"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550210003-4

L 56456-65			
ACCESSION NR: AP5018807		O	
ASSOCIATION: none			
SUBMITTED: 00	ENCL: CO	SUB CODE: MM, TD	
NO REF SOV: 002	OTHER: 000	JPRS	178
787			
Card 4/4			

SHUL'TE, Yu.A.; SHERSTYUK, A.A.; KURBATOV, M.I.

Effect of phosphorus on the cold brittleness of high manganese steel. Lit.proizv. no.7:21-22 J1 164. (MIRA 18:4)

SHULFTE, Yu.A., doktor tekhn. nauks VOLCHOK, I.P., inzh.

Effect of calcium on the properties of medium-carbon steel.

Mashinostroenie no.2856-58 Mr-Ap '65. (MIRA 18:6)

SHULFIE, Yu.A., dektor tekhn. nauk; LUNEV, V.V., inch.

Effect of complex reduction on the cold resistance of medium carbon cast steel. Mashinostroenie no.3:18-20 My_Je '65.

(MIRA 18:6)

SHUL! TE, Yu.A., doktor tekhn.nauk; PARASYUK, P.F., inzh.; SHERSTYUK, A.A., inzh.; MIKHAYLOV, P.A., inzh.; KURBATOV, M.I., kand.tekhn.nauk; BERKUN, M.N., inzh.

Increasing the durability of high-manganese steel castings.
Mashinostroenie no.4:57-58 Jl-Ag 465. (MIRA 18:8)

GABUYEV, G.Kh.; YEL'TSOV, K.S.; SHUL'TE, Yu.A.; MIKHAYLOV, P.A.; GAREVSKIKH, I.A.; LEYBENZON, S.A.; TSIVIRKO, E.I.; MEDOVAR, B.I.; LATASH, Yu.V.; FRANTSOV, V.P.; PAKHOMOV, A.I.; KAGANOVSKIY, G.P.; VOINOV, S.G.; SHALIMOV, A.G.; KALINNIKOV, Ye.S.; SMOLYAKOV, V.P.; KOSOY, L.F.

Improving the quality of electric-slag-refined bearing steel. Stal¹ 24 no.7:640-642 Jl ¹64. (MIRA 18:1)

1. Zavod "Dneprospetsstal'", Zaporozhskiy mashinostroitel'nyy institut, Institut elektrosvarki im. Ye.O.Patona i TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P.Bardina.

VOLCHOK, I.P., inzh.; SHUL'TE, Yu.A., doktor tekhn. nauk

Complete deoxidation of medium-carbon steel. Lit. proizv. no.9:26-28

(MIRA 18:10)

在国际大型的设备的企业,我们就是在国际的企业,我们就是这种企业,我们就会是这个人,我们就会会会,这个人,这个人,这个人,这个人,这个人,这个人,这个人,这个人,

SHUL'TE, Yu.A., LUNEV, V.V.; BERKUN, M.N.; VOLCHOK, I.P.; GLADKIY, S.I.

Effect of structural dispersity on the properties of medium carbon cast steel. Fiz.-khim. mekh. mat. 1 no.2:218-220 '65. (MIRA 18:6)

1. Mashinostroitel'nyy institut im. V.Ya. Chubarya, Zaporozh'ye.

SHULTTE, Yu.A.; VOLCHOK, I.P.; IDNEV, V.V.; RUDENKO, V.P.

Effect of complex deoxidation on the physicomechanical properties of medium-carbon steel. Fiz.-khim. mekh. mat. 1 no.5:563-566 165.

(MIRA 19:1)

1. Mashinostroitel'nyy institut imeni Chubarya, Zaporozh'ye i Fiziko-mekhanicheskiy institut AN UkrSSR, L'vov. Submitted Feb. 25, 1965.

ACC NR. AP7006798

SOURCE CODE: UR/0418/66/000/006/0058/0060

AUTHOR: Shul'te Yu. A. (Doctor of technical sciences); Lunev, V. V. (Engineer); Grechanyy, A. P. (Engineer)

ORG: None

TITLE: Increasing resistance to cold shortness in alloy steels used for castings

SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 6, 1966, 58-60

TOPIC TAGS: alloy steel, impact strength, plastic strength, cast steel, FERRITE SIEEL, IPERRITE SIEEL

ABSTRACT: The authors consider the effect of complex reduction or the mechanical properties and resistance to cold shortness of alloyed ferrite-pearlite steels. The grades of steel studied were 25ML with the composition (in %) 0.23-0.28 C, 0.55-0.75 Mn, 0.2-0.3 Si, 0.024-0.634 S, 0.027-0.030 P, 0.4-0.55 Mo and 0.027-0.040 Al, and 30khmmL with the composition (in %) 0.28-0.35 C, 0.52-0.68 Mn, 0.23-0.27 Si, 0.032-0.040 S, 0.33-0.38 P, 1.42-1.56 Cr, 1.30-1.50 Ni, 0.25-0.35 Mo and 0.030-0.035 Al. The effect of calcium and cerium additives on the mechanical properties and cold shortness of these grades of steel was studied. Aluminimum alone, aluminim combined with silicon-calcium alloy and a combination of silicon-calcium alloy, aluminum and ferrocerium were used as reducing agents. It was found that complex reduction increases strength and ductility with a simultaneous reduction in the critical tempera-

_Card__ 1/2

UDC: 669.15:620.192.42.004.68

ACC NR: AP7006798

ture of embrittlement. The effect of calcium modification alone approaches that of triple modification by aluminum, calcium and cerium. All specimens showed a smooth reduction in impact strength from +20 to -100°C without the jumps characteristic of steel with pronounced cold shortness thresholds. The yield stress of 25ML steel falls with a temperature reduction until it reaches the value of the tensile strength at -196°C. Due to the favorable effect of nickel, 30KhNML steel retains a fair amount of ductility even at this temperature. The experimental data show that the resistance of ferrite-pearlite alloy steels to cold shortness may be considerably increased with a concomitant improvement in the purity of the metal. Orig. art. has: 4 figures, 1 table.

SUB CODE: 11/ SUBM DATE: None/ ORIG REF: 004

Card 2/2

THE STATE OF THE PARTY OF THE P

SHIRLT II. A. A.

SHULTIN, A. A.: "Investigation of the infra-red spectra of crystals with complex ions." Leningrad Order of Lenin State U imeni A. A.

Zhdanov. Leningrad, 1956. (Dissertation for the Degree of Candidate

in Physicomathematical Science)

Source: Knizhnaya Letopis' No. 28 1956 Moscow

CIA-RDP86-00513R001550210003-4 'APPROVED FOR RELEASE: 08/23/2000

SHULTIN

Gross, Ye. F. Corresponding Member AN USSR

20-4-15/60

KUTHORS:

TITLE:

The Interaction Between Intermolecular and Lattice Vibrations in

Crystals According to the Data of Infrared Spectra(Vzaimodeystviye

vnutrimolekulyarnykh i reshetochnykh kolebaniy kristallov po

dannym infraktasnykh spektrov).

PERIODICAL:

Doklady Akad. Nauk SSSR, 1957, Vol. 115, Nr 4, pp. 689-692 (USSR)

ABSTRACT:

At first reference is made to the present state of the problem and to some earlier papers. The problem of the interaction of phonons with the innermolecular vibrations is of great interest. Therefore the author examines the infrared absorption spectra of monocrystalline samples of Ba(NO₃)₂ and Pb(NO₃)₂. It was the purpose of these investigations to clear up the problem of the exipose of these investigations to clear up the problem of the exipose of these investigations to clear up the problem of the exipose of these investigations to clear up the problem of the exipose of these investigations to clear up the problem of the exipose of these investigations to clear up the problem of the exipose of these investigations to clear up the problem of the exipose of these investigations to clear up the problem of the exipose of these investigations to clear up the problem of the exipose of the stence and the peculiarities of the "compound" transitions (whose intensities are markedly dependent on temperature). The probability of such transitions must also depend on the type of the inner-ionic excitation and on the type of lattice vibrations. In the crystals selected here the composed NO3- - ions play the part of structural units which have internal degrees of freedom. These ions are plane equilaterial triangles having the nitrogen atom in the center. Such a system has 6 normal vibrations with frequencies in the range 700- 1500 cm-1. The samples of lead nitrate

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CIA-RDP86-00513R001550210003-4" APPROVED FOR RELEASE: 08/23/2000

The Interaction Between Intermolecular and Lattice Vibrations in 20-4-15/60 Crystals According to the Data of Infrared Spectra.

ASSOCIATION: Leningrad State University imeni A.A.Zhdanov (Leningradskiy

gosudarstvennyy universitet imeni A.A.Zhdanova)

SUBMITTED: March 23, 1957

AVAILABLE: Library of Congress.

Card 3/3

57-28-4-26/39

AUTHORS:

Gross, Ye. F., Abolin'sh, Ya. Ya., Shultin, A. A.

