

VEKSLER, A.I.

Homorphism between classes of regular operators in  $K$ -lineals and  
in their completions. Izv.vys.ucheb.zav.; mat. no.1:48-57 '60.  
(MIRA 13:6)

1. Leningradskiy gosudarstvennyy pedagogicheskiy institut imeni  
A.I.Gertsena.  
(Operators (Mathematics))

VEKSLER, A.I.

Realizability of K-lineals. Sib. mat. zhur. 4 no.5:1186-1188  
S-0 '63. (MIRA 16:12)

**AUTHOR:** Veksler, A.I. SOV/20-121-5-1/50

**TITLE:** On the Archimedean Principle in Semi-Ordered Factor Lineals  
(O printsipe Arkhameda v poluporyadobennykh faktor-linealakh)

**PERIODICAL:** Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 5, pp 775-777 (USSR)

**ABSTRACT:** In close connection to the representations of Kantorovich [Ref 1] and other authors the author proves the theorem: Let  $X$  be an Archimedean  $K$ -lineal, let  $N$  be its normal sublineal. In order that the factor lineal  $X/N$  is Archimedean it is necessary and sufficient that the following condition is satisfied: Let  $x_n \in N$ ,  $x_n \geq 0$  ( $n=1,2,\dots$ ), let the sequence  $\{x_n\}$  be bounded in  $X$ . Let  $\lambda_n \geq 0$  and  $\lambda_n \rightarrow 0$ . If then  $0 \leq x \leq y$  is valid for  $x \in X$  and every  $y$  being an upper bound of the set  $\{\lambda_n x_n\}$ , then  $x \in N$ .

Further five theorems give simplifications of this condition for special types of  $K$ -lineals.  
There are 4 references, 3 of which are Soviet, and 1 French.

**ASSOCIATION:** Leningradskiy gosudarstvennyy pedagogicheskiy Institut imeni A.I. Gertsena (Leningrad State Pedagogical Institute imeni A.I.Gertsen)

**PRESENTED:** April 10, 1958, by P.S.Aleksandrov, Academician

**SUBMITTED:** April 10, 1958

Card 1/1

VEKSLER, A.I. (Leningrad)

Conditions for the applicability of the principle of Archimedes  
in semiordered factor groups and factor lineals. Mat. sbor. 57  
no.4:477-492 Ag '62. (MIRA 15:8)  
(Groups, Theory of)

VEKSLER, A.I., Cand Phys Math Sci -- (diss) "Certain problems  
of the theory of ~~semi~~<sup>ΔRMA-</sup>ordered spaces." Len, 1959, 8 pp (Min of  
Education RSFSR. Len State Inst im A.I. Gertsen. Chair of  
Mathematical Analysis) 150 copies (KL, 34-59, 110)

VEKSLER, A.I. (Leningrad)

Linear structures with a sufficiently large set of maximal  
l-ideals. Mat. sbor. 64 no.2:205-222 Je '64.

(MIRA 17:9)

88888

16.4600

S/044/60/000/007/044/058  
C111/C222

AUTHOR: Veksler, A.I.

TITLE: On factor-lineals and vector structures

PERIODICAL: Referativnyy zhurnal. Matematika, no.7, 1960, 157-158  
Abstract no.7890. Uch.zap.Leningr.gos.ped.in-ta im.A.I.  
Gertsena, 1958, 183, 107-127

TEXT: The author proves the results published in an earlier own paper (R.zh.Mat., 1950, 4917). He mentions some simplest properties of factors which lateron are used for the proof. Finally he proves theorem 7 which relates to the investigation of the question when the factor  $X/N$  of the  $K$ -space  $X$  with respect to its normal subspace  $N$  is a  $K$ -space too. Theorem: Let  $X$  be a  $K$ -space, let  $N$  be its normal. Then for the fact that the factor  $X/N$  is a  $K$ -space it is necessary and sufficient that it is an Archimedean  $K$ -lineal in which there exists the projection of an arbitrary element onto an arbitrary component. (the set  $X_0 \subset X$  is called a component of the  $K$ -lineal  $X$  if there exists a set  $E \subset X$  so that  $X_0$  consists of all elements  $x \in X$  which are disjoint to  $E$ ; the projection

Card 1/2

88888

On factor-lineals and vector....

S/044/60/000/007/044/058  
C111/C222

X

of the element onto a component is defined as in the book of L.V. Kantorovich, B.Z.Vulikh, A.G.Pinsker "Functional Analysis in Semi-ordered Spaces" (M.-L.-,Gostekhizdat, 1950) for K-spaces).

[Abstracter's note: The above text is a full translation of the original Soviet abstract.]

Card 2/2



VEKSLER, A.I.

Effectuation of Archimedean linear K-spaces. Sib. mat. zhur.  
3 no.1:7-16 Ja-F '62. (M RA 15:3)  
(Topology)

VEKSLER, A.I.

Topological and structural completeness of normalized and linear topological structures. Dokl. AN SSSR 143 no.2:262-264 Mr '62. (MIRA 15:3)

1. Leningradskiy tekstil'nyy institut im. S.M.Kirova.  
Predstavleno akademikom V.I.Smironovym.  
(Topology)

VEKSLER, A.I.

Completeness and  $\mathcal{O}$ -completeness of normalized and linear  
topological structures. Izv. vys.ucheb. zav.; mat. no.3:22-30  
'62. (MIRA 15:9)

1. Leningradskiy tekstil'nyy institut imeni S.M. Kirova.  
(Topology)

VEKSLER, A.I.

Linear structures with a sufficient set of maximal l-ideals.  
Dokl. AN SSSR 150 no.4:715-718 Je '63. (MIRA 16:6)

1. Leningradskiy tekstil'nyy institut imeni S.M. Kirova.  
Predstavleno akademikom A.I. Mal'tsevym.  
(Ideals(Algebra))

VEKSLER, A.I.

Some classes of vector chains and their application to the theory  
of hemiordered spaces. Dokl. AN SSSR 152 no.1:20-23 S '63.  
(MIRA 16:9)

1. Leningradskiy tekstil'nyy institut im. Kirova. Predstavleno  
akademikom V.I.Smirnovym.  
(Vector analysis) (Topology)

VESEER, A.T.

Two problems in the theory of semiertered spaces. Sib. mat.  
Laur. 5 no.4:952-954 JI-5g'64 (MIRA 17:8)

VEKSLER, A.I.

Partial multiplication operations in vector structures. Dokl.  
AN SSSR 158 no.4:759-762 0 '64.

(MIRA 17:11)

1. Leningradskiy tekstil'nyy institut im. S.M. Kirova. Predstav-  
leno akademikom V.I. Smirnovym.

...VIESLER, A.I. ...

Some classes of ordered vector spaces. *Proc. Am. Math. Soc.* 61:1, 1968  
Jan-F '68. (MIRA 12:4)



VEKSLER, A.I.

Application of the  $\ell_1$ -set concept in the theory of linear  
semiordered spaces. Sib. mat. zhur. 6 no.6:1209-1226 N-D  
165.  
(MIRA 18:12)

VPESIVE. A. .

Structural ordering of algebras and rings. Dokl. AN SSSR 164,  
no. 2: 259-262 S '65. (MERA 18:9)

Leningradskiy institut tekstil'noy i legkoy promyshlennosti  
In. S.M. Kirova.

538 221 . 538 615  
1375. PHOTO-ELECTRON EMISSION IN A FERROMAG-  
NETIC A.Z. Veksel

Zh. ékaper. ékaper. ékaper. Vol. 19, No. 2 (8), 1974, p. 1375-1376

The energy distribution of the photoelectrons and the temperature relation of the photocurrent near the Curie point are derived. The calculations are based on Vonsovskii's s-d exchange model and consider the perturbation of the spin system of the ferromagnetic metal by the incident light.

*Handwritten signature*

USSR/Physics - Photoelectrons

FD-2873

Card 1/1 Pub. 146 - 10/26

Author : Veksler, A. Z.

Title : ~~Photoelectron emission in a ferromagnetic~~  
Photoelectron emission in a ferromagnetic

Periodical : Zhur. eksp. i teor. fiz., 29, August 1955, 201-208

Abstract : The author derives formulas that determine the velocity distribution of photoelectrons and the temperature dependence of photocurrent close to the Curie point. He carries out the calculations on the basis of the s-d exchange model discussed by S. V. Vonsovskiy (ibid., 16, 981, 1946) and takes into consideration the periodic potential of the lattice by the method of variation of parameters. He shows that in correspondence with the results of A. Cardwell (Phys. Rev. 76, 125, 1949) the photocurrent depends upon magnetization in accordance with a square law. The author thanks A. V. Sokolov and S. V. Vonsovskiy. Seven references: e.g. S. V. Vonsovskiy, A. V. Sokolov, DAN SSSR, 86, 197, 1951; A. V. Sokolov, A. Z. Veksler, ZhETF, 25, 215, 1953.

