

S/109/63/008/002/015/028  
D266/D303

AUTHORS: Nakhodkin, N.G. and Mel'nik, P.V.  
TITLE: Kinetics of electron motion in solids excited by soft X-rays  
PERIODICAL: Radiotekhnika i elektronika, v. 8, no. 2, 1963, 303-310

TEXT: For the energy range 100 to 600 ev, monochromatic incident radiation was obtained with the aid of a diffraction grating. For larger energies ( $h\nu > 1000$  ev) filters were used resulting in an incident radiation at  $h\nu = 1.2, 4$  and  $8$  kev. The samples investigated were of Au, Ag, Ge, Be, and KCl. In order to avoid attenuation in air both the X-ray sources and the detector (photomultipliers) were in vacuum, in a common envelope. Measuring the photocurrent for thin layers of KCl and Au by applying a retarding field it was found that most of the electrons were slow, as in secondary electron emission. The mean energy of electrons emitted from KCl was smaller than for Au. These conclusions qualitatively agreed

Card 1/3

S/109/63/008/002/015/028  
D266/D308

Kinetics of electron motion ...

for different input energies. The dependence of photocurrent on the thickness of Au evaporated on to a carbon base is shown graphically. It can be seen that the photocurrent first increases and reaches a saturation level at a certain thickness which is called the effective thickness. With a 50 v retarding voltage at the cathode the total photocurrent decreases but saturation occurs at the same thickness. The authors make the hypothesis that the effective thickness is determined by the path of the fast photoelectron. For beryllium, which has no absorption band for  $h\nu > 200$  ev, the energy of the fast electron very nearly agrees with  $h\nu$  for sufficiently large  $h\nu$ . Therefore the effective thickness corresponds to that obtained from secondary electron emission data. For other substances the effective thickness is given by the semi-empirical formula

$$d_{i \text{ eff}} = A(h\nu - \epsilon_i)^n$$

where  $n < 2$  and  $\epsilon_i$  is the excitation energy of an electron, dependent in general on  $h\nu$ . There are 6 figures.

Card 2/3

Kinetics of electron motion ...

S/109/63/008/002/015/028  
D266/D308

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T.G. Shev-  
chenko (Kiyev State University im. T.G. Shevchenko)

SUBMITTED: March 19, 1962

Card 3/3

L 18576-63 EPR/EWA(h)/EWT(1)/ENG(k)/BDS AFFTC/ASD/ESD-3/IJP(C) Ps-4/Pz-4

WW/AT

ACCESSION NR: AP3001300

S/0181/63/005/006/1732/1734

AUTHORS: Nakhodkin, N. G.; Mel'nik, P. V.

70  
69

TITLE: Effective depth of the photoelectric effect produced by soft x-rays

SOURCE: Fizika tverdogo tela, v. 5, no. 6, 1963, 1732-1734

TOPIC TAGS: photoelectric effect, x-ray, Be, Ag, Au, Ge, KCl, quantum, mean free path, electron, photoemission

ABSTRACT: This study was undertaken because no known direct experimental measurements of this phenomenon have yet been made. The investigated material (Be, Ag, Au, Ge, and KCl) was sprayed in wedge form upon a base within the experimental device at a vacuum of about  $5 \times 10^{-8}$  mm of Hg. The thickness of the wedge was computed at each point and controlled by means of an MII-4 micro-interferometer. The relations of effective depth to energy of quanta are shown in Table 1 (see Enclosure 1). It is concluded that the observed results may be explained if it is assumed that the effective depth is associated with the mean free path of fast photoelectrons generated within the target. Investigation of

Card 1/3

I: 18576-63

ACCESSION NR: AP3001300

the thickness dependence of the photoelectric effect produced by soft x-rays thus permits the determination of the emergent region of slow secondary electrons coming from fast photoelectrons, and also the effective depth of photoemission, which is established by the mean free path of fast photoelectrons. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet (Kiev State University)

SUBMITTED: 29Dec62

DATE ACQ: 01Jul63

ENCL: 01

SUB CODE: PH

NO REF SOV: 009

OTHER: 002

Card 2/3

L 12922-65 EWT(1)/EWG(h)/EWT(m)/EEC(r)/EWP(t)/EWP(b) Pz-5 IJP(c)  
ID/IG/AT SSD/AFWL/ASD(a)-5/AFETE/ESD(xe)/SSD(x)  
ACCESSION NR: AP4045296 S/0048/64/028/009/1436/1443

AUTHOR: Vakhodkin, N.G.; Mel'nik, P.V. B

TITLE: Rear photoeffect excited by 1.5 to 8 keV photons Report, Tenth Conference  
on Cathode Electronics held in Kiev, 11-18 Nov 1963 III

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.23, no.9, 1964, 1436-1443

TOPIC TAGS: photoelectric effect, x-ray, photoelectron, electron absorption

ABSTRACT: The photoelectric current from the rear face of beryllium and gold films, excited by x-rays incident on the front face and traversing the film was measured as a function of the thickness of the film. These measurements of the "rear" photoelectric effect were undertaken to clarify discrepancies between conclusions concerning the mean paths of photoelectrons within the metal previously drawn from frontal photoelectric effect measurements by the authors (Radiotekhnika i elektronika 6,1209,1961; Fiz.tverdogo tela 5,1732,1963) and by M.A.Rumsh and collaborators (Fiz.tverdogo tela 4,62,1962; 5,1132,1963). Appropriately filtered K $\alpha$  radiation from various substances was employed to provide monochromatic x-rays with quantum energies from 1.5 to 8 keV. The x-rays were incident on a 5 micron thick aluminum

L 12922-65

ACCESSION NR: AP4045296

foil backed by a support on which was deposited a tapering thickness film of the material under investigation. The support material was silver for the beryllium measurements and germanium for the gold measurements. The photoelectrons were detected by photomultiplier, and measurements were made with and without a 50 V retarding potential to exclude slow electrons. Provision was made to measure the strength of the x-ray beam with the photomultiplier in order to determine its absorption in the film. The absorption of the x-ray beam by the beryllium film was negligible, and the photoelectric current decreased with increasing thickness of the beryllium and reached a constant value for sufficiently thick films. The thickness of the film beyond which no further decrease of the photoelectric current could be perceived was taken as the effective depth for photoelectron production. In the case of gold the photoelectric current increased with increasing film thickness, reached a maximum, and decreased with further increase in the thickness of the film. The continued decrease beyond the maximum was due to absorption of the x-rays by the gold. The thickness of the film for maximum current was taken as the effective depth. The effective depths for the back photoelectric effect were in rough agreement with those previously obtained from the frontal effect, and it is concluded that the photoelectrons are produced approximately symmetrically with respect to a plane normal to the x-ray beam. The data were reduced on the assumption

2/3

L 12922-65

ACCESSION NR: AP4045296

that the photoelectrons are exponentially absorbed, and values were derived for the absorption coefficient. The reciprocal absorption coefficient thus obtained did not always agree with the mean depth defined above. It is concluded that both quantities are useful for describing photoelectric phenomena, but that the mean depth as defined by the authors is physically the more meaningful. Orig.art.has: 2 formulas, 3 figures and 2 tables.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet Kafedra elektroniki (Electronic Department, Kiev State University)

SUBMITTED: 00

ENCL: 00

SUB CODE: OP,EM

NR REF SOV: 006

OTHER: 003

3/3



MEL'NIK, P.Ya.

Use of geophysical methods in hydrogeological studies in the  
Crimea. Geofiz. i astron. no.8:84-89 '65. (MIRA 19:1)

1. Krymskaya geofizicheskaya ekspeditsiya.

ACC NR: AP7002409

SOURCE CODE: UR/0363/66/002/012/2246/2247

AUTHOR: Kaydanov, V. I.; Mel'nik, R. B.; Fedorenko, Ye. Sh.

