ACCESSION NR: AP4017130

applied. One or two days later the cortex was uncovered without anesthesia and electric stimuli were applied before and after callosum dissection. In the third experiment under chronic conditions, respiratory center activity of animals was observed 24 hrs after partial removal of the right or left hemisphere cortex under anesthesia. In all three experiments, respiration activity was recorded by a multiple pneumograph. Respiration movements were recorded by a piezopickup. An induction coil and an ES-4 stimulator served as electric stimuli and were applied with varying intensities to symmetric cortex sections. Findings indicate that asymmetric respiratory activity is conditioned by the functional state of the cerebral cortex. Asymmetric respiratory activity may be expressed in respiration depth, respiratory muscle tone, and type of respiration. Findings do not confirm the concept of specific respiratory centers existing in the cortex which control the nature and degree of respiratory change in the right or left side of the thorax. The right and left sides of the respiratory center may be affected in entirely different ways by the cortex of each cerebral hemisphere depending on degree of injury and degree of decussation and corticoreticular fiber development. Orig. art. has: 4 figures.

Card 2/3

AP4017130

ASSOCIATION: Kafedra normal'noy fiziologii meditsinskogo instituta, Kuyby*shev (Normal Physiology Department of the Medical Institute, Kuibyshev)

SUBMITTED: 130ct62 DATE ACQ: 18Mar64 ENCL: 00

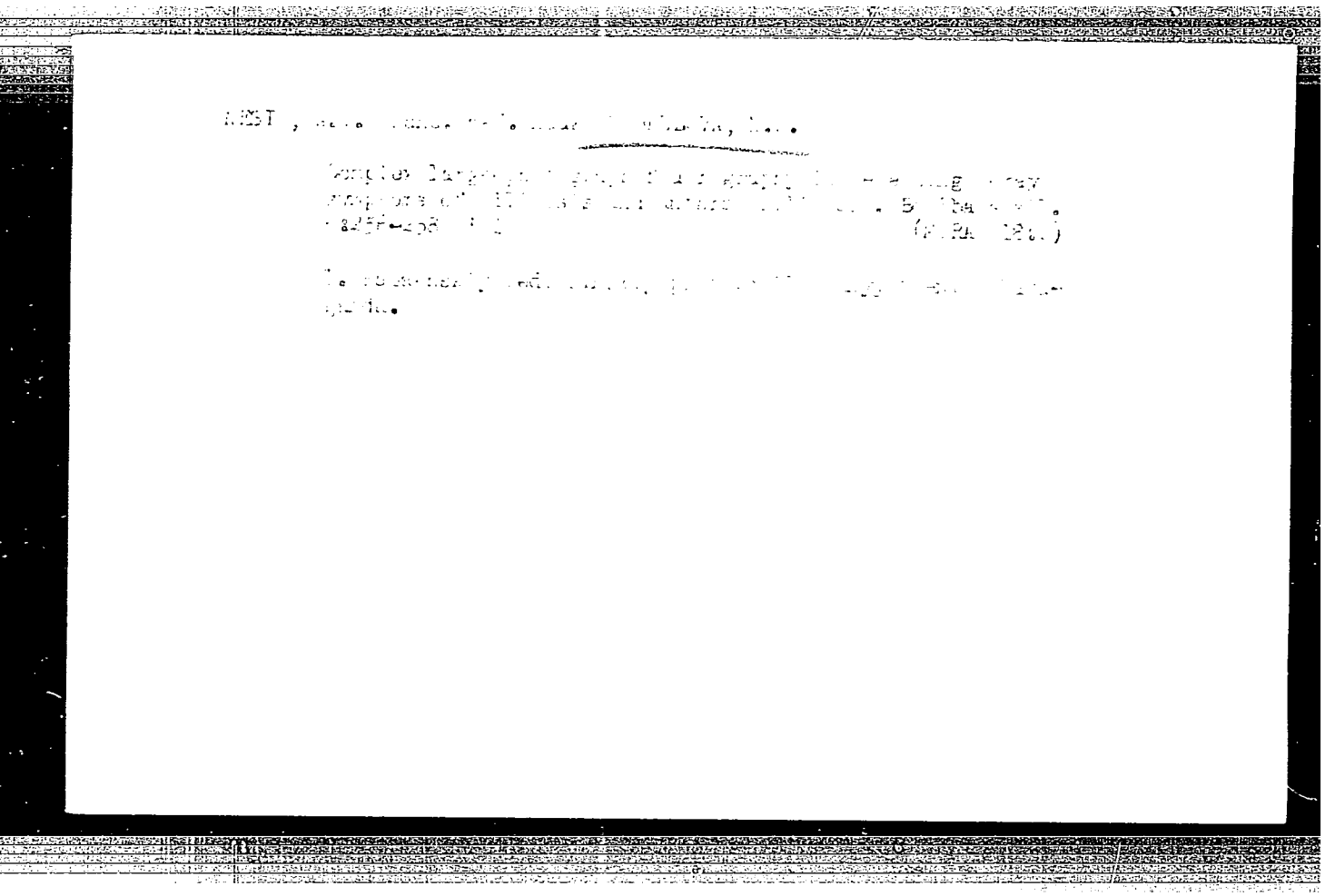
SUB CODE: LS NR REF SOV: 015 OTHER: 003

Card 3/3

MEMKULOVA, N.D.

Use of a cationite for the removal of zinc from waste waters. Khim. volok. no.1:53-56 '61. (MIRA 14:2)

1. Mogilevskiy zavod.
(Rayon) (Sewage--Purification)



MERKULOVA, N.M.

History of experimental aerodynamic research at the Moscow Higher Technical School. Trudy Inst. ist. est. i tekh. 21:299-327 '59.
(MIRA 13:3)
(Moscow--Aerodynamics--Research)

MERKULOVA, N. M., Cand Tech Sci (diss) -- "The development of experimental aerodynamic investigations of airplane wings". Moscow, 1960, published by the Acad Sci USSR, 21 pp (Acad Sci USSR, Inst of the History of Natural Sci and Tech), 175 copies (KL, No 14, 1960, 133)

MERKULOVA, N.M.

Beginning of systematic investigations of airplane wings and airfoils (1910-1917). Trudy Inst.ist.est.i tekh. 38:250-280 '61. (MIRA 14:5)

(Airfoils) (Airplanes--Wings)

BALASHOVA, N.A.; MERKULOVA, N.S.

Tagged atom technique used for structural study of electric double layer and adsorption of ions on metals. Trudy Inst. fiz. khim. no.6:12-19 '57. (MIRA 11:10)
(Tracers (Chemistry)) (Electrochemistry)

24087
S/186/60/002/006/012/026
A051/A129

21 4200

AUTHORS: Balashova, N. A., Merkulova, N. S.

TITLE: The adsorption-electrochemical method of separating radioactive zirconium and niobium

PERIODICAL: Radiokhimiya, v. 2, no. 6, 1960, 699 - 703

TEXT: The authors investigated in 1953 a method for separating radioactive zirconium and niobium in aqueous solutions containing in many cases low concentrations of stable isotopes of these elements. The method is based on the use of the difference between the adsorption properties of the zirconium and niobium ions under specially chosen experimental conditions. These conditions are determined by the different state of the ions of these elements in the electrolyte solutions. Nitrate and fluoride solutions of zirconium and niobium salts were used in the experiments. It was noted that in strong cathode polarization pure niobium is deposited on platinum or stainless steel from nitrate or fluoride solutions of a mixture of zirconium and niobium salts, whereas zirconium remains in solution. The hydrogen deposit potential on pla-

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The adsorption-electrochemical method ....

tinum from the acid solution of potassium fluoride was 0.03 M containing niobium and zirconium in concentrations of the order of 10^{-10} M. Tests showed that the greatest quantity of niobium passes to the electrode at the lowest positive value of the potential. Experiments on separation of niobium from solutions where zirconium is present showed that pure niobium or niobium with various contents of zirconium can be produced.depending on the potential and concentration of these elements in the solution. The deposition of zirconium and niobium in several stages shows the best results. Attention is drawn to the fact that niobium^{95} is produced in the solution due to the radioactive decay of zirconium^{95} thus causing impurities in zirconium. If oxalate ions are present in solution the method mentioned cannot be applied. It is suggested that first the oxalate ion be destroyed by oxidation on the anode, then to continue the electrolysis with deposition of niobium. The results obtained led to the conclusion that complete separation of zirconium and niobium is possible by the method suggested. This method is also recommended for a rapid qualitative radiochemical analysis of the isotope mixture of Zr^{95} and Nb^{95} at low concentrations of the latter in the solution. In this case it is suggested depositing niobium on the cathode and carrying out a separate analysis of cathode

The adsorption-electrochemical method ....

and solution. Various methods are considered for the removal of niobium from the platinum or steel cathodes. One of these is the use of the action of nitric acid to transfer niobium to the solution. It is pointed out that an incomplete transfer of pure niobium is achieved here with only 70 - 90 % of the initial amount removed in one hour. There are 4 figures and 20 references: 12 Soviet-bloc and 8 non-Soviet-bloc. The references to the most recent English language publications read as follows: R. E. Connick, W. H. Reas, J. Am. Chem. Soc., 73, 3, 1171, 1951; B. A. J. Lister, L. A. Mac-Donald J. Chem. Soc., 4315, 1952; E. M. Larsen, A. Gammil, J. Am. Chem. Soc., 72, 8, 3615, 1950; M. E. Holt, J. Electroch. Soc., 98, 1, 33, 1951.

