

ACC NR: AP7006249

TABLE 1

Compound	Formula	Yield, %	BP (p, mm)	$d_4^{20}$	$n_D^{20}$	MR <sub>D</sub>	
						measured	calculated
$i\text{-}C_3H_7OCH_2CH_2Si(CH_3)(i\text{-}C_3H_7)F$	$C_9H_{21}FOSi$	86	63° (10)	0.8816	1.4060	53.59	54.02
$i\text{-}C_3H_7OCH_2CH_2Si(CH_3)(C_4H_9)F$	$C_{10}H_{23}FOSi$	90	48 (1)	0.8743	1.4092	58.38	58.66
$i\text{-}C_3H_7OCH_2CH_2Si(CH_3)(i\text{-}C_4H_9)F$	$C_{11}H_{25}FOSi$	90	73 (6)	0.8604	1.4132	63.22	63.31
$C_4H_9OCH_2CH_2Si(CH_3)(C_4H_9)F$	$C_{10}H_{23}FOSi$	84	54 (2.5)	0.8779	1.4120	58.41	58.67
$C_4H_9OCH_2CH_2Si(CH_3)(i\text{-}C_4H_9)F$	$C_{12}H_{27}FOSi$	90	72 (2)	0.8736	1.4205	67.08	67.06
$i\text{-}C_5H_{11}OCH_2CH_2Si(CH_3)(i\text{-}C_3H_7)F$	$C_{11}H_{23}FOSi$	98	67 (2)	0.8767	1.4178	63.33	63.31
$i\text{-}C_5H_{11}OCH_2CH_2Si(CH_3)(C_4H_9)F$	$C_{12}H_{27}FOSi$	95	61 (1.5)	0.8742	1.4179	67.44	67.06
$i\text{-}C_5H_{11}OCH_2CH_2Si(CH_3)(i\text{-}C_5H_{11})F$	$C_{13}H_{29}FOSi$	93	104 (7)	0.8697	1.4212	72.48	72.61
$C_6H_{13}OCH_2CH_2Si(CH_3)(C_4H_9)F$	$C_{13}H_{29}FOSi$	83	96 (2)	0.8895	1.4810	69.13	69.02
$C_6H_{13}OCH_2CH_2Si(CH_3)(i\text{-}C_5H_{11})F$	$C_{14}H_{31}FOSi$	74	110 (3)	0.8807	1.4780	73.56	73.76
$C_6H_{13}OSi(CH_3)(C_4H_9)F$	$C_{11}H_{27}FOSi$	—	58 (1)	0.8841	1.4840	59.54	59.76
$C_6H_{13}OSi(CH_3)(i\text{-}C_5H_{11})F$	$C_{12}H_{29}FOSi$	—	70-71 (1)	0.8805	1.4585	63.17	63.51

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Table 2

ACC NR: AP7006249

Compound	TABLE 2 Formula	Yield (%)	BP (p, mm)	d <sub>4</sub> <sup>20</sup>	n <sub>D</sub> <sup>20</sup>	MR <sub>D</sub>	
						measured	calculated
	C <sub>11</sub> H <sub>26</sub> FO <sub>3</sub> Si	87	116-117° (5)	0.9922	1.4282	66.79	66.15
	C <sub>13</sub> H <sub>28</sub> FO <sub>3</sub> Si	88	97 (2)	0.9828	1.4303	73.25	73.80
	C <sub>11</sub> H <sub>26</sub> FO <sub>3</sub> Si	88	105 (1)	0.9730	1.4322	77.05	78.45
	C <sub>13</sub> H <sub>28</sub> FO <sub>3</sub> Si	76	94-97 (1)	0.9870	1.4310	73.82	73.80
	C <sub>11</sub> H <sub>26</sub> FO <sub>3</sub> Si	82	116-117 (3)	0.9798	1.4338	77.70	78.77
	C <sub>16</sub> H <sub>32</sub> FO <sub>3</sub> Si	77	150 (3)	0.9674	1.4378	86.94	87.74
	C <sub>17</sub> H <sub>34</sub> FO <sub>3</sub> Si	84	126-127 (1)	0.9612	1.4366	92.39	91.50
	C <sub>18</sub> H <sub>36</sub> FO <sub>3</sub> Si	77	140 (6)	0.9765	1.4361	82.08	83.09
	C <sub>17</sub> H <sub>34</sub> FO <sub>3</sub> Si	82	120 (1)	0.9641	1.4395	91.36	92.39

Card 3/4

ACC NR: AP7006249

supplied by N. P. Vasil'yev. Orig. art. has: 2 tables.

SUB CODE: 07/ SUEM DATE: 31Jan66/ ORIG REF: 005/ OTH REF: 006

Card 4/4

L 21776-66 EWI(m)/EWP(j) RM

ACC NR: AP6002512

SOURCE CODE: UR/0286/65/000/023/0018/0018

AUTHORS: Sokolov, B. A.; Grishko, A. N.; Kuznetsova, T. A.

ORG: none

TITLE: A method for obtaining fluorosilicon organic alcohols with conjugated double bonds. Class 12, No. 176584

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 18

TOPIC TAGS: organosilicon compound, organofluorine compound, conjugated bond system

ABSTRACT: This Author Certificate presents a preparative method for obtaining fluorosilicon organic alcohols with conjugated double bonds by the interaction of fluorohydrosilanes with dialkyl (vinylacetylenyl) carbinols in the presence of chloroplatinic acid.

SUB CODE: 07/ SUBM DATE: 19Oct64

Card 1/1 *VR*

UDC: 547.419.5.07:541.571.35

KUZNETSOVA, T. B.

"The Takyr (Clayey Tracts Amid Sand) of the Kizel-Arvat Plain."  
Cand Agr Sci, Soil Inst, Acad Sci, USSR, 24 Nov 54. (VM, 12 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR  
Higher Educational Institutions (11)

SO: Sum. No.521, 2 Jun 55

KUZNETSOVA, T.D.

Effect of the regulation of respiration by the anesthesiologist during anesthesia on the percentage of carbon dioxide in the respiratory system of the anesthetic apparatus. Khirurgiia no.11: 41-46 '61. (MIRA 14:12)

1. Iz Instituta eksperimental'noy biologii i meditsiny (dir. - prof. Ye.N. Meshalikin) Sibirskogo otdoleniya AN SSSR i kafedry anesteziologii (zav. - dotsent Ye.A. Damir) Tsentral'nogo instituta usovershenstvovaniya vrachey.

(ANESTHESIA) (CARBON DIOXIDE) (RESPIRATION)

3134  
S/O33/62/039/002/003/014  
EO32/E514

3.1560

AUTHORS: Kuznetsova, T.D. and Frank-Kamenetskiy, D.A.

