

KLIMANOVA, Z.P. (Moskva, I-110, ul. Durova, 13/1, kv.21)

Clinical diagnosis of mesothelioma. Vop. onk. 10 no.6:52-59
'64.

(MIRA 18:3)

1. Iz kliniko-diagnosticskoy laboratorii (zav. - kand.med.nauk
N.N.Shiller-Volkova) Gosudarstvennogo onkologicheskogo instituta
imeni Gertsena (dir. - prof. A.N.Novikov).

KLIMANOVA, Z.F.

Cytologic examination of ascitic fluid as a method for the de-
tection of ovarian tumors. Akush. i gin. 40 no.4:55-61 JI-Ag '64.

(MIRA 18:4)

1. Kliniko diagnosticheskaya laboratoriya (zav. - kand.med.nauk
N.N.Shiller-Volkova) Onkologicheskogo instituta imeni Gertsena
(dir. - prof. A.N.Novikov), Moskva.

KLIMANSKAYA, Ye.V.

Therapeutic and diagnostic tracheobronchoscopy in children.
Khirurgiya 39 no.4:37-42 Ap'63 (MIRA 17:2)

1. Iz kafedry detskoy khirurgii (sav. - prof. S.Ya. Doletskiy)
"Sentral'nogo instituta usovershenstvovaniya vrachey na base
detskoy klinicheskoy bol'nitsy No.2 imeni I.V. Rusakova (glavnyy
vrach H.M.Krasova),

KLIMANSKIY, D.I.; FIL'TS, O.V.

Treatment in coronary insufficiency with novocaine blocks of
the anterior mediastinum. Nauch.trudy L'vov.obl.terap.ob-va
no.1:289-292 '61. (MIRA 16:5)

1. Kafedra fakul'tetskoy khirurgii lechebnogo fakul'teta L'vov-
skogo meditsinskogo instituta (sav. kafedroy - prof. G.G. Karavanov)
(CORONARY HEART DISEASE) (NOVOCAINE)
(MEDIASTINUM)

KLIMANSKIY, V.A. (Kaliningrad(obl.),12,Novinskaya ul.,38)

Improved tube for intubation anesthesia. Grud. khir. 2 no.5:
114-115 8-0 '60. (MIRA 16:5)

1. Is otdeleniya grudnoy khirurgii (sav.M.B.Dribinskiy) Kalininskoy
gradskoy oblastnoy bol'nitsy (glavnyy vrach - sasluzhenyy vrach
RSFSR V.V.Filippov).

(INTRATRACHEAL ANESTHESIA)

(ANESTHESIOLOGY--APPARATUS AND INSTRUMENTS)

KLIMANSKIY, V.A.

Failures and complications in bronchography in children. Vest.
khir. no. 6:113-118 '65. (MIRA 18:12)

1. Iz otdeleniya detskoy khirurgii (sav. - kand. med. nauk
A.G. Pugachev; nauchnyy konsul'tant - prof. S.Ya. Doletskiy)
Instituta pediatrii AMN SSSR.

KLIMANSKIY, V.A.

Cecal phlegmon. Khirurgiia 34 no.9:101-102 S '58.

(MIRA 12:4)

1. Iz khirurgicheskogo otdeleniya (zav. T.A. Zvereva) Kalinin-
gradskoy oblastnoy bol'nitsy (glavnyy vrach V.V. Filippov).
(PHLEGMON)

DRIBINSKIY, M.B.; KLIMANSKIY, V.A.; ANTONOVA, I.V.

Catheterization of the bronchi in the induction of intubation
anesthesia. *Khirurgia* 35 no.6:59-63 Je '59. (MIRA 12:8)

1. Iz otdeleniya grudnoy khirurgii (zav. M.B.Dribinskiy)
Kaliningradskoy oblastnoy bol'nitsy (glavnyy vrach - kand.
med.nauk zasluzhennyy vrach RSFSR V.V.Filippov).

(ANESTHESIA, ENDOTRACHEAL

errors & hazards in intubation of bronchi,
prev. (Rus))

KLIMANSKIY, V. A., CAND MED SCI, "BRONCHOGRAPHY IN CHILDREN." MOSCOW-KALININGRAD, 1961. (MIN OF HEALTH RSFSR, FIRST MOSCOW ORDER OF LENIN MED INST IN I. M. SECHENOV, CHAIR OF HOSPITAL SURGERY, KALININGRADSKAYA OBLAST HOSPITAL, DEPT OF THORACIC SURGERY). (KL, 3-61, 232).

KLIMANSKIY, V.A.

Bronchography in children under intubation anesthesia. Khirurgia
36 no.7:82-88 Je '60. (MIRA 13:12)
(BRONCHI--RADIOGRAPHY) (INTRATRACHEAL ANESTHESIA)

DRIBINSKIY, M.B.; KLIMANSKIY, V.A.; LAZAREVA, V.G.; LYAKHOVA, Ye.A.

**Bronchography under intravenous anesthesia in tracheal intubation,
Khirurgiya 37 no.4:36-42 '61. (MIRA 14:4)**

**1. Is otdeleniya grudnoy khirurgii (sav. otdeleniyem M.B. Dribinskiy) Kaliningradskoy oblastnoy bol'nitsy (glavnyy vrach - saslushennyy vrach RSFSR kand.med.nauk V.V. Filippov).
(BRONCHI--RADIOGRAPHY) (INTRAVENOUS ANESTHESIA)**

DRIBINSKIY, M. B., kand. med. nauk; KLIMANSKIY, V. A.

Extraction of foreign bodies from the trachea and bronchi in children. Khirurgia no.6:65-72 Je '62. (MIRA 15:7)

1. Is otdeleniya grudnoy khirurgii (sav. - kandidat meditsinskikh nauk M. B. Dribinskiy) Kaliningradskoy oblastnoy bol'nitsy (glavnyy vrach - saslushennyy vrach RSFSR kandidat meditsinskikh nauk V. V. Filippov)

(BRONCHI—FOREIGN BODIES)
(TRACHEA—FOREIGN BODIES)

KLIMANSKIY, Vitaliy Afanas'yevich; LUKOMSKIY, G.I., red.

[Bronchography in children] Bronkhografiya u detei. Moskva, Meditsina, 1964. 130 p. (MIRA 17:7)

KLIMANSKIY, V.A.; SPOROV, O.A.; DERGACHEV, I.S.; SCHASTNYI, S.A.

The condition of the lesser circulation in non-specific pulmonary
fibrosis in children. *Cesk. pediat.* 20 no.3:383-385 Mr '65

TSIPLUKHIN, Yu.A.; KLIMAREV, A.A.

Calculating of interferences in processing the results of
gravimetric observations under the geomorphological conditions
of the Taman' Peninsula. Razved. geofiz. no. 5:63-69 '65.
(MIRA 18:9)

PUSTIL'NIKOV, M.R.; SAVVINA, Ye.U.; KLIMAREV, A.A.

Geological results of gravimetric investigations carried out in
the northwestern Ciscaucasia. Geol. nefti i gaza 7 no.7:44-47
Jl '63. (MIRA 16:7)

1. Trest Kraanodarneftegeofizika.
(Caucasus, Northern--Gravity)

KLIMARSKAYA, I. V.

USSR / Pharmacology, Toxicology. Analeptics. V

Abs Jour: Ref Zhur-Biol., No 18, 1958, 85131.

Author † Surovtseva, S. F., ~~Klimarskaya, I. V.~~, Batkin, I. Z.

Inst : Not given.

Title : The Influence of Chinese Lemon on Conditioned and Unconditioned Vascular Reactions in Patients with Peptic Ulcer of the Stomach and Duodenum.

Orig Pub: In the collection, Materialy k izuch. zhen'shenya 1 limonnika, No 3, Leningrad, 1958, 187-197.

Abstract: In 9 patients with peptic ulcer and in four healthy subjects studies were made, with the aid of the plethysmograph, of the influence on vascular reactions of doses of 1.5-2 gm of the ground seeds of lemon (L). Plethysmograms were taken prior to and after (1.5-3 hours) the doses of L. Cold was used as the unconditioned stimulus, and white and

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Klimasenko, L.S.

BARDIN, I.P.; BORISOV, A.F.; MELAN, R.V.; YERMOLAYEV, O.I.; VAYSBERG, L.E.;
ZHEREBIN, B.N.; BORODULIN, A.I.; SHAROV, G.V.; DOMNITSKIY, I.F.; CHUSOV, F.P.
SOROKO, L.N.; KLIMASENKO, L.S.; PAVLOVSKIY, S.I.; ZIL'BERSHTEYN, M.B.;
LYULENKOV, I.S.; NIKULINSKIY, I.D.; BRAGINSKIY, I.A.; SALOV, Ye.M.;
TROSHIN, N.F.; PETRIKIN, V.I.; ARGUNOV, M.I.; DUL'KIN, F.S.; BIDULYA, L.B.
GAYMANOV, S.A.; FROLOV, N.P.; VINICHENKO, V.S.; KOGAN, Ye.A.