SUBMITTED: January 11, 1960.

Card 3/3

24088

S/186/60/002/006/013/026
A051 A129

21.4200

AUTHORS: Balshova, N. A.; Merkulova, N. S.

TITLE: Adsorption-electrochemical separation of radioactive cerium and praseodymium

PERIODICAL: Radiokhimiya, v. 2, no. 6, 1960, 704 - 710

TEXT: The principles for rapid separation of cerium and praseodymium were developed in 1953 based on a study of the adsorbability of their ions on metals at various potentials. A method is described for separating microquantities of cerium and praseodymium from their mixture in acidic nitrate solutions or on a metal surface. It is shown that cerium is transfered from the solution onto the electrodes made of platinum or stainless steel at potentials of over 1.5 v (as against the normal hydrogen electrode) and praseodymium remains in the solution. Praseodymium is transferred to the acid solution from the mixtures of cerium and praseodymium on the metal surface under the same conditions and cerium remains on the metal. The authors based their work on the theory that the difference in the potentials of transfer of the triple-charge cerium and praseodymium ions to the tetra-charge ions should be accompanied by different adsorbability

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B/186/60/002/006/013/026
A051/A129

Adsorption-electrochemical separation of ....

of these ions on the surface of the metal at various potentials. The experiments were conducted with acidic nitrate solutions of cerium and praseodymium containing only the radioactive isotopes of these elements, Ce^{144} and Pr^{144}, in radiochemical concentrations. All measurements of the value of the maximum energy of the beta-particles were conducted on a frontal counter by the absorption method of radiation in aluminum. The experimental results showed that cerium and praseodymium are adsorbed on the electrode at potentials between that of the hydrogen formation and up to plus ..6 in the same quantitative ratio, in which they are found in the solution according to their radiochemical equilibrium. An increase in the electrode activity takes place due to accumulation and an activity decrease of the solution due to the decay of praseodymium. Thus, cerium remains on the electrode and praseodymium in the solution, disrupting the radioactive equilibrium. The increase in the activity of the electrode with the simultaneous drop in the activity of the solution is noted only when the electrode is taken out under a polarizing current without changing its potential (over 1.6 v). The separation coefficient of cerium and praseodymium according to the given data is 1.4 for the single separation and 5.1 for the four-fold separation. The conditions of washing cerium to remove the mother liquor from it is said to be an important factor for obtain-

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Adsorption-electrochemical separation of ....

ing pure cerium on the electrode. It should always take place under anode polarization at a potential less than 1.6 v in diluted HNO_3. The desorption of praseodymium from platinum and steel takes place in pure, diluted acid (HNO_3, H_2SO_4, $HClO_4$, HCl, etc.) or directly in the solution from which the adsorption took place, at a potential not lower than that of the Ce^{3+}/Ce^{4+} conversion in the given solution. The method based on the given principle of separation is rapid and simple. The purity of the separated products could be elevated by the application of a strongly acidified gaseous medium during the accumulation of $Pr^{(III)}$ on the electrode from the adsorbed $Ce^{(IV)}$. There are 4 figures, 5 tables and 5 references: 2 Soviet-bloc and 3 non-Soviet-bloc. The references to the English language publications read as follows: J. Belloni, M. Haïssinsky, a. Halim N. Salama, J. Phys. Chem., 63, 6, 881, 1959; G. F. Smith, C. A. Getz, Ind. Eng. Chem. Anal., 10, 191, 1938.

SUBMITTED: January 11, 1960

Card 3/3

KHASIN, A.Z.; MERKULOVA, N.S.; KASHCHEYEV, V.D.

Square pulse generator for electrochemical investigations. (MIRA 18:10)
Elektrokhimiia 1 no.9:1142-1145 S '65.

1. Institut elektrokhimii AN SSSR.

MERKULOVA, N.V.

Treatment of multiple myeloma with sarkolysine. Vop. onk. 10 no.3:51-57 '64. (MIRA 17:8)

1. Iz khimioterapevticheskogo otde[illegible]niya (zav. - doktor med. nauk V.I. Astrakhan) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (direktor i zaveduyushchiy klinicheskim otdelom - deystvitel'nyy chlen AMN SSSR prof. N.N. Blokhin). Adres avtora: Moskva, D-367, Volokolamskoye shosse, d.30. Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR.

TAGER, I.L., prof.; MERKULOVA, N.V.; TSESHKOVSKIY, M.S.

Nature of reparative processes in the bones of patients with myeloma treated with sarcolysine. Vest. rent. i rad. 40 no.2:13-17 Mr-Ap '65. (MIRA 18:6)

1. Rentgeno-radiologicheskiy otdel (zav.- prof. I.L. Tager), otdeleniye khimioterapii (zav.- doktor med. nauk V.I. Astrakhan) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR, Moskva.

IPAT'YEV, V.V.; MERKULOVA, O.P.; TEODOROVICH, V.P.

Investigation of the rate of the removal of carbon from 30ЕhMA steel pipes in a hydrogen atmosphere. Zhur.prikl.khim. 31 no.12: 1891-1894 D '58. (MIRA 12:2)

1. Leningradskiy institut po pererabotke nefti i polucheniyu iskusstvennogo zhidkogo topliva.
(Hydrogen) (Pipe, Steel)

IPAT'YEV, V.V. [deceased]; TEODOROVICH, V.P.; GREBESHKOVA, I.D.; MERKULOVA, O.P.

Corrosion of metals in hydrogen sulfide at high temperatures. Khim. sera-i azotorg.soed.sod.v neft.i nefteprod. 3:419-430 '60. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.
(Metals—Corrosion) (Hydrogen sulfide)

MERKULOVA, O.P.; NEMIROVSKIY, A.N.; PREYS, M.O.; TEODOROVICH, V.P.

Some considerations on the corrosion of equipment of pressure distillation units used for processing shale tar. Khim. i tekh. gor. slan. i prod. ikh perer. no.9:114-131 '60. (MIRA 15:6)
(Oil-shale industry--Equipment and supplies)
(Distillation apparatus--Corrosion)

S/064/61/000/003/008/009
B101/B203

AUTHORS: Mayorov, D. M., Merkulova, O. P., Mushenko, D. V., Teodorovich, V. P.

TITLE: Selection of material for the apparatus of direct hydrogenation of higher fatty acids

PERIODICAL: Khimicheskaya promyshlennost', no. 3, 1961, 62-64

TEXT: In connection with the development of the production process of higher aliphatic alcohols by direct hydrogenation of fatty acids, the problem of selecting suitable corrosion-resisting material for the apparatus arose. The present paper reports on corrosion tests. Two methods were applied: 1) To select the material for the hydrogenation vessel and the separator, metal specimens were tested directly in the reaction vessel of the hydrogenation plant at 340°C, 300 atm, or in the separator. After testing for 1978 hr, the following corrosion rates (mm per year) were found: Ст -20 (St-20) steel 7.0; 1Х13 (1Kh13) steel 0.4; 1Х18Н9Т (1Kh18N9T) steel 0.002; 1Х18Н12М2Т (1Kh18N12M2T) 0.01; ЭИ-435 (EI-435) 0; industrial aluminum 0.08. 2) The material for the heat exchangers was

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tested by heating the specimens with the fatty acids (C_7 - C_{20}) in an autoclave at 5 atm hydrogen pressure up to 150°C. For less important parts, they were heated in a thermostat to 50°C. Table 5 gives the experimental data (mm per year). Testing of the electrically welded seams (analysis of electrodes, Table 4) by method 2 showed that the seams were also resistant. In a test plant, various metals were tested for corrosion resistance during hydrogenation of C_7 - C_9 and C_{10} - C_{16} acids at 230°C and 300 atm. It was found that steels with 18-20% Cr were sufficiently resistant. Test results of metals and welding seams at 100° and 150°C in an autoclave are given in Table 8. The widely used 1Kh18N9T steel proved to be suitable. Testing for intergranular corrosion (t = 230°C, p = 300 atm) of untreated and thermally treated specimens of this steel showed corrosion rates of 0.001 mm/year in both cases. A hydrogenation apparatus made of this steel has been operating 4 years now. Low-alloy steels (EI-579) are suited for temperatures up to 50°C. For temperatures between 70 and 150°C, the steel must contain at least 13% of chromium. Aero-fireclay bricks proved to be stable in tests during 200 hr at 100 and 150°C in the presence of C_{10} - C_{16} acids. There are 9 tables

Selection of material for ...

and 1 Soviet-bloc reference.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov (All-Union Scientific Research Institute of Petrochemical Processes)

Таблица 4

Химический состав наплавленного металла электродов, использованных для сварки сталей 1Х18Н9Т и 1Х18Н12М2Т (%)

1 Тип наплавленного металла	C	Si	Mn	Cr	Ni	Mo	V	Nb	S	P
2 ЦЛ-11 . . .	0,12	0,95	1,90	19,7	9,40	—	—	0,9	0,008	0,02
3 ЭНТУ-3 . .	0,12	1,04	1,58	19,3	10,33	1,87	—	—	0,004	0,015
4 КТИ-5 . . .	0,08	0,36	3,80	21,0	11,15	1,99	0,55	—	0,01	0,017
5 ЦТ-15 . . .	0,09	0,27	1,73	19,5	9,70	—	—	0,9	0,007	0,011

Table 4

Legend to Table 4: 1) Type of metal welded-on. 2) TsL-11. 3) ENTU-3. 4) KTI-5. 5) TsT-15.

