MERLICH, B.V.; DATSENKO, N.M.

Lithological control of sulfur sedimentation in the Rozdol deposit. Vest. L'vov. un. Ser. geol. no.4:9-16 '62. (MIRA 19:1)

MERLICH, B.V.; [illegible], G.P.

Nature of the [illegible] of [illegible] of cry[illegible]crystalline sulfur in the Rozdol deposit. Min.sbor. 18 no.2:188-194 '64. (MIRA 18:5)

1. Gosudarstvennyy universitet imeni Ivana Franko, L'vov.

MERLICH, B.V.; SPITKOVSKAYA, S.M.

Characteristics of the Upper Neogene igneous activity of deep faults in Transcarpathia. Geol.sbor. [Lvov] no.9:55-68 '65.
(MIRA 18:12)

ROVENSKIY, I.I.; MERLIN, A.V.

Modulizing the products of the direct production of iron. Obog.rud. 7 no.1:34-36 '62. (MIRA 15:3)

1. Mekhanobrchermet.
(Sintering) (Powder metal processes)

GRIGOR'YEV, N.N., inzh.; DROZHILOV, L.A., inzh.; MERLIN, A.V., inzh.

Sinter cooling in basin coolers. Stal' 23 no.5:385-388 My '63. (MIRA 16:5)

(Sintering)

MERLIN, A. Ye.

Defects in refractories of magnesite, silica, and grog. A. R. MERLIN. *Trudy Soveshchaniya Ogneuporam Materialam*, 1940, 10–15; *Khim. Referat. Zhur.*, 1940, No 8, p. 93; *Chem. Abs.*, 36, 6764–65 (1942).—Defects observed in the performance of magnesite brick, magnesite powder, silica brick, etc., in steel-melting furnaces are described.

BCS MERLIN, A. Ye.

Manufacturing Processes
[illegible], Kilns, Firing

44. Making the tunnel kiln for the firing of firebricks automatic.—A. E. MERLIN and R. K. DUCAN (Ogneupory, 16, 9, 1951). A system for automatic regulation of temp. in the firing zone is based on inter-connection of the thermocouple, dampers and gas inlet valve. The electrical circuit is shown, but the paper is not very informative. (18 figs.)

MERLIN, A.Ye.

Automatic safety devices for gas-fired furnaces. Gaz. prom. no.9:36-41 S '58. (MIRA 11:10)
(Furnaces--Safety appliances) (Automatic control)

MERLIN, A.Ye.

Complete automatization of boiler installations. Gaz.prom.
4 no.1:17-26 Ja '59. (MIRA 12:1)
(Boilers) (Automatic control)

L 47357-66 EWT(l)
ACC NR: AP6030[illegible] SOURCE CODE: UR/0413/66/000/016/0054/0055

INVENTOR: Ivanchuk, B. N.; Lipman, R. A.; Merlin, L. M.; Ruvinov, B. Ya.

ORG: none

TITLE: Controlled-frequency pulse generator. 25 Class 21, No. 184934

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 54-55

TOPIC TAGS: pulse generator, transistor

ABSTRACT: An Author Certificate has been issued describing a controlled-frequency pulse generator (see Fig. 1) containing an integrating RC-circuit and a slave blocking-generator in the transistor. To increase the frequency stability of output pulses, a stabilitron tube is inserted in the main transistor, connected in parallel with a charge capacitance. To increase the capacity of output pulses, a source of supplemental emf is connected to the collector transistor. Orig. art. has: 1 figure. [Translation]

[NT]

Card 1/2 UDC: 621.373.424:621.382.3

L 47357-66
ACC NR: AP6030572

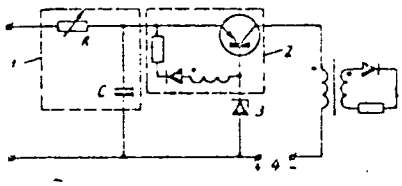

Fig. 1. Controlled-frequency pulse generator.
1—RC-circuit; 2—slave blocking generator in the transistor; 3—stabilitron tube; 4—source of supplemental emf.

SUB CODE: 10/ SUBM DATE: 02Mar65/

Card 2/2 mt

KUCHEROV, P.M.; BYKOV, L.T.; KARPUZIDI, K.S.; MERLIN, V.M.; KUNITSA, N.K.; KAL'YANOVA, M.L.; PARSHIN, M.I.

Experience with the prevention of tularemia during an extensive epizootic outbreak in rodents. Zhur. mikrobiol. epid. i immun. 29 no.8:3-7 Ag '58. (MIRA 11:10)

1. Iz Ural'skoy protivochumnoy stantsii i Rostovskogo protivochumnogo instituta.

(TULAREMIA, prevention and control,
during extensive epizootic outbreak in rodents (Rus))

ACC NR: AP6034010 (N) SOURCE CODE: UR/0213/66/006/005/0877/0881

AUTHOR: Burnashov, V. Kh.; Dzhus, V. Ye.; Kunets, T. A.; Labeysh, V. G.; Nayyer, A. V.; Merlin, V. M.

ORG: none

TITLE: Visual observations of the thermocline in the sea

SOURCE: Okeanologiya, v. 6, no. 5, 1966, 877-881

TOPIC TAGS: thermocline, ocean current, ~~underwater, photography~~, underwater photography

ABSTRACT: The article analyzes the possibility of studying the nature of the thermocline using direct observations and with the aid of underwater photography. The flow is fixed by the path of dye-stuff which is formed by a releasing a weight colored with fluorescein. This method, successfully applied during a number of cruises in 1964—1965, helped the authors discover the effect of "wedging out of the rate of flow in the thermocline," i.e., the change in the position of the dye-stuff in the flow has shown that the rate of flow decreased near the thermocline, reaching a minimum in the thermocline, and then gradually increased below the thermocline,. Flow directions above and below the thermocline coincide (visual observations show a discrepancy of not more than 20°). The dyeing of waters in the flow and photographic observations of its

Card 1/2

ACC NR: AP6034010

change in space present a more accurate picture of the distribution of the rate of flow compared to other methods. Such accuracy is especially necessary in studies of hydrophysical processes taking place in the thermocline and at its boundary. Orig. art. has: 3 figures.

SUB CODE: 08/ SUBM DATE: 23Apr66/ OTH REF: 001

Card 2/2

MERLIN, V.S.; MARTYNOV, D.Ya., otvetstvennyy redaktor; MARKOV, M.V., professor, redaktor; SHAFUGULLIN, A.G., professor, redaktor; ARBUZOV, B.A., professor, redaktor; DYUKOV, I.A., professor, redaktor; NORDEN, A.G., professor, redaktor; PISAREV, V.I., professor, redaktor; TIKHVINSKAYA, Ye. I., professor, redaktor; ABDRAKHMANOV, M.I., dotsent, redaktor; MOROZOV, D.G., dotsent, redaktor; KHARITONOV, A.P., dotsent, redaktor; KOLOBOV, N.V., redaktor; KOLESNIKOVA, Ye.A., starshiy prepodavatel', redaktor; ROZHDESTVENSKIY, B.P., dotsent, redaktor.

[Peculiarity of conditioned reactions in the structure of a voluntary act] Svoeobrazie uslovnykh reaktsii v strukture volevogo akta. Kazan', 1953. 123 p. (Kazan. Universitet. Uchenye zapiski, vol.113, no.3)
(MLRA 10:3)

1. Rektor universiteta (for Martynov); 2. Prorektor po nauchnoy rabote (for Markov). 3. Prorektor po uchebnoy rabote (for Shafugullin). 4. Sekretar' partbyuro universiteta (for Kolobov)
(CONDITIONED RESPONSE) (WILL)

MERLIN, V. S.

USSR/Medicine - Physiology FD 238

Card 1/1

Author : Merlin, V. S.

Title : Characteristics of conditioned cutaneous-galvanic reflex in man

Periodical : Fiziol.zhur. 2, 155-161, Mar/Apr 1954

Abstract : Conditioned cutaneous-galvanic reflex, developed by means of electrocutaneous reenforcement, was used to obtain a positive conditioned reflex to visual and acoustic stimuli, conditioned inhibition, and a delayed conditioned reflex. All types of internal inhibition fluctuate and correlation between the force of reaction and the force of stimulus becomes disrupted when electrocutaneous reenforcement alone is used; extrairritants, however, intensify reaction. Unregulated or slightly regulated verbal-kinesthetic irritant takes part in the development of the cutaneous-galvanic reflex, caused only by the electrocutaneous reenforcement: it disrupts both internal and external inhibition and alters "the law of force." Tables. Nine reference, all USSR.

Institution : Kazan' State University

Submitted : June 14, 1952

USSR / Human and Animal Physiology. The Nervous System. T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41752.

Author : ~~Merlin, V. S.~~
Inst : Not Given.
Title : The Dynamics of "Transfer" of Conditioned Reflex Connections from One Signal to Another.

Orig Pub: Vopr. psikhologii, 1957, No 2, 53-67.

Abstract: A conditioned galvano-cutaneous reflex (CGCR) was established on verbal and motor reinforcements. Two pairs of lamps were used as conditioned signals in the first series, one pair of which (A) was reinforced, the other one (B) not. Corresponding verbal stimuli were applied in stereotypes Aa Bb or ABba. In the second series - a was reinforced instead of A. A full transfer of CGCR from the first signal system (SS) to the other and vice-

Card 1/3

USSR / Human and Animal Physiology. The Nervous System. T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41752.