TITLE: Radiative thermal conductivity of completely ionised hydrogen plasma

PERIODICAL: Astronomicheskiy zhurnal, v.39, no.2, 1962, 247-255

TEXT: The authors report the results of calculations of the Rosseland mean opacity and the radiative thermal conductivity of ionised hydrogen. The calculations take into account electron scattering and bremsstrahlung processes. The theoretical treatment is a continuation of the work reported by the second of the present authors in Ref.1 ("Physical processes in stars", Fizmatgiz, 1959). The results are compared with the Sommerfeld (Ref.4: "Atomic structure and spectral lines", Gostekhizdat, Moscow, 1956) and Elwert (Ref.6: Ann.Physik, 3/4, 178, 1939) approximations. The calculations were carried out for temperatures  $T = 0.1, 0.5, 1, 2.5, 5, 10, 20$  and 40 million degrees. The computation involved a numerical integration of the hypergeometric differential equation by the Runge-Kutta method. The conclusion is that the Sommerfeld approximation can be employed at temperatures in Card 1/2

Radiative thermal ....

S/033/62/039/002/003/014  
E032/E514

excess of  $10^6$  degrees, while the Elvert approximation gives excellent agreement with the exact formula given in Ref.1 in the above temperature range. Moreover, the approximate calculations reported by the second of the present authors in Ref.3 (Astron. zh., 31, 327, 1954) are adequate for practical calculations. The asymptotic formulae for large  $\alpha$  given in Ref.3 are in disagreement with the present computer calculations. This is due to the fact that the asymptotic formulae strictly hold only for  $\alpha \sim 100$  ( $\alpha$  is a parameter describing the ratio of absorption to scattering). There are 2 figures and 2 tables.

SUBMITTED: April 26, 1961

Card 2/2



KUZNETSOVA, T.F.; SAFONOVA, A.D.

Characteristics of the action of erysimine under conditions of  
experimental hypoxia. Farm.i toks. 24 no.6:723-726 N-D '61.  
(MIRA 15:11)

1. Kafedra farmakologii (zav. - prof. V.P.Govorov) Omskogo  
meditsinskogo instituta imeni M.I.Kalinina.  
(CARDIAC GLYCOSIDES) (ANOXEMIA)

FRIDMAN, Ye.I.; Primalni uchastiye: BELYAYEV, M.M.; GONCHAROVA, T.A.;  
GUBANOVA, N.F.; KUZNETSOVA, T.I.; KIRILINA, R.A.

Using some electric insulating enamels for coating radio equip-  
ment. Lakokras. mat. i ikh prim. no.6:42-45 '61. (MIRA 15:3)  
(Radio—Equipment and supplies) (Enamel and enameling)

GANDIN, L.S.; KUZNETSOVA, T.I.

Structure of wind and pressure fields in the middle troposphere  
for different forms of circulation. Trudy GGO no.121:37-52 '61.  
(MIRA 15:5)

(Winds) (Atmospheric pressure)

KUZNETSOVA, T.I.; RAUTIAN, S.G.

On the theory of quantum generators. Zhur. eksp. i teor. fiz.  
43 no.5:1897-1903 N 162. (MIRA 15:12)

1. Fizicheskiy institut imeni Lebedeva AN SSSR.  
(Masers)

Author: Kuznetsova, T. I.; Rautian, S. G.

85

25  
25  
TITLE: On the instability of monochromatic oscillation conditions in solid-state lasers

SOURCE: Fizika tverdogo tela, v. 5, no. 8, 1963, 2105-2115

TOPIC TAGS: solid-state laser, laser theory, laser, laser stability, laser instability, monochromatic-oscillation instability, nonmonochromatic oscillation

ABSTRACT: Analysis of laser oscillation stability has been carried out in the form of solutions of wave equations in a negative-absorption layer. It is assumed that oscillation is continuous and that a standing wave with frequency  $\omega$ , close to the natural frequencies of the cavity, is established with saturation amplitude. It is also assumed that in addition to the "strong" field, other fields with frequencies differing from  $\omega$  are present which have small amplitudes so that they do not reach saturation conditions and thus do not affect the dielectric constant of the medium. Conditions are considered under which these waves decay or increase with time; the latter case corresponds to instability.

Card 1/2

AP 4005316

... emission observed in real solid-state systems. The instability ... depend to a considerable extent on the properties of the medium due ... phenomenon. If these ... are ... then in ... the "weak" field ... calculation ... of frequencies ... transition frequency. ... there is an increase with time of the field amplitudes when ... of the "strong" field is sufficiently great. A real criterion of ... depends on the ratio of ... and upper levels re- ... oscillation. The analysis ... abilities of the mono- ... condition only, and does not consider the nature of the steady state ... as such, which depends on behavior of the substance in a strong nonmono- ... field. Orig. art. has: 3 figures and 29 formulas.

ASSOCIATION: Fizicheskii institut im. P. N. Lebedeva AN SSSR, Moscow (Institute of Physics, AN SSSR)

SUBMITTED: 21Feb63	DATE ACQ: 06Sep63	ENCL: 00
SUB CODE: PH	EO REF SOV: 009	OTHER: 003

Card 2/2

ACCESSION NR: AP4020567

S/0057/64/034/003/0419/0425

AUTHOR: Kuznetsova, T.I.

TITLE: On the proper solutions of the wave equation for a nonuniform slab

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.3, 1964, 419-425

TOPIC TAGS: laser, nonuniform slab, nonuniform slab spectrum, laser side waves, laser radial mode, laser mirror diffraction, gaseous laser

ABSTRACT: The purpose of this paper is to obtain information concerning the effect of radial modes (side waves) on the operation of a gaseous laser, from calculations performed with a highly simplified model. A.G.Fox and T.Li (Bell Syst.Tech.J.40,2, 453,1961) have approached the same problem by discussing the effect of diffraction by finite mirrors (with a simplified geometry) in a uniform (and inactive) medium. In the present paper, a nonuniform active medium with a similar simplified geometry is discussed, and the mirrors are treated as infinite. Specifically, solutions are sought of the equation

Card 1/3

ACCESSION NR: AP4020567

$$\frac{\partial^2 E}{\partial x^2} + \frac{\partial^2 E}{\partial z^2} + \epsilon \frac{\omega^2}{c^2} E = 0, \quad \epsilon = \begin{cases} 1 - \delta & |x| < a, \quad \delta \ll 1, \\ 1 & |x| > a, \end{cases}$$

which vanish at  $z = 0$  and  $z = b$  (the mirrors), are continuous and have continuous gradients at  $x = \pm a$ , and represent only out-going waves in the regions  $|x| > a$ . The character of the spectrum depends on the parameter  $W^2 = \delta \omega^2 a^2 / 2c^2$ . When  $W^2$  is small but positive, there is just one solution that increases in amplitude with time. As  $W^2$  increases, more and more such solutions appear, and for large  $W^2$  the spectrum of these solutions approaches that appropriate to a system having reflecting walls at  $x = \pm a$ . The effect of loss of energy through the mirrors at  $z = 0$  and  $z = b$  is calculated. The threshold for laser action is raised by the presence of the side waves, and this effect is discussed for some numerical values of the parameters. It is found that for values of the parameters of the order of those that might represent real lasers, the loss of energy via side waves can be of the same order of magnitude as that due to diffraction at the finite mirrors. Orig.art.has: 20 formulas and 7 figures.