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Selection of material for ...

Таблица 5

Скорость коррозии металла (*мм/год*)

1 Металл	2 Температура 50°	2 Температура 150°	1 Металл	2 Температура 50°	2 Температура 150°
3 Ст-20	0,35	4,0	9 ЭИ-943	0,002	0,001
4 ЭИ-579	0,0007	1,9	10 Алюминий технический	0,002	0,025
5 1Х13	0,001	—	11 Сплав Al + Mg	0,02	0,03
6 1Х18Н9Т	0,002	0,07	12 Медь	—	0,03
7 1Х18Н12М2Т	0,001	0,002	13 Латунь	—	0,02
8 ЭИ-432	0,0006	0,003			

Table 5

Legend to Table 5: 1) Metal. 2) Temperature. 3) St-20. 4) EI-579. 5) 1Kh13. 6) 1Kh18N9T. 7) 1Kh18N12M2T. 8) EI-432. 9) EI-943. 10) Industrial aluminum. 11) Alloy. 12) Copper. 13) Brass.

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S/064/61/000/003/008/009
B101/B203

Таблица 8

Скорость коррозии металлов в жирных кислотах C_{10}—C_{16} (автоклав с мешалкой)

1 Марка металла	2 Скорость коррозии, мм/год		1 Марка металла	2 Скорость коррозии, мм/год	
	100°	150°		100°	150°
3 Медь	0,02	0,02	13 Алюминий технический	0,01	0,03
4 Латунь	0,01	0,03	8 1Х18Н9Т 14 с электродами		
5 Ст. 20	0,3	1,5	15 ЦЛ-11	—	0,04
6 ЭИ-578 (Н-8)	0,3	0,8	16 ЭНТУ-3	—	0,04
7 ЭИ-579 (Н-10)	0,3	0,9	17 КТИ-5	—	0,08
8 1Х13	0,3	2,4	10 1Х18Н12М2Т 14 с электродами		
9 1Х18Н9Т	0,02	0,07	15 ЦЛ-11	—	0,003
10 1Х18Н12М2Т	0,01	0	16 ЭНТУ-3	—	0
11 ЭИ-432	0,02	0	17 КТИ-5	—	0,001
12 ЭИ-943	0,006	0			

Table 8

Legend to Table 8: 1) Type of metal. 2) Corrosion rate, mm/year. 3) Copper. 4) Brass. 5) St-20. 6) EI-578(N-8). 7) EI-579(N-10). 8) 1Kh13. 9) 1Kh18N9T. 10) 1Kh18N12M2T. 11) EI-432. 12) EI-943. 13) Industrial aluminum. 14) With electrodes. 15) TsL-11. 16) ENTU-3. 17) KTI-5.

MAYOROV, D.M.; MERKULOVA, O.P.; MUSHENKO, D.V.; TEODOROVICH, V.P.

Selection of materials for the units performing the direct hydrogenation of higher fatty acids. Khim.prom. no.3:210-212 Mr '61. (MIRA 14:3)

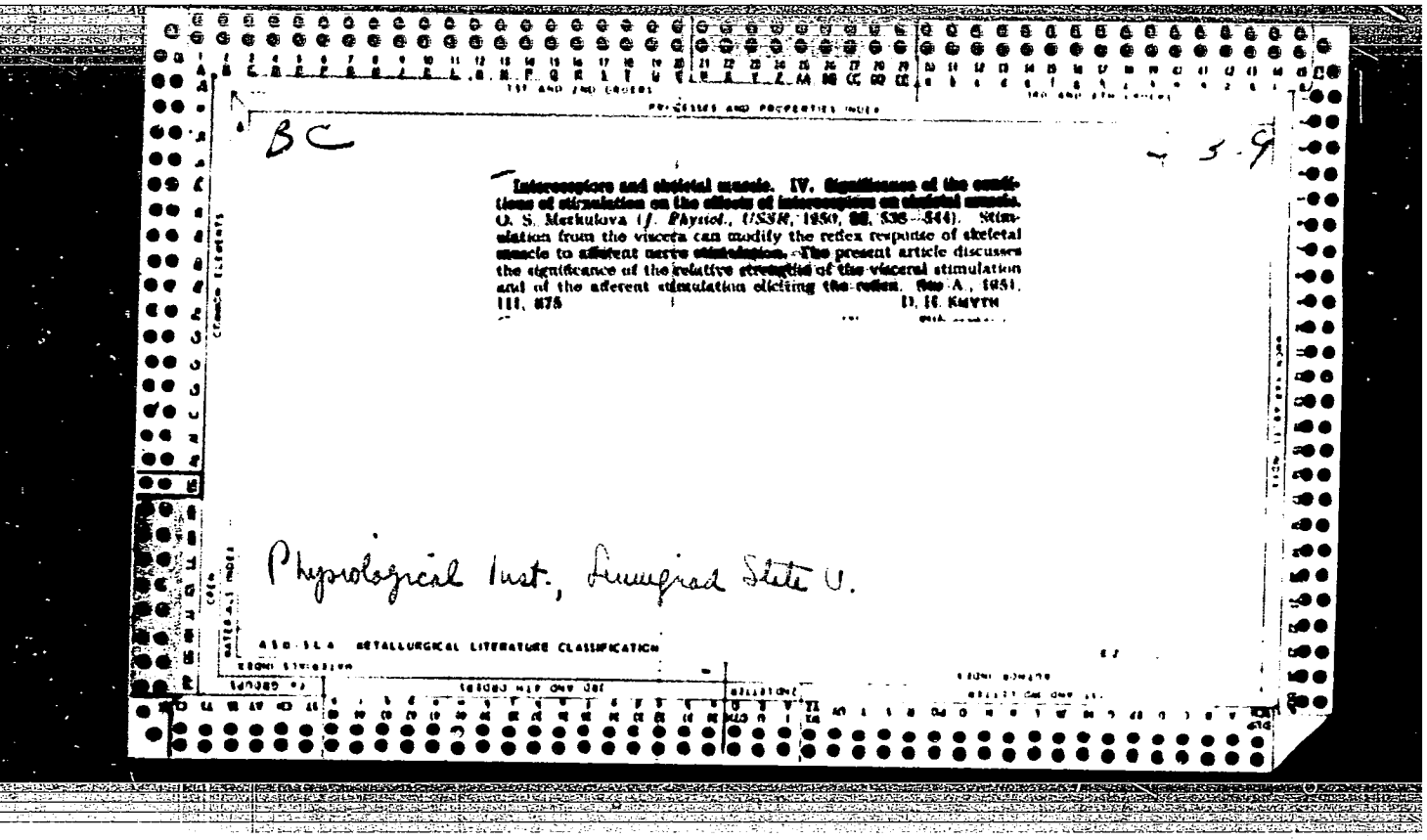
1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.
(Acids, Fatty) (Hydrogenation)

MERKULOVA, O.S.

MERKULOVA, O.S.

Interoceptors and skeletal musculature; reflexes of antagonistic muscles of the extremity in mechanical and chemical stimulation of the interoceptors. Fiziol.zh.SSSR 36 no.4:470-479 July-Aug 50. (CLML 20:4)

1. Physiological Institute of Leningrad State University.



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4-5-9

Interoceptors and skeletal muscle. IV. Significance of the conditions of stimulation on the effects of interoceptors on skeletal muscle. O. S. Markulova (*J. Physiol., USSR*, 1950, 36, 538–544). Stimulation from the viscera can modify the reflex response of skeletal muscle to afferent nerve stimulation. The present article discusses the significance of the relative strengths of the visceral stimulation and of the afferent stimulation eliciting the reflex. Rev. A., 1951, 111, 875

D. H. Smyth

Physiological Inst., Leningrad State U.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MERKULOVA, O.S.

Effect of stimulation of interoceptors on skeletal muscles in conditions of motor and sensory domination. Fiziol. zh. SSSR 37 no.5:614-620 Sept-Oct 51.
(CIML 21:4)

1. Laboratory of the Physiology of Receptors, Institute of the Physiology of the Central Nervous System, Academy of Medical Sciences USSR, Leningrad.

MERKULOVA, O.S.; CHERNIGOVSKIY, V.N., professor, deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, zaveduyushchiy; BYKOV, K.M., akademik, direktor.

Interoceptors and skeletal muscles. First report: General description of the effect of stimulation of the interoceptors upon skeletal muscles. Vop.fiziol. int. no.1:323-338 '52. (MLRA 6:8)

1. Laboratoriya fiziologii retseptorov Instituta fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Chernigovskiy). 2. Institut fiziologii im. I.P. Pavlova Akademii nauk SSSR (for Bykov). 3. Akademiya meditsinskikh nauk SSSR (for Chernigovskiy). (Nervous system) (Musculoskeletal system)

MERKULOVA, O.S.; CHERNIGOVSKIY, V.N., deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, zaveduyushchiy; BYKOV, K.M., akademik, direktor.