G.E. Kazarnovskii; obituary. Stal' 15 no.8:757 Ag'55. (MLRA 8:11)
(Kazarnovskii, Grigori Efimovich, 1887-1955)

KLIMASENKO, L.S.

137-58-5-9183

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, N: 5, p 61 (USSR)

AUTHORS: Klimasenko, L.S., Mikhaylets, N.S.

TITLE: Ferromanganese Reduces Rimmed Steel in a Ladle (Raskisleniye kipyashchey stali ferromargantsem v kovshe)

PERIODICAL: Sb. tr. Kuznetskogo mezhobl. pravl. Nauchno-tekhn. o-va chernoy metallurgii, 1956, Vol 1, pp 19-35

ABSTRACT: The authors compare the qualitative and production-cost criteria for the reduction of standard rimmed steels with the aid of Fe-Mn. The reduction of the steel was accomplished by means of one of following four procedures: 1) all of the steel was reduced in the furnace; 2) 2/3 of it were reduced in the furnace and 1/3, in the ladle; 3) 1/3 reduced in the furnace and 2/3 in the ladle, and 4) all of the steel was reduced in the ladle. In procedure 4, Fe-Mn containing 0.61-0.87% Si was employed. Experimental smeltings (a total of 156) were performed in heavy-duty open-hearth furnaces of the KMK. The steel was cast from above into 6.8 t ingots which were then rolled in a rail-mill into angle brackets, H beams, and channel bars. Surface quality of finished structural profiles as well as their mechanical properties

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137-58-5-9183

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Ferromanganese Reduces Rimmed Steel in a Ladle

were independent of the reduction procedure employed and always satisfied all requirements. The employment of reduction procedure Nr 4 reduces the consumption of Fe-Mn by 2.6 kg/t but prolongs the preparation time by 10 minutes owing to the necessity of preheating steel to a high temperature than that required in procedure 1. The authors propose that the process of reduction of steel in the ladle be investigated more thoroughly.

A.S.

1. Steel--Reduction 2. Iron--manganese alloys--Applications

Card 2/2

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KLIMASENKO L. S.

137-58-6-11741

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 76 (USSR)

AUTHOR: Klimasenko, L.S.

TITLE: How to Increase the Output of Steelmaking Departments (Puti povysheniya proizvoditel'nosti staleplavil'nykh tsekhov)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii, 1957, Vol 18, 460-468

ABSTRACT: A detailed description is given of measures carried out at the Kuznetskiy Metallurgical Kombinat to increase the production of steel: doubling batch capacity of a number of open hearths; increasing the weight of a charge from 280 to >380 t; reduction in the duration of a heat; reduction in shutdowns of open-hearth furnaces for hot and cold repairs; reduction of losses due to scrap; and organizational measures. The furnaces originally had been built for batches of 150 and 300 tons. They had later been converted to larger heats. The conversion of one 190-t open hearth to take 380 t heats provided a 90,000 t/year increase in steelmaking. The capacity of the charging buggies of the main charging lifts were increased to 270-t capacity. The carrying capacity of the ladle-crane gantries will

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137-58-6-11741

How to Increase the Output of Steelmaking Departments

be raised to 270 t. The capacity of the ladles is increased. The increase in weight per heat will result in an increase in the smelting of steel by 115-120,000 t in 1957. In 1955 all open-hearth-furnace roofs, ports, and slag pockets at the KMK were converted to chrome-magnesite and magnesite brick. The height of the stacks of the 380-t open hearths was increased from 65 to 80 m. The blowers were installed directly on the motor drive shafts, and injector nozzles were installed in the gas ports. Valve reversal was automated. In 1956, >50% of the heats were high-speed. Furnace down time was cut from 10.8 to 7.11%. Roof life was raised to 762 heats for furnaces with single-runner spouts, and to 536 heats for furnaces with bifurcated spouts. Temperature in the furnace proper is sustained at as high as 1100-1400°C in repairs done when hot. Repair time has been cut by coordination of the work of the repair men, the operating crew and the rail-transport department. Losses due to rejects have been cut. In 1956 they were 0.57%. Results have been attained by cutting paperwork, improving the organization of the work, and better preparation for it. All of the technical and economical performance criteria at the KMK had been improved by 1956.

1. Steel--Production
 2. Open hearth furnaces--Operation
 3. Open hearth furnaces--Maintenance
- Card 2/2

I.B.

DANIKHELKA, A., doktor, inzh.; MIKHAYLOV, O.A., kand. tekhn. nauk;
GONCHARENKO, N.I.; KLIMASHENKO, L.S.; OYKS, O.N., prof., doktor
tekhn. nauk; SEMENENKO, P.P.; MOROZOV, A.N., prof., doktor tekhn.
nauk; GLINKOV, M.A., prof., doktor tekhn. nauk; KAZANTSEV, I.G.,
prof., doktor tekhn. nauk; KOCHO, V.S., prof., doktor tekhn. nauk;
KURKESH, Sh., kand. tekhn. nauk; MOROZEVSKIY, L.I., kand. tekhn.
nauk; GURSKIY, G.V.; SPERANSKIY, V.G.; NOVIK, L.M., kand. tekhn.
nauk, starshiy nauchnyy sotrudnik; SHENYEROV, Ya.A., kand. tekhn.
nauk; PAPUSH, A.G., kand. tekhn. nauk; MAZOV, V.F.; SAMARIN, A.M.

Discussions. *Izv. TSNIICM* no.18/19:17-35 '57. (MIRA 11:4)

1. Glavnyy staleplavil'shchik Ministerstva metallurgicheskoy pro-
myshlennosti i rudnikov Chekhoslovatskoy respubliky (for
Danikhelka). 2. Direktor Tsentral'nogo instituta informatsii chernoy
metallurgii (for Mikhaylov). 3. Direktor Ukrainskogo instituta
metallov (for Goncharenko). 4. Glavnyy staleplavil'shchik
Kuznetskogo metallurgicheskogo kombinata (for Klimashenko). 5. Zave-
duyushchiy kafedroy metallurgii stali Moskovskogo instituta stali
(for Oyks). 6. Zamestitel' glavnogo inzhenera zavoda im. Serova
(for Semenenko). 7. Zaveduyushchiy kafedroy metallurgii stali
Chelyabinskogo politekhnicheskogo instituta (for Morozov). 8. Zave-
duyushchiy kafedroy metallurgicheskikh pechey Moskovskogo instituta
stali (for Glinkov). 9. Zaveduyushchiy kafedroy metallurgii stali
Zhdanovskogo metallurgicheskogo instituta (for Kazantsev). 10. Zave-
duyushchiy kafedroy metallurgii stali Kiyevskogo politekhnicheskogo
instituta (for Kocho).
(Continued on next card)

DANIKHEKA, A.---(continued) Card 2.

11. Nachal'nik tekhnicheskogo otdela Ministerstva chernoy metallurgii Vengerskoy Narodnoy Respubliki (for Mneksh). 12. Zamestitel' direktora Novotul'skogo metallurgicheskogo zavoda (for Gurakiy). 13. Nachal'nik tekhnicheskogo otdela zavoda "Dneprospeystal'" (for Speranskiy). 14. Institut metallurgii im. Baykova AN SSSR (for Novik). 15. Nachal'nik staleplavil'noy laboratorii Ukraineskogo instituta metallov (for Shneyerov). 16. Nachal'nik laboratorii po nepreryvnoy raslivke stali Zhdanovskogo filiala Tsentral'nogo nauchno-issledovatel'skogo instituta Ministerstva stroitel'noy promyshlennosti (for Papush). 17. Nachal'nik martenovskogo tsekh zavoda "Kaperoshstal'" (for Masov). 18. Zamestitel' direktora Instituta metallurgii im. Baykova AN SSSR, chlen-korrespondent AN SSSR (for Samarin).

