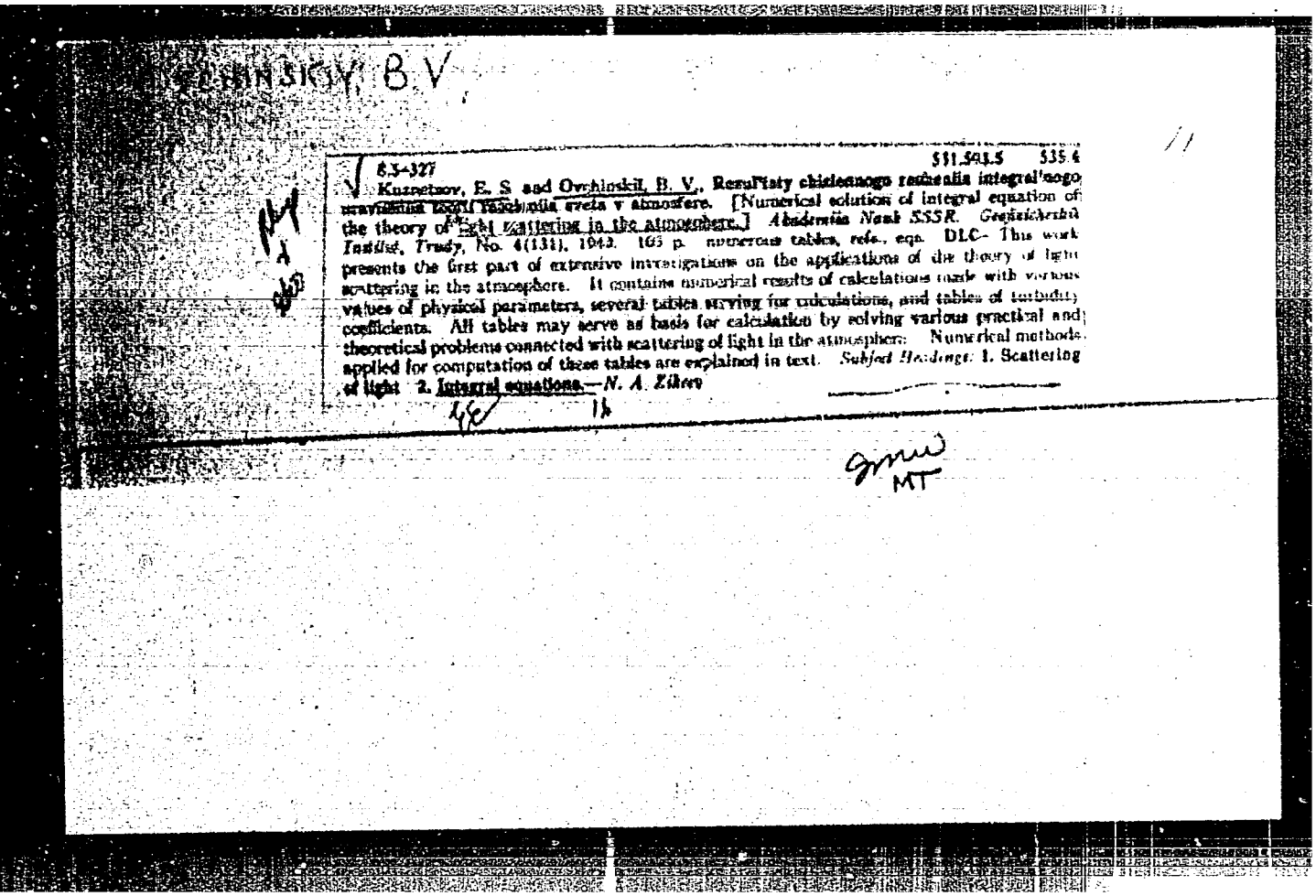


OVCHINSKIY, B. V.

6.5-327

551.593.5 535.4

Kuznetsov, E. S. and Ovchinskiĭ, B. V., Resultaty chislennogo resheniia integral'nogo uravneniia teorii rasseiania sveta v atmosfere. [Numerical solution of integral equation of the theory of light scattering in the atmosphere.] *Akademiia Nauk SSSR. Geofizicheskii Institut, Trudy*, No. 4(131), 1942. 163 p. numerous tables, refs., eqs. DLC- This work presents the first part of extensive investigations on the applications of the theory of light scattering in the atmosphere. It contains numerical results of calculations made with various values of physical parameters, several tables serving for calculations, and tables of turbidity coefficients. All tables may serve as basis for calculation by solving various practical and theoretical problems connected with scattering of light in the atmosphere. Numerical methods applied for computation of these tables are explained in text. *Subject Headings:* 1. Scattering of light 2. Integral equations.—*N. A. Zilber*

OVCHINSKIY, B.V.

Kuznecov, E. S., and Ovčinskiĭ, B. V. Results of numerical solution of the integral equation of the theory of the scattering of light in the atmosphere. Akad. Nauk SSSR. Trudy Geofiz. Inst., no. 4(131), 105 pp. (1949). (Russian)

This paper considers the problem of diffuse reflection and transmission by a plane-parallel atmosphere of optical thickness τ^* (>0) for the case of isotropic scattering with an albedo $0<1-q\leq 1$ for single scattering. The underlying mathematical problem is that of solving the equation of transfer

$$(1)\quad \frac{dJ(\tau,\mu)}{d\tau}=J(\tau,\mu)-\tfrac{1}{2}(1-q)\int_{-1}^{+1}J(\tau,\mu')d\mu'-\tfrac{1}{2}(1-q)e^{-\tau/\mu},$$

together with the boundary conditions (2) $J(0,-\mu)=0$ and $J(\tau_1,+\mu)=0$ ($0<\mu\leq 1$). In (1) $0<\mu_0\leq 1$ is the cosine of the angle of incidence of the incident parallel beam of light of unit flux. It is known that this problem is equivalent to that of solving the integral equation

$$(3)\quad \phi_0(\tau)=\tfrac{1}{2}e^{-\tau/\mu_0}+\tfrac{1}{2}q\mu_0 e^{-\tau/\mu_0}E_1(\tau)+\int_0^{\tau^*}\phi_0(t)[\tfrac{1}{2}E_1(|t-\tau|)+qE_2(\tau)E_2(t)]dt,$$

where $E_n(x)$ denotes the exponential integral of order n.

As a preliminary to the solution of this problem the author assemble in chapter I various known formulae involv-

Source: Mathematical Reviews, Vol 13 No. 2

ing the exponential integrals. In particular a list of the integrals

$$\int_0^\infty e^{-t}E_n(t)dt, \quad \int_0^\infty e^{-t}E_1(|x-t|)dt, \quad \int_0^\infty e^{-t}E_1(t)dt$$

is given; the last of these is a special case of the function denoted by $F_1(x,\mu)$ by H. van de Hulst, [Astrophys. J. 107, 220–246 (1948); these Rev. 10, 151, 855] and S. Chandrasekhar [ibid. 108, 92–111 (1948); these Rev. 10, 543]. A table of the first four exponential integrals for $x=0.01(0.01)0.6$ is also given.

In chapter II an iteration method of solving equation (3) is proposed. For this purpose, a quadrature formula for evaluating integrals of the form

$$I(\tau)=\int_\tau^\infty f(t)E_1(|t-\tau|)dt. \tag{4}$$

is constructed. Thus writing

$$\tau=kh \quad \text{and} \quad t=mh \qquad (k, m=0, \cdots, n)$$

where h is a suitably chosen small fraction, we can express the integral (4) in the form

$$I(kh)=\sum_{m=k}^{n-1}[P_{m-k}f(mh)+Q_{m-k}\Delta f(mh)].$$

where

$$P_m=E_2[(m-k)h]-E_2[(m-k+1)h],$$
$$Q_m=E_3[(m-k)h]-E_3[(m-k+1)h]-hE_2[(m-k+1)h].$$

and $\Delta f(mh)=f[(m+1)h]-f(mh)$. The quantities P_m and Q_m satisfy a number of recurrence relations. For convenience of calculation for $r\leq 6$, the quantities $P_{r,m}$, $P_{r,m}$, $Q_{r,m}$ and $Q_{r,m}$ and $Q_{r,m}$ $(m=0, 1, \cdots, 60)$ and $P_{r,m}$, $P_{r,m}$, $Q_{r,m}$ and $Q_{r,m}$ $(m=0, 1, \cdots, 30)$ appropriate for $h=0.01$ and 0.02, respectively, are tabulated.

Source: Mathematical Reviews, Vol 13 No 2

2/52 ESK

For the case $q=0$ the iteration used is performed by correcting an initial approximate solution $\phi(\tau)$ in the manner $\phi_1(\tau)=\phi(\tau)+A+B\tau+C\tau^2$ and determining the constants A, B and C by satisfying the integral equation at $\tau=0$, $\tau=\tau_0/2$ and $\tau=\tau_0$. Solutions obtained in this manner are tabulated for $\tau_0=0.2$, 0.3, 0.4, 0.5 and 0.6 for $\cos^{-1}\mu_0=30°$, 45°, 60° and 75°. For the case $q>0$, the solution is expressed in the form $\phi_1(\tau)=\phi_0(\tau)+H\omega(\tau)$, where

$$\mu_0\phi_0'(\tau)=\phi_0(\tau)-2\int_0^{\tau_0}\phi_0(t)E_2(|t-\tau|)\,dt$$

$$H=q\Big/\left(1-2q\int_0^{\tau_0}\omega(t)E_2(t)\,dt\right),$$

and $\omega(\tau)$ is a solution of the equation

$$\omega(\tau)=\tfrac{1}{2}E_2(\tau)+\frac{1}{2}\int_0^{\tau_0}\omega(t)E_1(|t-\tau|)\,dt.$$