Interoceptors and skeletal muscles. Second report: Role of conditions of stimulation in the mechanism of interoceptive effects upon the skeletal muscles. Vop.fiziol.int. no.1:339-352 '52. (MLRA 6:8)

1. Laboratoriya fiziologii retseptorov Instituta fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Chernigovskiy). 2. Institut fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Bykov). 3. Akademiya meditsinskikh nauk SSSR (for Chernigovskiy). (Nervous system) (Musculoskeletal system)

MERKULOVA, O.S.; CHERNIGOVSKIY, V.N., professor, deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, zaveduyushchiy; BYKOV, K.M., akademik, direktor.

Interoceptors and skeletal muscles. Third report: Role of the afferent impulses in interoceptor ("starting") effects upon the skeletal muscles. Vop.fiziol.int. no.1:353-358 '52. (MLRA 6:8)

1. Laboratoriya fiziologii retseptorov Instituta fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Chernigovskiy). 2. Institut fiziologii im. I.P. Pavlova Akademii nauk SSSR (for Bykov). 3. Akademiya meditsinskikh nauk SSSR (for Chernigovskiy). (Musculoskeletal system) (Nervous system)

MERKULOVA, O.S.; CHERNIGOVSKIY, V.N., professor, deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, zaveduyushchiy; BYKOV, K.M., akademik, direktor.

Interoceptors and skeletal muscles. Fourth report. Interoceptor effects upon the skeletal muscles in hypoglycemia. Vop.fiziol.int. no.1:359-368 '52. (MLRA 6:8)

1. Laboratoriya fiziologii retseptorov Instituta fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Chernigovskiy). 2. Institut fiziologii im. I.P. Pavlova Akademii nauk SSSR (for Bykov). 3. Akademiya nauk meditsinskikh nauk SSSR (for Chernigovskiy).
(Musculoskeletal system) (Nervous system) (Blood--Diseases)

MERKULOVA, O.S.; CHERNIGOVSKIY, V.N., professor, deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, zaveduyushchiy; BYKOV, K.M., akademik, direktor.

Interoceptors and skeletal muscles. Fifth report: Role of different sectors of the nervous system in the realization of interoceptive effects upon the skeletal muscles. Vop.fiziol.int. no.1:369-381 '52. (MLRA 6:8)

1. Laboratoriya fiziologii retseptorov Instituta fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Chernigovskiy). 2. Institut fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Bykov). 3. Akademiya meditsinskikh nauk SSSR (for Chernigovskiy). (Nervous system) (Musculoskeletal system)

MERKULOVA, O.S.; CHERNIGOVSKIY, V.N., professor, deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, zaveduyushchiy; BYKOV, K.M., akademik, direktor.

Interoceptors and skeletal muscles. Sixth report: Interoceptive effect upon the skeletal muscles under the conditions of shifts of the acid-base equilibrium toward alkalosis and acidosis. Vop.fiziol.int. no.1:382-389 '52. (MLRA 6:8)

1. Laboratoriya fiziologii retseptorov Instituta fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Chernigovskiy). 2. Institut fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Bykov). 3. Akademiya meditsinskikh nauk SSSR (for Chernogovskiy).
(Nervous system) (Musculoskeletal system) (Physiological chemistry)

MERKULOVA, O.S.; CHERNIGOVSKIY, V.N., professor, deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, zaveduyushchiy; BYKOV, K.M., akademik, direktor.

Interoceptors and skeletal muscles. Seventh report: Certain considerations on interoceptive effects on skeletal muscles. Vop.fiziol.int. no.1:390-395 '52. (MLRA 6:8)

1. Laboratoriya fiziologii retseptorov Instituta fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Chernigovskiy). 2. Institut fiziologii im. I.P.Pavlova Akademii nauk SSSR (for Bykov). 3. Akademiya meditsinskikh nauk SSSR (for Chernigovskiy). (Nervous system) (Musculoskeletal system)

MERKULOVA, O.S.

USSR/Medicine - Pathophysiology FD-2560

Card 1/1 Pub. 17-13/23

Author : Merkulova, O. S.; Ratner, M. Ya.

Title : On the mechanism of action of renin. Report I: Action of renin on the chemoceptors of the kidney and the small intestine

Periodical : Byul. eksp. biol. i med. 5, 45-50, May 1955

Abstract : Investigated the reflex action of renin on the chemoceptors of the kidney and small intestine by conducting perfusion experiments on the isolated kidney and a portion of the small intestine of cats. Graphs. Five references, one of them USSR (1954).

Institution : Laboratory of Physiology of Receptors (Head - Prof. V. N. Chernigovskiy, Member of the Academy of Medical Sciences USSR), Laboratory of Pathophysiology (Head - Prof V. S. Galkin), and the Therapy Department (Head - Prof M. V. Chernorutskiy, Member of the Academy of Medical Sciences USSR) of the Institute of Physiology imeni I. P. Pavlov (Director-Academician K. M. Bykov) of the Academy of Sciences USSR, Leningrad

Submitted : November 18, 1954 by V. N. Chernigovskiy, Member of the Academy of Medical Sciences USSR

KARAYEV, Abdulla Ismail-ogly; MERKULOVA, O.S., red.; ODZHAKHVERDIZADE, S.R., red.; VASILEVSKIY, Ya.B., red.izd-va; POGOSOV, V.A., tekhn.red.

[Interoreceptors and metabolism] Interoretseptory i obmen veshchestv. Baku, Izd-vo Akad.nauk Azerbaidzhanskoi SSR, 1957. 379 p. (MIRA 11:4)
(Metabolism) (Receptors (Physiology))

Merkulova, O. S.

MERKULOVA, O.S.

Effect of epileptogenic stimulation, camphorated oil and pyramidon, on chemoreceptors of the small intestine [with summary in English]. Biul.eksp.biol. i med. 43 no.4:73-77 Ap '57. (MIRA 10:10)

1. Iz laboratorii patologicheskoy fiziologii (zav. - prof. V.S.Galkin) Instituta fiziologii imeni I.P.Pavlova (dir. - akademik K.M.Bykov) AN SSSR, Leningrad. Predstavlena deystvitel'nym chlenom AMN SSSR prof. V.N.Chernigovskim.

(BLOOD PRESSURE,
eff. of stimulation of small intestine with aminopyrine & camphorated oil)
(INTESTINE, SMALL, physiol.
eff. of stimulation with aminopyrine & camphorated oil on blood pressure)
(AMINOPYRINE, eff.
on stimulation of small intestine in cat, eff. on blood pressure)
(CAMPHOR, eff.
same)

MERKULOVA, O.S.

Reflex mechanism of camphor- and pyramidone-induced experimental epilepsy. Dokl. AN SSSR 112 no.5:968-971 F '57. (MLRA 10:4)

1. Institut fiziologii im. I.P. Pavlova Akademii nauk SSSR. Predstavleno akademikom K.M. Bykovym.
(EPILEPSY)

MERKULOVA, Ol'ga Sergeyevna; CHERNIGOVSKIY, V.N., otv.red.; BIANKI, V.L., red.izd-va; TARASOV, G.A., red.izd-va; KRUGLIKOVA, N.A., tekhn.red.

[Interoceptors and skeletal musculature] Interotseptory i skeletnaia muskulatura. Moskva, Izd-vo Akad.nauk SSSR, 1959. 238 p. (MIRA 12:6)

1. Chlen-korrespondent AN SSSR (for Chernigovskiy).
(NERVOUS SYSTEM) (MUSCULOSKELETAL SYSTEM)

GANELINA, I.Ye.; ZIMOVAYA, N.G.; IL'INSKIY, O.B.; LEBEDEVA, V.A.; MARTYNYUK, V.K.; MERKULOVA, O.S.; MUSYASHCHIKOVA, S.S.; MYAGKAYA, I.P.; OSADCHIY, L.I.; POPOVA, T.V.; SEREBRENNIKOV, I.S.; TYUTRYUMOVA, Z.I.; CHERNICHENKO, V.A.; YAROSHEVSKIY, A.Ya.

Interoceptive component in the development of certain pathological states. Trudy Inst.fiziol. 8:240-253 '59. (MIRA 13:5)

1. Laboratoriya patologicheskoy fiziologii (zaveduyushchiy - V.S. Galkin [deceased]) Instituta fiziologii im. I.P. Pavlova AN SSSR.
(SENSES AND SENSATION) (PATHOLOGY)

ARON, M.P.; BA[illegible]; [illegible]; [illegible]

Methodology for morphological and electrophysiological studies of interneuronal synapses in a living object. Fiziol. zhur. SSSR 50:378-380 Mr '64. (MIRA 18:1)

1. Laboratoriya obshchey fiziologii Instituta fiziologii imeni I.P. Pavlova AN SSSR, Leningrad.

BAZANOVA, I. S.; IONTOV, A. S.; MERKULOVA, O. S.; FEDOSOVA, T. V.

