

32214
S/139/61/000/004/003/023
E032/E314

69200

AUTHOR: Checha, V.A.

TITLE: The effect of the coherently reflected part of a signal on its correlation properties

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no. 4, 1961, 17 - 22

TEXT: A radio signal reflected from the ionosphere consists of two parts, namely, the coherent part and the noncoherent part. It is stated that the theory put forward by H.G. Booker et al (Ref. 1 - Phil. Trans. Roy.Soc., 242, 579, 1950) did not take into account the effect of the coherently reflected part of the signal. On the other hand, experimental evidence indicates (Ref. 3 - N.T. Tsimbal - IVUZ, Radiotekhnika, 2, 222, 1959) that the coherently reflected part of the signal is often larger than the scattered part. The author derives the correlation coefficient for the square of the envelope of a signal reflected from the ionosphere. Both the coherent and noncoherent components are taken into account. The analysis starts with the assumption that the envelope is described by:

Card 1/6

10
15
20
25
30

The effect of

32211
S/139/61/000/004/003/023
E032/E314

$$E(t) = X(t)\cos \omega_0 t - Y(t)\sin \omega_0 t$$

The correlation coefficient for the square of the envelope, i.e.

$$R^2(t) = X^2(t) + Y^2(t)$$

is defined by:

$$\rho_{R^2}(\tau) = \frac{R^2(t)R^2(t+\tau) - \overline{R^2(t)^2}}{R^2(t) - \overline{R^2(t)^2}}$$

It is shown that the correlation coefficient is given by:

$$\rho_{R^2}(\tau) = \rho_E \frac{pe + 2\beta^2}{1 + 2\beta^2} \tag{7}$$

where:

$$\rho_E(\tau) = \frac{\int_{-\infty}^{\infty} W(f)e^{j2\pi f\tau} df}{\int_{-\infty}^{\infty} W(f)df} \tag{6}$$

Card 2/6-5

32214

S/139/61/000/004/003/023
E032/E314

The effect of

Eq. (7) expresses the correlation coefficient for the square of the envelope of a random process recorded at the output of a receiver in terms of the field correlation coefficient at the input and the turbidity coefficient β . When the wavelength of the incident wave is large compared with the linear dimensions of the irregularities, the ionosphere may be replaced by a random screen which scatters in accordance with Lambert's law. It is found experimentally that the correlation coefficient for the envelope frequently has negative oscillations and this has been ascribed (Ref. 8 - McNicol, RWE, Proc. IEE, pt.3, 96, 366, 1949) to an inaccuracy in the calculation of the correlation coefficient, associated with the limited number of sampling points. This and other attempts at an explanation of the oscillations in the correlation function are said to be inadequate because they do not take into account the coherently reflected part of the signal. It is shown that the complete formula for a random screen moving with a constant velocity v and a plane incident wave is:

Card 31/5

The effect of

32214
S/139/61/000/004/003/023
E032/E314

$$P_R(\tau) = \frac{\left(\frac{\sin \frac{2\pi v \tau}{\lambda}}{\frac{2\pi v \tau}{\lambda}} \right)^2 + 2\beta^2 \frac{\sin \frac{2\pi v \tau}{\lambda}}{\frac{2\pi v \tau}{\lambda}}}{1 + 2\beta^2} \quad (14) . 4$$

Thus, it is clear that the magnitude of the negative oscillations in the correlation coefficient depends both on the drift velocity and the turbidity coefficient. There are 1 figure and 8 references: 4 Soviet-bloc and 4 non-Soviet-bloc. The four English-language references mentioned are: Ref. 1: quoted in text; Ref. 5: E.N. Bramley, Proc. IEE, pt.1, 98, 19, 1951; Ref. 6: R.B. Banerji, Journ. Atm. Terr. Phys., 6, 50, 1955; Ref. 8: quoted in text.

Card 4/65

The effect of

32214
S/139/61/000/004/005/023
E032/E314

ASSOCIATION:

Sibirskiy fiziko-tekhnicheskii institut pri
Tomskom gosuniversitete imeni V.V. Kuybysheva
(Siberian Physicotechnical Institute of Tomsk
State University im. V.V. Kuybyshev)

SUBMITTED:

August 22, 1960

Card 5/65

4

41789

S/194/62/008/008/070/100
D271/D308

7/4/62
AUTHORS:

Checha, V.A., and Zelenkov, V.E.

TITLE:

Ionosphere drifts in F₂ region in Tomsk during International Geophysical Year and International Geophysical Cooperation

PERIODICAL:

Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1962, 28-29, abstract 8Zh204 (Tr. Sibirsk. fiz-tekh. in-ta pri Tomskom un-te, 1960, no. 38, 23-29)

TEXT: Results are reported of observation of drift of small-scale inhomogeneities of ionization density at the ionospheric station of Sibirskiy fiziko-tehnicheskii institut (Siberian Physical and Engineering Institute) between September 1957 and February 1960. The method of scattered reception with small base (100 m) was used in the observations. Histograms of the magnitude and direction of drift velocity, depending on the time of day and on the season, are given. The scatter of drift direction is large at any hour but it is greater in daytime and in the evening. Predominant drift directions in function depend more definitely on the season. At any time
Card 1/2

Ionosphere drifts in F₂ region ...

S/194/62/000/008/070/100
D271/D308

of the day, great variations of the drift velocity are observed (20 - 500 m/sec.), and higher values are associated with ionospheric perturbations. Most probable values in the morning and at night are between 40 and 80 m/sec., in daytime - between 120 and 140 m/sec., and in the evening between 60 and 100 m/sec. Velocities vary widely with seasons, the most probable velocities in winter, summer and autumn being 60 - 80 m/sec., and in spring - 40 - 60 m/sec. Graphs are produced of the diurnal dependence of the North-South and East-West components of the wind velocity for each season. [Abstracter's note: Complete translation.]

Card 2/2

45212
S/203/63/003/001/009/022
A061/A126

AUTHOR: Checha, V. A.

TITLE: Investigation results on the parameters of the nonuniform structure of the ionosphere taking account of the part of a signal being coherently reflected in the F2 region

PERIODICAL: Geomagnetizm i aeronomiya, v. 3, no. 1, 1963, 73 - 78

TEXT: Slight nonuniformities of the ionosphere and ionospheric drifts were determined by the spaced reception method. The frequency was varied in the range of 3 mc to 11 mc, and experimental data from the months of March, June, September, October, November, and December 1960, were utilized in the process. The measurement results led to the determination of the degree of nonuniformity of the reflecting region of the ionosphere, the chaotic velocity, the angular spread of the beam of the scattered waves, the dimensions of ionospheric nonuniformities by taking account of the coherently reflected part of the signal. The inclusion of the phase factor in estimating the dimensions of the nonuniformities

Card 1/2

Investigation results on the parameters S/203/63/003/001/009/022
is analyzed. Dimensions of roughly 200 m are obtained when not taking
the phase factor into account, and dimensions of 150 - 200 m are obtained
when taking it into account. Thus, taking the coherently reflected part
of a signal and the phase factor into account little changes the experi-
mental results when considering a large amount of data. There are 4
figures and 1 table.

ASSOCIATION: Sibirskiy fiziko-tehnicheskii institut pri Tomskom gosudarstvennom universitete (Siberian Physicotechnical Institute, Tomsk State University)

SUBMITTED: July 28, 1962

Card 2/2

CHECHA, V.A.

