S/117/61/000/001/004/013
A004/A001

Using to a Greater Extent Electric Pulse Machines for Repair Works

When TsM-7 and OMM-5 electrodes are used for the welding of sheets up to 12 mm thick, the building-up coefficient amounts to about 10 grams/ampere hour. With the aid of the mentioned electrodes sheet material up to 12 mm can also be cut. The cutting efficiency is 10 m/hour for sheets 3 mm thick and 3 m/hour for sheets of 12 mm thickness. The mechanical properties of the seam metal obtained during tests according to ГОСТ (GOST) 6996-54 are the following: tensile strength - 50 kg/mm^2; yield point - 38 kg/mm^2; cross-section constriction - 30%; impact strength - 8-9 kgm/cm^2; elongation per unit length - 18%. It was found that the strength of the seam exceeded that of the basic metal by 10%. The chemical composition and structure of the built up layers correspond to ordinary welding seams. The author points out that, if pulse generators are used as feed sources at average currents lower than 40 amp, a steady process of build-up metal is ensured. It is possible to recondition by this method both joints with stationary fits and worn surfaces of friction parts, particularyly cams. The thickness of the metal layer amounts to from 0.1 to 0.2 mm. There are 4 figures and 1 table.

Card 4/4

OBRUCNIK, M.

Effect of environment on the histology of interdigital cutaneous glands in the human foot. Biol. listy, Praha 32 no. 4:290-306 1952. (CLML 23:1)

1. Of the Histo-Embryological Institute (Head--Docent Otto Slaby, M. D.) of Charles University Branch in Pilsen.

ČERUČHNÍK, M.

Hist.-embryol. Úst. lék. Fak. Karlovy Univ. pob., Plzni. *O změnách v normálné histologické struktuře kuže interdigitálních prostorů nohy člověka a o jejich vztahu k pathogenese kožních onemocnění těchto krajin. Changes in the normal histological structure of the skin of the interdigital spaces of the foot in man and their relationship to the pathogenesis of skin diseases in these regions ČSL. DERM. 1953, 29/3 (112-125) Illus. 6

Atrophy, parakeratosis, hyperkeratosis, acanthosis, sclerodermal and fibrotic changes and elastosis senilis changes are more frequent in the skin of the interdigital spaces than in other skin regions. The extent of these changes varies from case to case, but after the age of 50 they are more pronounced. Specific anatomical structure and specific functional stress are regarded as causative factors. The shift of the pH towards alkalinity, loss of bactericidal activity, the increased permeability of the atrophied epidermis to water and disturbances in the subepidermal circulation account for the superimposed pathological conditions. Stava - Prague

SC: EXCERPTA MEDICA, Sec. XIII, Vol. 9 No. 2, February 1955

OBRUCNIK M.

EXCERPTA MEDICA Sec 18 Vol 4/2 Cardiovas. Dis. Feb 60

444. **The arrangement and histoarchitectonics of the vasa vasorum of the coronary arteries.** I Usporadani a histoarchitektonika vasa vasorum koronarnich tepen srdce cloveka. I. Sdeleni. OBRUCNIK M. Histol.-Embryol. Ust., Lek. Fak., Palackeho Univ. Olomouc *Acta Univ. palack. Olomucensis* 1958, 15 14 (157–171) Illus. 12

Forty hearts of subjects of various ages were examined. The development of the system of vasa vasorum (V) proceeds with age from the largest arterial branches towards branches of a calibre of 300 to 500 μ. V form a circulatory unity, which is extended by anastomotic connections down to the level of arterioles, and which is also connected with the subepicardial system as well as with vasa nervorum and gangliorum. Intramyocardial arterial branches have no V of their own, but are supplied from periarterial capillary plexuses. Development of the V is completed between the 22nd and the 25th year of life. The densest networks of V are in the area of both coronary arteries, ramus interventricularis ventralis, dorsalis, circumflexus and some branches of the second order in the area of the left ventricle. In these areas one can distinguish the outer and the middle networks of arterioles, with an inner terminal capillary network. Toward the periphery of the coronary tree, the networks of V become relatively simpler. Only the adventitia is vascularized. In normal conditions, no penetration of arterioles or capillaries vasorum into the media was discovered. In the system of V there occur arterioles with a thick media, with a longitudinal or spiral-longitudinal arrangement of the muscular tissue, and with a minute lumen. There are also arterioles with epithelioid cells, which either form unified strata or cushion-like conglomerations, and which occasionally are formed solitarily. These structures occur in arterioles vasorum in various parts of the coronary tree outside the area of intramural branches. Regressive changes affect V of the coronary tree between the 50th and the 70th year in a very distinct way. Before the 45th year almost no regressive changes can be found in healthy individuals. The processes of fibrotization first affect the zone of capillaries on the borderline of media and adventitia, where prior to the fibrotizing process proper an increased condensation of mucopolysaccharide in intracellular substances can be distinguished as early as between the 40th and the 50th year.