(Steel--Metallurgy)

KOROLEV, A.I.; BLINOV, S.F.; LUBENETS, I.A.; KOBURNIYEV, I.M.; TURUBINER, A.L.; VASIL'YEV, S.V.; CHERNENKO, M.A.; BELOV, I.V.; TELESOV, S.A.; MAZOV, V.F.; MEDVEDEV, V.A.; MAL'KOV, V.G.; BUL'SKIY, M.F.; TRIBNITSKOV, K.M.; SHENYEROV, Ya.A.; SLADKOSHENTIN, V.T.; PALANT, V.I.; KUROCHKIN, B.N.; ZHDANOV, A.M.; BELIKOV, K.N.; SABIYEV, M.P.; GANBUZ, G.A.; PODGORNETSKIY, A.A.; ALFEROV, K.S.; NOVOLODSKIY, P.I.; MORCOZOV, A.N.; VASIL'YEV, A.N.; MARAKHOVSKIY, I.S.; MALAKH, A.V.; VIKHOVTSYEV, N.V.; AGAPOV, V.F.; VYCHNER, N.A.; PASTUKHOV, A.I.; BORODULIN, A.I.; VAYNSHTEYN, O.Ye.; ZHIGULIN, V.I.; DIKSHTEYN, Ye.I.; KLIMASHENKO, L.S.; KOTIN, A.S.; MOLOTKOV, N.A.; SIVERSKIY, M.V.; ZHIDETSKIY, D.P.; MIKHAYLETS, N.S.; SLEPKANOV, P.N.; ZAVODCHIKOV, N.O.; GUDIMCHUK, V.A.; NAZAROV, P.M.; SAVOS'KIN, M.Ye.; NIKOLAYEV, A.S.

Reports (brief annotations). Biul. TSNIIICM no.18/19:36-39 '57.
(MIRA 11:4)

1. Magnitogorskiy metallurgicheskiy kombinat (for Korolev, Belikov, Agapov, Dikshteyn).
2. Kuznetskiy metallurgicheskiy kombinat (for Blinov, Vasil'yev, A.N., Borodulin, Klimashenko).
3. Chelyabinskiy metallurgicheskiy zavod (for Lubenets, Vaynshteyn).
4. Zavod im. Dzhuravinskogo (for Koburneyev).
5. Zavod "Zaporozhstal'" (for Turubiner, Mazov, Podgornetskiy, Marakhovskiy, Savos'kin).
6. Maksyevskiy metallurgicheskiy zavod (for Vasil'yev, S.V., Mal'kov, Zhidetskiy, Al'ferov).
7. Stal'proyekt (for Chernenko, Zhdanov, Zavodchikov).
8. VNIIT (for Belov).
9. Stalinskiy metallurgicheskiy zavod (for Telesov, Malakh).

(Continued on next card)

KOROLEV, A.I.---(continued) Card 2.

10. Nizhne-Tagil'skiy metallurgicheskiy kombinat (for Medvedev, Novolodskiy, Vecher).
 11. Zavod "Asovstal'" (for Bul'skiy, Slepkanov).
 12. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Trubetskov).
 13. Ukrainakiy institut metallor (for Shneyerov, Gladkozhayev, Kotin).
 14. Zavod "Krasnyy Okiyabr'" (for Palant).
 15. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplotekhniki (for Kurochkin).
 16. Zavod im. Voroshilova (for Shbiyev).
 17. Chelyabinskiy politekhnicheskiy institut (for Morozov).
 18. Giprostal' (for Garbus).
 19. Ural'skiy institut chernykh metallor (for Pastukhov).
 20. Zavod im. Petrovskogo (for Zhigulin).
 21. Ministerstvo chernoy metallurgii USSR (for Molotkov, Siverakiy).
 22. Glavspetsstal' Ministerstva chernoy metallurgii SSSR (for Nikolayev).
- (Open-hearth process)

SOV/137-58-9-18577

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 57 (USSR)

AUTHORS: Mikhaylets, N.O., Borodulin, A.I., Klimasenko, L.S.

TITLE: Different Modes of Employment of Manganese in Open-hearth Smelting (Ispol'zovaniye v martenovskoy plavke margantsa pri razlichnykh yego rezhimakh)

PERIODICAL: V sb.: Staleplavil'n. proiz-vo. Moscow, Metallurgizdat, 1958, pp 44-62

ABSTRACT: Variations in the Mn regimen in the course of open-hearth smelting consist in a reduction in Mn content in the charge during smelting of low-Mn cast iron (LMCI) and elimination of a procedure whereby Fe-Mn is added to the melt at the time of the boil period. The employment of LMCI, the smelting of which significantly increases the production figures of blast-furnace smelting, lowers the production costs of steel, but results in an increase in the consumption of Fe-Mn employed for deoxidation. This condition can be alleviated provided no Mn is added to the melt during the smelting process. The various regimens of employment of the Mn were evaluated in terms of the Mn balance in the course of smelting of various types of

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Different Modes of Employment of Manganese in Open-hearth Smelting

steel. When LMCI (0.4% Mn) is utilized in smelting of rimmed steels, the Mn content is considerably lower in the charge, and only slightly lower in the metal (after melting and prior to reduction) than corresponding Mn contents encountered in processing of common cast iron containing 0.7-2.0% Mn (additions of Fe-Mn were omitted in the course of smelting in both instances); the increase in the consumption of Fe-Mn for purposes of reduction is relatively small (0.8 kg/t). Introduction of Fe-Mn in the capacity of a reductant into the ladle rather than into the furnace results in a significant economy of the reductant, the final cost of one ton of steel being 4.35% lower than the cost of steel manufactured with the aid of standard cast iron in conjunction with deoxidation in the furnace. In addition to the change-over to LMCI, the process of smelting of rail steel was also changed by omitting the addition of Fe-Mn to the melt in the course of smelting; the results of both these measures are evaluated separately. Since, after melting and drawing off of slag, the Mn content is somewhat reduced during processing of the LMCI, the consumption of Fe-Mn added in the course of the ore-boil period is necessarily increased. However, the economy on Mn additions in the course of smelting of the LMCI in blast furnaces more than covers the additional consumption of the Fe-Mn in the open-hearth furnace. As a result, the total consumption of Fe-Mn during the ore-boil period in smelting operations employing LMCI

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Different Modes of Employment of Manganese in Open-hearth Smelting

without Fe-Mn addition is identical to the consumption of Fe-Mn in smelting operations involving standard cast iron and Fe-Mn addition. Taking into account the summary effect of the employment of the LMCI, the total reduction in the cost of production of one ton of rail steel amounts to 3.43%.

L.K.

1. Cast iron---Processing
2. Manganese---Reduction
3. Manganese---Applications
4. Open hearth furnaces---Performance

Card 3/3

KLIMASENKO, L.S.

Steel from the Kuznetak Metallurgical Combine. Metallurg 7
no.4:15-17 Ap '62. (MIRA 15:3)

1. Glavnyy stalsplavil'shchik Kuznetskogo metallurgicheskogo
kombinata.
(Novokuznetsk--Open-hearth furnaces)

KLIMASENKO, L.S.; SOKOLOV, I.A.; BOTNEV, Ye.Ya.

Steel pouring from two-stopper ladles with remote control of the
stoppers. Metallurg 7 no.4:21-23 Ap '62. (MIRA 15:3)

(Open-hearth furnaces—Equipment and supplies)
(Remote control)

KLIMASENKO, L.S. Geroy Sotsialisticheskogo Truda; FOMINYKH, V.I.

New metallurgical giant in the western part of the country.
Metallurg 9 no.4:3-5 Ap '64. (MIRA 17:9)

1. Direktor Zapadno-Sibirskogo metallurgicheskogo zavoda (for Klimasenko). 2. Zamestitel' nachal'nika domennogo tsekha Zapadno-Sibirskogo metallurgicheskogo zavoda (for Fominykh).

5(2)

SOV/20-127-4-31/60

AUTHORS:

Usachev, D. N., Klimasenko, N. L., Vagramyan, A. T.

TITLE:

On the Mechanism of Electrolytic Reduction of the Ions MnO_4^- , SeO_4^{2-} , ReO_4^- at Simultaneous Precipitation With Chromium

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 4, pp 939-939 (USSR)

ABSTRACT:

For the reduction of hexavalent chromium to metal it is necessary that the cathode is covered with a film preventing the reduction of hexavalent to trivalent chromium. For the formation of this film, the presence of foreign ions in the solution is necessary (Refs 1, 2, 3). The mechanism of chromium reduction under these conditions is assumed in such a way that the discharging chromium enters the film as an anion to the other film-producing anions, and that these foreign anions are reduced on the cathode together with chromium. The examination of this assumption is carried out in the present paper. For this purpose, the reduction of a number of anions in chromic-acid solution was investigated with the addition of sulphuric acid. The choice of metals was small, for they had to form anions in the chromic-acid medium. The substances mentioned in the title

Card 1/2

On the Mechanism of Electrolytic Reduction of the 307/20-127-4-31/50
Ions KrO_4^{VI} , SeO_4^{VI} , ReO_4^{VI} at Simultaneous Precipitation with Chromium

have this property. For manganate, it became clear that it was precipitated at 0.02 mole of H_2SO_4 and 0.25 mole of $KMnO_4$ in the form of a chromium alloy (15% Mn and 85% Cr), i.e. it was precipitated on the cathode with chromium. If Mn^{IV} in the solution as a cation, it is not precipitated at all. By electrolytic precipitation, Se with Cr formed an alloy with a content of 37% Se and 63% Cr. Re also permitted this precipitation. The experiment failed for cations such as $H(AsO_4^{VI})$, and also for other anions. Only chromium was precipitated, i.e. simultaneous precipitation could not be carried out for all anions. There are 5 references, 2 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences, USSR)

PRESENTED: April 13, 1959, by P. A. Rebinder, Academician

SUBMITTED: April 13, 1959

Card 2/2

POPKOV, A.P.; KLIMASHKO, N.L.; YAGRANYAN, A.T.