Abstract: versa - was noted in 6 experimental subjects; in 2 subjects - on transfer from the first SS to the second; in one subject - only from the second SS to the first. The transfer from one SS to the other occurred more rapidly and was stronger and more constant with the application of the stereotype AaBb, but the differentiation of A from B and a from b under these conditions was more difficult. The transfer was more difficult with the stereotype ABba, but the differentiation was more easily elaborated. CGCR occasionally occurred earlier with secondary stimulation than with the principal one. Alternating of CGCR in response to either

Card 2/3

MERLIN, V.S.

New textbook of psychology ("Psychology"; textbook for pedagogical institutes edited by A.A. Smirnov. Reviewed by V.S. Merlin). Vop. psikhol. 3 no.4:171-177 Jl-Ag '57. (MLRA 10:9)
(Psychology--Study and teaching) (Smirnov, A.A.)

MERLIN, V.S.

Method employing the galvanic skin response in testing features of the common type of nervous activity in man. Vop. psikhol. 4 no.5:159-162 S-O '58. (MIRA 11:12)

1. Permskiy pedagogicheskiy institut.
(Reflexes)

ERLIN, V.S.

Character of the orienting and directly adapting reflexes in [illegible] - tory movement and in volitional act. Vop.psikhol. 5 no.1:12-135 Jl-Ag '59. (MIRA 12:11)

1. Permskiy meditsinskiy institut.
(Reflexes)

MERLIN, V.S., prof., red.; PSHENICHNOV, V.V., dots., zam. red.; SMIRNOV, M.I., dots., red.; PENSKAYA, A.V., kand. pednauk, red.

[Problems in the psychology of personality and the psychology of work] Problemy psikhologii lichnosti i psikhologii truda. Perm' 1960. 201 p. (MIRA 16:6)

1. Perm'. Gosudarstvennyy pedagogicheskiy institut. 2. Permskiy pedagogicheskiy institut (for Merlin).
(Personality) (Physchology, Applied)

MERLIN, V.S.

Features of the cutaneous-galvanic index of the the conditioned reflex during the presence and absence of the orienting component. Zhur. vys. nerv. deiat. 10 no. 5:669-675 S-O '60. (MIRA 13:12)

1. Permskiy pedagogicheskiy institut.
(CONDITIONED RESPONSE)

MERLIN, V.S.

What and how should one teach to the future psychology teachers.
Vop. psikhol. 10 no.6:141-146 N-D '64.

(MIRA 18:2)

1. Permskiy pedagogicheskiy institut.

SOV/129-58-12-2/12

AUTHORS: Borzdyka, A.M., Doctor of Technical Sciences and Merlina, A.V., Engineer

TITLE: Heat-resistant Properties of Complex Alloyed Ferrite (Teploustoychivyye svoystva slozhnolegirovannogo ferrita)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 12, pp 10 - 16 (USSR)

ABSTRACT: The properties of alloyed ferrite have been studied so far almost exclusively at room temperature and almost no data are available on the influence of individual alloying elements on the strength and plasticity of the alloyed ferrite at elevated temperatures. A paper on this subject was published by Austin, John and Lindsay (Ref 5). The influence of some elements (Mo, W, Cr, Mn, Si, Co, Ni) on the creep resistance of ferrite at 425 °C is graphed in Figure 1. Somewhat more information is available on the influence of various hardening elements on the high-temperature resistance of steels containing 11-14% Cr (Refs 6 - 8). Since the published results relate to alloys containing about 0.1% C, they do not reflect the relations pertaining to alloyed ferrite in the pure state. The authors of this paper considered it advisable to investigate the heat-resistance properties

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of complex alloyed ferrite. The results are described which were obtained on two steels which are most characteristic as regards the ferrite structure and contain Cr, W, Mo and Nb; the composition of these steels was as follows:

	C	Si	Mn	Cr	W	Mo	Nb
KhZMV	0.020%	0.08%	0.42%	2.80%	0.32%	0.38%	-
KhZMVB	0.015	0.30	0.41	2.71	0.40	0.45	0.39%

Both steels were smelted in a laboratory induction furnace of 30 kg capacity and forged into a square rod of 18 mm. The microstructure was investigated after heating to 750 - 1 200 °C with steps of 50 °C and various cooling speeds. Some of the obtained microphotos are reproduced in Figure 2. In Figure 3, the hardness is graphed for the investigated steels as a function of the heating temperature; in Figure 4, the change in the hardness is graphed as a function of the tempering temperature for a hardness after hardening of 255 H_B. The results of the phase analysis, entered in Table 2, indicate that the steel KhZMV contains, after hardening and tempering at 600 °C, negligible quantities of hardening elements (0.07% W and

Heat-resistant Properties of Complex Alloyed Ferrite

0.05% Mo) and these quantities are distributed approximately equally between the carbide and the inter-metallide phases. The steel KhZMVB consists of a solid solution, an inter-metallide and a carbonitride phase. The major part of Nb (55%) goes into the intermetallide compound, 20% in the carbonitride phase and only 25% into the solid solution. The Fe and Cr are in the solid solution, the W and Mo are predominantly in the solid solution (87.3%W and 88.9%Mo). Tensile tests were carried out on specimens with an active length of 50 mm and diameter of 10 mm; thereby, the material was hardened from 1 150 - 1 200 °C and tempered at 600 °C. It can be seen from Table 3 that the steels had a good combination of high strength and ductility; additional alloying with 0.4% Nb does not alter substantially the mechanical properties at room temperature but it reduces appreciably the impact strength at that temperature. The results of long-duration strength tests at 500 °C (up to 6 000 hours) are graphed in Figure 5. The results of creep tests at 500 °C are graphed in Figure 6. In Figure 7, the impact strength and the hardness are graphed for steels tested at 200 °C, as a function of the

Heat-resistant Properties of Complex Alloyed Ferrite

duration of holding the specimens at 500 °C prior to the tests. The following conclusions are arrived at: the investigated complex alloyed ferritic steel possesses favourable mechanical properties at room temperature as well as at temperatures of 500 - 550 °C; as regards their high-temperature properties at 500 °C, the investigated steels are as good as certain high-temperature steels of the pearlitic class; introduction of 0.4% Nb into Cr-Mo-W steels brings about a further increase in the creep resistance and long-duration strength and this is attributed to the presence of Nb in the hardening phase; an unfavourable feature of Nb-containing ferritic steel is its slow impact strength at normal temperature and also its reduced ductility under conditions of long-duration tensile stresses at elevated temperatures, which is apparently due to the presence of Nb intermetallides.

SOV/129-58-12-2/12

Heat-resistant Properties of Complex Alloyed Ferrite

There are 7 figures and 5 tables and 10 references, 9 of which are Soviet and 1 English.

ASSOCIATION: TsNIIChM

Card 5/5

S/123/60/000/020/001/019
A005/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1960, No 20, p. 17, # 109543

AUTHORS: Borzdyka, A. M., Merlina, A. V.

TITLE: An Investigation of the Thermal Brittleness of Chromium Steels

PERIODICAL: V sb.: Metallovedeniye i term. obrabotka. ("Stal'", 1958, Prilozh.). Moscow, 1959, pp. 136-146

TEXT: Twenty experimental melts of steels with 3, 5, and 12% Cr were investigated, which were alloyed additionally by various elements. It turned out that steels with 3 and 5% Cr are ready to thermal brittleness after extended heating at 500-560°C. Alloying steels with 3% chromium, Zr, Ti, and V, as well as steels with 3.5 and 12% Cr, W, and Cb does not eliminate their disposition to thermal brittleness. The complex alloying of chromium steels by Mo and W, as well as by Mo, W, and Cb makes them unsusceptible to thermal brittleness within the investigated temperature range, and increases simultaneously the resistance to heat There are 14 references.

B. A. M.

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

Card 1/1

SOV/133-59-2-20/2

AUTHORS: Merlina, A.V. and Borzdyka, A.M.

TITLE: The Structural Stability and Properties of Heat Resistant Chromium Steels (Stabil'nost' struktury i svoystv teploustoychivykh khromistykh staley)

PERIODICAL: Stal', 1959, Nr 2, pp 160-165 (USSR)

ABSTRACT: The influence of a prolonged action of high temperature and stresses (or of temperature alone) on the microstructure and the distribution of alloying elements between solid solutions and carbide phases as well as on the mechanical properties (including creep) of chromium steels was investigated. Steels containing 3, 5-6 and 12% of chromium and additionally alloyed with molybdenum, tungsten, vanadium and niobium (table 1) were studied. The investigated steels with 3% of chromium can be used for tubes operating at high pressures and temperatures up to 500°C (in particular cases in the atmosphere of hydrogen) and steels with higher chromium content may operate in strongly corrosive media. The results of analysis of the carbide phase of steels with 3% of chromium determined after hardening and annealing and after creep tests are shown in table 2, the microstructure and creep curves in

Card 1/3

The Structural Stability and Properties of Heat Resistant Chromium Steels

figures 1 and 2 respectively. Similar data on the carbide phase for steels containing 5-6% chromium are given in table 3 and for steels with 12% chromium in table 4. The dependence of hardness R_V and impact strength on the duration of heating of steels Kh5VF at 500°C and Kh5MVF and Kh5MVBF at 560°C are shown in figures 3 and 4 respectively. It is concluded that: 1) the retention of heat resistant properties of the chromium steels investigated, under service conditions depends on their structural stability, directly related with the thermal stability of the carbide phase and on the toughness of the solid solution. The presence of thermally stable finely dispersed and uniformly distributed vanadium carbide (in steel Kh3MVF) particularly together with niobium carbide (steel Kh3MVFB) effectively increases the stability of structure and properties; 2) a lower structural stability and insufficient heat resistance of steels with 5% chromium can be explained by the predominance in the carbide phase of chromium carbide of

The Structural Stability and Properties of Heat Resistant Chromium Steels

a type $(Cr, Fe, W, Mo)_7C_3$, the thermal stability of which is insufficient, particularly at 500°C; 3) in steels containing 12% of chromium the main component of the carbide phase is chromium carbide of a type $(Cr, Fe, W, Mo)_{23}C_6$ the thermal stability of which is higher than that of carbide of the type Cr_7C_3. In this group of steels the highest stability of structure and properties has Kh12MVBF steel, the niobium content of which is completely transferred to the carbide phase with a corresponding decrease in chromium carbide. In this way a decrease in the content of chromium, tungsten and molybdenum in the solid solution of the steel is prevented. There are 4 figures, 4 tables and 5 references of which 4 are Soviet and 1 English.