[illegible]

MARSHALEK, Yan [Maršalek, Jan]; OBRUCHNIK, Miroslav, dotsent (Chekhoslovakiya. Olomouc Hystologicky ustav L.F.Palackeho universite. Fierlingerova, 10); KOVALEVA-BAYYEROVA, Galina

Histochemical study of the human placenta in different periods of pregnancy with determination of glycoproteins and choriogonadotropin. Arkh.anat.gist. i embr. 37 no.7:29-36 Jl '59. (MIRA 12:10)

1. Kafedra gistologii i embriologii v Olomoutse (zav. - dotsent Miroslav Obruchnik) Akushersko-ginekologicheskaya klinika (zav. - prof.Yan Marshalek).

(PLACENTA,)
(GLYCOPROTEINS,)
(GONADOTROPINS, CHORIONIC)

OBRUCNIK, Miroslav; MARSALEK, Jan

Histochemistry of the placenta in late gestosis. Cas. lek. cesk. 98 no.24:758 12 June 59.

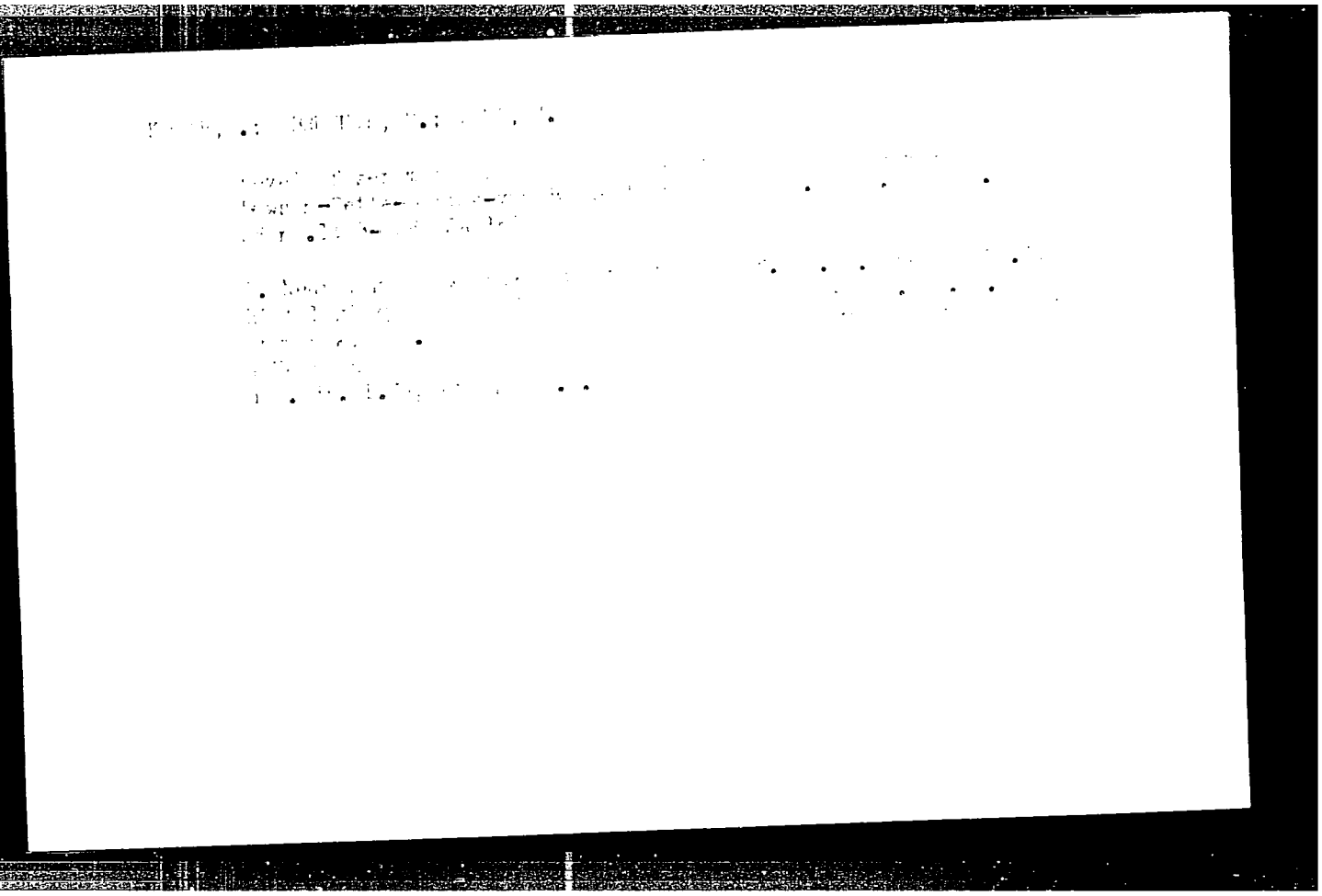
1. Histologickoembryologicky ustav PU v Olomouci, prednosta doc. dr. Miroslav Obrucnik, a Porodnickogynekologicka klinika PU v Olomouci, prednosta prof. dr. Jan Marsalek. J.M., Olomouc, Cernochova 14.