Polarisation in the electrodeposition of nickel, cobalt, and iron on a solid and liquid cathode. Zhur. fiz. khim. 34 no.8:1741-1744 Ag '60. (MIRA 13:9)

1..Akademiya nauk SSSR, Institut fizicheskoy khimii.
(Iron plating) (Nickel plating) (Cobalt)
(Polarisation (Electricity))

S/076/61/035/003/018/023
B121/B206

AUTHORS: Vagramyan, A. T., Usachev, D. N., and Klimasenko, N. L.

TITLE: Effect of film composition on alloy formation during electro-deposition of chromium together with other elements

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 3, 1961, 647-650

TEXT: The effect of film composition on the electrodeposition of chromium together with other elements was studied. It was established that the deposition of metallic chromium depends on the composition of the film and not on the composition of the electrolyte solution. Investigation of the cathodic polarization in an electrolyte consisting of 2.5 moles/l of CrO_3 and 0.025 mole/l of selenic acid on a gold cathode showed that, in principle, the effect of selenic acid on the electroreduction of chromic acid is the same as that of sulfuric acid. An alloy of chromium with selenium forms on the cathode during this process. This alloy also forms when adding selenious acid instead of selenic acid. The reduction rate of the chromium ions is affected, not by the ion concentration in the electrolyte, but by the ion concentration in the film. The change of the composition of the Cr-Se alloy

Card 1/3

S/076/61/035/003/018/023
B121/B206

Effect of film ...

on a change of the concentration of selenic acid in a 2.5 M chromic-acid solution at a current density of 0.50 a/cm^2 and a temperature of 20°C was also investigated on platinum electrodes. The results showed that the percentage of selenium in the alloy rises to 0.15 mole/l with an increase of the selenium concentration in the solution. The composition of the Cr-Se alloy remains unchanged with a further increase of the selenium concentration. The same rule was also established for a replacement of selenic acid by selenious acid. During electroreduction the permanganate ion has no reducing effect on chromic acid. The ability of forming a film on the cathode thus depends first of all on the nature of the anions. The effect of the sulfuric-acid concentration on the percentage of selenium in the Cr-Se alloy during deposition from a solution with 2.5 moles/l of chromic acid and 0.1 mole/l of selenic acid was studied, and it was established that the selenium content in the electrolytic deposit decreases with increasing sulfuric-acid concentration. Partial exchange of sulfuric acid for selenic acid in the film results in a decrease of the reduction rate of the selenium ions. There are 3 figures and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: C. Kasper, J. Res. Nat. Bur. Standards, 9, 353, 1932.

Card 2/3

Effect of film ...

8/076/61/035/003/018/023
B121/B206

ASSOCIATION: Institut fizicheskoy khimii Akademiya nauk SSSR (Institute of
Physical Chemistry Academy of Sciences USSR)

SUBMITTED: July 13, 1959

Card 3/3

S/080/62/035/008/005/009
D267/D308

AUTHORS: Solov'yeva, Z.A., Petrova, Yu.S., Klimasenko, N.L.,
and Vagramyan, A.T.

TITLE: Composition and properties of the cathode film forming
during the electrodeposition of chromium

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 8, 1962,
1806 - 1811

TEXT: The variation of concentrations of the ions Cr^{6+} and Cr^{3+} (volumetric method) and SO_4^{2-} (gravimetric method) was studied in the deposited film, as a function of the concentration of H_2SO_4 and H_2CrO_4 in the solution, and the variation of the rate of deposition from H_2CrO_4 to Cr , in order to carry out a more complete investigation of the film composition. The coatings obtained in the course of 2 min on a 6 cm² chromium-plated copper strip were either dissolved in distilled water or directly removed into a test tube. The so-

Card 1/2

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723110013-3

S/080/62/035/008/005/009
D267/D308

Composition and properties of the ...

solutions contained 25, 50, 100 or 250 g/l H_2CrO_4 and 0.5 - 12.5 g/l H_2SO_4 , the temperature was $\sim 20^\circ\text{C}$ and the current density 250 or 500 ma/cm². Formation of two types of films was established: 1) Films obtained in the presence of H_2SO_4 distinguished by a macroscopic structure, soluble in the electrolyte in the absence of current and contributing to the reduction $\text{H}_2\text{CrO}_4 \rightarrow \text{Cr}$; 2) films obtained during an electrolysis without H_2SO_4 or when H_2CrO_4 acts without current on the cathode metal, possessing a microscopic structure, insoluble in the electrolyte. The latter do not contribute to the reduction of H_2CrO_4 . The relative concentration of Cr^{3+} and SO_4^{2-} in the films of the first type increases as the current density and the concentration of H_2SO_4 increases and as the concentration of H_2CrO_4 decreases. There are 4 tables.

SUBMITTED: June 22, 1961

Card 2/2

VOLKOV, M.I., prof.; IVANOV, F.M. kand. tekhn. nauk; KLIMASHEV, F.S., inzh.;
KOROLEV, I.V., inzh.; KURIMENKOV, B.I., inzh.; MYSHKOVSKAYA, S.A.,
kand. tekhn. nauk; NEKRASOV, V.K., kand. tekhn. nauk; SPERANTOV, N.A.,
kand. tekhn. nauk; YAKUBIN, O.A., inzh.; MOTYLEV, Yu.L., red.;
LAKHMAN, F.Ye., tekhn. red.

[Metallurgical slags in road construction] Metallurgicheskie
shlaki v dorozhnom stroitel'stve. Moskva, Nauchno-tekhn. izd-vo
M-va avtomobil'nogo transp. i shosseinykh dorog BSPSR, 1959.
182 p. (MIRA 12:4)

(Road materials)

(Slag)

KLIMASHEV, Fedor Sergeyevich; KURDENKOV, Boris Ivanovich; NEKRASOV, Vladimir Konstantinovich; YAKOVLEVA, A.I., red.; NIKOLAYEVA, L.M., tekhn. red.

[Construction of base courses of low-strength coarsely crushed stone]
Stroitel'stvo dorozhnykh osnovanii iz krupnogo shchebnisa ponishennoi
prochnosti. Moskva, Nauchno-tekhn. izd-vo M-ya avtomobil'nogo transp.
i shosseinykh dorog RSPSR, 1961. 43 p. (MIRA 14:10)
(Road construction) (Stone, Crushed)

KLIMASHAUSKAS, A.I. [Klimasauskas, A.]; GAYGALAS, A.I. [Gaigalas, A.]

Minerpetrographic studies of the ancient weathering crust of
Mesopleistocene moraines in the outcrop of the Alove River.
Trudy AN Lit. SSR. Ser. B no.2:131-146 '63.

(MIRA 17:10)

1. Institut geologii i geografii AN Litovskoy SSR.

KLIMASHEVSKAYA, I. [Klimasheuskain, I.]

"Eternal theme" by Alena Vasilevich. Reviewed by I. Klimasheuskain.
Rab. 1 sial. 34 no.4:19-20 Ap '58. (MIRA 11:5)
(Vasilevich, Alena)

KLIMASHEVSKAYA, I. [Klimasheuskaja, I.]

Profound human mind ("Wonder-working;" a tale by V.Tendriakov. Reviewed
by I.Klimasheuskaja), Rab. i sial. 35 no.1:17 Ja '59. (MIRA 12:3)
(Tendriakov, VI.)

KLIMASHINSEKAYA, V.F.

Pathogenic properties of staphylococci isolated from patients with
osteoarticular tuberculosis. Probl. tuberk., Moskva No.6:25-30 Nov-
Dec 51. (CML 21:4)

1. Of Leningrad Institute of Surgical Tuberculosis (Director--Prof.
P.G. Korney, Active Member of the Academy of Medical Sciences; Scien-
tific Supervisor--Prof V.N. Kosmodanyanskiy).

Климашевская, В. В.
KOSNODAMIANSKIY, V.N.; KLIMASHEVSKAYA, V.V.

Effect of soluble salusid on Mycobacterium tuberculosis [with summary
in French]. Probl.tub. 37 no.1:88-93 '59. (MIRA 12:2)

1. Iz kafedry mikrobiologii I Leningradskogo meditsinskogo instituta.
(MYCOBACTERIUM TUBERCULOSIS, eff. of drugs on,
isoniazid (Rus))
(ISONIAZID, effects,
on M. tuberc. (Rus))

KOSMACHEVSKAYA, V.F.

