, A. A. Andreyev, I. G. Dombrovskaya,  
B. Ya. Moyzhes, E. G. Nensberg.

Report presented at the 3rd National Conference on Semiconductor Compounds,  
Kishinev, 16-21 Sept 1963

S/181/63/005/001/015/064  
B102/B186

AUTHORS:

Averkin, A. A., Dombrovskaya, I. G., and Moyzhes, B. Ya.

TITLE:

The change in the forbidden band width under pressure

PERIODICAL:

Fizika tverdogo tela, v. 5, no. 1, 1963, 96-99

TEXT: The change in the electric conductivity  $\sigma$  and the Hall constant under omnilateral pressure up to 15,000 kg/cm<sup>2</sup> was measured on p-type PbSe single crystals in a temperature range between 297 and 420°K. The change in the forbidden band width  $E_g$  dependent on the pressure was calculated. The carrier concentrations of the specimens studied were between  $\sim 10^{17}$  and  $\sim 10^{18}$  cm<sup>-3</sup>.  $E_g$  is calculated from the relation

$$E_g = kT \ln \frac{4X^3 (m_1^* m_2^*)^{3/2}}{n_0^2 \gamma (1+\gamma)}$$

where  $X = 2nkT/h^2$ ,  $m_1^*$  and  $m_2^*$  are the effective masses of holes and electrons and  $\gamma = n_2/n_0$ ,  $n_0$  is the concentration of

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The change in the forbidden ...

the impurity carriers and  $n_0$  that of the minority carriers (electrons).  $dE_g/dP = -(7.5 \pm 0.5) \cdot 10^{-6}$  ev/kg·cm<sup>-2</sup> was obtained. At room temperature,  $E_g = 0.26 - 0.29$  ev. At a pressure of  $\sim 38,000$  kg/cm<sup>2</sup> the forbidden band has completely disappeared. This pressure is close to that calculated by Bridgman (43,000 kg/cm<sup>2</sup>) for the PbSe phase transition.  $E_g$  increases with temperature:  $dE_g/dT = +6 \cdot 10^{-4}$  ev/deg. The relative mobility  $u_1/u_{10}$  of the majority carriers increases linearly with pressure;  $u_{10}$  is the majority carrier mobility at room temperature. The results confirm the relationship between effective carrier mass and forbidden band width which the authors assumed earlier (FTT, 3, 6, 1959, 1961). There are 5 figures.

ASSOCIATION:

Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors AS USSR, Leningrad)

SUBMITTED:

July 20, 1962

Card 2/2



AVERKIN, A.A.; AYRAPETYANTS, A.V.; ILISAVSKIY, Yu.V.; LUTSENKO, E.L.;  
SEREERYANIKOV, V.S.

Effect of tensile stress and hydrostatic-type pressure on the  
electroconductivity of thermally treated polyacrylonitrile.  
Dokl. AN SSSR 152 no.5:1140-1142 O '63. (MIRA 16:12)

1. Institut poluprovodnikov AN SSSR i Institut neftekhimicheskogo  
sinteza AN SSSR. Predstavleno akademikom V.A.Karginym.

ABLOVA, M.S.; AVERKIN, A.A.

Attachment to a PMT-3 device for the automation of measurements.  
Zav. lab. 31 no.8:1015-1017 '65. (MIRA 18:9)

1. Institut poluprovodnikov, AN SSSR.

L 18761-66 EWT(m)/EWP(t) IJP(c) JD

ACC NR: AP6003768

SOURCE CODE: UR/0181/66/008/001/0103/0106

AUTHORS: Averkin, A. A.; Dermenzhi, P. G.

ORG: Institute of Semiconductors AN SSSR Leningrad (Institut poluprovodnikov AN SSSR)

69  
68  
B

TITLE: Change in the electric properties of PbTe under pressure

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 103-106

TOPIC TAGS: lead compound, telluride, single crystal pressure effect, semiconductor carrier, energy band structure, forbidden band, electric conductivity, thermoelectric power, Hall constant, electron mobility, hole mobility

ABSTRACT: This is a continuation of earlier work (FTT v. 4, 3667, 1962) on the behavior of the carriers and on the band structure of PbTe. The purpose of the present investigation was to determine the pressure dependence of the electric properties of PbTe, so as to ascertain whether the effective mass changes with change of the width of the forbidden band. To this end, the authors determined the

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L 18761-66

ACC NR: AP6003768

change of the electric conductivity, the thermoelectric power, and the Hall constant of single-crystal n-type and p-type PbTe under hydrostatic pressure up to 15,000 kg/cm<sup>2</sup>. The apparatus was similar to that developed by one of the authors earlier (FTT v. 3, 627 and 1359, 1961). The rate of change of the thermoelectric power, the conductivity, the effective mass, and the carrier mobilities were calculated from the data, using a procedure described earlier by one of the authors (Averkin, FTT v. 5, 96, 1963). It is concluded that the effective mass of the electrons and of the light holes changes in approximately the same manner (-1.9 per cent per ton of pressure), thus confirming the assumption that the effective masses are determined by the interaction between the main valence band and the conduction band. The ratios of the concentrations and mobilities of the light and heavy holes are 25 and 20 per cent respectively, the percentage change in the conductivity with pressure ranges from 3.6 to 4.9 per cent, the relative change in the mobility with pressure is in the range 4.05 -- 5.1 per cent per ton, and the absolute value of the forbidden band is 0.29 eV at 300K (this agrees with the results of optical measurements), and the logarithmic rate of change of the

Cont

2/3

L 18761-66

ACC NR: AP6003768

effective mass. The authors thank A. R. Regel for a discussion of the results. Orig. art. has: 3 figures, 3 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 30Jun65/ ORIG REF: 005/ OTH REF: 003

Card

3/3 smv

AVERKIN, A.L., inzh.; ALEKSEYEV, G.A.