(PLACENTA
histochem. in late gestosis (Cz))
(PREGNANCY TOXEMIAS, metab.
placental histochem. in late gestosis (Cz))

OBRUCNIK, Miroslav; BAYEROVA, Galina

Possibilities in fluorescent and polarization microscopic examinations on the epiphysis in man. Cesk. morf. 10 no.3: 329-335 '62.

1. Histologicko-embryologicky ustav lekarske fakulty Palackeho university v Olomouci, predn. Doc. Dr. Miroslav Obrucnik, C. Sc.
(EPIPHYSES anat & histol) (MICROSCOPY)
(AGING physiol)



ZAYTSEV, Aleksandr Ivanovich, kand.tekhn.nauk, dotsent; OBRUSNIK, Valentin Petrovich, aspirant

Semigraphical calculation of the steady-state characteristics of transformers regulated by shunt excitation. Izv.vys.ucheb.zav.; elektromekh. 7 no.10:1234-1240 '64. (MIRA 18:1)

1. Zaveduyushchiy kafedroy elektrifikatsii promyshlennykh predpriyatiy Tomskogo politekhnicheskogo instituta (for Zaytsev).
2. Kafedra elektrifikatsii promyshlennykh predpriyatiy Tomskogo politekhnicheskogo instituta (for Obrusnik).

S/020/61/136/001/028/037
B004/B056

AUTHORS: Vaynshteyn, E. Ye., Kotlyar, B. I., and Obrutskaya, R. M

TITLE: Investigation of the Fine Structure of X Ray Absorption K Edges of Manganese in MnTe in the Temperature Range of Antiferromagnetic Transition

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 1, pp. 133-135

TEXT: In a paper on absorption spectra of iron in ferrites(Ref. 1) reference was made to a probable relation of some particular features of ferrite structure of X-ray spectra to the influence of antiferromagnetic orderliness of the electron spin. The authors checked this assumption by investigating the temperature dependence of the fine structure of spectra of magnetically active atoms in antiferromagnetics within the Néel temperature (T_N) region. A manganese telluride with T_N = 310°K which was supplied by N. P. Grazhdarkina was used. Iron $K\alpha_{1,2}$ lines were used as comparison. Previous experiments showed that in the case of 1 mg/cm² Mn content a distinct K edge structure is obtained. The best experimental

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Investigation of the Fine Structure of X Ray Absorption K Edges of Manganese in MnTe in the Temperature Range of Antiferromagnetic Transition