ORG: Polytechnic Institute im. M. I. Kalinin, Leningrad (Politekhnicheskiy institut)

TITLE: Growing of highly doped n-type lead telluride single crystals and determination of the distribution of iodine, chlorine and bromine

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 12, 1966, 2246-2247

TOPIC TAGS: lead compound, telluride, distribution coefficient, single crystal growing

ABSTRACT: n-Type PbTe single crystals were grown by zone melting, and the dopants used were PbI<sub>2</sub>, PbBr<sub>2</sub> and PbCl<sub>2</sub> with excess lead (2 at. % or  $3 \times 10^{20} \text{ cm}^{-3}$ ). This combination of impurities is thought to produce one electron in the conduction band per atom of halogen. X-ray structural and metallographic analyses showed the ingots obtained to be single crystals and bicrystals. The distribution of the impurities over the length of the ingot was described by the equation of normal crystallization for the three halides with different values of the effective distribution coefficients. Since each halogen atom gives one electron in the conduction band only in the presence of excess lead, it is assumed that the effective distribution coefficients being sought characterize the distribution of the simplest groups PbI, PbBr and PbCl in the

Card 1/2

UDC: 546.815'241:537.311.33

ACC NR: AP7002409

PbTe lattice. For the ingot containing the PbI<sub>2</sub> impurity, the effective coefficients were determined for two crystallization rates. This made it possible to obtain the value of the equilibrium coefficient of the simplest group from the relation

$$K_{eff} = \frac{K_0}{K_0 + (1 - K_0)e^{f\delta/D}}$$

where  $K_0$  is the equilibrium distribution coefficient,  $K_{eff}$  the effective distribution coefficient,  $f$  the growth rate,  $\delta$  the thickness of the diffusion layer, and  $D$  the diffusion coefficient. Since  $\delta/D$  is determined mainly by the properties of the solvent and is independent of the type of impurity, the value of  $\delta/D$  found for the PbI group and equal to  $0.6 \times 10^3$  was used for the determination of the equilibrium distribution coefficients of PbCl and PbBr. The values obtained are shown in Table 1. Orig. art. has: 2 figures and 2 tables.

Table 1

Ion	$r_0 \cdot A$	$K_0$
Te <sup>4-</sup>	2.11	—
I <sup>-</sup>	2.2	0.19
Br <sup>-</sup>	1.96	0.043
Cl <sup>-</sup>	1.81	0.029

SUB CODE: 07/ SUEM DATE: 14Oct65/ ORIG REF: 003/ OTH REF: 003

Card 2/2

SHCHENNIKOV, S.T., doktor vet. nauk.; PETROVSKAYA, Ye.A., kand. vet. nauk;  
MEL'NIK, R.I., mladshiy nauchnyy sotrudnik.

Sulfamethazine sodium in the prevention of pasteurellosis in poultry.  
Ptitsevodstvo 8 no.9:36-38 S '58. (MIRA 11:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ptitsepereraba-  
tyvayushchey promyshlennosti.  
(Sulfamethazine)

MEL'NIK, R.I.; SERGEYEV, V.A.; PICHUGIN, L.M.

Reproduction of the virus of foot-and-mouth disease in the culture of surviving tissues of cattle and swine. Veterinaria 41 no.8:13-16 Ag '64. (MIRA 18:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut veterinarnoy virusologii i mikrobiologii.

MEL'NIK, S. A.

20899 Mel'nik, S. A. Vinogradarstvo v Odesskoy oblasti i meroprigratiya dlya dal' neyshego ego pszviivii. [Iz materialov doklada na Obl. soveshchenii agronomov 20 yanv. 1948 g.] Trudy Odes. p.-kh. in-ta, t.V, 1941, s. 55-65

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

MEL'NIK, S. A.

20900 Mel'nik, S. A. Osivovnyye polozheniya, obespechizayushchiye vytov nailuchshikh opyliteley dlya funktsional'no zhenskikh sortov vinograda. Trudy Cdes. s.-kh in-ta, t. V. 1949, s. 67-79

SO: LETPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

1. MEL'NIK, S.A., Prof.; ANISIMOVA, V.K.
2. USSR (600)
4. Grapes
7. Role of grapevine suckers, Prof. S.A. Mel'nik, V.K. Anisimova, Vin.SSSR 13 no. 4, 1953

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953. Unclassified.



KORNEYCHUK, Vasilii Dem'yanovich [Korneichuk, V.D.]; FLAKIDA, Yevgeniya  
Kondrat'yevna; MEL'NIK, S.A., red.

[Fertilizing vineyards in the Ukraine] Udobrenie vinogradnikov  
na Ukraine. Odessa, Odesskoe obl.izd-vo, 1955. 99 p.

(MIRA 13:7)

(Ukraine--Viticulture)

MELNIK, S. A.

Accelerating the formation of roots in vine grafts. S. A. Melnik. *Sobremennye Voprosy Vostocnoy Meditsiny* 10, No. 1, 13-14 (1955). In order to find an efficient root-growth-stimulating agent, the vine grafts (seedlings) were immersed for 12 and 18 hrs. into solns. contg. heteroauxin (1 mg. and 10 mg./ml. of 1% a.s. 13, 25, and 52 mg.,  $MnSO_4$ , 1,  $KNO_3$ , 0.1, 1.00, 0.01, and  $Al_2(SO_4)_3$  0.001 g./l. of water, resp.; other treatments included immersion of the grafts into cold (15°) and warm (35°) water and a 3-day-long stratification of the grafts at 27-8°. The most effective agent was I. After 28 days grafts with I had an av. of 24 roots, after 41 days, 34 roots; control grafts (those treated with cold water) after 41 days had 3.3 roots, and the grafts treated with the  $MnSO_4$  (the next most effective soln.) 5.1 roots. Full immersion of the grafts into 35° water for 48 hrs. totally inhibited the root growth. Optimal dose of I was 20 mg./l. Mech. treatment of the grafts was less effective than the I treatment. Treatment of the grafts with aq. exts. from beans and corn showed that the latter possess stimulative root-growth properties; this was true (as in the previous cases) not only with respect to the no. of roots, but also to the length of the roots, increase of the mass of seedlings, and to an increased formation of callus.  
E. Wierbicki

DUBROVSKIY, V.A., inzhener, ; KOBILYAKOV, L.M., inzhener; MEL'NIK, S.A.,  
inzhener, otvetstvennyy redaktor; PORTNOV, M.N., redaktor;  
BALLOD, A.I., tekhnicheskiy redaktor

[Manual for leaders of tractor brigades] Spravochnik brigadira  
traktornoj brigady. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956.  
804 p. (MLRA 9:11)  
(Agricultural machinery)

USSR/Cultivated Plants. Fruits. Berries.

M

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20518.

Author : S.A. Mel'nik.

Inst : Odessa Agricultural Institute.

Title : Directed Cultivation of the Grape Crop. (Napravlenoye vyrashchivaniye urozhaya vinograda).

Orig Pub: Sadovodstvo, vinogradarstvo i vinodeliye Moldavii, 1956, No 2, 31-35.

Abstract: During the course of a number of years the Department of grape cultivation and viticulture of the Odessa Agricultural Institute has applied agricultural methods in the vineyards directed toward changing the quality of the grape crop. Therefore, in the arc-shaped curve of shoots in the Mal'vaziya variety, the saccharinity in the grapes was raised by 1.7%; with a shoot inclination of 180°

Card : 1/2

Mel'nik, S. A.

Effect of tendrils on the quality of grapes. S. A. Mel'nik  
and V. K. Anisimova. Sadovodstvo, Vuzgradarstvo i  
Vinodelie Moldavi 11, No. 3, 37-8(1966). Removal of  
tendrils from the vine plants improve the grape quality by  
increasing the sugar content and the wt. of grapes (total  
acidity of the grapes was slightly decreased in some varieties  
of vines). A continuous removal of the tendrils just after  
their appearance on the plants is more effective than a single  
removal during the entire vegetative period. — R. W.

Me

2/

MELNIK, S. A.

BASHIROV, Farid Bashirovich; ~~MELNIK, S. A.~~ professor, rezensent; NEGRUL',  
A.M., professor, rezensent; PRITYKINA, L.A., redaktor; CHEBYSEVA,  
Ye.A., tekhnicheskiy redaktor

[Growing grapes from suckers] Vyrashchivaniye vinograda na pasyankakh.  
Moskva, Pishchepromizdat, 1957. 119 s. (MLHA 10:10)  
(Viticulture)

USSR/Cultivated Plants - Fruits. Berries.

M.

Abstr Jour : Ref Zhur - Biol., No 10, 1958, 44327  
Author : Mel'nik, S.A., Shchitglowskaya, V.I.  
Inst : ~~Inst. of Biology and Botany of the USSR Academy of Sciences~~  
Title : Ampelographic Method of Determining the Leaf Area.  
Orig Pub : Sadovodstvo, vinogradarstvo i vinodeliye Moldavii, 1957,  
No 3, 36-38.