Institution : Institute of the Physics of Metals, Ural Affiliate, Academy of Sciences USSR

Submitted : May 10, 1954

RUDNYY, N.M.; VEKSLER, A.Z.; BULANOVA, A.I.

Measurement of losses in ferromagnetic materials in connection  
with simultaneous magnetization by fields of different frequencies.  
Elektrichastvo no.1:48-51 Ja '61. (MIRA 14:4)

1. Sverdlovskiy filial nauchno-issledovatel'skogo instituta  
metrologii im. Mendeleyeva.  
(Magnetic materials)

VEKSLER, A.Z.

Determining the magnetization curve for electrical steel in  
weak and medium fields. Trudy inst. Kom.stand,mer i izm. prib  
no.64:85-89 '62. (MIRA 16:5)  
(Magnetization) (Steel—Magnetic properties)

VEKSLER, A.Z.

Device for the measurement of the magnetization curve in  
pulsed operations. Trudy inst. Kom.stand.mer i izm. prib no.64:  
243-249 '62. (MIRA 16:5)  
(Magnetization) (Magnetic measurements—Equipment and supplies)

VEKSLER, A.Z.; PEN'KOV, N.V.

Apparatus for determining the magnetization curve for electrical steel in weak fields. Trudy inst.Kom.stand., mer i izm.prib. no.72: 59-72 '63. (MIRA 16:9)

1. Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta metrologii imeni Mendeleyeva.  
(Steel--Magnetic properties)



VEKSLER, A.Z.; SOKOLOV, A.V.

Multielectron theory of the photoelectric effect in crystals.  
Fiz.met. i metalloved. 7 no.1:11-20 Ja '59. (MIRA 12:4)

1. Institut fiziki metallov AN SSSR i Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta mashinostroyeniya i metalloobrabotki.

(Electrons)

(Metal crystals)

VERSLER, A.Z.

24(O); 5(4); 6(2) PHASE I BOOK EXPLOITATION SOV/2215

Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii i  
D.I. Mendeleeva

Referaty nauchno-issledovatel'skikh rabot; sbornik No. 2 (Scientific  
Research Abstracts; Collection of Articles, No. 2) Moscow,  
Standartgiz, 1953. 139 p. 1,000 copies printed.

Additional Sponsoring Agency: USSR. Komitet standartov, mer i  
izmeritel'nykh priborov.

Ed.: S. V. Reshetina; Tech. Ed.: M. A. Kondrat'yeva.

PURPOSE: These reports are intended for scientists, researchers,  
and engineers engaged in developing standards, measures, and  
gages for the various industries.

COVERAGE: The volume contains 128 reports on standards of measur-  
ment and control. The reports were prepared by scientists of  
institutes of the Komitet standartov, mer i izmeritel'nykh  
priborov pri Sovete Ministrov SSSR (Commission on Standards,  
Measures, and Measuring Instruments under the USSR Council of  
Ministers). The participating institutes are: VNIIM -  
Vsesoyuznyy nauchno-issledovatel'skiy metrologi-  
cheskiy institut (All-Union Scientific Research Institute of Metro-  
logy) Iaeni D.I.-Mendeleev) in Leningrad; Sverdlovskiy  
instit Komiteta standartov, mer i izmeritel'nykh priborov  
(All-Union Scientific Research Institute of the Commission  
on Standards, Measures, and Measuring Instruments), created  
from VNIIM - Moskovskiy gosudarstvennyy institut mer i  
izmeritel'nykh priborov (Moscow State Institute of Measures  
and Measuring Instruments) October 1, 1955; VNIIFRI -  
Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh  
razrabotok i izmereniy (All-Union Scientific Research Institute of  
Measurements) in Moscow; NIIMIP - Nauchno-issledovatel'skiy  
institut mer i izmeritel'nykh priborov (Moscow State Institute  
of Measures and Measuring Instruments); and NGIIP - Nauchno-  
issledovatel'skiy gosudarstvennyy institut mer i izmeritel'nykh priborov  
(Novosibirsk State Institute of Measures and Measuring Instruments).  
No personalities are mentioned. There are no references.

Electric and Magnetic Measurements (Shramkov, Ye.D., Editor, Professor)

Elektr. M.A. (MGIMP). Apparatus for Checking Standard Inductance  
Coils and Capacitors and for Measuring the Time Constant  
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Elektr. M.A. (MGIMP). Apparatus for Measuring the Time Constant  
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Gokhol'skiy, A.L. (NGIMP). Developing a Standard Measuring  
Unit, a Set of Standard Capacitance Measures, and a Method for  
Checking Working Measures of Capacitance from 1 to 50 pf at  
Frequencies up to 100 Megacycles, and up to 450 pf at Frequencies  
up to 50 Megacycles 94

Rudnyy, N.M., A.Z. Vekgilev, A.A. Chukhiantsev, and B.G. Abel's  
(VNIIM). Using a Single Bridge for Checking Shunts and Low-re-  
sistance Gages 96

Kamuk, M.Sh. (MGIMP). Apparatus for Checking Standard Ammeters  
and Voltmeters at High Frequencies 96

VEKSLER, A.Z.

24(O); 5(4); 6(2) PHASE I BOOK EXPLOITATION SOV/2215  
 Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni  
 D.I. Mendeleeva  
 Referatsy nauchno-issledovatel'skikh rabot; sbornik No. 2 (Scientific  
 Research Abstracts); Collection of Articles, Nr 2) Moscow,  
 Standartgiz, 1958. 139 p. 1,000 copies printed.  
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 Vsesoyuznyy nauchno-issledovatel'skiy metrologii imeni S.I.  
 Mendeleeva (All-Union Scientific Research Institute of Met-  
 rology imeni D.I. Mendeleev) in Leningrad; Sverdlovsk branch  
 of this institute; VNIK - Vsesoyuznyy nauchno-issledovatel'skiy  
 institut Komiteta standartov, mer i izmeritel'nykh priborov  
 (All-Union Scientific Research Institute of Standards,  
 Measures, and Measuring Instruments) created  
 from MOIMIP - Moskva'skiy gosudarstvennyy institut of Measures  
 and Measuring Instruments (Moscow State Institute of Measures  
 and Measuring Instruments) (October 1, 1955); VNIIPRI -  
 Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh  
 izmereniy (Sverdlovsk Branch of VNIIM). Developing Methods and  
 Standard Apparatus for Testing Direct-Current Transformers Type  
 I-53 Under Operating Conditions at 70 Kiloperes  
 Institut mer i izmeritel'nykh priborov (Char'kov State Institute  
 of Measures and Measuring Instruments); and MOIMIP - Novosil-  
 birskiy gosudarstvennyy institut mer i izmeritel'nykh priborov  
 (Novosibirsk State Institute of Measures and Measuring Instru-  
 ments). No personalities are mentioned. There are no references.

Lubentsov, V.P., S. M. Ochotina, and P. A. Shpan'on (MOIMIP).  
 Apparatus for Checking Tube Voltmeters 101  
 Rumyantsev, A.S., and Ye. P. Dubovik (VNIIM), and A.A. Zhukh-  
 lantskiy (Sverdlovsk Branch of VNIIM). Developing Methods and  
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 Developing and Studying Apparatus for Measuring Magnetic Fields  
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 of VNIIM). Methods for Measuring Hysteresis Loops and Eddy Currents  
 in Double Magnetization 104  
 Card 20/27

VEKSELER, N. P.

24(0); 5(4); 6(2) PHASE I BOOK EXPLOITATION SOV/2215  
 Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni  
 D.I. Mendeleeva  
 Referaty nauchno-issledovatel'skikh rabot; sbornik No. 2 (Scientific  
 Research Abstracts; Collection of Articles, Nr 2) Moscow,  
 Stankartgiz, 1958. 139 p. 1,000 copies printed.  
 Additional Sponsoring Agency: USSR. Komitet standartov, mer i  
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 priborov pri Sovete Ministrov SSSR (Commission on Standards,  
 Measures, and Measuring Instruments under the USSR Council of  
 Ministers). The participating institutes are: VNIIM -  
 Vsesoyuznyy nauchno-issledovatel'skiy metrologii imeni D. I.  
 Mendeleeva (All-Union Scientific Research Institute of Met-  
 rology imeni D. I. Mendeleeva) in Leningrad; Sverdlovsk branch  
 of this institute; VNIIX - Vsesoyuznyy nauchno-issledovatel'skiy  
 institut nauchno-issledovatel'skikh izobreteniy i izmeritel'nykh priborov  
 (All-Union Scientific Research Institute of the Commission  
 on Standards, Measures, and Measuring Instruments), created  
 from VNIIMIP - Moskva; Gosudarstvennyy institut izobreteniy  
 i izmeritel'nykh priborov (Moscow State Institute of Inven-  
 tions and Measuring Instruments) October 1, 1959; VNIIPRI -  
 Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh  
 izobreteniy i izmeritel'nykh priborov (All-Union Scientific  
 Research Institute of Physico-Technical and Radio-Engineering  
 Measurements) in Moscow; Kharkovskiy gosudarstvennyy  
 institut mer i izmeritel'nykh priborov (Kharkov State Institute  
 of Measures and Measuring Instruments); and NGIIP - Novosil-  
 birskiy gosudarstvennyy institut mer i izmeritel'nykh priborov  
 (Novosibirsk State Institute of Measures and Measuring Instru-  
 ments). No personalities are mentioned. There are no references.