S/020/61/136/001/008/017
B004/B056

conditions were 30 kw, 40 ma, exposure 6 hours. Absorption spectra of Mn in MnTe were investigated in the temperature range of 280 - 325°K. Resolution of the apparatus was examined by taking the absorption spectra of pure Mn and of $KMnO_4$. The experimental data lead to the following conclusions: 1) A considerable decrease in energy of the 4p state of the transition metal occurs on the transition from metal to telluride. The long wave displacement of the maximum on the absorption curve of Mn in MnTe attains 5.4 ev. 2) At the absorption edge of para-phase MnTe alloy, a clear "white" absorption line appears which is near the range of initial absorption in the metal spectrum and agrees with the maximum of the intense white $KMnO_4$ absorption line. In the case of $KMnO_4$, the relationship between occurrence of this line in the spectrum and transition of photoelectrons into the hybridized 3d state may assumed to be proved. 3) On approaching the Néel point, the para-phase of MnTe exhibits a systematic and continuous decrease in intensity of the white line which probably is

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Investigation of the Fine Structure of X Ray Absorption K Edges of Manganese in MnTe in the Temperature Range of Antiferromagnetic Transition

S/020/61/136/001/028/037
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indicative of a continuous variation in probability of the respective electron transition. 4) Vanishing or considerable decrease in intensity of the long-wave white line was observed on passing through the Néel point. Position and relative intensity of the first absorption maximum, which are due to transitions of photoelectrons of the absorbing atom within the range of the 4p states of the metal, remain unchanged just like on passing through the Curie point. The problem of interaction between tellurium atoms and manganese atoms requires further investigations. There are 3 figures and 8 references: 6 Soviet, 1 US, and 1 British.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Inorganic Chemistry of the Siberian Division of the Academy of Sciences USSR). Odesskiy pedagogicheskiy institut im. K. D. Ushinskogo (Odessa Pedagogical Institute imeni K. D. Ushinskiy)

PRESENTED: July 4, 1960 by A. P. Vinogradov, Academician

SUBMITTED: June 29, 1960

Card 3/3

OBRYADCHIKOV, A. N.

"The Manufacture of Motor Fuels," Published by Gostoptekhizdat in 1949.

OBRYADCHIKOV, G., inzh.

Re-equipment of marine electric power plants for the feed of windlasses installed on barges. Rech.transp. 21 no.11:48 N '62. (MIRA 15:11)
(Winches—Electric driving) (Electricity on ships)

VASIL'YEV, Yuriy Mikhaylovich; OBNYADCHIKOV, Oleg Sergeyevich; CHARYGIN, M.M., doktor geol.-miner. nauk, prof., red.; DEMENT'YEVA, T.A., ved. red.; POLOSINA, A.S., tekhn. red.

[Outlook for finding oil and gas in the Pliocene sediments of the Caspian Lowland] Perspektivy gazoneftenosnosti pliotsenovykh otlozhenii Prikaspiiskoi vpadiny. Pod red. M.M. Charygina. Moskva, Gostoptekhizdat, 1962. 179 p. (MIRA 15:10)

(Caspian Lowland--Petroleum geology)
(Gaspian Lowland--Gas, Natural--Geology)

1. OBRYADIN, A.
2. USSR (600)
4. Telecommunication--Nenets National Area
7. On the coast of the Barents sea, Sov. sviaz., N_. 10, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

OBRYADIN, A.N.

A cooperative collective. Vest. sviazi 24 no.8:27 Ag '64.
(MIRA 17:10)

1. Redaktor rayonnogo radioveshchaniya Kholmogorskogo rayona Arkhangel'skoy oblasti.

KHANUKOV, A.A.; OBRYADIN, V.G.

Criteria for evaluating the engineering standard and reliability of carburetors. Avt. prom. 31 no.3:7-10 F '65. (MIA 18:3)

1. TSentral'nyy nauchno-issledovatel'skiy i konstruktorskiy institut toplivnoy apparatury avtotraktornykh i statsionarnykh dvigateley.

KAPUSTSIK, E.; OMRYK, E.

[Electromagnetic properties of baryons in a unitary symmetry model] Ob elektromagnitnykh svoistvakh barionov v modeli unitarnoi simmetrii. Dubna, Ob"edinennyi in-t iadernykh issl., 1964. 7 p. (MIRA 17:5)

OBRYVKOVA, Ye I. Cand Vet Sci — (diss) "The gluteal and femoral regions of cattle (anatomical-topographical investigation)," Leningrad, 1960, 20 pp, 220 cop. (Leningrad Veterinary Institute) (KL, 45-60, 127)

MUSIATOWICZ, Jozef; OBRZUT, Alfons Ambrozy

Problem of congenital infections of the newborn. Polski tygod. lek. 13 no.13:472-475 31 Mar 58.