TITLE:

On the Observation of the Optico Acoustic Effect in a Liquid (O nablyudenii optiko akusticheskogo effekta v

zhidkosti)

PERIODICAL:

Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 4, pp. 832-835

(USSR)

ABSTRACT:

The authors here started from the idea whether it was not possible to utilize the optico-acoustic phenomenon for the determination of the duration of existing states of excitation in the molecules of liquids and solids and to work out a method of investigation for condensed systems on the basis of this phenomenon. From these considerations experiments were performed in the authors' laboratory. In these experiments the optico-acoustic phenomena in liquids and solids were observed. In the course of these experiments in the year 1952, which were repeated in 1957 such phenomena were observed in water, methyl alcohol and ethyl alcohol. A perceptible signal was only obtained in a small

Card 1/3

57-28-4-26/39

On the Observation of the Optico-Acoustic Effect in a Liquid

range of the modulation frequencies at about 200 cycles. The optimum modulation frequency at which the acoustic signal attains its maximum value depends on the geometric dimensions of the chamber and on the frequency-characteristic of the microphone whose membrane touches the liquid. The spectral dependence of the optico-acoustic signal was observed in liquid ethyl alcohol. The signal was observed in the domain of from $\lambda = 0.95 \mu$ to 4μ , where the maxim mum amplitude was attained at $\lambda = 2 \mu$. A comparison of the experiments with analogous ones in which a gas had been investigated shows that the acoustic signal forming in liquids is many times weaker than that forming in gases. By a certain perfection of the scheme it will be possible to use the principle of the gas analyzer by Veyngerov also for an analysis of liquids. At present the experiments for the observation of optico-acoustic phenomena in crystals are continued. There are 3 figures, and 7 references, 5 of which are Soviet.

Card 2/3

CIA-RDP86-00513R001550210003-4 "APPROVED FOR RELEASE: 08/23/2000

On the Observation of the Optico Acoustic Effect in a Liquid 57-28-4-26/39

Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED 2 October 29, 1957

Card 3/3

CIA-RDP86-00513R001550210003-4 "APPROVED FOR RELEASE: 08/23/2000

30V/37-23-10-22/40

24(6) SOTHOR:

Gross, e. F., Apolinish, Ya. Ya., Shultin, A. A.

Optical-acoustic Effect in Crystals (Optiko-akusticheskiy TITLE:

eifekt v kristaliakh)

Zhurnal tekhnicheskov fiziki Vol 28, Nr 10, pp 2255-2258 (USSR) 1918 * KRIODIC LL:

The experiments, of which this paper gives an account, for the determination of the optical-acoustic effect were performed BUTH CT:

according to a scheme used in work with fluid substances (Ref 1). These experiments substantiated the existence of such an effect in crystal. It appears from the information gained that a utilization of this effect in the investigation of the solid

state of a substance is dependent on another ways and means are found of improving the experimental technique and the instrument sensitivity. This paper also covers experiments on piezoelectric properties, a Rochelie-sult crystal serving as a sample. The

oscillograms obtained demonstrate that the optical-acoustic effect in Rochelle-salt crystals is very intensive and comparable to the optic-acoustic effect in gases. It was found that

the optic-acoustic effect also occurs in a free Rochelle-sait crystal, which is not clamped down. The intensity in both cases,

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optical - countic affect in Crystals

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90V/57-23-10-22/40

the clamped down and the free one, is the same. In explanation of this effect is advanced and it is assumed that the effect in both cases is due to the same causes. It was also found that the intensity of the optical-acoustic effect gradually decreases after connecting the light source. This is considered to be due to a general increase in temperature of the whole crystal and the gradual approach of the upper Curie point. The opticalacoustic effect in the crystal of Rochelle-salt is so intensive that it can be used for the solution of a number of problems. The experiments described in this paper are at present continued by investigating the spectral distribution of the optical-acoustic effect in Rochelle-salt crystals and in other ferroelectric substances. The experiments presented in this paper are only the first stage of investigations of the opticalacoustic effect in crystals. There are 3 figures and 7 references. o of which are Soviet.

.BY MYTTO:

July 7, 1958

2/2

Optical-Toustic Effect in Crystals

SOV/57-28-10-22/40

Card 3/3

24(2) AUTHOR:

Shultin, A. A.

建大学的工作,这种经验,这种企业的企业的企业的企业的企业,这个一点

507/20-125-4-21/74

TITLE:

The Influence Exercised by the Crystal Lattice: Field on the Vibration of Ions NO₃ (or CO₃)

From the Data of the Infrared Spectra of Sodium Nitrate and Calcite (Vliyaniye polya kristallicheskoy reshetki na kolebaniya ionov NO3 (ili CO3) po dannym infrakrasnykh spektrov nitrata natriya i kal'tsita)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 4,

pp 767-770 (USSR)

ABSTRACT:

The author investigated the spectra of monocrystalline plates of amorphous NaNO $_3$ - and CaCO $_3$ (calcite-) crystals, in order to explain the influence exercised by the crystal lattice upon the vibrational spectrum of the NO $_3$ (or CO $_3$ -)-group.

Production of the samples is briefly discussed. The

absorption spectra were recorded in unpolarized light. The spectra of the samples orientated parallel to the optical axis apparently contain all transitions active in the given

Card 1/3

The Influence Exercised by the Crystal Inttice SOV/20-125-4-21/74
Field on the Vibration of Ions NO3(or CO3)

From the Data of the Infrared Spectra of Sodium Nitrate and Calcite

frequency interval. Analysis of the selection rules for the vibrations of the ions NO_3^- (or CO_3^-) in the crystal lattices of the calcite type leads to the following conclusion: In spite of the splitting up of the oscillation system into 2 components (as a result of the resonance interaction of the ions of the crystal), the character of the infrared spectrum of the crystal does not undergo any qualitative modification compared to the spectrum of a single ion. The spectra recorded are shown by 2 diagrams. The basic oscillation $\gamma_4(E^*)$ of the ion occurs in form of

a rather narrow band with the frequency range of 713 - 728 cm⁻¹. The frequency range 1300 - 1600 cm⁻¹ is taken up by a broad and intense absorption band. Various possibilities of explaining the existence of several peaks are declared to be useless. Apparently, the anomalous structure of the oscillation band γ_2 is connected with the

Card 2/3

The Influence Exercised by the Crystal lattice SOV/20-125-4-21/74 on the Vibration of Ions NO_3^- (or CO_3^{--})

From the Data of the Infrared Spectra of Sodium Nitrate and Calcile

作者,我因此可能也能是,因此只是我等行为实际行为实际方式是更更强势,就是这些能够的以,我们就就是更多的的现在就是可能会可能是是一种不是。

strong resonance interaction of ion oscillations in the excited lattice (the symmetry of which is lower than that corresponding to equilibrium). The author thanks Ye. F. Gross, Corresponding Member, AS USSR, for his interest in this work and for his valuable advice. There are 2 figures, 2 tables, and 8 references, 3 of which are Soviet.

ASSOCIATION:

Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova

(Leningrad State University imeni A. A. Zhdanov)

PRESENTED:

January 2, 1959, by A. A. Lebedev, Academician

SUBMITTED:

December 25, 1958

Card 3/3

37909 \$/054/62/000/002/005/012 B163/B138

9,2180

Abolin'sh, Ya. Ya., Sokolova, M. M., Shultin, A. A. AUTHORS:

The spectral distribution of the opto-acoustic effect in TITLE:

Seignette's salt in the region 2000-6000 cm

Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, PERIODICAL:

no. 2, 1962, 66-68

TEXT: Earlier experiments by Gross, Abolin'sh, and Shultin (ZhTF, 28, 2255, 1958) on the observation of the opto-acoustic effect with intermittent white light are extended to an investigation of its spectral distribution. A crystal plate (X-cut) of Seignette's salt is irradiated with modulated infrared radiation from a globar radiation source through a prism-spectrometer MKC-6 (IKS-6) with a rock salt prism as monochromator. Electric charges appear on the faces perpendicular to the X-section when the crystal is irradiated. The corresponding voltage, which varies with the modulation frequency, is amplified and the spectrum of the optoacoustic signal is recorded with a potentiometer MCP 1-01 (PSR 1-01). The spectrum is corrected for the spectral intensity distribution of

Card 1/4 ->

S/054/62/000/002/005/012 B163/B138

The spectral distribution of the ...

the radiation source. It has some distinct maxima which correspond to optical excitations of intramolecular oscillations. This interpretation is consistent with the assumption that the opto-acoustic effect is due to non-radiative transitions from optically excited intramolecular oscillations to the lattice. The table gives an interpretation of the maxima in the spectrum of the opto-acoustic signal. There are 2 figures and 1 table.

SUBMITTED: January 29, 1962

Card 2/# >

ABOLINESH, Ya.Ya. [Abolins, J.]; SOKOLOVA, M.M.; SHULTIN, A.A.