Rudnyy, N. M., and A. I. Bulanova (Sverdlovsk Branch of VNIIM). Di-  
 viding Losses Between Hysteresis and Eddy Currents in Electrical  
 Steel 105

Rudnyy, N. M., A. I. Bulanova, and A. Z. Vekaler (Sverdlovsk Branch  
 of VNIIM). Studying the Effect of the Spreading Current on  
 Errors in Measuring Losses and on the Main Magnetization Curve 106

Optical Measurements and Photometry (Romanova, M. P., Editor,  
 Professor) 107

Strakun, G. I. (VNIIM). Studying Lenses for Checking Diapler  
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Strakun, G. I. (VNIIM). Effect of Aberrations of Objective Lenses  
 Used in Photographing Interference Patterns on the Distribution of  
 Illumination over the Images of Rings of Equal Inclination 107

Strakun, G. I. (VNIIM). Requirements of Optical Systems Used to  
 Photograph Rings of Equal Inclination, and Principles for Calculat-  
 ing a System Satisfying These Requirements 109

VEKSLER, A.Z.; PENKOV, N.V.

Theory of the surface effect in ferromagnetics in the case of a  
non-sinusoidal field. Zhur. tekhn. fiz. 32 no.9:1104-1114 S '62.  
(MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii  
imeni D.I. Mendeleyeva, Sverdlovskiy filial.  
(Ferromagnetism) (Magnetic fields)

SOV/115-59-6-17/33

28(2)

**AUTHOR:**

Veksler, A.Z.

**TITLE:**

Measuring the Angular Error of a Mutual Inductance Coil by Means of an Alternating Current Bridge

**PERIODICAL:**

Izmeritel'naya tekhnika, 1959, Nr 6, pp 42-44 (USSR)

**ABSTRACT:**

The author describes a method for measuring the angular error of mutual inductance coils by means of an alternating current bridge UMPT-2. The method was originally published by H.E. Linkch, in ETZ, 1952, 73, 153. There are 2 graphs and 1 German reference.

Card 1/1

VEKSLER, A.Z., kand.fiz.-matem.nauk; DRUZHININ, V.V., kand.fiz.-matem.nauk

Standardized a.c. tests of electrical steel. Elektrotehnika  
36 no.2:32-34 F '65. (MIRA 18:4)

RUDNYI, N.M.; VEKSLER, A.Z.; KOBYAKOV, I.F.

Stabilized source of sinusoidal current for checking de-  
vices used for electric measurements. Trudy VNIIM no.38:  
110-117 '59. (MIRA 13:4)  
(Electric meters)



VEKSLER, A.Z.

Theory of electron emission in ferromagnetic materials caused by  
an electrostatic field. Fiz.met.i metalloved. 4 no.2:222-227 '57.  
(MLRA 10:8)

1.Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta metrologii.

(Ferromagnetism)  
(Electron emission)  
(Electrostatics)

BULANOVA, A.I.; VEKSLER, A.Z.; RUDNYI, N.M.

Investigation of the wattmeter method for measuring losses in simultaneous magnetization of electric steel by permanent and alternating fields. Trudy VNIIM no.29:127-138 '56. (MIRA 10:12)  
(Magnetic measurements)

112-3-6146

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957,  
Nr 3, p. 158 (USSR)

AUTHOR: Bulanova, A.I., Veksler, A.Z., Rudnyy, N.M.

TITLE: Investigation of the Wattmeter Method of Measuring Losses  
in Simultaneous Magnetization of Electric Steel by Static  
and Dynamic Fields (Issledovaniye vattmetrovoogo metoda  
izmereniya poter'pri odnovremennom namagnichivani elektr-  
tehnicheskoy stali postoyannym i peremennym polyami)

PERIODICAL: Tr. Vses. n.-i. in-ta metrol., 1956, Nr 29 (89), pp. 127-  
138

in

ABSTRACT: By using the wattmeter method/investigating installations  
for determining losses in double magnetization, using  
individual feed circuits for the sample under test and a  
common winding for direct and alternating currents, it  
was established that the common winding gave the smallest  
errors in measuring losses. The variable component of  
field intensity is measured by a special electrodynamic  
ammeter with a compensating winding, through which passes

Card 1/2

112-3-6146

Investigation of the Wattmeter Method of Measuring Losses in  
Simultaneous Magnetization of Electric Steel by Static and Dynamic  
Fields (Cont.)

direct current equal in magnitude, and opposite in direction, to the constant component of magnetizing current in the basic ammeter circuit. This obviates the necessity of conversion, as is the case when other ammeters are used. Investigations of the method showed that the maximum error in measuring losses in the frequency range of 200 - 2,000 cps does not exceed 3.5%. The losses can be divided into components due to hysteresis and to eddy currents with practically the same results both by the frequency variation method and the form factor variation method.

G.L.G.

Card 2/2

SOV/86-7-1-2/28

AUTHORS: Venzler, A. Z. and Sokolov, A. V.

TITLE: Multi-Electron Theory of the Photoeffect in Crystals  
(K mnogoelektronnoy teorii fotoeffekta v kristallakh)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1959, Vol 7, Nr 1,  
pp 11-20 (USSR)

ABSTRACT: Einstein's one-electron theory of photoemission (Refs. 1,2) explained the "threshold frequency", the relationship between the photon frequency and the maximum electron velocity, etc. The starting point of this theory is an assumption that a quantum of energy is absorbed by one electron. As a result of such an absorption only one electron would have its energy increased, all the remaining ones being unaffected. This assumption is valid only when electrons move independently of one another. Actually, because of the strong interaction between electrons, the absorbed energy may be shared between many electrons. The present paper establishes some general properties of photoemission and photoconductivity in the case of a strong interaction between electrons in a crystal  
Card 1/3(multielectron theory). No simplifying assumptions were made

SOV/126-7-1-2/28

Multi-Electron Theory of the Photoeffect in Crystals

to derive the results. It was found that photocurrent may be calculated using the one-electron theory, provided that the number of photoelectrons taking part in the process is determined by the excited state of the crystal. The principle of conservation of energy applies now to the system as a whole, and not to a single electron. The Einstein law relating the photon frequency and the maximum emitted electron energy is still obeyed but it is given a somewhat altered interpretation. It was also found that the work function of some materials (e.g. semiconductors) may depend on frequency, as reported by Arsen'yeva-Geyl' (Ref.3) and Shuba (Ref.4). The paper is entirely theoretical. Acknowledgment is made to S.V. Vonsovskiy for his advice. There are 11 references, of which 7 are Soviet, 3 German and 1 English.

ASSOCIATION: Institute of Metal Physics, Ac. Sc. USSR; Sverdlovsk  
Branch of VNIIM (Institut fiziki metallov AN SSSR  
Card 2/3 Sverdlovskiy filial VNIIM)

VEKSLER, A. Z.

VEKSLER, A. Z. : "The quantum theory of the photoeffect and thermal emission in metals and semiconductors." Min Higher Education USSR. Ural State U. Sverdlovsk, 1956 (Dissertation for the Degree of Candidate in Physicomathematical Science)

Source: Knizhnaya letopis' No. 28 1956 Moscow

126-2-6/30

AUTHOR: Veksler, A. Z.

TITLE: On the theory of electrostatic field emission of electrons by ferromagnetics. (Teoriya emissii elektronov v ferromagnetikakh vyzvanno' elektrostaticeskim polem).

PERIODICAL: "Fizika Metallov i Metallovedeniye" (Physics of Metals and Metallurgy), Vol.IV, No.2, 1957, pp.222-227. (U.S.S.R.)