1. Z Kliniki Poloznictwa u Chorob Kobiecych kier. prof. Stefan Soszka i z Zakladu Medycyny Sadowej Akademii Medycznej w Byalimstoku kier. doc. Maria Byrdy.

(LUNGS, abscess
congen., in newborn (Pol))
(INFANT, NEWBORN, dis.
lung abscess, congen. (Pol))

OLENSKI, Feliks; OBRZUT, Ambrozy A.

Case of tuberculous stenosis of the pylorus. Polski tygod. lek. 13 no.23: 880-883 9 June 58.

1. (Z I Kliniki Chirurgicznej A. M. w Bialymstoku; Kierownik: Z-ca prof. dr med. F. Olenski) Adres: Bialystok, ul. Piwna 14. I Klin. Chirurg. A. M. B.

(TUBERCULOSIS, GASTROINTESTINAL, case reports
tuberc. pyloric stenosis (Pol))

WASILEWSKA, Alina; OBRZUT, Ambrozy A.

Oscillometric index and intramuscular and surface temperature of the lower extremities in diabetic patients. Polski tygod.lek. 15 no.39:1486-1490 26 S '60.

1. Z II Kliniki Chorob Wewnetrznych A.M. im. J.Marchlewskiego w Bialymstoku; kierownik: prof. dr med. J.Chlebowski i z I Klin. Chirurgicznej AMB.; kierownik: z-ca prof. dr med. F.Olenski
(DIABETES MELLITUS physiol)
(BODY TEMPERATURE)

OLENSKI, Feliks; OBRZUT, Ambrozy A.

Surface and intramuscular temperature in operations performed under general and local anesthesia. Polski tygod. lek. 16 no.26:985-990 26 Je '61.

1. Z I Kliniki Chirurgicznej A.M. w Bialymstoku, kierownik: z. prof. dr med. Feliks Olenski.

(BODY TEMPERATURE) (ANESTHESIA GENERAL)
(ANESTHESIA LOCAL)

POLAND

[illegible], Ambrozy A., First [illegible] Clinic [illegible] [illegible]; AM [Akademia Medyczna, Medical Academy] in Bial-stok (Director: Acting Prof. Dr. med. [illegible])

"Arterial Pressure and Oscillometery in Persons Who Experienced Trauma of Skull a Long Time after the Shock."

Warsaw-Krakow, Przeglad [illegible], [illegible], Ser II, [illegible], Jun 63, pp 277-281

Abstract: [Author's English summary [illegible]] The study [illegible] prised 224 persons who [illegible] and 1[illegible] normal in-dividuals. Procedure is [illegible] in tables. Author found that [illegible] skull trauma, patients [illegible] systolic arterial pres-sure nearly 3 times more frequently on the arms, and nearly twice as much on the [illegible] as normal persons; in [illegible] after shock, arterial systolic ([illegible]) and diastolic [illegible] pressure increases on the [illegible], and also the systolic [illegible] the arms (2[illegible]), the latter especially if injury was to brain. The oscillometric index of injured persons is [illegible] on the lower extremities than for healthy persons, and still rising immediately after injury. 31 refs: 1[illegible] Soviet, [illegible] Polish.
1/1

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001237720010-8"

DRANOVSKIY, M.G., kand. tekhn. nauk; OBSEDSHEVSKAYA, G.N., red.

[Studying and developing the equipment for thermal rolling of wood] Issledovaniia i razrabotka oborudovaniia dlia termoprokata drevesiny. Moskva, Tsentr. nauchno-issl. in-t informatsii i tekhniko-ekon. issl. po lesnoi, tselliulozno-bumazhnoi, derevoobrabatyvaiushchei promyshl. i lesnomu khoz., 1963. 32 p. (MIRA 17:1)

ACC NR: AR6034808 (N) SOURCE CODE: UR/0398/66/000/008/A071/A071

AUTHOR: Obsekov, V. M.