是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是我们的人,我们

Spectral distribution of the optical-acoustic effect in Rochelle salt crystals within the region 2000-6000 cm.-1. Vest.IGU 17 no.10:66-68 *62. (MIRA 15:5) (Rochelle salt-Spectra) (Crystal optics)

Jν L 8969-66 $EdT(1)/EdT(m)/T/EdP(\tau)/EdP(D)$ iir(c) ACC NR: AP5027433 SOURCE CODE: UR/0181/65/007/011/3424/3426 44,55 44,55 **AUTHOR:** Karpov, S. V.; Shultin, A. ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet) Infrared spectra of potassium nitrate during phase transitions SOURCE: Fizika tverdogo tela, no. 11, 1965, 3424-3426 TOPIC TAGS: phase transition, potassium compound, nitrate, IR spectrum, single crystal ABSTRACT: The infrared spectra of oriented single crystals of potassium nitrate are studied in polarized light to obtain data on phase transitions in this compound. Contrary to theoretical predictions, the v_1 band in phase II is most intense in spectra where the electrical radiation vector is parallel to crystal axes b and c. In addition to this, there are a number of absorption bands in the spectrum caused by composite transitions with lattice vibrations taking part. These bands are completely polarized in the (001) plane. An unexpected absorption band was observed in phase I near v = 1055 cm⁻¹. The v_1 band in this phase is polarized in plane (001). All internal vibrations of the nitrate ions are observed in the KNO3-III spectrum. Some tentative theoretical explanations are given for the observed phenomena. A more detailed discussion of the experimental results will be published later. Orig. art. has: 2 figures. SUBM DATE: 01Jun65/ ORIG REF: 004/ OTH REF: 016 SUB CODE: 20/

EWT(1)/EWP(e)/EWT(m)/T/EWP(t)/EWP(b) IJP(e) JD/WH SOURCE CODE: UR/0020/66/166/001/0063/0066 ACC NR: AP6003484

AUTHOR: Gomon, G. O.; Shultin, A. A.

ORG: Leningrad State University im. A. A. Zhdanov (Leningradskiy gosudarstvennyy

universitet)

2/, 44,55 Infrared absorption spectra of diamonds with various physical properties TITLE:

AN SSSR. Doklady, v. 166, no. 1, 1966, 63-66

diamond, IR absorption, absorption spectrum, luminescence TOPIC TAGS:

ABSTRACT: Infrared absorption spectra were studied in diamonds which displayed distinguishing features with respect to luminescence, absorption in the ultraviolet region of the spectrum, color and other properties in an attempt to clarify the nature of individual absorption bands. A clear relationship is established between absorption of diamonds at about 8 μ and absorption in the ultraviolet region of the spectrum: diamonds which are transparent in the ultraviolet region at 2250-2700 A are transparent in the infrared region at 8 μ . Diamonds which are transparent in the 2800-3100 Å region (with a group of bands at 3020-3300 Å in their absorption

Card 1/2

UDC: 535.342 + 548.0:535

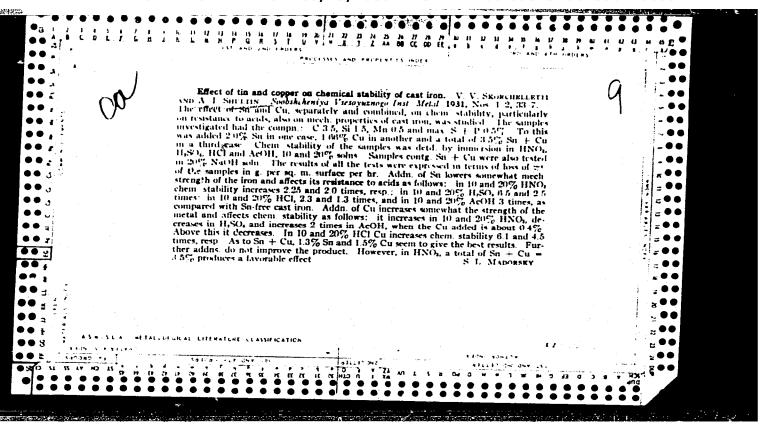
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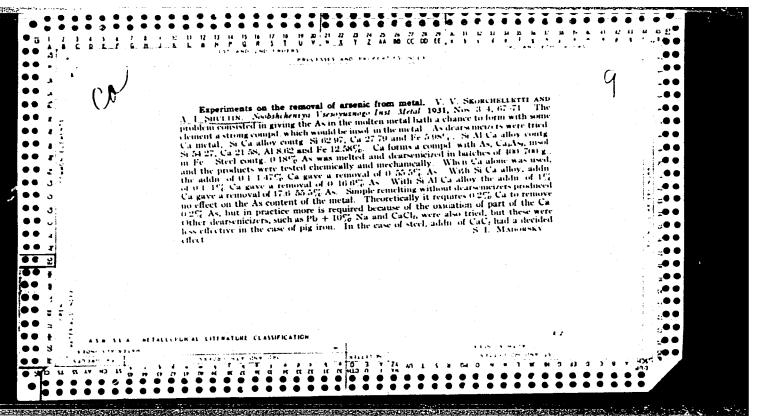
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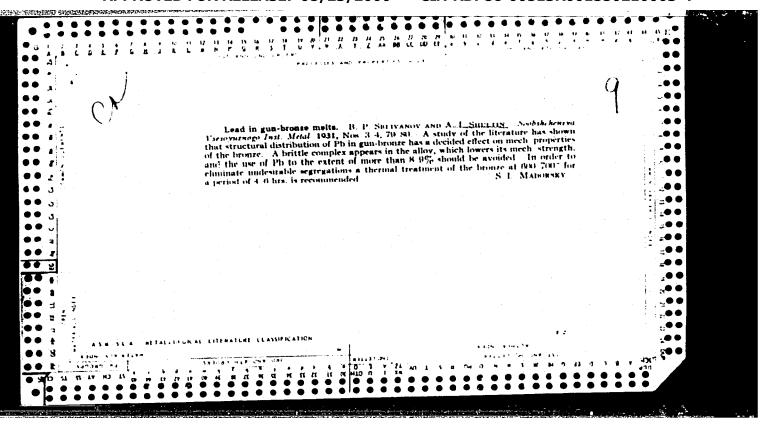
spectra) also show absorption in the region near 8 μ . Apparently the centers responsible for absorption at about 3000 Å also cause absorption near 8 μ . These centers do not form after the diamonds are irradiated by protons or neutrons, or after radiation and subsequent heat treatment. Thus they are not defects in the crystal lattice of the diamond since these may be formed by such action. It might be supposed that these centers are due to impurities in the diamonds. However, the authors were unsuccessful in identifying the form of the impurity with those previously identified in diamonds. These phenomena were not observed in diamonds which have a singular structure in the yellow-green component of the luminescence spectrum. The absorption at about 8 μ may be due to transitions between levels responsible for the luminescence lines at 4890 and 5203 Å and are not associated with absorption in the ultraviolet region. No relationship was established between the absorption near 8 μ and the intense blue and yellow-green luminescence of diamonds (415 and 503 m μ). Orig. art. has: 1 figure, 1 table.

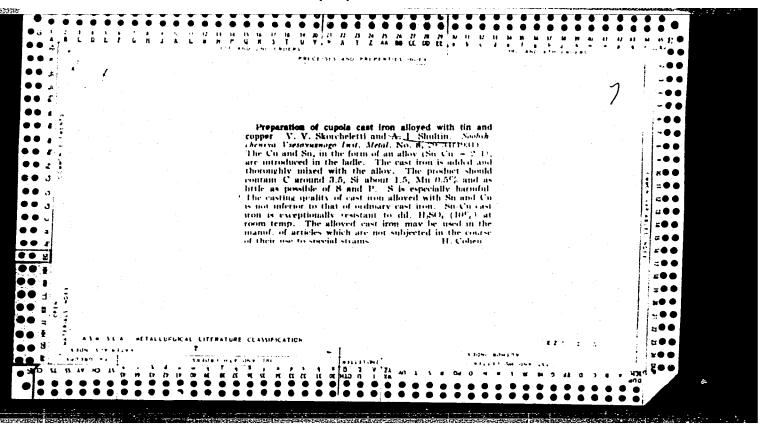
SUB CODE: 20/ SUBM DATE: 27Apr65/ ORIG REF: 004/ OTH REF: 006