ABSTRACT: The current density is calculated on the basis of the "s-d exchange model" of Vonsovskii (1946). In this model the thermoemission is regarded as a result of the interaction of two electron gases, one consisting of "s" electrons located in the surface zone, and the other consisting of "d" electrons with a mean magnetic moment  $\gamma$ . It is shown that the current is a quadratic function of the spontaneous magnetisation. The results obtained are in agreement with the experimental data in refs. 1 and 5, and apply near the Curie point. There are 5 references, two of which are Slavic.

SUBMITTED: August 8, 1956.

ASSOCIATION: Sverdlov Branch of VNIIM.

AVAILABLE:



WEKSLER, A. Z.

#  
1  
2

VEKSLER, A.Z.

VONSOVSKIY, S.V.; SOKOLOV, A.V.; VEKSLER, A.Z.

Photoelectric effect in metals. Usp.fiz.nauk. 56 no.4:477-530  
Ag '55. (MIRA 9:1)  
(Photoelectricity) (Metals--Electric properties)

VERSLER, A. Z.

535-215 : 538-221

1059

~~Photoelectron Emission in a Ferromagnetic Material~~  
~~A. Z. Versler, (Zh. eksp. teor. fiz., Aug. 1955, vol. 29, No. 2(8), pp. 201-208.)~~ Formulas are derived for the velocity distribution of photoelectrons and the temperature dependence of the photocurrent near the Curie point. The calculations are made on the basis of Vonevski's *s-d* exchange model (*ibid.*, 1946, Vol. 16, p. 981). Results show that the photocurrent varies quadratically with magnetization.

Smw  
[Signature]

VEKSLER, A. Z.

4

MT  
PH

26\* Photoelectric Effect in Metals. Fotoeffekt v metallo'kh.  
(Russian.) S. V. Vorsovskii, A. V. Sokolov, and A. Z. Veksler.  
*Uspekhi fizicheskikh nauk*, v. 56, no. 4, Aug. 1955, p. 477-530.  
Premises for constructing quantum theory of photoelectric  
effect, and Fowler's quasi-phenomenological theory; quantum-  
mechanical theory of the photoelectric effect in metals; surface  
photoelectric effect in ordered alloys and ferromagnetic metals.  
Graphs. 65 ref.

LMW

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②

Veksler, A. Z.

U S S R .

/Thermionic Emission in Ferromagnetics. A. V. Sokolov and A. Z. Veksler (*Doklady Akad. Nauk S.S.S.R.*, 1951, 81, (1), 27-30).—[In Russian]. Math. The anomalies of the thermionic emission in ferromagnetic metals should be connected with the disappearance of the spontaneous magnetization on passing through the Curie point. Using Vonsovsky's model (*Dur. Eksp. Teoret. Fiziki*, 1946, 16, 981) of electron interaction, it is shown that the saturation current of ferromagnetics must depend on the magnitude of their spontaneous magnetization. Near the temp. of ferromagnetic transformation, this dependence has a simple quadratic character.

—G. V. E. T. 62

VEKSLER, A. Z.

USSR

✓1017. Thermoelectronic emission in ferromagnetics.  
A. V. SOKOLOV AND A. Z. VEKSLER. *Zh. eksper. teor.  
fiz.* 25, No. 2(8) 214-24 (1952) in Russian.  
Single-electron wave-functions for solids, not  
involving the introduction of the potential jump, are  
used for describing thermoemission in metals. The  
results are used for calculating the current in ferro-  
magnetics on the basis of Vansovskii's *s-d*-exchange  
model [*Zh. eksper. teor. fiz.* 16, 951 (1946)] which  
explains thermoemission as a result of interaction  
between two electron gases (*s* and *d*). Results  
of a previous research [Abstr. 7364 (1952)] are given  
a theoretical explanation.

LACROIX

BB

VEKSLER A.Z.  
SOKOLOV, A.V.; VEKSLER, A.Z.

Thermoelectron emission in ferromagnetic substances. Zhur. eksp.  
i teor. fiz. 25 no.2:215-224 Ag '53. (MLBA 7:10)  
(Magnetic materials) (Electrons)

VEKSLER, A. Z.

4  
② met

*Neacbar, Sci abn.*

*V-8 Jan 15/1951*

*A. V. V.*

THERMIONIC EMISSION IN FERROMAGNETICS. A. V. V.  
Sokolov and A. Z. Veksler. Translated from Doklady Akad.  
Nauk S.S.S.R. 81, 27-30(1951). 11p. (AEC-tr-1731)



VEKSLER, A. Z.

USSR/Physics - Ferromagnetic Materials

Nov 51

"Thermionic Emission in Ferromagnetics," A. V. Gokolov, A. Z. Veksler, Inst of Phys of Metals, Ural Affiliate, Acad Sci USSR 3

"Dok Ak Nauk SSSR" Vol LXXXI, No 1, pp 27-31

Theoretical explanation of the thermionic emission anomaly of ferromagnetics assocd with the disappearance of spontaneous magnetization in the transition through the Curie point. Submitted by Acad A. F. Ioffe 11 Sep 51.

198194

VEKSLER, A.Z.; FEN'KOV, N.V.; PALALEYEVA, T.N.

Phase-sensitive audio frequency voltmeter. Trudy Inst. Zem. stroy.,  
mer. 1 izm. prib. no. 72:62-75 159.

(MIRA 18:10)

1. Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta metrologii im. D.I. Mendeleeva.

VEKSLER, A.Z.; SEMENOV, N.G.

Device for integrating small d.c. voltages. Trudy inst. Koz. Stand.,  
mer. i izm. prib. no.74:90-100 '63.

(MIRA 18:10)

1. Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta metrologii im. D.I.Mendeleyeva.

VEKSLER, A.Z.; ZAKHAROV, B.V.

Use of a magnetic comparator in testing a.c. instrument transformers. Trudy inst. Kom. stand., mer. i izm. prib. no.74:136-143 '63. (MIRA 18:10)

1. Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta metrologii im. D.I.Mendeleyeva.

L 7913-66 EFT(1)/EIA(h)  
ACC NR: AP5023119

SOURCE CODE: UR/0103/65/026/009/1599/1605

AUTHOR: Veksler, A. Z. (Sverdlovsk); Semenko, N. G. (Sverdlovsk)

7  
8

ORG: none

TITLE: Investigation of the push-pull measuring ferro-transistor voltage-to-frequency transducer

SOURCE: Avtomatika i telemekhanika, v. 26, no. 9, 1965, 1599-1605

TOPIC TAGS: voltage frequency transducer

ABSTRACT: Operation of the dc-voltage-to-frequency measuring transducer with nonsquare-loop iron cores is theoretically analyzed. Unlike in the F. Heistermann work (AEG Mitteilungen, v. 5, no. 1/2, 1960), no piecewise-linear approximation of the hysteresis loop is adopted; instead, an allowance is made for the details of the magnetic-flux-reversal phenomena, and a complicated approximate formula

Card 1/2

UDC: 621.314.28  
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L 7943-66

ACC NR: AP5023119

for the output frequency is developed. Under some practical conditions, however, this formula can be reduced to  $f = \alpha U + f_0$ , where  $f_0$  is a certain frequency correction, constant for each particular transducer. Data obtained from a two-79NMA-transistor permalloy-torus 20-cps-max transducer verify the degree of accuracy of the design formulas. Within  $+20 + 50C$ , the frequency variation was 0.9% per 10C. Orig. art. has: 4 figures and 23 formulas.

SUB CODE: 09 / SUBM DATE: 20May64 / ORIG REF: 004 / OTH REF: 002

06

Card 2/2

*mil. Rev.  
1952*

*P. Physical  
and Test Methods*

135-1. Thermoelectric Emission  
From Ferromagnetic Materials. (in  
Russian) A. V. Sokolov and A. Z.  
Vekshel. *Doklady Akademii Nauk  
SSSR*, new ser., v. 81, Nov. 1, 1951, p.  
27-30.  
A theoretical analysis. This effect  
is compared with the photo effect  
in Si (116 Sc. n. p.)

12

BTR

3122\* Thermoelectronic Emission From Ferromagnetic Materials. (In Russian.) A. V. Sokolov and A. Z. Yekker. *Doklady Akademii Nauk SSSR, new ser.*, v. 81, Nov. 1, 1951, p. 27-30.

A theoretical analysis was made of the above effect. In the discussion, this effect is compared with the photo effect in Ni.



WE.

*General Physics*

537 AM : 534.221

3870

**Thermionic Emission from Ferromagnetic Materials.**  
A. V. Sokolov & A. Z. Vekster. (*Sov. Acad. Sci. U.S.S.R.*, 1st Nov. 1951, *Vestnik*, No. 1, pp. 27-30. In Russian.) The anomalous variation with temperature of the thermionic emission from ferromagnetic materials may be due to disappearance of spontaneous magnetization when passing through the Curie point. On this assumption, and using the model of the exchange interaction between the valence and inner electrons proposed by Vonsovski (2074 of 1947), a formula (13) is derived showing the temperature dependence of the saturation current and its deviation from the normal temperature dependence (10).