Card 2/3



ACCESSION NR: AP4020567

ASSOCIATION: Fizicheskiy institut im. P.N.Lebedeva AN SSSR Moscow (Physical Institute, AN SSSR)

SUBMITTED: 08Apr63

DATE ACQ: 01Mar64

ENCL: 00

SUB CODE: PH

NR REF SOV: 000

OTHER: 001

Card 3/3

KUZNETSOVA, T.I., kand.tekhn.nauk

Calculating the seepage through earth dams of collective farm  
reservoirs. Nauch. zap. KHIMSKH no.11 Fak. mekh. sel'khoz. 1:87-  
98 '60. (MIRA 14:3)

(Dams--Hydrodynamics)

KUZNETSOVA, T.I., kand.tekhn.nauk; KIRILLOVA, Ye.I.

Method for evaluating cleansing preparations by their detergency.  
Trudy NITKHI no.1:106-112 '62. (MIRA 17:4)

KUZNETSOVA, T.I.

Non-singular solutions to the wave equation for an inhomogeneous layer. Zhur. tekhn. fiz. 34 no. 3:419-425 Mr '64. (MIRA 17:5)

1. Fizicheskii institut imeni Lebedeva AN SSSR, Moskva.

KUZNETSOVA, T. I.

"Bubbling in the Absorption of Carbon Dioxide With Soda Solutions." Thesis for degree of Cand. Technical Sci. Sub 17 Nov 50, Moscow Order of Lenin Chemicotechnological Inst imeni D. I. Mendeleev

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva. Jan-Dec 1950.

~~KUZNETSOVA, T.I.~~

SOKOLOVSKIY, A.A.; KUZNETSOVA, T.I.; PAVLOVA, K.L.

Obtaining high-quality potash from waste soda-potash solutions  
from production of alumina. Khim.nauka i prom. 2 no.4:533-534  
'57. (MIRA 10:11)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut khimicheskoy  
promyshlennosti.

(Potash) (Alumina)

5 (2)

AUTHORS: Koshelova, M. M., Kuznetsova, T. I. SOV/32-25-8-23/44

TITLE: Application of Several Additions at the Determination of Rare Elements by Spectroscopy

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 8, pp 964 - 965 (USSR)

ABSTRACT: A method for the determination of gallium, indium, thallium, and germanium in pyrite, pyrite cinders and Cottrell precipitated dust was developed by the addition of calcium fluoride ( 2 : 1 at Ga- and Ge-determinations) or sodium fluoride to the sample (1 : 2 at In and Tl determinations). In this case the evaporation velocity of the rare elements and the density of the blackening of the spectral lines increases. An electrode with side openings (Fig 1) was used for the analysis and the spectra were photographed on an instrument KSA-1. Three series of standard samples were prepared according to the above-mentioned examination substances and the calibration diagrams were recorded. The reproducibility error was determined and it was found to be approximately 10.0% for Ga, 9.0% for In, 8.0% for Ta, and 5.0% for Ge determination. The analysis results obtained

Card 1/2

Application of Several Additions at the Determination of Rare Elements by Spectroscopy SOV/32-25-8-23/44

were confirmed by analyses carried out in the Gintsvetmet. There are 3 figures.

ASSOCIATION: Nauchnyy institut udobreniy i insektofungitsidov (Scientific Research Institute of Fertilizers and Insectofungicides)

Card 2/2



KOSHELEVA, M.M.; KUZNETSOVA, T.I.

Development of spectral methods for analyzing the extraction of dispersed elements from raw materials, products and waste of the sulfuric acid industry. [Trudy] NIUIF no.164:42 '59. (MIRA 15:5)  
(Trace elements) (Spectrum analysis)

KUZNETSOVA, T.I.; SUSHCHINSKIY, M.M.

Computation and interpretation of the vibrational spectra of  
isobutane. Opt. i spektr. 10 no. 1:41-47 Ja '61. (MIRA 14:1)  
(Propane--Spectra)

KOSHELEVA, M.M.; KUZNETSOVA, T.I.

Spectral determination of boron in nonaqueous borates. Zav.lab. 27  
no.3:312-313 '61. (MIRA 14:3)

1. Nauchnyy institut po udobreniyam i insektofungisidam im. Ya. V.  
Samoylov.

(Boron—Spectra)

(Borates—Spectra)

KUZNETSOVA, T.I., RAUTIAN, S.G.

Plane solution to a wave equation for a layer with a negative absorption coefficient allowing for saturation. Izv.vys.ucheb.zav.; radiofiz. 7 no.4:682-692 '64. (MIRA 18:1)

1. Fizicheskiy institut imeni P.N.Lebedeva AN SSSR.

GANDIN, I.S.; KUZNETSOVA, T.I.

Space statistical structure of the geopotential field. Trudy GGO  
no.168:84-93 '85. (MIRA 18:8)

L 10203-06 EWT(1)

ACC NR: AP6000221

SOURCE CODE: UR/0056/65/049/005/1605/1610

AUTHOR: <sup>44,55</sup> Kuznetsova, T. I.; <sup>44,55</sup> Rautian, S. G. 50

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskly institut Akademii nauk SSSR)

TITLE: Contribution to the calculation of the polarization of an atom in a strong electromagnetic field

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 5, 1965, 1605-1610

TOPIC TAGS: quantum device, spectral line, line width, fluorescence, electromagnetic field, relaxation process

ABSTRACT: This is a continuation of earlier work by one of the authors (Rautian, with I. I. Sobel'man, ZhETF v. 41, 456, 1961) on the interaction between a two-level quantum system with two monochromatic fields, one of which is strong and the other is weak, where the amplification factor for the weak field was calculated. Since the earlier work did not take into account polarization components at the combination frequencies that result from the action of the two fields on the system (atom), and since the amplification factor cannot be defined for a nonmonochromatic field, the authors calculate the polarization of an atom due to a strong monochromatic field and an arbitrary weak field. Furthermore, they analyze a more general two-level system than in the earlier work, for which the width of the fluorescence line differs from

Card 1/2

L 10268-66

ACC NR: AF6000221

the sum of the population relaxation constants. The conditions under which the polarization components at the combination frequencies are of the same order of magnitude as the components of the weak field frequencies are determined. The results can be applied to investigate the propagation of a modulated signal in the active medium of a laser amplifier, where in the case of weak modulation the field can be strong at the carrier frequency and weak at the sideband frequencies. Orig. art. has: 17 formulas. [02]

SUB CODE: 20/ SUBM DATE: 12Jun65/ ORIG REF: 002/ OTH REF: 003/ ATD PRESS: 4/66

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Card 2/2

10066

21716-66 EWT(1) IJP(c) GG SOURCE CODE: UR/0057/66/036/001/0058/0000  
ACC NR: AP6004870

48  
B

AUTHOR: Kuznetsova, T. I.