TITLE: Using bare and powder wire in welding

SOURCE: Ref. zh. Vodnyy transport, Abs. 8A505

REF SOURCE: Proizv.-tekhn. sb. Tekhn. upr. M-va rechn. flota RSFSR, no. 7(51), 1966, 40-42

TOPIC TAGS: welding, wire, shipbuilding engineering, marine engineering, welding wire, powder metal wire

ABSTRACT: A description is given of bare- and powder-wire welding in the construction of diesel propelled ships at the Gomel' Shipyard (SSRZ). Bare-wire welding is carried out with A-547, PSh-54, or A-765 semiautomatic units which are equipped with mechanized feeding of the wire to the welding area, are easy to handle, and are suitable for use in almost-inaccessible spots. The methods recommended for dressing the edges of butt welds are presented. PP-AN2 wire

UDC: 629.12.002:621.791

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ACC NR: AR6034808

1.2, 1.4, 1.6, 1.8, 2, and 3 mm in diameter is suggested for use in powder-wire welding. V. Fomenko. [Translation of abstract]

SUB CODE: 13/

Card 2/2

OBSENEV, S. I. i MIKHAYLOVA, . M. V.

20066 OBSENEV, S. I. i MIKHAYLOVA, M. V. Sanitarnoye sostoyaniye reki upy v rayone tuly. Gigiyena i sanitariya, 1949, No. 6, s. 12-16.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.

OBSHADKO, B.

OBSHADKO, B.

Teaching technological planning. Prof. -tekh.obr. 11 no.1:21-24 '54.
(MLRA 7:6)

1. Prepodavatel' remeslennogo uchilishcha No.21 (Moscow).
(Turning) (Technical education)

OBSHADKO, Borie Iosifovich; BLINCHEVSKIY, F.L., redaktor; SIDEL'NIKOVA, E.I., redaktor; [redacted], A.P., tekhnicheskiy redaktor.

[Methods of teaching turning] Metodika prepodavaniia tokarnogo dela. Izd.2-e, perer. i dop. Moskva, Vses. uchebnopedagog. izd-vo, Trudrezerv-izdat, 1956. 261 p. (Turning) (MLRA 9:5)

OBSHADKO, B. (Moskva)

Teaching in technical schools. Prof.tekh.obr. 13 no.4:3-6 Ap '56.
(MLRA 9:8)

1. Prepodavatel' tekhnicheskogo uchilishcha No. 7.
(Technical education)

SLEPININ, Vladimir Aleksandrovich; OBSHADKO, Boris Iosifovich; LEVINSON, Semen Yakovlevich [deceased]; PASTUKHOV, V.M., nauchn. red.; GORYUNOVA, L.K., red.; DORODNOVA, L.A., tekhn. red.

[Collection of problems and laboratory exercises for studying machining on lathes] Sbornik zadanii i laboratornykh rabot po tokarnomu delu. Izd.3., perer. i dop. Moskva, Vses. uchebno-pedagog. izd-vo Proftekhizdat, 1960. 226 p. (MIRA 14:9)
(Turning—Study and teaching)

OBSHADKO, B., prepodavatel'

Studying mechanization and automatization during the course on "Turning." Prof.-tekh.obr. 17 no.2:10-14 F '60. (MIRA 13:6)

1. Tekhnicheskoye uchilishche No.7, Moskva.
(Turning--Study and teaching)

OBSHADKO, Boris Iosifovich, inzh.; BILINSKIY, M.Ya., red.; DORODNOVA, L.A., tekhn. red.

[Technological processes in machining on lathes; manufacture of standard parts] Tekhnologiia tokarnoi obrabotki; izgotovlenie tipovykh detalei. Moskva, Vses. uchebno-pedagog. izd-vo Proftekhizdat, 1961. 374 p. (MIRA 14:9)
(Turning) (Machine-shop practice)

OBSHADKO, B., prepodavatel'

Development of student thinking along technological lines.
Prof.-tekh. obr. 18 no.5:10-13 My '61. (MIRA 14:8)

1. Tekhnicheskoye uchilishche No.7, g. Moskva.
(Turning)

OBSHADKO, Boris Iosifovich; GOL'DIN, I.I., nauchnyy red.; SAZIKOV, M.I., red.; DORODNOVA, L.A., tekhn. red.

[Theory of tolerances tolerances and fits.Caecking and measuring instruments and the techniques of measurement; methodological manual]Poniatie o dopuskakh i posadkakh. Kontrol'no-izmeritel'nye instrumenty i tekhnika izmereniia; metodicheskoe posobie. Moskva, Proftekhizdat, 1962. 59 p.
(MIRA 15:9)

(Tolerance (Engineering)) (Gauges) (Mensuration)

OBSHADKO, Boris Iosifovich; PASTUKHOV, V.M., nauchnyy red.; BOBROVA, T.L., red.; GORYUNOVA, L.K., red.; NESMYSLOVA, L.M., tekhn. red.