S. A.  
sect. A

*Thermoelectric emission*

537.581 : 538.221

7364. Thermoelectric emission in ferromagnetic materials. A. V. SOKOLOV AND A. Z. VIKSLER. Dokl. Akad. Nauk SSSR, 81, 27-30 (No. 1:1951) In Russian.

The "anomalies" of the ferromagnetic materials are usually explained by a spontaneous magnetization. This suggests that the anomaly of the thermoelectric emission in the ferromagnetic materials might be explained by the vanishing of this spontaneous magnetization at the Curie point. After recalling the Richardson emission formula, which was based upon the theory of an electron gas with Maxwell's distribution of velocities, and a modified emission formula due to Dushman, which was based upon the quantum mechanical analysis with the application of the Fermi statistics, the author comes to the consideration of the electron emission from ferromagnetic materials on the basis of the model due to C. V. Vonsovskii (1946). In this model the thermoemission is regarded as a result of an interaction between two electron gases, one consisting of "s" electrons with vector spin  $\sigma$

and quasi-impulse vector  $A$  and located in the surface zone, and the other consisting of "d" electrons, with a mean relative atomic magnetic moment  $y$ , which originates from the depth of the ferromagnetic body. The energy of  $s$  electrons will be  $E = \alpha - \alpha' y \sigma + (\beta + \beta' y \sigma) k^2$ , where  $\alpha$ ,  $\alpha'$ ,  $\beta$ , and  $\beta'$  are parameters depending on exchange integrals between these two electron gases. On the basis of these relationships the expression is evolved for the probability for an electron of a given velocity to pass through the surface zone of the ferromagnetic body, and then the integral expressing the rate of electron emission from a ferromagnetic body as a function of its temperature is derived from this expression by applying the standard statistical methods. The resulting formulae are rather cumbersome, but by restricting to the first approximation the expressions are obtained for the emission current as a function of the abs. temperature  $T$  in the form  $T^{3/2} \exp(-I/kT)$ . In the author's opinion, the

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**Thermoelectronic emission in ferromagnetic metals.**  
A. V. Sokolov and A. Z. Vekster. *Doklady Akad. Nauk S.S.S.R.* 81, 27 30 (1951). Since the "anomalies" of ferromagnetic metals are caused by the existence of spontaneous magnetization, it might be expected that the anomaly of the thermal electronic emission in ferromagnetics is connected with the disappearance of the spontaneous magnetization on passing through the Curie point. An attempt is made to explain this anomaly theoretically. In order to obtain the formulas which give the relation between the thermal electronic satn. current in ferromagnetics and temp., the model of the exchange reaction of the external  $s$ - and the internal  $d$ -electrons proposed by Yanson (U.S.S.R. 41, 5175) is used. By means of this model, it is shown that the satn. current of ferromagnetics must depend on the value of their spontaneous magnetization. Near the temp. of the ferromagnetic transition, this relation has a simple quadratic character.  
I. Roytar Leach

41328

S/057/62/032/009/012/014  
B117/B186

24.2200

AUTHORS: Veksler, A. Z., and Pen'kov, N. V.

TITLE: Theory of the surface effect in ferromagnetics located in a non-sinusoidal field

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 9, 1962, 1104 - 1114

TEXT: A theory of the surface effect is developed for infinitely long ferromagnetic plates and rods by investigating their magnetization with a longitudinal, periodical non-sinusoidal field. A stabilized process is analyzed by assuming constant magnetic permeability. Two classical methods are proposed for a quantitative evaluation of the surface effect when the magnetic field strength is a non-sinusoidal time function. The basic equation, which describes the surface effect in a homogeneous isotropic medium on the assumption that the density of displacement currents is lower than that of the conduction currents, reads

$$\Delta H(xyzt) = \sigma \mu \frac{\partial H(xyzt)}{\partial t} \quad (1)$$

Card 1/4

Theory of the surface effect...

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$\sigma$  is the electrical conductivity,  $\mu$  the magnetic permeability, and  $z$  the longitudinal coordinate. If the external magnetic field is written as a ~~function of  $z$~~ , bilateral Laplace :

$$H(r,t) = \frac{1}{2\pi i} \left[ \int_{\sigma_1 - i\infty}^{\sigma_1 + i\infty} H_+(pr) e^{pt} dp + \int_{\sigma_2 - i\infty}^{\sigma_2 + i\infty} H_-(pr) e^{pt} dp \right] \quad (2c),$$

and if the contour of integration is chosen such that it encloses singular points only, the solutions

$$H_u(r,t) = \lim_{p \rightarrow 0} \frac{H_{0r}(p)}{T} + \frac{2}{T} \sum_{k=1}^{\infty} \operatorname{Re} \left[ H_{0r}(ik\omega) \frac{J_0(r\sqrt{-ik\omega\mu})}{J_0(R\sqrt{-ik\omega\mu})} e^{ik\omega t} \right] \quad (18a)$$

$$H_n(x,t) = \lim_{p \rightarrow 0} \frac{H_{0r}(p)}{T} + \frac{2}{T} \sum_{k=1}^{\infty} \operatorname{Re} \left[ H_{0r}(ik\omega) \frac{\operatorname{ch} \sqrt{ik\omega\mu} x}{\operatorname{ch} \sqrt{ik\omega\mu} a} e^{ik\omega t} \right], \quad (18b)$$

are also obtained as Fourier series. The subscript  $u$  refers to the cylinder,  $n$  to the plate. The flux of magnetic induction can be obtained easily from

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Theory of the surface effect...

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$$\Phi_w(t) = 2\pi\mu \int_0^R H_w(rt) r dr, \quad (19a)$$

$$\Phi_w(t) = 4b\mu \int_0^a H_w(xt) dx. \quad (19b)$$

Formulas are also given for the eddy current losses. The second method is an operational method generalized for considering differential equations. Via Laplace transformation periodic solutions of the linear partial differential equations with constant coefficients are obtained. An analytic representation of the function required is obtained as periodically recurrent sections of curves. The methods proposed here can be used to determine the magnetic field strength in ferromagnetics as well as the induction and eddy current losses. The result of the second method can also be applied to individual pulses. In each concrete case, the choice of method depends on the rate of convergence of the respective series. From this aspect the second method is more suitable. There are 4 figures.

Card 3/4

Theory of the surface effect...

S/057/62/032/009/012/014  
B117/B186

ASSOCIATION: Vsesoyuznyy Nauchno-issledovatel'skiy institut metrologii  
im. D. I. Mendeleyeva, Sverdlovskiy filial (All-Union  
Scientific Research Institute of Metrology imeni D. I.  
Mendeleev, Sverdlovsk Branch) f

SUBMITTED: July 18, 1961

Card 4/4

86876

S/105/61/000/001/003/007  
B012/B059

24,2200(1134,1158,1160)

AUTHORS: Rudnyy, N. M., ~~Veksler, A. Z.~~, and Bulanova, A. I.

TITLE: Measurement of the Losses in Ferromagnetic Materials  
Simultaneously Magnetized by Fields of Various Frequencies

PERIODICAL: Elektrichestvo, 1961, No. 1, pp. 48-51

TEXT: In the present paper the method of loss measuring which was worked out by the authors is given for the most general case of a combined magnetization where the frequencies of the various field components are not multiple and not zero. It is shown that the method chosen in the case of combined magnetization for loss measurement should guarantee the measurement of the mean power, whereas the measuring instrument should be sufficiently inert not to respond to fluctuations of the measured quantity. The conditions on which losses can be measured may be given in various ways. The most expedient ones are: 1) frequencies  $f_1, f_2$  etc. and the amplitudes  $B_{m1}, B_{m2}$  etc. of the respective components of magnetic induction are given;

Card 1/5



86876

Measurement of the Losses in Ferromagnetic  
Materials Simultaneously Magnetized by  
Fields of Various Frequencies

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B012/B059

2)  $f_1$  and  $f_2$  (or  $f_1$  and  $f_2 - f_1$ ), highest and mean field strength amplitude, and mean value of the induction amplitude are given. The first way is more universal, the second one, however, the most agreeable in the case of magnetization by means of a modulated current. The device for loss measurement in the case of combined magnetization is based on the method of watt-meter operation. Fig. 2 illustrates the basic layout of this device. The low-frequency voltage component (up to 200 cps) can be measured by means of this instrument. A phase-sensitive voltmeter with two valves (Fig. 3) is used for measuring the voltage components of higher frequency. The device described here was used for measuring the losses in the cases of combined and of ordinary magnetization. It was found that the errors in loss measuring in the case of combined magnetization are greater than the errors in loss measurement by means of the watt-meter method in the case of raised frequencies and ordinary magnetization (Ref. 3). They amount to  $\pm 5\%$ . They are due to errors in the measurement of the secondary voltage by means of the phase-sensitive voltmeter.