Abstract : To determine the area of the leaf surface by the ampelographic method proposed by Prof. Melnik, the longitudinal diameter of each leaf on each shoot is measured. This diameter is taken to be the distance from the top of the central projection of the middle lobe to the top of the most distant and protruding point of one of the lower lobes. In the leaf varieties having a shortened central vein the greatest diameter in the lateral direction is measured. The leaf surface area is taken to be the area

Card 1/2

- 162 -

Country : USSR  
CATEGORY :

M-8

ABS. JOUR. : RZbiol., No. 19, 1959, No. 87248

AUTHOR : Mel'nik, S. A.  
INST. : Odessa-Agricultural Institute  
TITLE : Principal Methods of Increasing the Yields  
of Grapevine Plantings

ORIG. PUB. : Tr. Odessk. s.-kh. in-ta, 1957, 8, 6-18

ABSTRACT : A number of agrotechnological procedures are recommended for the conditions of Ukraine and Moldavia and varieties grown in these areas. Some new methods are described, which were developed or elaborated by the Department of Viniculture of the Odessa Agricultural Institute. Pinching out of the growing point of shoots at a specific level for each variety, to obtain additional yield from lateral shoots; supplementary artificial pollination of inflorescence, stating the recommended varieties the pollen of which is to be used; pruning, at a time specific for each variety, with removal of portions the length of which varies according to variety; and also of leaving a definite proportion of bearing and

CARD: 1/2



COUNTRY : USSR  
CATEGORY :

M-8

ABS. JOUR. : RZBiol., No. 19, 1958, No. 37253

AUTHOR : Mel'nik, S. A.  
INST. : Odessa Agricultural Institute  
TITLE : Frost Resistance of European Varieties of  
Grapes and of Direct-Producers Hybrid  
Varieties.  
ORIG. PUB. : Tr. Odessk. s.-kh. in-ta, 1957, 8, 19-39

ABSTRACT : General conclusions based on extensive  
factual data concerning winter hardiness of European  
varieties of grapes, and of direct producers hybrid varie-  
ties, according to observations made in the south of the  
Ukrainian SSR after the severe winter of 1953/54. Data are  
cited which show extensive damage to grapes of European  
varieties and direct-producer hybrids left without winter  
protection or poorly protected. Resistance of protected  
plants was on the whole considerably higher, but varied  
depending on condition of the vines in the fall -- vines  
that had made poor growth, those overburdened with shoots  
or heavy crop, including not fully mature portions, were

CARD: 1/2

Country : USSR  
CATEGORY :

M-8

ABS. JOUR. : REBiol., No. 17 1959, No. 27253

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : Many experiments have been conducted in the USSR on the effect of different cultural practices on the yield and quality of wheat. The results of these experiments are shown. The direct-panicle hybrids are, in general, more resistant to cold than the non-panicle varieties. However, under conditions of poor cultural practice their winter hardiness is reduced. On the basis of an analysis of the specific biological features of the various direct-panicle varieties of the European varieties, different cultural practices are recommended, particularly for regions that have a continental climate. -- V. V. Andriushchikova.

CARD: 2/2

COUNTRY : USSR  
CATEGORY :

M-5

8  
ABB. JOUR. : RZBiol., No. 14 1950, No. 87250

AUTHOR : Melnik, S. A.; Glinkova, V. I.  
INST. : USSR Agricultural Institute  
TITLE : Energy of Photosynthesis of Bearing and Non-Bearing Grapevine Shoots.

ORIG. PUB. : Tr. Gosser. S.-M. in-ta, 1957, 1, 75-81

ABSTRACT : Specific features of photosynthesis are directly correlated with ecological conditions of grapevine shoots. To get 1 kg of ripe grapes in the Ukraine and in Moldova it is necessary to have a larger surface area of leaves than that which is needed in Armenia. Under certain ecological conditions an increase of surface area of the leaves results in decreased assimilation activity. It was confirmed experimentally that energy of photosynthesis in the leaves is lower in non-bearing shoots than in bearing shoots, under optimal conditions of growth and development of the shoots. Photosynthesis energy of non-bearing shoots is higher at the end of the period of growth. (11)

CARD: 1,2

Country : USSR  
CATEGORY :

M-8

ABST. JOUR. : RZBiol., No. <sup>8</sup>19, 195~~4~~, No. 87250

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : different proportions of bearing and non-bearing shoots the crop obtained differs in amount and in quality. The optimal proportions vary for different varieties, and also under different conditions, as well as during different years. In most instances an increase of the relative amount of bearing shoots results in higher yield, but quality of the crop is lowered. Correct proportions of bearing and non-bearing shoots must be determined taking into account the biological characteristics of the variety, the condition of the vines, their reaction to environment, and conditions of cultivation.

V. V. Arkhangel'skaya.

CARD: 2/2

MEL'NIK, S.A.  
MEL'NIK, S.A.

Achievements in viticulture in the U.S.S.R. Agrobiologia no.1:109-  
116 Ja-F '58. (MIRA 11:2)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh  
nauk im. V.I. Lenina. 2. Odesskiy sel'skokhozyaystvennyy institut.  
(Viticulture)

COUNTRY : USSR  
CATEGORY : Cultivated Plants. Fruits. Berries. M  
ABS. JOUR. : RZhBiol., No. 23 1958, No. 104800  
AUTHOR : Mel'nik, S. A.  
INST. : Odessa Agricultural Institute  
TITLE : Methods of Increasing the Sugar Forming Capacity  
in Grape Vine.  
ORIG. PUB. : Tr. Odessk. s.-kh. in-ta, 1957, 8, 40-48  
ABSTRACT : In the calculation of the amount of sugar produced by  
each vine, of the sugar content and acidity of the must,  
the number of clusters, and the weight of the yield of  
Aligote and Belardzhe varieties, great variations were  
found in all of these elements of a crop. Absence of a  
direct relationship between the number of clusters on a  
shoot and the sugar content of the juice was ascertained.  
This served as a basis for the purposes of clone breeding.

CARD: 1/4

111

COUNTRY :  
CATEGORY : M  
ABS. JOUR. : RZhBiol., No. 23 1958, No. 104800  
AUTHOR :  
INST. :  
TITLE :  
ORIG. PUB. :  
ABSTRACT : The effect of a number of methods for the improvement of  
conditions for sugar accumulation in the berries was de-  
termined. Banding of the fruit shoots to 150-180°, gird-  
ling the shoots, tying the bases of the shoots with wire  
2 weeks before the coming of the physiological maturity  
of the berries, increased their sugar content by 3-5%  
against the control. Girdling the trunks is a less  
effective method and is not recommended in view of a se-  
vere weakening of the vines with its application. For  
the same reason, binding the bases of the shoots with  
wire every year is not recommended. Pinching the shoots

CARD: 2/4

COUNTRY :  
CATEGORY : M

ABS. JOUR. : RZhBiol., No. 1958, No. 104800

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : increased the sugar content of the berries. Suckering produced the same effect in varieties of vigorous growth having a great capacity for the development of suckers. The removal of the tendrils and especially the involution of the clusters, increased the sugar content in the berries. The proportion of sugar and acid in the berries varied sharply with different forms of the vine; the form of the vine corresponding to the biological attributes of

CARD: 3/4

112

CARD: 4/4

MEL'NIK, S. A.

COUNTRY : USSR  
 CATEGORY : Cultivated Plants. Fruits. Berries. M  
 ABS. JOUR. : RZhBiol., No. 23 1958 No. 104823  
 AUTHOR : Mel'nik, S. A., Shchiglovskaya, V. I.  
 INST. : Odessa Agricultural Institute  
 TITLE : Ampelometric Method of the Determination of the Leaf Surface Area in Grapevines.  
 ORIG. PUB. : Tr. Odessk. s.-kh. in-ta, 1957, 3, 82-88  
 ABSTRACT : A method, called by the authors ampelometric, is proposed for the determination of grapevine leaf area without plucking leaves off the vine. In this method, the diameter of each leaf on each shoot is determined successively from the base to the tip. The diameter of the leaf is taken to be the distance in longitudinal direction from the farthest projecting tooth of the lower lobe to the tip of the central tooth of the upper terminal lobe. For

CARD: 1/2

137

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001033420010-7

CATEGORY : M  
 ABS. JOUR. : RZhBiol., No. 23 1958 No. 104823  
 AUTHOR :  
 INST. :  
 TITLE :  
 ORIG. PUB. :  
 ABSTRACT : varieties having a short midrib, the leaf diameter is measured according to the same principle but in the lateral, not longitudinal direction. The leaf area is conditionally assumed to be the area of a circle and is computed according to formula:  $w = \pi d^2 / 4$  where  $w$  is the area of the circle, assumed conditionally to be the leaf area,  $d$  - the length (conditional diameter) of the leaf. To facilitate computation, a special table of computed leaf areas with the diameter of 1-17 cm. is cited. Comparative verification of the results of the computation of leaf area by ampelometric methods, volumetric method and by means of measuring the leaf area with planimeter, showed that the proposed method is not inferior to other methods but is considerably simpler. — r. Ye. Tsakhmistrenko

CARD: 2/2



MEL'NIK, S.D.