Scattering on moving inhomogen cities in the ionosphere. Geomag.
i aer. 3 no.4:778-779 JI-Ag '63. (MIRA 16:11)

1. Sibirskiy fiziko-tekhnicheskoy institut pri Tomskom gosudarst-
vennom universitete.

L 55895-65

ACCESSION NR: AR5014432

is a discussion of the influence of the coherently reflected part of the signal on its correlation properties. The author has studied the problem of the role of the temporal and spatial properties of the scattered field and derived expressions for the energy spectrum and the correlation functions for irregular and rough screens in the presence of random and regular movements. Experimental results have been obtained on the basis of a method generalized for a case when the coherently reflected part of the signal is taken into account. It is shown that, although the parameters computed with and without the coherently reflected part of the signal taken into account can differ appreciably in each individual measurement, when a large volume of experimental data is considered this difference is manifested poorly as a result of averaging the large quantity of data and other causes. The diurnal variation of the inhomogeneous state and the angular scatter of a beam of scattered waves are determined. In a comparison of the sizes of the inhomogeneities, determined from the diffraction pattern at the earth's surface, and the size of ionospheric inhomogeneities it is shown that allowance for the correction given by the phase factor can displace the values of the most probable sizes of inhomogeneities in the direction of smaller values. The results of measurements of the sizes of inhomogeneities are related to the reflecting region. Author's summary

SUB CODE: ES ENCL: 00

cc
Card 2/2

L 59013-65 EWT(1)/ENG(v)/FCC/EEC-4/EWA(h) Pb-1/Pe-5/Pq-4/Pae-2/Peb/P1-4 GN

ACCESSION NR: AR5015998

UR/0058/65/000/005/H036/H036

SOURCE: Ref. zh. Fizika, Abs. 5Zh248

AUTHORS: Checha, V. A.; Zelenkov, V. Ye.

TITLE: Results of investigation of motions of small-scale inhomogeneities in the ionosphere over Tomsk during the IGY--IGC period

CITED SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 45, 1964, 224-230TOPIC TAGS: international geophysical year, international geophysical collaboration, ionosphere, ionospheric inhomogeneity, small scale motion, diurnal variation, seasonal variationTRANSLATION: Results are presented of observations made during the period from September 1957 through February 1962. The data obtained by measuring the motion velocity, the diurnal variations of the direction of motion, and the seasonal measurements of motions in the E and F regions of the ionosphere are discussed. A harmonic analysis of the reduction of the diurnal variation of the north-south and east-west components of motion gives two preferred directions of motion: northeast (30° -- 60°) and southwest (210° -- 240°). The results of a harmonic analysis of

Card 1/2

L 59013-65

ACCESSION NR: AR5015998

the mean monthly dependences of the velocity components show that no definite regularity appears in the behavior of the constant component and the phases of the two harmonics.

SUB CODE: ES,

ENCL: 00

Card 2/2 *dm*

L 65153-65 EWT(d)/EEG(k)-2/EWP(1)/EED-2 IJP(c) BB/GG

ACCESSION NR: AR5018974

UR/0169/65/000/007/A005/A005
681.14

SOURCE: Ref. zh. Geofizika, Abs. 7A13

AUTHOR: Checha, V.A., Afraymovich, E.L.

TITLE: A system for feeding experimental data of a 0-1 kc frequency band process into universal digital computers

CITED SOURCE: Tr. Sibirsk. fiz. -tekh. in-ta pri Tomskom un-te, vyp. 45, 1964, 245-248

TOPIC TAGS: universal digital computer, direct input program, computer programming, magnetic recorder tape

TRANSLATION: The authors submit a procedure for feeding data on observations of processes with a frequency of about 100 cycles into a universal digital computer. The input is direct from a one-way magnetic recorder tape and the input program evolved omits standard methods of preliminary transcription to punched tapes, cards, etc. The authors describe an input program to the computer memory system and a block diagram of a system for processing data on ionospheric wind observations. The amplitude of echo signals is converted to a number-pulse code and the latter is recorded together with reference marks on a MAG magnetic recorder. Signals from the magnetic tape are converted into

Card 1/2

L 65153-65

ACCESSION NR: AR5018974

pulses normal for the universal digital computer in terms of amplitude and duration, then are fed into the computer circuit responsible for the trigger cutout. The procedure requires no special equipment beyond a standard computer operation with the input program evolved. Input reliability at an arbitrary instability of tape flow depends only on the reliability of the computer itself when a number of flexible requirements as to data carrier recording are satisfied, while the rate of input exceeds that from punched cards by 200 to 400%. G. Vasil'yev

SUB CODE: DP

ENCL: 00

Ymlb
Card

2/2

POPTSVIATKOV, Gencho; CHECHAYEVA, G.A.[translator]; SATAROV, N.A.
[translator]

General Vladimir Zaimov. Moskva, Voen.izd-vo 1961. 218 p.
(MIRA 15:10)

(Zaimov, Vladimir, 1888-1942)

CHFCHE, A. A. --

"Application of the Variational Method of Prof V. Z. Vlasov to the Solution of Several Practical Problems of Thermal Elasticity." Cand Tech Sci, Belorussian Polytechnical Inst, Minsk, 1954. (RZhMekh, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

244200

28334 S/124/61/000/005/022/032
A005/A130

AUTHOR: Cheche, A. A.

TITLE: An approximate calculation of a rectangular plate on an elastic base
incident to linear variation of temperature

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 5, 1961, 13, abstract 5V83.
(Sb. nauchn. tr. Belorussk. politekhn. in-t, 1959, no. 70, 107 - 115)

TEXT: The author examines the problem of determination of the stress and strain states of a thin rectangular plate supported on an elastic base and subjected to a given temperature action. It is assumed that the elastic constants and linear dilatation coefficient of the plate material do not vary with the temperature. The "one-layer model" with two characteristics that was proposed by V. Z. Vlasov is adopted as the elastic base. For the purpose of integrating the known differential equation for the bending of a plate on an elastic one-layer base, the author uses the V. Z. Vlasov variation method (Tonkostennyye prostranstvennyye sistemy. Moscow, Gosstroyizdat, 1958, 467 - 486). In order to obtain a simple approximate solution, the author confines himself to only the first term of

Card 1/2

28334 S/124/61/000/005/022/032
A005/A130

An approximate calculation of a rectangular plate...

the expansion for the required function of plate deflections; he studies the resulting ordinary differential equation of the fourth order for the case when the given temperature is constant over the entire plate area and varies linearly throughout the thickness of the plate. Depending on the type of roots of the characteristic equation, three different expressions are found for the function of plate deflections. There are 3 references.

N. Leont'yev

[Abstracter's note: Complete translation]

Card 2/2

IZMAIL'SKIY, V.A.; CHECHEGOYEVA, Ye.V.

Genetics of the spectra of benzenesulfanilide derivatives.
Dokl. AN SSSR 166 no.1:114-117 Ja '66.

(MIRA 19:1)

1. Laboratoriya khimii krasiteley i problemy tsvetnosti pri
Moskovskom pedagogicheskom institute im. V.I.Lenina. Submitted
May 20, 1965.

LOZINSKIY, M., doktor tekhn. nauk, prof.; PRIBYLOV, B., kand. tekhn. nauk;
CHECHEKIN, Yu., inzh.

At the congress in Leipzig. NTO 6 no.6:57-59 Je '64.
(MIRA 17:8)

VYLETNIKOVA, Yelena Pavlovna, kand.tekhn.nauk; PYKHOV, Nikolay
Ivanovich, kand.tekhn.nauk. Primali uchastiye: POVOROZHENKO,
V.V., doktor tekhn.nauk; KOCHETOV, S.N., inzh.. CHECHEL', A.A.,
red.; BOBROVA, Ye.N., tekhn.red.

[Organization and commercial operations in railway transport]
Organizatsiia perevozok i kommercheskaya rabota na zhelezno-
dorozhnom transporte. Moskva, Gos.transp.zhel-dor.izd-vo, 1959.
522 p. (MIRA 12:11)

(Railroads)

BRAZOVSKAYA, Tat'yana Ivanovna; CHECHEL', A.A., red.; MAL'KOVA, N.V.,
tekhn.red.