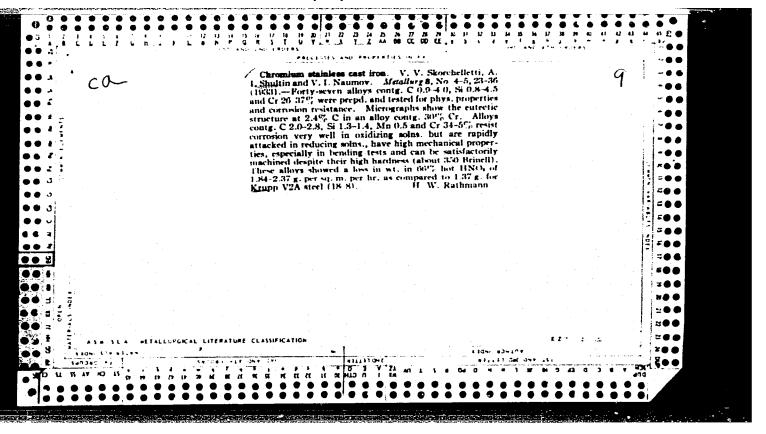
Card 2/2

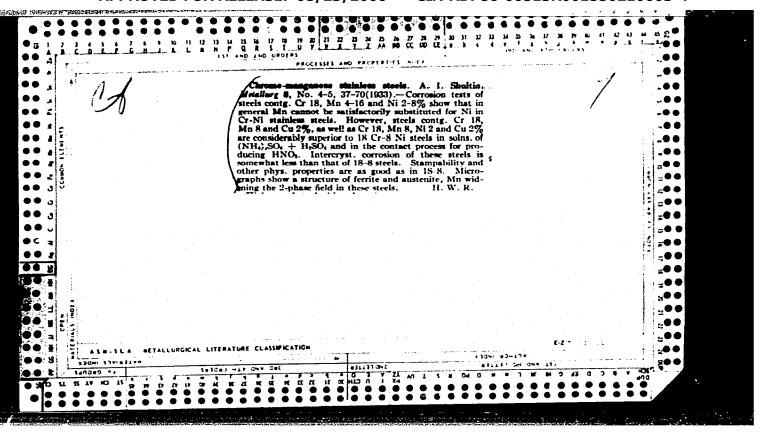


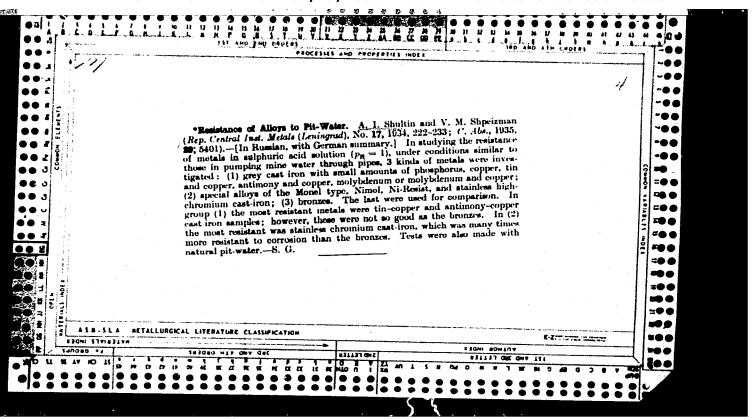


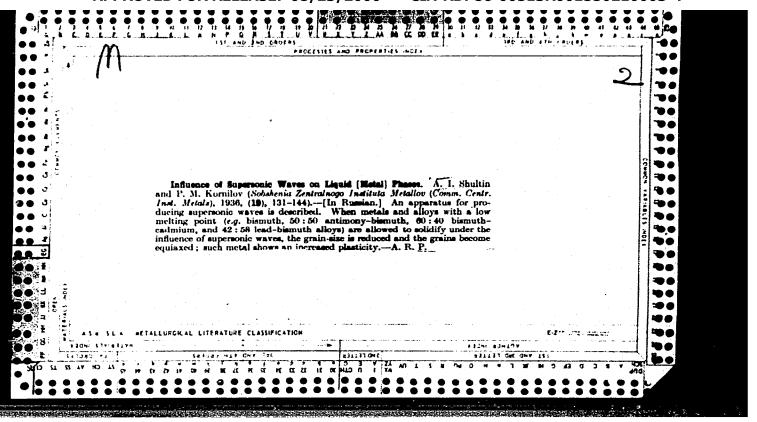


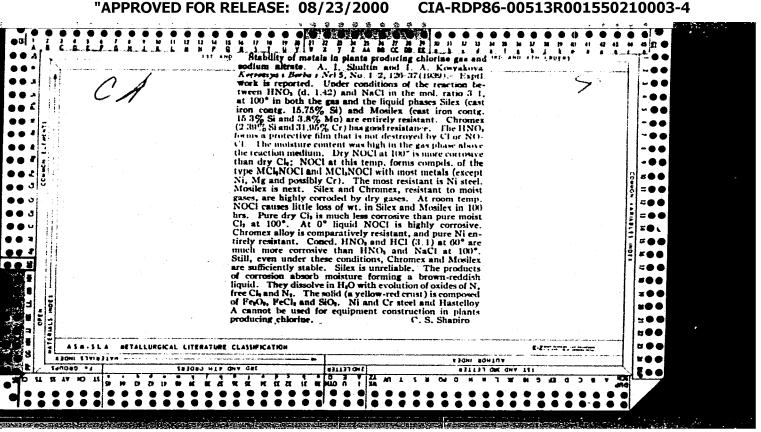


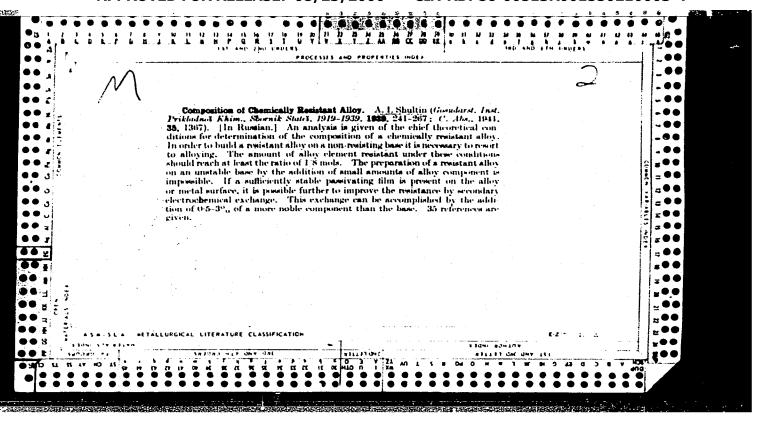


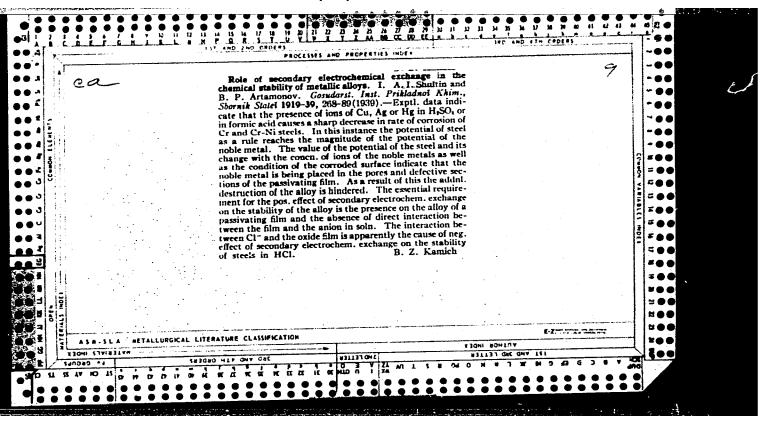


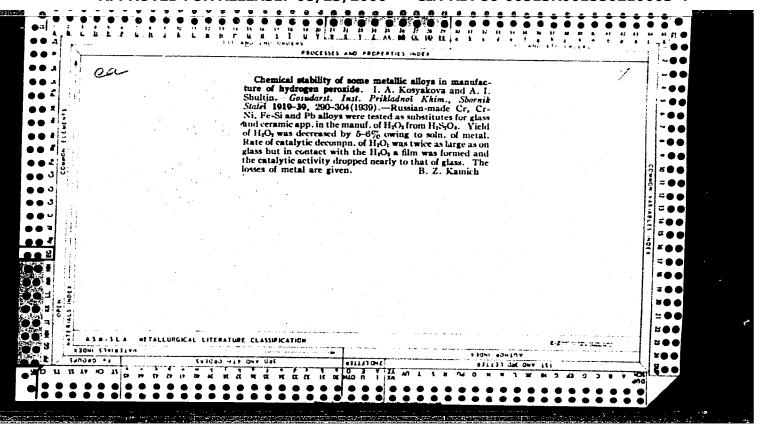


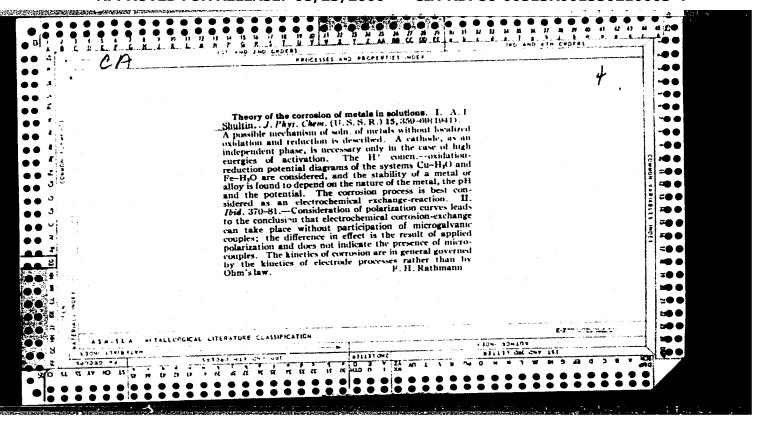


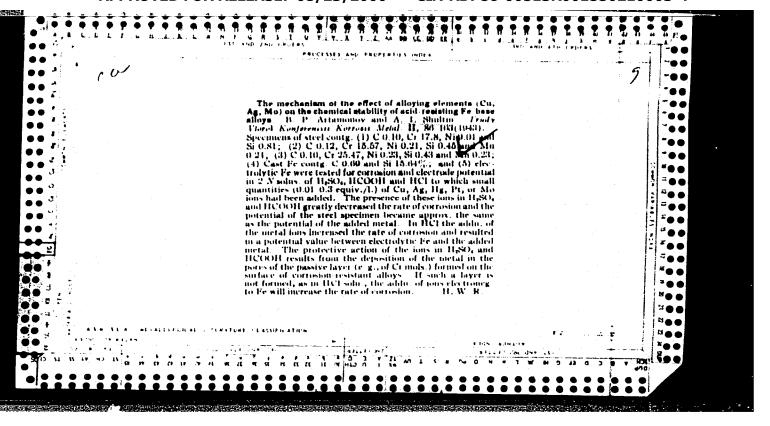


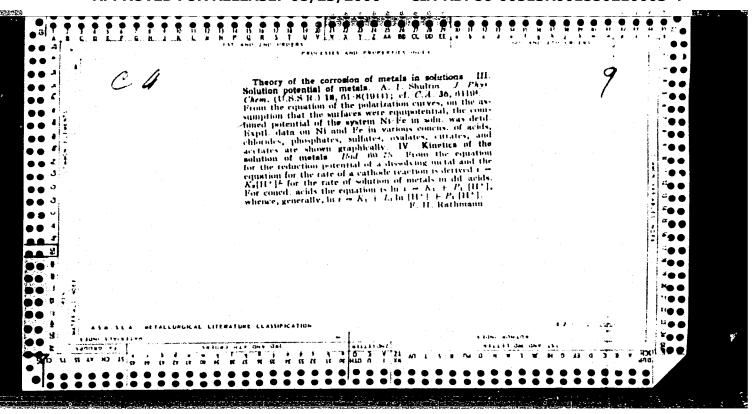


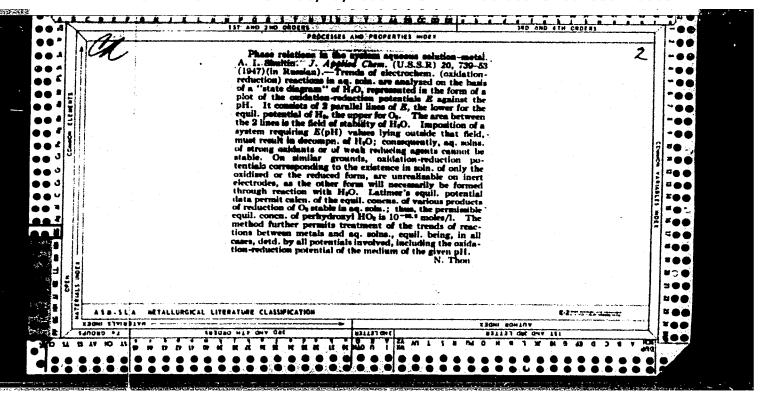


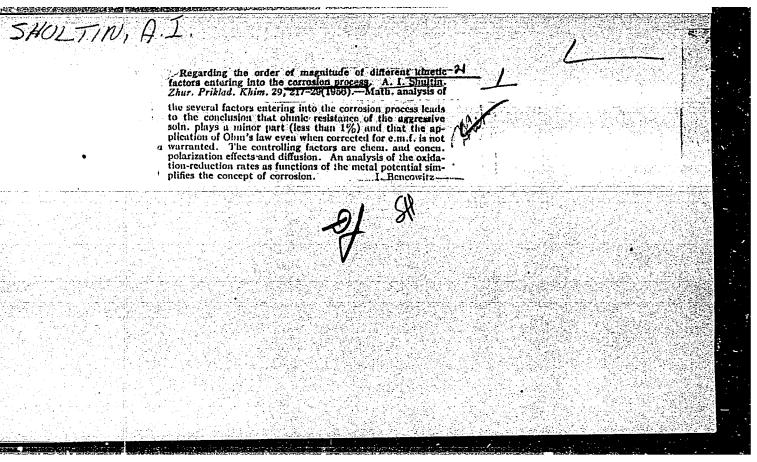