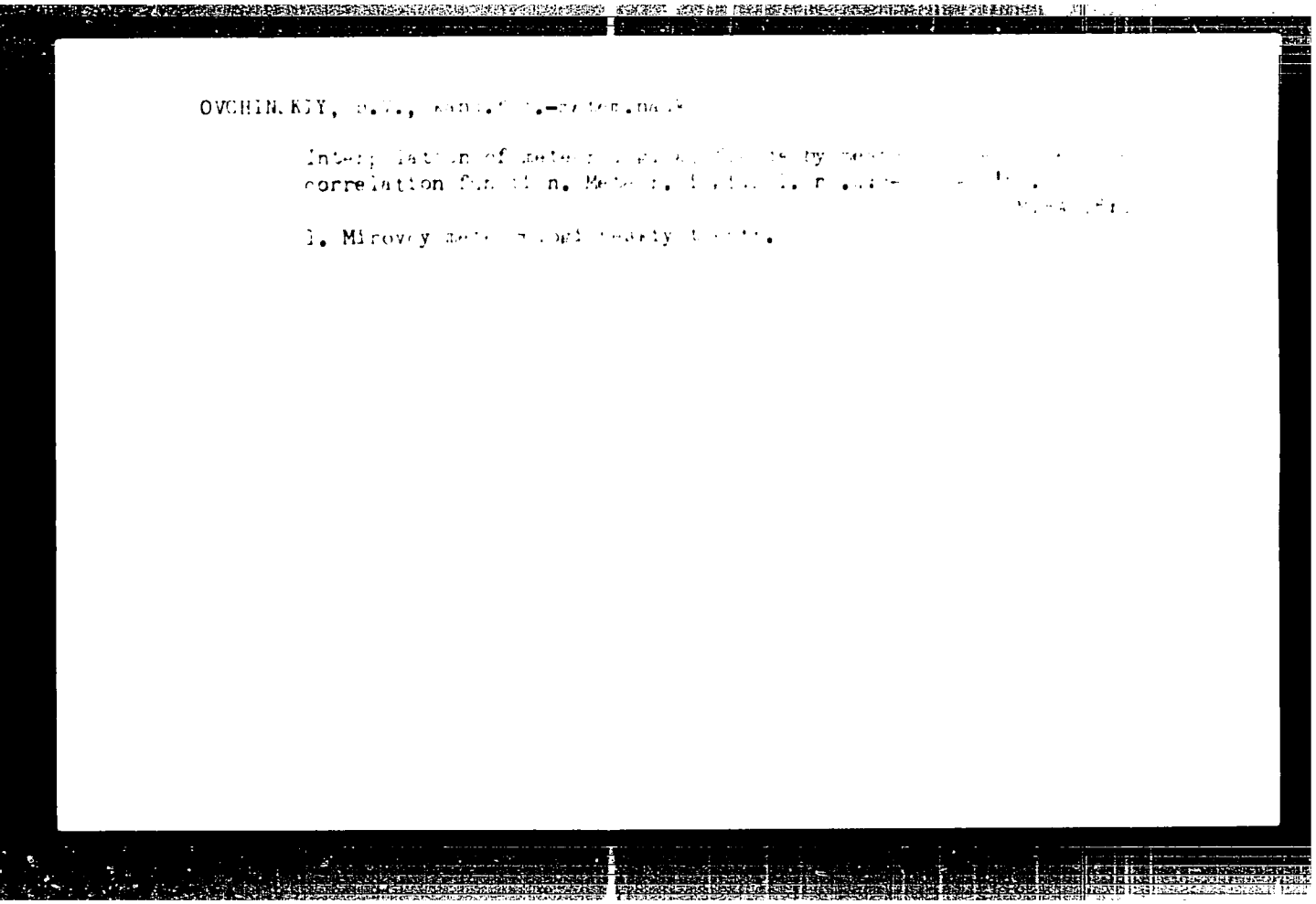
An approximate solution of this last equation (as indicated by a direct solution of the equation of transfer) is $\omega(\tau)=(\tau_0-\tau+\frac{1}{3})/(\tau_0+\frac{4}{3})$; a higher approximation is obtained by the authors by iterating this solution. The coefficient H is tabulated for $\tau_0=0.2$, 0.3, 0.4, 0.5 and 0.6 for $\cos^{-1}\mu_0=30°$, 45°, 60° and 75°. For these same arguments the functions $\phi_0(\tau)$ are tabulated for $q=0.1$, 0.2, 0.3 and 0.8.

Solutions obtained in the manner described above are compared with the solutions obtained by the standard methods of solving the equation of transfer itself. In particular, a detailed comparison is made with the solutions obtained in the second approximation according to the method described by Chandrasekhar [Astrophys. J. 101, 348–355 (1945); 103, 165–192 (1946); these Rev. 6, 244; 7, 439]. [It should be stated that exact solution for the problem considered by these authors is known and that results of greater accuracy are obtained by the method described in S. Chandrasekhar, Radiative Transfer, Oxford, 1950, see particularly §§62 and 63; these Rev. 13, 136.]

S. Chandrasekhar (Williams Bay, Wis.).

Source: Mathematical Reviews, Vol. 13 No. 2

3/3 ESK



OVCHINNIKOV, [illegible]

[illegible] correlation [illegible]

1. Mirovoy [illegible]

OVCHINSKIY, B.V.

Reduction of short series of [illegible] to an extended period for stationary random functions [illegible] 92-106 '65. [illegible]

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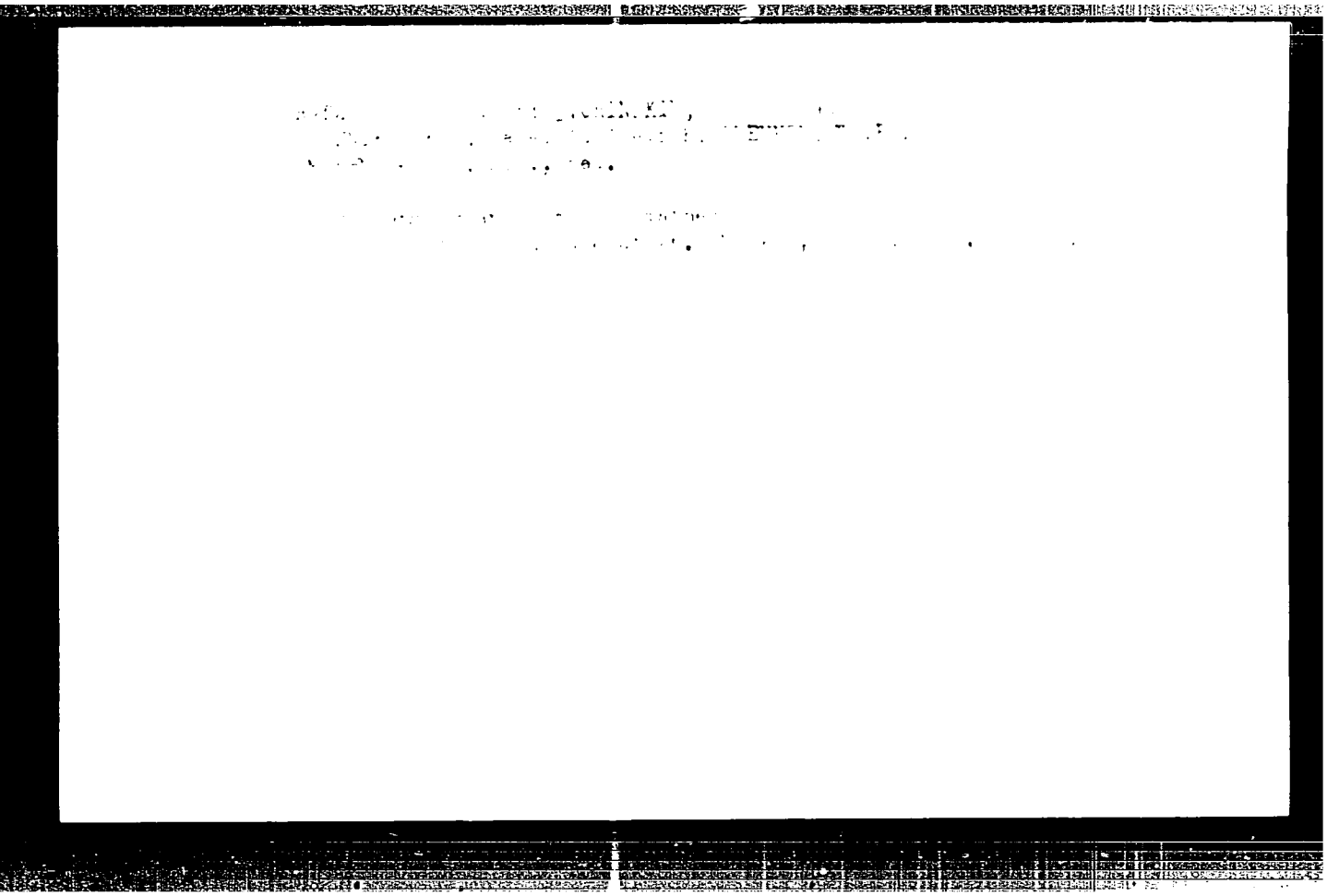
Law of distribution of the formula for [illegible] and its use for the objective analysis of wind. Trudy [illegible] U.S.

GROSBERG, Yu.I.; OVCHINSKIY, B.V.

"Fundamentals of computer mathematics" by B.P.Demidovich, I.A.Maron.
Usp. mat. nauk 18 no.2:253-257 Mr-Ap '63. (MIRA 16:8)
(Mathematics) (Programming (Electronic computers))
(Demidovich, B.P.) (Maron, I.A.)



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

OVCHINSKIY, K., insh.

Brigade accounting in the Turkmen Petroleum Construction.
Stroitel' no.5:14 My '59. (MIRA 12:8)
(Turkmenistan--Construction industry--Accounting)

OVCHINSKIY, K.L.

Obtaining insulating air-entrained silicate using barchan sand.
Stroi. mat. 9 no.2:23-24 F '63. (MIRA 16:2)

1. Nachal'nik tekhnicheskogo otdela Ministerstva stroitel'stva i stroitel'nykh materialov Turkmenskoy SSR.
(Sand) (Insulating materials)

OVCHININSKIY, Nikolay Vladimirovich; TURKIN, Aleksandr Vladimirovich; KOROBOV Lev Nikolayevich; LYUDOGOVSKIY, G.I. kand. tekhn. nauk, otv. red.; PEVZNER, G.Ye., red. izd-va; SIMKINA, G., tekhn. red.

[Expansion of ferrous metallurgy in the central regions of the U.S.S.R.; importance for the national economy of the industrial utilization of the Kursk Magnetic Anomaly] Voprosy razvitiia chernoi metallurgii v tsentral'nykh raionakh SSSR; narodnokhoziaistvennoe znachenie promyshlennogo osvoeniia Kurskoi magnitnoi anomalii. Moskva, Izd-vo Akad. nauk SSSR, 1961. 137 p. (MIRA 14:9)
(Kursk Magnetic Anomaly—Iron mines and mining)
(Metallurgical plants)

ABALYAN, N.; OVCHIYAN, V.

Depth of underground pipe laying under the conditions of the Armenian S.S.R. Prom.Arm. 5 no.8:18-21 Ag '6[illegible] (MIRA [illegible])

1. Armniikhimproyekt.
(Armenia--Pipelines)

ABALYAN, N.; ASATURYAN, V.; BALAYAN, A.; OVCHIYAN, V.