Acclimatizing subtropical plants in the city of Lvov. *Bul. Glav. bot.*  
sada no. 26:21-28 '56. (MLBA 10:2)

1. Botanicheskiy sad L'vovskogo gosudarstvennogo pedagogicheskogo  
instituta.  
(Lvov--Tropical plants) (Acclimatization (Plants))

✓ MEL'NIK, S.D. Cand Biol Sci -- (diss) "The acclimatization of  
subtropical and southern ~~plants~~ plants in the city of  
L'vov." Kiev, 1957. 21 pp. (Kiev State Univ im T.G. Shevchenko).  
(KL, 8-58, 104)

-15-

Country : USSR  
Category: Forestry. Forest Biology and Typology.

K

Abs Jour: RZhBiol., No 12, 1958, No 53463

Author : Mel'nik, S.D.  
Inst : Lvov Pedagogical Institute  
Title : On the Temperature Rate of the Tree Trunk

Orig Pub: Dopovidni ta povidomlennya. L'vivs'k. derzh. ped.  
in-t, 1957, vyp. 2, 53-55

Abstract: In 1954-1955, observations on the temperature rate of the trunks of 50-60 years old walnut, pine, beech, birch and pear trees were conducted on the grounds of the Botanical Garden of the Lvov State University. It is stated that in winter time the temperature of the trunk of a living tree drops gradually, and that it depends chiefly on the temperature of the air,

Card : 1/2

K-18

MEL'NIK, S.D.

MEL'NIK, S.D.

Oldest oak in Ukraine. Biul.Glav.bot.sada no.27:119-121 '57.  
(MLRA 10:5)

L'vovskiy pedagogicheskiy institut.  
(Rai(Ternopol' Province)--Oak)

MEL'NIK, S.D.

Acclimatization of Metasequoia in Lvov. Biol. Glav. bot. sada  
no.56:17-18 '64. (MFA 18:5)

1. L'vovskiy gosudarstvennyy universitet imeni Iv. Franko.

MEL'NIK, S.E.

Device for grinding 37D diesel crankpins. Sudostroenie 28 no.1:  
69-71 Ja '62. (MIRA 16:7)

(Grinding and polishing)  
(Crank and crankshafts)

MEL'NIK, S.F., kapitan meditsinskoy sluzhby

Electrically lighted stand illustrating the "Blood circulation in  
man." Voen.-med.zhur. no.10:77-78 0 '55. (MIRA 9:10)  
(VISUAL EDUCATION) (MEDICINE--STUDY AND TEACHING)

MEL'NIK, S.G.

Signs on reinforced concrete poles. Put.i put.khoz. no.4:31 Ap  
'57. (MLRA 10:5)

1,Zamestitel' nachal'nika Donetskoy dorogi.  
(Railroads--Signaling)



L 31990-66 EWT(1) SCTB DD/GD  
ACC NR: AT6012899 SOURCE CODE: UR/0000/65/000/000/0215/0228

AUTHOR: Volkov, A.A.; Denisov, V.G.; Kirilenko, Yu. I.; Mankevich, V.I.; Mel'nik, S.G.;  
Mikhaylovskiy, G.P.; Onishchenko, V.F.

ORG: none

TITLE: The structure of the command signal and the psychophysiological capabilities of an operator in control while subjected to G force

SOURCE: Sistema chelovek i avtomat (Man-automaton systems). Moscow, Izd-vo Nauka, 1965, 215-228

TOPIC TAGS: man machine communication, automatic control theory, human engineering, biologic gravity effect, flight physiology, psychologic stress

ABSTRACT: Circuits containing a man-operator as one of their elements are extensively used in modern control systems. The case studied involves the control of the pitch of an aircraft in descent prior to landing. An experimental investigation is made of the psychophysiological characteristics of an operator during control under conditions of G force acting in the chest-back direction. It is found that with a G force below a certain limit, the operator is capable of controlling angular and trajectory movements if he receives a single control command. The structure of the control command should be identical with the principle of control of an automatic system; furthermore, a correction should be made in the

Card 1/2

L 31990-66

ACC NR: AT6012899

command system, i. e., the dynamic properties of the operator should be corrected. Optimal structure of the control command may be selected by methods employed for automatic control systems. The quality of the control is considerably affected by its dynamic characteristics, by the preparation and the training of the operator, by perturbation factors, and by the organization of the working place of the man-operator. According to data obtained with the polyeffector method of recording physiological functions, an increase in G force acting on the man-operator leads to the execution of control functions which are unchanged in capacity at a high neuropsychic stress and at a lowered performance. The polyeffector method makes it possible to determine the neuropsychic activity of the operator under G force more fully. An objective evaluation of the processes employing the man-operator in the control circuit may be obtained as a result of analysis of the parameters of the motion dynamics of the controlled plant, the actions of the operator, and the degree of the operator's psychophysiological stress. Orig. art. has: 12 figures and 18 formulas. [08]

SUB CODE: 05 / SUBM DATE: 02Aug65 / ATD PRESS: 5021

Card 2/2 LC

MELENIK, S. I.

Me'nik, S. I. Oscillating functions and their application  
to approximate solution of integral equations. Doklady  
Akad. Nauk SSSR (N.S.) 95, 705-708 (1954). (Russian)

A function  $f(p)$  which, together with its square, is summable over a region  $\omega$ , is said to be an oscillating function in case  $\omega$  can be subdivided into nonoverlapping regions  $\omega_i$  such that  $\int_{\omega_i} f(p) d\omega_i = 0$  for every  $i$ . Now given an integral equation  $u(p) - f(p) = \int_{\omega} k(p, q)u(q) d\omega_q = 0$ , one can undertake to approximate the solution  $u$  by a linear combination of  $n$  orthogonal functions  $\theta_i$ :  $u_n = \sum a_i \theta_i(p)$ . When  $u_n$  replaces  $u$  the left member of the integral equation is a function  $\psi_n(p, a_1, \dots, a_n)$  and there are various conditions one can apply to  $\psi_n$  so as to determine the  $a_i$ . In this paper is considered in particular the requirement that the  $\psi_n$  be an oscillating function. A theorem and a corollary bound the error of an approximate solution, but the conclusions are obscured by evident misprints. A. S. Householder.

Molotov State U in A. M. Gorkiy

Mel'nik, S. I.

Mel'nik, S. I. Some estimates for a biharmonic function,

Dokl. Akad. Nauk SSSR (N.S.) 104 (1955), 352-355.

(Russian)

Let  $B$  be a bounded, simply-connected region in the  $(x, y)$ -plane. Let the boundary  $\Gamma_B$  of  $B$  possess continuous curvature  $\varrho(s)^{-1}$ . Let  $l$  denote the total arc-length of  $\Gamma_B$ . We place the origin  $(0, 0)$  inside  $B$ , and require that  $dR/dn|_{\Gamma_B} = \cos(R, n) \neq 0$ , where  $R^2 = x^2 + y^2$ . Let  $f_1(s)$ ,  $f_2(s)$ , and  $f_1'(s)$  belong to  $L^2$ , with  $\int_0^l f_1^2(s) ds = M$ . Define the biharmonic function  $W$  by the boundary conditions

$$W = f_1(s) \text{ on } \Gamma_B, \quad \frac{dW}{dn} = f_2(s) \text{ on } \Gamma_B.$$

Estimates are now given for  $W$  and for its derivatives up to order two, inclusive. We reproduce the estimates on the second derivatives:

$$\left| \frac{\partial^2 W}{\partial x^2} \right|, \left| \frac{\partial^2 W}{\partial y^2} \right| \leq \frac{k_1}{\pi(1-k)} \left\{ 2 \left[ \int_0^l \frac{ds}{r^2_{p,Q}} \right]^{\frac{1}{2}} + 12 \max R \left[ \int_0^l \frac{ds}{r^4_{p,Q}} \right]^{\frac{1}{2}} + 9 \max R^2 \left[ \int_0^l \frac{ds}{r^6_{p,Q}} \right]^{\frac{1}{2}} \right\} + 9 \frac{M + k_2}{\pi(1-k)} \left[ \int_0^l \frac{ds}{r^6_{p,Q}} \right]^{\frac{1}{2}},$$

$\frac{1}{\sqrt{1-k}} - \frac{1}{R/W}$

✓ 3

Melnik, S L.