ORG: Physics Institute in P.N. Lebedev, AN SSSR, Moscow (Fizicheskii Institut AN SSSR)

TITLE: On the influence of nonuniformity of the dielectric constant on the properties of the normal oscillations of resonators

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 58-66

TOPIC TAGS: resonator, dielectric constant, gas laser, laser theory, oscillation

ABSTRACT: The author discusses the influence of nonuniformity of the imaginary part of the dielectric constant on the normal oscillations of an open resonator with plane reflectors. The calculations were undertaken because of their significance in connection with the operation of gaseous lasers. Two models are considered: in one model the reflectors are infinite, occupying the planes  $z = 0$  and  $z = b$  in a rectangular Cartesian coordinate system  $xyz$ , and the dielectric constant is  $1 - iD/\cosh^2(x/a)$ ; in the other model the reflectors have finite width, occupying the regions  $|x| < a + d$  and  $|x| < a$  and  $z = b$ , and the dielectric constant is  $1 - iD$  when  $|x| < a$  and is unity elsewhere. Resonant frequencies, field distributions, and conditions for oscillation are derived with different assumptions concerning the reflection coefficients of the reflectors and the side walls. It is shown that the nonuniformity of the

UDC: 621.372.9

Card 1/2

L 211

ACC NR: AP6004870 APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928220015-2

dielectric constant significantly affects the properties of the normal oscillations under lasing conditions even when the imaginary part of the dielectric constant is extremely small. The parameter  $k = 2\pi^2 D(a/\lambda)^2$  characterizes the influence of the nonuniformity. When  $k$  is approximately unity the field configuration depends significantly only on  $a$  and the integral value of the excitation, and not on the specific form of the dependence of the dielectric constant on  $x$ . When  $k$  is large compared with unity the form of the  $x$ -dependence of the dielectric constant is significant, and the field is more strongly concentrated in the region near  $x = 0$  for the case of a smoothly varying dielectric constant. When  $k$  is several units or greater the nonuniformity has the dominant influence and the effect of the side wall of the resonator can be neglected; in this case one can employ a model with infinite reflectors to calculate the properties of the resonator. Orig. art. has: 23 formulas and 4 figures.

SUB CODE: 20

SUBM DATE: 10Jul64/

ORIG REF: 002

OTH REF: 001

Card 2/2 UR



"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928220015-2

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928220015-2"

**"APPROVED FOR RELEASE: 06/19/2000**

**CIA-RDP86-00513R000928220015-2**

**APPROVED FOR RELEASE: 06/19/2000**

**CIA-RDP86-00513R000928220015-2"**

KUZNETSOVA, T.K.

KHEYSIN, Ye.M.; KUZNETSOVA, T.K.

Frost resistance of the eggs, larvae, and adult ticks of  
*Ixodes ricinus* L. and *Ixodes persulcatus* P. Sch. Trudy  
Kar.-Fin. fil. AN SSSR no.4:116-130 '56. (MLRA 10:2)

(Ticks) (Cold--Physiological effect)

TERSKIKH, I.I.; CHERVONSKIY, V.I.; KAREVA, M.P.; DORMIDONTOV, R.V.;  
GROMYKO, A.I.; OBUKHOVSKAYA, N.M.; KOZLYAKOVA, A.I.; TAZULAKHOVA,  
E.B.; Primalni uchastiye: KUZNETSOVA, T.M., vrach; LOPAROVA, L.M.,  
vrach

Natural and secondary focus of ornithosis in the Zavidovo District  
of Kalinin Province. Vop.virus 7 no.4:93-99 J1-Ag '62.

(MIRA 15:8)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva  
(for Terskikh, Chervonskiy, Kareva, Dormidontov, Gromyko, Obukov-  
skaya, Kozlyakova). 2. Kalininskaya oblastnaya sanitarno-epidemiolo-  
gicheskaya stantsiya (for Kuznetsova, Loparova).  
(ZAVIDOVO DISTRICT (KALININ PROVINCE—ORNITHOSIS))

DRACHEVA, Z. N.; KUZNETSOVA, T. M. (Kiyev)

Use of hexonate in the treatment of cerebral forms of hypertension. Klin. med. no.9:94-100 '61. (MIRA 15:6)

1. Iz Instituta gerontologii i eksperimental'noy patologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. N. N. Gorev) i Kiyevskogo meditsinskogo instituta (dir. - dotsent V. D. Bratus', nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. B. N. Man'kovskiy)

(HYPERTENSION) (CEREBROVASCULAR DISEASE)  
(AUTONOMIC DRUGS)

DRACHEVA, Z.N.; KUZNETSOVA, T.M. (Kiyev)

Use of pirlen in the treatment of the cerebral forms of hyper-  
tension. Klin.med. no.9:100-106 '62. (MIRA 15:12)

1. Iz Instituta gerontologii i eksperimental'noy patologii AMN  
SSSR i Kiyevskogo meditsinskogo instituta (nauchnyy rukovoditel' -  
deystvitel'nyy chlen AMN SSSR prof. B.N. Man'kovskiy).  
(TOLUENESULFONIC ACID) (HYPERTENSION)  
(CEREBROVASCULAR DISEASE)

KUZNETSOVA, T. N.

Some characteristics of stars with intensified metallic lines.  
Izv. GAO 22 no.2:139-147 '61. (MIRA 15:10)

(Stars—Spectra)

KUZNETSOVA, T.P.

32-8-13/61

**AUTHORS:** Sekt, K.I., Kuznetsova, T.P.

**TITLE:** Determination of the Vanadium Content in Deposits on the Warmth-Receiving Surfaces of Boilers and Turbine Blades. (Opredeleniye vanadiya v otlosheniyakh na poverkhnosti nagreva kotlov i lopatkakh turbin)

**PERIODICAL:** Zavodskaya Laboratoriya, 1957, Vol.23, Nr 8, pp. 918-918 (USSR)

**ABSTRACT**

When liquid fuel is used, corrosion phenomena are to be observed on steam boilers and gas turbines in the corresponding metal surfaces which may be explained by the presence of vanadium in the fuel. For its determination the ashes as well as the deposits on the warmth-receiving surfaces are investigated. Samples are annealed and treated in a testing container first with 25-30 ml sulfuric acid and then with 5-7 drops of nitric acid. After 5-7 minutes boiling the solution is cooled, filtered and put into a conic retort with a content of 250 ml. 100 ml distilled water, 1-2 ml phosphoric acid and several drops of potassium permanganate are added, until a weakly pink color is obtained. Vanadium is oxidized up to five-fold valence. Excess of permanganate is destroyed by addition of a 2% solution of oxalic acid until decolorization of the preparation. 5-7 drops of phenylanthranilic acid are also added. After 2 minutes the solution is titrated against a 0,02 .n solution of ammonium ferric alum until the cherry-red color of the preparation is converted to green. For determining the water-solu-

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Determination of the Vanadium Content in Deposits on the  
Warmth-Receiving Surfaces of Boilers and Turbine Blades.

32-8-13/61

ble vanadium bonds 0,25 g of the initial sample is boiled in 30 ml distilled water for 20-25 minutes, and then cooled and filtered. Furthermore 20 ml sulfuric acid are added and the preparation acidified with nitric acid and then several drops of a 2% solution of  $KMnO_4$  are added, until a steady pink color is obtained. Then the analysis is continued and completed as above. There is 1 table.