A map of corrosiveness and its use in planning protective measures for underground metal constructions. Prom.Arm. 4 no.10:56-59 O '61. (MIRA 14:11)

1. Armniikhimproyekt.
(Corrosion and anti-corrosives)

PROVIZIENT, I.V.; [illegible]

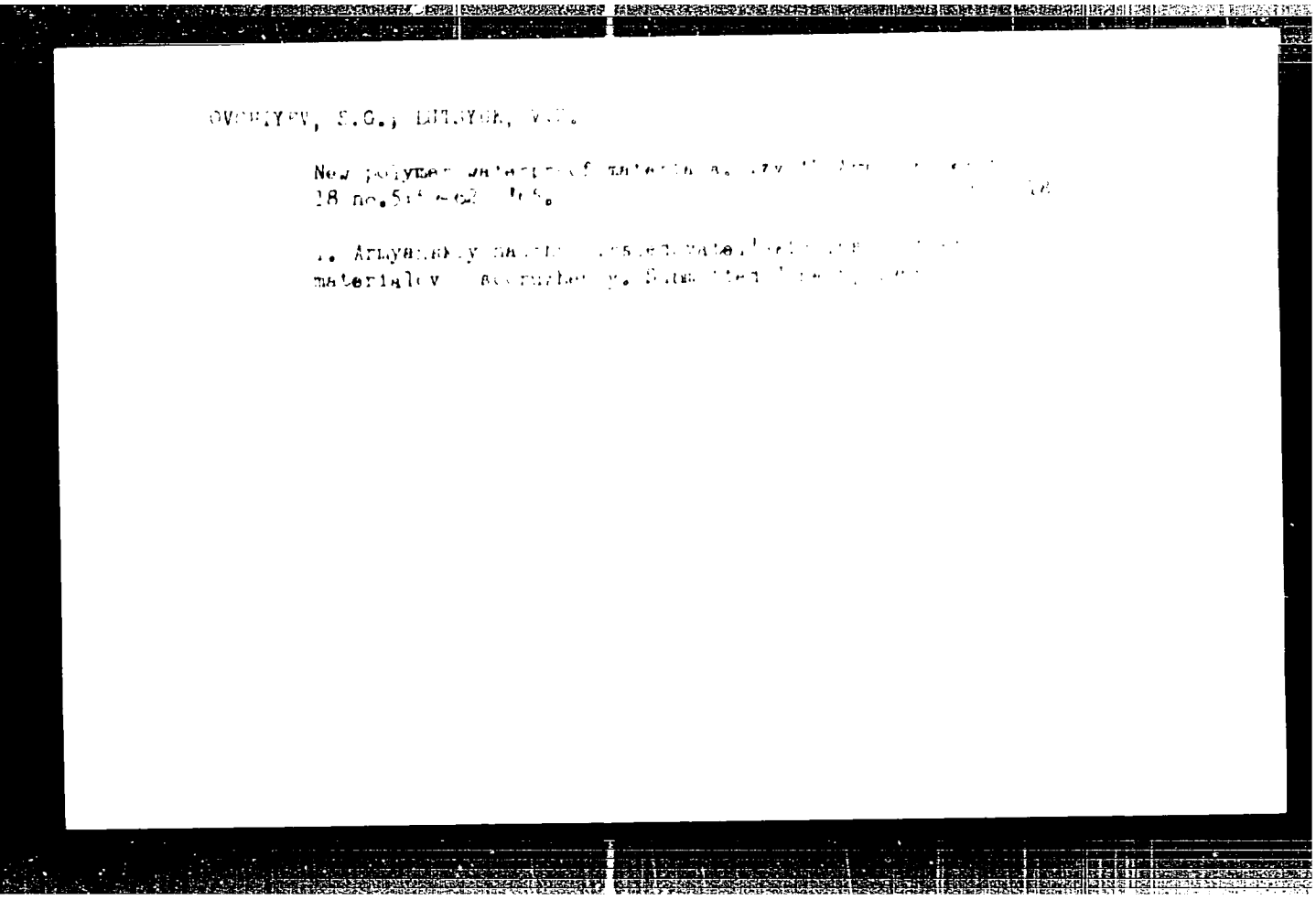
Relationship between the tear resistance of water-proof [illegible] and their relative elongation caused by heat. [illegible]. Vysok. sov. tekh. nauk 18 no.2:64-66 '65.

1. Ivanovskiy nauchno-issledovatel'skiy institut [illegible] materialov i sredstv zashchity. Submitted Jan. 5, 1965.

OVCHIYEV, S.G.

Resistance to microorganisms of some film polymer waterproof materials. Izv. AN Arm. SSR. Ser. tekh. nauk 17 no.1:53-56 '64 (MIRA 17:3)

1. Armyanskiy Nauchno-issledovatel'skiy institut stroitel'nykh materialov i sooruzheniy.



OVCIN, D.; DRAGANIC, I.

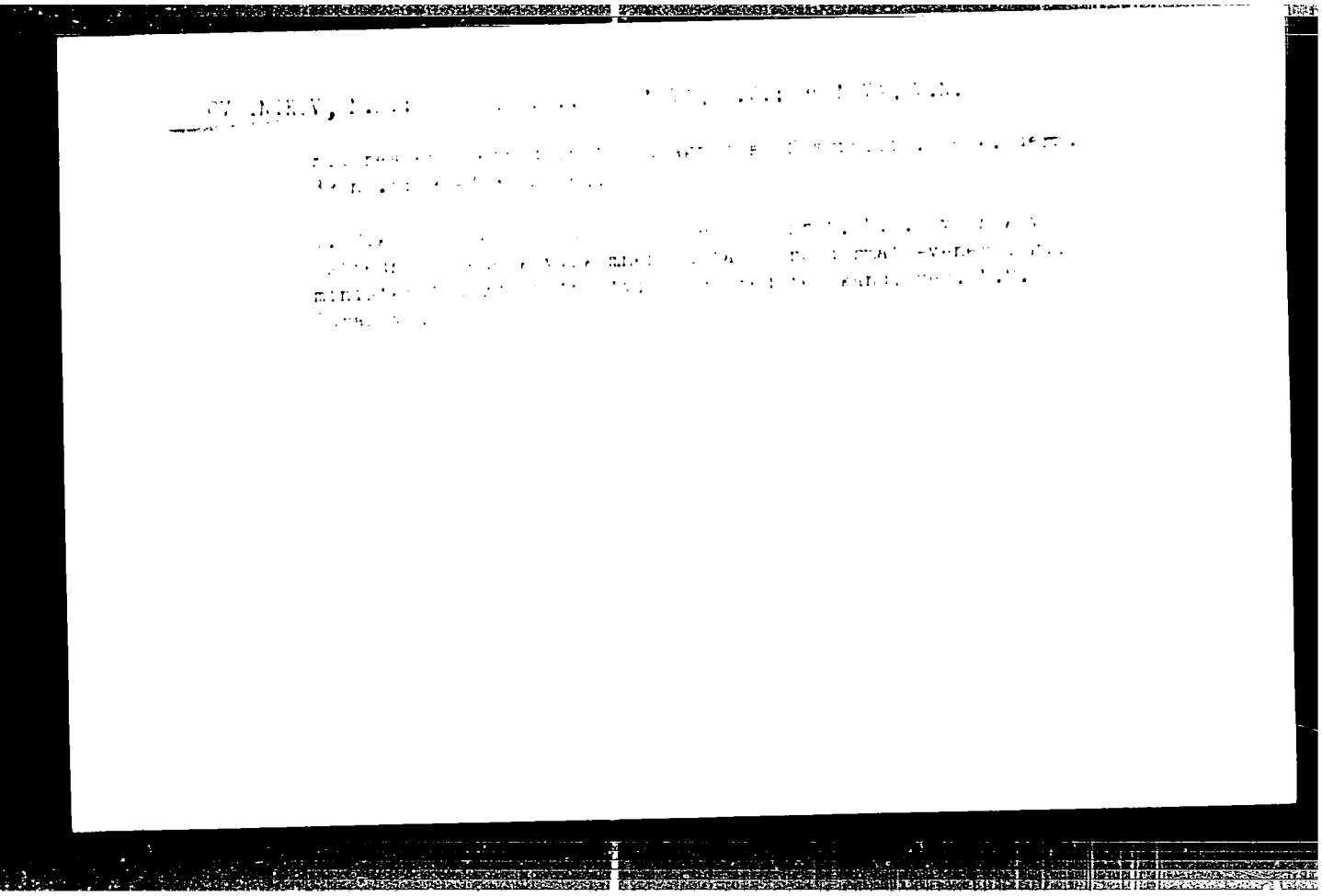
Radiolysis of aqueous solutions of oxalic acid. Pt.3; abstract.
Glas Hem dr 27 no.9/10:541-542 '64

1. The Boris Kidric Institute of Nuclear Sciences, Department of Radiation Chemistry, Belgrade-Vinca.

OVCIN,D.; MICIC, O.; DRAGANIC,I.

Radiolysis of aqueous solutions of oxalic acid. Pt.2; abstract.
Glas Hem dr 27 no.9/10:539-540 '64

1. The Boris Kidric Institute of Nuclear Sciences, Department of Radiation Chemistry, Belgrade-Vinca.



OVDIENKO, P. V.

OVDIENKO, P. V. - "Autonomous Rayon of Inner Mongolia (Economic Geography Features)." Sub 23 May 52, Moscow Order of Lenin State U imeni M. V. Lomonosov. (Dissertation for the Degree of Candidate in Geographical Sciences).

SO: Vechernaya Moskva January-December 1952

OV[illegible]NKO, [illegible] V.

Defended [illegible] Candidate [illegible] Dissertation in the Geographical [illegible] State University in [illegible].

Dissertation: "The Inner [illegible] Autonomous Region ([illegible] Characteristics)."

SO: Vestnik Moskovskogo Universiteta, Seriya Fiziko-Matematicheskikh i Yestestvennykh Nauk, [illegible], Moscow, [illegible]; [illegible] in [illegible], [illegible] April [illegible], For Official Use Only.

OVDIYENKO, D.

"Organization of haulage and expedition operations" by IA. A. Liv'iant. Reviewed by D. Ovdienko. Avt. transp. 36 no.10:61-62 O '58. (MIRA 13:1)
(Transportation, Automotive)
(Liv'iant, IA. A.)

L 27804-66 EWA(h)/EWT(l)
ACC NR: AP6012702 SOURCE CODE: UR/0119/66/000/004/0013/0014

AUTHOR: Ovdiyenko, G. I. (Engineer) 15 B

ORG: none

TITLE: Relay-type timer 25

SOURCE: Priborostroyeniye, no. 4, 1966, 13-14

TOPIC TAGS: timer, time relay / ROV-1 timer 10

ABSTRACT: A ROV-1 Soviet-made electric timer is described. It is intended for turning on or off electric circuits after a preset time (1 to 25 min) elapses; power-supply, 220 v, 50 cps. It can operate in stationary installations, with no shock or vibration, at 0—35C, humidity not over 70%. Its error is ± 3—6 sec for a supply-frequency variation of ± 0.1 or 0.2 cps. The timer is based on a RSI-1 pulse counter and includes a transformer, a selenium rectifier, a step selector switch, a time setting device, a synchronous motor, 3 intermediate relays, and an output relay. Its electric circuit is described, and general view is shown. Orig. art. has: 2 figures.

SUB CODE: 09 / SUBM DATE: none

Card 1/1 ce UDC: 621.318.563.5

YASTREMSKIY, Ivan Stanislavovich [IAstrems'kyi, I.S.], kand.ekon.nauk; OVDIYENKO, L.O., kand.ekon.nauk, glavnyy red.