[Methodology of teaching machining on lathes] Metodika prepodavaniia tokarnogo dela. Izd.3., perer. i dop. Moskva, Proftekhizdat, 1963. 281 p. (MIRA 16:4)
(Turning)

OBSHADKO, B., prepodavatel'

Horizons of a worker and innovator. Prof.-tekh. obr. 21 no.5:17-20 My '64. (MIRA 17:6)

1. Professional'no-tekhnicheskoye uchilishche No.40, Moskva.

GORYANINOV, Mikhail Abramovich. Prinimal uchastiye GRISHADKO, B.I., inzh.; GAGIN, B.S., nauchn. red.; BONDAROVSKAYA, G?V., red.; TOKER, A.M., tekhn. red.

[Industrial training of lathe operators] Proizvodstvennoe obuchenie tokarei. Izd.3., perer. i dop. Moskva, Prof-tekhizdat, 1963. 299 p. (MIRA 17:1)

LAPSHIN, N.M.; OBUKHOVENKO, N.I., KRUPPEL', M.L.

Paramagnetic properties of polycyclopentadiene. Zhur.strukt. khim. 5 no. 2:305-307 Mr-Ap '64. (MIRA 17:6)

1. Filial Instituta khimicheskoy fiziki AN SSSR, Voglosk i Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete.

DEMBOVETSKIY, V.P.; YEFIMENKO, G.M.; OBSHAROV, V.M.; ZHIGULEV, P.G.

Distribution of the temperature of the gas flow in a charge layer during various charging conditions. Izv. vys. ucheb. zav.; chern. met. 7 no.8:35-39 '64. (MIRA 17:9)

1. Sibirskiy metallurgicheskiy institut.

ZHEREBIN, B.N. prof., KHROMOV, I.A., kand. tekhn. nauk;
MISHIN, P.P., inzh., YEFIMENKO, G.M., inzh., OBSHAROV, V.M., inzh.; KAYEV, Y.G., inzh.

Automatic units of the distribution of blast to blast furnace tuyeres at the Kuznetsk Metallurgical Combine. Stal' 24, no.4:299-302 Ap '64. (MIRA 17:5)

OB SHAROV, V. M.

Influence of certain factors on the extent of oxidizing zone in blast furnaces. B. N. Zherebin, V. M. Minkin, I. D. Nikulinskii, V. M. Otstavov, I. A. Suchkov, and M. Ya. Ostroukhov (Met. Combine, Kuznetsk). *Stal'* 16, No 5, 391-6(1956).—A series of studies conducted on com. furnaces (well described) showed that an increased blast vol. lengthens the oxidation zone. A slight lengthening of it was recorded with an increased moisture content, provided the blast temp. was correspondingly raised to compensate for H_2O decompn. Higher blast temp. widens it, but does not lengthen it. Increased kinetic energy of the blast has a beneficial effect only when it is large. Increased top pressure reduces the length of the oxidation zone. J. D. Gat

SOV/133-58-12-4/19

AUTHORS: Chernov N.N., (Candidate of Technical Science), Docent, Zhigulev P.G., Baranovskiy P.G., Obsharov, V.M., Rayev, Yu. O., and Kargin A.A., (Engineers).

TITLE: An Automatic Control of the Operation of a Blast Furnace Based on the Drop in Static Pressure (Avtomaticheskoye regulirovaniye khoda domennoy pechi po perepadu staticheskogo davleniya)

PERIODICAL: Stal', 1958, Nr 12, pp 1071-1077 (USSR)

ABSTRACT: The Central Automation Laboratory designed experimental equipment for the automatic control of blast furnace operation based on the pressure drop between the bustle pipe and furnace throat. The signal from the differential manometer acted in turn on the following controls: top pressure, temperature and humidity of blast, blast volume. The equipment was tested on a furnace in the Zaporozhstal' Works in 1954 and on the Kuznetsk Metallurgical Combine in 1956. It was soon found that the system as designed was unworkable. The investigations carried out in the Kuznetsk Combine indicated that changes in top pressure influence mainly the pressure drop between the throat and the middle of the stack, and changes in the blast