ASSOCIATION: All-Union Thermotechnical Scientific Research Institute.  
(Vsesoyuznyy teplotekhnicheskiy nauchno-issledovatel'skiy institut)

AVAILABLE Library of Congress

Card 2/2

ACCESSION NR: AP4025420

8/0096/64/000/004/0034/0037

AUTHORS: Kontorovskiy, A. Z. (Candidate of technical sciences); Vasyuchkova, K. I. (Engineer); Kuznetsova, T. P. (Engineer)

TITLE: Aging certain types of boiler steel

SOURCE: Teploenergetika, no. 4, 1964, 34-37

TOPIC TAGS: steel, boiler steel, aging, aging boiler plate, 12Kh1MF steel, 12Kh2MFB steel, 12Kh2MFSR steel, 15Kh1MF steel, EI756 steel, steel strength, ordered metal, disordered metal, holding time, metal structure stability, carbide phase variation, plasticity, impact strength, dispersion hardening

ABSTRACT: The variations in the structure and physical properties of boiler steels during aging with relation to holding time at high temperatures (600-650C) were studied. The metals tested were: 12Kh1MF, 12Kh2MFB, 12Kh2MFSR, 15Kh1MF, and EI756 steels. Experimental results showed that strength of all the types investigated was impaired by the increase in aging temperature and in the holding time. This effect was more pronounced during the first 500-1000 hours of holding. The authors explain the causes for the variation in metal hardness, plasticity, tensile

Card 1/2

ACCESSION NR: AP4025420

strength, and impact strength under thermal treatments in terms of structural changes due to phase transformation. They emphasize the effect of the alloying elements redistribution in the solid solution and the carbide phase. Steels 12Kh1MF, 15Kh1MF and EI756 showed a noticeable weakening in the process of aging, while the response of steels 12Kh2MFB and 12Kh2MFSR was insignificant. The variation in physical properties of steel EI756 will require further study before conclusions can be made. Orig. art. has: 2 tables and 5 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 20Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 001

OTHER: 000

Card 2/2

KUZNETSOVA, T.P.

Characteristics of geological conditions associated with permafrost  
on Yarak Island. Trudy Sev.-Vost.otd.Inst.merz1.AN SSSR no.1:  
153-166 '58. (MIRA 16:12)

SOV/81-59-10-34412

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, p 85 (USSR)

AUTHORS: Plyushchev, V.Ye., Kuznetsova, T.P., Grizik, A.A.

TITLE: The Study of the Ion-Exchange Capacity of the Cationites SBS, MSF, KU-1, KN<sup>1</sup> and RF<sup>1</sup> in Solutions of Chlorides of Alkali Metals

PERIODICAL: Tr. Mosk. in-ta tonkoy khim. tekhnol., 1958, Nr 7, pp 73-80

ABSTRACT: The absorption of alkali metals by H-forms of the resins SBS, MSF, Ku-1 and RF at various pH of the initial solution (in a non-buffer system) has been studied under static conditions. It is assumed that for industrial conditions these data characterize the ionite better than the dependence of the absorption on the pH of the equilibrium solution. (✓)

M. Arkhangel'skiy

Card 1/1

ACCESSION NR: AP4012337

S/0096/64/000/001/0013/0018

AUTHORS: Kontorovskiy, A. Z. (Candidate of technical sciences); Vasyuchkova, K. I. (Engineer); Kuznetsova, T. P. (Engineer)

TITLE: Resistance to scaling of boiler steel

SOURCE: Teploenergetika, no. 1, 1964, 13-18

TOPIC TAGS: resistance to scaling, heating cycle, corrosiveness, furnace gas, microstructure, chromium steel, steel 12Kh1MF, steel 15Kh1M1F, steel 12Kh2MFB, steel 12Kh2MFSR, steel EI756, steel 1Kh12V2MF

ABSTRACT: The resistance to scaling of 12Kh1MF, 15Kh1M1F, 12Kh2MFSR, and EI756, 1Kh12V2MF steel specimens (tubes and rings) used in boilers was investigated in great detail, and the composition of each steel was tabulated. The specimens were subjected to cycles of heating (1000, 3000, and 5000 hrs duration) and cooling (for 125 hrs) all done in air. The specimens were weighed before and after each experiment, and the depth of scaling was measured. The results show an intensity of scaling higher than those used in the Leningrad Heat Power Machine Design Congress of 1958. This difference is attributed to the inherently higher corrosiveness of

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ACCESSION NR: AP4012337

air as compared to a furnace gas. The scales had the same multilayer structures, the hardness and microstructure of which were analyzed closely. The external layers were primarily  $Fe_2O_3$  (0.01 to 0.04 mm thick) followed by thinner layers of  $FeO$  and  $Fe_3O_4$ . The most sensitive steel to cooling was type 12Kh2MFB. The chromium steel EI756 showed the greatest amount of scaling, amounting to a thickness of 0.2 mm during a 5000-hr treatment at a mass loss rate of 0.047 mm/year. The corresponding thicknesses in 12Kh1MF, 15Kh1MF, and 12Kh2MFSR steels were 1.55, 1.0, and 0.8 mm respectively, but the oxidation rates with these steels were 8 to 10 times as high as in the EI756 steel. It is concluded that the 5000-10 000-hr tests suggested by GOST 6130-52 standards are insufficient and that test durations should last at least as long as 10 000 hrs. Orig. art. has: 7 figures and 5 tables.

ASSOCIATION: Orgenergostroy; MOTsKTI; VTI

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 000

OTHER: 000

Card 2/2

KONTOROVSKIY, A.Z., kand. tekhn. nauk; VASYUCHKOVA, K.I., inzh.;  
KUZNETSOVA, T.P., inzh.

Aging of some boiler steels. Teploenergetika 11 no.4:  
34-37 Ap '64. (MIRA 17:6)

1. Vaesoyuznyy institut po proyektirovaniyu organizatsii  
energeticheskogo stroitel'stva.



SABEL'NIKOVA, V., otvetstvennyy red.; SAMARINA, N., tekhn.red.; KUZNETSOVA, T.,  
tekhn.red.; TEREKHOVA, S., tekhn.red.

[Economy of Kurgan Province; a statistical manual] Narodnoe  
khoziaistvo Kurganskoi oblasti; statisticheski sbornik. Cheliabinsk,  
Cheliabinskoe otd. "Gosstatizdata," 1957. 147 p. (MIRA 11:6)

1. Kurgan (Province). Oblastnoye statisticheskoye upravleniye.
2. Nachal'nik Statisticheskogo Upravleniya Kurganskoy oblasti  
(for Sabel'nikova)  
(Kurgan Province--Statistics)

Алибаба, Г. С.

Swine

Experience of the Ilyk sisters in improving the quality of livestock production.  
Dost. sel'khoz. No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1952, UNCL.

USSR/Microbiology. Microbes Pathogenic for Man and Animals <sup>F</sup>

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57645

Author : Kuznetsova T. S., Potapchik Yu. A.