Microflora of the sputum in pulmonary tuberculosis complicated with amyloidosis. Probl. tub. 21 no.9:73-74 (61). (MIRA 17:9)

1. Iz kafedry mikrobiologii (zav. - prof. V.N.Kosmodemianskiy) i
iz kliniki legochnogo tuberkulosa (zav. - prof. A.Ya.TSigel'nik)
I Leningradskogo meditsinskogo instituta imeni Pavlova.

DVINSKIY, Emmanuil Yakovlevich; OPUL'SKIY, A., red.; KLIMASHEVSKIY, A.,
kartograf; YAKOVLEVA, Ye., tekhn. red.

[Moscow; tourist's companion] Moskva; sputnik turista. Moskva,
Mosk. rabochii, 1961. 479 p. (MIRA 15:2)
(Moscow--Guidebooks)

KLIMASHEVSKIY, A. V., insh.

New operating conditions of railroad sections and the strengthening of their economic accountability. Zhel.dor.transp. 42 no.8:61-62 Ag '60. (MIRA 13:8)

1. Nachal'nik planovo-tehniko-ekonomicheskogo otdela Belovskogo otdeleniya Tomskoy dorogi, g.Belovo.
(Railroads--Accounts, bookkeeping, etc.)

Klimashevskiy, E.L.

USSR/Soil Science. Mineral Fertilizers.

I-5

Abs Jour: Referat Zh-Biol., No 6, 25 March, 1957, 22494

Author : Klimashevskiy, E.L.

Inst :

Title : The Effect of Boron Fertilizers and Organic-Mineral Mixtures on Corn Crops.

Orig Pub: Agrobiologiya, 1956, No 3, 108-109

Abstract: The effect of fertilizers on corn crops was tested at the experimental base of the Sverdlovsk Oblast' experimental station. With 25 ton/hectare of manure, the yield of corn green mass increased by 115 centners/hectare; the addition of a mixture of 3 tons of humus, 3 centners of lime and 0.5 centner of superphosphate (I) per hectare in the nidus of planting caused a crop increase of 106 centner/hectare, but the addition of a mixture of I together with 25 kg/hectare of borax increased the crop to 359 centners/

Card : 1/2

-10-
Sverdlovskaya oblastnaya polevodcheskaya opyt'naya stantsiya

USSR/Soil Science. Mineral Fertilizers.

I-5

Abs Jour: Referat Zh-Biol., No 6, 25 March, 1957, 22494

hectare, i.e. by 172 centners/hectare. In another experiment, when boron fertilizers were used, an increase in corn crop by 30-50% was noted; boron fertilizers are especially effective in the presence of lime.

Card : 2/2

-11-

USSR / General and Specialized Zoology. Insects.

P

Abs Jour: Ref Zhur-Biol., No 2, 1958, 6782.

Author : Klimashevskiy, E. L.

Inst : Not given.

Title : The Utilization of Hexachlorocyclohexane and of Trace Elements.

Orig Pub: Zashchita rast. ot vredit. i bolezney, 1957, No 1, 48-49.

Abstract: Clover seeds were treated with a mixture of the following solutions: of borax (0.2%), of cobalt chloride (0.04%), of manganese sulphate (0.4%) and of ammonium molybdate (0.001%). The seeds were moistened for 12 hours, dried and immediately (in corresponding varieties) dusted with a 12% hexachlorocyclohexane (HCCH) dust. (2 kg/o). The following measures secured an increase in the yield of hay from a mixture of grasses for two

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USSR / General and Specialized Zoology. Insects.

P

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723110013-3"
Abs Jour: Ref Zhur-Biol., No 2, 1958, 6782.

Abstract: years: moistening the seeds in water by 104%, moistening the seeds and powdering with HCCH-by 129.2%, powdering with HCCH-by 132%, moistening the seeds in a mixture of microelements-by 147.8%, moistening in a mixture of trace elements and powdering with HCCH by 164.5%, dusting the grass with HCCH three times 15/V, 21/VI and 15/VII- by 134.6%, introduction of HCCH (100 kg per hectare) into the soil-by 143.2%. Dusting the seeds with HCCH led to greater growth of plant bushes; the latter were less damaged by the wire bugs and the plantings, especially when microelements were used, wintered better. Dusting the grass with HCCH decreased the damage to clover by the clover seed eater, while HCCH stimulated the development in the soil of nitrobacteria. -- A. P. Adrianov.

Card 2/2

USSR / Cultivated Plants. Fodders.

M-4

Abs Jour: Ref Zhur-Biol., No 6, 1958, 25097

Author : ~~Klimashevskiy, E.~~
Inst : The Ural Inst. of Agriculture
Title : The Dense Sowing of Corn and Sunflower with Legumes

Orig Pub: Kolkhoznoye proiz-vo, 1957, No 4, 42

Abstract: At the Ural Institute of Agriculture (in Sverdlovskaya Oblast') on a 3 year average the following masses were obtained in centners per ha.: sunflower 421.7, and in a leguminous-oat mixture 509.4, corn 274.2, and in a leguminous-oats mixture 339.5.
-- Ye. V. Kolesnikov

Card 1/1

90

USSR/Cultivated Plants. Fodders.

M-4

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29857

Author : Klimashevskiy, E.L.

Inst : The Sverdlovsk Affiliate of the All-Union Institute for Plant Cultivation.

Title : Corn Cultivation in the Central Urals.

Orig Pub : Kukuruz, 1957, No 7, 61-63.

Abstract : Three year long experimentation at the Sverdlovsk Experimental Station and Affiliate of the All-Union Institute for Plant Cultivation has shown that under the conditions prevailing in Sverdlovskaya Oblast', only the cultivation of late and medium ripening corn varieties for green stuff is justified. In square-pocket planting the green mass yield depends to a significant degree on the plant density. A reduction of the space between the bunches to 45 cm.

Card 1/2

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USSR/Cultivated Plants. Fodders.
APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723110013-3

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29857

with an increase in the number of plants (to 6-8) per group significantly raised the green stuff yield.

Card 2/2

KLIMASHVSKIY, N.L.

Influence of boron on corn yield on acid Turf-Podsol soils. Dokl.
Akad. sel'khoz. 23 no.2:23-25 '58. (MIRA 11:5)

1. Ural'skiy nauchno-issledovatel'skiy institut sel'skogo khozyaystva.
Predstavlena akademikom I.I. Samoylovym.
(Boron) (Corn (Maize))

AUTHOR: Klimashevskiy, E.L. SOV-26-58-3-36/51

TITLE: The Formation of Above-Ground Tubers of the Potato (Obrazovaniye nadzemnykh klubney kartofelya)

PERIODICAL: Priroda, 1958, ^{4⁹} Nr 3, p 113 (USSR)

ABSTRACT: During the potato harvest at "Istok" experimental farm of the Urals Scientific Agricultural Research Institute, a potato plant of the Berlichingen type was found which had no under-ground tubers at all but small aerial tubers on the stalks in the axils instead. It was found out that the root system had suffered severe damage by wireworms and ensuing rot during the vegetative period. There is 1 photo.

ASSOCIATION: Ural'skiy nauchno-issledovatel'skiy institut sel'skogo khozyaystva-Sverdlovsk (Urals Scientific Agricultural Research Institute-Sverdlovsk)

1. Potatoes--Growth 2. Potatoes--Pathology

Card 1/1

KLIMASHNEVSKIY, N.L.

Applying organomineral fertiliser mixtures to corn on acid turf-
Podsollic soils. *Agrobiologia* no.3:419-427 My-Je '59.
(MIRA 12:9)

1. Ural'skiy nauchno-issledovatel'skiy institut sel'skogo
khozaystva, g.Sverdlovsk.
(Corn(Maise)--Fertilisers and manures)

KLIMASHVSKIY, N., starshiy nauchnyy sotrudnik

Applying lime to acid soils before planting corn. Nauka i
pered.sp. v sel'khoz. 9 no.3:13-15 Nr '59. (MIRA 12:5)

1. Ural'skiy nauchno-issledovatel'skiy institut sel'skogo
khozaystva.

(Lime)

(Corn (Maize))

KLIMASHEVSKIY, E. L.

KLIMASHEVSKIY, E. L., Cand Biol Sci (diss) -- "The effect of the reaction of the environment and calcification of the soil on certain physiological-bio-chemical processes, development, growth, and yield of corn". Sverdlovsk, 1960. 16 pp (Min Higher and Inter Spec Educ RSFSR, Ural State U in A. M. Gor'kiy), 150 copies (KL, No 15, 1960, 133)

KLIMASHEVSKIY, E.L.

Effect of the pH value of nutrient solutions on growth and some
physiological and biochemical processes in corn. Dokl. AN SSSR
134 no.4:969-971 0 '60. (MIRA 13:9)

1. Ural'skiy nauchno-issledovatel'skiy institut sel'skogo
khozaystva. Predstavleno akad. A.L. Kursanovym.
(Corn (Maize)) (Soil acidity)

KLIMASHEVSKIY, E.L.