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86876

Measurement of the Losses in Ferromagnetic  
Materials Simultaneously Magnetized by  
Fields of Various Frequencies

S/105/61/000/001/003/007  
B012/B059

There are 4 figures and 3 references: 2 Soviet.

ASSOCIATION: Sverdlovskiy filial nauchno-issledovatel'skogo instituta  
metrologii im. Mendeleyeva (Sverdlovsk branch of the  
Scientific Research Institute of Metrology imeni Mendeleyev)

SUBMITTED: February 2, 1960

Card 3/5

86876

S/105/61/000/001/003/007  
B012/B059

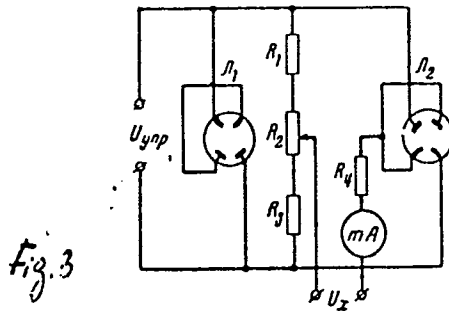


Fig. 3

Legend to Fig. 2: Basic diagram of the device for loss measuring with simultaneous magnetization by means of fields of various frequencies.  
 1) Sound generator, 2) sound generator, 3) amplifier, 4) phase shifter, 5) phase shifter, 6) phase-sensitive voltmeter, 7) voltmeter, 8) wattmeter, 9) amplifier, 10) wattmeter, 11) voltmeter, 12) investigated

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B012/B059

sample, 13) lever switch.

Legend to Fig. 3: Connection of the phase-sensitive voltmeter for 10 volts.  
 $R_1 = 6$  kilohms,  $R_2 = 0.5$  kilohms,  $R_3 = 6$  kilohms,  $R_4 = 1210$  ohms,  
1) control voltage.

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B012/B059

sample, 13) lever switch.

Legend to Fig. 3: Connection of the phase-sensitive voltmeter for 10 volts.  
 $R_1 = 6$  kilohms,  $R_2 = 0.5$  kilohms,  $R_3 = 6$  kilohms,  $R_4 = 1210$  ohms.

1) control voltage.

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Card 5/5

ABEL'S, R.G.; VEKSLER, A.Z.; PRONICHEVA, T.A.

Use of a tapered measure with series connected sections for matching  
resistance coils. Trudy inst. Kom. stand. mer i izm. prib. no.67:12-  
16 '62. (MIRA 17:11)

1. Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo insti-  
tuta metrologii imeni Mendeleyeva.

VEKSLER, A.S.

Dependence of the magnetic path length on the field intensity  
(theoretical study). Nov.nauch.-issl.rab.pol.metr. 7111M no.3:  
19-21. '64.

Dependence of the effective magnetic field intensity on distortion  
of the magnetic flux. Ibid.:25-28 (MIRA 18-1)

BULANOVA, A I.; VERKNER, A.Z.

Dependence of the magnetic path length on the field intensity  
(experimental study). Nov.nauch.-issl.rab.po.metr. VNIIM  
no.5:21-25 '64. (MIRA 18:3)



VEKSLER, A.Z.; BULANOVA, A.I.; FALALEYVA, T.N.

Effect of inhomogeneous magnetization. Nov.nauch.-issl.rab.po.met  
VNIM no.5:17-19 '64. (MC RA 18.3)

VEKSLER, B.A.

Basic trends of the research work of the Central Scientific Research Institute of Starch and Molasses Industry for the period from 1964 to 1965. Sakh.prom. 38 no.2:47-51 F '64. (MIRA 17:3)

1. Tsentral'nyy nauchno-issledovatel'skiy institut krakhmalo-patochnoy promyshlennosti.

VEKSLER, B.A., kand.tekhn.nauk; SIDOROVA, Ye.K., kand.tekhn.nauk

Production of sirups. Trudy TSHIKPP no.3:90-99 '59.  
(MIRA 13:9)

(Sirups)

OBUKHOVSKIY, Emil' Aleksandrovich; VEKSLER, B.A., kand.tekhn.nauk,  
retsenzent; BURMAN, M.Ye., inzh., spetsred.; KRUGLOVA, G.I.,  
red.; TARASOVA, N.M., tekhn.red.

[Production of maltose sirups] Proizvodstvo mal'toznoi patoki.  
Moskva, Pishchepromizdat, 1959. 153 p. (MIRA 13:2)  
(Maltose) (Sirups)

VEKSLER, B.A.; ABRAGAM, D.R.

Producing starch from wheat Sakh.prom. 33 no.6:49-53 Je '59.  
(MIRA 12:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut krakmal'no-  
patochnoy promyshlennosti.  
(Starch) (Wheat)

VEKSLER

BAKANOV, N.A.; BURMAN, M.Ye.; BYCHKOV, B.K.; VEKSLER, B.A.; LUKOYANOV, V.I.;  
MALYZHEV, A.A.; MILYUTIN, A.A.; PRITYKINA, L.A., red.; KISINA, Ye.I.,  
tekh.red.

[Technology and control of starch and molasses production] Tekhno-  
logiya i tekhnokhimicheskii kontrol' krakhmalo-patochnogo proizvod-  
stva. Pod red. M.E.Burmana. Moskva, Pishchepromizdat, 1957. 402 p.  
(Starch) (Molasses) (MIRA 11:2)

VEKSLER, B.A.

4619. COPIER AUTOMATIC OF A HEAT-AND-POWER STATION. Pakovskii, M.E.,  
Vekslar, B.A. and Epstein, I.I.L. (Prikladnaya (Instrum. Making,  
U.S.S.R.), 1956, (10), 1-5). *File*

RAKOVSKIY, M.Ye.; ~~VEKSLER, B.A.~~; EPSHTEYN, A.L.

Over-all automatization of steam electric power plants. Priboro-  
stroenie no.10:1-5 0 '56. (MLRA 9:12)  
(Automatic control) (Electric power plants)



ANDREYEV, A.B.; ANTONOV, A.I.; ARAPOV, P.P.; BARMASH, A.I.; BEDNYAKOVA,  
 A.B.; BENIN, G.S.; BERESNEVICH, V.V.; BERNSHTEYN, S.A.; BITYUTSKOV,  
 V.I.; BLYUMENBERG, V.V.; BONCH-BRUYEVICH, M.D.; BORMOTOV, A.D.;  
 BULGAKOV, N.I.; VESLER, B.A.; GAVRILENKO, I.V.; GENDLER, Ye.S.,  
 [deceased]; GERLIVANOV, N.A., [deceased]; GIBSHMAN, Ye.Ye.;  
 GOLDOVSKIY, Ye.M.; GOBUNOV, P.P.; GORYALNOV, F.A.; GRINBERG, B.G.;  
 GRUNER, V.S.; DANOVSIIY, N.F.; DZEVUL'SKIY, V.M., [deceased];  
 DREMAYLO, P.G.; DYBETS, S.G.; D'YACHENKO, P.F.; DYURNBAUM, N.S.,  
 [deceased]; YEUCRCHENKO, B.F. [deceased]; YEL'YASHKEVICH, S.A.;  
 ZHIREBOV, L.P.; ZAVEL'SKIY, A.S.; ZAVEL'SKIY, F.S.; IVANOVSKIY,  
 S.R.; ITKIN, I.M.; KAZHDAN, A.Ya.; KAZHINSKIY, B.B.; KAPLINSKIY, S.V.;  
 KASATKIN, F.S.; KATSAUROV, I.N.; KITAYGORODSKIY, I.I.; KOLESNIKOV,  
 I.F.; KOLOSOV, V.A.; KOMAROV, N.S.; KOTOV, B.I.; LINDE, V.V.;  
 LEBEDEV, H.V.; LEVITSKIY, N.I.; LOKSHIN, Ya.Yu.; LUTTSAU, V.K.;  
 MANNERBERGER, A.A.; MIKHAYLOV, V.A.; MIKHAYLOV, N.M.; MURAV'YEV, I.M.;  
 NYDEL'MAN, G.E.; PAVLYSHKOV, L.S.; POLUYANOV, V.A.; POLYAKOV, Ye.S.;  
 POPOV, V.V.; POPOV, N.I.; RAKHLIN, I.Ye.; RZHEVSKIY, V.V.; ROZENBERG,  
 G.V.; ROZENTRETER, B.A.; BOKOTYAN, Ye.S.; RUKAVISHNIKOV, V.I.;  
 RUTOVSKIY, B.M. [deceased]; RYVKIN, P.M.; SMIRNOV, A.P.; STEPANOV, G.Yu.,  
 STEPANOV, Yu.A.; TARASOV, L.Ya.; TOKAREV, L.I.; USPASSKIY, P.P.;  
 FEDOROV, A.V.; FERRE, N.R.; FRENKEL', N.Z.; KHEYFETS, S.Ya.; KHLOPIN,  
 M.I.; KHODOT, V.V.; SHAMSHUR, V.I.; SHAPIRO, A.Ye.; SHATSOV, M.I.;  
 SHISHKINA, N.N.; SHOR, B.R.; SHPICHENNETSKIY, Ye.S.; SHPRINK, B.B.;  
 SHTERLING, S.Z.; SHUTYY, L.R.; SHUKHOL'TER, L. Ya.; ERVAYS, A.V.;  
 (Continued on next card)

ANDREYEV, A.B. (continued) .... Card 2.