[Decisive role of the heavy industry in the development of the national economy of the U.S.S.R.] Vyrishal'na rol' vazhkoi promyslovosti v rozvytku narodnoho hospodarstva SRSR, Kyiv, 1959. 47 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' URSR, Ser.2, no.4) (MIRA 12:8)
(Russia--Economic policy)

STANKEVI , . . [Stankevych, K.I.], kand. med. nauk; OVDIYENKO, T.L. [illegible, T.L.]

Hygienic properties of some synthetic fabrics for clothing and footwear. Leh. prom. no.3:26-29 Jl-S '65. (MIRA 18:9)

OVECHENKO, N.G., inzh.; LEVASHEVA, E.M., inzh.; PAVLOV, S.A., doktor tekhn. nauk, prof.

V/M-type emulsions for bonding fibrous systems. Report No.1.
Izv.vys.ucheb.zav.; tekh.leg.pro m. no.6:64-69 '60.
(MIRA 14:1)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi.
(Leather substitutes) (Emulsions)

OVECHENKO, N.G., inzh.; PAVLOV, S.A., doktor tekhn.nauk.prof.

Effect of the nature of the binding agents on the physical and mechanical properties of nonwoven fibrous film systems. Report no.1. Izv.vys.ucheb.zav.; tekh.leg.prom. no.1:13-21 '62. (MIRA 15:2)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy tekhnologii iskusstvennov kozhi i plenochnykh materialov.
(Binding materials)(Textile fibers, Synthetic)

OVECHENKO, N.G., inzh.; PAVLOV, S.A., doktor tekhn.nauk, prof.

Effect of the nature of the binding agents on the physical and mechanical properties of nonwoven fibrous film systems. Report No.2. Izv.vys.ucheb.zav.;tekh.leg.prom. no.2:53-5[illegible] '62. (MIRA 15:5)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi i plenochnykh materialov.
(Nonwoven fabrics) (Binding materials)

OVECHENKO, N.G., kand. tekhn. nauk; DMITRUSHINA, Z.T., inzh.; BARKOV, L.V., inzh.; PAVLOV, S.A., doktor tekhn. nauk, prof.

Effect of the fiber length and amount of bonding materials on the physicomechanical properties of nonwoven fibrous film systems. Tekst. prom. 23 no.9:30-33 S '63. (MIRA 16:10)

1. Sotrudniki Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti (MTILP).
(Nonwoven fabrics)

S/081/62/000/007/030/035
B168/B101

AUTHORS: Ovechenko, N. G., Nail', I., Pavlov, S. A.

TITLE: Artificial fatiguing of adhesion joints between [illegible] polymers

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 7, 1962, 000, abstract 71307 (Izv. vyssh. uchebn. zavedeniy. Tekhnol. legk. prom-sti, no. 4, 1961, 47-55)

TEXT: Joints obtained by folding layers of polyamide AK-[illegible]/[illegible] and nairit NT (NT) (I) were subjected to static fatiguing on a [illegible] (PNE-1) apparatus by being stretched 25-150% and held in this position, and also to dynamic fatiguing on three apparatuses - a mechanical oscillator GMK-1 (GMK-1), a machine for multiple stretching and compressing MRS-2 (MRS-2) and a machine of original design with a fatiguing frequency of 5 cycles per minute and producing a deformation of 20%. After fatiguing, the joints were split on a noninertia tensile-testing machine of original design, with which the momentary variation in splitting effort could be followed by means of strain gauges. In order to even out

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BORISOVA, K.V., inzh.; OVECHENKO, N.O., inzh.; SMIRNOVA, T.V., kand. tekhn.nauk; [illegible], studentka; NAD', I., studant

Plasticizers from chemical by-byproducts for polyvinyl chloride. Izv.vys.uchab.zav.;tekh.leg.prom. no.1:57-61 '59. (MIRA 12:6)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi.
(Plastics) (Plasticizers)

OVDIYENKO, Nikolay Petrovich, gor. inzh.; SLAVNITSKAYA, N.N., red.; AZOVKIN, N.S., tekhn. red.

[Circular timbering in mines of the "Oktiabr'ugol'" Mining Trust] Kol'tsevoe dereviannoe kreplenie gornykh vyrabotok na shakhtakh tresta "Oktiabr'ugol'." Riazan', Riazanskoe knizhnoe izd-vo, 1963. 47 p. (MIRA 17:1)

OVECHENKO, N.G., kand. tekhn. nauk; KRAVKOVA, I.A., mladshiy nauchnyy sotrudnik; PAVLOV, S.A., doktor tekhn. nauk, prof.

Microstructure of nonwoven fibrous film systems and the effect exerted on it by the technological procedures. Tekst. prom. 23 no.9:27-30 S '63. (MIRA 16:10)

1. Sotrudniki Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti (MTILP).
(Nonwoven fabrics)

YUSUPOV, A.A.; NEVSKAYA, A.I.; OVDIYENKO, N.I.

Dirordere in the functional state of dog liver following S90 lesion. Biul. eksp. biol. i med. 57 no. 2:29-33 F '64.
(MIRA 17:9)

1. Predstavlena deystvitel'nym chlenom AMN SSSR A.V.Lebedinskim.

OVECHKIN, A.

USSR/Electronics - Radiofication Aug 52

"Radio in Every Kolkhoz Home," A.Ovechkin, Secy, Velikiye Luki Rayon Committee VKP(b)

"Radio" No 8, p 11

Describes the progress of radiofication work in the "imeni Andreyev," "Smychka," and other kolkhozes. States that, in a short period, 23 kolkhozes, 2 MTS, and 2 sovkhozes of this rayon have been radiofied; 9 kolkhozes, one MTS, and one sovkhoz will be radiofied in 1952.

226T18

OVECHK N, A. M.

Raschet zamennykh, armokirpichnykh i kombinirovannykh konstruktsi
usiliiem. Calculati n for tone, r
the effect of train
(50-21341)

TH845.

OVECHKIN, A.M., dotsent, kandidat tekhnicheskikh nauk.

Problem of determining the epure of moments for continuous reinforced concrete girders under conditions of least metal consumption. Trudy MIIT no.84/85:29-44 '56. (MLRA 9:11)
(Girders) (Reinforced concrete)

Name: SVECHYN, Aleksandr Mikhaylovich

Dissertation: Investigation of the maximum balance of reinforced-concrete arches and domes

Degree: Doc Tech Sci

Affiliation: [Not indicated]

Defense Date, Place: 4 Apr 56, Council of Moscow Order of Lenin and Order of Labor Red Banner Inst of Engineers of Railroad Transport imeni Stalin

Certification Date: 1 Jul 56

Source: BMVO 5/57

14(10) PHASE I BOOK EXPLOITATION SOV/1214

Mitropol'skiy, Nikolay Mikhaylovich (Deceased), Ovechkin, Aleksandr Mikhaylovich, Aleshinskiy, Yuriy Nikolayevich, and Bogdanovich, Anton Fedorovich

Stroitel'nyye konstruktsii (Structures) Moscow, Transzheldorizdat, 1958. 576 p. 12,000 copies printed.

Ed. (Title page): Ovechkin, A.M., Doctor of Technical Sciences: Eds. (Inside book): Fishchukov, M.A., Candidate of Technical Sciences, and Karamyshev, I.A., Engineer; Tech. Ed.: Khitrov, P.A.

PURPOSE: This textbook is approved by the Ministry of Higher Education of the USSR for students of engineering institutes of the railroad system.

COVERAGE: The book contains fundamentals for the design and analysis of structures made of steel, wood, reinforced concrete, stone, concrete and reinforced stone. The syllabus and outline of the textbook were compiled by the late Professor N.M.Mitropol'skiy and after his death the editing was completed by A.M. Ovechkin, Doctor of Technical Sciences. Each part contains a description

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of: 1) the properties of materials 2) the methods of analysis of individual elements of a structure 3) methods of joining structural elements 4) examples of the analysis and design of structures. In preparing this book for publication valuable comments made by the department of "Bridges and Structures" and "Structural Mechanics" of the Tbilisi Institute of Engineers of Railroad Transport were considered and also those made by K.S. Zavriyev, Academician of the Georgian SSR, active member of the Academy of Construction and Architecture, USSR; by V.I. Muresho[illegible], active member of the Academy of Construction and Architecture, USSR; by Professor A.I. Ore[illegible]shko and Docent V.N. Baykov. There are 163 references, 155 of which are Soviet, 9 English, 7 French, 7 German and 4 others.

TABLE OF CONTENTS:

PART I. GENERAL CONDITIONS

PART II. STEEL STRUCTURES

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OVECHKIN, A.M., doktor tekhn.nauk

Equilibrium equation for reinforced concrete domes in the stage of the limiting state. Nauch.dokl.vys.shkoly; stroi. no.1:35-46 '58. (MIRA 12:1)

1. Rekomendovana kafedroy stroitel'nykh konstruktsiy Moskovskogo instituta inzhenerov zheleznodorozhnogo transporta imeni I.V. Stalina.
(Domes)

OVECHKIN, A.M., doktor tekhn.nauk

Limiting equilibrium of reinforced concrete rotating shells.
Nauch.dokl.vys.shkoly; stroi. no.2:19-28 '58. (MIRA 12:1)
(Elastic plates and shells)

[illegible] 7/14

AUTHOR: Ovechkin, A.M., Doctor of Technical Sciences

TITLE: Investigation of Load-Carrying Capability of Reinforced Concrete Arches and Cupolas With Special Reference to Sliding Sections (Issledovaniye nesushchey sposobnosti zhelezobetonnykh arok i kupolov po naklonnym secheniyam)

PERIODICAL: Beton i Zhelezobeton, 1958, No. 5, USSR, Pp 195-199

ABSTRACT: The author carried out tests on reinforced concrete arches for collapse along sloping sections and these showed that the formation of cracks on the slopes of the arches began in the middle of their height (see Figure 1). With the increase of loading the cracks lengthened in the inclined directions both ways and entered the zones of the top and bottom reinforcements which were compressed (see Figure 2). Further increase in the lengths of the cracks stopped regardless of some further increase in loading but the widening continued to the point of sudden collapse of the arch. This was accompanied by the deformation of the longitudinal reinforcement. Figure 3 illustrates collapse of the arch on the incline section. The method of calculation of collapse of reinforced concrete arches in inclined sections due to transverse

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SU-SM-57/14

Investigation of the Load Carrying Capacity of Reinforced Concrete Arches and Cupolas with Special Reference to Shell Sections.

stresses was carried out according to the work of Professor A.A. Gvozdev and Candidate of Technical Science M.S. Borishanskiy. Formulae and explanation of the process of calculation are given. Figure 4 illustrates a graphical interpretation of the calculation of the arch along an inclined section and Figure 5 illustrates disintergration in the inclined internal sphere of the cupola. Figure 6 illustrates partial collapse of the cupola and Figure 7 the disintergration of the shell construction of the cupola along the inclined section. Formulae worked out by Gvozdev and Borishanskiy for defining transverse stresses of compressed zones of concrete beams were used for the calculation - the adaptation of these formulae is given and graphically illustrated in Figure 8. Figure 9 illustrates the collapse along the inclined section of a heavy semi-spherical cupola and Figure 11 illustrates the collapse in the inclined section of a cupola constructed from shell concrete (internal view). There are 11 Figures.