Development, growth and productivity of corn plants as
related to the variety and the conditions of nutrition
from soil. Zap. Sverd. otd. VBO no.2:75-87, '62.
(MIRA 16:8)

KLIMASHEVSKIY, E.L.

Effect of some environmental factors on the growth characteristics of corn varieties differing in their ripening rate. Fiziol. rast. 10 no. 6:708-712 N-D 63. (MIRA 17:1)

1. Institute of Biology and Soil, Far East Branch of U.S.S.R. Academy of Sciences, Vladivostok.

KLIMASHEVSKIY, Eduard Leonardovich; TUYEVA, O.F., otv. red.;
KRASIL'NIKOVA, G.V., red.izd-va; YEGOROVA, N.F.,
tekhn. red.

[Nutrition of corn in turf Podzolic soils] Pitaniye kuku-
rusy na dernovo-podsolistykh pochvakh. Moskva, Izd-vo
"Nauka," 1964. 110 p. (MIRA 17:3)

KLIMASHEVSKIY, E.L.; KARPOV, Ye.A.

New types of combined treatment of seeds before sowing. Izv.
SO AN SSSR no.12. Ser. biol.-med. nauk no.3:60-65 '63.

(MIRA 17:4)

1. Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR,
Vladivostok.

KLIMASHVSKIY, I. L.

Role of boron as the development and growth factor of corn
on soils of the turf-fodcolic type. Zap. Sverd. otd. VBO no. 3:
95-103 '64 (MIRA 18:2)

KLIMASHEVSKIY, M. [Klimashevsky, M.] (Pol'skaya Narodnaya Respublika)

Work results of the international conference in Poland on the
problems of geomorphological mapping. Izv. AN SSSR. Ser. geog.
no. 6:122-125 N-D '62. (MIRA 15:12)
(Geomorphology--Maps)

Klimashin, A

USSR/ Electronics - Amateur wireless telephony

Card 1/1 Pub. 89 - 17/30

Authors : Klimashin, A., and Rybkin, V.

Title : Wireless telephony contests

Periodical : Radio 3, page 34, Mar 1955

Abstract : An account is given of the activities of owners of amateur wireless telephone transmitting and receiving sets, particularly with reference to a recent contest which lasted for four hours and in which the contestants tried to make connections with the largest number of others, the final decision as to the winner depending also on the number of districts, autonomous republics of the Soviet Union and foreign satellite countries reached. Illustration.

Institution :

Submitted :

KLIMASHIN, A.; RYKIN, V.

The tenth all-union short wave radio operators' competition.
Radio no. 6:42 Je '55. (MLRA 8:8)

- 1. Operatory radiostantsii UAZKAB**
(Radio operators--Competitions)

KLIMASHIN, A.

USER/Miscellaneous - Radio amateur contests

Card 1/1 Pub. 89 - 21/30

Authors : Klimashin, A., and Rybkin, V.

Title : Tenth All-Union competition of short-wave radio amateurs

Periodical : Radio 6, page 42, Jun 1955

Abstract : Honoring the 60-th anniversary of the development of radio by A. S. Popov, the DQSAAF organized the All-Union competitions of short-wave radio amateurs who presented and demonstrated their achievements in the field of short-wave radio transmission and reception.

Institution :

Submitted :

Klimashin, A.

USSR/ Miscellaneous

Card 1/1 Pub. 89 - 7/30

Authors : Klimashin, A.

Title : Competition of women short-wave operators

Periodical : Radio 1, page 19, Jan 56

Abstract : An account is given of the activities of various women amateur radio operators, either as individuals or through their groups with the letter symbols of these groups.

Institution :

Submitted :

107-57-4-10/54

AUTHOR: Klimashin, A., and Zakharov, V.

TITLE: The Second "Field Day" Will Take Place on August 10-11 (10-11 Avgusta -- vtoroy "polevoy den'")

PERIODICAL: Radio, 1957, Nr 4, pp 10-11 (USSR)

ABSTRACT: The radio operator team which won first prize in the 1956 "Field Day" reports its experience in this article. The team of the radio station UA3KAE (077576), which included A. Klimashin, V. Zakharov (UA3FU), and G. Semenikhin (077538), began preparations for the contest as early as April, 1956. The contest took place in Vlasovka village, Moscow oblast. A low-power consumption 38-40 and 144-146 mc radio receiver was selected for the contest. A 2.5-watt 38-40 mc transmitter was built. Yu. Prizemlin (064020) built a special four-element horizontally polarized antenna (see Radio, 1957, Nr 2). The station was tested in actual operation two days before the contest. A series of hitches, drawbacks and mistakes of the 1956 "Field Day" is described in the article and remedies are suggested. There is one photo showing Ufa ultrashort-wave hams during the 1956 "Field Day."

Card 1/1

KLIMASHKIN, A.

Taking courses. Sov.kras.krest 4 no.1:8 Ja-Mr '54. (MERA 7:4)
(Nurses and nursing--Study and teaching)

L 15736-66 EW(1)

ACC NR: AP6000898

SOURCE CODE: UR/0181/65/007/012/3698/3700

AUTHORS: Golikova, O. A.; Avgustinnik, A. I.; Klisshin, G. M.;
Kozlovskiy, L. V.; Ordan'yan, S. S.; Snetkova, V. A.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut
poluprovodnikov AN SSSR)

TITLE: Electric properties of carbides of the transition metals of
group IV

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3698-3700

TOPIC TAGS: titanium compound, zirconium carbide, hafnium compound,
carbide, thermal emf, Hall constant, resistivity, transition element

ABSTRACT: The purpose of the investigation was to compare the elec-
tric properties (thermal emf, resistivity, Hall constant) of TiC, ZrC,
HfO as functions of the composition in the temperature interval 300
-- 1500K. The data on TiO were taken from an earlier investigation
by the authors (PTT v. 7, 2860, 1965). The ZrC and HfO were prepared
by the same technology as the TiC. The plots of all the measured

Card 1/2

L 15736-66

ACC NR: AP6000898

quantities against the carbon concentration are approximately the same for all three carbides. This demonstrates that the scattering mechanism and energy spectrum of the carriers are the same in all the compounds. An unexpected result is the fact that the effective masses of the three carbides are equal, since their lattices have different lattice constants and the participating electrons come from different shells. From the fact that the ratio of the distances between the metal and carbide atoms (R) and the radii of the metallic atoms (r) is also constant for all carbides, it is concluded that the orbitals of the metal atoms overlap equally. This explains the equality of the effective masses. The carrier scattering mechanism is briefly discussed. Orig. art. has: 2 figures, 1 formula, and 1 table.

SUB CODE: 07 / SUBM DATE: 23Jul65 / ORIG REF: 004 / OTH REF: 003 /

Card

2/2 *af*

9244-26 EWT(1)/EWP(a)/EWT(m)/EWP(t)/EWP(k)/EWP(z)/EWP(b) LJP(c) JD
ACC NR: AP5022743 SOURCE CODE: UR/0181/65/007/009/2860/2862

AUTHOR: Galkova, O. A., Avkustianik, A. I., Klimashin, G. N., Kozlovskiy, L. V. 44.55 44.55 44.55 60

ORG: Institute of Semiconductors AN SSSR (Institut poluprovodnikov AN SSSR); Leningrad Technological Institute im. Lensoveta (Leningradskiy tekhnologicheskiy institut) 44.55

TITLE: Electrical properties of titanium carbide 44.55

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2860-2862 27

TOPIC TAGS: electric property, titanium compound, carbide, energy band structure, thermoelectromotive force, Fermi level 21, 44, 55

ABSTRACT: The authors study the electrical properties of titanium carbide as a function of carbon concentration. The data are used as a basis for an explanation of the energy spectrum and mechanism responsible for scattering of current carriers. The resistivity, thermoelectromotive force and Hall constant were measured in specimens of TiC_x (x = 0.43-1.0). Powder metallurgy methods were used for producing the specimens. Curves are given for resistivity and thermoelectromotive force as functions of temperature in the 300-1500°K range for various values of x. Hall concentrations, defect concentrations, mobilities and effective masses are tabulated for various carbon concentrations. It was found that the effective mass decreases with an increase

Card 1/2

L 9244-66

ACC NR: AP5022743

in concentration. It is assumed that the Ti-C bond is basic in stoichiometric TiC and that the Ti-Ti bond is strongly screened. The Ti-Ti bond becomes more and more important as the carbon content in the compound is increased. The stronger this bond becomes, the wider the conduction band and the greater the deviation from semiconductor properties. The rapid increase in thermoelectromotive force at high temperatures is explained by assuming that the "metal" conduction band overlaps the higher conduction band of stoichiometric titanium carbide. At high temperatures, the Fermi level falls into the higher band and thermoelectromotive force begins to increase more rapidly. This hypothesis is confirmed by $\alpha(T)$ curves. Orig. art. has: 2 figures, 1 table.