Relationship between the diameter of the synapses of neurons of the anterior horns of the spinal cord in the cat and the functional state of the central nervous system. Dokl. AN SSSR 155 no. 2:474-477 Mr '64. (MIRA 17:5)

1. Institut fiziologii im. I. P. Pavlova AN SSSR. Predstavleno akademikom V. N. Chernigovskim.

L 25803-66

ACC NR: AP6015931 SOURCE CODE: UR/0239/65/051/003/0309/0317

AUTHOR: Bazanova, I. S.; Yevdokimov, S. A.; Mayorov, V. N.; Merkulova, O. S.; Chernigovskiy, V. N.—Chernigovski, V. N. 23 B

ORG: Laboratory of General Physiology, Institute of Physiology im. I. P. Pavlov, Leningrad (Laboratoriya obshchey fiziologii Instituta fiziologii AN SSSR)

TITLE: Morpho-electrophysiological investigation of the interneuron synapse on a living preparation of the parasympathetic ganglion of the urinary bladder of the frog 22 22

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 51, no. 3, 1965, 309-317

TOPIC TAGS: electrophysiology, autonomic nervous system, experiment animal

ABSTRACT: Parallel morphological and electrophysiological study of interneuron synapses of the parasympathetic ganglion of the urinary bladder of the frog was carried out on living histological preparations at +2°. It was established that in the process of irritation of a synapse with electric currents of various frequencies, a hypotonic solution (Leningrad city water), and a solution of methylene blue, morphological and functional changes took place in the synapse. Conduction of nerve impulses through the synapse was retained in all stages of morphological change, although it was altered in magnitude and type. The morphological

Card 1/2 UDC: 612.815

L 25803-66
ACC NR: AP6015931

and structural changes (which involved enlargement of the synapse contact plates) as well as the functional changes were reversible. The structural changes lagged behind the functional shifts both during their development and regression. The dynamics of stages of the structural changes observed were similar to those of stages of paranecrosis. Orig. art. has: 4 figures. [JPRS]

SUB CODE: 06 / SUBM DATE: 19Nov63 / ORIG REF: 011 / OTH REF: 002

Card 2/2 CC

BAZANOVA, I.S.; YEVDOKIMOV, S.A.; MAYOROV, V.N.; MERKULOVA, O.S.; CHERNIGOVSKIY, V.N.

Morphological and bioelectrical changes in the intermeuronal synapsis during the transmission of rhythmical impulses. Fiziol. zhur. 51 no.4:457-462 Ap '65. (MIRA 18:6)

1. Laboratoriya obshchey fiziologii Instituta fiziologii imeni Pavlova AN SSSR, Leningrad.

KARASIK, Z.S.; MERKULOVA, O.V.

The VPN machine for rumpling flat parts of shoe bottoms. Biul.tekh.-ekon.inform. no.2:55-56 '59. (MIRA 12:3)
(Shoe machinery)

KARASIK, Z.S.; MERKULOVA, O.V.

The DN machine for splitting and straightening parts of shoe bottoms. Biul.tekhn.-ekon.inform. no.12:38-39 '60. (MIRA 13:12)
(Shoe machinery)

MERKULOVA, P.G.

"A Collection of Printed Works on the Selection and Growing of Sorts of Grapes for Central Povolozh'ye";

dissertation for the degree of Candidate of Agricultural Sciences
(awarded by the Timiryazev Agricultural Academy, 1962)

(Izvestiya Timiryazevskoy Sel'skokhozyaystvennoy Akademii, Moscow, No. 2, 1963, pp 232-236)

YELYUTIN, V.P., professor, doktor tekhnicheskikh nauk; PAVLOV, Yu.A., dotsent, kandidat tekhnicheskikh nauk; MERKULOVA, R.F., inzhener.

Determining the starting temperature of reactions involving reduction of oxides by carbon. Sbor.Inst.stali 34:48-52 '55. (MLRA 9:7)

1.Kafedra metallurgii redkikh metallov.
(Chemical reaction, Rate of) (Reduction, Chemical) (Radioactive tracers--Industrial applications)

MERKULOVA, K.F., Cand Tech Sci -- (diss) "Study of the process of the reduction of oxides of certain metals with carbon." Mos, 1958, 9 pp (Min of Higher Education USSR. Mos Order of Labor Red Banner Inst of Steel im I.V.Stalin) 120 copies (KL, 27-58, 110-1)

AUTHORS: Yelyutin, V. P., Merkulova, R. F., Pavlov, Yu. A. SOV/163-58-3-2/49

TITLE: Investigating the Reduction Reactions of Metal Oxides With Carbon (Issledovaniye reaktsiy vosstanovleniya okislov metallov uglerodom)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 3, pp 10 - 14 (USSR)

ABSTRACT: The influence of the temperatures on the reaction velocity of the reduction of metal oxides with carbon was investigated. Activated and non-activated charcoal were used as reducing agent; it had been obtained by the interaction of the gas mixture $CO_2 + C^{14}O_2$ with metallic magnesium. The initial temperature of the interaction between carbon and metal oxides, as for instance MoO_3, Fe_2O_3, V_2O_5, Nb_2O_5 and TiO_2 was determined. The reduction of V_2O_5 was investigated at 600, 700, 800, 900 and 1000° C, the reduction of MoO_3 at 500, 590, 600, 650 and 700° C,

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the reduction of Fe_2O_3 at 500, 600, 700, and 800° C, and the reduction of WO_3 at 900, 1000, 1100 and 1200° C.

The reduction processes take place at the same time with the increase of the reaction velocity they reach their maximum at the corresponding temperature and then slowly decrease again. The increase in temperature effects an increase of the rate of the reduction process. The kinetic curves obtained show that the reduction processes of the oxides have an autocatalytic mechanism. Based on the results obtained the apparent activation energy of the reduction processes of the oxides with metals was calculated. The following values were found for the activation energy: kcal/Mol: V_2O_5 - 2,3, MoO_3 - 14,3, Fe_2O_3 - 11,7 and WO_3 - 18,0. The linear dependence between the initial temperatures of the reduction and the activation energy of the corresponding processes was found. There are 4 figures, 1 table, and 9 references, 3 of which are Soviet.

Investigating the Reduction Reactions of Metal Oxides With Carbon SOV/163-58-3-2/49

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: February 26, 1958

Card 3/3

YELYUTIN, V.P., prof., doktor tekhn. nauk; MERKULOVA, R.F., inzh.; PAVLOV, Yu.A., dots., kand. tekhn. nauk.

Temperatures at the start of metal oxide reduction by solid carbon. Sbor. Inst. stali no.38:79-87 '58. (MIRA 11:8)

1. Kafedra metallurgii redkikh metallov Moskovskogo instituta stali im. Stalina.
(Oxidation-reduction reaction) (Thermometry)
(Radioisotopes--Industrial applications)

GULYAYEV, A.P.; UL'YANIN, Ye.A.; BOGOLYUBOV, V.A.; MERKULOVA, R.F.

Behavior of rare-earth metals in liquid steel. Izv. vys. ucheb. zav.; chern. met. 7 no.1:56-61 '64. (MIRA 17:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

VYSOKOVSKIY, S.N.; [illegible]NEYEV, G.G.; MERKULOVA, R.M.; RYBIN, O.N.; LOGVINOV, L.M.; SHTIRTS, V.V.; POTAPOV, V.P.

Efficient rolling conditions and the introduction of strain gauges for controlling metal pressure on rolls. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.12:7-9 D '64. (MIRA 18:3)

RANNEV, G.G.; VYSOKOVSKIY, S.N.; MIRKULOVA, R.M.; LOGVINOV, L.M.; POTAPOV, V.I.; SHTRITS, V.V.

Using continuous operating dynomometers on strip mills.
Metallurg 10 no.6:25-27 Je '65. (MIRA 18:6)

1. Nauchno-issledovatel'skiy institut metallurgii i Ashinskiy metallurgicheskiy zavod.

L 47167-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) IJP(c)

ACC NR: AR6000437 SOURCE CODE: UR/0137/65/000/009/D005/D005

JD/HW

AUTHORS: Vysokovskiy, S. N.; Rannev, G. G.; Sokolov, V. A.; Andreyuk, L. V.; Merkulova, R. M.

44
B

TITLE: Energy and temperature parameters for rolling of thin sheets from different steels and alloys on stand "1500"

SOURCE: Ref. zh. Metallurgiya, Abs. 9D33

REF SOURCE: Sb. Teoriya i praktika metallurgii. Vyp. 7. Chelyabinsk, 1964, 90-100

TOPIC TAGS: metal rolling, metallurgic machinery, sheet metal, test stand / 1500 test stand

ABSTRACT: The energy and temperature parameters during hot rolling of sheets were investigated on a reversible 4-roller stand 1500. The metal pressure on the rollers, armature current, excitation current, mean square current of the motor, velocity of revolution of rollers, displacements of pressure bolts, thickness of sheets, and their temperature were determined. The results of the measurements are tabulated. Calculated results are compared with experimental data. Investigations have shown that it is possible in some cases to decrease the number of rolling operations without exceeding the maximum permissible pressure. In other cases, the redistribution of compressions between passages permitted a more uniform stand loading without exceeding the maximum permissible metal pressure on the rollers. 10 illustrations, 1 table. Bibliography of 5 citations. L. Kochenova [Translation of abstract]

SUB CODE: 13, 11

Card 1/1 egb

UDC: 621.771.001

17(15)

SOV/16-59-6-31/46

AUTHORS: Vanag, K.A. and Merkulova, S.T.