2001

$$\left| \frac{\partial^2 W}{\partial x \partial y} \right| \leq \frac{k_1}{\pi(1-k)} \left( 4 \left[ \int_0^1 \frac{ds}{r_{\rho,0}^4} \right]^2 + 13 \max R \left[ \int_0^1 \frac{ds}{r_{\rho,0}^2} \right]^2 \right) + 13 \frac{M+k_2}{\pi(1-k)} \left[ \int_0^1 \frac{ds}{r_{\rho,0}^2} \right]^2$$

In these formulas,  $W=W(Q)$ ,  $Q$  is an interior point of  $B$ ,  $p$  is a point on the boundary,  $ds=ds_p$ , and  $k, k_1, k_2$  and are defined as follows. Let  $K(s, s_0) = \pi^{-1} d \ln r_{\rho,0}^{-1} / dn_p$ ; then

$$k = \min_{(\phi, \phi=1)} \int_0^1 \int_0^1 K(s, s_0) \phi(s) \phi(s_0) ds ds_0$$

Let  $v$  be the harmonic function in  $B$  assuming the boundary value  $v=f_1(s)$  on  $\Gamma_B$ . Define

$$\theta(s) = f_2(s) - \frac{dv}{dn} \Big|_{\Gamma_B}$$

Then

$$k_1^2 = \frac{1}{\min(dR^2/dn)^2} \int_0^1 \theta^2(s) ds,$$

and

$$k_2^2 = \frac{\max R^4}{\min(dR^2/dn)^2} \int_0^1 \theta^2(s) ds.$$

7/3

1001

*Mel'nik, S.I.*

The proof is achieved by conformal mapping onto the unit circle, representation of the biharmonic function in terms of harmonic functions, use of Poisson's integral, and estimating the  $L^2$  norm of solutions of Fredholm equations.

*R. B. Davis (Durham, N.H.)*

*3/5*

*RBD*

MEL'NIK, S.I.

SUBJECT USSR/MATHEMATICS/Differential equations CARD 1/1 PG - 444  
AUTHOR MEL'NIK S.I.  
TITLE Oscillating functions and some applications for the solution of  
the problems of mathematical physics.  
PERIODICAL Mat. Sbornik, n. Ser. 38, 465-477 (1956)  
reviewed 12/1956

The present paper contains more detailed elaborations to the author's announcement (Doklady Akad. Nauk 95, 705-708 (1954)). Beside of the example of the application of the oscillating function for the solution of integral equations treated in the announcement, now by aid of the oscillating functions an approximative solution of ordinary differential equations with Cauchy's initial conditions in the Saint-Venant's principle are obtained.

INSTITUTION: Molotov.

MELNIK, S.I.

SUBJECT USSR/MATHEMATICS/Theory of functions CARD 1/1 PG - 808  
AUTHOR MEL'NIK S.I.  
TITLE The principle of Saint-Venant and oscillating functions.  
PERIODICAL Uspechi mat.Nauk 12, 1, 218-222 (1957)  
reviewed 6/1957

The author joins his earlier publication (Doklady Akad.Nauk 95, 4, (1954)) and extends the application of oscillating functions to the approximative solution of differential equations and to estimations in the principle of Saint-Venant.



32890

S/044/61/000/012/046/054  
C111/C222

16.6500

AUTHOR: Mel'nik, S. I.

TITLE: The Saint-Venant principle, or the method of oscillating functions and its applications

PERIODICAL: Referativnyy zhurnal, Matematika, no. 12, 1961, 45-46, abstract 12V274. ("Uch. zap. Permsk. un-t", 1959, 13, no. 2, 3-39)

TEXT: The significance of the Saint-Venant principle is revealed with the aid of the introduced oscillating functions. Presented is an application of the oscillating functions to the approximate solution of integral equations and the differential equation  $y' = f(x,y)$  with Cauchy conditions. Estimations of errors for the Saind-Venant principle in the two and three dimensional case are obtained. Examples are given which clarify the character of the estimates and the possibility of improving them. Finally, the Saint-Venant principle is generalized to obtain solutions of the Dirichlet problems for the Laplace equation. It is denoted that the described method is easy to handle, gives good results with relatively little effort and is easy to program.

[Abstracter's note: Complete translation.]

Card 1/1

MEL'NIK, S.L.

YASHCHERITSYN, P.I.; MEL'NIK, S.L.; CHERNYAK, I., redaktor; TRUKHANOVA, A.,  
tekhnicheskiy redaktor

[The new and the progressive in industry; work practices of machine  
building factories in Minsk] Novoe, peredovoe v proizvodstvo; iz  
opyta raboty mashinostroitel'nykh zavodov goroda Minska. Minsk, Gos.  
izd-vo BSSR, 1955. 43 p. (MLRA 9:1)

(Minsk--Machinery industry)

MELNIK, S.L.

25(5)

PHASE I BOOK EXPLOITATION

SOV/2785

Nauchno-tehnicheskoye obshchestvo mashinostroitel'noy promyshlennosti,  
Belorusskoye respublikanskoye pravleniye

Puti sovershenstvovaniya tekhnologicheskikh protsessov na Minskom  
podshipnikovom zavode (Improving Technological Processes at the  
Minsk Bearing Plant) Minsk, Gos. izd-vo BSSR, 1958. 226 p.  
2,000 copies printed.

Eds.: M. Baranovskiy and F. Kashtanov; Tech. Ed.: N. Stepanova.

PURPOSE: This collection of articles is intended for industrial and  
mechanical engineers.

COVERAGE: The collection of articles reviews the attainments of the Minsk State  
Bearing Plant since its entry into production during the Fifth Five-Year  
Plan and a description is given of the methods adopted by the plant to raise the  
technological levels of production through introduction of new machinery and  
modern production processes and through the modernization of existing equipment.  
The role of Party work in the "struggle" for technological progress is also re-  
viewed. The introduction mentions the achievements of the following technical

Card 1/3

## Improving Technological Processes (Cont.)

SOV/2785

personnel: P.A. Kovalenko, assistant director of the tooling shop; engineers V.A. Feygin, A.A. Malakhovskiy, and A.F. Segodnik; designer M.Ye. Makhanev; and technologists Ye.S. Artyukhovskaya and A.A. Desyatkovaya. There are no references.

## TABLE OF CONTENTS:

Introduction	3
Yashcheritsyn, P.I. (Candidate of Technical Sciences, Director of the Plant), Basic Ways of Improving the Production Technology of Roller Bearings	6
Mukhlya I.Ya. (Secretary of the Party Bureau of the Minsk State Bearing Plant. The Plant Party Organization in the Struggle for Technical Progress	71
Karchan, Ya.S. (Chief Engineer). Improvement of Technological Processes	84
Yashcheritsyn, P.I. (Candidate of Technical Sciences), and Ya.S. Karchan. (Engineer). Automation and Mechanization of Technological Processes	112
Mel'nik, S.L. (Director of the the Labor and Wage Section), Some Problems	

Card 2/3

Improving Technological Processes (Cont.)	SOV/2785	
in Regulating Labor Standards and Wages in Machine Manufacturing		180
Dobrolyubov, A.N. (Assistant Director of the Engineering and Power Section). Our Experience in Modernizing Equipment		193
Kosachevskiy, L.N. (Chief Metallurgist). Improving Hot Working Processes at the Plant		208
AVAILABLE: Library of Congress (TJ1061.N37)		

Card 3/3

JG/gmp  
1-22-60

MELE'NIK, S.M.; BUTOVICH, A.A.

New labeling machine for glass containers. Kons. i ov. prom.  
14 no.11:16-17 N '59. (MIRA 13:2)

1. Simferopol'skoye spetsial'noye konstruktorskoye byuro prodovol'stven -  
nogo mashinostroyeniya.  
(Labeling machines) (Glass containers)

KHESIN, M.I.; MEL'NIK, S.M.; KOGAN, M.S.

Paste for discoloring dyes on the skin. Vest. derz. i ven.  
37 no.2:85-86 F'63. (MIRA 16:10)

1. Iz zavoda khimicheskikh reaktivov, Khar'kov.

\*

L 04062-67 EWP(k)/EWT(m)/T-2/EWP(w)/EWP(v) IJP(c) EN

ACC NR: AP6027316

SOURCE CODE: UR/0114/66/000/005/0007/0009

AUTHOR: Sobolev, S. P. (Engineer); Arkad'yev, B. A. (Engineer);  
Mel'nik, S. M. (Engineer)

52

ORG: none

B

TITLE: Selection of guiding vane grids

SOURCE: Energomashinostroyeniye, no. 5, 1966, 7-9

TOPIC TAGS: turbine design, turbine blade

ABSTRACT: The article presents a method for optimization of the grid profiles for the guiding vanes of turbines and gives the results of a comparison of three types of profiles. In the comparison of the profiles, no corrections were introduced for the effect of the angle of the incoming flow, or for the Re and M numbers, since in most cases these corrections are not significant. The mean discharge angle for the flow,  $\alpha$ , was taken as arcsine  $a/t$ , where  $a$  is the size of the throat, and  $t$  is the spacing of the grid. Based on experimental results, a figure shows the dependence of the profile losses of energy on the relative spacing for three types of profiles. A second figure illustrates the dependence of the total energy losses in the grid on

Card 1/2

UDC: 62-226.001.5



L 04062-57

ACC NR: AP6027316

the discharge angle of the flow,  $\alpha$ . Orig. art. has: 4 figures and 1 table.