SUB CODE: 20/

SUBM DATE: 14Apr65/

ORIG REF: 003/

OTH REF: 002

Card 2/2 (W)

AVGUSTINIK, A.T., KLIMASHIN, G.M., KOZLOVSKIY, L.V.

Study of the synthesis of pure titanium carbide by the metal-ceramic method. Izv. AN SSSR. Neorg. mat. 1 no.6:830-834
Jun '65. (MIRA 18:8)

1. Leningradskiy khimiko-tekhnologicheskii institut imeni
Leningrada.

L 13106-66

EMP(m)/EMP(t)/EMP(b)

LJP(o)

JD

ACC NR: AP5025791

SOURCE CODE: UR/0363/65/001/009/1545/1546

AUTHOR: Neshpor, V. S.; Klimashin, G. M. 4/BORG: State Order of the Labor Red Banner Institute of Applied Chemistry
(Gosudarstvennyy ordena Trudovogo Krasnogo znameni Institut prikladnoy khimii); Leningrad Technological Institute (Leningradskiy tekhnologicheskii institut)TITLE: Thermal conductivity of titanium monocarbide²⁷ as a function of carbon content in the region of homogeneity²⁷

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 9, 1965, 1545-1546

TOPIC TAGS: titanium compound, carbide, heat conductivity

ABSTRACT: Samples of titanium monocarbides $TiC_{0.971-0.525}$ were obtained by direct synthesis of the carbide from the components followed by sintering of bars pressed from the carbide. The samples consisted of a single phase and had a cubic NaCl-type lattice. The dependence of the thermal conductivity on the mole fraction $(1-x)$ of carbon vacancies in TiC_x monocarbides was measured and is shown in fig. 1. The contribution of free electrons to thermal conductivity was determined from the Wiede-

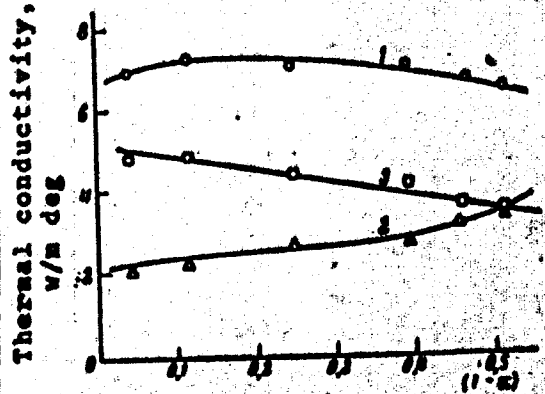
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UDC: 546.824'261

I. 13106-66

ACC NR. AP5025781

mann-Frans law by measuring the electric resistivity. The change in the electronic component of thermal conductivity λ_e is represented by curve 2. The increase in λ_e from carbon rich to carbon poor monocarbides is due to a substantial increase in the concentration of free electrons (from 0.1 for $TiC_{0.971}$ to 1.0 per formula unit for $TiC_{0.525}$), as indicated by Hall coefficients measured on the same samples. The lattice component of thermal conductivity λ_l was determined as the difference between the measured and the electronic conductivity $\lambda_l = \lambda_0 - \lambda_e$.



Orig. art. has: 1 figure.

Fig. 1. Thermal conductivity of titanium monocarbides TiC_x vs mole fraction of carbon vacancies $(1-x)$: 1--

total thermal conductivity; 2--electronic thermal conductivity; 3--lattice thermal conductivity.

SUB CODE: 07/

SUBM DATE: 10May65/

ORIG REF: 003/ OTH REF: 002

Card 2/2 *20/*

BARSOV, Aleksey Sergeyevich; KLIMASHIN, Ivan Petrovich; CORELIK,
L.Ya., red.

[Electronic computers and agricultural production] Elek-
tronnye vychislitel'nye mashiny i sel'skokhoziaistvennoe
proizvodstvo. Moskva, Ekonomika, 1965. 131 p.
(MIRA 18:12)

KLIMASHOV, F.S., inzh.

Metallurgical slags for road construction. Art. dor. 26 no.2:21-23
F '63. (MIRA 16:4)

(Slag)

(Road materials)

SOKOLOV, G.A.; ZUYEV, I.M.; LOBANOV, V.V.; ZUBAREV, A.G.; KLIMASHIN, P.S.

Treatment of converter and open-hearth steel with electric furnace
slag. Stal' 24 no.7:612 J1 '64. (MIRA 18:1)

1. Moskovskiy institut stali i splavov i Novolipetskiy metallur-
gicheskii zavod.

SOKOLOV, G.A.; ZUYEV, I.M.; KLIMASHIN, P.S.

Siphon device for draining liquid slag from the ladle.

Metallurg 10 no.1:19-22 Ja '65.

(MIRA 18:4)

1. Moskovskiy institut stali i splavov i Novolipetskiy metal-
lurgicheskiy zavod.

OYKS, G.N.; SOKOLOV, G.A.; ZUYEV, I.M.; PETROV, V.K.; ZUBAREV, A.G.;
KLIMASHIN, P.S.

Treatment of liquid transformer steel in the ladle. Stal'
25 no.8:711-715 Ag '65. (MIRA 18:8)

L 00295-67 ~~AWT(m)/EWP(e)/EWP(t)/RTI~~ IJP(e) AT/WH/JD/JG/GD

ACC NR: AT6027151

SOURCE CODE: UR/0000/65/000/000/0241/0244

AUTHOR: Av~~g~~ustinik, A. I.; Golikova, O. A.; Klimashin, G. M.; Kozlovskiy, L. V.;
Neshpor, V. S.

ORG: none

TITLE: Dependence of certain electrophysical properties of titanium monocarbide on
the carbon contentSOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Issledovaniya v oblasti
khimii silikatov i oksidov (Studies in the field of chemistry of silicates and oxides).
Moscow, Izd-vo Nauka, 1965, 241-244TOPIC TAGS: titanium compound, carbide, Hall constant, Hall mobility, conduction
electron, resistivity, carbonABSTRACT: The dependence of the resistivity ρ , thermal emf α and Hall constant R of
titanium monocarbides on the carbon content was studied in the region of homogeneity
on samples prepared from powdered Ti and acetylene black at 1750°. All the samples
showed a negative Hall constant, indicating an n-type conductivity; the absolute value
of R decreases rapidly with decreasing carbon content, indicating an increase in the
concentration of free conduction electrons. The absolute differential thermal emf
also decreases with diminishing carbon content. The resistivity decreases with de-
creasing carbon content in monocarbide phases TiCx, this being in accord with the in-

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ACC NR: AT6027151

creasing free electron concentration. The Hall mobility of electrons decreases from carbon-rich to carbon-poor titanium monocarbides, due to an increase in the fraction of conduction electrons scattered by the carbon vacancies. Orig. art. has 3 figures and 1 table.

SUB CODE: 07,20/ SUBM DATE: 31Mar65/ ORIG REF: 009/ OTH REF: 016

Card

2/2 *ga*

L 06296-67 INT(m)/INT(e)/INT(t)/INTI LWP(c) AT/WH/JD/JG/G

ACC NR: AT6027152 (A) SOURCE CODE: UR/0000/65/000/000/0244/0250

AUTHOR: Avgustinik, A. I.; Golikova, O. A.; Klimashin, G. H.; Kozlovskiy, L. V.

ORG: none

TITLE: Effect of oxygen on certain properties of titanium carbide

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Issledovaniya v oblasti khimii silikatov i okislov (Studies in the field of chemistry of silicates and oxides). Moscow, Izd-vo Nauka, 1965, 244-250

TOPIC TAGS: titanium compound, carbide, oxygen impurity

ABSTRACT: In a study of alloys of the TiC-TiO-Ti system, x-ray structural data showed that the contamination of TiC_x with oxygen causes a decrease in the size of the unit cell, this effect being more pronounced the closer the composition is to the stoichiometric proportion of TiC_x. This along with the influence of vacancies accounts for the great scatter of results obtained by various authors in their study of the lattice parameter of TiC_{1.0}. The melting point and microhardness of titanium carbide contaminated with oxygen decrease with increasing number of defects in the lattice, and to a lesser degree depend on the kind of metalloid atoms. As the oxygen content rises, the microbrittleness decreases at first, then begins to increase because of increasing ionic bond character. The electron concentration in titanium carbide containing some oxygen is influenced by two effects: when the number of vacancies in the metalloid

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ACC NR: AT6027152

sublattice (i. e., the number of conduction electrons) is small, the current carrier concentration grows, since oxygen atoms give up to the conduction band their excess electrons relative to carbon. When the number of vacancies in the metalloid sublattice is large, the oxygen atoms do not give up their electrons, and oxygen in its reaction with titanium ties up the titanium electrons, causing a drop in the carrier concentration. Titanium carbide containing an oxygen admixture shows a metallic temperature dependence of the resistivity and thermal emf. The mobility of electrons at $T = \text{const}$ drops with their increasing concentration and is relatively insensitive to the concentration of defects in the metalloid sublattice. The predominant scattering mechanism appears to involve scattering by lattice vibrations, and the energy dependence of the relaxation time is close to that observed in semiconductors. Orig. art. has: 13 figures.