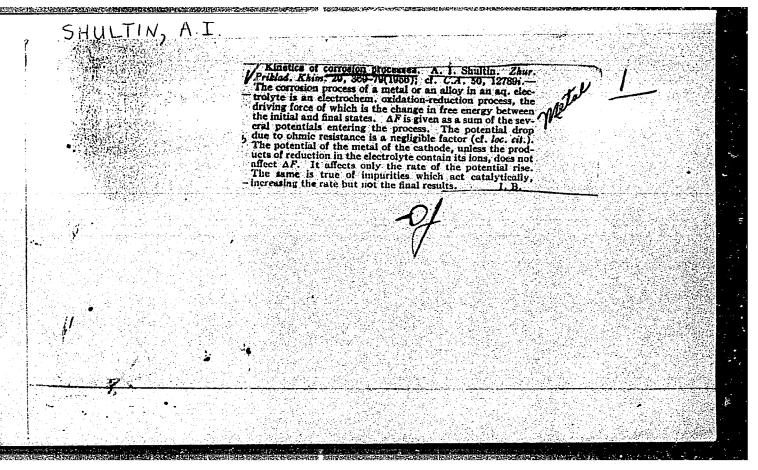


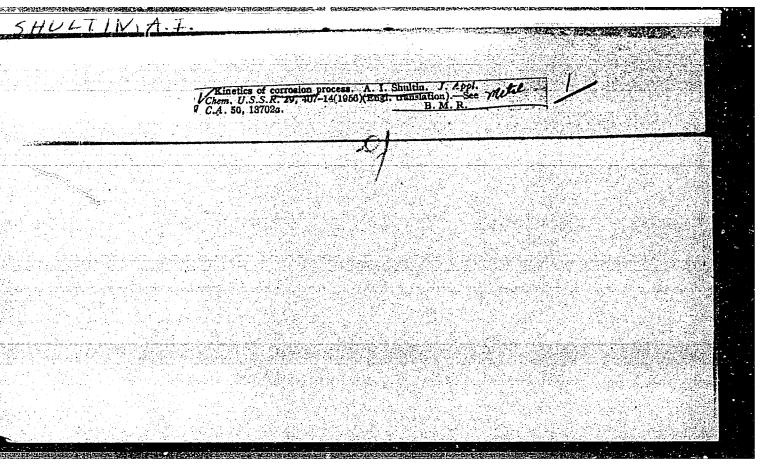


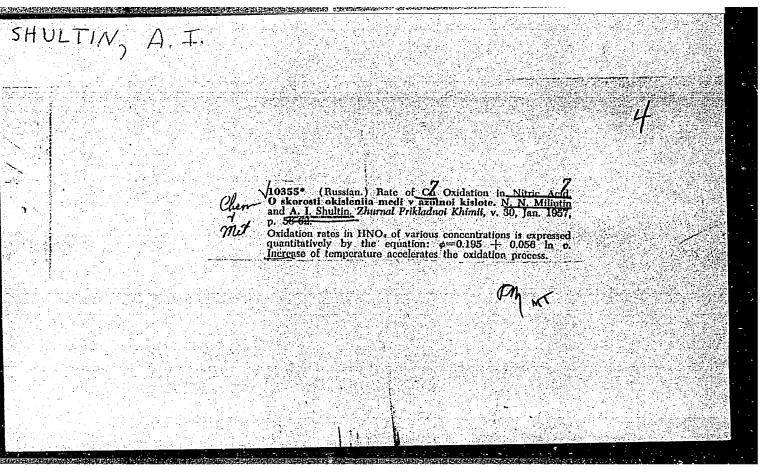


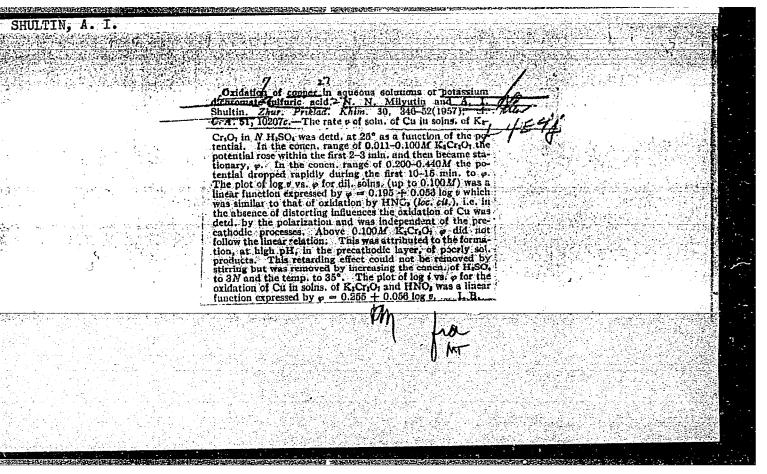


The order of magnitude of different kinetic factors enter- ung into the corrosion process. A. I. Shritta. J. Appl. Chem. U.S.S.R. 29, 241-51(1956) Engl. translation).—See McLe — C.A. 50; 12789i. B. M. R.				
	— C.A., 50; 12789i.	20 J	R.	**************************************









S/081/60/000/010/004/009 A166/A129

AUTHORS:

Pavlovskaya, N.N.; Shultin, A.I.