YAKOVLEV, A.V.; ANDREYEV, Ye.S., retsenzent, redaktor; ~~BERKIN~~  
GEYM, B.M., retsenzent, redaktor; BERMAN, L.D., retsenzent, redaktor;  
BOLTINSKIY, V.N., retsenzent, redaktor; BONCH-BRUYEVICH, V.L.,  
retsenzent, redaktor; VELLER, M.A., retsenzent, redaktor; VINOGRADOV,  
A.V., retsenzent, redaktor; GUDTSOV, N.T., retsenzent, redaktor;  
DEGTYAREV, I.L., retsenzent, redaktor; DEM'YANYUK, F.S., retsenzent;  
redaktor; DOBROSMYSLOV, I.N., retsenzent, redaktor; YELANCHIK, G.M.  
retsenzent, redaktor; ZHEMOCHKIN, D.N., retsenzent, redaktor;  
SHURAVCHENKO, A.N., retsenzent, redaktor; ZLODEYEV, G.A., retsenzent,  
redaktor; KAPLUNOV, R.P., retsenzent, redaktor; KUSAKOV, M.M.,  
retsenzent, redaktor; LEVINSON, L.Ye., [deceased] retsenzent, redaktor;  
MALOV, N.N., retsenzent, redaktor; MARKUS, V.A. retsenzent, redaktor;  
METELITSYN, I.I., retsenzent, redaktor; MIKHAYLOV, S.M., retsenzent;  
redaktor; OLIVETSKIY, B.A., retsenzent, redaktor; PAVLOV, B.A.,  
retsenzent, redaktor; PANYUKOV, N.P., retsenzent, redaktor; PLAKSIN,  
I.N., retsenzent, redaktor; RAKOV, K.A. retsenzent, redaktor;  
RZHAVINSKIY, V.V., retsenzent, redaktor; RINBERG, A.M., retsenzent;  
redaktor; ROGOVIN, N. Ye., retsenzent, redaktor; RUDENKO, K.G.,  
retsenzent, redaktor; RUTOVSKIY, B.N., [deceased] retsenzent,  
redaktor; RYZHOV, P.A., retsenzent, redaktor; SANDOMIRSKIY, V.B.,  
retsenzent, redaktor; SKRAMTAYEV, B.G., retsenzent, redaktor;  
SOKOV, V.S., retsenzent, redaktor; SOKOLOV, N.S., retsenzent,  
redaktor; SPIVAKOVSKIY, A.O., retsenzent, redaktor; STRAMENOV, A.Ye.,  
retsenzent, redaktor; STRELETSKIY, N.S., retsenzent, redaktor;  
(Continued on next card)

ANDREYEV, A.V.,(continued) .... Card 3.

TRET'YAKOV, A.P., retsenzent, redaktor; FAYRMAN, Ye.M., retsenzent, redaktor; KHACHATYROV, T.S., retsenzent, redaktor; CHERNOV, H.V., retsenzent, redaktor; SHERGIN, A.P., retsenzent, redaktor; SHESTOPAL, V.M., retsenzent, redaktor; SHESHKO, Ye.F., retsenzent, redaktor; SHCHAPOV, N.M., retsenzent, redaktor; YAKOBSON, M.O., retsenzent, redaktor; STEPANOV, Yu.A., Professor, redaktor; DEM'YANYUK, F.S., professor, redaktor; ZNAMENSKIY, A.A., inzhener, redaktor; PLAKSIN, I.N., redaktor; RUTOVSKIY, B.N. [deceased] doktor khimicheskikh nauk, professor, redaktor; SHUKHGAL'TER, L. Ya, kandidat tekhnicheskikh nauk, dotsent, redaktor; BRESTINA, B.S., redaktor; ZNAMENSKIY, A.A., redaktor.

(Continued on next card)

ANDREYEV, A.V. (continued) .... Card 4.

[Concise polytechnical dictionary] Kratkii politekhnicheskii slovar'. Redaktsionnyi sovet; IU.A.Stepanov i dr. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1955. 1136 p. (MLRA 8:12)

1. Chlen-korrespondent AN SSSR (for Plaksin)  
(Technology--Dictionaries)

SIPYAGIN, A. S.; A. A. MILYUTIN; N. A. BAKANOV; B. K. BYCHKOV; S. F. ABAVCHENKO;  
E. A. VEKSLER; V. I. LUKYANOV; ED.

Tekhnologiya Krakhmalopatochnogo Proizvodstva. (Technology of Starch-  
Syrup Production). Moskva, Pishchepromizdat, 1950.  
423 p. Illus., Tables, Diagr.  
At Head of Title: A. S. Sipyagin, etc.  
"Literatura": p. 420-(421)

So: N/5  
722.31  
.36

VEKSLER, B.A.; SANDLER, Zh.Ya.; SHIPUNOVA, N.S.

Refining of diatomite from the Zabaluyka deposit, Sakh. prom.  
37 no.4:52-57 Ap '63. (MIRA 16:7)

1. Tsentral'nyy nauchno-issledovatel'skiy institut krakhmalopatochnoy promyshlennosti.  
(Zabaluyka--Diatomaceous earth)

I. L2079-66 EMT(1) CW

SOURCE CODE: UR/0413/66/000/001/0092/0093

ACC NR: AP6005350

AUTHORS: Kaplunov, A. I.; Vekslar, B. Ye.; Malinskiy, S. A.; Tsvetkov, V. S. 36  
3

ORG: none

TITLE: Multichannel device for seismic logging of bores. Class 42, No. 177642  
[announced by "Neftepribor" Factory (Zavod "Neftepribor")]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 92-93

TOPIC TAGS: seismologic instrument, electronic circuit

ABSTRACT: This Author Certificate presents a multichannel device for seismic logging of bores. The device contains seismic detectors, amplifiers, carrier frequency oscillators, electric filters, modulators, demodulators, a magnetic recorder, and a power supply. To broaden the dynamic range of the received signals, electrical sections are connected in each channel between the modulator tube and the communication line networks (see Fig. 1). The sections are made of crystal diodes (connected in opposition) and resistors and are connected to the programming

UDC: 550.340.84

Card 1/2

7 1201-66

ACC NR: AP6005350

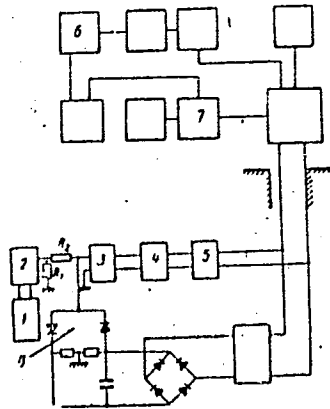


Fig. 1. 1 - seismic detector;  
2 - amplifier (modulator);  
3 - amplifier; 4 - carrier  
frequency oscillator; 5 - filter;  
6 - demodulator; 7 - recorder;  
8 - electrical sections

device. Orig. art. has: 1 diagram.

SUB CODE: 08,09/ SUBM DATE: 19Nov64

Card 2/2



L 07335-67 EWT(1) GW

SOURCE CODE: UR/0413/66/000/007/0022/0022

ACC NR: AP6012112

AUTHORS: Kapiunov, A. I.; Vekaler, B. Ye.; Volkhonskiy, V. M.; Remennikov, V. S.; Shemshurin, S. V. 25  
B

ORG: none

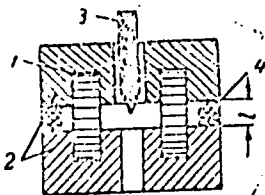
TITLE: Thermostabilized generator for a seismic core probe. Class 21, No. 180221

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 22

TOPIC TAGS: seismologic instrument, electronic oscillator

ABSTRACT: This Author Certificate presents a thermostabilized generator for a seismic core probe. The tank circuit contains a ferrite trimmer and an induction coil placed on a ferrite core with a gap (see Fig. 1).