[Fixed and working capital of automotive transportation units]
Osnovnye i oborotnye sredstva avtomobil'nykh khoziaistv. Moskva,
Nauchno-tekhn.isd-vo M-va avtomobil'nogo transporta i shosseinykh
dorog RSFSR, 1959. 81 p. (MIRA 13:2)
(Transportation, Automotive--Accounting)

CHECHE, A.A.

Approximate designing of rectangular elastically supported plates
subjected to linear thermal changes. Sbor.nauch.trud.Bel.
politekh.inst. no.70:107-115 '59. (MIRA 13:5)
(Elastic plates and shells)

L 009-1-66 EWT1178 JUPis AT
ACC NR: AT6020563 (N) SOURCE CODE: UR/0000/65/000/000/0015/0026

AUTHOR: Chechkin, V. V.; Vasil'yev, M. P.; Grigor'yeva, L. I.; Smerdov, B. I.

11
B+

ORG: none

TITLE: Absorption of high frequency energy by plasma in the ion cyclotron resonance in strong high frequency fields

SOURCE: AN UkrSSR. Vysokochastotnyye svoystva plazmy (High frequency properties of plasma). Kiev, Naukovo dumka, 1965, 15-26

TOPIC TAGS: plasma heating, plasma oscillation, plasma velocity, plasma density, cyclotron resonance, ion beam, electron collision

ABSTRACT: The present work continues the study of the absorption of high frequency waves by a plasma in the ion cyclotron resonance. The conditions for heating of plasma by this method and the physical processes which occur in various regimes are briefly reviewed. The nature of energy absorption is studied in the experiment with a high frequency wave applied to the plasma with a density of 10^{13} electrons/cm³ and an axial current flow of 30 A/cm². It is shown that the absorption of the wave depends on the interaction between ions and electrons of the plasma. This result is described by equations derived for the case of absorption by collisions. In the experiments where the electric field of the wave exceeded the critical value (which determines the maxi-

Card 1/2

L 4052355

ACC NR: AT6020563

mum absorption for two-body collisions), the effective collision frequency increased strongly. This increase is attributed to the deceleration of the directed ion beam in the cyclotron wave by high frequency plasma oscillations induced by ion beams with velocities exceeding the thermal velocity of the plasma. The experimentally determined effective collision frequency is within an order of magnitude of that arising from the above mechanism. Orig. art. has: 11 formulas, 3 figures.

SUB CODE: 20/

SUBM DATE: 19Nov65/

ORIG REF: 013/

OTH REF: 002

Card 2/2

vmb

CHECHEL', A. F.

CHECHEL', A. F. - "Repairing tractor parts by high-frequency welding with powdered cast iron". L'vov, 1955. Joint Council, All-Union Sci Res Inst for the Mechanization of Agriculture (VIM), and All-Union Sci Res Inst for the Electrification of Agriculture (VIESKh). (Dissertation for the Degree of Candidate of Technical Science.)

SO: Knizhnaya Letopis', No. 43, 22 October 1955. Moscow

CHECHEL', A.F., kand.tekhn.nauk

Automatic built-up welding of wear-resistant bearing rollers
of crawler tractors. Svar. proizv. no.10:37-38 0 '61. (MIRA 14:9)

1. L'vovskiy sel'skokhozyaystvennyy institut.
(Crawler tractors—Maintenance and repair)
(Electric welding)

ZHARKOV, M.A.; CHECHEL', E.I.

Cambrian sediments of the middle and lower Kirenga River. Dokl.
AN SSSR 149 no.4:922-924 Ap '63. (MIRA 16:3)

1. Irkutskoye geologicheskoye upravleniye. Predstavleno akademikom
A.L.Yanshinym.
(Kirenga Valley—Geology, Stratigraphic)

ZHARKOV, M.A.; CHECHEL', E.I.

Late Pre-Cambrian and Cambrian sediments in the Chay basin
(western slope of the North Baikal highland). Dokl. AN
SSSR 159 no.1:85-88 N '64. (MIRA 17:12)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN
SSSR. Predstavleno akademikom A.L. Yanshinym.

MALINOVSKAYA, L.N.; CHECHEL', I.I.

Distortion of nonsteady vibrations in galvanometric recording.
Trudy Inst. fis. Zem. no.20:125-136 '62. (MIRA 15:8)
(Seismometry)

CHECHEL', I.P., inzh.

Automatic coupling. Trakt. i sel'khoz mash. no.12:40

D '65.

(MIRA 18:12)

1. Chelyabinskiy traktorny zavod.

S/081/60/000/022/009/016
A005/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 22, p. 236, # 89431

AUTHORS: Azarov, K. P., Chechel', L. D.

TITLE: The Role of Hydrogen in the Formation of "Fish Scale" Defect in the Enamel Coating

PERIODICAL: Tr. Novosherk. politekhn. in-ta, 1959, Vol. 97, pp. 87-91

TEXT: The role of steel and some technological factors in the formation of "fish scales" was studied. The cathodic etching method was used for testing. It turned out that cold rolling and increased steel drawing degree considerably increase the resistance to fish-scale formation; preliminary copper- or iron-plating of the specimens prevents the fish-scale formation; with increasing thickness of the coating the time needed for the fish-scale formation increases; boron-free coatings resist considerably better the fish-scale formation than boric ones. The tests were conducted with the following coating enamels: titanic, cryolitic, and Dutch titanic and cryolitic at the thickness of the roasted coating being 0.15 and 0.40 mm. The tests showed that the titanic enamel withstands well the fish-scale

Card 1/2

S/081/60/000/022/009/016
A005/A001

The Role of Hydrogen in the Formation of "Fish Scale" Defect in the Enamel Coating

formation in case of a large coating thickness and weakly resists in a thin layer. The cryolitic and Duch enamels resist well the fish-scale formation in case of both large and small coating thicknesses.

G. Gerashchenko

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

CHECHEL, N. S.

13

On acid-resistant materials in the chemical processing of vegetable waste. N. S. Chechel. *Lezhim. Prom. S.* No. 3, 31 6(1940); (*Chem. Zvest.* 1940, II, 1801).—For contact with mash and neutral liquids or hydrolyzates, the following materials can be used: iron, cast iron, Cu, P bronze contg. Cu 84.74, Pb 7, Sn 8, and P 0.25%, and the alloy "Bashov" contg. Cu 80.5, Al 10, Mn 1.3 and Fe 2%. Nonrusting steels are used for armatures. Al, brass and Al bronze are not resistant. Iron and cast iron are resistant to H₂SO₄ solns. only in the absence of erosion and air. Cu is resistant up to 150-70°. Pb-clad surfaces are resistant to cold acid only. For temps. 85-90° app. made of dry wood is used. Ceramic products, although highly resistant to corrosion, are not suitable because of their susceptibility to temp. changes and mech. strains. Armatures of fused quartz resisted both cold and hot acids.

M. Hosh

ASS-51A METALLURGICAL LITERATURE CLASSIFICATION

CHECHEL', N.S.