Inst : Not given

Title : Data on the Identification of the Cultures of Coli Group Microbes

Orig Pub : Labor, delo, 1957, No 3, 33-38

Abstract : Four hundred sixty-eight strains of bacteria of the coli group were identified. Of these 41.4% were found to be pathogenic. In doubtful cases passages on solid media or biliary bullion were applied to restore agglutinability. Sapro-  
phite cultures possessing the ability to para-  
agglutinate lost this ability in passages. It has been found expedient to apply along with the typical and monoreceptor sera, blended type

Card 1/2

USSR/Microbiology. Microbes Pathogenic for Man and Animals

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57645

Abstract : of sera with urea, milk, and Simmon's medium; to carry out a precipitation reaction with hapten, and in some cases tests with bacte-  
riophage.

Card 2/2

KUZNETSOVA, T.S.

Phagocytosis in typhoid fever and paratyphoid fevers; author's abstract. Zhur.mikrobiol.epid. i imun. 28 no.7:133 J1 '57.  
(MIRA 10:10)

1. Iz Moskovskogo instituta epidemiologii, mikrobiologii i  
gigiyeny.

(PHAGOCYTOISIS) (TYPHOID FEVER) (PARATYPHOID FEVER)

KUZNETSOVA, T. S., Candidate Med Sci (diss) -- "The preparation and use of killed microbes (diagnosticums) for determining the phagocytic activity of leucocytes in dysentery". Moscow, 1959. 10 pp (First Moscow Order of Lenin Med Inst im I. M. Sechenov), 250 copies (KL, No 25, 1959, 141)

KUZNETSOVA, T.S.; KRUSHINSKAYA, Ye.A.

Use of bile from swine instead of cattle in preparing liquid  
nutrient media. Lab. delo 7 no.2:50-51 F '61. (MIRA 14:1)

1. Moskovskiy nauchno-issledovatel'skiy institut epidemiologii,  
mikrobiologii i gigiyeny (dir. S.I.Didenko).  
(BILE) (BACTERIOLOGY--CULTURES AND CULTURE MEDIA)

SHOSTAKOVSKIY, M.F.; VLASOV, V.M.; KUZNETSOVA, T.S.; GOLOVANOVA, N.I.

Synthesis of asymmetrical acetals of acetylenic glycols based  
on A.E. Favorskii's reaction. Zhur. ob. khim. 34 no.8:2804  
Ag '64. (MIRA 17:9)

SHOSTAKOVSKIY, M.F.; VLASOV, V.M.; KUZNETSOVA, T.S.

Disproportionation of acetals of acetylene glycols. Izv. AN  
SSSR. Ser. khim. no. 12:2198-2199. '65.

(MIRA 18:12)

1. Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya  
AN SSSR. Submitted April 5, 1965.



KUZNETSOVA, T.T.

Determination of fungi of healthy plants. Trudy TSSES no.10:139-  
141 '65. (MIRA 18:10)

S/123/61/000/022/013/024  
A004/A101

**AUTHORS:** Voytovich, V.A., Kitayeva, L.I., Berdinkova, V.V., Kuznetsova, T.V.

**TITLE:** Anticorrosion protection of metal parts by plastics. Report I. Practice of using the ГЭН-150 (B) (GEN-150[V]) elastomer

**PERIODICAL:** Referativnyy zhurnal. Mashinostroyeniye, no. 22, 1961, 79, abstract 22B477 ("Tr. Proyechn. tekhnol. i n.-i. in-ta. Gor'kovsk.sovnarkhoz", 1960, no. 2 (4), 35 - 37)

**TEXT:** The authors describe a new anticorrosion coating, the GEN-150(V) elastomer, representing a composition of nitrile caoutchouc and a special synthetic resin. Prior to heat treatment the material dissolves well in acetone, benzene, toluol or ethyl acetate. The elastomer solution can be applied by a brush, by pouring, spraying or dipping. If the coating is applied by spraying a 5% acetone solution of the elastomer is used. Spraying is effected with a sprayer designed by the Konstantinovka "Avtosteklo" Plant. The application of the coating by other methods requires a 15-20% solution in benzene, toluol, ethyl acetate or P-4 (R-4) solvent. The metal surface is prepared for the coating in the following way: sandpaper cleaning, degreasing, careful drying. To

Card 1/2

KRIVOBORODOV, R.T.; KUZNETSOVA, T.V.

Effect of the structure of clinkers on the strength of plugging  
cement. Tsement 29 no.3:17-19 My-Je '63. (MIRA 17:1)

1. Sterlitamakskiy tsementnyy zavod.

KUZNETSOVA, T.V.; SOBOLEVA, K.L.

Effect of iron oxides in clinkers upon the strength of  
cement during steaming. Tsement 29 no.5:14-15 S-0 '63.  
(MIRA 16:11)

1. Sterlitamakskiy tsementnyy zavod.

PANKRATOV, A.V.; AKHANSCHIKOVA, L.A.; SHALAYOVA, O.K.; KUZNETSOVA, T.V.

Reaction of tetrafluorohydrazine with potassium iodide aqueous  
solution. Zhur. neorg. khim. 9 no.6:1517-1519 Je '63  
(MIRA 1/68)





*A. K. KUZNETSOVA, J. V.*

USSR/Soil Science - Physical and Chemical Properties of Soil. J.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15279

Author : N.I. Bazilevich, T.V. Kuznetsova

Inst : -

Title : The Exchangeable Basis of the Takys.  
(Obmennyye osnovaniya takyrov).Orig Pub : V sb.: Takyry Zap. Turkmenii i puti ikh s.-kh. osvoyaniya.  
M., AN SSSR, 1956, 469-482

Abstract : The takys are noted for their very low exchange capacity (5-12 milliequivalents per 100 grams), brought about through the predominance of mineral colloids. The exchange capacity of the upper soil profile and especially the top part of the takyr crust is smaller than the underlying horizons. The absorbent complex is basically saturated with Ca from 40 to 77% of its capacity (in the takys of the Kopet-Dag submountainous plain), whereupon the relative role of exchangeable Ca in the takyr

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928220015-2

USSR/Soil Science - Physical and Chemical Properties of Soil. J.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15279

crust and particularly in its upper portion grows. The exchangeable Mg content is 14-15% of its capacity. The Mg content grows going down from the crust to deeper horizons. The absorbent takyr complex ordinarily contains exchangeable Na ranging from 0.5 to 2 milliequivalents, in the top horizons (5-38% of capacity), and 1-3 milliequivalents or 25-45% of capacity in the underlying horizons. The content of exchangeable K is 0.5-1 milliequivalent or 5% of capacity. The extent to which the soils can become takys (determined by the presence and expressed degree of the top crust horizon) in the authors' opinion is not a result of the development of solonets phenomena in the wilderness soils. This merely boosts the development of takys without determining or causing them.