Structures--Mechanical properties
--Applications

Card 2/2

OVECHKIN, A.M., doktor tekhn. nauk, prof.; BUDARINA, E.M., red. izd-va; RUDAKOVA, N.I., tekhn. red.

[Design of axially symmetric reinforced concrete elements (shells)] Raschet zhelezobetonnykh osesimmetrichnykh konstruktsii (obolochek). Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam. 1961. 258 p. (MIRA 14:10)
(Roofs, Shell) (Reinforced concrete construction)

MASH, D.I.; OVECHKIN, A.F.

Ferromagnetic resonance in some ferrates in the centimeter and millimeter wave bands. Zhur. tekh. fiz. [illegible] (MIRA [illegible]

1. Fizicheskiy institut imeni P.N. Lebedeva AN SSSR, Moskva.
(Ferromagnetic resonance)
(Microwaves)

AUTHORS: Guseva, L. N. and Ovechkin, B. I. (Moscow). 24-6-5/24

TITLE: A study of chromium-silicon alloys rich in chromium. (Issledovaniye splavov khroma s kremniyem, bogatykh khromom).

PERIODICAL: "Izvestiya Akademii Nauk, Otdeleniye Tekhnicheskikh Nauk" (Bulletin of the Ac.Sc., Technical Sciences Section), 1957, No.6, pp.27-31 (U.S.S.R.)

ABSTRACT: Studies of Cr-Si alloys have been reported in refs.1 to 5. In the present work the region of phase diagram rich in chromium (up to 35% Si) was investigated. 99.8% pure silicon and electrolytic refined chromium were used. The solubility of Si in Cr was determined by smelting the alloy in an argon atmosphere in an arc furnace. Before smelting, the specimens were pressed and sintered at a temperature of 900 C in a vacuum. For alloys containing more than 8% of Si, the smelting was carried out in a high frequency furnace in corundum crucibles under barium chloride. Table 1 shows the chemical and phase composition of the alloys investigated (First column: number of alloy. Second column: wt. % Si, based on the charge. Third column: wt.% Si, based on chemical analysis. Fourth column: phase composition).

Card 1/3 Homogenising treatment was carried out in a vacuum, in quartz ampules, at 1200 C for 120 hours, after which the alloys were

A study of chromium-silicon alloys rich in chromium.(Cont.)

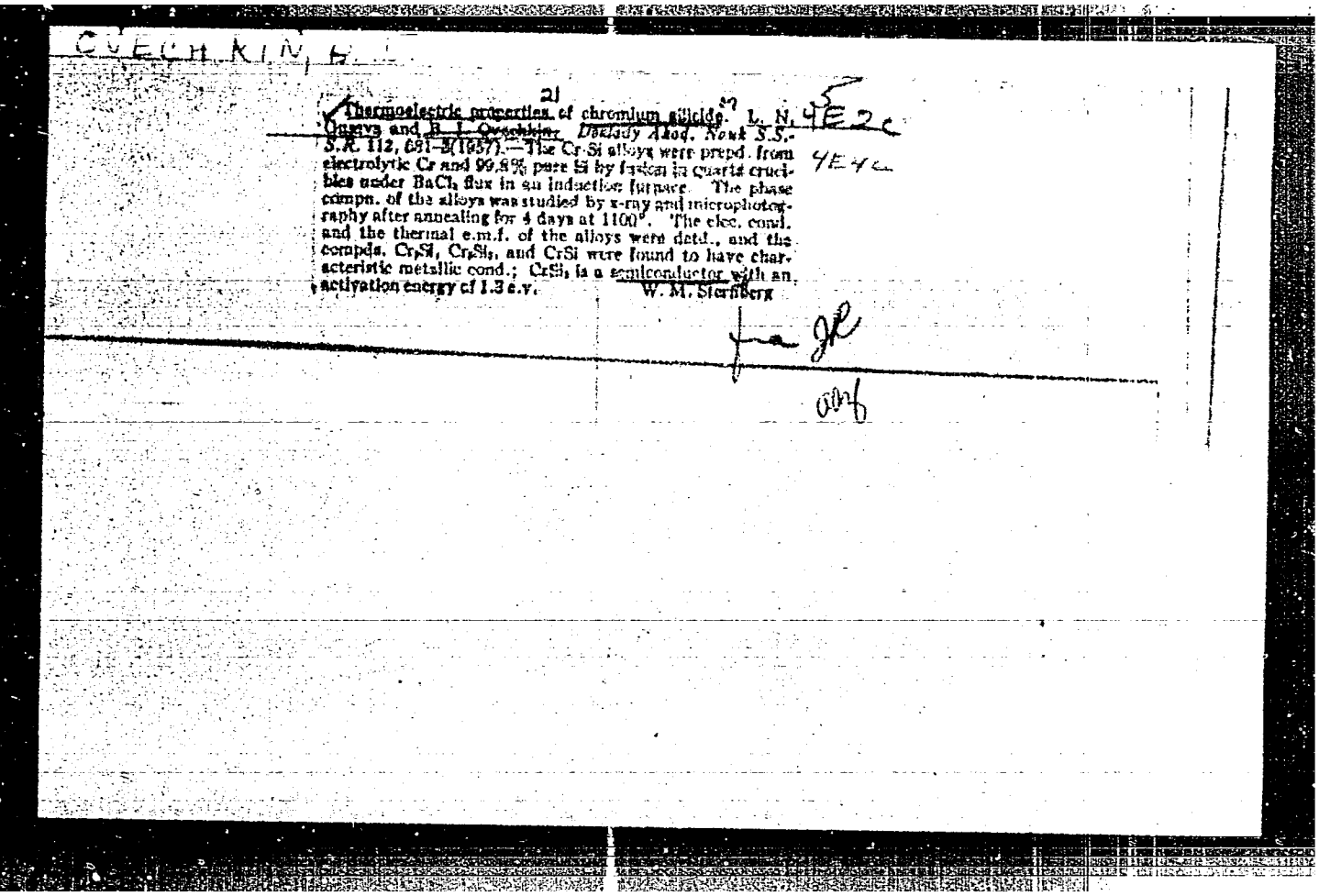
of the x-phase, one observes CrSi lines (Fig.7). Results of X-ray analysis are supported by micro-structure studies, Fig.8. Primary evolution of Cr_3Si and secondary evolution of the x-phase are seen in the ~ 17% Si alloy (Fig.8a). As the silicon content increases, the amount of this phase increases. The alloy containing 20% Si, which corresponds to the stoichiometric relation for Cr_3Si, still contains a considerable amount of Cr_3Si, Fig.8b. At the same time, the character of the structure remains unchanged. The 24.5% Si alloy has a microstructure near to the single-phase type, Fig. 8c. Further increase in Si content leads to a primary evolution of the x-phase and the eutectic composition x + CrSi.

Card 3/3

There are 8 figures and 1 tables and 5 references, one of which is Slavic.

SUBMITTED: August 5, 1956.

AVAILABLE:



SVECHKIN, G.

21

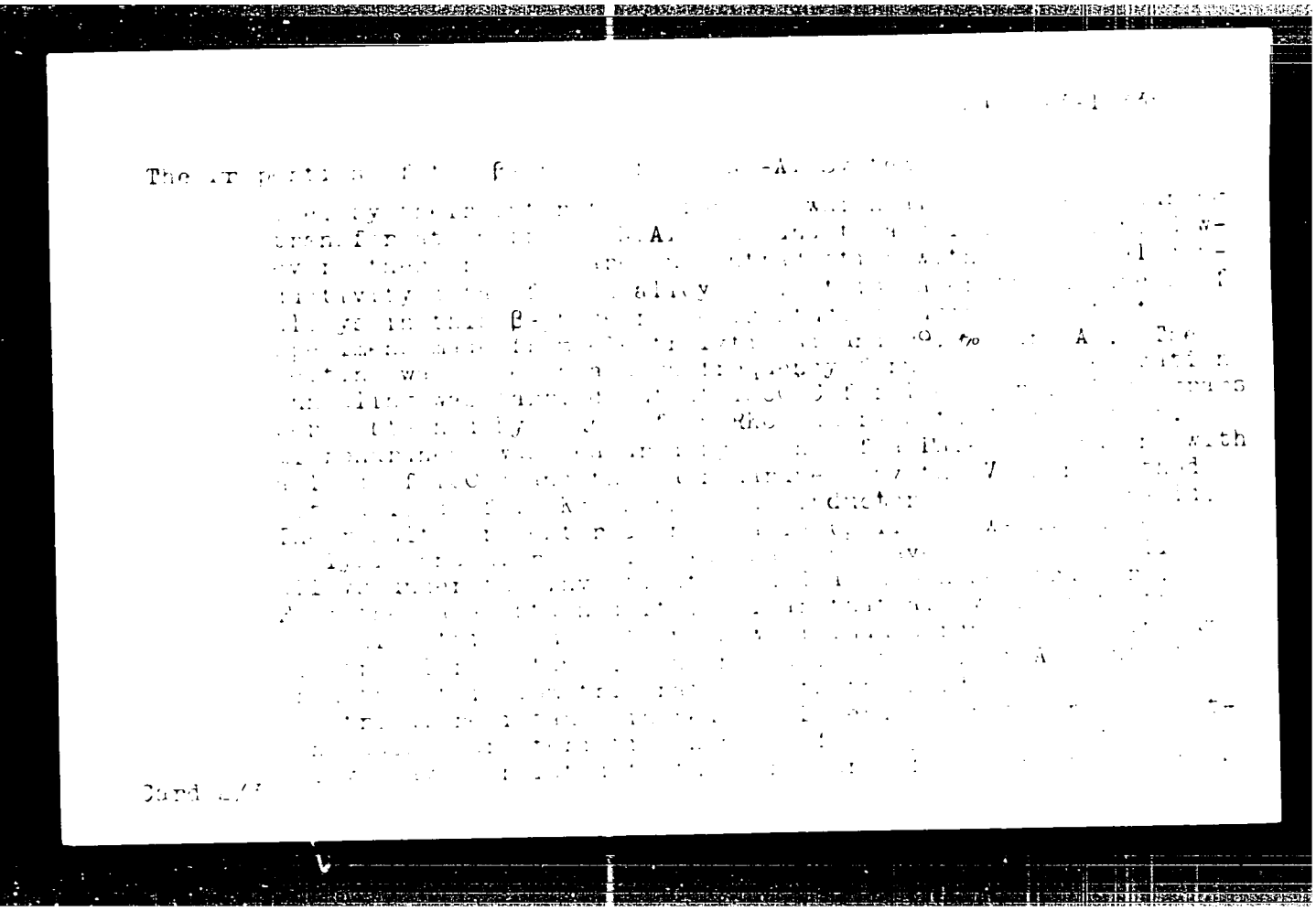
Thermoelectric properties of chromium silicide. L. N. Ogorev and B. I. Ovsyannikov. *Doklady Akad. Nauk S.S.S.R.* 112, 681–3(1957).—The Cr-Si alloys were prepd. from electrolytic Cr and 99.8% pure Si by fusion in quartz crucibles under $BaCl_2$ flux in an induction furnace. The phase compn. of the alloys was studied by x-ray and microphotography after annealing for 4 days at 1100°. The elec. cond. and the thermal e.m.f. of the alloys were detd., and the compds. Cr_3Si, Cr_5Si_3, and CrSi were found to have characteristic metallic cond.; $CrSi_2$ is a semiconductor with an activation energy of 1.3 e.v. W. M. Sternberg