ASSOCIATION: TsNIIChM

SOV/129-59-5-10/17

AUTHORS: Cand.Tech.Sci. Z.N. Petropavlovskaya; Dr.Tech.Sci A.M. Borzdyka; Engineer A.V. Merlina

TITLE: Relaxation Stability of High Chromium Steel (Relaksatsionnaya stoykost' vysokokhromistoy stali)

PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov, 1959, Nr 5, pp 45-50 + 1 plate (USSR)

ABSTRACT: The results are described of investigations of the process of relaxation of high chromium semi-ferritic steels (0.10 - 0.15% C; 10 - 12% Cr; 0.3 - 0.6% Mo) as a function of their degree of alloying and their phase state. The work hardening was effected by alloying of the base alloy with vanadium, tungsten, molybdenum, niobium and nickel. To detect as fully as possible the influence of these elements on the relaxation stability, the experimental melts were sub-divided into four groups, see Table 1. The metal was produced in a 50 kg capacity induction furnace with a basic lining from a charge consisting of chemical iron and pure ferro-alloys. The relaxation tests lasted 1500 to 4000 hours and these were carried out at 550 to 565 °C with an initial specific load of 25 to 30 kg/mm^2. The relaxation stability was

Card 1/3

Relaxation Stability of High Chromium Steel

judged from the residual stress after 4000 hours. For most heats this magnitude was determined experimentally. The influence of individual alloying elements on the relaxation stability can be judged from the graphs (Figs 1-4). Table 2 gives the phase composition of the steel from the melts investigated in the experiments. The following conclusions are arrived at: 1) Additional alloying of steel, containing 0.15% C, 12% Cr, and 0.5% Mo, with vanadium (up to 0.4%), tungsten (up to 0.8%) and niobium (up to 0.8%), introduced separately or together, brings about an increase of the relaxation stability of the base alloy. From the point of view of increasing the resistance to relaxation the most effective measure is to add simultaneously all the three elements. 2) The relaxation stability of the investigated steels depends to a great extent on the quantitative ratio of the structural components (sorbite and ferrite) and also on the degree of hardening and the stability of ferrite. In order to obtain a high relaxation stability, alloying of high chromium steel should ensure a high strength of the ferrite and the highest stability of the ferrite and

Relaxation Stability of High Chromium Steel

carbide phases. 3) For "fastening" components (fittings) which are required to have satisfactory relaxation properties at 565 °C, steels of the following two compositions are recommended: (1) 0.2% C; 12% Cr; 0.8% Mo; 0.3% V; 0.8% Nb; and (2) 0.2% C; 12% Cr; 0.5% Mo; 0.4% V; 0.5% W and 0.5% Nb.

Card 3/3 There are 4 figures, 2 tables and 6 references, 4 of which are Soviet and 2 English.

ASSOCIATIONS: TsNIITMASh and TsNIIChM

MERLINA, A.V.; BORZDYKA, A.M.

Structure stability and heat-resistant properties of chromium steels. Stal' 12 no.2:160-165 F '59. (MIRA 12:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Chromium steel--Thermal properties) (Metallography)

29409
S/137/61/000/008/034/
A060/A101

18 1150

AUTHORS: Pridantsev, M. V., Merlina, A. V.

TITLE: Effect of barium and calcium upon the "tenacity" of nichromes

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 8, 1961, abstract 8[illegible] ("Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii", 1961, [illegible], 349 - 357)

TEXT: It was established that Ba and Ca have a positive effect upon the mechanical characteristics and heat-resistance of nichromes. The characteristics of "tenacity", resistivity, temperature coefficient of electric resistance, and the mechanical characteristics were studied on wire specimens of the alloys X15H60 and X20H80 (Kh15N60 and Kh20N80) with admixtures of Ba 0.6 - [illegible]%, and Ca 0.2 - 0.6%. The admixtures of Ba raise the "tenacity" by a factor of 2 - 2.5 and those of Ca - by a factor of 4 - 6. The effect of Ba and Ca is related to their action as reducers raising the purity of the alloy, particularly at the grain boundaries.

V. Kishenevskiy

[Abstracter's note: Complete translation]

Card 1/1

9.2100 (1001, 1153, 1159)
18.1150

29470 S/137/61/000/008/035/037
A060/A101

AUTHOR: Merlina, A. V.

TITLE: Effect of silicon and manganese upon the properties of resistor alloys grades X15H60 and X20H80 (Kh15N60 and Kh20N80)

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 8, 1961, 22, abstract 8Ï179 ("Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii", 1960, no. 17, 358-365)

TEXT: A study was made of the influence of Si (up to 1.2%) and Mn (up to 1.5%) upon the basic operating characteristics of high-temperature resistance alloys grades Kh15N60 and Kh20N80. Measurements were carried out of the electric resistivity and its temperature coefficient in the temperatures range 20 - 1,100° C, the yield strength and δ at room temperature, and also the "tenacity" of the alloys was estimated from the time of their exploitation up to the burn-through moment at 1,100 and 1,175°C for Kh15N60 and Kh20N80 respectively. The investigation was carried out on wire specimens 0.6 mm diameter. It was established that alloying with Si improves the mechanical characteristics and raises the resistance of both alloys, but the "tenacity" is increased only for Kh15N60.

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29470
S/137/61/000/008/035/037
A060/A101

Effect of silicon and manganese ...

The admixture of Mn within the limits of the grade composition lowers the σ_b and σ of Kh15N60, whereas the σ_b of Kh20N80 is raised and its δ drops. The electrical resistance of both alloys increases as the Mn concentration is raised. The effect of Mn upon the "tenacity" was not investigated.

A. Danilin

[Abstracter's note: Complete translation]

Card 2/2

S/137/61/000/008/036/037
A060/A101

18 1150

AUTHOR: Pridantsev, M. V., Merlina, A. V.

TITLE: Nichrome-aluminum alloys for electric resistors

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 8, 1961, 22, abstract 8...9 ("Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii", 1960, no. ... 365-385)

TEXT: The possibility was studied of producing cheaper nichromes by replacing Ni with aluminum. An investigation of the mechanical characteristics, scale resistance, microstructure, electrical resistance, temperature coefficient of electrical resistance of the alloys has shown that the introduction of 2% Al into alloys X15H60 and X15H40 (Kh15N60 and Kh15N40) is analogous to the increase of Ni content of these alloys by 20%. The alloy X15H60-2 (Kh15N60Yu-2) is an equivalent replacement for nichrome X20H80 (Kh20N80) as a heating element for furnaces with operating temperature 1,175°C.

V. Kirnarevskiy

[Abstracter's note: Complete translation.]

Card 1/1

36816
S/137/62/000/004/116/201
A052/A101

1P.1150

AUTHORS: Borzdyka, A. M., Petropavlovskaya, Z. N., Merlina, A. V.

TITLE: Relaxation-resistant chromium steel for fasteners of steam turbines

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 53 - 54, abstract 4I316 (V sb. "Issled. novykh zharoprochn. splavov dlya energetiki". Moscow, Mashgiz, 1961, 141 - 150)

TEXT: As a fastening material for steam turbines with the temperature of steam of 565 and 580°C, 20Х12МВБФ (20Kh12MVBF) Cr-steel can be used. This steel is recommended for fastening steam turbine and boiler elements made of ЭИ802 (EI802), 15Х11Л (15Kh11L) and other type steels. 20Kh12MVBF steel after oil hardening at 1,150°C and tempering at 680 - 700°C has a sufficiently high relaxation resistance and a long-time strength at 550 - 580°C and shows no sensitivity to notches. The residual stress value after 10,000-hour testing of ring samples of this steel at 565°C corresponds to the technical conditions for fastening materials and is equal to 10 kg/mm^2 at σ_o = 30 kg/mm^2 and at 580°C it amounts to 9.5 kg/mm^2.

T. Rumyantseva

[Abstracter's note: Complete translation]

Card 1/1

39629
S/129/62/000/007/004/008
E193/E383

18.1130

AUTHORS: Petropavlovskaya, Z.N., Candidate of Technical Sciences, Borzdyka, A.N., Doctor of Technical Sciences and Merlina, A.V., Engineer

TITLE: Properties of steel Kh12VMBFR (EI 993) (Kh12VMBFR(EI993)) with a high relaxation stability

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no. 7, 1962, 34 - 37

TEXT: The steel Kh12VMBFR (composition, %: 0.17 C, 0.34 Mn, 0.22 Si, 12.6 Cr, 0.40 Mo, 0.70 W, 0.25 V, 0.5 Nb, 0.10 Ni) has been developed as a relaxation-resistant material for service at temperatures up to 600 °C and the object of the present investigation was to study the effect of several factors on its mechanical properties. The experiments were carried out on samples of laboratory and industrial-scale melts, both with and without boron additions. No difficulties were experienced in fabricating this steel (hot forging at 1 150 - 850 °C, hot rolling at 1 200 - 850 °C). The optimum hardening procedure for both B-bearing and B-free specimens was holding at 1 150 °C for

Card 1/4

Properties of ....