Effect of the number of runner blades on power characteristics
of high-speed adjustable-blade hydraulic turbines. Trudy LPI
no.193:38-50 '58. (MIRA 12:2)
(Hydraulic turbines--Blades)

ALEKSANDROVA, T.A., kand.tekhn.nauk; CHECHEL', N.S., kand.tekhn.nauk

Construction of high-speed hydraulic turbines. Energomashinostroenie 5
no.3:13-17 Nr '59. (MIRA 12:3)
(Hydraulic turbines)

L 04065-67 EWP(k)/EWP(d)/EWP(m)/T-2/EWP(w)/EWP(f)/EWP(v) IJP(c) EM/FDN

ACC NR: AP6027558

SOURCE CODE: UR/0143/66/000/005/0105/0109

AUTHOR: Staritskiy, V. G. (Candidate of technical sciences); Chechel', N. S. (Candidate of technical sciences)

ORG: Leningrad Polytechnic Institute im. M. I. Kalinin (Leningradskiy politekhnicheskiy institut)

TITLE: A method of reducing energy losses connected with secondary flows in the vane systems of axial turbines

SOURCE: IVUZ. Energetika, no. 5, 1966, 105-109

TOPIC TAGS: axial flow turbine, turbine design

ABSTRACT: The article starts with a consideration of the reasons for the appearance of secondary losses. These arise: a) in the case of a fixed grid as a result of the pressure difference between the convex and concave sides of neighboring vanes in the grid; b) in the case of a rotating grid, in addition to the above pressure forces, a centrifugal force is set up in the boundary layer; c) with the presence of sleeves of peripheral gaps, overflow of liquid occurs through the gap as a result of the pressure difference on the two sides of the gap. The article passes on to a consideration of ways to prevent these losses,

44
43
B

Card 1/2

UDC: 621.224.15:532.501.312

L 04065-67

ACC NR: AP6027558

including the use of finned vanes²⁶. It concludes with the following general recommendations: 1) the fins should be located approximately along the line of flow; 2) the angle between the fin and the vane should be close to a right angle; 3) it is more advantageous to place the fins on the convex side of the vane; however, they can also be installed on the concave side or on both sides; 4) the fins should be installed at some distance from the end of the vane; 5) the height of the fin may be varied along the length of the vane; 6) the number of fins on one side of a vane must be determined experimentally. It is to be expected, however, that the optimum number will not exceed two. Orig. art. has: 3 figures.

SUB CODE: 13/ SUBM DATE: 27Sep65/ ORIG REF: 017/ OTH REF: 008

kh

Card 2/2

AUTHORS: Chechel', P. S., Antropov, L. I. 75..13..3..19/27

TITLE: Polarographic Determination of Formic Acid
(Polyarograficheskoye opredeleniye murav'inoy kisloty)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol. 13, Nr 3,
pp. 354-359 (USSR)

ABSTRACT: In the present paper the polarographic behavior of formic acid is investigated. The measurements were made on a Geyrovskiy-polarograph of the type Y-30; the technical data of which are given in detail (analogous to reference 1). In weakly acid solutions polarograms of formic acid can be obtained. A 0,1n solution of potassium or sodium chloride acidified with hydrochloric acid is best suitable as medium. The reduction of formic acid begins at potentials of from -1,7 to -1,8 V (relative to a normal calomel electrode), where distinctly marked maxima occur in the polarographic curves in the domain of the limiting current. Due to this fact the polarographic behavior of formic acid has hitherto not yet been investigated. By means of the scale of "φ-potentials" set up by one of

Card 1/4

Polarographic Determination of Formic Acid

75-13-3-19/27

the authors (Reference 2) compounds can be found the addition of which leads to a suppression of the polarographic maxima. " ϕ -potential" denotes the displacement of the stationary potential of the zero charge of the electrode metal. The nature of the addition depends on the value of the ϕ -potential. Predominant adsorption at the electrodes is brought about for $\phi < 0$ by an addition of a cationic type, for $\phi > 0$ - an addition of an anionic type and for $\phi = 0$ - an addition of a molecular type. As in the polarographic investigation formic acid is $\phi < 0$ (Reference 3), the authors sought additions of a cationic type. Tribenzylamine $(C_6H_5CH_2)_3N$ proved to be best suitable for this purpose. The formation of maxima can be completely suppressed, if some drops of a saturated tribenzylamine solution are added to 10 ml of a solution which does not contain more than 0.1 gram-mol/ liter of formic acid. On this occasion the pH-value of the solution shall be 2-4. For every pH-value exists a maximum concentration of formic acid at which normal polarograms are obtained. An increase in concentration of formic acid above this value, or the

Card 2/4

Polarographic Determination of Formic Acid.

75-13-3-19/27

use of solutions with $p_H < 2$ does not lead to reproducible results. In solutions with $p_H > 4$ a high concentration of formic acid is needed for maintaining a sufficiently high limiting current, where tribenzylamine does no longer suppress the maxima. The amount of the entire limiting current increases with the concentration of formic acid and the hydrogen ions, as the reduction of formic acid is accompanied by a reduction process of hydrogen ions. The entire limiting current therefore consists of the sum of these two limiting currents. The portion of the limiting current of the reduction of hydrogen ions decreases with increasing pH-value, and already at pH 3 the entire limiting current is entirely determined by the concentration of formic acid. A working prescription for the quantitative polarographic determination of formic acid and its salts in solutions was worked out; it is given in detail. The presence of formaldehyde disturbs, as it prevents the suppression of the polarographic maxima of formic acid.

Card 3/4

Polarographic Determination of Formic Acid

75-13-3-19/27

There are 9 figures and 3 references, 2 of which are Soviet.

ASSOCIATION: Novocherkasskiy politekhnicheskiy institut im. S. Ordzhonikidze
(Novocherkassk Polytechnical Institute imeni S. Ordzhonikidze)

SUBMITTED: April 17, 1957

1. Formic acid--Determination

Card 4/4

Chechel', P.S.

110-4-16/25

AUTHORS: Antropov, L.I., Professor, Fedorov, Yu.V., and Chechel', P.S.,
Engineers

TITLE: Direct Copper-plating of Steel Parts in Acid Sulphate Electrolytes with Additives (Pryamoye medneniye stal'nykh izdeliy v kislykh sul'fatnykh elektrolitakh s dobavkami)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, No. 4, (USSR),
pp. 49 - 52

ABSTRACT: The cheapest baths of copper sulphate and sulphuric acid cannot normally be used for copper-plating of iron. This is because as soon as iron is put into copper sulphate some of it dissolves and a friable and porous deposit of contact copper is formed which is not well bound to the underlying iron. Contact exchange occurs because of the great difference in the normal exchange potential between iron and copper. Methods of reducing the contact volume current are considered; one is to increase the specific polarisibilities of the solution. So far, this method of suppressing contact exchange by retarding the partial electro-chemical reactions has not been used in plating practice, although it is obviously interesting whenever an electro-positive metal has to be deposited on an electro-negative base. This principle was used in the investigation described in the article.

Card1/3

110-4-16/25

Direct Copper-plating of Steel Parts in Acid Sulphate Electrolytes
with Additives

It was established that just as inhibitors retard the corrosion of metals, so certain surface-active additives retard the rate of contact exchange. When additives are used, retardation is caused by increase of the anode polarisation during dissolution of iron and of cathode polarisation during deposition of copper, as shown graphically in Fig.1. The rate of contact exchange can be reduced so much that it is possible to plate copper directly onto steel parts in acid sulphate baths without using complex cyanates in the electrolyte. The two surface-active substances used are tribenzylamine and thiourea. Using baths with these additives and appropriate current densities and temperatures, good quality copper-plating is obtained on steel. The plating is of much finer structure than that ordinarily obtained from acid electrolytes.

It is particularly important to clean the surface thoroughly; a recommended procedure is given and includes de-greasing, pickling and washing.

A quantitative method was developed for the determination of tribenzylamine and thiourea which is based on the ability of surface-active substances to depress the polarographic maximum. The method of doing this is explained and illustrated in Fig.2.