New method of manufacturing case gas regulation units. Stroi.  
truboprov. 8 no.5:33 My '63. (MIRA 16(1) 5)

1. SU-7 tresta Rostovstroy, Rostov-na-Donu.  
(Gas distribution) (Pressure regulators)

20713

S/120/61/000/001/055/062  
E032/E314

26.2244

AUTHOR: Abov, Yu.G. and Averkin, B.A.

TITLE: A Demountable End-window Proportional Neutron Counter

PERIODICAL: Priboiy i tekhnika eksperimenta, 1961, <sup>6</sup>No. 1, pp. 181 - 182 <sub>1</sub>

TEXT: In neutron-diffraction work, use is frequently made of cylindrical end-window neutron counters filled with boron trifluoride. The anode is normally in the form of a tungsten or molybdenum wire, placed along the axis of the counter, the axis being oriented in the direction of the neutron beam. The anode is commonly attached to the entrance window by means of a glass insulator, 7-10 mm long. As a result, a dead space is introduced and this reduces the efficiency of the counter. The counter described in the present paper is free of this disadvantage. The counter is shown schematically in Fig. 1. It consists of a set of vertical small counters contained in a common envelope. The dimensions of the rectangular entrance window are chosen, depending on the cross-section of the

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S/120/61/000/001/055/062

E032/E314

A Demountable ....

neutron beam. The anode is in the form of 15 tungsten wires connected in series (diameter 0,05 mm). Metal grids are placed between the wires and are attached to the earthed brass body. Since the neutron beam (entering from the left in Fig. 1) is perpendicular to the anodes, the dead space mentioned above is excluded. The absorption of neutrons in the window itself (copper foil 0.2 mm thick) is negligible. The grids and the wires are attached to brass electrodes through glass insulators. The counter is fully demountable and is filled with  $B^{10}$ -enriched boron trifluoride at a pressure of 400 mm Hg. The working length of the counter is 300 mm. There are 3 figures.

SUBMITTED: January 16, 1960

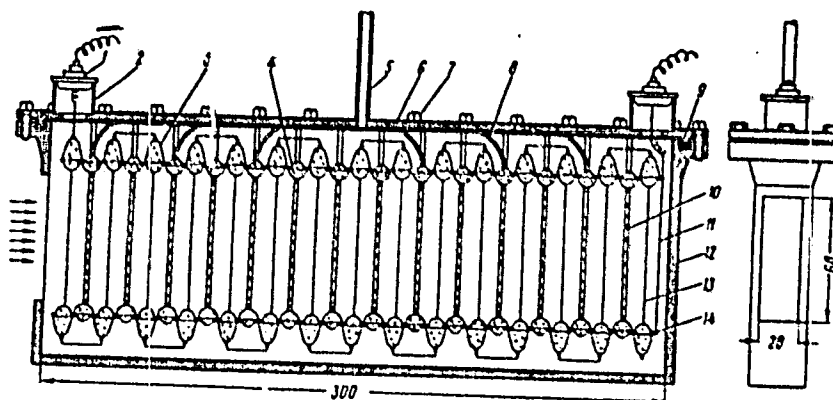
Card 2/5



A Demountable ....

20713  
S/120/61/000/001/055/062  
E032/E314

Fig. 1: Sectional drawing of the counter: 1 - insulator; 2 - tube; 3 - insulator; 4 - insulator; 5 - pumping line; 6 - lid; 7 - bolt; 8 - supporting rib; 9 - packing; 10 - grid frame (cathode); 11 - lead; 12 - counter body; 13 - wire (anode); 14 - guard ring.



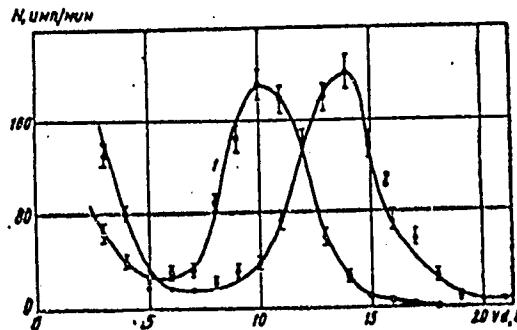
Card 3/5

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S/120/61/000/001/055/062  
E032/E314

A Demountable ....

Fig. 2: Pulse-height distribution. Curve 1 was obtained with +1750 V and Curve 2 with +1840 V. The body is earthed. A collimated neutron beam from a radium-beryllium source, surrounded by paraffin, was directed at the end window of the counter. The counter was covered by a paraffin-boron screen. Amplifier УШ-10 (USh-10) - length 5 $\mu$ s, rise time 0.13  $\mu$ s, amplification 5000, channel width 2 V.