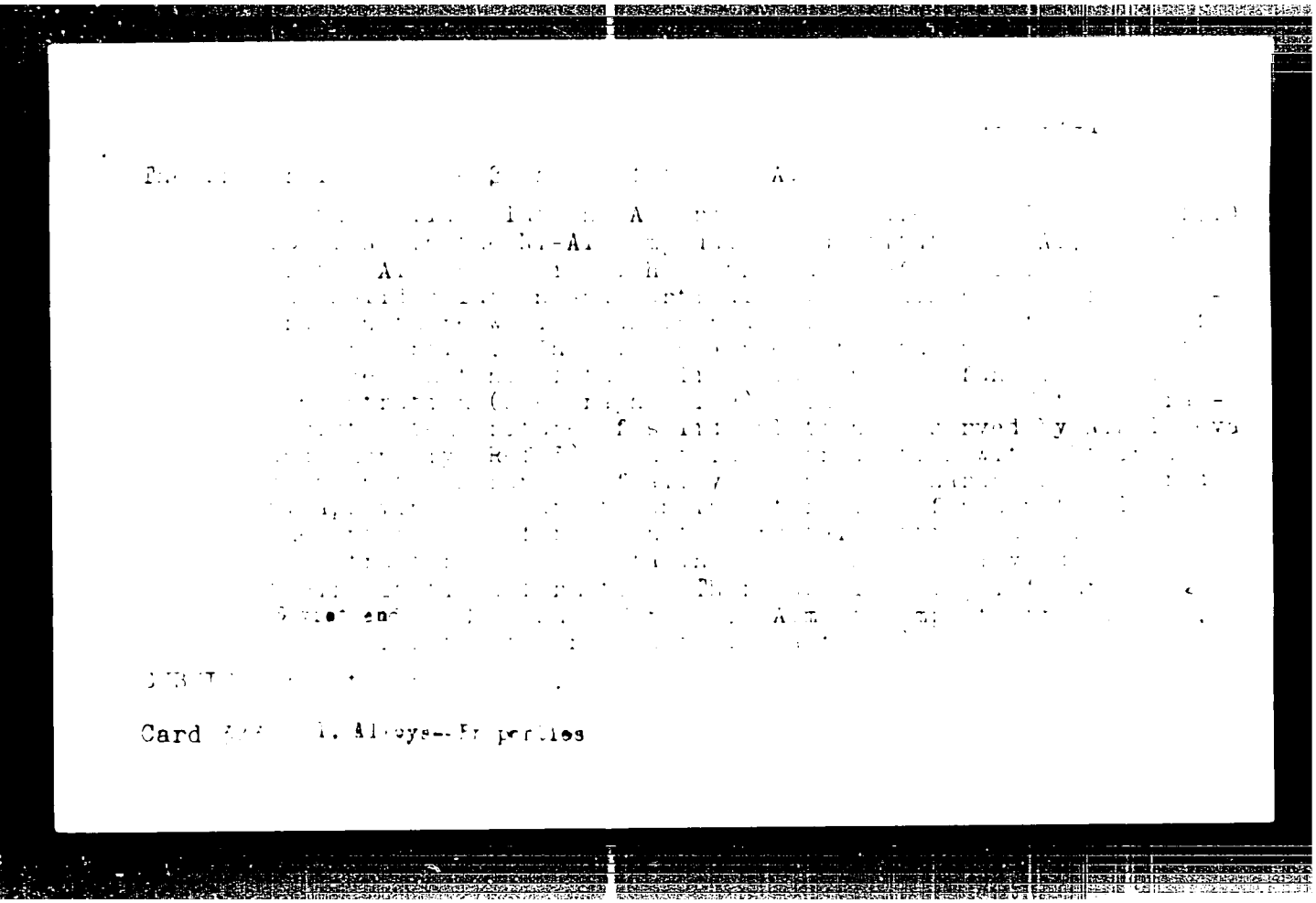
TITLE: The Properties ... β- ... -A
... ta-fazy sistemy ... -alyuminiy)

PERIODICAL: ... Izvestiya Akademii Nauk SSSR ... Nr ... (USSR)

ABSTRACT: An investigation ... their composition ... within the limits ... properties ... in earlier work of one of the authors (Ref ...) ... variation of ... with the ... graph (... 1) ... increase in concentration ... by an increase of ... of the alloy. Later N. Nikolayeva and ... (Ref. ...) studied the characteristic temperature and ... this phase. It was found that an alloy of ... The ... hardness of the alloys by their ...

Card 1/3





Card [illegible] 1. Alloys--Properties

SOV/180-59-2-14/34

AUTHORS: Guseva, L.N., and Ovechkin, B.I. (Moscow)

TITLE: Atomic Scattering of X-Rays on Solid Solutions of Copper with Nickel (Atomnoye rasseyaniye rentgenovykh luchey na tverdykh rastvorakh medi s nikelem)

PERIODICAL: Izvestiya akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 2, pp 82-85 (USSR)

ABSTRACT: The authors have measured the intensity of the diffraction spectra of copper-nickel alloys to study the deviation of the atomic scattering function from additivity. Specimens were prepared by melting the electrolytic metals, homogenizing at 900 °C for eight days in vacuum and filing to pass through a 300-mesh sieve. Before screening the filings were heat treated to remove stresses. The investigation was effected with copper filtered radiation, with photometry of the diagrams on a type MF-4 microphotometer. To allow for the influence of the thermal factor on reflection intensity the alloy characteristic temperature was determined to an accuracy of ± 6% by obtaining diffraction spectra at two temperatures (22 and -135 °C) in a RKD camera with a special cover. Condensation

Card 1/3

SOV/180-59-2-14/34

Atomic Scattering of X-Rays on Solid Solutions of Copper with Nickel

associated with static displacement of atoms in the crystal lattice.
There are 1 figure, 2 tables and 6 references, 5 of which are Soviet and 1 English.

SUBMITTED: October 6, 1958

Card 3/3

L 04195-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HM/JH
ACC NR: AP6028587 SOURCE CODE: UR/0129/66/000/008/0031/0034

AUTHOR: Ovechkin, B. I.

ORG: none

TITLE: Effect of straightening on the texture and mechanical properties of MA2-1 alloy sheet

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 8, 1966, 31-34

TOPIC TAGS: magnesium alloy, yield strength, ductility, metallographic examination, x ray diffraction analysis, twinning

ABSTRACT: Roller leveling of hot-rolled magnesium alloy sheet changed the yield strength slightly and decreased the ductility. Pole figures of (0002) planes were used to study twinning after hot rolling and subsequent leveling in both transverse and longitudinal directions. After leveling in the rolling direction, intensive twinning occurred on the $(10\bar{1}2)$ planes, while in the transverse direction a complex twinned structure resulted with little twinning on the $(10\bar{1}2)$ planes. In the longitudinal direction, leveling caused the 0.2% yield strength to decrease from 29.6 to 15.1 kg/mm^2 with little change occurring in the transverse direction. In both cases however, the relative elongation decreased from 10 to 3%. The orientations of the basal planes changed after leveling. After hot rolling, the pole figures exhibited an intense cen-

UDC: 621.982:669.71'72:620.186.4

Card 1/2

MAKHUTIN, I.Ye.; OVECHKIN, D.V.; OCHKIN, D.V.; POLYAKOV, A.S.; KHODULEVA, Z.K.

Production of the radioactive isotope Kr^{85} and investigation of its γ-radiation. Zhur. eksp. i teor. fiz. 39 no.4:991-992 O '60. (MIRA 13:11)

(Krypton--Isotopes) (Gamma rays)

USSR/Physics - Luminescence May 52

"New Type of Luminescence in Fused Quartz and Plexiglass," G. V. Ovechkin, Leningrad State U

"Zhur Eksper i Teoret Fiz" Vol XXII, No 5, pp 610-616

Proves on samples of plexiglass and fused quartz that a new type of luminescence is produced by irradiation of sample with ultraviolet radiation under simultaneous action of some short-lived de-formation wave. Samples are not colored and have a relatively long afterglow. Fused quartz acquires the property of thermoluminescence. The spectrum

21T95

of this thermoluminescence is shifted toward long-wave side as compared to the spectrum of afterglow. Indebted to Prof V. M. Chulanovskiy, F. D. Klement, S. E. Frish and V. V. Antonov-Romanovskiy. Received 21 Jul 51.

21T95

OVECHKIN, G.V.