Card2/3

Direct Copper-plating of Steel Parts in Acid Sulphate Electrolytes
with Additives 110-4-16/25

Calibration curves are required for determining concentrations of tribenzylamine and thiourea in dilute solution from polarograms. The construction of these curves is described and specimen curves are shown in Fig.3. A fully-worked numerical example of analysis is given. Fig. 4 shows a nomogram constructed from the data of Fig.3 for the case when the amount of thiourea is constant at 0.1×10^{-3} g/litre. With different conditions, other calibrations and nomograms will be required but the principle remains the same. There are 4 figures.

ASSOCIATION: Novocherkassk Polytechnical Institute (Novocherkasskiy politekhnicheskii institut)
SUBMITTED: May 27, 1957
AVAILABLE: Library of Congress
Card 3/3

CHECHEL', P. S. Cand Tech Sci -- (diss) "Reduction of Carbon Dioxide
With ^{an} Amalgam of Sodium." Novocherkassk, 1957. 16 pp 20 cm.

(Min of Higher Education USSR, Novocherkassk Polytechnic Inst im
Sergo Ordzhonikidze, Chair of the Technology of Electrochemical
Production), 135 copies (KL, 26-57, 109-110)

CHECHEL', P.S.; ANTROPOV, L.I.

Electrochemical method of producing sodium formate from carbon dioxide and sodium amalgam. Zhur.prikl.khim. 31 no.12:1856-1861 D '58. (MIRA 12:2)

1. Novocherkasskiy politekhnicheskiy institut imeni S. Ordzhonikidze.

(Sodium formate) (Carbon dioxide) (Amalgams)

5.(1,2,3)

AUTHORS:

Chechel', P. S., Popov, S. Ya.

SOV/153-2-1-14/25

TITLE:

Polarographic Determination of Joiner's Glue and Soap Root in Zinc Electrolytes (Polarograficheskoye opredeleniye stolyarnogo kleya i myl'nogo kornya v tsinkovykh elektrolitakh)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 1, pp 67 - 72 (USSR)

ABSTRACT:

The determination of Joiner's glue in electrolytes is usually neglected since the analysis is complicated and tiresome. Joiner's glue is known to be added to many electrolytes used in galvanic technology and hydroelectrometallurgy. The glue content is usually evaluated according to the quality of cathodic deposition. Such an approximate method is obviously unsatisfactory in many cases. In addition to that, soap root (*Saponaria officinalis*) is contained in the zinc electrolytes used in hydroelectricmetallurgy. It improves the formation of foam on the surface of the electrolyte during the electrolysis. As a result, the air in the electrolysis works department is less contaminated by acid vapors. Nevertheless, the ratio of soap root to Joiner's glue in the electrolytes is of some importance since soap root af-

Card 1/4

Polarographic Determination of Joiner's Glue and Soap
Root in Zinc Electrolytes

SOV/153-2-1-14/25

fects also the cathodic separation of zinc. The usual methods of separate determination of the glue and the root have not yet been described up to now. In the present article the authors attempted to develop a rapid and sufficiently accurate method of determining (a) Joiner's glue in the chlorine-ammonium-zinc electrolyte (according to reference 1); (b) of the glue and root when commonly present in sulphate-zinc electrolytes which are employed in the hydroelectrometallurgy of zinc (Ref 2). Table 1 shows the composition of these electrolytes. In view of the surface-active properties of the two above-mentioned substances (Refs 3-8) the authors further employed the method of reducing the maxima of the polarographic amplitudes. Figure 1 shows this maxima reduction on zinc polarograms with increasing glue content. Figure 2 contains a calibration curve for determining bone glue in ammonium-zinc electrolytes. Figures 3 and 4 demonstrate the polarographic maxima of zinc in the presence of various concentrations of Joiner's glue and soap root. Figures 5 and 6 show the dependence of the concentration of glue and root on the logarithm of the maximum on zinc polarograms at various concentrations of soap root and Joiner's glue. Figures 7 and 8 contain ca-

Card 2/4

Polarographic Determination of Joiner's Glue and Soap Root in Zinc Electrolytes SOV/153-2-1-14/25

libration curves for soap root and bone glue. Results of the determination of the glue content in various electrolytes are given in table 2. Similar results were obtained with soap root. The course of analysis is then described. C o n c l u s i o n s : (1) The capability of Joiner's glue and soap root of reducing polarographic maxima can be employed for the purpose of determining their concentration in zinc electrolytes with satisfactory accuracy for practical purposes. (2) Joiner's glue reduces these maxima more intensely than soap root. The variation of the maximum level by the concentration of one of these substances is independent of the content of the other one. Therefore they can be separately determined if both of them are present in the sulphate-zinc electrolyte. The method of determination devised for the afore-mentioned purpose may be employed also in other cases where simultaneous determination of two surface-active substances is necessary. There are 8 figures, 2 tables, and 8 references, 7 of which are Soviet.

Card 3/4

Polarographic Determination of Joiner's Glue and Soap SOV/153-2-1-14/25
Root in Zinc Electrolytes

ASSOCIATION: Novocherkasskiy politekhnicheskiy institut; Kafedra elektro-
khimii (Novocherkassk Polytechnic Institute, Chair of Electro-
chemistry)

SUBMITTED: December 16, 1957

Card 4/4

CHECHEL', P.S.; DATSENKO, O.V.

Rapid method of determining the basicity of slags. Izv.vys.ucheb.
zav.;khim.i khim.tekh. 5 no.3:367-370 '62. (MIRA 15:7)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz imeni
M.I. Arsenicheva, kafedra khimii.
(Slag)

GRYUNER, V.S.; CHECHELASHVILI, E.V.

Oils and fats for the production of chocolate. Izv.vys.ucheb.zav.;
pishch.tekh. no.5:76-80 '63. (MIRA 16:12)

1. Moskovskiy institut narodnogo khozyaystva imeni G.V.Plekhanova
i Gruzinskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti, kafedra tovarovedeniya prodovol'stvennykh tovarov.

CHECHELASHVILI, G.A.

Experimental tumors of the thyroid gland. Soob. AN Gruz.
SSR 30 no.3:347-352 Mr '63. (MIRA 17:6)

1. Institut onkologii, Tbilisi. Predstavleno akademikom
K.D. Eristavi.

DZOTSENIDZE, G.S.; SKHIRTLADZE, N.I.; CHECHELASHVILI, I.D.; RUBINSHTEYN, M.M.,
red.; BAKRADZE, D.S., red, ~~ibid.~~; DZHAPARIDZE, N.D., tekhn, red.