Card 4/5

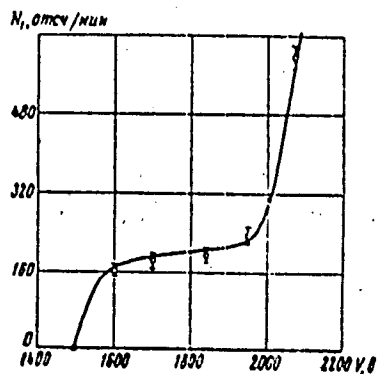
Fig. 2 attached to card 27  
(encl. of fig 3)

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E032/E314

A Demountable ....

Fig. 3: Counting characteristic. Conditions as under Fig. 2; counts per min. along vertical axis, voltage along horizontal axis. Discrimination level of kicksorter 5 V.



Card 5/5.

VISHNEVSKIY, V.M., kand.istor.nauk; GAYDASHENKO, K.P.; DUDOROV, V.M.;  
KLEYMAN, T.Ye.; KRUSHANOV, A.I., kand.istor.nauk; KUCHERYAVENKO,  
V.T.; LEVITSKIY, V.L.; OKSTUZ'YAN, D.V.; POLYAKOV, V.V.;  
SAMOKHVALOV, V.A.; SVIN'IN, V.V.; STEPANOVA, L.F.; SUSHKOV, B.A.;  
FISHER, Ye.L.; BKLYKH, D.P., otv.red.; AVERKIN, B.Z., red.;  
ZUSMAN, Ye.I., red.; MAYOROV, V.M., red.; KIRYEVA, T.R.,  
vedushchiy red.; BUTOVA, L.A., tekhn.red.

Vladivostok, 1860-1960. Vladivostok, Primorskoe knizhnoe  
izd-vo, 1960. 271 p. (MIRA 13:11)  
(Vladivostok)

CHUPRIKOV, I., elektrik; AYERKIN, G., starshiy stalevar; KAREV, Ye., kuznets;  
IVANOV, I., master; SYSHINOV, A.

New norms but old usages. Okhr. truda i sots. strakh. 4 no.5:42-44  
My '61. (MIRA 14:5)

1. Spetsial'nyy korrespondent zhurnala "Okhrana truda i sotsial'noye  
strakhovaniye" (for Sushinov).  
(Work clothes)

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AVERKIN, L.G.

Sliding caliper with special jaws. Stan. i instr. 36 no.6:  
42 Ja '65. (MIRA 18:8)

AVERKIN, V., shlifovshchik

Guaranty of success is harmonious work. Sov. profsciisy 16 no.23:  
44 D '60. (MIRA 14:1)

1. Predsedatel' komissii obshchestvennogo kontrolya za rabotoy  
Stalinskogo pishchetorga g.Moskvy.  
(Moscow—Grocery trade—Auditing and inspection)



AVIRKIN, V.A., inzh., red.; SOKOLOVA, T.F., tekhn. red.

[Electrolytic deposition of alloys] Elektroliticheskoe osazhdenie  
splavov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,  
1961. 214 p. (MIRA 14:11)

1. Moskovskiy dom nauchno-tekhnicheskoy propagandy im. F.E.Dzerzhir-  
skogo.

(Alloys—Electrometallurgy) (Electroforming)

KRASNOYARSKIY, Vladimir Vasil'yevich; AVERKIN, V.A., inzh., red.;  
TIKHANOV, A.Ya., tekhn. red.

[Electrochemical method of protecting metals against corrosion; theory and parameters of the designing of a protection system] Elektrokhimicheskii metod zashchity metallov ot korrozii; teoriia i parametry proektirovaniia ustanovok zashchity. Moskva, Mashgiz, 1961. 82 p. (MIRA 15:2)  
(Cathodic protection)

BUYALOV, N.I.; AVERKIN, V.A.

Efficiency of prospecting for oil and gas. Neftgaz. geol. i  
geofiz. no.10:3-6 '64 (MIRA 18:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy  
neftyanoy institut, Moskva.