TITLE:

The electrochemical behavior of nickel in sulfuric acid and ferric

sulfate solutions

PERIODICAL:

Referativnyy zhurnal. Khimiya, 1960, no. 10, 76, abstract 38104. (Uch. zap. Leningr. gos. ped. in-ta im. A.I. Gertsena, 1959, v. 160,

no. 1, 207 - 219)

TEXT: Anode polarization curves were plotted for Ni in H_2SO_4 [1; 2 N.] and 2 N. H_2SO_4 + $Fe_2(SO_4)_3$ [1; 2 and 4.4 N.] solutions in a range from +0.250 to +2.055 v (n.v.e.). The anode polarization curves consist of two sections divided by the passive state area (~1.5 v). In solutions of varied composition the curves coincided well with each other. Comparison of the anode current density (i_a) with the weight losses of the electrode in 1 N. H_2SO_4 showed that in the first section of the anode polarization curve the current is consumed entirely in dissolving Ni. When i_a = 65 - 70 ma/cm² in 1 N. H_2SO_4 , Ni passivation occurs; in the presence of $Fe_2(SO_4)_3$ this effect is observed at lower i_a values. The second section of the curve corresponds to liberation of O₂. When the anode polariza-

Card 1/2

S/081/60/000/010/004/009

The electrochemical behavior of nickel in....

tion curve is plotted in reverse (from the higher to the lower i_a values) hysteresis is observed upon transition from the second section to the first. The rate of self-solution (i_c) in solutions of 1 N. H₂SO₄ + xFe₂(SO₄)₃ (x = 0.18 - 7.2 N_c) was determined from the sample's weight loss. It was found that when the concentration of Fe₂(SO₄)₃ < 3.84 N. i_c increases in proportion to Fe₂(SO₄)₃ concentration. Maximum i_c occurs in a 3.84 N. Fe₂(SO₄)₃ solution. Any further increase in the Fe₂(SO₄)₃ concentration is accompanied by a drop in i_c . In a 7.2 N. Fe₂(SO₄)₃ solution i_c = 0, but the electrode potential approaches the redox potential of the solution. On the basis of the low temperature coefficient of i_c and the strong effects of intermixing, the authors conclude that, in the presence of Fe₂(SO₄)₃, i_c is limited by the oxidizer's diffusion rate. It was found that in the media studied both self-solution and solution during anode polarization were subject to a single electrochemical mechanism; at a temperature of 25°C these processes can be described by the equation $\varphi = 0.381 \pm 0.047$ lg i.

V. Knyazheva

[Abstracter's note: Complete translation]

Card 2/2

Passivity of metallic materials. Thur. prikl. khim. 37 no.6:1261-1267 Je '64.

SHUL'TS, A. (Swerdlovsk)

Photography in the range of 0.5 to 0.75 m. Sov. foto 19
no.6:63 Je '59.

(Photography)

P

4-44135

COUNTRY CATEGORY - GENERAL& SPEC . ZOOLOGY . INSECTS

16262

Insect and Mita Pests. Def Zhur -Biologiya, No. b, 1959, No. ABS. JOUR:

THE REPORT OF THE PROPERTY OF

AUTHOR

: Shul'ts, A.A. AS Latvian SSR Inst. of Biol., AS Latvian SSR Lepidoptera of Gardens and Truck Gardens of Lepidoptera INST.

Latvian SER. TITLE

ORIG. PUB.: Tr. In-t biol. AN LatvSSR, 1958, 5, 45-68

ABSTRACT : Of 108 species harmful to berry fruit plantations of Latvia, the most injurious were the gooseberry moth, the winter moth and orange moth, current borer, apple-fruit miner and Argyrestria ephipella, lackey moth, leopard moth. Cacoecia resana and fruit-tree leafroller, Lampronia padellus, and landaris ribeana. 2. species found on vegetables, the most har ful were the cabbage white butterfly and the turnip butterfly, cutworm Ruxoa segetum, Fay-

1/2 CARD:

CIA-RDP86-00513R001550210003-4" APPROVED FOR RELEASE: 08/23/2000

VAKHER, A.I., inzh.; SHUL'TS, A.K., inzh.

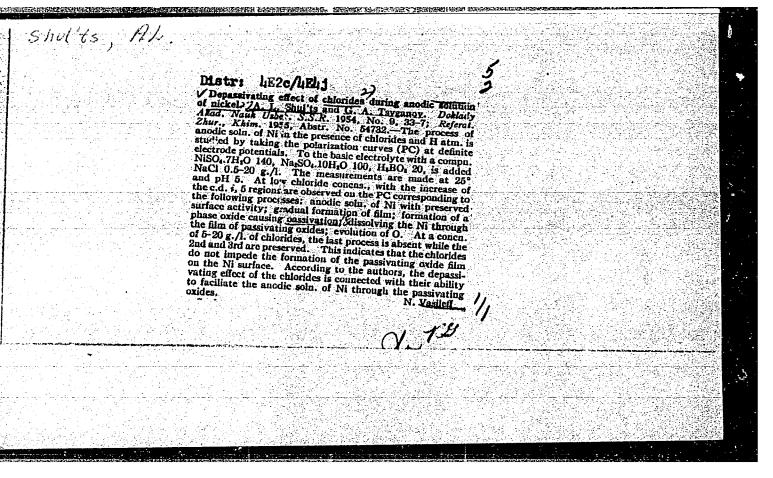
Unit for lubricating steel cables. Mekh. stroi. 18 no. 6:16-17

Je '61.

(Wire rope) (Lubricants and lubrication)

SHUL'TS, A.L.; TSYGANOV, G.A.

Disociation coefficient in simultaneous discharge of nickel and hydrogen iens. Izv. AN Uz. SSR Ser. khim. nauk no.2:33-46
157. (MIRA 11:8)
(Dissociation) (Nickel) (Hydrogen)



SOV/137-58-8-17455

Translation from: Referativnyy zhurnal, Metallurgiya 1958. Nr 8, p 179 (USSR)

Shults, A.L., Tsyganov, G.A. AUTHORS:

Polarization During the Electrolytic Deposition of Nickel in the Presence of Additives in the Electrolyte (Polyarizatsiya pri TITLE:

elektroosazhdenii nikelya v prisutstvii dobavok k elektrolitu)

Izv. AN UzSSR. Ser. khim. n., 1957, Nr 4, pp 41-53 PERIODICAL:

The effect of additions of KCNS, Na2S2O3-5H2O, and thio-ABSTRACT:

urea introduced into the nickel electrolyte (NiSO4 7H2O, 1N; Na₂SO₄·10H₂O₂ 100 g/liter, H₃BO₃, 20 g/liter, on polarization in the electrolytic deposition of Ni was studied. It was established that the polarization curve of the electrolytic deposition of Ni in general consists of three sectors, one with predominance of the separation of Ni, one with evolution of H, and one with the establishment of a stationary potential of the Ni electrode in the given electrolyte. The introduction of additives into the electrolyte affects the position and shape of the said

sectors of the polarization curve and, therefore, affects the position and shape of the polarization curve of the electrolytic

Card 1/2

SOV/137-58-8-17455

Polarization During the Electrolytic Deposition of Nickel (cont.)

deposition of Ni. Anion-type additives (KCNS, Na₂S₂O₃·5H₂O) cause the displacement of the sector of the polarization curve relative to the electrolytic deposition of Ni corresponding to the process of the predominant separation of Ni in the direction of less negative values of the potential. Additives of the molecular type (thiourea) displace this sector of the polarization curve of electrolytic deposition of Ni towards the more negative values of the potential. The effect of the additives in the electrolyte on the polarization during the electrolytic deposition of Ni is explained by their adsorption on the surface of the cathode, as a result of which complementary ionic and dipolar layers are formed on the cathode-electrolyte interface which promote or impede the processes. Bibliography 39 references.