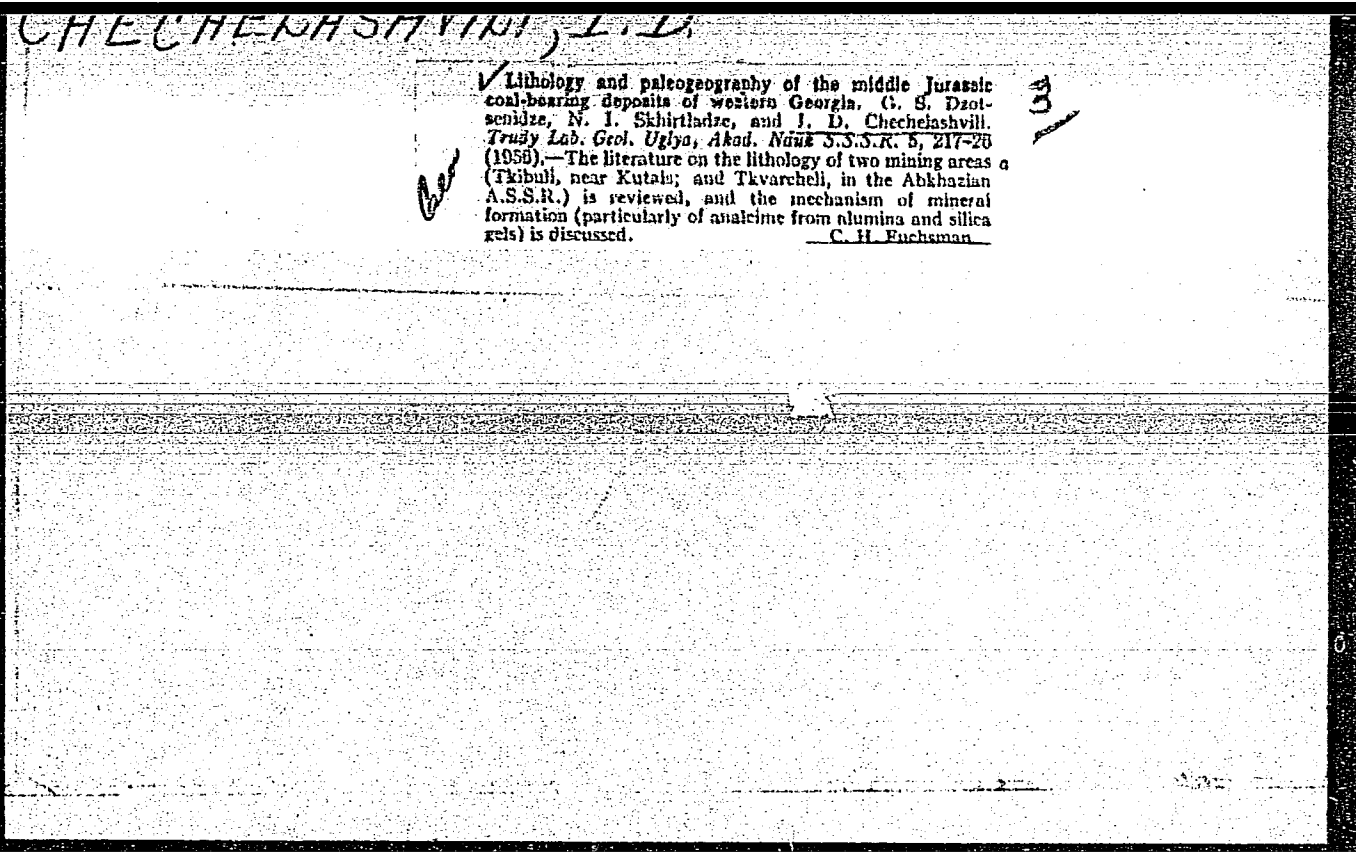
[Lithology of Bathonian sediments in Okriba] Litologiya batskikh
otlosheni Okriby. Tbilisi, Izd-vo Akad.nauk Grus.SSR, 1956. 185 p.
(Akademia nauk Gruzinskei SSR. Tiflis. Institut geologii i
mineralologii. Monografii, no.7) (MIRA 12:3)
(Okriba--Sediments (Geology))

DZOTSENIDZE, G.S.; SKHIRTADZE, N.I.; CHECHELASHVILI, I.D.;

Authigenic minerals in coal-bearing deposits of Okriba in western
Georgia. Vop.min.osad.obr. 3/4:326-336 '56. (MLRA 9:11)

1. Institut geologii i mineralologii Akademii nauk Gruzinskoy SSR,
Tbilisi.

(Okriba--Mineralogy) (Okriba--Coal)



ЧЕЧЕЛАШВИЛИ, И. Д.

✓ Lithology and paleogeography of the middle Jurassic coal-bearing deposits of western Georgia, G. S. Dzonidze, N. I. Skhirtladze, and I. D. Chechelashvili. *Trudy Lab. Geol. Uglya, Akad. Nauk S.S.S.R.* 5, 217-28 (1958).—The literature on the lithology of two mining areas (Tkibuli, near Kutais; and Tkvarcheli, in the Abkhazian A.S.S.R.) is reviewed, and the mechanism of mineral formation (particularly of analcime from alumina and silica gels) is discussed. — C. H. Fuchsman

DZOPB MIDEM, G.S.; SKHIRTLADE, N.I.; ~~CHESH LASHVILI, I.D.~~

Materials on the lithology of pre-Bathian formations in the Tvercheli
coal deposit and adjacent regions. Trudy Inst.geol. AN Gruz.SSR. Min.
i natr.ser. 4:65-106 '58. (MIR. 12:11)

(Georgia--Coal geology)

J. J. BERNARD, G.S.; SERIKIADZE, F.I.; CHICHENASHVILI, I.D.

Lithology of Bathonian sediments in the Kereiti-Matburu region.
Trudy Inst.geol. AN Gruz. SSR. Min. i petr.ser. 4:107-150 '56.

(MIRA 12:11)

(Tribul region--Coal geology)

CHIBELASHVILI, I.D.

Authigenic minerals in coal-bearing deposits and in Callovian and Oxford stages of the Bayb' coal deposits. Soob. AN Grus. SSR 21 no.4:443-448 0 '58. (MIRA 12:4)

1. AN GrusSSR, Geologicheskiy institut, Tbilisi. Predstavleno akademikom G.S. Dzotsenidze.

(Georgia--Mineralogy)

CHECHELASHVILI, I.D.

Conditions governing the deposit of the coal-bearing series of the
Bzyb' coal field. Soob.AN Gruz.SSR 23 no.4:427-430 0 '59.
(MIRA 13:5)

1. Akademiya Nauk Gruzinskoy SSR, Geologicheskiy institut.
Predstavleno akademikom G.S.Dzotsenidze.
(Georgia--Coal geology)

CHECHELASHVILI, I. D., Cand Geol Mineral Sci — (diss) "Lithology of the Coal-Bearing Stratum and Deposits Contiguous With It in the Region of the Bzybkoje Coal Bed." Tblisi, 1960, 19 pp, (Tblisi State Univ im Stalin) 150 copies, free (KL, 21-60, 120)

CHECHELASHVILI, I.D.

Lithology of the coal-bearing series and adjacent sediments in the
area of the Bsyb' coal deposit. Trudy AN Gruz.SSR.Min.i petr.ser
5:149-178 '61. (MIRA 14:6)
(Bsyb' Valley--Coal geology)

SKHIRTADZE, N.I.; CHECHELASHVILI, I.D.

Lithology of coal-bearing sediments in the northern run of the
Tkvarcheli coal deposit. Trudy Geol.inst.AN Gruz.SSR. Min. i
petr. ser. 6:107-136 '61. (MIRA 15:9)
(Tkvarcheli region--Coal geology)

CHECHELASHVILI, I.D.

Authigenic feldspars in carbonate flysch of the Upper Racha.
Soob. AN Gruz. SSR 33 no.3:585-590 Mr '64 (MIRA 17:8)

1. Geologicheskii institut AN GruzSSR. Predstavleno akademikom
G.S. Dzotsenidze.

CHECHELASHVILI, I.D.; KOPALEYSHVILI, A.D.

Mudaceous rocks in the carbonate flysch of Racha-Gvanetiya.
Soob. AN Gruz. SSR 36 no.3:617-624 D '64.

(MIRA 18:3)

1. Geologicheskii institut AN GruzSSR, Tbilisi. Submitted May
14, 1964.

CHECHELASHVILI, I.D.; BERIDZE, M.A.

Lithology of Paleogene formations in southeastern Georgia.
Trudy Geol. inst. Gruz.SSR no.3:59-102 '65.

(MIRA 18:11)

CHECHELASHVILI, M.Ya.; BOKARIUS, V.N.

Case of toxoplasmosis in legal medical practice. Sud.-med. ekspert.
3 no.3:45-47 J1-S '60. (MIRA 13:9)

1. Kafedra sudebnoy meditsiny (nachal'nik - prof. I.F. Ogarkov)
Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(TOXOPLASMOSIS)

CHECHELEV, I.