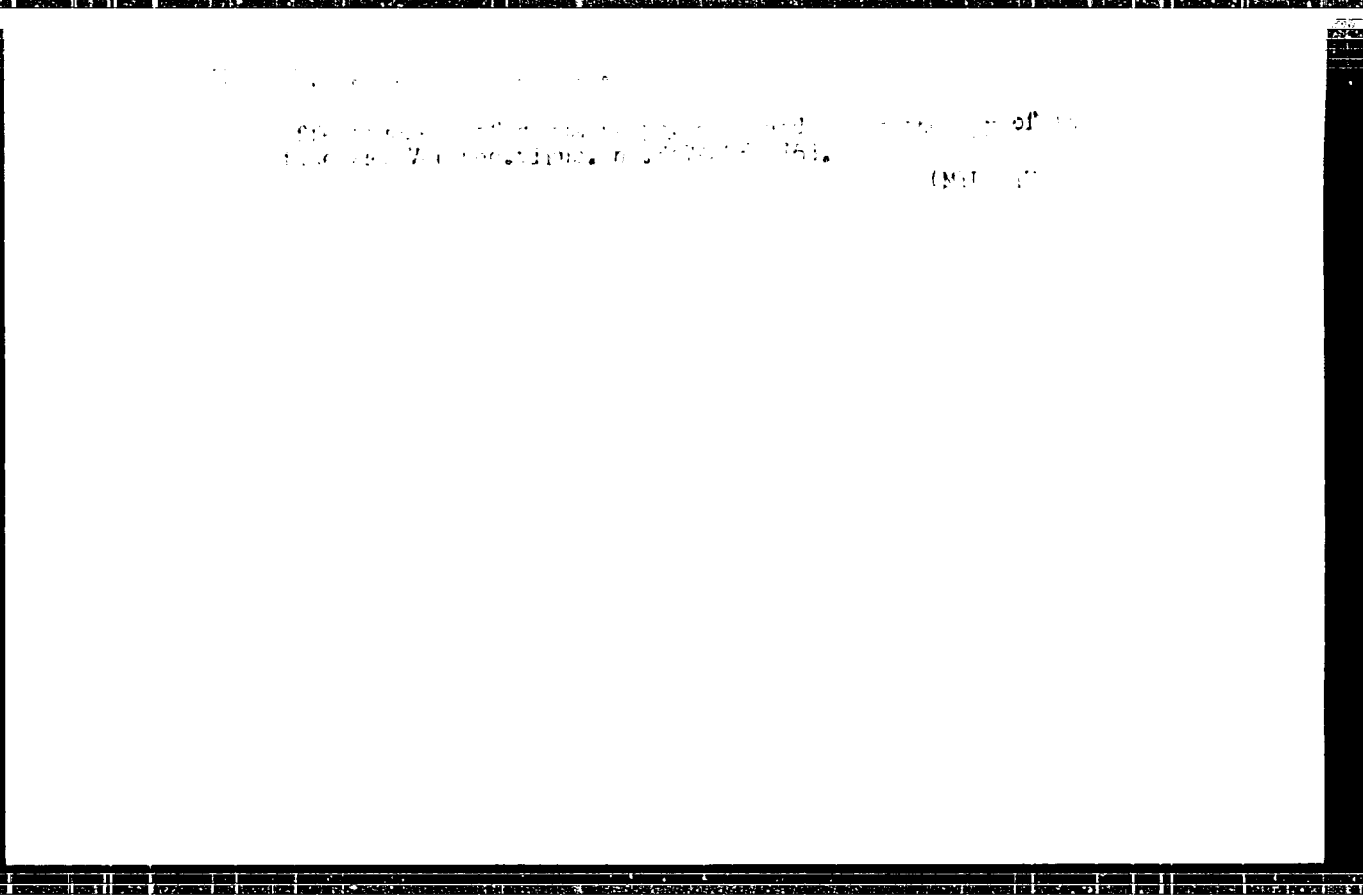
KALININ, V.I.; AVERKIN, V.D.; KLUBOV, V.A.; USANOV, N.A.

Trends in prospecting for gas- and oil-bearing structures in the Buzuluk trough and adjacent regions. Geol. nefiti i gaza 7 no.11:6-13 1963. (MIRA 17:8)

1. Kuybyshevneftegazrazvedka, Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut i Orenburgnefterazvedka.

KOTOSONOV, N.V.; AVERKIN, Yu.A.; FOGEL'SON, R.L.

Hall pickup as a super-high frequency indicator. Izm.tekh. no.7:  
37-38 JI '62. (MIRA 15:6)  
(Frequency measurements)



ACCESSION NR: AP4005827

S/0129/63/000/012/0021/0026

AUTHOR: Yelagin, V. I.; Averkina, N. N.

TITLE: Production of aluminum alloy sheets with a nonrecrystallized structure

SOURCE: Metalloved. i termich. obrab. metallov, no. 12, 1963, 21-26

TOPIC TAGS: aluminum alloy sheet, cold rolled sheet, sheet structure, V95 aluminum alloy, D16 aluminum alloy, V92 aluminum alloy, ATsM aluminum alloy, alloy composition, sheet annealing, mechanical property, aluminum alloy, recrystallization, alloy sheet, nonrecrystallized alloy, recrystallization temperature

ABSTRACT: Standard V95 and D16 alloys and experimental V92 and ATsM alloys were used to study the mechanical properties cold rolled aluminum alloy sheets with an uncrystallized structure after hardening. Electric resistance furnaces were used in the preparation of alloys, with the resulting alloys casted

Card 1/2

ACCESSION NR: AP4005827

and rolled to thickness of 6 mm. at 400 to 440C. After annealed at 400C, the hot rolled metal is cold rolled to 3, 2, and 1 mm. thickness. The recrystallization temperature of these sheets which was determined by X-ray analysis decreased with increasing deformation. It was found that the recrystallization temperatures of cold worked sheets from D16, V95 and V92 alloys were much lower than their prehardening temperatures. Extending the recovery period of these cold worked alloys did not alter their recrystallization temperatures. The recrystallization temperatures, however, were increased for D16 and V92 alloys when additives Cr, Ti and Zr were added (up to 0.2%) with Zr. having the most effective additive, but the temperature at the end of the recrystallization still fell far short of the hardening temperature. Ti and Zr additives to the V95 also lowered the recrystallization temperature somewhat. Orig. art. has: 3 figures and 2 tables

ASSOCIATION: None

SUB CODE: ML, MA

SUBMITTED: 00  
Card 2/2

DATE ACQ: 09Jan64

NO REF SOV: 004

ENCL: 00

OTHER: 001



ACCESSION NR: AT4012720

S/2981/63/000/002/0105/0110

AUTHOR: Kishnev, P. V.; Perevyazkin, L. S.; Petrova, A. A.; Averkina, N. N.