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 001

Card 2/2

PHASE I BOOK EXPLOITATION

SOV/4824

Dorrer, Iosif Alekseyevich, and Semen Osherovich Mel'nik

Foto:telegrafirovaniye po korotkovolnovym radiokanalom (Phototelegraphy on Short-wave Radio Channels) Moscow, Svyazizdat, 1958. 78 p. (Series: Lektsii po tekhnike svyazi) 11,100 copies printed.

Sponsoring Agency: Ministerstvo svyazi SSSR. Tekhnicheskoye upravleniye.

Resp. Ed.: G.A. Aleksandrov; Ed.: L.I. Vengrenyuk; Tech. Ed.: K.G. Markoch.

PURPOSE: This booklet is intended for technical personnel in communication services.

COVERAGE: The authors present major problems of phototelegraphy on radio channels, describe practices of photo-radio communications in the USSR and abroad, and evaluate the prospects of its further development. No personalities are mentioned. There are 7 references, all Soviet.

TABLE OF CONTENTS:

Foreword

3

~~Card 1/2~~

MEL'NIK, S.O.

MEL'NIK, S.O., inzh.

Phototelegraphic operator's position. Vest.sviazi 18 no.1:15-16  
Ja '56. (MIRA 11:1)

1.TSentral'nyy telegraf SSSR.  
(Phototelegraphy)

6(7)

SOV/111-59-5-13/32

AUTHORS: Gorbunov, A.V., Engineer, Laboratory Chief; Mel'nik,  
S.O., Senior Laboratory Engineer

TITLE: Converter Equipment for Phototelegraphic Radio  
Communication

PERIODICAL: Vestnik svyazi, 1959, Nr 5, pp 15-17 (USSR)

ABSTRACT: A converter is described which may be used on photo-  
telegraph communication systems for converting ampli-  
tude modulation to frequency modulation and frequency  
modulation to amplitude modulation. Figure 1 shows  
the circuit diagram of the unit used for converting  
amplitude modulation into frequency modulation. Fi-  
gure 2 shows the unit converting frequency modulation  
into amplitude modulation. This device was developed  
at Tsentral'nyy telegraf SSSR (USSR Central Telegraph

Card 1/2

SOV/111-59-5-13/32  
Converter Equipment for Phototelegraphic Radio Communication

Exchange). There are 2 circuit diagrams and 1 set of graphs.

ASSOCIATION: Tsentral'nyy telegraf SSSR (USSR Central Telegraph Exchange)

Card 2/2

GORBUNOV, A.V.; MEL'NIK, S.O., starshiy inzh.

Compensation of half-tone distortions in facsimile apparatus.  
Vest. svyazi 21 no.8:7-9 Ag '61. (MIRA 14:9)

1. Nachal'nik laboratorii Tsentral'nogo telegrafa SSSR (for Gorbunov). 2. Laboratoriya Tsentral'nogo telegrafa SSSR (for Mel'nik).

(Facsimile transmission)

MEL'NIK, S.O.; RYABOV, G.B.

Table for "Neva" phototelegraphy apparatus. Vest. svyazi 22 no.7: p.3  
of cover JI '62. (MIRA 15:7)  
(Phototelegraphy--Equipment and supplies)

OKSMAN, M.I.; MEL'NIK, S.O.

Use of facsimile apparatus for eliminating mistakes in processing telegrams. Vest. svyazi 23 no.3:21-23 Mr. '63. (MIRA 16:3)

1. Starshiy inzh. Glavnogo upravleniya mezhdugorodnoy telegrafno-telefonnoy svyazi Ministerstva svyazi SSSR (for Okshan). 2. Starshiy inzh. laboratorii Tsentral'nogo telegrafa SSSR (for Mel'nik).  
(Telegraph) (Phototelegraphy)



MEL'NIK, S.O.

Organization of local municipal phototelegraphy communications. Vest. svyazi 23 no.8:10-12 Ag '63. (MIRA 16:11)

1. Starshiy inzh. laboratorii Tsentral'nogo telegrafa SSSR.

MEL'NIK, S.O.

Improved FTA-PM type facsimile apparatus. Vest. sviazi 24  
no.8:4-6 Ag '64. (MIRA 17:10)

1. Starshiy inzhener laboratorii Tsentral'nogo telegrafa SSSR.

ACCESSION NR: AP4013292

S/0135/64/000/002/0017/0021

AUTHORS: Lebedev, Yu. M. (Engineer); ~~Mel'nik, S. S.~~ (Engineer); Fukel'man, M. I. (Engineer)

TITLE: Automatic fusion of stainless steel on pearlite steel using two wire electrodes

SOURCE: Svarochnoye proizvodstvo, no. 2, 1964, 17-21

TOPIC TAGS: steel, stainless steel, pearlite steel, fusion, welding, two-wire welding, St.3 low carbon steel, SKhL-4 low alloy steel, AK-25 high-strength steel, ADS-1000-2 welder, 48-OF-6 flux, Sv-04Kh19Ni1M3 electrode wire, Sv-08Kh18N97S2 electrode wire, Sv-08Kh25N5TMF electrode wire

ABSTRACT: This work was carried out in order to study the automatic deposition of stainless steel on the low-carbon steel St.3, on low-alloy steel SKhL-4, and on high-strength steel AK-25. The purposes of this study were: 1) to determine the technical conditions which would secure minimum fusion of the basic metal; 2) to obtain the chemical composition of the built-up metal as near as possible to that of the electrode wire; 3) to avoid the formation of the undesirable martensite structures. The automatic welder ADS-1000-2 was adapted for this purpose, and two  
Card 1/12

ACCESSION NR: AP4013292

wire electrodes were used simultaneously to build up the metal (under the 48-OF-6 flux). Electrodes made of the following steels were tested: Sv-07Kh25N12, Sv-04Kh19N11M3, Sv-08Kh18N9F2S2 and Sv-08Kh25N5TMF. It was established that the metal with the highest resistance to corrosion was obtained when the combination of the electrodes produced a built-up metal of austenite-ferrite composition with 3-8% of  $\delta$ -ferrite. In order to avoid the formation of the martensite structure the chemical composition of the first few built-up layers should be such that the points plotted for it on the structural diagram shown in Fig. 1 of Enclosure would lie to the right of the SK line. Orig. art. has: 3 tables, 8 figures, and 2 formulas.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 26Feb64

ENCL: 01

SUB. CODE: ML

NO REF SOV: 005

OTHER: 000

Card 2/3

MEL'NIK, S.S., inzh.; FUKEL'MAN, M.L., inzh.

Raising the quality of the deposition of copper and its alloys on  
low-carbon steel by gas welding. Star.proizv. no.2:23-25 F '64.  
(MIRA 18:1)

LEBEDEV, Yu.M. (g. Nikolayev); MEL'NIK, S.S. (g. Nikolayev); FUKEL'MAN,  
M.L. (g. Nikolayev)

Technology of mechanized hard facing of stainless steel with  
two wires. Avtom. svar. 17 no.4:71-74 Ap '64 (MIRA 18:1)

L 9535-66 EWT(m)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(e) MJW/  
ACC NR: AP5026292 JL/HM SOURCE CODE: UR/0125/65/000/010/0050/0051

AUTHOR: Mal'nik, S. S. (Engineer; Nikolayev); Fukel'man, M. I. (Engineer; Nikolayev)

ORG: none

TITLE: Prospects for employing unshielded arc welding in shipbuilding

SOURCE: Avtomaticheskaya svarka, no. 10, 1965, 50-51

TOPIC TAGS: unshielded arc welding, shipbuilding engineering, welding electrode, welding technology

ABSTRACT: Since the employment of shielded arc welding in shipbuilding is technically difficult, the authors experimentally investigated the possibilities of the mechanized unshielded welding of hull steel by means of a 1.2 mm EP-439 thick welding wire with welding current of 140-180 a, on using an UIIP-7 pulsed attachment, in order to reduce the number of defects in the weld metal by causing the transfer of metal from the electrode wire to the molten pool to proceed in the form of smaller drops with a shorter time of transit across the arc column into the molten pool and hence with a reduced saturation of metal by the gases of the air. This technique was experimentally used to weld sections of framing to hull plating and watertight compartments. The resulting weldments were positively evaluated by representatives of the USSR Maritime Registry. Thus, unshielded arc welding with wire electrode may be

Card 1/2

UDC: 621.791.75:629.128

L 9535-66

ACC NR: AF5026292

introduced in shipbuilding in some cases where welding in a CO<sub>2</sub> atmosphere is not feasible. By the same token, the level of the mechanization of welding operations in enterprises of the shipbuilding industry can be raised. Orig. art. has: 2 figures, 1 table.