SUB CODE: 07/ SUBM DATE: 09Apr65/ ORIG REF: 009/ OTH REF: 003

Card 2/2 *gd*

L 06576-67 EWT(m)/EWP(a)/EWP(w)/EWP(t)/ETI LIP(c) AT/WH/JD/JO

ACC NR: AP6029818

(A)

SOURCE CODE: UR/0363/66/002/008/1439/1443

AUTHOR: Avgustinik, A. I.; Golikova, O. A.; Klimashin, G. M.; Meshpor, V. S.;
Ordan'yan, S. S.; Snetkova, V. A.

55
B

ORG: Leningrad Institute of Technology im. Lensovet (Leningradskiy tekhnologicheskii institut); Semiconductor Institute, Academy of Sciences SSSR (Institut poluprovodnikov Akademii Nauk SSSR)

27

TITLE: Dependence of certain electro- and thermophysical properties of zirconium monocarbide on the carbon content within the range of homogeneity

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 8, 1966, 1439-1443

TOPIC TAGS: zirconium carbide, solid mechanical property, solid physical property, electric conductivity, thermal emf, Hall coefficient

ABSTRACT: The dependence of electrical resistivity, absolute thermal emf, Hall coefficient, and thermal conductivity of zirconium monocarbide was studied for 36-48 atom % C contents in the carbide. The zirconium carbide samples were prepared by fusing high purity zirconium and carbon at 1800°C in vacuo followed by sintering at 2200°C. The properties, compositions, and lattice parameters for various zirconium samples are graphed and tabulated. It was found that free electrons act as current carriers within zirconium carbide. The electrical resistivity, the thermal emf, and the Hall coefficient were found to decline and the thermal conductivity was found to increase with

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ACC NR: AP6029818

declining contents of the combined carbon in zirconium monocarbide. This phenomena are related to the release of a portion of the zirconium electrons from the localized metal-carbon bonds. The specific resistivity and absolute thermal emf were found to increase linearly with increasing temperature. The slope of these lines was found to decrease with decreasing carbon content in zirconium carbonate. This phenomenon is apparently due to the decline in the effective mass of the conduction electrons. Orig. art. has: 2 figures and 1 table.

SUB CODE: 112/SUBM DATE: 06Oct65/ ORIG REF: 013/ OTH REF: 015

Card 2/2

L 07823-67 EMP(e)/SWT(m)/SWP(t)/ETI/EMP(k) IJP(q) JD/NN/JO/NN
ACC NR. XP6034204 (V) SOURCE CODE: UR/0133/66/009/004/0528/0532

AUTHOR: Avgustinik, A. I.; Koslovskiy, L. V.; Klimashin, G. M. 52
B

ORG: Department of Chemistry and the Technology of Fine Technical
Ceramics, Leningrad Technological Institute im. Lensovet (Kafedra khimii
i tekhnologii tonkoy tekhnicheskoy keramiki, Leningradskiy tekhnologi-
cheskiy institut)

TITLE: / High-temperature reactions between titanium²⁷ carbide²⁷ and certain
oxides

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 9, no. 4,
1966, 528-532

TOPIC TAGS: titanium carbide, refractory oxide, zirconia, hafnium
oxide, thorium, beryllia, high temperature ceramic material

ABSTRACT: A discrepancy between calculated and experimental²⁷ tempera-
tures of titanium carbide reactions with refractory²⁷ ZrO_2 , HfO_2 , ThO_2 ,
and BeO led to a study of the reaction products which were obtained by
sintering²⁷ at 1770—2470K in vacuum the compacted mixtures of pure TiC
with 10—80 wt.% of one of the refractory oxides.²⁷ Weight loss,
shrinkage, density, and porosity of the sintered samples were measured
and the effects of the sintering temperature and the oxide content in

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ACC NR: AP6034204

the starting mixture were evaluated. The data obtained, the lattice parameter data obtained by x-ray phase analysis, and the micrographs made it possible to establish in each case the mechanism of reactions and the phase formation. As a general rule, formation of TiC-base solid solutions with interstitial atoms of the second metal occurs in the presence of a large excess of the oxide and a titanium oxycarbide and metal form in the case of deficiency of the oxide in the starting mixture. Evolution of CO was detected in all cases. The formation of Be_2C was detected by x-ray analysis in the reaction of TiC with 80% BeO . Complex oxycarbide solid solutions were formed in the reactions of TiC with 50% ZrO_2 or HfO_2 [sic]. ThO_2 was found to be the least reactive of all the oxides studied, in agreement with theory. The reaction of TiC with 50% ThO_2 at 2470K yielded a spongy surface phase of ThC_x . Orig. art. has: 3 figures, 1 table, and 3 formulas.

SUB CODE: 11/ SUBM DATE: 12Oct64/ ORIG REF: 010/ ATD PRESS: 5101

Card 2/2 *bc*

L 20321-66 EWT(m)/RMP(t) IJP(c) JD

ACCESSION NR: AP5018912

UR/0263/65/001/006/0830/0834

546.821'261

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11
B

AUTHOR: Avgustinik, A. I.; Klimashin, G. M.; Kozlovskiy, L. V.

TITLE: Investigation of conditions of synthesizing pure titanium carbide by sintering

27 27

SOURCE: AN SSSR. Izvestiya: Neorganicheskiye materialy, v. 1, no. 6, 1965, 830-834

TOPIC TAGS: carbide, titanium carbide, titanium carbide synthesis

ABSTRACT: An attempt has been made to synthesize high-purity titanium carbide by sintering a mixture of carbon black with 99.98%-pure titanium dioxide, 99.87%-pure electrolytic titanium or 99.98%-pure titanium. The mixture of components was vacuum sintered at 1570-2270K. Optimum results were obtained from a mixture containing 99.98%-pure titanium in an amount exceeding the stoichiometric by 7.5-10%, to compensate the loss of titanium by evaporation. Sintering of this mixture at 2020K yielded high-purity titanium carbide which contained 20% combined carbon and had a crystal lattice parameter of 4.3281 Å. Oxygen in the initial material reduces

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ACCESSION NR: AP5018912

the lattice parameter of titanium carbide and makes the synthesis more difficult.
Orig. art. has: 4 figures and 2 tables. (ND)

ASSOCIATION: Leningradskiy khimiko-tekhnologicheskii institut im. Lensovetu
(Leningrad Chemical Technological Institute)

SUBMITTED: 13Mar65

ENCL: 00

SUB CODE: MM, SS

NO REF SOV: 005

OTHER: 006

ATD PRESS: 4076

Card 2/2

KLIMASZEWSKA, J.

The scientific work of Kazimierz Mossynaki. Tr. from the Polish.

P. 245, (Slovensky Narodpis) Vol. 5, no. 3/4, 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11 November 1957

KLIMASZEWSKI, M.

"River gaps in the Carpathian Mountains" (p. 3). CHRONIKI PRZYRODE CISCZYSTA
(Panstwowa Rada Ochrony Przyrody) Krakow, Vol 9, No 5, Sept./Oct. 1953.

SO: East European Accessions List, Vol 3, No 8, Aug 1954

KLIMASZEWSKI, M.

"Tasks and plan of geomorphological research in southern Poland. p. 52.
A discussion on geomorphology. p. 55." (PRZEGLAD GEOGRAFICZNY. POLISH
GEOGRAPHICAL REVIEW, Vol. 25, no. 2, 1953, Warszawa, Poland.)

SO: East European L. G. Vol. 2, No. 12, Dec. 1953

KLIMASZEWSKI, M.

"Report from a Visit to the People's Republic of Hungary, October 29-November 13, 1954." P. 97.

(PRZEGLAD GEOGRAFICZNY. POLISH GEOGRAPHICAL REVIEW, Vol. 26, No. 1, 1954, Warszawa, Poland.)

SO: Monthly List of East European Accessions, (MEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

KLIMASZEWSKI, M.

"Combined Chair of Geography at Jagello University in Krakow in the Years 1944-1954."
P. 144,
(PRZEGLAD GEOGRAFICZNY. POLISH GEOGRAPHICAL REVIEW, Vol. 26, No. 3, 1954, Warszawa,
Poland.)

SO: Monthly List of East European Accessions, (EKAL), LC, Vol. 3,
No. 12, Dec. 1954, Uncl.