TITLE: On Atypical Forms of Street Rabies in Man. Author's Summary.

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1959, Nr 6, p 124 (USSR)

ABSTRACT: Differences of opinion exist on the etiology of postvaccinal complications which sometimes develop after antirabies vaccination. Some researchers hold that they are caused by the fixed, others by the street, form of Formido inexorabilis. To help solve this problem the author adduces two case histories of persons who developed postvaccinal complications after antirabies vaccinations. Study of these case histories revealed that the "complications" were, in fact, atypical paralytic forms of rabies caused by the street virus. In the absence of conclusive proof, the authors advise doctors to refrain from diagnoses, in cases of this kind, which could discredit antirabies vaccination.

Card 1/2

On Atypical Forms of Street Rabies in Man. Author's Summary. SOV/16-59-6-31/46

ASSOCIATION: Institut virusologii imeni Ivanovskogo AMN SSSR (Institute of Virology imeni Ivanovskiy of the AMN, USSR)

SUBMITTED: October 6, 1958

Card 2/2

DOKTOROV, N.; MERKULOVA, T.

At the new frontier. Sov. profsoiuzy 7 no.7:30-32 Ap '59.
(MIRA 12:7)

1.Direktor Voskresenskogo khimicheskogo kombinat imeni V.V. Kuybysheva (for Doktorov). 2.Predsedatel' zavodskogo komiteta (for Merkulova).
(Voskresensk--Chemical industries)

MERKULOVA, V.

LAVROVA, L., kand.tekhn.nauk; VOLOVINSKAYA, V., kand.tekhn.nauk; DYKLOP, V., kand.biol.nauk; KRYLOVA, V.; MERKULOVA, V.

Comminuting meat. Mias. ind. SSSR 29 no.1:11-14 '58. (MIRA 11:3)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti.
(Sausages)

VOLOVINSKAYA, V., kand. tekhn. nauk; RUBASHKINA, S.; POLETAYEV, T.; KEL'MAN, B.; MERKULOVA, V.

Improving the quality of hams during salting with the use of phosphates and sodium ascorbates and glutamates. Mias. ind. SSSR. 30 no.4:48-50 '59. (MIRA 12:12)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti.

(Meat, Salt)

MERKULOVA, V.A.

2

3916. Regulation of the renal function by the cerebral cortex. A. P. Kandel and V. A. Merkulova. *Sov. Zdravookh. Kirgiz.*, 1955, No. 2, 21–23; *Referat. Zh. Biol.*, 1956, Abstr. No. 76510.—Diuresis was more intense after water was introduced into the stomach with the knowledge of the subject than when it was made without his knowledge. There might be a secondary signal system regulating renal function. (Russian) G. Enoksson

VOLOVINSKAYA, V.I. Kand. tekhn. nauk; RUBASHKINA, S.Sh., starshiy nauchnyy sotrudnik, DERGUNOVA, A.A., starshiy nauchnyy sotrudnik; SHCHEGOLEVA, O.P., mladshiy nauchnyy sotrudnik; MERKULOVA, V.K., tekhnik; PAVLOV, D.V., kand. tekhn. nauk; MATROZOVA, S.I., kand. khim. nauk

Use of ascorbic ac d, sodium ascorbinate and glutaminate in the production of sausages. Trudy VNIIMP no.11:76-86 '62. (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti (for Volovinskaya, Rubashkina, Dergunova, Shchegoleva, Merkulova). 2. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti (for Pavlov, Matrozova).

KUKHARKOVA, L.L., starshiy nauchnyy sotrudnik; LAVROVA, L.P., kand. tekhn. nauk; SOLOV'YEV, V.I., kand. khim. nauk; FREYDLIN, Ye.M., kand. veter. nauk; PEROVA, P.V., kand. veter. nauk; SADIKOVA, I.A., kand. biol. nauk; KRYLOVA, V.V., starshiy nauchnyy sotrudnik; BUSHKOVA, L.A., starshiy nauchnyy sotrudnik; RYNDINA, V.P., starshiy nauchnyy sotrudnik; TRUDOLYUBOVA, G.B., starshiy nauchnyy sotrudnik; KARGAL'TSEV, I.I., assistent; MIKHAYLOVA, A.Ye., mladshiy nauchnyy sotrudnik; KARPOVA, V.I., mladshiy nauchnyy sotrudnik; POLETAYEV, T.N., mladshiy nauchnyy sotrudnik; MERKULOVA, V.K., mladshiy nauchnyy sotrudnik

Directed use of microorganisms for the improvement of the quality of sausage products. Report No. 1. Trudy VNIIMP no.16: 64-75 '64. (MIRA 18:11)

1. Kafedra tekhnologii Moskovskogo tekhnologicheskogo instituta myasnoy i molochnoy promyshlennosti (for Kargal'tsev).

SOLOV'YEV, V.I., kand. khim. nauk; LAVROVA, L.P., kand. tekhn. nauk; SADIKOVA, I.A., kand. biol. nauk; KRYLOVA, V.V., starshiy nauchnyy sotrudnik; BUSHKOVA, L.A., starshiy nauchnyy sotrudnik; MERKULOVA, V.K., mladshiy nauchnyy sotrudnik; POLETAYEV, T.N., mladshiy nauchnyy sotrudnik; KARPOVA, V.P., inzh.-khimik; MAMAYEVA, S.A., tekhnik

Studying some conditions providing for color intensity and stability in the production of smoked and cooked sausage. Trudy VNIIMP no.16:183-201 '64. (MIRA 18:11)

L 33181-66 EWT(1)/T/EWP(k)
ACC NR: AR6016274 SOURCE CODE: UR/0058/65/000/011/H064/H064

AUTHOR: Merkulova, V. M. 41

TITLE: Absorption of ultrasound in Rochelle salts near the melting point 13

SOURCE: Ref. zh. Fizika, Abs. 11Zh438

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20. M., 1964, 73-76

TOPIC TAGS: ultrasound absorption, absorption coefficient, melting point, relaxation process, physical diffusion

ABSTRACT: An investigation was made of the absorption of ultrasound near the melting point of single-crystal Rochelle salt, which decomposes at 56C into tartrates of Na and K, which are dissolved in the water of crystallization. The absorption of longitudinal ultrasound waves was measured along the Y axis at frequencies 16 and 75 Mcs by the pulsed echo method, in samples measuring 20 x 40 x 30 mm with faces perpendicular to the principal crystallographic axes. No amplitude dependence of the absorption coefficient was observed. The low rate of heating of the sample ensured complete thermal relaxation. The absorption coefficient α is equal to 8×10^{-10} $(cps\text{-}cm)^{-1}$ for 75 Mcs and 2.5×10^{-10} $(cps\text{-}cm)^{-1}$ for 16 Mcs. Below 52C, α is independent of the temperature. Plots of α/f against the temperature were plotted using the average results of measurements of 4 samples. Near the melting point, in a narrow temperature interval, a sharp increase of α was observed. The excess absorption

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L 33181-66

ACC NR: AR6016274

0

(relative to 52C), calculated from the α/f curves, is plotted on a logarithmic scale. The excess absorption near the melting point varies with temperature in accordance with the formula $\Delta\alpha = A \exp(-B/T)$, where A and B are constants which are practically equal for both frequencies. This corresponds to the relaxation process $\omega \gg \omega_R$ (ω_R - relaxation frequency). The molecular mechanism producing the sharp increase in the absorption near the melting point is self-diffusion. The sharp rise in self-diffusion increases by several orders of magnitude to relaxation frequency of the diffusion process and leads to an increase of the absorption. I. Nikolayeva. [Translation of abstract]

SUB CODE: 20

LS

Card 2/2

L 36220-66

ACC NR: AP5017792 SOURCE CODE: UR/0387/65/000/005/0075/0081

AUTHOR: Merkulova, V. M.

ORG: Leningrad Mining Institute (Leningradskiy gornyy institut)

TITLE: Velocity measurements of ultrasonic waves in certain rocks

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 5, 1965, 75-81

TOPIC TAGS: ultrasonic wave propagation, elastic modulus, pulse generator, MINERAL, ULTRASONIC VELOCITY

ABSTRACT: The measurement of the velocity of propagation of ultrasonic waves of various frequencies and the effect of structural factors on the elastic properties of various rocks are investigated. Measurements were made using a pulse-phase method and ultrasonic frequencies of 10^5 cps and higher. The apparatus comprises a high frequency pulse generator, a synchronizer, a scanning unit, an electron ray tube, an amplifier, the metal and standard liquid lines, and radiating and radiation detecting piezoelectric crystal oscillators. The measurements utilizing the low frequency ultrasonic waves were made using the resonance method where the moment of resonance coincides with the maximum value of a signal. The data show that the velocities of propagation of ultrasonic waves in 14 samples vary from 2120 m/sec for carbonaceous shale to 7100 m/sec for peridotite and depend to some extent on the type of grain structure in the sample. The decrease in the velocity of propagation with increase in

UDC: 534.22:552

Card 1/2

L 36220-66

ACC NR: AP5017792 O

grain size, results from an increase in ultrasonic wave scattering. The quenching coefficients increase with an increase in density and phase composition. Orig. art. has: 6 figures, 2 tables, and 10 formulas.