SUB CODE: 11,13/ SUBM DATE: 10Jun65/ ORIG REF: 000/ OTH REF: 000

*back*  
Card 2/2



MEL'NIK, S.V.

Studying the bryoflora in the Kanev Preserve. Nauk.zap.Kiev.un.  
8 no.6:63-72 '49. (MLRA 9:10)

(Kanew District--Mosses)

NAZAROV, I.N.; KRUGLIKOVA, R.I.; MEL'NIK, S.Ya.

Synthesis of acetals of 2,6-dimethyl- -tetrahydrobenzaldehyde. Zhur.ob.khim. 30 no.7:2269-2274 J1 '60.  
(MIRA 13:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii.  
(Bezaldehyde)

MIROPOL'SKAYA, M.A.; MEL'NIK, S.Ya.; FRADKINA, T.S.; SAMOKHALOV, G.I.;  
PETROV, A.D.

Selective reduction of 6-methyl-3,5-heptadien-2-one by trialkoxy-  
and trialkylsilane hydrides. Dokl. AN SSSR. 144 no.6:1312-1313  
Je '62. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut i  
Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk  
SSSR.

2. Chlen-korrespondent Akademii nauk SSSR (for Petrov).  
(Heptadienone) (Silane)

ACC NR: AP7013144

SOURCE CODE: UR/0079/66/036/011/1905/1909

AUTHOR: Mel'nik, S. Ya.; Miropol'skaya, M. A.; Samokhvalov, G. I.

ORG: All-Union Scientific Research Vitamin Institute (Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut)

TITLE: Investigations in the field of complex lipids. Synthesis of (alpha,beta-dipalmitoyl)phosphatidyl-N-(DL-alanyl)-ethanolamine, N-(DL-alanyl)-cephaline

SOURCE: Zhurnal obshchey khimii, v. 36, no. 11, 1966, 1905-1909

TOPIC TAGS: lipide, amine derivative, chemical synthesis, organic phosphorus compound

SUB CODE: 07

ABSTRACT: Two possible ways of synthesizing N-aminoacyl derivatives of phosphatidylethanolamines by the reaction of silver salts with the corresponding iodo-derivatives were studied. (Alpha, beta-dipalmitoyl)-phosphatidyl-N-(DL-alanyl)-ethanolamine, or N-(DL-alanyl)-cephaline was synthesized according to the following scheme. The reaction of N-(phthaloyl-DL-alanyl)-ethanolamine with thionyl chloride under very mild conditions yielded N-(phthaloyl-DL-alanyl)-2-chloroethylamine, which, by the action of sodium iodide in methyl ethyl ketone, was converted to N-(phthaloyl-DL-alanyl)-2-iodoethylamine. Condensation of the latter

Card 1/2

UDC: 547.915 + 547.468

0933 0850

ACC NR: AP7013144

with the silver salt of benzyl-(alpha,beta-dipalmitoyl)-alpha'-glycerylphosphoric acid yielded a phosphotriester, benzyl-(alpha,beta-dipalmitoyl)-alpha'-glyceryl-N-(phthaloyl-DL-alanyl)-aminoethylphosphate. Debenzylation of the latter with lithium bromide in acetone medium yielded the lithium salt of (alpha,beta-dipalmitoyl)-alpha'-glyceryl-N-(phthaloyl-DL-alanyl)-aminoethylphosphoric acid, which was cleaved to N-(DL-alanyl)-cephaline using hydrazine hydrate. The infra-red spectrum of the compound synthesized was studied; the reactions were followed by thin-layer chromatography. The method described can be used to produce analogs of N-(DL-alanyl)-cephaline containing unsaturated fatty acids in the glycerine portion of the molecule. Orig. art. has: 1 figure and 1 formula. [JPRS: 40,351]

Card 2/2

MELNIK, T.A.

RAZVODOV, B.I.; ZAMAYEV, B.N.; MEL'NIK, T.A.

Experience in polytechnical education. Fiz. v shkole 17 no.2:73-  
76 Mr-Apr '57. (MLBA 10:3)

1. 1-ya srednyaya shkola imeni M.I.Kalinina, St.Belorechenskaya  
Krasnodarskego kraja.  
(Technical education)

*Mei'nik, T. D.*

Speeding up the development and maturity of corn by means of vernalization of seed. A. G. Mikhailovskii and T. D. Mei'nik. *Zemledelie* 4, No. 4, 81-3 (1956).—Soaking the seed with 0.008% CuSO<sub>4</sub> and following with vernalization for 15 days (keeping seed for 30 hrs. in contact with water, 100 parts of grain to 35 parts of H<sub>2</sub>O by wt., covered with a wet cloth for 12 hrs., followed by exposing seed to 5-8°) increased the yield and reduced the time of maturing the plant.

I. S. Ioffe

MEL'NIK, T. F., Cand Biol Sci -- (diss) "Effect of bromine, caffeine, and their mixtures on the morphological and functional changes of the thyroid gland in the starvation and fattening of animals." Chernovtsy, 1960. 15 pp; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Chernovtsy State Univ); 200 copies; price not given; (KL, 28-60, 159)



REBIN, A. A.

Dissertation: "Effect of Vegetative Hybridization on the Formation of Some Characteristics in Cherry Seedlings Under Conditions Present in the Belorussian SSR." Cand Biol Sci, Belorussian State Univ. imeni V. I. Lenin, 27 Apr 54. (Sovetskaya Belorussiya, Minsk, 18 Apr 54)

SO: SUM 243, 19 Oct 1954

MIKHAYLOV, G.A., otv. red.; OSTAPENKO, V.N., otv. red.; MEL'NIK,  
T.S., red.; LISOVETS, A.M., tekh. red.

[Computer mathematics and engineering] Vychislitel'naya  
matematika i mekhanika; trudy aspirantov Instituta kiber-  
netiki AN USSR, Kiev, Izd-vo Akad. nauk USSR, 1962. 177 p.  
(MIRA 16:4)

1. Akademiya nauk URSR. Kiev. Institut kibernetiki.  
(Electronic computers)

LUCHKA, Anton Yur'yevich; SOKOLOV, Yu.D., otv. red.; MEL'NIK, T.S.,  
red.; TURBANOVA, N.A., tekhn. red.

[Theory and application of the method of averaging of  
functional corrections] Teoriia i primeneniie metoda os-  
redneniia funktsional'nykh popravok. Kiev, Izd-vo AN  
USSR, 1963. 125 p. (MIRA 17:3)

1. Akademiya nauk Ukr.SSR (for Sokolov).

SHAMANSKIY, Vladimir Yevtikhiyevich; FIL'CHAKOV, P.F., doktor fiz.-  
mat. nauk, otv. red.; MEL'NIK, T.S., red.; RAKHLINA, N.P.,  
tekhn. red.

[Methods for the numerical solution of boundary value  
problems using an electronic digital computer] Metody  
chislennogo reshenia kraevykh zadach na ETsVM. Kiev, Izd-  
vo AN Ukr.SSR. Pt.1. [Linear boundary problems] Lineinye  
kraevye zadachi. 1963. 195 p. (MIRA 17:1)

SILIN, Nikolay Aleksandrovich; PISHCHENKO, Ivan Akimovich;  
DIMINSKIY, Karol' Viktorovich; KONDAKOV, Vyacheslav  
Nikolayevich; STOVBUH, Ivan Iosifovich; ROZOVSKIY,  
Izrail' L'vovich, doktor tekhn. nauk, otv. red.;  
MEL'NIK, T.S., red.; TURBANOVA, N.A., tekhn. red.

[Instruments for measuring parameters of hydraulic  
conveying of solid materials] Pribory dlia izmereniia  
parametrov gidrotransportirovaniia tverdykh materialov.  
[By] N.A.Silin i dr. Kiev, Izd-vo AN USSR, 1963. 197 p.  
(MIRA 17:3)

LYUSTERNIK, L.A., otv. red.; VOLYNSKIY, B.A., kand. tekhn. nauk,  
zam. otv. red.; LUK'YANOV, V.S., doktor tekhn. nauk, red.;  
PUKHOV, G.Ye., red.; TETEL'BAUM, I.M., doktor tekhn. nauk,  
red.; MEL'NIK, T.S., red.

[Analog methods and techniques for solving boundary value  
problems; transactions of the All-Union Conference, Moscow,  
October 1962] Analogovye metody i sredstva reshenia krae-  
vykh zadach; trudy Vsesoiuznogo soveshchaniia, Moskva, ok-  
tiabr' 1962 g. Kiev, Naukova dumka. 1964. 354 p.