TITLE: Mechanical properties and structure of forged blanks made of SAP

SOURCE: Alyuminiyovy\*ye splavy\*. Sbornik statey, no. 2. Spechenny\*ye splavy\*. Moscow, 1963, 105-110

TOPIC TAGS: powder metallurgy, aluminum powder, sintered powder, sintered aluminum powder, forging, aluminum forging, SAP

ABSTRACT: Due to the increasing requirements for pressed and forged parts made of SAP the necessity arises of investigating the best forging methods. The present study was carried out on grade APS-1 aluminum powder containing 7.1%  $Al_2O_3$ . Square (36 x 36 mm) and round (diameter 110 mm) rods were used for forging. The investigation showed that it is possible to use existing equipment for forging parts from sintered aluminum powder. The best combination of strength and relative elongation was obtained at an initial forging temperature of 550C and a final temperature of 360C. The method of forming brickets from the aluminum powder did not influence the mechanical properties of the pressed rods and forged plates. "G. M. Bagnenko and V. I. Sverlov also took part in the work." Orig. art. has: 5 figures and 4 tables.

Cord 172

USSR/General Biology - Individual Development.

B-4

Abs Jour : Ref Zhur - Biol., No 8, 1958, 33379

Author : Konyukhov, B.V., Averkina, R.F.

Inst : -

Title : A Study of Morphological and Antigenic Properties of  
Animal Organs and Tissues in Ontogenesis.  
(Izucheniye morfologicheskikh i antigennykh svoystv or-  
ganov i tkaney zhivotnykh v ontogeneze).

Orig Pub : V sb.: Probl. sovrem. embriologii. L., Un-t, 1956,  
317-321

Abstract : Using an anaphylactic reaction with desensitization on  
guinea pigs it was shown that at all stages of develop-  
ment the crystalline lens tissue of the Peking duck  
possesses an antigenic species specificity, which is  
most marked at earlier stages of development. Organos-  
pecific antigens (A) of a definitive crystalline lens  
are found in the crystalline vesicles of embryos 90

Card 1/2

AVREKINA, R.F.

Comparative study of antigenic properties of tissues of animals of different species during different stages of their development. Report no.1: Comparative study of antigenic properties of muscle tissue in the frog ridibunda and the Salamander Triturus Cristatus. Biul. eksp. biol. i med. 41 no.2:70-73 P '56. (MIRA 9:6)

1. Iz laboratorii immunologii embriogeneza (sav.-kandidat meditsinskikh nauk O.Ye. Vyazov) Instituta eksperimental'noy biologii (dir.-prof. I.N. Mayskiy) Predstavlena deystvitel'nym chlenom AMN SSSR N.N.Zhukovym-Vereshnikovym.

(SALAMANDERS,

Triturus cristatus, antigenic properties of musc. of Triturus & Rana ridibunda in various stages of develop.(Rus))

(FROGS AND TOADS,

Rana ridibunda, antigenic properties of musc. of Rana & Triturus cristatus in various stages of develop. (Rus))

(MUSCLES, physiology,

antigenic properties of musc. of Rana ridibunda & Triturus cristatus in various stages of develop. (Rus))

(ANTIGENS AND ANTIBODIES,

same)

USSR/General Problems of Pathology - Cytotoxins

U-1

Abs Jour : Pef Zhur - Biol., No. 18, 1958 84766

Abstract : the snake and of the frog. With growth of the embryo, there is an increase in the amount of antigens in common with the heart tissues of the hon.  
- S. G. Radzivilovskaya

Card 2/2

AVERHINA, R. F., Cand of Med Sci -- (diss) "Comparative Study of the Antigen Properties of Animal and Human Tissue," Moscow, 1959, 16 pp (Academy of Medical Sciences, USSR)  
(KI, 7-60, 110)

AVERKINA, R.F.

Comparative studies on the antigenic properties of tissues in animals of various species and at various stages of development. Report No.3. Comparative studies on antigenic properties of heart tissues from Rana temporaria and Triturus taeniatus. Biul. eksp. biol. i med. 47 no.3: 97-103 Mr '59. (MIRA 12:7)

1. Iz laboratorii immunitologii embriogeneza (zav. - kand. med. nauk. O. Vynozov) Instituta eksperimental'noy biologii (dir. - prof. I.N. Mnyaskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR N.N. Zhukovym-Verezhnikovym).

(MYOCARDIUM,

antigenic properties of tissues from Rana Temporaria & Triturus taeniatus (Rus))

(ANTIGENS,

antigenic properties of myocardial tissues from Rana temporaria & Triturus taeniatus (Rus))

AVERKINA, R.F.

Comparative study of antigenic properties of cardiac tissues in  
different animals and man. Zhur. ob. biol. 21 no.3:208-212 My-Je  
'60. (MIRA 13:7)

1. Laboratory of Immunology of Embryogenesis, Institute of Experi-  
mental Biology, U.S.S.R. Academy of Medical Sciences.  
(HEART) (ANTIGENS AND ANTIBODIES)  
(TISSUE EXTRACTS)

AVERKHIN, R. F.; VIKOV, O. Ye.

"Immunologiya i pekotoryye voprosy evolyutsii."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,  
Moscow, 3-10 Aug 64.



VYAZOV, G.Ye.; KONYUKHOV, B.V.; ANBARINA, B.F.; TITOVA, I.I.

Use of immunological methods for studying the problems of tissue evolution. Izv. AN SSSR Ser. biol. 30 no.1:108-113 Ja-F '65.

(MIRA 18:2)

1. Institute of Experimental Biology, Academy of Medical Sciences of the U.S.S.R., Moscow.

AVERKINA, R.F.