1. OVECHKIN, G. V.

2. USSR 600

4. Quartz

7. New type of luminescence in fused quartz and plexiglas, Nauch. biul. Len. un, No. 30, 1952.

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

PRIBOR KOMF

20(7) PHASE I BOOK EXPLOITATION SOV/1368

L'vov. Universytet

Materialy I Vsesoyuznogo soveshchaniya po spektroskopii. t. 1: Molekulyarnaya spektroskopiya [Papers of the 10th All-Union Conference on Spectroscopy]. Vol. 1: Molecular Spectroscopy. [L'vov] Izd-vo L'vovskogo un-ta, 1957. 499 p. 4,000 copies printed. (Series: Its: Fizychnyy zbirnyk, vyp. 1/8/)

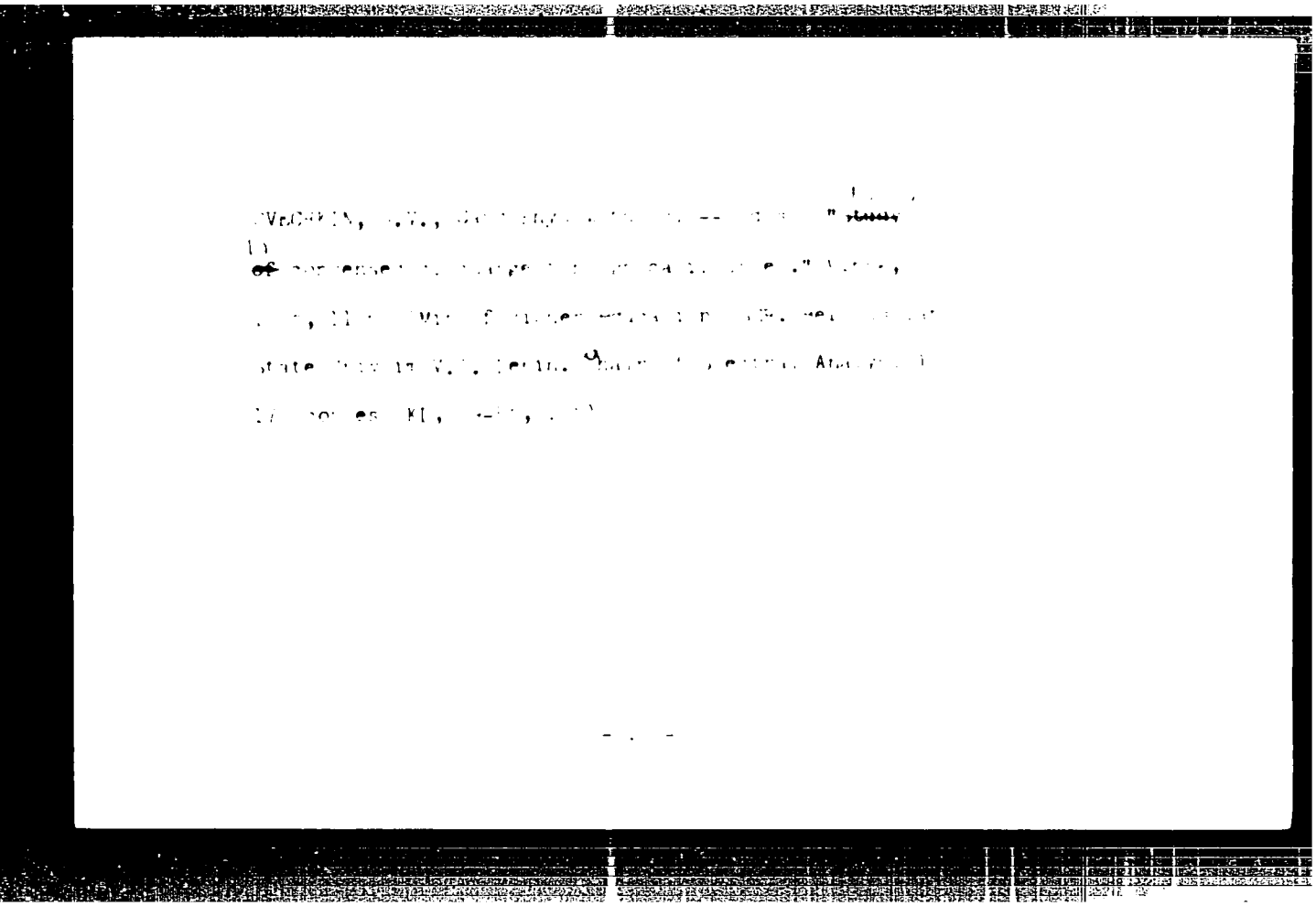
Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii. Ed.: Lazer, S.L.; Tech. Ed.: Saranyuk, T.V.; Editorial Board: Lavisberg, G.S., Academician (Resp. Ed., Deceased), Neporent, B.S., Doctor of Physical and Mathematical Sciences, Fabelinskiy, I.L., Doctor of Physical and Mathematical Sciences, Fabrikant, V.A., Doctor of Physical and Mathematical Sciences, Kornitskiy, V.G., Candidate of Technical Sciences, Candidate of Physical and Mathematical Sciences, Rayskiy, S.M., Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K., Candidate of Physical and Mathematical Sciences, Miliyanchuk, V.S., Candidate of Physical and Mathematical Sciences, and Glauberman, A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Card 21/30

OVECHKIN, G.V.

Methods and techniques for producing bright continuous spectra.
Uch.zap.BGU no.32:219-230 '57. (MIRA 11:12)
(Spectrum analysis)



OVECHKIN, G.V.; KRIVOSHEYEV, K.P.

Using the spectral method in determining the [illegible] of penicillin inactivation. Izv.-fiz.shur. [illegible] (MIRA 11:7

1. Belorusskiy gosudarstvennyy universitet im. V.I. Lenina, g. Minsk.
(Penicillin--Testing)

OVECHKIN, G.V.; PALTARAK, Ye.N.; GRINEVICH, V.A.

Analysis of bronze Sn:Zn:Pb-5:5:5 with the ST-7 steelometer.
Inzh.-fiz.zhur. no.5:92-94 My '58. (MIRA 12:1)

1. Belorusskiy gosudarstvennyy universitet imeni V.I. Lenina, g. Minsk.
(Bronze--Analysis)

67214

24.3400

Translation from Referativnyy Zhurnal, Fizika, 1959, Nr [illegible], p 26[illegible] (USSR)

AUTHOR Ovechkin, G.V.

TITLE: Radiation During a Condensed Discharge Through a Capillary

PERIODICAL Uch zap Belorussk [illegible], 1958, Nr 4[illegible], pp [illegible]

ABSTRACT The author studied radiation during a condensed discharge through a capillary under various conditions. It is shown that the brightness of the continuous spectrum increases as the breakdown voltage rises. At a voltage greater than 10 kv no emission lines are present in radiation issuing directly from the channel. Absorption lines of Si are observed to form in the cooler peripheral layer. The brightness of the continuous spectrum is constant at $\lambda > 2,500$ Å. This agrees with the Unsold formula if the continuous spectrum is chiefly formed on account of a broadening of levels. At lesser wave lengths the brightness of the continuous spectrum falls off. At a voltage greater than 16 kv emission lines of Si I, Si II, and Si III are only observed in the radiation of vapors outside the capillary. The temperature near the capillary, as determined from the intensity, amounts to 14,000° and falls off rapidly at a wavelength of a few millimeters. On raising the

Card 1/2

Translation from Referativnyy Zhurnal Fizika, 1959, Nr ', p 266 (USSR)

AUTHOR Ovechkin, G.V.

TITLE: An Unusual Manifestation of the Doppler Effect

PERIODICAL Uch. zap. Belorussk un-t, 1958, Nr 41, pp 12' - 13

ABSTRACT: On studying the emission of a condensed electric discharge in a capi..ary, the author observed a Dopplershift in the spectral emission lines relative to the absorption lines. These and other lines are formed outside the capillary. However, emission is due to fast atoms, while absorption is mainly due to slow vapors. Accordingly the emission .ine is narrow, while the absorption .ine is wide. On augmenting the voltage, the quantity of expelled vapors increases, and the lines manage to be absorbed near the aperture by vapors that have not yet lost their velocity. Under this circumstance the emission .ines completely disappear.

L A. Vaynshteyn

Card 1/1

OVECHKIN, G. V.

24(7),24(0)

AUTHOR: Stepanov, B. I., Academician AS Belorusskaya SSR SOV/30-59-1-9/57

TITLE: Investigations by Belorussian Scientists in the Field of Spectroscopy and Luminescence (Raboty belorusskikh uchenykh po spektroskopii i lyuminestsentsii)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 1, pp 68-76 (USSR)

ABSTRACT: These investigations are being carried out at the Institut fiziki i matematiki (Institute of Physics and Mathematics) and the fizicheskiy fakul'tet Belorusskogo universiteta (Physics Department, Belorussian University) under the direction of B. I. Stepanov, A. N. Sevchenko, M. A. Yel'yashevich, Academicians AS BSSR, and F. I. Fedorov, Corresponding Member, Academy of Sciences, BSSR. In the field of theoretical spectroscopy, the investigations by P. A. Apanasevich, B. I. Stepanov " are mentioned. Further, the following investigations are indicated:

A. P. Prishivalko, B. I. Stepanov developed a theory of dispersion light filters.
B. A. Borisevich, Ye. S. Khvoshchevskaya, I. F. Lapitskiy examined, by experiment, dispersion light filters for the infrared range.
A. P. Prishivalko analysed the accuracy and the field of application of existing determination methods of optical constants of dispersed and not dispersed materials.
I. G. Bokrashevich, A. A. Labuda, Ye. G. Martynkov obtained important results concerning the kinetics of one single spark discharge (spectral intensity and discharge temperature).
A. A. Yankovskiy, V. S. Burakov examined the mutual influences of elements in spectrum analysis, and explained the methods for their elimination.
G. V. Ovechkin suggested a series of methods to eliminate the influences of third elements.
G. V. Ovechkin, N. P. Krivoshchyy succeeded in working out a control method of benzyl penicillin in ordinary penicillin

Card 5/9

B. A. Borisevich, N. I. Vikarenich, A. I. Skryga examined the infrared spectra of resinous products.
B. A. Borisevich, V. I. Panasevich, I. P. Zuriaciich examined a series of structural peculiarities of alcohol oxides
B. A. Borisevich worked out a luminescence method for the determination of the germinating power of the seed of some kinds of trees.
A. Ye. Prokopchuk obtained good results by the use of luminescence analysis in dermatology
S. S. Kharamonenko examined the absorption spectra of the albuminous polysaccharide complexes.
D. A. Markov used spectral methods for analyzing albuminous fractions in the blood.
N. N. Pavlyuchenko, G. A. Lazerko, carried out an extensive spectrophotometrical examination of the formation of molecular and complex compounds in solutions.
N. A. Sevchenko spectroscopically examined the structure of various silicons.
B. I. Stepanov, A. M. Prima carried out theoretical investigations of the vibrational spectra of various silicate crystals

Card 6/9

24(7) SOV 170-59-[illegible]

AUTHOR: Ovechkin, G.V.

TITLE: A Method of Calculating the Effect of the Third Component on the Relative Intensity of an Analytical Pair of Lines

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 6, pp 54-[illegible] USSR

ABSTRACT: It has been discovered experimentally that the relative intensity of an analytical pair of lines, belonging to two components of an alloy, depends upon the presence in the sample studied of a third component. Various investigators advanced different hypotheses to explain the changes observed in the relative intensity. Limarev /Ref 1/ established an experimental relationship between the intensity of emission of a line and the concentration of a given element in the sample. The present investigation was undertaken with an aim to establish the main causes for displacements of graduated graphs, by simplifying the problem on the effect of a third component on the relative intensity of an analytical pair of lines. An analysis of the possible causes was carried out, and main factors affecting displacements of graduated graphs, when a third component was introduced into a sample, were estab-

Card 1/3

SOV/170-59-6-8 2

A Method of Calculating the Effect of the Third Component on the Relative Intensity of an Analytical Pair of Lines

There are 2 graphs and 30 references, 26 of which are Soviet, German and 1 unidentified.

ASSOCIATION: Belorusskiy gosudarstvennyy universitet im. V.I. Lenina (Belorussian State University imeni V.I. Lenin), Minsk.