Reduced units, cost, economics. Grashd. av. 20 no.1:19
Ja '63. (MIRA 16:4)

(Aeronautics, Commercial—Management)

CHECHELEVA, T.V.

Improvement in the material welfare of the Kazakhstan collective
farm peasantry (1953-1959). Vest.AN Kazakh.SSR 17 no.6:71-78
Je '61. (MIRA 14:6)

(Kazakhstan--Collective farms)

CHULANOV, Gabdulla Chulanovich; ISIMUKHAMEDOV, Bukenbay Mergaliyevich;
CHECHELEVA, Tat'yana Vasil'yevna; ZHUBANOVA, Zarya Galimovna;
KOLTOCHNIK, N.I., red.; ROROKINA, Z.P., tekhn. red.

[Studies on the history of the national economy of the Kazakh
S.S.R.] Ocherki istorii narodnogo khoziaistva Kazakhskoi SSR.
[By] G.Ch.Chulanov i dr. Alma-Ata, Izd-vo Akad. nauk Kazakh-
skoi SSR. Vol.2.[From 1928 to June 1941] 1928 god - iiun'
1941 goda. 1962. 374 p. (MIRA 15:8)

1. Akademiya nauk Kazahskoy SSR, Alma-Ata. Institut ekonomiki.
(Kazakhstan--Economic conditions)

CHULANOV, G.Ch., doktor ekon. nauk, prof.; KISELEVA, L.I.; ZHUBANOVA, Z.G.; TAYBEKOV, I.Ye.; DZHAKSALIYEV, B.M.; ISHMUKHAMEDOV, B.M.; CHECHELEVA, T.V.; KUZNETSOV, Yu.N., red.; POGOZHEV, A.S., red.; ROROKINA, Z.P., tekhn. red.

[Essays on the history of the national economy of the Kazakh S.S.R.] Ocherki istorii narodnogo khoziaistva Kazakhskoi SSR. Alma-Ata, Izd-vo AN Kaz.SSR. Vol.3. [June 1941 to 1945] Iiun' 1941 goda - 1945 god. 1963. 299 p. (MIRA 17:1)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut ekonomiki.
2. Chlen-korrespondent AN Kaz.SSR (for Chulanov).

NEUDACHIN, A.P., inzh. [deceased]; RUTENBURG, I.A., inzh.; CHECHEL'NITSKAYA,
A.M., inzh.

Using single-pipe heating systems on ships. Sudostroenie 24
no.5:67-68 My '58. (MIRA 11:6)
(Ships--Heating and ventilation) (Marine pipe fitting)

VAYSHTEYN, M.A. [deceased], GAZIZOVA, G.R., VASIL'YEVA, L.D.,
CHECHEL'NITSKAYA, S.E.

Studies on Q fever in the Tarter Republic. Zhur. mikrobiol. epid.
i immun. 29 no.9:110-115 S '58 (MIRA 11:10)

1. Iz Kazanskogo instituta epidemiologii i gigiyeny i gorodskoy
sanitarno-epidemiologicheskoy stantsii.
(Q FEVER, epidemiol.
in Russia (Rus))

CHECHEL'NITSKAYA, S.E.; BAYGULEVA, S.A.; YAKOBSON, D.Ya.; VAYMAN, T.I.

Material on the spread of *Lamblia* and other flagellate parasites
of the intestine among younger children. Med.paraz. i paraz.bol.
28 no.2:231-232 Mr-Apr '59. (MIRA 12:6)

1. Iz Kazanskoy gorodskoy sanitarno-epidemiologicheskoy
stantsii i Kazanskogo nauchno-issledovatel'skogo instituta
epidemiologii i gigiyeny.
(WORMS, INTESTINAL AND PARASITIC)

CHECHELNITSKAYA, S. I., SERGEYEVA, P. A., GAZIZOVA, G. R.,

"On the dissemination of Q fever in the TASSR." p. 139

Desyatoye Soveshchaniye po parazitologicheskim problemam i prirodnouchagovym boleznyam. 22-29 Oktyabrya 1959 g. (Tenth Conference on Parasitological Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 254pp.

Kazan Inst. of Epidemiology and Hygiene

CHECHEL'NITSKAYA, S.M.; BAYGULOVA, S.A.

Duration of tertian malaria with long and short incubation periods. Med.paras. i paraz. bol.24 no.3:217-220 J1-S '55.
(MLRA 8:12)

1. Iz Kasanskoy gorodskoy protivomalyariynoy stantsii
(sav.stantsiyey S.M.Chechel'nitskaya.

(MALARIA,

tertian, duration in short & long incubation times)

Cheche Nitskaya, S.M.

CHECHEL'NITSKAYA, S.M.; BAYGULOVA, S.A.

Effectiveness of quinocide in the treatment of tertian malaria
[with summary in English]. Med. paras. i paras. bol. 26 no.3:
268-289 My-Je '57. (MIRA 10:11)

1. Iz Kazanskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(ANTIMALARIALS, therapeutic use,
quinocide in tertian malaria (Rus))

SARIKYAN, S.Ya., CHECHEL'NITSKAYA, S.M., BAYGULOVA, S.A., LATYPOVA, G.Kh.
MILITSINA, A.N.

The problem of correct organization of malaria control in the
Tatar A.S.S.R. [with summary in English]. Med.paraz. i paraz.bol.
27 no.3:304-309 My-Je '58 (MIRA 11:7)

1. Iz sektora bor'by z parazitarnymi boleznyami pri stroitel'stve
gidrotekhnicheskikh i meliorativnykh sooruzheniy Instituta malyarii,
meditsinskoy parazitologii i gel'mintologii Ministerstva zdavookhra-
neniya SSSR (dir. instituta - prof. P.G. Sergiyev, zav. sektorom -
prof. V.N. Bekhlemishev) i Kazanskoy gorodskoy sanitarno-epidemiologi-
cheskoy stantsii (glavnyy vrach TS.D. Matt).

(MALARIA, prevention and control
in Russia (Rus))

CHECHEL'NITSKIY, A.K.

Wider use of arch dams. Energ. i elektrotekh. prom. no.2:56-58
Ap-Je '62. (MIRA 15:6)

(Dams)

MEDVEDEV, M.; CHECHEL'NITSKIY, A.

Standardisation of buildings and structures among branches of industry. Prom.stroi.i inzh.soor. 4 no.5:44-49 S-0 '62.

(MIRA 16:1)

1. Direktor Nauchno-issledovatel'skogo instituta eksperimental'nogo proyektirovaniya Akademii stroitel'stva i arkhitektury UkrSSR (for Medvedev). 2. Glavnyy spetsialist sektora Nauchno-issledovatel'skogo instituta eksperimental'nogo proyektirovaniya Akademii stroitel'stva i arkhitektury UkrSSR (for Chechel'nitskiy).
(Industrial buildings—Design and construction)

CHECHEL'NITSKIY, A.

Complex use of water resources of rivers in the western provinces
of the Ukrainian S.S.R. Rech. transp. 21 no.3:34-35 Mr '62.

(MIRA 15:4)

1. Glavnyy spetsialist Nauchno-issledovatel'skogo instituta
eksperimental'nogo proyektirovaniya Akademii stroitel'stva i
arkhitektury USSR.

(Ukraine--Inland water transportation)

CHECHEL'NITSKIY, A.K.

Hydroelectric power and overall utilization of the water power resources of rivers of the Ukrainian S.S.R. Energ. i elektrotekh. prom. no.2:54-58 Ap-Je '63. (MIRA 16:7)

1. Nauchno-issledovatel'skiy institut eksperimental'nogo proyektirovaniya Akademii stroitel'stva i arkhitektury UkrSSR.
(Ukraine—Hydroelectric power)

CHECHEL'NITSKIY, A., inzh.