Studies on the effect of tissue fluids of the nudibranchian mollusk *Aelidia papillosa* on the course of its individual development. *Biul. eksp. biol. i med.* 58 no. 7: 94-98 J1 '64.

(MIRA 18:2)

1. Laboratoriya immunologii embriogeneza (zav. - prof. O. Ye. Vyazov) Instituta eksperimental'noy biologii (dir. - prof. L. N. Mayskiy) AMN SSSR, Moskva. Submitted June 17, 1963.

A'VERKINA, R.F.; ANDREYEVA, N.G.; KARTASHEV, N.N.

Immunological characteristics of some auks and their taxonomic significance. Zool.zhur. 44 no.11:1690-1700 '65.

(MIRA 18:12)

1. Kafedra zoologii pozvonochnykh biologo-pochvennogo fakul'teta Moskovskogo gosudarstvennogo universiteta i laboratoriya immunologii embriogeneza Instituta eksperimental'noy biologii AMN SSSR, Moskva.

AVERKIYEV, A.G., starshiy nauchnyy sotrudnik, kand. tekhn. nauk

New method for hydraulic investigations by means of models. Izv.  
VNIIG 47:3-19 '52. (MIRA 12:6)  
(Hydraulic models)

AVERKIYEV, A. G.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Averkiyev, A. G. Kravtsov, V. I. Voynovich, P. A. Lapshin, G. N.	"A New Method of Hydraulic Study by Means of Models Under Air Pressure"	Ministry of Electric Power Stations and Electrical Industry

SO: W-30604, 7 July 1954

AVEKKIYEV, A.G., kandidat tekhnicheskikh nauk.

~~\_\_\_\_\_~~  
Air models. Nauka i zhizn' 20 no.11:33-34 N '53.

(MLRA 6:11)  
(Hydraulic models)

SOV/124-57-4-4280

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 60 (USSR)

AUTHOR: Averkiyev, A. G.

TITLE: On the Length of a Whirlpool Associated With a Unilateral Planview Spreading of a Jet in a Confined Space (O dline vodovorota pri odnostoronnem planovom rasshireni: strui v ogranichennom prostranstve)

PERIODICAL: Izv. Vses. n.-i. in-ta gidrotekhn., 1955, Vol 54, pp 27-37

ABSTRACT: The paper analyzes the case of the unilateral spread of a flow in a prismatic rectangular channel. The cross section of the stream is  $H_1, B_1$  in the entrance region and  $H_2, B_2$  in the exit region. The spreading is accomplished in a single stage, normal to the embankment. The ratio  $B_2/B_1$  lies within the limits of 1-4.5. The flow rate of the eddy area (whirlpool) is roughly approximated in two ways. The length  $L$  of the eddy area is found from these determinations. The expression for  $L$  is used for the interpretation of the experimental values obtained by Soviet authors (13 points). According to the experiments  $L/(B_2 - B_1) = 3.7 - 6.6$ .

A. S. Ofitserov

Card 1/1

AVERKIYEV, A.G., starshiy nauchnyy sotrudnik, kand.tekhn.nauk

Hydraulic losses due to friction in pipes made from modeling clay.  
Izv.VNIIG 59:200-205 '58. (MIRA 13:7)  
(Pipe) (Hydraulic models)



AVENKIYEV, A.G., kand.tekhn.nauk; LAFSHIN, G.N., kand.tekhn.nauk;  
SIRVILIN, V.I., kand.tekhn.nauk

Coordinating conference on the problems of studying, designing,  
and operating water intake structures. Gidr. stroi. 32 no.8:57-60  
Ag '62. (MIRA 15:9)

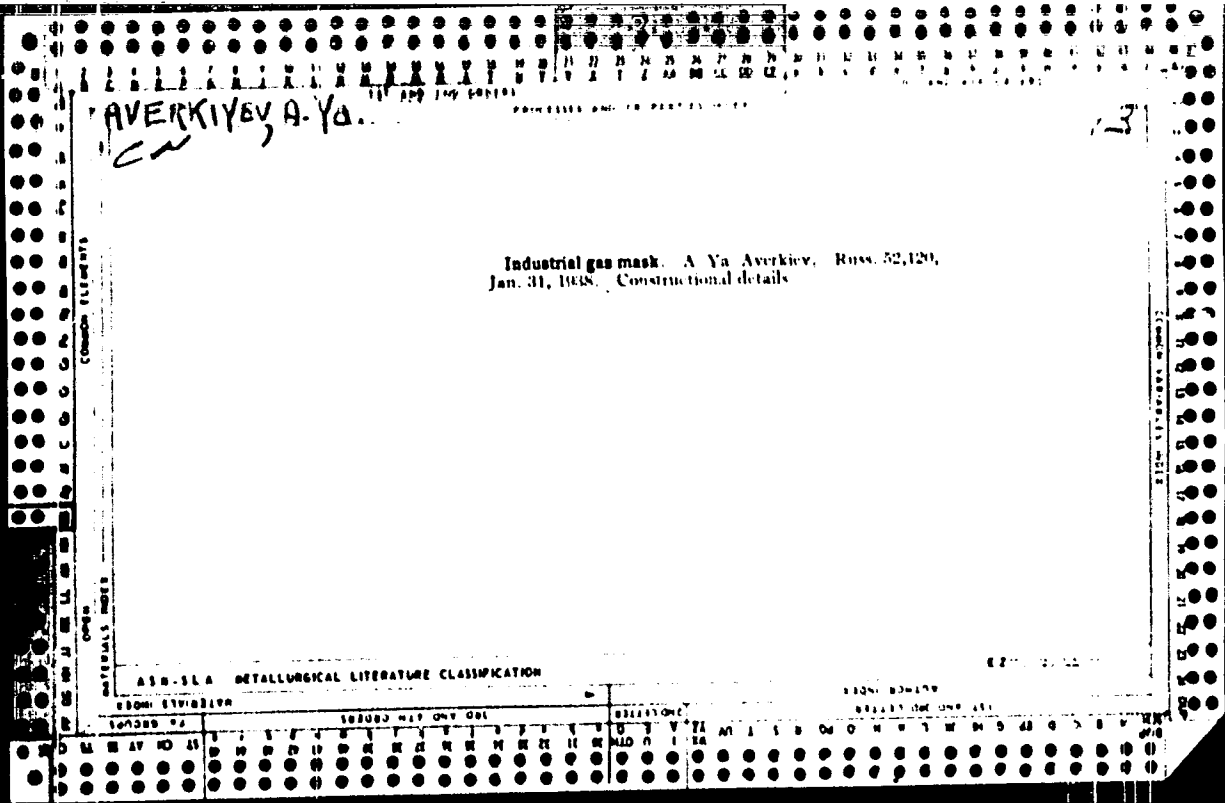
(Intakes (Hydraulic engineering)--Congresses)