30 min and oil-quenching. The tempering temperature was chosen from data on the effect of tempering temperature on hardness of the steels studied, after which the effect of various heat treatments, entailing tempering at 650 - 720 °C with or without subsequent ageing for 3 000 hours at 600 °C, on the mechanical properties of these steels at 20 and 565 °C was determined. Stress relaxation was studied at 550 - 600 °C on ring specimens under an initial stress of 30 or 35 kg/mm^2; the suitability of various specimens for high-temperature service was assessed from results of these experiments extrapolated to t = 10 000 hours, which represents the time between major overhauls of boiler and steam-conduit plants. Finally, the stress-to-rupture of the steel at 565 and 600 °C was determined on both smooth and notched test pieces. Several conclusions were reached.
1) Steel Kh12VMBFR has a high relaxation stability and creep resistance at 550 - 580 °C. After 10 000 hours the initial stress of 30 kg decreases to 10 - 12 kg/mm^2 at 565 °C and to 9 - 10 kg/mm^2 at 580 °C, the stress-to-rupture in 10 000 hrs

Card 2/4

at 565 °C amounting to 26 - 28 kg/mm^2.
2) The best combination of mechanical properties both at room and elevated temperatures is achieved after a heat-treatment which entails oil-quenching from 1 150 °C and 3 hours tempering at 680 - 700 °C; typical values obtained after this treatment are given below:

	Yield pt., kg/mm^2	UTS, kg/mm^2	Elongation, %	Reduction in area, %	Impact strength, kg/mm^2
			At 20 °C		
Annealing 1150 °C Tempering 650 °C	79	95	14.0	52.0	6.0
			At 565 °C		
Annealing 1150 °C Tempering 650 °C	55	59	16.0	65.0	14 .

Card 3/4

Properties of ....

3) The mechanical properties of steel Kh12VMBFR are not affected by addition of B. Prolonged (3 000 hours) ageing at 600 °C brings about a slight decrease in the strength of this steel which, however, is still above the specification limit ($\sigma_{0.2} \geqslant$ $\geqslant$ 40 kg/mm^2).

4) Steel Kh12VMBFR can be recommended as material suitable for bolts and pins used to join or secure various parts of steam turbines and boilers made of ferritic and martensitic steels, provided that the thermal-expansion coefficients of these steels are similar. There are 4 figures and 3 tables.

ASSOCIATIONS: TsNIITMASh
TzNIIChM

Card 4/4

L 20800-65 EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b) Pu-4 ASD(f)-3/ASD(m)-3/RAEM(a)/
IJP(c) JD/JG
ACCESSION NR: AR4047536 S/0277/64/000/008/0013/0013

SOURCE: Ref. zh. Mashinostr. mat., konstr. i raschet detal. mash. Otd. vyp., Abs. 8.48.81

AUTHOR: Borzdy*ka, A. M.; Petropavlovskaya, Z. P.; Merlina, A. V. B

TITLE: The effect of alloying elements on the relaxation stability of high chromium steels 14 18

CITED SOURCE: Sb. Legirovaniye staley. Kiyev, Gostekhizdat USSR, 1963, 142-150

TOPIC TAGS: relaxation stability, relaxation, alloying, chromium steel, ferritic steel, vanadium, tungsten, niobium, molybdenum, phase composition 27 27 27 27

TRANSLATION: The relaxation stability of high chromium steels of the semiferritic type (0.10-0.15% C, 10-12% Cr, 0.3-0.6% Mo) was studied as a function of their degree of alloying with V and W and of the phase composition. The samples were quenched in oil and subjected to a high annealing. Relaxation tests were carried out on Oding annular samples at 550-565° for a period of 4000 hrs. Steel with 12% Cr and

Card 1/2

L 20800-65
ACCESSION NR: AR4047536

0.5% Mo, taken as a standard, has low relaxation stability. The optimum relaxation stability is observed in semiferritic steel with 12% Cr, 0.5% Mo and 0.4% V, with an additional alloying with W within the limits of 0.3-0.5%; in this case, the C content should not exceed 0.15-0.20%. Introduction of Nb shows effective action on relaxation stability: relaxation stability increases twofold on the introduction of Nb up to 0.7% (with 0.15%C). However, the effectiveness of Nb action in raising the relaxation stability of high chromium steels depends to a great degree on the content of other alloying elements. Thus, an increase in the Mo content to 1.3% (from 0.7%) in steel with 12% Cr, 0.4% V, and 0.7% Nb leads to a decrease in relaxation stability.

SUB CODE: MM ENCL: 00

Card 2/2

L 11008-65 EWT(m)/EWA(d)/EWP(t)/EWP(b) ASD(m)-3/ASD(f)-2 JD
ACCESSION NR: AR4045893 S/0137/64/000/007/I065/I065

SOURCE: Ref. zh. Metallurgiya, Abs. 7I407

AUTHOR: Borzdy*ka, A. M.; Petropavlovskaya, Z. P.; Merlina, A. V.

TITLE: The effect of alloying elements on the relaxation stability of high chromium steels

CITED SOURCE: Sb. Legirovaniye staley. Kiyev, Gostekhizdat USSR, 1963, 142-150

TOPIC TAGS: alloying, relaxation, high chromium steel, chromium steel, Cr, V, W, C, Mo, Nb, Nb carbide, ferritic steel, steel

TRANSLATION: The relaxation stability of high chromium steels of the semiferrite type (0.10-0.15% C, 10-12% Cr, 0.3-0.6% Mo) was studied as a function of their degree of alloying and phase state. The samples were quenched in oil and subjected to a high tempering. Relaxation tests were carried out on ring shaped Oding samples at 550-565°. The duration of the tests was 4,000 hours. Steel with 12% Cr and 0.5% Mo, taken as a base, has a low relaxation resistance.

Card 1/3

L 11008-65
ACCESSION NR: AR4045893

Alloying of steel with vanadium (up to 0.6%) somewhat improves its relaxation stability. Further increase in the content of V up to 1% leads to a decrease in relaxation stability; for this reason, the alloying of high chromium steels with vanadium should be limited to 0.3-0.6%. The introduction of W (up to 1%) into steel with 12% Cr, 0.5% Mo, and 0.45% V somewhat increases the relaxation stability; however, further increase in the W content increases the speed of the relaxation process. With an increase in C content, and at the same time of Mo and C, in steel with 12% Cr and 0.4% V, the nature of the effect of W is retained. Increased content of Mc from 0.3 to 0.7% in steel with 12% Cr and 0.4% V, alloyed with W (up to 1%), increases relaxation stability. An optimum relaxation stability is observed in semiferrite steel with 12% Cr, 0.5% Mo, and 0.4% V, with a supplementary alloying with W within the limits 0.3-0.5%; at the same time, the C content should not exceed 0.15-0.20%. An increase in the content of C from 0.15 up to 0.4% in steel with 12% Cr and 0.5% Mo, alloyed with V, or with W and V, leads to a martensite structure of the steel, which lowers relaxation stability. The introduction of Nb up to 0.7% (with 0.15%C) has an efficient effect on relaxation stability, which increases two fold. However, the efficiency of the

Card 2/3

L 14008-65
ACCESSION NR: AR4045893

action of Nb in raising the relaxation stability of high chromium steels depends to a high degree on the content of the other alloying elements. Thus, an increase in the content of Mo up to 1.3% (with 0.7%) in steel with 12% Cr, 0.4% V, and 0.7% Nb, leads to a decrease in relaxation stability. The increase in relaxation stability of steels with the introduction of Nb is due to the formation of stable Nb carbides, whose presence brings about a high stability of the ferrite.

SUB CODE: MM ENCL: 00

Card 3/3

SOV/137-58-9-20244

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9 p 303 (USSR)

AUTHOR: Merlina, F.Ye.

TITLE: On a Method for Rational Analysis of Copper and Copper-zinc Ores From Urals Pyrite Deposits (O metodike ratsional'nogo analiza mednykh i medno-tsinkovykh rud kolchedannykh mestorozhdeniy Urala)

PERIODICAL: Obogashcheniye rud, 1957, Nr 4, pp 13-19

ABSTRACT: The results of experiments in the study of the solubility of chalcopyrite (I) and covellite in KCN solutions of various concentrations and at various durations of treatment are adduced. With an increase in the concentration of KCN and duration of treatment the amount of chalcopyrite Cu going into solution increases. The graphical and analytical methods for a more precise determination of the contents of I and covellite, taking into account the solubility of I, are cited according to the result of rational analysis. The presence of large amounts of pyrite has no effect on the solubility of I in KCN. The gray copper ores (tennantite and tetrahedrite) are partially extracted by the cyanide solution. --Analysis 2. Copper-zinc ores--Analysis 3. Ore -- Solubility

Card 1/1

POLLINGHER, B., dr.; MERLING, M., dr.

Hemibulbar hemorrhage in a syphilitic patient. Anatomoclinical observations. Neurologia (Bucur) 10 no.2:133-137 Mr-Ap'6.

1. Lucrare efectuata in Clinica de neurologie, Iasi.

MERLINSKAYA, E.M.

The 5231-type semiautomatic machine for rough cutting of bevel gears with circle-arc teeth. Biul. tekh.-ekon. inform. no.10:19-21 '59. (MIRA 13:3)

(Gear-cutting machines)

PED', L.I.; MERLINSKIY, M.M.