Card 2/2

21



USSR/Soil Science / Physical and Chemical Properties of Sila. *KUZNETSOVA, T. V.*

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10512

Author: Kovda, V. A., Letunov, P. A., Budakova, A. A., Zemskiy, P. M.,  
Shavrygin, P. I., Kuznetsova, T. V.

Inst : -

Title : Elements of the Moisture Regime of the Takry

Orig Pub : Takry Zap. Turkmeni i puti ikh s.-kh. osvoyeniya,  
Moskva, Akad Nauk SSSR, 1956, 513-521.

Abstract : Inthe takry moisture travels exclusively in capillaryly  
suspended solutions. Ground waters ordinarily have no effect on the  
water regime of the takry. One characteristics of the water regime  
of the takry, and of he takyr soils, is the extreme dessication  
of therir upper horizons, up to hygroscopic moisture, /?/; in the x  
summer period. The drying up of the crust horizon of the takry can  
occur also during the winter (in the intervals between deposits of  
precipitation); this is due to certain characteristics of the structure  
and mechanical composition of this horizon.

USSR/Soil Science. Tillage. Land Reclamation. Erosion.

J-5

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24829.

Author : Kovda, V.A.; ~~Kuznetsova, T.V.~~

Inst :

Title : National Experiments and Some Theoretical Principles  
of the Land-Reclamation of Salt Flats.

Orig Pub: V. sb.: Takyry Zap. Turkmenii i puti ikh s.-kh  
osvoyeniya. M., AN SSSR, 1956, 531-538.

Abstract: The most effective methods of land-reclamation of  
salt flats appear to be irrigation (particularly  
in the winter period), sanding, plastering, plan-  
tation ploughing (by gypsuming of soils), applica-  
tion of organic, bacterial and mineral fertilizers,  
thick sowings of grasses. It is noted that the

Card : 1/2

USSR/Soil Science. Tillage. Land Reclamation. Erosion.

J-5

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24829,

theoretical bases of the land-reclamation of salt  
flats has seldom been studied.

Card : 2/2

KUZNETSOVA, T.V.

Characteristics of Takyras of the Kizyl-Arvat Plain in southwestern  
Turkmenistan [with summary in English]. Pochvovedenie no.5:33-41  
My '58. (MIRA 11:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Turkmenistan--Takyr)

KUZNETSOVA, T. V., Cand Agr Sci -- "Takyrns of the Kizil-  
Arvat Plain." Mos, 1961. (Soil Inst im V. V. Dokuchayev)  
(KL, 8-61, 254)

- 370 -

KUZNETSOVA, T.V.; YEGOROVA, L.F.; PANKRATOV, A.V.

Some physicochemical constants of tetrafluorohydrazine. Zhur.  
fiz. khim. 38 no.7:1860-1862 J1 '64.

(MIRA 18:3)

KUZNETSOVA, T.Ye.

Characteristics of microflora in medium-columnar Solonetz soils.  
Trudy Biol. inst. Zap.-Sib. fil. AN SSSR no.3:217-223 '57.

(MIRA 13:10)

(Solonetz soils)

(Soil micro-organisms)

KUZNETSOVA, T.Ye.

Characteristics of nitrification in the Solonetz soils of  
Novosibirsk Province. Izv.Sib.otd. AN SSSR no.9:109-118 '58.  
(MIRA 11:11)  
(Novosibirsk Province--Solonetz soils) (Nitrification)

KUZNETSOVA, T. Ye.

Microbiological characteristics of virgin and cultivated Solonetz  
soils of Novosibirsk Province. Trudy Inst. mikrobiol. no. 7: 312-  
318 '60. (MIRA 14:4)

(NOVOSIBIRSK PROVINCE—SOLONETZ SOILS)



KUZNETSOVA, T. Ye.

Micro-organisms which decompose cellulose in Solonetz soils  
of the northern Kulunda Steppe. Izv. Sib. otd. AN SSSR no. 11:114-  
120 '60. (MIRA 14:1)

1. Biologicheskii institut Sibirskogo otdeleniya AN SSSR.  
(Kulunda--Soil micro-organisms)  
(Cellulose--Microbiology)

KUZNETSOVA, V. A.

"From the Experiences of a Spectrum Laboratory Attached to a Plant," Iz. Ak.  
Nauk SSSR, Ser. Fiz., No.6, 1945



KUZNETSOVA, V. A.

KUZNETSOVA, V. A.- "Purifying Zinc Sulfate Solution of the Cementation Copper and Cadmium with Zinc." Acad Sci Kazakhstan SSR, Inst of Metallurgy and Concentration, Alma-Ata 1955 (Dissertations For Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928220015-2

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928220015-2"

KUZNETSOVA, V. A.

137-1958-3-4900

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 63 (USSR)

AUTHORS: Khan, O. A., Urubkova, E. I., Kuznetsova, V. A.

TITLE: An Electrolytic Method for the Production of High-purity Zinc  
(Elektróliticheskiy metod polucheniya tsinka vysokoy chistoty)

PERIODICAL: Tr. Altaysk. gornometallurg. n.-i. in-ta, 1957, Vol 5,  
pp 76-81

ABSTRACT: In order to obtain high-purity Zn from Ts-O type metal, a method of electrolytic refining of Zn in a "neutral" solution of zinc sulfate was tested under semi-industrial conditions. The apparatus employed was vinyl-plastic coated, a diaphragm made of vinyl perchlorate fibers, an electrolyte free of all impurities, and distilled water. The following optimal regimen was established for the process:  $D_k = 900-1200 \text{ a/m}^2$ ; Zn content in the electrolyte: 90-120 g/liter; temperature of the electrolyte:  $25^\circ - 35^\circ$ ; duration of the electrolysis process: 6 hours. Cathodic Zn contained (in percent): Fe < 0.0005, Cd < 0.003, Cu < 0.0003, Pb < 0.003, and Sn < 0.0001.

L. P.

Card 1/1

61h9?

SOV/137-59-5-10155

183100  
Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, pp 101 - 102  
(USSR)

AUTHORS: Khan, O.A., Urubkova, E.I., Kuznetsova, V.A.

TITLE: A New Hydrometallurgical Method of Obtaining High-Purity Zinc ✓

PERIODICAL: Rudnyy Altay, (Sovnarkhoz Vost.-Kazakhstansk. ekon. adm. r-na),  
1958, Nr 1, pp 26 - 28

ABSTRACT: The authors developed a technological system of obtaining high-purity Zn by the method of electrolytic Zn refining in a  $ZnSO_4$  solution with profound purification of the spent electrolyte from impurities. Electrolytic refining was carried out in rectangular tanks lined with "viniplast" (vinyl plastic), at  $D = 800 - 1,000 \text{ amps/m}^2$  and  $35^\circ - 40^\circ C$ . Purified electrolyte, containing 100 - 110 g/l of Zn, was continuously supplied to the tanks. Anodes of 30 - 35 kg weight were cast of "TsO" and "TsV" grade electrolytic zinc. The cathode spaces in the baths were separated from the anode spaces by perchlorovinyl or caprone diaphragms on a "viniplast" carcass. The initial solution was ✓