SUB CODE: 08,20/SUBM DATE: 18May64/ ORIG REF: 005/ OTH REF: 002

Card 2/2

L 43037-66 EWT(1) GW
ACC NR: AP6029667 SOURCE CODE: UR/0387/66/000/008/0047/0060

AUTHOR: Merkulova, V. M.

43
B

ORG: Leningrad Order of Lenin and Order of the Red Banner of Labor Mining Institute imeni G. V. Plekhanov (Leningradskiy ordena Lenina i ordena trudovogo Krasnogo Znameni Gornyy institut)

TITLE: Frequency dependence of ultrasonic attenuation in rocks for the megacycle field

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 8, 1966, 47-60

TOPIC TAGS: ultrasonic field, ultrasonics, ~~scattering~~, geoacoustics, acoustic ~~wave~~ propagation, petrology

ABSTRACT: The frequency dependence of the attenuation factors of longitudinal and shear ultrasonic waves has been investigated for several types of rocks (gabbro-diabase, gabbro-porphyry, gabbro-gneiss, quartzite, granite, slate, and sandstone) in the 0.6—6-Mc range by the pulse-echo method. The electronic equipment used consisted of a high-frequency square-pulse generator of 100—1000-v signals of 1—10-msec duration, a wide-band amplifier with a cathode follower at the input and the output, a 0—61-db attenuator, and an oscilloscope. Piezoelectric quartz transducers were used to generate and receive the signals.

Card 1/2 UDC: 534.22:552

L 43037-66

ACC NR: AP6029667

Experiments have shown that the attenuation factor of ultrasonic waves in rocks is equal to the sum of losses due to scattering α^s and dissipative absorption α^a. In the Mc range scattering by grains predominates even though ultrasonic attenuation depends on both the operating frequency and rock granularity. For $f \geq \bar{D}$ (λ is the wavelength and $\bar{D}$ is the average grain size), $\alpha^2 \sim f^2$ and scattering by polycrystalline samples is greater than by microcrystalline samples. When $\lambda \leq \bar{D}$ the frequency dependence is weaker than parabolic, and microcrystalline samples cause greater scattering of sound waves. When $\lambda \geq \bar{D}$ Huntington's stochastic theory developed for polycrystalline metals applies to acoustic scattering in rocks, and wave attenuation results from phase fluctuations. The dissipative absorption can be expressed by the following relationship: $\alpha\ a/f$ = constant. For many rock samples α (a) t/α (a) l = $3v_l^3/4v_t^3$, which indicates the importance of shear deformation in the absorption process. Orig. art. has: 15 formulas, 9 figures, and 2 tables. [DM]

SUB CODE: 08/ SUBM DATE: 27Jan66/ ORIG REF: 006/ OTH REF: 004

ATD PRESS 5067

Card 2/2

MERKULOVA, V. N.

Dissertation: "Utilization of Lean Curds for the Production of Melted Cheese." Cand Agr Sci, Moscow Acad of Agriculture, Moscow 1953

W-30298

SO: Referativnyy Zhurnal, No. 5, Dec 1953, Moscow, AN USSR (W-29955)

MERKULOVA, V.N.

Acoustic properties of certain [illegible] media at ultrahigh frequencies. Akust. zhur. [illegible] (MIRA 14:4)

1. Leningradskiy gornyy institut imeni [illegible].

L 19346-63 EWT(1)/EWT(m)/BDS/ES(j) AMD/AFFTC/ASD AR/R

ACCESSION NR: AR3005191 S/0272/63/000/007/0168/0168

SOURCE: RZh. Metrologiya i izmer. tekhnika. Otd. vy*p., Abs. 7.32.1145 58

AUTHOR: Kozlov, V. F., Merkulova, V. S.

TITLE: Improving the sensitivity of the IFK-3 method and the determination of measurement accuracy with this method

CITED SOURCE: Sb. rabot po nekotory*m vopr. dozimetrii i radiometrii ionizir. izlucheniy. Vy*p. 2. M., Gosatomizdat, 1961, 23-31

TOPIC TAGS: radiometric sensitivity, individual photodosimetry, dosimetry, quinonethiosulfate sensitizer

TRANSLATION: To determine the measurement accuracy and lower sensitivity limit of the IFK individual photodosimetry technique, the authors obtained 30 runs of standardized x-ray films of the "KX" type (with 10 films in each run) in the dose range from 0.05 to 3.00 roentgens. The results are tabulated. The IFK-3 method affords reliable measurements of γ-irradiation starting with an 0.02 roentgen dose, with a 22% error in the determination of such a dose. The use of

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L 19346-63
ACCESSION NR: AR3005191

a quinonethiosulfate sensitizer with the IFK-3 method improves sensitivity 600% in the 0.02-0.20 roentgen small dose region. G. Milyukova.

DATE ACQ: 24Jul63 SUB CODE: GE, NS ENCL: 00

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SHRAMENKO, A.I.; MERKULOVA, Ye.M.

Effectiveness of compound radiotherapy of cancer of the corpus uteri. Uch. zap. KRROI 7:48-54 '61. (MIRA 16:8)
(UTERUS--CANCER) (RADIOTHERAPY)

MERKULOVA, Ye.M.

Telecobalt and compound radiotherapy of vulval cancer. Uch.zap. KRROI 7:80-83'61. (MIRA 16:8)
(VULVA—CANCER) (COBALT ISOTOPES—THERAPEUTIC USE)

MERKULOVA, V. N.
S. C. L.

35-Synth. Rub. & Allied Products — 2N Polymers from Nitrogenous Component

Alpha-cyanoethylene. A. Y. YAKUBOVICH and L. N. MERKULOVA (U.S.S.R.P. 64530, Chem. Abs., 1946, **40**, 5452). Benzyl cyanide is condensed with paraformaldehyde in the presence of sodium ethylate. The reaction product is purified by distillation in vacuo. 3S2S11

1944

MERKULOVA, E. N.

Chlorovinyl alkyl ketones. A. Ya. Yakubovich and E. N. Merkulova. *J. Gen. Chem.* (U.S.S.R.) 16, 55–60 (1940).—AcCl (24 g.) in 40 g. CCl_4 was treated with stirring and ice-cooling with a stream of C_2H_2 concurrently with slow addn. of 50 g. $AlCl_3$ over 1 hr. The addn. of C_2H_2 was stopped after 11–12 hrs. after which the mixt. was treated with ice-water and was extd. with Et_2O to yield 18 g. *Me 2-chlorovinyl ketone*, b_{15-20} 38–9°, d_4^{20} 1.0858, n_D^{20} 1.4683; the product slowly loses HCl and changes into a dark viscous mass; *semicarbazone*, m. 118–19°. $PhNH_2$ (22 g.) in 50% Et_2O soln., treated with 12.5 g. of the ketone in Et_2O and allowed to stand overnight, yielded 13.5 g. *MeC(:NPh)CH:CHNHPh*, m. 180–0.5° (from EtOH-Et_2O); *pyridinium salt* (by mixing the reagents in Et_2O), m. 168°. Use of $ClCH_2COCl$ in the above reaction gave *chloromethyl 2-chlorovinyl ketone*, b_{11} 71–2.5°, d_4^{20} 1.3486, n_D^{20} 1.5079; *semicarbazone*, m. 124–5°. $HOCH_2CH_2CN$ (37 g.) was added slowly to 68 g. $SOCl_2$ in 33.3 g. $CHCl_3$ and boiled for 0.5 hr. to yield 86% *β-chloropropionitrile*, b_{20} 76°, which was heated with concd. HCl in a stream of HCl for 3.5 hrs. to yield *β-chloropropionic acid*, b_{20} 105–7°, m. 34–6°, which was heated at 100–10° with PCl_5 to yield the corresponding *chloride* (I), b_{20} 70°. I (17.8 g.) in 30 g. CCl_4 treated with C_2H_2 as described above in the presence of 18.84 g. $AlCl_3$ yielded *2-chlorovinyl 2-chloroethyl ketone*, b_{15-16} 100–1° (6 g.), d_4^{20} 1.2862, n_D^{20} 1.5002; *semicarbazone*, m. 160–70° (decompn.). G. M. Kosolapoff

MERKULOVA, YE. N.

USSR/Chemistry - Cyanohydrins
Chemistry - Acetylation

Feb 1948

"Acetylization of Alpha-Cyanohydrins," A. Ya. Yakubovich, V. A. Rubenko, Ye. N. Merkulova, 5 pp

"Zhur Prik Khim" Vol XXI, No 2

Studies of acetylization of alpha-cyanophdrins of acetic acid with acetyl chloride and ketone. Determined that acetylization was better with ketone as the output of acetate was 73% of the computed amount.

Submitted 27 Oct 1946

PA 64T14

MERKULOVA, E. N.