Fig. 1. 1 - induction coil;  
2 - core; 3 - trimmer; 4 - gasket



To stabilize the generated frequency in a wide range of temperatures, the core gap has a height of 0.08 to 0.2 times the height of the core. A nonmagnetic ring gasket is placed between the outer walls of the core cups. Orig. art. has: 1 diagram.

Core 1/1... 590.349-84 621.373.4

ACC NR: APOU1701

SOURCE CODE: UR/0413/66/000/010/0085/0085

INVENTOR: Slutskovskiy, A. I.; Bogdanov, V. V.; Pishchulin, V. V.; Veksler, B. Ye.; Ayzman, Yu. A.; Malinskiy, S. A.

ORG: None

TITLE: Automatic gain control for amplifiers in seismic prospecting units. Class 42, No. 181828

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 10, 1966, 85

TOPIC TAGS: seismic prospecting, automatic gain control

ABSTRACT: This Author's Certificate introduces an automatic gain control for amplifiers in seismic prospecting units. The device is based on Author's Certificate No. 119689. Recording clarity with respect to amplitude is improved and the width of the illegible washout zone is reduced in the region of first arrivals by using stabilitrons in charging and discharging the filter capacitor for various purposes.

SUB CODE: 09, 08/ SUBM DATE: 29May63

Card 1/1

UDC; 534.632;681,892

SECRET CODE: 01/01/15/05/000/000/000/000/000/000

Authors: Andreev, A. M.; Andriyev, V. M.; Ayzenshteyn, Yu. A.; Sokolovskiy, Ye. A.;  
Stetsko, G. M.; Stetsko, V. M.; Stetsko, V. M.; Stetsko, V. M.; Stetsko, V. M.;  
Stetsko, V. M.; Stetsko, V. M.; Stetsko, V. M.; Stetsko, V. M.; Stetsko, V. M.;  
Stetsko, V. M.; Stetsko, V. M.; Stetsko, V. M.; Stetsko, V. M.; Stetsko, V. M.;

CLASS: none

TYPE: Seismic station. Class 42, No. 181/66 /announced by "Neftepribor" Factory  
of the Instrument Manufacture Administration of Mosgorsovnarkhoz (Zavod "Neftepribor"  
Upravleniya priborostroyeniya Mosgorsovnarkhoza)

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 94

TECH TAGS: seismologic station, seismologic instrument

ABSTRACT: This Author Certificate presents a seismic station containing a seismic  
signal detector, a recording amplifier unit, an oscillograph, a magnetic drum  
recorder, a channel reproduction unit, a control unit, a reproduction amplifier, a  
multichannel borehole probe, a drum with photographic paper, a retransmitting unit,  
and a power supply. To increase the reliability when transferring from operation with  
the method of reflected waves to the method of refracted waves, a filter unit is  
connected between the first and second stages of the recording amplifier unit. \*A

Card 1/2

UDC: 550.340.19

1 1061-67

ACC NR: AP6029933

modulator-demodulator unit and a reel type magnetic recorder are connected in series to the output of the recording amplifier unit. For operation with the method of refracted waves, the filter unit has frequency cutoffs of 7--30 hz, and for operation at sea--frequency cutoffs of 20--50 hz. To increase the reliability of the recorded data with operation by the method of regulated directional reception, a switching unit for the channels to be summed, a static correction unit, and a summing unit are connected in series between the magnetic drum recorder and the reproduction amplifier. To increase the reliability when transferring from operation with the method of reflected waves to seismic logging, a frequency selection unit is connected between the multichannel borehole probe and the magnetic drum recorder. To improve the quality of the recorded material, an electron beam unit for introducing static and dynamic corrections is connected between the reproduction amplifier and the drum with photographic paper.

SUB CODE: 03/ SURM DATE: 09May65

Card 1/1

Doc. No. 184468  
Acc. No. 184468

SOURCE CODE: U:/0413/66/000/015/0009/0005

AUTHORS: Agabekyan, N. A.; Napoport, K. B.; Veksler, B. Ye.; Malinskiy, S. A.

C.G.: none

TITLE: Device for summing seismic signals. Class 42, No. 184468

SOURCE: Izobret prom obrat tov sn, no. 15, 1966, 95

TOPIC TAGS: seismologic instrument, magnetic recording

ABSTRACT: This Author Certificate presents a device for summing seismic signals, containing a magnetic drum with reproducing heads, signal amplifiers, step probes, a summing delay line, a summed signal amplifier, a chart recorder, a chart drum, and a time relay. To speed the processing and analysis of material with production of grouped tapes, the coil of the step probe switching the magnitude of the summation time shift is connected through a pulse frequency divider to the coil of the step probe switching the summation base center (see Fig. 1). To obtain summed tapes with the summation base length increased in time, the extremes of the summed channels are connected to the delay line by relay contacts controlled by the time relay.

UDC: 550.340.19

Card 1/2

L 10062-67  
ACC NR: AP6029934

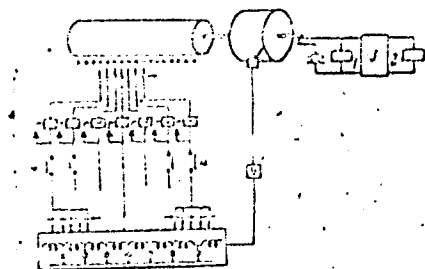


Fig. 1. 1 and 2 - coils of step probes; 3 - frequency divider; 4 - relay contacts

Orig. art. has: 1 diagram.

SUB CODE: 08/ SUBM DATE: 29Jul65

ACC NR: AP6021456 SOURCE CODE: UR/0413/66/000/011/0079/0079

INVENTOR: Rapoport, M. B.; Seliverstov, B. P.; Chervonskiy, M. I.; Gurevich, B. L.; Malinskiy, S. A.; Veksler, B. Ye.; Aysman, Yu. A.; Remennikov, V. B.; Zhavoronkov, G. A.

ORG: None

TITLE: A device for automatically analyzing seismograms and constructing seismic profiles. Class 42, No. 182349

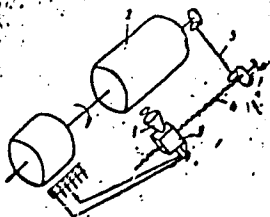
SOURCE: Izobreteniya, promyshlennyye obratzsy, tovarnyye znaki, no. 11, 1966, 79

TOPIC TAGS: seismography, cathode ray tube, seismic modeling

ABSTRACT: This Author's Certificate introduces: 1. A device for automatically analyzing seismograms and constructing seismic profiles. The unit is based on Author's Certificate No. 166503. Efficiency of analysis is improved by mounting a cathode ray tube on a carriage which is moved along a photodrum by a worm gear or ratchet turned by the shaft of the photodrum. 2. A modification of this device in which measurement quality is improved by connecting a sawtooth generator through a programmed amplitude regulator to the vertical deflection system of the cathode ray tube.

Card 1/2 UDC: 550.340.84

ACC NR: AP6021456



1--cathode ray tube; 2--  
photodrum; 3--carriage;  
4--worm shaft; 5--drive

SUB CODE: 08, 09/ SUBM DATE: 31Mar64

Card 2/2



ACC NR: AP7002978

SOURCE CODE: UR/0413/66/000/024/0077/0077

INVENTOR: Veksler, B. Ye; Katkov, G. F.; Malinskiy, S. A.; Minkin, M. M.;  
Remennikov, V. S.; Rybakov, L. A.; Sokolinskiy, Ye. A.; Fedorov, V. N.; Shmulovich,  
I. Sh.; Gertsov, S. M.; Pishchulin, V. V.

ORG: None

TITLE: A seismic prospecting station. Class 42, No. 189596

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 24, 1966, 77

TOPIC TAGS: seismic prospecting, frequency divider, quartz crystal, seismologic  
station

ABSTRACT: This Author's Certificate introduces a seismic prospecting station contain-  
ing an amplification-conversion channel, registration unit and power supply. The  
unit is designed for improved reliability and operational convenience. A quartz os-  
cillator with a frequency divider system is used as a precision-frequency power supply  
and synchronizing unit. The oscillator is connected through amplifiers to the actua-  
ting units of the station.

SUB CODE: 08 / SUBM DATE: 04Jun65

Card 1/1

UDC; 550.340.19

End

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