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81193

SOV/137-59-5-10155

A New Hydrometallurgical Method of Obtaining High-Purity Zinc

obtained by dissolving cathode Zn plates in a "KhCh" grade  $H_2SO_4$  solution, prepared with distilled  $H_2O$ . Purification of the spent solution was carried out in two stages. For the primary (rough) purification the solution was subjected to agitation with Zn-dust (250 g/100 l of the solution) for 30 minutes without heating; it was then filtered on a porcelain nutch-filter. The secondary (profound) purification was carried out with the aid of complexing agents (dimethyl glyoxime and sodium diethyl-dithio carbamate) forming difficultly soluble complexes with the majority of Zn-electrolyte impurities. The complexes formed were adsorbed by activated carbon. The consumption of dimethyl glyoxime, sodium diethyl-dithio carbamate and carbon per 100 l of the solution was 10, 18 - 20 and 15 - 20 g, respectively. After purification, the solution was filtered, acidified with  $H_2SO_4$  up to pH 3.4 - 4.2 and returned to the electrolytic bath. The cathode Zn was remelted in a quartz furnace of 20 kg capacity having a nickel-chromium heater. The purity of the Zn obtained was 99.9983 - 99.9992%. The content of impurities was (in %): Cu  $1.10^{-5}$  -  $5.10^{-5}$ , Fe  $5.10^{-5}$ , Pb  $5.10^{-4}$  -  $8.10^{-4}$ , Cd  $5.10^{-4}$  -  $7.10^{-4}$ , Sn  $1.10^{-5}$ , Ni  $3.10^{-5}$ , Co  $3.10^{-5}$ .

Card 2/2

V.O.



KITAYGORODSKIY, Yu.I. (Moscow); KOGAN, M.G. (Moscow); KUZNETSOVA, Y.A.  
(Moscow); RYKALIN, N.M. (Moscow); SILIN, L.L. (Moscow)

Ultrasonic joining of metals in a solid state. Izv. AN SSSR.  
Otd. tekhn. nauk no. 8:88-90 Ag '58. (MIRA 11:9)  
(Ultrasonic waves--Industrial applications) (Metalwork)

KUZNETSOVA, V. A.

PHASE I BOOK EXPLOITATION SOV/2216

5(\*)  
Soveshchaniye po elektrokhemii. 4th, Moscow, 1956.  
Trudy... i sborniki (Transactions of the Fourth Conference on Elect-  
rochemistry: Collection of Articles) Moscow, 1956, 154-vo AM 535F,  
1959, 868 p. Errata slip inserted. 2,500 copies printed.  
Sponsoring Agency: Akademiya nauk SSSR. Gosstatizykhimicheskikh  
nauk.

Editorial Board: A.M. Frenkin (Resp. Ed.), Academician, O.A. Yezin,  
Professor, S.I. Zhurav (Resp. Secretary), S.M. Kabanov, Pro-  
fessor, S.I. Malinin (Resp. Secretary), B.M. Kabanov, Profes-  
sor, M. Kozlov (Resp. Secretary), V.V. Korotkiy, Profes-  
sor, Ya. M. Kozlov, Professor, Z.A. Solov'yeva, V. Stenoger,  
Lektorov, Professor, and G.M. Plyusanovich; Ed. of Publishing House: A.O. Yegorov;  
Tech. Ed.: T.A. Prusakova.

PURPOSE: This book is intended for chemical and electrical engi-  
neers, physicists, metallurgists and researchers interested in  
various aspects of electrochemistry.  
SCOPE: The book contains 127 of the 138 reports presented at  
the Fourth Conference on Electrochemistry, sponsored by the Depart-  
ment of Chemical Sciences and the Academy of Physical Chemistry,  
Academy of Sciences, USSR. The collection pertains to different  
branches of electrochemistry, kinetics, double layer theories and  
galvanic processes in metal electrodes, double layer theories and  
galvanic processes in metal electrodes and industrial elect-  
rolysis. Abstracted discussions are given at the end of each divi-  
sion. The majority of reports not included here have been  
published in periodical literature. No personalities are mentioned.  
References are given at the end of most of the articles.

Eds., O.A. K.I. Urubkova, V.A. Kuznetsova and A. Ya. Korotkiy.  
Production of High-Purity Zinc by the Method of Electrolytic  
Purification 558

Popov, S. Ya. Galvanic Films From Complex Ammonia and Ammonium  
Electrolytes 561

Discussion (Yu. V. Izrael, B.S. Kravkov, B. Ya. Kaznachey,  
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PA 60788

USSR/Petroleum - Prospecting

Jun 1947

"Oxidation of Gaseous Hydrocarbons by Bacteria as a Basis of Microbiologic Prospecting for Oil," E. N. Bokova, V. A. Kuznetsova, S. N. Kuznetsov, All-Union Office of Gas Survey, Moscow, 3 pp

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23962

Author : *Kuznetsova, V. A.; Ashirov, K. B.; Gromovich, V. A.; Ovchinnikova, I. V.; Kuznetsov, S. I.*

Inst : Not given

Title : Experiment of Suppressing the Development of Sulfate Restoring Bacteria in a Petroleum Layer of Kalinovskiy Bed

Orig Pub : Mikrobiologiya, 1957, 26, No 3, 330-337

Abstract : A relation has been established between the presence of a great amount of H<sub>2</sub>S in a petroleum layer and the amount of sulfate-restoring bacteria. The activity of sulfate-restoring bacteria under the conditions of salty layer waters was proven, as well as their

*Inst. Microbiol. AS USSR and  
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"Microbiology of oil deposits in tartary."

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"Laboratory diagnosis of Botkin's epidemic hepatitis has not been sufficiently developed up to now. The commonly used complement fixation reactions, the method of virus adsorption by bacteria, and the isolation of cultures from patients are complex and only slightly effective. We were therefore interested in the report of V. I. Tovarnitskiy and Ye. N. Voluyskiy concerning the possibility of using a biochemical method for the early diagnosis of Botkin's disease by determining serum aldolase activity.

"We undertook the study of the aldolase activity of serum from patients with Botkin's disease; patients with dysentery, brucellosis, cholangitis, cholecystitis, and other diseases of the liver; and healthy persons (donors). A total of 189 sera were investigated; 57 sera from patients with Botkin's disease; 58 from patients with dysentery; 61 from donors; and 13 from patients with various liver diseases.

RUZNEI... H.

"It was established that an increase in serum aldolase activity takes place in Botkin's disease: of 57 sera examined, 40 (70%) had increased aldolase activity. The highest index of aldolase activity was observed most frequently on the first day of the disease. At the same time, an increase in the aldolase activity of sera was observed in only 16.9% of the patients with dysentery and other diseases. An insignificant increase in serum aldolase activity was noted in five (8.2%) of the healthy persons and high serum aldolase activity was observed in eight (13%) of the other donors. The bilirubin content in the blood of these donors was not checked at this time and they were not clinically examined, therefore the causes of the high aldolase activity in these cases remained unknown.

"In this manner, determination of serum aldolase activity can be utilized as an auxiliary method for the early diagnosis of Botkin's disease."

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