Card 3/3

05299

The Effect of Sodium on the Relative Intensity of an Analytical Pair of Lines [illegible] Magnesium and Copper

[illegible] of plasma temperature [illegible] using the experimental data obtained the [illegible] and a graph showing the dependence of relative rate of [illegible] and copper evaporation [illegible] plasma temperature on the sodium [illegible] in the sample [illegible]. There are [illegible] and [illegible] references

ASSOCIATION Belorusskiy gosudarstvennyy universitet im. V. I. Lenina (Belorussian State University imeni V. I. Lenin), Minsk

Card 2/

OVECHKIN, G. V.

Method of determining the effect of a third constituent on the displacement of graduated graphs. Inzh.-fiz.zhur. no.4:37-43 Ap '60. (MIRA 13:8)

1. Belorusskiy gosudarstvennyy universitet im. V.I.Lenina, Minsk.

(Physics--Graphic methods)

OVECHKIN, G.V.

Method for correcting the relative intensity of analytical pairs of lines in arc discharge. Zhur.anal.khim. 16 no.5:527-531 S-O '61. (MIRA 14:9)

1. V.I.Lenin Byelorussian State University, Minsk.
(Electric discharges through gases) (Spectrum analysis)

OVECHKIN, G.V.

Effect of the third component on the shifting of graduated graphs of solutions in analyses using an arc. Dokl. AN BSSR 6 no.5:293-296 My '62. (MIRA 15:6)

1. Belorusskiy gosudarstvennyy universitet im. V.I. Lenina. Predstavleno akademikom AN BSSR M.A. Yel'yashevichem.
(Plasma (Ionized gases))
(Alloys)

OVECHKIN, G.V.

Effect of sodium and zinc on the relative intensity of the analytical pairs of lines of tin and copper in the arc. Zhur.anal.khim. 17 no.1:31-38 Ja-F '62. (Mira ...

1. V.I.Lenin Byelorussian State University, Minsk
(Tin--Spectra) (Copper--Spectra)

OVECHKIN, G.V.

Effect of sodium, nickel, and magnesium on the relative [illegible] of analytical pairs of lines Mn - Fe, Mn - Cu, and [illegible]
Zhur.anal.khim. 17 no.2:159-169 Mr-Ap '62. (MIRA [illegible])

1. V.I.Lenin byelorussian State University, Minsk.
(Metals--Spectra)

OVECHKIN, G.V.

Effect of a supporting electrode material and of a third component on the relative intensity of the analytical pairs of lines of bronze elements. Zhur.anal.khim. 17 no.6:660-664 S '62. (MIRA 16:1)

1. Belorusskiy gosudarstvennyy universitet im. V.I.Lenina, Minsk.
(Bronze—Spectra) (Electrodes)

OVECHKIN, G.V.

Infrared spectra of some penicillins in regi[illegible] cm[illegible].
Zhur.ob.khim. [illegible] no.6[illegible] Je [illegible].

1. Belorusskiy gosudarstvennyy universitet imeni V.I.Lenina.
(Penicillin--Absorption spectra)

ACCESSION NR: AP4009721 S/0075/64/ 019/001/0043/0047

AUTHOR: Ovechkin, G.V.

TITLE: Light intensity of spectral lines of the plasma of arc and spark discharges in consideration of reabsorption

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 1, 1964, 43-47

TOPIC TAGS: radiant energy, spectral lines self absorption, arc discharge plasma, spark discharge plasma, spectral line reversal, plasma layer, plasma luminous cloud, plasma heterogensity, emission frequency

ABSTRACT: The method suggested by the author for determining the share assumed by reabsorption is contained in a formula (8) derived from the classical formula for emission intensity, namely

$$I_{ij} = h\nu_{ij} \frac{g_i A_j}{g_n} \alpha \, c(1-x) e^{-\frac{E_i}{RT}} \cdot 10^{-p}, \quad (8)$$

Card 1/3

where I_{ij} is the intensity of the atomic spectral lines, h the Planck constant, ν_{ij} the emission frequency during atom transit from the excited state E_i to a less excited or normal state E_j, A_{ij} the probability of such transit, g_i and g_0 the statistical weights of the excited and normal state of the atom respectively, c the concentration of the element under study in the electrode, α a value characterizing the rate at which the element enters the plasma and its diffusion rate in the plasma, x the degree of ionization of the atoms, k the Boltzmann constant, T the plasma temperature; p is the factor added by the author to take into account reabsorption by the outer plasma layer of radiant energy emitted by the adjoining inner layer. The value of p is thus determined by the weakening of the spectral line through self absorption. Formula (8) explains satisfactorily the experimentally determined graphic relation between spectral line emittance and elemental content of the sample established by Lomakin (Tr. Vses. n.-i. in-ta metrologii i standartov. Vyp. 2, 1932, p. 139). Orig. art. has: 4 figures, 12 formulas.

ACCESSION NR: AP4009721

ASSOCIATION: Belorusskiy gosudarstvenny*y univeresitet im. V.I. Lenina, Minsk (Belorussian State University)

SUBMITTED: 04Apr63	DATE ACQ: 14Feb64	ENCL: 00
SUB CODE: CH, PH	NO REF SOV: 008	OTHER: 001

Card 3/3

OVECHKIN, G.V.; SANDRYGAYLO, L.Ye.

Effect of the discharge energy and the plasma temperature on the relative intensity of the analytical pairs of lines of zinc and copper. Zhur.anal.khim. 18 no.7:799-807 Jl '63. (MIRA 16:11)

1. V.I.Lenin Belorussian State University, Minsk.

KOZLOV, T.I., prepod.; K[illegible]TKOVA, Ye.Ya., prepod.; KU[illegible]CHKINA [illegible].I., prepod.; L[illegible], V.I.; [illegible]E.[illegible]EV, A.A.; M[illegible]SKOV, A.A. OVECHKIN, I.Ye.; PAV[illegible]SHENKO, I.S.; PLY[illegible]SHKIN, S.A.; RASHKOVSKAYA, M.F.; [illegible], P.G.; FROLOV, V.F.; [illegible], P.A.;

[Manual on practical work in the laboratory on the processes and apparatus of chemical technology] Rukovodstvo k prakticheskim zaniatiiam v laboratorii po protsessam i apparatam khimicheskoi tekhnologii. Izd.2., ispr. i dop. Moskva, Vysshaia shkola, 1964. [illegible] (MIRA 17:4)

OVECHKIN, M.I., inzh. (Omsk)

Ductilimeter of simple construction. Stroi. truboprov. 6 no. 2:18-19 F '61. (MIRA 14:5)

(Bituminous materials—Testing)

TSURUTA, Teydzi [TSuruta, Teiji], dots.; OVECHKIN, M.K. [translator]; SERGEYEV, A.P., red.; KOGAYLINA, A.A., red.; KUZ'MI, V.V., tekhn. red.

[Preparation of synthetic polymers] Reaktsii polucheniia sinteticheskikh polimerov. Pod red. A.P.Sergeeva. Moskva, Goskhimizdat, 1963. 196 p. Translated from the Japanese. (MIRA 17:1)

1. Inzhenerno-tekhnicheskiy fakul'tet Kiotskogo universiteta, Chlen Obshchestva po issledovaniyu polimerov i chlen Yaponskogo khimicheskogo obshchestva (for TSuruta).

(Polymers) (Chemistry, Organic--Synthesis)

3

L 54720-65
ACCESSION NR: AP5017987 UR/0286/64/000/022/0097/0097

AUTHOR: Berkman, I. L.; Katyukhin, B. P.; Rannev, A. V.; Rustanovich, A. V.; Smirnov, O. A.; Grushetskiy, Yu. L.; Zhukov, F. N.; Ovechkin, M. M. 10 B

TITLE: Accumulator-pump hydraulic drive. Class 84, No. 166609

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1964, 97

TOPIC TAGS: hydraulic equipment, pump, excavating machinery, civil engineering

Translation: This inventor's certificate introduces an accumulator-pump hydraulic drive for the rotating platform of an excavator with power recovery during braking. The device includes an actuating cylinder and an auxiliary storage cylinder, power pump, hydraulic motor, valve distributer, recovery and filling check valves. In order to assure the necessary pressure in the storage cylinder, to reduce the time for charging the force pump and to simplify the construction, the device includes a packing valve which keeps up the level in the hydraulic motor and controlled safety valves, one of which charges the force pump and the other a blocking valve for all positions of the distributer valve except the neutral position, thus limiting the pressure in the actuating cylinder during braking.

Card 1/2

L 54720-65
ACCESSION NR: AP5017987

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AUTHORS: Umarov, G.Ya., Alimov, A.K., and Ovechkin, N.F.

TITLE: A Fast Electrodynamic Pulsed Vacuum Valve

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.1, pp.178-179

TEXT: The valve is shown in Fig.1. The vacuum region B is separated from the high pressure region A by the elastic steel plate 6 and the polyethylene gasket 7. The valve is hermetically sealed by means of the central screw C. The vacuum cylinder B carries a 5-turn coil 4 made of copper strip 10 x 2 mm^2. An IMZ-100 (IMZ-100) capacitor charged to 2 kV is discharged through this coil. The steel plate 6 carries a copper ring 12 made from 0.2 mm thick foil. The current induced in the steel plate and the copper ring interacts with the current in the coil 4 and opens the valve. The amount of gas admitted to the vacuum chamber can be adjusted to lie between 10^{16} and 10^{19} molecules. The minimum time during which the valve was in the open state was found to be 6 μsec. Acknowledgements are made to V.V. Zhukov and A.M. Andrianov for discussions and valuable advice.
There are 3 figures and 1 Soviet reference.
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OVECHKIN, N.F.

S/166/63/000/001/003/010
B104/B186

AUTHORS: Umarov, G. Ya., Alimov, A. K., Ovechkin, N. F.

TITLE: Investigation of a quickly acting electrodynamic pulsed vacuum valve

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 1, 1963, 34 - 38

TEXT: An electrodynamic pulsed valve with elastically deformed membrane suited for plasma injectors is described. The main part of this valve is a steel membrane shown in Fig. 1. The discharge current of a condenser passes through the copper coil and interacts with the induction current in the copper ring soldered to the steel membrane. A study of the membrane motion shows that to ensure a rigid construction the membrane has to be screwed on both sides with thick washers; this makes it possible to increase the diameter of the central clamp bolt up to 100 mm, through which the high-voltage lead-in of the electrodynamic gun is taken. The membrane thickness is 2.4 mm and the coil consists of 3 copper bar windings with a thickness of 8 mm. With an increase of the peripheral clamping pressure the minimum opening voltage increases and the time of the opened valve

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state decreases at equal voltages and diameter of inner clamp bolt. The time of the open valve state can be adjusted in the range between 20 and 250 μ sec. There are 4 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UzSSR (Physicotechnical Institute AS UzSSR)

SUBMITTED: June 28, 1962

Fig. 1. Membrane with coil. Legend: (1) Clamp bolt; (2) peripheral rubber hold-down; (3) pulse coil; (4) teflon sealing.

Fig. 1