(MIRA 17:12)

1. Chlen-korrespondent AN SSSR (for Lyusternik). 2. Chlen-  
korrespondent AN Ukr.SSR (for Pukhov).

KALYAYEV, Anatoliy Vasil'yevich; PUKHOV, G.Ye., otv. red.;  
LABINOVA, N.M., red.; MEL'NIK, T.S., red.

[Introduction to the theory of digital integrators] \ve-  
denie v teoriiu tsifrovyykh integratorov. Kiev, Naukova  
dumka, 1964. 290 p. (MIRA 17:9)

1. Chlen-korrespondent AN Ukr.SSR (for Pukhov).

PUKHOV, G.Ye., otv. red.; LABINOVA, N.M., red.; MEL'NIK, T.S.,  
red.

[Mathematical modeling and electrical circuits; transactions] Matematicheskoe modelirovanie i elektricheskie tsepi; trudy. Kiev, Naukova dumka. No.2. 1964. 395 p.  
(MIRA 17:8)

1. Seminar po metodam matematicheskogo modelirovaniya i teorii elektricheskikh tsepey. 2. Chlen-korrespondent AN Ukr.SSR (for Pukhov).



YUSHCHENKO, Ye. L., kand. fiz.-mat. nauk, otv. red.; MEL'NIK, T. S.,  
red.

[Cybernetics and computer techniques] Kibernetika i tekhnika vychislenii. Kiev, Naukova dumka, 1964. 170 p.  
(MIRA 17:12)

1. Akademiya nauk URSR, Kiev. Institut kibernetiki.

PUKHOV, Georgiy Yevgen'yevich; GREZDOV, Gennadiy Ivanovich;  
VERLAN', Anatoliy Fedorovich; MEL'NIK, T.S., red.

[Methods for solving boundary value problems using analog  
computers] Metody reshenia kraevykh zadach na elektro-  
nykh modeliakh. Kiev, Naukova dumka, 1965. 144 p.  
(MIRA 18:3)

1. Chlen-korrespondent AN Ukr.SSR (for Pukhov).

GLUSHKOV, V.M., *otv. red.*; KUKHTENKO, A.I., *zam. otv. red.*;  
BLAGOVESHCHANSKIY, Yu.V., *red.*; DORODNITSYN, A.A., *red.*;  
YERSHOV, A.P., *red.*; LYAPUNOV, A.A., *red.*; MOSKALEV,  
I.S., *red.*; PUKHOV, G.Ye., *red.*; ROSTUNOV, T.I., *red.*;  
SAMOKHVALOV, K.G., *red.*; STOGNIY, A.A., *red.*; TIMOFEYEV,  
B.B., *red.*; SHCHERBAN', A.N., *red.*; LETICHEVSKIY, A.A.,  
*red.*; KAPITONOVA, Yu.V., *red.*; MEL'NIK, T.S., *red.*

[Problems of theoretical cybernetics] *Voprosy teoreticheskoj kibernetiki.* Kiev, Naukova dumka, 1965. 209 p.  
(MIRA 18:9)

1. Akademiya nauk URSR, Kiev.

PUKHOV, G.Ye., otv. red.; MEL'NIK, T.S., red.

[Mathematical modeling and the theory of electric circuits; transactions] Matematicheskoe modelirovanie i teoriia elektricheskikh tsepei; trudy. Kiev, Naukova dumka. No.3. 1965. 318 p. (MIRA 18:11)

1. Akademiya nauk URSR, Kiev. Institut kibernetiki. Seminar po metodam matematicheskogo modelirovaniya i teorii elektricheskikh tsepey. 2. Chlen-korrespondent AN Ukr.SSR (for Pukhov).

MEL'NIK, V.A.

DOSAYEVA, N.H.; MEL'NIK, V.A.

Agricultural innovators in the Southern Urals. Izobr. v SSSR 3 no.2:  
20-21 F '58. (MIRA 11:3)

(Ural Mountain region--Agricultural machinery)

S/056/63/044/001/023/067  
B104/B144

AUTHORS: Galkin, A. A., Nabereszhnykh, V. P., Mel'nik, V. A.

TITLE: Effective masses of electrons responsible for the  
de Haas - van Alphen effect in aluminum

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,  
no. 1, 1963, 127-129

TEXT: The cyclotron resonance was determined at 4.2°K on three Al  
single crystals, the surface of which lay in the (001), (110), and (111)  
planes with an accuracy of a few degrees. The resistance of the  
specimens was  $\rho_{4.20K}/\rho_{300K} \approx 6 \cdot 10^{-5}$ . The angular dependences of the  
effective masses of electrons obtained from the cyclotron resonances of  
electrons in the three principal crystallographic planes agree with the  
angular dependences of the periods of oscillations of the de Haas - van  
Alphen effect (E.M.Gunnersen. Phil. Trans. Roy. Soc., A249, 299, 1957).  
The oscillations of the de Haas - van Alphen effect and the cyclotron  
resonance are assumed to occur on the same Fermi surfaces. This

Card 1/2

Effective masses of electrons ...

S/056/63/044/001/023/067  
B104/B144

assumption is confirmed by the agreement between the effective masses determined by the cyclotron resonance method and from the temperature dependence of oscillations of the de Haas - van Alphen effect. Besides this, maximum effective masses were observed corresponding to orbits for which, whatever the reason, no oscillations of the de Haas - van Alphen effect could be found. The form of the Fermi surface cannot be determined from the angular dependence of the effective masses, but the electron orbits responsible for the angular dependence of the two effects can be identified. There is 1 figure. ✓

ASSOCIATION: Fiziko-tehnicheskiy institut nizkikh temperatur Akademii nauk Ukrainskoy SSR (Physicotechnical Institute of Low Temperatures of the Academy of Sciences Ukrainskaya SSR)

SUBMITTED: August 8, 1962

Card 2/2

KHAZEN, Moisey Mikhaylovich; IVANOV, Igor' Ivanovich; ARONOVICH,  
Simon Savvich; YERMOLAYEV, A.A., kund. tekhn. nauk, dots.  
retsenzent; MEL'NIK, V.A., inzh., red.

[Heat and power systems] Teplosilovoe khoziaistvo. Moskva,  
Transport, 1964. 329 p. (MIRA 17:8)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo trans-  
porta (for Yermolayev).



MEL'NIK, V.A.

Parasitic Fungi imperfecti in some forest plant communities  
of Leningrad Province. Bot.zhur. 50 no.7:981-986 J1 '65.  
(MIRA 18:11)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

MEL'NIK, Viktor Danilovich [Mel'nyk, V.D.], mekhanizator-sveklovod;  
SINEGUB, S.I. [Syn'ohub, S.I.], red.; NEMCHENKO, I.Yu., tekhn.  
red.

[Seventeen minutes of work for a centner of sugar beets] 17  
khvylyn pratsi na tsentner buriakiv. Kyiv, Derzh. vyd-vo  
sil's'kohospodars'koi lit-ry URSR, 1962. 38 p.

(MIRA 15:3)

1. Kolkhoz "Bil'shovyk" Zhashkovskogo rayona, Cherkaskoy oblasti  
(for Mel'nik).  
(Zhashkov District--Sugar beets)

MEL'NIK, Viktor Danilovich; BOVSUNOVSKIY, Anton Ivanovich; KOZLOVSKIY, N.I., nauchnyy red.; CHIRKOV, A.Ya., red.; PEREDERIY, S.P., tekhn. red.

[New technology for growing sugar beets] Novaia tekhnologiya  
vozdelyvaniya sakharnoi svekly. Moskva, Proftekhizdat, 1962.  
61 p. (MIRA 16:1)

1. Mekhanizator kolkhoza "Bol'shevik" Zhashkovskogo rayona  
Cherkasskoy oblasti (for Mel'nik).  
(Zhashkov District—Sugar beets)

CHUMAKOV, N.M., red.; KIREYEV, "I., red.; AKULOV, Ye.F., red.;  
IVANOV, N.N., red.; KNYAZEV, P.I., red.; CHICHILLO, I.K.,  
red.; MEL'NIK, V.D., red.

[Regulations for operating and safety measures in servicing  
the electrical systems of industrial enterprises; mandatory  
for industrial enterprises of regional economic councils,  
ministries, and departments] Pravila tekhnicheskoi ekspluata-  
tsii i bezopasnosti obsluzhivaniia elektroustanovok pro-  
myshlennykh predpriatii; obiazatel'ny dlia promyshlennykh  
predpriatii sovmarkhozov, ministerstv i vedomstv.  
Dnepropetrovsk, Izd-vo "Promin'," 1965. 257 p.

(MIRA 18:8)

1. Russia (1923- U.S.S.R.) Glavnoye energeticheskoye upravle-  
niye.