L.A.

- 1. Nickel-- lectroderosition
- 2. Electrolytes—Properties
- 3. Nickel--Polarization

Card 2/2

SHUL'TS, A.L.; TSYGANOV, G.A.

Sulfur containing additives used in electrolytic solutions from which nickel is deposited as a cathodic reduction product. Dokl. (MIRA 11:6) AN Uzb. SSR no.3:35-39 158.

1. Institut khimii AN UzSSR. Predstavleno akademikom AN UzSSR S. Yu. Yunusovym.

(Nickel plating)

BUKINA, V.K.; SHUL'TS, A.L.; KONONENKO, N.I.

Microanalytical determination of sulfur in galvanic deposits of nickel. Dokl. AN Uz. SSR no.6:27-29 '58. (MIRA 11:9)

SHUL'TS, A. L.: Master Chem Sci (diss) -- "Some problems of the kinetics and mechanism of the electro-precipitation of nickel". Tashkent, 1959. 14 pp (Acad Sci Uzbek SSR, Inst of Chem), 200 copies (KL, No 17, 1959, 106)

Third conference on the electrochemistry of organic compounds.

Usb. khlm. zhur. no.1:95 161.

(Rectrochemistry—Congresses)

SHUL'TS, A.L., kand. khim. nauk, otv. red.; EYDEL'MAN, A.S., red.

[Simultaneous electrode reactions] Sovmestnye elektrodnye reaktsii. Tashkent, Izd-vo AN UzSSR, 1962. 142 p. (MIRA 15:11)

1. Akademiya nauk Uzbekskoy SSR. Tashkent. Institut khimii. (Electrodes) (Electrolysis)

500 MB, 4. 8.

36939. Prispososlankym po prodovcy terapii ulym ranomykh i kolinykh s porazheniyem tsentralinog i perifetkomoslog netvnog sistemy, razrabotannyye i primenennyye v Institute nevrologii Akademii meditsinskikh nauk SBSR. V sb. Nevrologiya voyen. vremeni. T. II. N., 1949, s. 300-13.

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

SHUL'TS, A.Sh., inzh.

Group cell system. Avtom. telem. 1 sviaz' 8 nc.9:22-24

(MIRA 17:10)
S '64.

ા ેકડો. COUNTRY : Discusos of Para Animals. Diseases Caused CATHICKY by Helminths ABS. JOUR. : RZhBiol., No. 6 1959, No. 25992 : Shul'ts. B. D. : Orst Veterinary Institute : Experiment in the Use of Tansy in Nematodiases AUTHOR: 1757. TITLE of Horses ORTH, PUB. : Sb. stud. nauchn. rabot. Omskiy vet. in-t, 1957, vyp. 2, 65: A decoction of dried raceme of tansy (Tanacetum) ABSTTACT was tried on three horses as an anthelminthic. Excretion of a considerable number of nematodes, the species of which is not indicated, was observed in horses .-- N. V. Denidov. 1/1 CARD: 22

KHAZANOV, Ye.I.; SHUL'TS, B.V.

Kinetics and mechanism of the reduction of ilmenite and titanium-magnetite by carbon at sintering temperatures.

Titan i ego splavy no.5:85-94 '61. (MIRA 15:2)

(Titanium ores) (Ore dressing)

S/200/61/000/011/003/005 D202/D304

AUTHORS:

Khazanov, Ye. I. and Shul'ts, B.V.

TITLE:

Reduction of titanomagnetite by sintering with a solid

reducing agent

PERIODICAL:

Akademiya nauk SSSR. Sibirskoye otdeleniye. Izvestiya,

no. 11, 1961, 98-102

TEXT: In the present work the authors studied the reduction of synthetic titanomagnetite on samples obtained by the fusion of pure ${\rm Fe}_2{\rm O}_3$ and ${\rm TiO}_2$

in an atmosphere of CO. They found that by sintering this mixture at 1200°, only ilmenite was formed. Fusion at 1500°C yielded a product consisting of two distinct phases: that of ilmenite and that of titanomagnestite. Only the last phase was magnetic and its chemical composition was as follows: (%): TiO₂ = 4.89, Fe₂O₃ = 63.44, FeO = 30.6, Fe = 0.22.

X-ray crystallographic data showed it to be similar to those of the natural mineral. Its chemical analysis was performed by A.I. Kapustina,

Card 1/2

S/200/61/000/011/003/005 D202/D304

Reduction of titanomagnetite ...

and its X-ray examination by S.A. Stakheyeva. This magnetic portion of the fusion product was used by the authors for their experiments by heating the product with pure charcoal in the temperature range 1000 -1300°C. It was found that at lower temperatures, up to 1100°C, mostly iron oxides were reduced, the reduction of titanium oxide being very slight. With rising temperature the late of iron oxide reduction was lowered owing to the formation of anosovite. It follows that for industrial purposes the reduction of ferrotitanic toncentrates should be carried out at possibly low temperatures. The authors propose a following scheme for the reduction process: (Fe₃0₄.Fe0.Ti0₂; Fe0.Ti0₂)+ C = ${\tt mFeO.nTiO}_2{\tt op.Ti}_2{\tt O}_3$ + Fe + CO, the ratios m : n : p depending on temperature. These conclusions were checked on natural ores. An addition of 20% soda facilitated the oxide reduction. There are 4 figures, 2 tables and 13 Soviet-bloc references.

是自由的主义的政治的,但是不是不是,他们就是是自己的主义的,但是是是不是,但是是是是是是,他们也是是是是是是是是是是是是,他们就是这种的。他们就是这个人,他们就

ASSOCIATION:

Vostochno-Sibirskkiy filial sibirskego otdeleniya AN SSSR,

Irkutsk (East Siberian Branch of the Siberian Department

AS USSR, Irkutsk)

SUBMITTED:

September 14, 1960

Card 2/2

KHAZANOV, Ye.I.; KUZ'MINA, G.V.; STAKHEYEVA, S.A.; SHUL'TS, B.V.

Changes in the phase composition of clays during heating in a neutral atmosphere in the presence of a solid reducing agent. Trudy Vost.—Sib. (MIRA 16:3) fil. AN SSSR no.43:69-76 62. (Phase rule and equilibrium)

- 2 24.4

SHUL'TS, B.Yu.; FISHER, Ye.B. [Fisher, IE.B.]

Automatic system for feeding proportioned raw materials.

Khar prom no 1:89-90 Ja-Mr '62. (MIRA 15:8)

Khar.prom. no.1:89-90 Ja-Mr '62. (Proportioning equipment) (Automatic control)

MAVRIN, I.; SHUL'TS, D.O., red.; LEVINA, L.G., tekhn.red.

[Obtaining 216 eggs per laying hen] 216 isits ot nesushki.

Moskva, Izd-vo M-va sel'.khoz.RSFSR, 1960. 39 p.

(MIRA 14:1)

TULAYKOV, Nikolay Maksimovich, akademik (1875-1937); SHUL'TS, D.O., red.; SAYTANIDI, L.D., tekhn. red.

[For row crop cultivation and against grassland farming]Za propashnye kul'tury protiv travopol'ia; izbrannye stat'i. Moskva, Izd-vo MSKh RSFSR, 1962. 159 p. (MIRA 15:9) (Tillage)

SHAUTSUKOV, Zalim-geri, kand. sel'khoz. nauk, zasl. agronom RSFSR; SHUL'TS, D.O., red.; SAYTANIDI, L.D., tekhn. red.

[Mechanized tillage of corn fields without manual work]
Mekhanizirovannaia obrabotka posevov kukuruzy bez primeneniia ruchnogo truda. Moskva, Izd-vo MSKh RSFSR, 1963. 119 p.
(MIRA 16:7)

(Corn (Maize)) (Tillage)

SHUL'TS, E., inzhener (g.Sochi).

Using coarse porous concrete blocks in building apartment houses in Sochi. Gor. i sel'. stroi. no.1:19-21 Ja '57. (MLRA 10:4)

(Sochi-Apartment houses)

(Concrete blocks)

SHUL'TS, E.A.

Analysis of a video signal for studying its transitory characteristic. Elektrosviaz' 16 no.10:30-37 0 '62.