Increase the efficiency of centralized dispatching. Avtom., telem. i sviaz' no.2:23-25 F '57. (MIRA 10:4)

1. Nachal'nik tekhnicheskogo otdela slushby signalizatsii i svyazi Moskovsko-Ryazanskoy dorogi (for Ped'). 2. Starshiy inzhener tekhnicheskogo otdela Moskovsko-Ryazanskoy dorogi (for Merlinskiy).
(Railroads--Train dispatching)

KUCHER, V.A., inzh.; MERLINSKIY, M.M., inzh.

Speeded up transportation of local freight on railroads. Zhel. dor. transp. 40 no.9:67-69 S '58. (MIRA 11:10)
(Railroads--Freight)

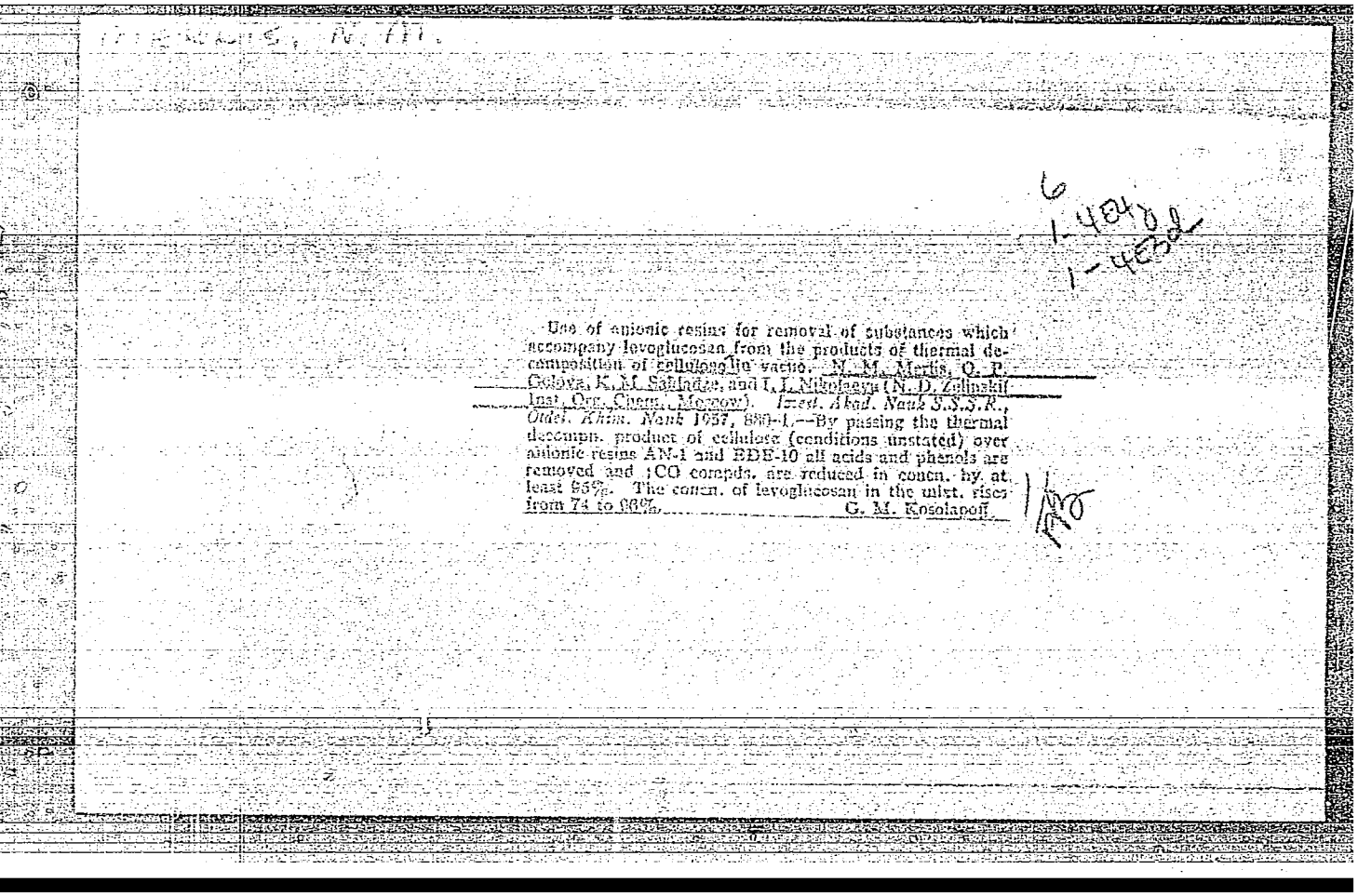
MERLIS, N. M.

"Irreversible Catalysis and Catalytic Dehydrogenation of Hydrocarbons on Activated Charcoal," Zhur. Prik. Khim., 22, No. 2, 1949. Gen Sci. Research Inst. of Wood-Pulp Chemistry -c1949-.

MERLIS, N. M.

MERLIS, N. M. - "Investigation of 1-phenylapocamphor and Its Isomers." Sub 23 May 52, Moscow Order of Lenin State U imeni M. V. Lomonosov. (Dissertation for the Degree of Candidate in Chemical Sciences).

SO: Vechernaya Moskva January-December 1952



Use of anionic resins for removal of substances which accompany levoglucosan from the products of thermal decomposition of cellulose in vacuo. N. M. Merlis, O. P. Golova, K. M. Saitadze, and I. I. Nikolaeva (N. D. Zelinskii Inst. Org. Chem., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1957, 880–1.—By passing the thermal decompn. product of cellulose (conditions unstated) over anionic resins AN-1 and EDE-10 all acids and phenols are removed and CO compds. are reduced in concn. by at least 95%. The concn. of levoglucosan in the mixt. rises from 74 to 96%. G. M. Kosolapoff

GOLOVA, O.P.; ANDRIYEVSKAYA, Ye.A.; PAKHOMOV, A.M.; MERLIS, N.M.

Transformations of cellulose at high temperatures. Report No.3: On formation of levoglucosan from glucose. Izv.AN SSSR.Otd. khim.nauk no.3:389-391 Mr '57. (MLRA 10:5)

1.Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk SSSR.

(Cellulose) (Levoglucosan)

AUTHORS: Golova, O. P., Merlis, N. M., Volodina, Z. V. SOV/62-58-9-[illegible]/26

TITLE: The Preparation of 1,6-Anhydroglucofuranose by the Vacuum Pyrolysis of Cellulose (Polucheniye 1,6-angidroglyukofuranozy pri termoraspade tsellyulozy v vakuume)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 9, pp 1127 - 1127 (USSR)

ABSTRACT: Continuing their study of the chemical structure of the solid distillate prepared by the pyrolysis of cellulose in vacuum, the authors found that the separating out a neutral material from the distillate by means of an anion-exchanger and the isolation of this material from a laevo-glucosan by crystallization gave a syrupy product. The investigation of this latter showed that it contained 1,6-anhydroglucofuranose and did not contain any polymers. There are 3 references, 1 of which is Soviet.

Card 1/2

The Preparation of 1,6-Anhydroglucofuranose by the Vacuum Pyrolysis of Cellulose SOV/62-58-9-18/2

ASSOCIATION: Institut lesa Akademii nauk SSSR (**Institute of Wood and Forestry, AS USSR**)

SUBMITTED: March 11, 1958

Card 2/2

5 (3) SOV/79-29-3-52/61

AUTHORS: Golova, O. P., Merlis, N. M., Volodina, Z. V.

TITLE: Formation of the 1,6-Anhydroglucofuranose During the Thermal Decomposition of Cellulose in Vacuum (Polucheniye 1,6-angidroglyukofuranozy pri termoraspade tsellyulozy v vakuume)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 997-1000 (USSR)

ABSTRACT: The present paper is the continuation of the investigation of the chemical composition of the solid distillate which is obtained in the case of the thermal dissociation of cellulose in vacuum. This distillate (yield 75%) consists of 70% l'glucosane and contains carbonyl compounds, acids, their derivatives and phenols. By the application of anionites the products admixed to l'glucosane could be almost removed (Ref 1). After the following removal of l'glucosane by recrystallization a syrup-like product was obtained which contained up to 72% substances which had after the hydrolysis a greater reducibility to the anhydride of glucose and a zero rotary power. In the syrup-like product dextrogyrate substances could be assumed beside l'glucosane, i.e. polymers of l'glucosane and its isomer, the β-1,6-anhydroglucofuranose. The method of D. Hurd and R. W.

Card 1/2

Formation of the 1,6-Anhydroglucofuranose During the Thermal Decomposition of Cellulose in Vacuum

Ligett which consists in the analytical separation of the mono-, di-, and trisaccharides by distillation in vacuum over their propionates was used in order to detect the presence of polymers (Ref 4). Only the monomerpropionate was found to exist. The 1,6-anhydroglucofuranose was separated in the form of its n-nitrobenzoic ester and characterized by the ultimate analysis, melting point and specific rotary power. It could be identified as the n-nitrobenzoyl derivative of the 1,6-anhydroglucofuranose. The 1,6-anhydroglucofuranose is obtained from cellulose with an approximate yield of 3% (with respect to cellulose). A scheme is suggested as to the formation mechanism of the 1,6-anhydroglucofuranose during the thermal decomposition of cellulose in vacuum. There are 7 references, 1 of which is Soviet.

ASSOCIATION: Institut lesa Akademii nauk SSSR (Forestry Institute of the Academy of Sciences, USSR)

SUBMITTED: January 24, 1958

KORSHAK, V.V.; GOLOVA, O.P.; SERGEYEV, V.A.; MERLIS, N.M.; SHNEYER, R.Ya.