5

@Chem

Synthesis of heteroorganic compounds of the aliphatic series by the diazo method. V. Synthesis of compounds of elements of Group IV—organolead compounds. A. Ya. Yakubovich, E. N. Merkulova, S. P. Makarov, and G. I. Gavrilov, *J. Gen. Chem. U.S.S.R.* 22, 2115–17(1952) (Engl. translation).—See *C.A.* 47, 9257h. H. L. H.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Organic Chemistry

5.(2)

AUTHORS: Klimova, V. A., Merkulova, Ye. N. SOV/62-59-5-4/40

TITLE: On the Simultaneous Determination of Carbon, Hydrogen, and Halogens (Ob odnovremennom opredelenii ugleroda, vodoroda i galoidov)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 5, pp 781 - 786 (USSR)

ABSTRACT: In the simultaneous determination of carbon, hydrogen, and halogens, halogens were so far determined in a quartz tube lined with silver foil or a silver grid (absorption of the halogen by silver) (Refs 2,3). There was, however, always an error up to ± 0.6%. The error was attributed to the heavy quartz apparatus which rendered the weighing inaccurate. Moreover, the authors noticed that the silver halide being formed melts already at the applied temperatures of 500-550° and affects the quartz of the apparatus. They attributed a part of the error of the determination of the halogen to this fact. In order to prevent a contact between silver halide and quartz and to reduce the weight of the absorption apparatus metal shuttles had been used already by others (Denstedt (Ref 4) and others (Ref

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5)). The authors used platinum shuttles lined with silver foil. The measuring error obeerved with this method was only ± 0.3%. The determination values obtained are summarized in tables 1 and 2. However, also this method shows some deficiencies. The authors decided to precipitate the silver used in the absorption of the halogens electrolytically in the shuttles and to work at lower temperatures (410-440°). This method showed good results and could also be used in the simultaneous determination of four different elements, e.g. of silicon and boron--organic compounds. Corresponding data are shown in table 3. The experimental part shows the scheme for obtaining the electrolytical silver precipitate in figure 1, the devices for the simultaneous and express determination of the elements mentioned in figures 2 and 3. There are 3 figures, 3 tables, and 7 references, 4 of which are Soviet.

On the Simultaneous Determination of Carbon, Hydrogen, and Halogens SOV/62-59-5-4/40

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: July 16, 1959

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KLIMOVA, V.A.; MERKULOVA, Ye.N.

Preparation of finely dispersed silver for the microchemical analysis of elements. Zhur.anal.khim. 17 no.1:142 Ja-F '62. (MIRA 15:2)

1. N.D.Zelinsky Institute of Organic Chemistry, Academy of Sciences U.S.S.R., Moscow.
(Chemistry, Analytical) (Silver)

MERKULOVA, Ye. P., Cand Phys-Math Sci -- (diss) "Task of optimizing an automatic regulating system containing essentially non-linear elements." Moscow, 1960. 6 pp; (Moscow State Order of Lenin and of Labor Red Banner Univ im M. V. Lomonosov, Physics Faculty); 120 copies; price not given; bibliography at end of text; (KL, 17-60, 139)

PONOMAREV, P.U.; VAL'TSEV, A. M.; MASONOV, M.A.; MERKULOVA, Ye. S.; SAVCHENKO, A.S.; DUKHANIN, A.S.; AKHTYRSKIY, V.I.

Rolling of square blanks made by continuous casting. Biul. TSNIICEM no. 8:43 '58. (MIRA 11:7)

1. Kramatorskiy metallurgicheskiy zavod im. Kuybysheva(for Ponomarev, Val'tsev, Masonov, Merkulova, Savchenko). 2. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii(for Dukhanin, Akhtyrskiy). (Rolling(Metalwork))

15(2)
AUTHORS: Kaynarskiy, I. S., Orlova, I. G., Merkulova, Ye. V. SOV/131-59-4-9/16

TITLE: The Pressing of Refractories Containing Graphite and Carborundum in Thermoplastic State (Pressovaniye grafit- i karborundsoderzhashchikh ogneuporov v termoplastichnom sostoyanii)

PERIODICAL: Ogneupory, 1959, Nr 4, pp 173-180 (USSR)

ABSTRACT: In the present paper the results of pressing graphite- and carborundum-containing masses are described which were made thermoplastic by means of additions of fireproof clay. The blanks were pressed by means of a unit which is presented in figure 1. Experiments with graphite KLZ-2 showed that it is possible to obtain first-rate products by pressing graphite-clay-containing masses in thermoplastic state (Table 1), especially when using ground graphite the structure was improved (Table 2). At an amount of pressure applied of 75 kh/cm^2 products of different density and porosity, depending on graphite content and pressure temperature, are obtained from graphitic-argillaceous masses (Table 3). The influence exerted by the graphite content of the masses upon the

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apparent porosity of the samples is presented in figures 2 and 3. The dependence of the breaking strength under pressure of the graphitic-argillaceous samples on the graphite content within the mass is demonstrated in figure 4. The interrelation between the breaking strength under pressure and the apparent porosity of graphitic-argillaceous samples are given in figure 5. The properties of graphitic-argillaceous refractories pressed in thermoplastic state at a temperature of 1300° are listed in table 4; figure 6 gives the model of a graphitic-argillaceous stopper for steel casting. Further carborundum-argillaceous refractories were investigated which were pressed in thermoplastic state at a temperature of 1300° and an amount of 100 kg/cm^2 of pressing applied (Table 5). The density and deformation of graphite-carborundum-argillaceous pressed refractories are presented in table 6 and their properties in table 7. Finally the authors of this article state that this pressing method has considerable advantages as compared with the method of hot pressing, which are based on various physico-chemical processes. There are 6 figures, 7 tables, and 1 Soviet reference.

The Pressing of Refractories Containing Graphite and Carborundum in Thermoplastic State

SOV/131-59-4-9/16

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractories)

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KAYNARSKIY, I.S.; ORLOVA, I.G.; MERKULOVA, Ye.V.

Properties of hot-pressed refractories on a basis of clay and kaolin. Sbor.nauch.trud. UNIIO no.5:79-91 '61. (MIRA 15:12)
(Firebrick)

KAYNARSKIY, I.S.; ORLOVA, I.G.; MERKULOVA, Ye.V.

Thermoplastic pressing of common clay and kaoline bricks.
Ogneupory 26 no. 2:71-80 '61. (MIRA 14:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.
(Firebrick)

TKACHENKO, N.O.; LARIONOVA, Z.K.; MERKULOVA, Z.N.; GORDIYCHUK, M.I.
[Hordiichuk, M.I.]

Deresination of felt cones. Leh. prom. no.2 29-30 Ap-Je '64.
(MIRA 17:7)

5 (3)

AUTHORS: Shevchenko, V. I., Merkulova, Zh. V. SOV/79-29-3-54/61

TITLE: Phenyl-dichloro-phosphazo-sulfonaryls (Fenildikhlorfosfazo-sul'fonarily)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 1005-1008 (USSR)

ABSTRACT: Kirsanov, A. V. (Ref 1) succeeded in synthesizing phosphazo-acyls according to the scheme $AcNH_2 + PCl_5 \rightarrow 2HCl + AcN{=}PCl_3$ (I). He and his assistants made use of the reaction (I) (Ref 2) and obtained a series of new phosphoric acid derivatives of various kind. This reaction was, however, not exploited for the synthesis of organophosphorous compounds in which the phosphorus atom is linked with the carbon atom. The assumption that the phosphazo reaction is bound to proceed not only with PCl_5, but as well with tetrachloro-alkyl- and tetrachloro-aryl-phosphorus compounds, trichloro-dialkyl- and trichloro-diaryl-phosphorus compounds and dichloro-trialkyl- and dichloro-triaryl-phosphorus compounds was confirmed experimentally. The authors succeeded in obtaining the phenyl-dichloro-phosphazo-sulfonaryls according to the scheme

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Phenyl-dichloro-phosphazo-sulfonaryls

$ArSO_2NH_2 + C_6H_5PCl_4 \rightarrow 2HCl + ArSO_2N{=}P(C_6H_5)Cl_2$ (II) in the case of the reaction of the phenyl-phosphorus-tetrachlorides with the sulfo acid amides of the aromatic series. The obtained compounds are either crystalline or dense viscous liquids which decompose also during the vacuum distillation. They react easily with amines, alcohols, phenolates, and hydrolyze with water to aryl-sulfonamido-phenyl-phosphinic acids according to the scheme (III). The phenyl-dichloro-phosphazo-sulfonaryls may be synthesized as well according to the second phosphazo reaction (IV) (Refs 3,4). With and without solvent not quite pure, crystalline products (by-products) are obtained. The phenyl-dichloro-phosphazo-sulfonphenyl could be obtained according to scheme (IV) (yield 75%) and identified. The phenyl-dichloro-phosphazo-sulfonaryls of the type $ArSO_2N{=}P(C_6H_5)Cl_2$ which were obtained according to scheme (I) are given in the table. There are 1 table and 4 references, 3 of which are Soviet.

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SOV/79-29-3-54/61

Phenyl-dichloro-phosphazo-sulfonaryls

ASSOCIATION: Dnepropetrovskiy metallurgicheskiy institut (Dnepropetrovsk Metallurgical Institute)

SUBMITTED: January 29, 1958

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