(MIRA 15:9)

(Television—Transmitters and transmission)

SOV/97-59-3-11/15

Ochinskiy, V. I., Architect, Sidorov, A. S. Engineer and AUTHORS:

Shul'ts, E. E. Engineer

TITLE: New Truss Construction

PERIODICAL: Beton i zhelezobeton, 1959, Nr 3, pp 136-137 (USSR)

ABSTRACT: The truss construction described and illustrated in this article is made up of three separate units (Figs 1 and 2) which are reinforced by welded reinforcement skeleton consisting of three 4 mm diameter longitudinal bars and crossreinforcement of 3 mm diameter bars spaced 25-30 cm apart. In the bottom frame two 10 mm diameter rols are left protruding for later fixing of the ceiling. Individual parts of the truss are joined together by cament grout mark 100. The trusses are east on concreting yard KPP of the Sochispetsstroy. The frames can be placed in position without cranes as the heaviest unit weighs only 60 kg. table on p 137 gives consumption of concrete and steel for

trusses used for a house with 28 apartments. In comparison with Card 1/2

SOV/97--59-3--11/15

New Truss Construction

steel trusses they require only one-third of the volume of concrete and one-sixth of the weight of steel. The trusses are cast in steel forms on vibrating tables. There are 2 figures and 1 table.

Card 2/2

KCCHERGIN, N.A.; KAGANSKIY, I.M.; SHUL'TS, E.Z.

Use of towers with perforated downcomerless plates for the removal of carbon dioxide from gases by means of the moncethanolamine solution. Khim.prom. no.11:866-869 '63. (MIRA 17:4)

l. Lisichanskiy filial Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti i produktov organicheskogo sinteza.

SHUL'TS, G.

SAPOZHNIKOV, A. A., ZAMORSKIY, A. D., FINDEYZEN, V., and SHUL'TS, G., "Experimental Study of the Formation of Ice Particles in the Atmosphere," No 1, pp 96-97. (Meteorologiya i "idrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

HULTS, G.				
"Sanitarnaya	i Protivo-Epidemicheskay	ra rabota v SSSR,"	1951, 40 pages	
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SHUL'TS, G. (g.Stalinabad)

In memory of M.I.Matveev (1902-1954). Bet.zhur.41 no.2:298-299 F '56.

(Matveev, Mikhail Ivanovich, 1902-1954) (MIRA 9:7)

And the participation of the control	C TO	學系 統計 经收益的 化二甲基苯甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲甲	AND THE SERVICE OF		
SHUL'TS,	G. 34T29	本文·传播·传》一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个	geographical ereas range from Mur cluding Central Asia.	In autumn the fall of leaves is one of the basic indicators of seasonal change in the majority of geographical zones, but the geographical regularity of this phenomenon is very little studied. Author attempts to show that there is some relationship between fall of leaves and geographical location. He uses as his examples the fall of the leaves of the birth and the IC USSR/Geography (Contd) Sep/Oct 1047	USSR/Geography Climatology %"Periods during Which Leaves Fall in the Northern as Well as Southern Parts of the USSR," G. E. Shul'ts, ### pp ##############################
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SHUL'TS, G. E.

Shul'ta, G. E. - "The periods of leaf drop of certain types of woody plants of Tadzhikstan", Soobshch. Tadzh. filiala Akad. nauk SSSR, Issue 13, 1949, p. 17-19.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

SHULITS, G.E.

36772. K voprosum o roli azota i fosfora v razvitii khlopchatnika Soobshch. Tadzh. fikiala Akad. nauk SSSr, vyp. 18, 1949, c 3-7--- Bibliogr: s. 7

SO: Letopis' Zhurnal'Nykh Statey, Vol. 50, Moskva, 1949

NETHOLOGY, 3. 1.

Wighe Reaction of Tures and Sharks to an Uninterpretated Sunter Day, 4 55, No. 5, -1949-.

SHUL'TS, G.E.

Determining conditions of mineral nourishment of the cotton plant on the basis of external features. Trudy TFAN SSSR 18:63-89 '51. (Cotton) (Plants, Effect of minerals on) (MLRA 8:8)

SHUL'TS, G. E.

"The Progress of Wood Varieties in the High Latitudes in Connection With Continuous Summer Days." Cand Biol Sci, Inst of Botany imeni V. L. Komarov, Acad Sci USSR, Leningrad, 1955. (KL, No 7, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

SHUL! TS, G.E., kandidat biologicheskikh nauk (Leningrad)

April in the Central Tajikistan. Priroda 45 no.4:126-127 Ap 156.
(MIRA 9:7)

1. Botanicheskiy institut Akademii nauk SSSR. (Tajikistan--Spring)

SHUL'TS, G.E.

November in Tajikistan. Priroda 45 no.11:124-125 N '56. (MLRA 9:11)

1.Botanicheskiy institut Akademii nauk SSSR, Yeningrad. (Tajikistan-Autumn)

USSR / Cultivated Plants. General Problems.

M-1

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58491

Author ! Shults. G. E.

Inst Geographical Society USSR

Title Phonologic Indicators of the Time for Agricultural Work

Orig Pub : Inform. byul. fenol. Geogr. o-va USSR, 1957, No 7, 5-7

Abstract : No abstract given

Card 1/1

SHULLTS, G.E. kandidat biologicheskikh nauk.

In southern Central Asia. Priroda 46 no-1:125-126 Ja '57.
(MLRA 10:2)

 Botanicheskiy institut im. V.L.Komarova Akademii nauk SSSR, Leningrad.
 (Soviet Central Asia--Winter)

SHUL'TS, G. E.

p.101.

"The Dynamics of Phenological Processes in European USSR in Dry Years,"/in book Droughts in the USSR, Their Origin, Frequency, and Effect on Crops, Leningrad, Gidrometeoizdat, 1958. 206 p.

Agrometeorological Div., All-Union Plant Cultivation Inst.

SHULITS, G.E.

Phenological conference in Leningrad, Nov. 29 - Dec. 4, 1957.

(MIRA 11:9)

Bot..zhur. 43 no.8:1229-1230 Ag '58. (MIRA 11:5

1. Botanicheskiy institut im. V.L. Komarova AN SSSR, Leningrad. (Phenology-Congresses)

AUTHOR:

Shul'ts, G. E.

12-90-3-14/16

TITLE:

A Phenological Conference (Fenologicheskoye

soveshchaniye)

PERIODICAL:

Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva, 1958,

Vol 90, ar 3, pp 301 - 302 (USSR)

ABSTRACT:

A Phenological Conference in Leningrad was convened in November 1957 by the USSR Geographical Society, together with the Institutes of Botanics and Zoology of the AS USSR. There were 310 participants present, including representatives from all Soviet republics except Lithuania. The Conference heard 99 reports including those of: P.A. Baranov, (Member Correspondent AS USSR), I.N. Beydemann, and G.E. Shul'ts, on the actual stage of Soviet phytophenology; S.V. Kalesnik (Member Correspondent AS USSR), P.A. Baranov, A.I. Rudenko, (Leningrad - Candidate of Agricultural Sciences); Professor A.M. Shul'gin (Moscow), on "Phenology and Geography"; A.P. Vas'kovskiy (Magadan), on peculiarities of seasonal occurrences in the Chukotsk peninsula; V.D. Aleksandrova, (Leningrad - Candidate of Biological Sciences), on phenology of vegetation; B. Lyakhovskiy, T.N. Butorina, and Ye.A. Krutovskaya, on phenological seasons of the Siberian taiga; N.T. Nechayeva (Member-Correspondent of the AS Turkmen SSR), on the phenology of desert pastures in Turkmenia; Dotsent

Card 1/3

A Phenological Conference

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12-90-3-14/16

M.A. Shabanov (Saratov), on the phenological division into districts of oblasts; V.A. Batmanov (Sverdlovsk), Dotsent B.S. Shustov (Ryazan'), Dotsent A.Kh. Shklyar (Minsk), A.G. Remizov (Moscow), and others, on phenological maps; Ye.V. Bessonova (Leningrad) on maps showing the approach of seasonal phases in agriculture; A.F. Chirkova (Moscow) on terms of fox reproduction; N.K. Shipitsina, (Candidate of Biological ociences (Moscow), on seasonal development of malarial mosquitos; V.A. Batmanov (Sverdlovsk) on statistic methods of phenological cartography; Professor I.A. Gol'tsberg (Leningrad), Dotsent Ye.G. Mukhina (Odessa), D.F. Tumanova and N.S. Chochia (Candidate of Geographical Sciences - Leningrad), on phenological, micro- and macrological division into districts: N.N. Galakhov (Doctor of Geographical Sciences - Moscow), on the importance of phenological seasons in physico-geographical investigations; G.E. Shul'ts and Dotsent A.I. Shernin (Kirov); on the effect of long phenological series on secular climatic fluctuations; Professor G.G. Samoylovich and S.Y. Belov (Candidate of Agricultural Sciences - Leningrad), on phenological conditions of woods observed by aerovisual reconnaissance and colored aerophotography; Professor A.M. Alpat'yev (Leningrad),

Card 2/3

A Phenological Conference

12-90-3-14/16

1... Beydeman, Professor A.P. Shimanyuk, T.N. Butorina and Ye.A. Arutovskaya (Krasnoyarsk), on correlations between rates of seasonal development of organisms and inorganic factors of surroundings. The Conference set up future methods to develop phenology in the USSR.

AVAILABLE:

Library of Congress

Card 3/3

1. Phenology-USSR 2. Conferences-Phenology-Leningrad