— AVERKIYEV, A.S., red.; AGEYEV, Ya.P., dots., otv. red.; AREF'YEV, V.A., dots., K&Hd. ekon. nauk, red.; DEMIDOV, S.F., akademik, red.; KARSHIN, V.Ye., dots., red.; KOGAN, A.Ya., starshiy prepodav., red.; MAKHALOV, V.I., starshiy prepodavatel', red.; PITAYEVSKIY, P.I., prof., red.; SLOBODIN, V.M., prof., red.; SHOLOKHOV, Ye.I., red.

[Problems in the new system of agricultural planning] Voprosy novogo poriadka planirovaniia sel'skogo khoziaistva; trudy. Kuibyshev, Kuibyshevskii planovoi in-t, 1961. 419 p. (MIRA 15:12)

1. Mezhdvuzovskaya nauchnaya konferentsiya, Kuibyshev, 1960.
2. Zamestitel' predsedatelya Kuybyshevskoy oblastnoy komissii (for Averkiyev).
3. Kuybyshevskiy planovyy institut (for Ageyev, Makhalov, Karshin).
4. Deystvitel'nyy chlen Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina i Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya imeni K.A.Timiryazev (for Demidov).
5. Ural'skiy filial Akademii nauk SSSR (for Slobodin).
6. Zamestitel' nachal'nika otdela sel'skogo khozyaystva i zagotovok Gosudarstvennogo planovogo komiteta Soveta Ministrov RSFSR (for Sholokhov).

(Agricultural policy)



АВЕРКИН, Д. С.

Averkinev, D. S. "The steppe element in the flora of Gork'kiy Oblast, and some remarks on the problem of the history of the steppes of the Soviet Union", Ichen. zapiski Gork'. gos. un-ta, Issue 11, 1949, p. 113-26, - Bibliog: p. 125-26.

19: V-4631, 16 Sept. 53, (Letopis 'Zhurnal 'nykh letny, No. 24, 1949).

AVIATION, P. A.

Fisheries - Black Sea

Improve the organization of fishing brigades in the Azov-Black Sea area. Ryb. khoz., 28 no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1958<sub>2</sub>, Unclassified.

AVERKIYEV, F.V., kand. ekonom. nauk; IVANOV, D.I., otv.red.; VELICHKO, Ye.M., red.

[Collection of statistical information on fishing equipment of the Azov Sea basin and adjacent areas of the Black Sea]. Sbornik statisticheskikh svydenii o rybolovnykh sredstvakh Azovskogo bassaina i prilezhashchikh uchastkov Chernogo moria. Moskva, 1963. 71 p. (Rostov-on-Don. Azovskii nauchno-issledovatel'skii institut rybnogo khozjstva. Trudy, no.7). (MIRA 17:7)

ZAYDINER, Yu.I.; GIL'BERG, I.Yu.; ZHIBIL'YEV, F.V.

Comparative evaluation of the cost of young sturgeons using  
various commercial rearing methods. Trudy AzNIIRKH no.6:241-  
251 '63. (MIRA 17:8)

AVERKIYEV, I.S.

Basic problems and tasks of the microbiological control of May  
beetles. Mikrobiologiya 34 no.2:370-373 Mr-Apr '65.

(MIRA 18:6)



AVERKIYEV, I. S.

Deriving a new variety of tussah silkworm (*Antheraea pernyi*) by changing feeding conditions. Dolk.Ak.sel'khoz. 17 no. 8, 1952.

SO: MLRA. November 1952.

AYERKIYEV, I.S.

Lengthening of the hibernation period of cocoons of the tussah moth (*Antheraea pernyi* Guer.) and its significance to northern sericulture. Zool.shur. 33 no.3:644-647 My-Je '54. (MLRA 7:7)

1. Povolzhskiy lesotekhnicheskii institut im. M.Gor'kogo.  
(Sericulture) (Tussah moth)

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no.5:139-140 My '53. (MIRA. 6:8)

1. Rishskaya Geofizicheskaya observatoriya (for Ulanov).  
(Meteorology) (Averkiev, M.S.)



AVERKIYEV, M.S.