Polyethers of levoglucosan. Part 1: Polymerization of levoglucosan and its ethers. Vysokom.soed. 3 no.3:477-485 Mr '61.
(MIRA 14:6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Glucopyranose) (Polymerization)

GOLOVA, O.P.; EPSHTEYN, Ya.V.; SERGEYEVA, V.N.; KALNIN'SH, A.I. [Kalnins, A.]; ODINTSOV, P.N.; MAKSIMENKO, N.S.; PANASYUK, V.G.; Prinimali uchastiye: MERLIS, N.M.; DURININA, L.I.; BISENIYETSE, S.K.[Biseniece, S.]; GUNDARS, A.Yu.; FEDORCHENKO, R.I.; MINAKOVA, V.I.

New method for the complete chemical processing of plant tissues. Gidroliz. i lesokhim. prom. 14 no.7:4-6 '61. (MIRA 14:11)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR (for Golova, Epshteyn, Merlis, Durinina). 2. Institut lesokhozyaystvennykh problem i khimii drevesiny AN Latviyskoy SSR (for Sergeyeva, Kalnin'sh, Odintsov, Bisenietse, Gundars). 3. Krasnodarskiy gidroliznyy zavod (for Maksimenko, Fedorchenko, Minakova). 4. Dnepropetrovskiy sel'skokhozyaystvennyy institut (for Panasyuk).

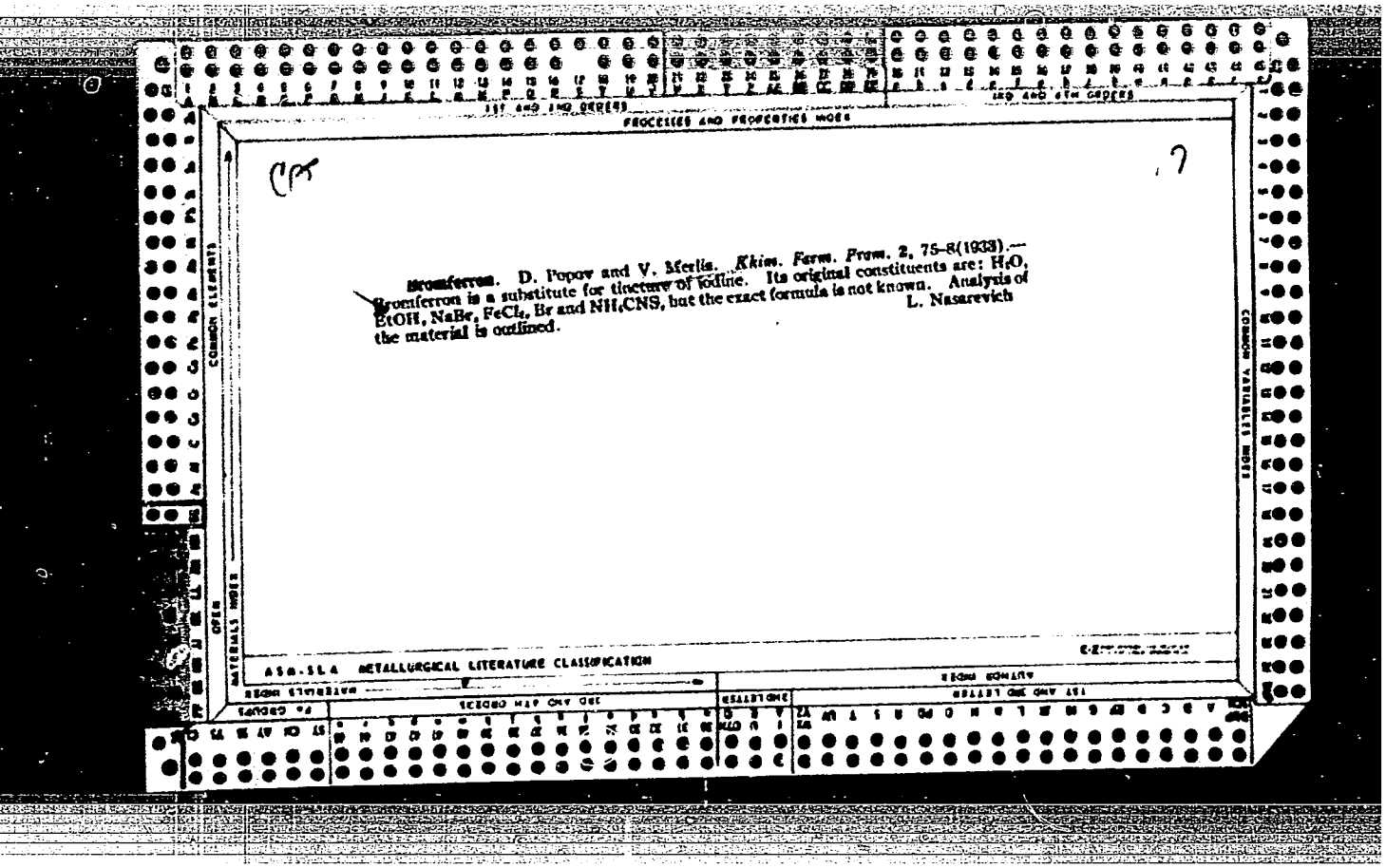
(Plant cells and tissues)
(Botanical chemistry)

MERLIS, N.M.; VOLODINA, Z.V.; GOLOVA, O.P.

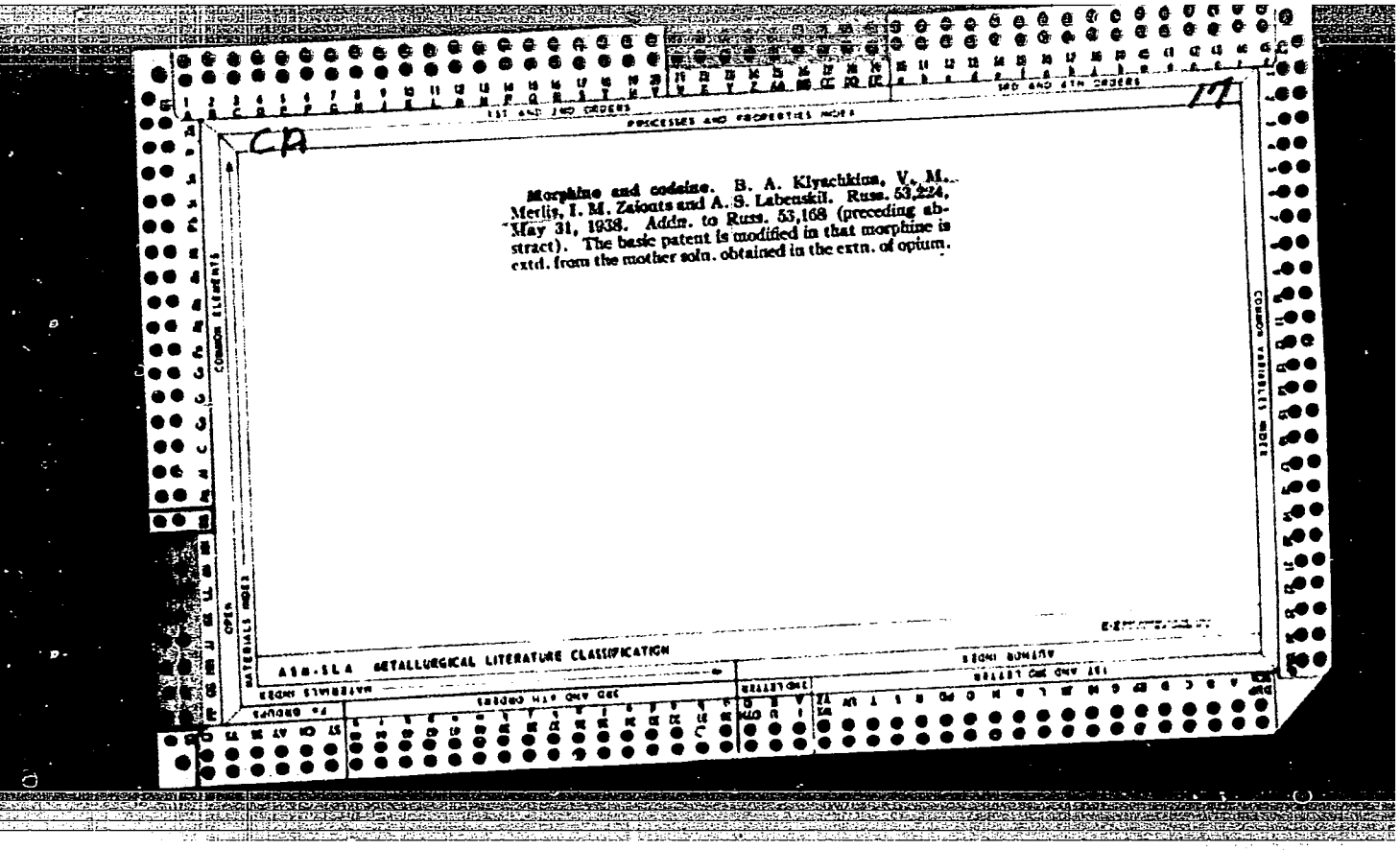
Certain derivatives of β-1,6-anhydroglucopyranoses. Tri-O-ethyl- and di-O-methyllevoglucosan. Zhur. ob. khim. 34 no.11:3819-3821 N '64 (MIRA 18:1)

ABRAMOV, S.A., inzhener; VOROB'YEV, N.M., inzhener; GLAGOLEV, N.M., doktor tekhnicheskikh nauk, professor; [redacted], inzhener; MARGULIS, P.S., kandidat tekhnicheskikh nauk; RISKIN, I.V., inzhener; FUFRYANSKIY, N.A., doktor tekhnicheskikh nauk, professor

Selecting types of diesels for projected diesel locomotives. Vest. TSNII MPS 16 no.2:11-18 Mr '57. (MLRA 10:4)
(Diesel locomotives)



Bromferron. D. Popov and V. Merlis. *Khim. Farm. Prom.* 2, 75–8(1933).—Bromferron is a substitute for tincture of iodine. Its original constituents are: H_2O, EtOH, NaBr, $FeCl_3$, Br and NH_4CNS, but the exact formula is not known. Analysis of the material is outlined. L. Nasarevich



MERLIS, V. M.