Standardization of industrial buildings in industrial and power-
plant districts. Prom. stroi. i inzh. soor. 5 no.5:17-23 S-0 '63.
(MIRA 16:12)

CHECHEL'NITSKIY, A.K., inzh.

Standardization of hydroelectric power stations. Energ. i elektrotekh.
prom. no.2:41-44 Ap-Je '65. (MIRA 18:8)

CHECHEL'NITSKIY, G.G.

S/032/62/028/001/014/017
B116/B108

AUTHORS: Garber, R. I., Gindin, I. A., Neklyudov, I. M.,
Chechel'nitskiy, G. G., and Stolyarov, V. M.

TITLE: Device for programmed metal hardening

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 1, 1962, 107 - 109

TEXT: A device has been designed for programming the load on samples. It permits determining the effect of the charging rate on the material properties up to 800°C in a vacuum of 10^{-6} mm Hg or in inert gases. The charging rate can be increased from 10 g/mm² per hr to 3 kg/mm² per hr. Moreover, rates of up to 80 kg/mm² per hr are possible. The maximum load is 350 kg. The sample elongation (up to 4 - 5 mm with an error of 0.5 μ) is measured with an optical strain gauge. Reduction of the charging rate to values corresponding to diffusion hardening lowers both the total deformation and the rate of steady creep. The device (Fig. 1) operates as follows: Dynamometer spring (6) is compressed by the reducing gear (7). The charging rate is regulated by varying the periodic operation of the motor (8) (PA-09 (RD-09)-type) driving the gear

Card 1/3

Device for programmed metal hardening

S/032/62/028/001/014/017
B116/B108

(7). The sample is heated by a tubular furnace with molybdenum coil, and the temperature is regulated by an ЭПД-12 (EPD-12) electronic potentiometer. There are 4 figures and 6 Soviet references. ✓

ASSOCIATION: Fiziko-tekhnicheskii institut Akademii nauk USSR (Physico-technical Institute of the Academy of Sciences UkrSSR)

Fig. 1. Diagram of device for programmed hardening.

Legend: (1) sample; (2) and (3) fastenings; (4) cross piece; (5) three bars; (6) dynamometer spring; (7) reducing gear; (8) motor; (9) ball-bearing joint; (10) indicator; (11) mains connection; (12) base plate; (13) vacuum chamber; (14) sylphon; (15) limiter; (16) to pump.

Card 2/3

GARBER, R.I.; GINDIN, I.A.; STOLIAROV, V.M.; CHECHEL'NITSKIY, G.G.;
CHIRKINA, L.A.

Apparatus for studying the damping of low-frequency torsional
oscillations. Prib. i tekhn. eksp. 8 no.3:172-174 My-Je '63.
(MIRA 16:9)

1. Fiziko-tehnicheskiy institut AN UkrSSR.
(Oscillations--Electromechanical analogies)

L 8161-66 EPF(n)-2/EWT(1)/T-2/ETC(m) WW/DJ

ACC NR: AP5025004

SOURCE CODE: UR/0286/65/000/016/0063/0004

AUTHORS: Donde, A. I.; Chechel'nitskiy, G. G.

ORG: none

TITLE: Sorption vacuum pump. Class 27, No. 173875 [announced by Physico-technical Institute of the AN UkrSSR (Fiziko-tekhnicheskiy institut AN UkrSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 63-64

TOPIC TAGS: sorption pump, vacuum pump, pump

ABSTRACT: This Author Certificate presents a sorption vacuum pump consisting of a body with a screen for the sorbent, electric heaters which are switched on during regeneration periods, and a Dewar container which is placed over the body during pumping (see Fig. 1). To speed the sorbent cooling and heating and to increase its active area, the body is equipped with vertical ribs while the screen is in the shape of a many-sided star. In another version the body at the inlet is equipped with a louvered screen to prevent contamination of the sorbent with steam, carbon dioxide, and other high condensating temperature gases.

Card 1/2

UDC: 621.521

L 8161-66

ACC NR: AP5025004

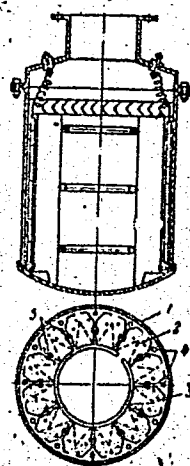


Fig. 1. 1- body; 2- screen;
3- sorbent; 4- heaters;
5- ribs

Orig. art. has: 1 figure.

SUB CODE: ME/ SUBM DATE: 07Oct64

jw

Card 2/2

KOTLYAR, P.S., inzh.; PEREL'MAN, B.M., inzh.; CHECHEL'NITSKIY, I.G., inzh.

Redesign of truck cranes. Bezop. truda v prom. 8 no.9:47-49
S '64 (MIRA 18:1)

1. Upravleniye Kiyevskogo okruga Gosudarstvennogo komiteta pri
Soveta Ministrov UkrSSR po nadzoru za bezopasnym vedeniyem
rabot v promyshlennosti i gornomu nadzoru (for Kotlyar). 2. Up-
ravleniye spetsial'nykh mashin Glavkiyevforstroya (for Perel'man,
Chechel'nitskiy).

CHECHEL'NITSKIY, I.I., inshener; KSHONDZER, G.L., inshener.

Mechanization of welding processes in gas pipe construction. Gor.khoz.Mosk.
21 no.2:20-23 F '47. (MIRA 6:11)

(Gas pipes) (Electric welding)

CHECHEL'NITSKIY, I.I., insh.; VEYS, L.E., insh.; KHARKSYEVICH, Yu.A., insh.

Festive outdoor lighting in Moscow. Gor.khoz.Mosk. 31 no.12:26-27
D '57. (MIRA 10:12)
(Moscow—Lighting, Architectural and decorative)

CHECHEL'NITSKIY, I.I.

Efficient methods for centralized heating with an automatically controlled heat supply system. Gor. khoz. Mosk. 33 no.7:9-14 JI '59. (MIRA 12:10)

1. Zamestitel' nachal'nika Upravleniya toplivno-energeticheskogo khozyaystva Mosgorispolkoma.

(Moscow--Heating from central stations)

(Automatic control)

CHECHEL'NITSKIY, I.I.

Problems of a centralized heat supply for Moscow. Gor. khoz.
Mosk. 36 no.3:10-15 Mr '62. (MIRA 15:6)

1. Zamestitel' nachal'nika Upravleniya toplivno-energeticheskogo
khozyaystva, g. Moskva.
(Moscow--Heating from central stations)

CHECHEL'NITSKIY, I.I.

Learn last winter's lessons. Gor. khoz. Mosk. 37 no.7:6-7 J1 '63.
(MIRA 16:11)

BUDANOV, G.V., inzh., red.; KARPOVSKIY, I.I., inzh., red.;
FERBEROV, L.Ya., inzh., red.; CHECHEL'NITSKIY, I.P.,
inzh., red.

[Price list No.1 of the average district estimated prices
for materials, articles and elements] TSennik No.1 sred-
nikh raionnykh smetnykh tse. na materialy, izdelia i kon-
struktsii. Moskva, Stroiizdat. Pt.5. 1965. 421 p.

(MIRA 18:8)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po
delam stroitel'stva.

DUBITSKIY, L.G.; GRITSEVICH, G.V., inzh., retsenzent;
CHECHEL'NITSKIY, M.I., inzh., retsenzent; KOLETINA,
A.V., inzh., red.; GORDEYEVA, L.P., tekhn.red.

[Radio engineering methods in production control] Radio-
tekhnicheskie metody kontrolya izdelii. Izd.2., perer. i
dop. Moskva, Mashgiz, 1963. 350 p. (MIRA 17:1)