1015453

Possibility of determining the conversion factor of the actinometer  
without comparison with a calibrating device. Vest.Mosk.un. 10 no.10:  
171-175 0 '55. (MIRA 9:4)

1.Kafedra klimatologii.  
(Actinometer)

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APPROVED FOR RELEASE: 06/06/2000

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AVERKIYEV, M.S.

Possible monthly and yearly amounts of direct solar radiation received on a horizontal surface under conditions of different atmospheric transparency for the latitudes  $40^{\circ}$  -  $70^{\circ}$ . Vest.Mosk.un. Ser.biol.,pochv.,geol.,geog. 11 no.2:175-184 '56. (MIRA 10:10)

1. Kafedra klimatologii.

(Solar radiation)

~~АТЕРКИКОВ, М.С.~~

A simple method of calculating approximately the daily amount of insolation of a horizontal surface in the case of a cloudless sky. Meteor. i gidrol. no.9:25-27 S '57. (MLRA 10:9)  
(Solar radiation)

AVIRKIYEV, M.S.

Calculation of the possible amount of direct solar radiation  
allowing for changes in the transparency of the atmosphere.  
Izv. AN SSSR. Ser. geog. no.1:98-101 Ja-F '58. (MIRA 11:2)  
(Solar radiation) (Atmospheric transparency)

AVERKIYEV, H.S.

Total radiation and its components with a cloudless sky in relation to the transparency of the atmosphere for the region from 40° to 70° latitude. Vest.Mosk.un.Ser.biol.,pochv.,geol., geog. 13 no.4:185-19E '58. (MIRA 12:4)

1. Kafedra meteorologii i klimatologii Moskovskogo universiteta.  
(Solar radiation)

PHASE I BOOK EXPLOITATION

SOV/5018

Averkuyev, Mikhail Sergeyevich

Meteorologiya [t.] 2: Svetovyye i elektricheskiye yavleniya v atmosfere (Meteorology. Vol. 2: Light and Electric Phenomena in the Atmosphere) [Moscow] Izd-vo Moskovskogo univ., 1960. 165 p. Errata slip inserted. No. of copies printed not given.

Ed.: K. A. Petrova; Tech. Ed.: L. V. Lazareva.

PURPOSE: This book is intended for use as a text in university departments of geography by students specializing in meteorology and climatology.

COVERAGE: The book, the second of a multivolume work on meteorology, provides general treatment of all the principal light and electric phenomena in the atmosphere. The author thanks S. P. Khromov and V. S. Samoylenko of the Department of Meteorology and Climatology of the Division of Geography of Moscow State University for their valuable comments, and V. A. Belinskiy, who assisted in the

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Met. ology (Cont.)

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preparation of the paragraphs dealing with ionization of the upper layers of the atmosphere. There are 10 references: 6 Soviet and 4 German.

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S/050/60/000/05/07/020  
B007/B017

AUTEOR: Averkijev, M. S.

TITLE: Graphical Representation of the Covering of the Horizon

PERIODICAL: Meteorologiya i gidrologiya, 1960, No. 5, pp. 32-34

TEXT: The "covering of the horizon" is understood to be the degree of covering of a certain point of the celestial vault by ground objects. The two diagrams for the representation of the covering of the horizon, which are usually given in instructions for actinometric measurements, are shown. It is also demonstrated that both types of graphical representation are not sufficiently illustrative. Besides, these diagrams must meet the following demands: They must reproduce the reduction of diffuse radiation due to partial covering of the horizon. A diagram (Fig. 2) meeting these demands is given and explained. To construct such a diagram only the  $\sin^2 h$  values must be plotted on the ordinate, where  $h$  denotes the height above the horizon. The construction of analogous diagrams in the form of a circle of the radius  $r$  (of a scale of radii which correspond to circles of the same height  $h$ ) is more complicated. Formula (5)

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Graphical Representation of the Covering of the  
Horizon

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is given for the scale of the radius in diagrams which express the covering of the entire celestial vault by parts of the entire diagram. Formula (6) is written down for the scale of the radius in diagrams which express the loss of diffuse radiation due to the covering of the horizon. There are 2 figures and 1 table.

Card 2/2

AVERKIYEV, M.S.

Annual rate of heat exchange in the soil under conditions of the Moscow region. Vest. Mosk. un. Ser.5: Geog. 15 no.2:15-27 Mr-Apr '60.  
(MIRA 13:9)

1. Kafedra meteorologii i klimatologii Moskovskogo universiteta.  
(Moscow Province--Earth temperature)

33059

S/169/61/000/012/059/059  
D228/D305

3.5150

AUTHOR: Averkhiyev, M. S.

TITLE: A more accurate method of calculating summary radiation

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1961, 24, abstract 12B158 (Vestn. Mosk. un-ta. Geografiya, 1961, no. 1, 40-47)

TEXT: A formula (RZhGeofiz, 1960, no. 2, 1664) was proposed by the author to calculate summary radiation under different cloud conditions. In the present work, this formula is given in the expanded form:

$$Q = 0.96Q_{0,p}(1 - k_L \cdot \bar{n}_L) \cdot \frac{1}{1 - \alpha \gamma}$$

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