USSR/Chemistry [illegible]

"Alkaloids [illegible] [illegible] and C[illegible]lline ([illegible])," [illegible], V. M. Merlis, [illegible] Sci nes Chem [illegible]

"Zhur [illegible] Khim" Vol XIX, [illegible]

In addition [illegible] pach[illegible]carpine [illegible], [illegible] earlier discovered [illegible] Ammodendron Conollyi [illegible], this study revealed presence of [illegible] alkaloids: I and II. Only small quantity of the latter (C_{1}[illegible]) [illegible] obtained. Yields of [illegible], [illegible] either [illegible] admixture of iso[illegible] [illegible] were [illegible]. Formula for I is C_{1}[illegible] or C_{1}[illegible]$N(COCH_{3})$[illegible]. It [illegible] specific rotation [illegible] 17.9° in alcohol solution. [illegible] levorotatory. [illegible]

PA 2/50T32

MERLIS, V.M.

USSR/Chemistry - Alkaloids
Medicine - Pharmacology Aug 49

"The Alkaloids Salsola Richteri: V. N-Derivatives of Salsoline and Salsolidine," N. F. Proskurnina, V. M. Merlis, Alkaloid Dept, All-Union Sci Res Chemicopharm Inst imeni Ordzhonikidze, Moscow, 4[illegible] pp

"Zhur Obshch Khim" Vol XIX, No 8

Obtained following N-derivatives of salsoline and salsolidine; diethylaminoethylsalsolidine, diethylaminopropylsalsolidine, N-beta-hydroxyethyl-salsolidine, bensyl-N-beta-hydroxyethylsalsolidine, phenylurethan of N-beta-hydroxyethylsalsolidine, salsolidinepropanediol, nitrososalsolidine, and nitrososalsoline. Most interesting of these pharmacological tests shows that phenyluretan of N-beta-hydroxyethylsalsolidine has some anesthetic action. Submitted 17 Mar 47.

PA149T11

C.A.

10

Synthesis of the amino sulfones IV. Preparation of 4-nitrophenyl 2-amino-4-methyl-6-pyrimidyl sulfide and some of its derivatives. I. Kh. Fel'dman, V. M. Merlis, and Yu. M. Rozanova (All-Union Sci. Research Chem.-Pharm. Inst., Moscow). *J. Gen. Chem.* (U.S.S.R.) 10, No. 9, 1113-19(1940). —See C.A. 44, 1051e. E. J. C.

C.A.

Alkaloids of Ammodendron conollyi. III. Structure of isoammodendrine. V. M. Merlis and N. F. Proskurnina (S. Ordzhonikidze All-Union Chem.-Pharm. Inst., Moscow). *Zhur. Obshchel Khim.* (J. Gen. Chem.) 20, 1722-8(1950); cf. *C.A.* 44, 1119e.—Hydrogenation of isoammodendrine in dil. HCl over Adams' Pt catalyst yields a dihydro deriv., b$_{0.5}$ 175–85°, $[\alpha]_D$ 4°. Boiling this (9.3 g.) 6 hrs. with 13 g. KOH in 55 ml. MeOH gave dipiperidyl, isolated as monohydrate, m. 92–3°, the di-HCl salt does not m. 300°; treatment with BzCl gave the di-Bz deriv. of dipiperidyl, m. 170–1° (from petr. ether). Treatment of isoammodendrine with Na in hot AmOH readily gave a hygroscopic product, identical with the above dipiperidyl, and, as above, its 2-HCl salt does not m. 300°, $[\alpha]_D$ 6° (H_2O), and di-Bz deriv., m. 151°, $[\alpha]_D$ 181° (EtOH). Soln. of this dipiperidyl (3 g.) in 18.7 ml. H_2O and 2.5 ml. AcOH and heated with 36.5 g. AgOAc 8.5 hrs. to 175–85° gave 1 g. oil, identified as α,α'-dipyridyl, its picrate m. 151–2°, dipicrate m. 166°, methiodide m. 164–5°. Isoammodendrine warmed with $PhCH_2Cl$ in C_6H_6 gave the benzyl deriv., oil, whose HCl salt m. 178–9°. Hence, ammodendrine and isoammodendrine have the same dipyridyl-type skeleton, with an Ac group on one of the N positions.

G. M. Kosolapoff

17

CA

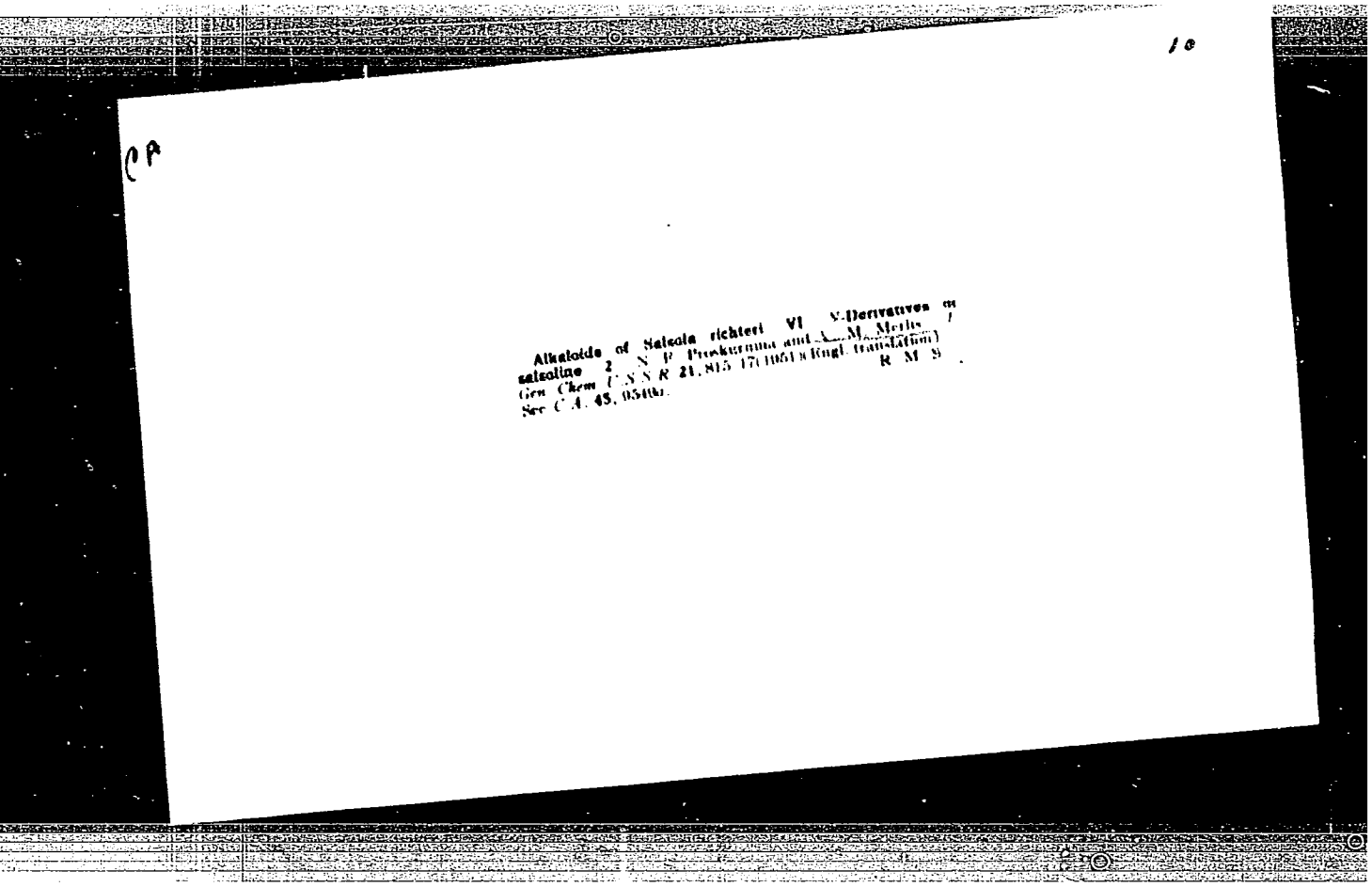
alkaloids of Ammodendron conollyi. III. Structure of isoammodendrine. V. M. Merlis and N. F. Proskurnina (S. Ordzhonikidze All-Union Chem.-Pharm. Inst., Moscow). *J. Gen. Chem. U.S.S.R.* 20, 1781–6(1950)(Engl. translation).—See *C.A.* 45, 1302a. R. M. S.

Chem A

10

Alkaloids of Salsola richteri. VI. *N*-Derivatives of salsoline. N. P. Proskurnina and V. M. Merlis. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 740–2(1951); cf. *C.A.* 45, 3393g.—Addn. of 3 g. CH_2O and 2 g. HCO_2H to 5.65 g. *dl-salsoline*, m. 218°, yields CO_2, and heating 2.5 hrs. on a steam bath, satn. with K_2CO_3, extn. with Et_2O, and treatment of the isolated base with HCl gave the *2-Me deriv.*, m. 143°; *HCl salt*, m. 236–7° (from EtOH); *HI salt*, m. 202–3°, *HBr salt*, does not m. at 300°. Similar treatment of the *d*-isomer gave the racemic *dl*-2-Me deriv. as above, instead of the expected optically active form. Methylation with MeI in MeOH gave *2-methylsalsoline-MeI*, m. 232–4° (from EtOH), which was inactive. Heating *d-salsoline* 5 hrs. to 175°, or refluxing 5 hrs. with 10% alc. KOH did not change its optical activity, indicating extreme resistance to racemization. G. M. Kosolapoff

1951



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Alkaloids of Salsola richteri VI N-Derivatives of salsoline. 2. N. P. Proskurnina and A. M. Merlis. J. Gen. Chem. (U.S.S.R.) 21, 815-17(1951)(Engl. translation) R. M. S.
See C.A. 45, 9540h.

CA

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Alkaloids of Eremosparton flaccidum. V. M. Merlis (S. Ordzhonikidze Chem. Pharm. Inst., Mosow). *Zhur. Obshchei Khim.* (*J. Gen. Chem.*) **22**, 347–50(1952).—Extn. of the green parts of the plant in ammoniacal medium with $(CH_2Cl)_2$ and sepn. of the crude alkaloids by Et_2O and $CHCl_3$ yielded 2 substances, totaling 0.003% of dry plant wt. One of the substances is *sphaerophysine* (cf. Rubinshtein and Men'shikov, *C.A.* **30**, 2291[4]). Its *carbonate* m. 192–3°, and its *benzoate* m. 149–50°. The 2nd alkaloid was obtained only in minute quantities and has been tentatively identified as *isopropylvinylputrescine* (*op. cit.*). Its *di-HCl salt* m. 262°, and its *picrate* m. 180–1°. G. M. K.

MERLIS, V.M.; ROMANOVA, A.S.

Quantitative determination of methazide. Med.prom. 12 no.2:51-53 F '58. (MIRA 11:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(ISONICOTINIC ACID)

MERLIS, V.M.

Analysis of formamide. Med. prom. 13 no.5:45-48 My '59. (MIRA 12:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(FORMAMIDE)

MERLIS, V.M.; ROMANOVA, A.S.

Analytical characteristics of 1,1'-Methylene-bis-isconicotinoyl-hydrazine (metazide). Khim. i med. no.14:9-12 '60. (MIRA 14:12)

1. Laboratoriya analiticheskoy khimii Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta imeni S.Ordzhonikidze.

(METAZIDE)

MERLIS, V.M.; BRAGINA, L.N.

Rapid method for determining admixtures of monoethylacetate in diethylacetate. Med. prom. SSSR 14 no.12:40-43 D '60.
(MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(ACETATES)

MERLIS, V.M.; BAGREYEVA, M.R.; VESELOVSKAYA, G.G.

Determining the narcotine content in opium. Med. prom. 16 no.2:46-48 F '62. (MIRA 15:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni Ordzhonikidze.
(OPIUM)
(NARCOTINE)

MERLIN, V.S.

Influence of an interesting task on motor and vegetative manifestations of the mobility of the nervous processes. Vop.psikhol. 7 no.3:81-92 My-Je '61. (MIRA 14:6)

1. Permskiy pedagogicheskiy institut, kafedra psikhologii.
(Interest (Psychology)) (Conditioned response)

MERLIS, Ye.I.

Effectiveness of the us of exercise therapy in chronic gastritis. Vop.kur., fizioter.i lech.fiz.kul't. 25 no.1:39-42 '60. (MIRA 13:5)

1. Iz Abkhazskogo filiala (dir. - prof. A.L. Grigolia) Instituta kurortologii i fizioterapii Gruzinskoy SSR, Sukhumi.

(EXERCISE THERAPY) (STOMACH--INFLAMMATION)

MERLIS, Ye. S.
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Berezovskiye Mineral'nyye Vody I Ikh Znacheniye Vracheb. Delo, 1948, No. 6, STB. 529-30.

SO: LETOPIS NO. 30, 1948

MERLJAK-LUSICKY, B., Prim., Dr.

Peroral therapy of diabetes and preliminary personal clinical experience. Med. arh.,Sarajevo 10 no.6:1-14 Nov-Dec 56.

1. (Sa Hirurske klinike Medicinskog fakulteta u Sarajevu, sef prof. dr. B. Kovacevic).
(DIABETES, MELLITUS, ther.
N-sulfanilyl-N'-butyl urea (Ser))
(SULFONAMIDES, ther. use
N-sulfanilyl-N'-butyl urea in diabetes mellitus (Ser))
(UREA, ther. use
same)

MERLO, A.S.

Conference on over-all mechanization. Nauka i pered.op. v sel'khoz. 6 no.12:45 D '56. (MLRA 10:1)
(Farm mechanization--Congress)

MERLO, Anna Stanislavovna, nauchnyy sotrudnik; GEORGIYEVSKIY, Sergey Dmitriyevich, kandidat sel'skokhozyaystvennykh nauk[deceased]; KAZACHENOK, V., redaktor; STEPANOVA, N., tekhnicheskiy redaktor

[Floriculture manual] Spravochnik tsvetovoda. Minsk, Gos.izd-vo BSSR, 1956. 250 p. (MLRA 9:8)

1. Botanicheskiy sad Akademii nauk BSSR (for Merlo).
(Flowers)

MERLO, A. S., Cand Biol Sci -- (diss) "Agrobiological Basis of the Cultivation of Annual Floral Plants ~~Planted~~ Grown in the ground Under Conditions of the BSSR." Minsk, 1957. 22 pp (Inst of Biology of Acad Sci BSSR), 100 copies (KL, 51-57, 92)

USSR / Cultivated Plants. Ornamental Plants. N-10

Abs Jour: Ref Zhur-Biol., 1958, No 16, 73257.

Author : Merkl, A. S.
Inst : Institute of Biology AS Belorussian SSR.
Title : On Characteristics of Root Systems in Annual Flowering Plants Depending on the Way They Are Raised.

Orig Pub: Sbor. In-ta biol. AN BSSR, vyp. 2, 1955 (1957, 16-

Abstract: To explain the reasons for wilting of flowering, raised by the seedling method, in arid periods, the root system of the snapdragon and aster were investigated. The trench method was used with quantitative samples taken by a root cut of I. N. Rakhteyenko and A. I. Akhromeyko construction. In plants raised by seedling, a tendency was found to form a taproot system, deeper penetration of the

Card 1/2

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USSR / Cultivated Plants. Ornamental Plants. N-10

Abs Jour: Ref Zhur-Biol., 1958, No 16, 73257.

Abstract: roots into the soil and stronger (in comparison with the mass above ground) development of the root mass than in plants raised by the seedling method. In the snapdragon, this reaction to the method raised is more strongly expressed. -- N. S. Voronina.

Card 2/2

MERKO, A.S.

Open-ground culture of Kni Lofia. Sbor. nauch. rab.
TSIU no.1:126-127 '60. (MIRA 14:10)
(Minsk—Flameflower)

MERLO, A.S.

Rapid propagation of the Madonna lily (Lilium candidum L.) in the White Russian S.S.R. Sbor. bot. rab. Bel. otd. VBO no.2:214-218 '60. (MIRA 15:1)

(White Russia--Lilies)

MERLO, A.S.

Studying varieties of gladioli in White Russia. Stor. nauch. rab. TSBS no.2:73-93 '61. (MIRA 15:7)
(White Russia--Gladiolus--Varieties)

MERIO, [illegible].

Introduction of ornamental perennials flowering in the spring. Bot. issl. bel. otd. VBO no.5:70-77 '63. (MIRA 17:5)

MERLO, Anna Stanislavovna; RYABCHIKOV, N., red.

[Advice to floriculturists] Sovety tsvetovodam. Minsk, Urozhai, 1965. 210 p. 42 plates. (MIRA 19:1)

MINAYEV, F.; CHEKMENEV, F., inzh.-mekhanizator; MERLYAN, I., starshiy inzh.

New automatic stacking device with a rotating adapter. Muk.-elev. prom. 26 no. 12:8-10 D '60. (MIRA 13:12)

1. Direktor Brattsevskoy bazy khleboproduktov (for Minayev).
(Grain elevators--Equipment and supplies)

SAMSONOV, Vladimir Ivanovich; YAZHGUR, Mikhail Iosifovich;
MERMAN, A.L., red.; SEVRYUKOV, P.A., tekhn. red.

[Kursk; a guidebook to historical and notable places]
Kursk; putevoditel' po istoricheskim i pamiatnym mestam.
Kursk, Kurskoe knizhnoe izd-vo, 1962. 154 p.
(MIRA 16:10)
(Kursk--Guidebooks)

MERMAN, A.M.

CAND MED SCI

Dessertation: "X-Ray Therapy of Intestinal Fistulae Caused By Gunshot Wounds."

7 Jun 49

Central Inst for the Advanced Training of Physicians

SO Vecheryaya Moskva
Sum 71

MERMAN, A. M.

Clinical observations during roentgenotherapy of enterofecal fistula of gunshot origin. Klin. med.,Moskva 29 no.7:48-50 July 1951. (CIML 21:1)

1. Moscow.