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An Automatic Control of the Operation of a Blast Furnace Based on the Drop in Static Pressure

humidity, blast temperature and blast volume affect mainly the pressure drop between the middle of the stack and tuyere level. It was therefore decided to base the automatic control on partial pressure drops between the tuyere level and the middle of the stack and between the middle of the stack and the throat. These partial drops in static pressure were measured with two DPES type differential manometers with a double electronic bridge (two standard electronic bridges operating on to a common recording strip). The reliability of the operation of this equipment depends mainly on the state of the opening in the furnace stack for measuring static pressure. This was successfully solved by arranging the opening through a cooler and cleaning it by a pneumatically operated rod (Figs 1 and 2). The recorded curve of the pressure drop between the above two levels during normal furnace operation is shown in Fig 3; during top hanging of the burden in Fig 4; during bottom hanging in Fig 5, and when the hearth is filled with iron and

An Automatic Control of the Operation of a Blast Furnace Based on the Drop in Static Pressure

slag, Fig 6. After preliminary investigation of the influence of the individual operating factors on the partial pressure drops a scheme for the automatic control was evolved, the electrical circuit diagram of which is given in Fig 7. If the top pressure drop exceeds a certain value then the controls will bring about a certain increase in the top pressure. If after some predetermined time the top pressure drop is not returned to its normal value then the blast volume will decrease by increments with a certain time interval between each increment. When a complete permitted correction of the blast volume is made, the controller of the bottom pressure drop is put into operation and begins to correct the temperature or humidity and volume of the blast. As a result of the above corrections the pressure drop may be restored to the required value. If the bottom pressure drop does not exceed normal value, then the blast volume begins to increase until it is returned to normal value and is then followed by the restoration of the top pressure. If the

An Automatic Control of the Operation of a Blast Furnace Based on the Drop in Static Pressure

bottom pressure drop exceeds the normal value then the controller of the top pressure drop is not permitted to restore normal operating conditions, but instead the controller of the bottom pressure drop begins to introduce corrections at first of blast temperature or moisture (in stages of 20°C and 2g/m^3) and then of the blast volume. Between each correction a time interval of 5 - 7 minutes is maintained. The restoration of the normal operating conditions is done in reverse order. If the pressure drop falls below the predetermined value, then at first either the blast temperature is increased or its humidity decreased and then the blast volume is

An Automatic Control of the Operation of a Blast Furnace Based on the Drop in Static Pressure

increased. The system was tested during a period of two weeks and in the great majority of cases gave the correct solutions.
There are 7 figures.

ASSOCIATION: Sibirskiy metallurgicheskiy institut i Kuznetskiy metallurgicheskiy kombinat (Siberian Metallurgical Institute and Kuznetsk Metallurgical Combine)

ZHEREBIN, B.N.; DEMBOVETSKIY, V.P.; MINKIN, V.M.; NIKULINSKIY, I.D.; Prinimali uchastiye: OBSHAROV, V.M., inzh.; BAYEV, Yu.O., inzh.; ZHIGULEV, P.T., inzh.; SUCHKOV, I.A., inzh.; BEREZKIN, B.S., inzh.; NEKRASOV, V.M., inzh.; ZHUKOVICH, A.I., inzh.

Use of coke-oven gas in blast furnaces. Stal' 21 no.8:673-679 Ag '61. (MIRA 14:9)

1. Kuznetskiy metallurgicheskiy kombinat i Sibirskiy metallurgicheskiy institut.
(Blast furnaces—Equipment and supplies)

OBSHAROVA, A.M.

Treatment of the skin impregnated with coal dust. Ortop., travm. i protez. no.4:72 '62. (MIRA 15:5)
(SKIN--WOUNDS AND INJURIES) (MINE DUSTS--TOXICOLOGY)

OBSIEGLE, J.

Contribution to the theory and calculation of vibratory machines. p. 1145.

(TEHNIKA. Vol. 12, No. 7, 1957, Beograd, Yugoslavia)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 10, October 1957. Uncl.

VORISKOVA, M.; Technicka spoluprace: OBSILOVA, F.

Diagnostic value of the amyl nitrite test. Cesk. pediat. 20 no.8:693-698 Ag '65.

1. II. detska klinika fakulty detskeho lekarstvi Karlovy University v Praze (prednosta prof. dr. J. Houstek, DrSc.).

YEGOROV, V.I., mayor meditsinskoy sluzhby; OSKIY, V.D., kapitan meditsinskoy sluzhby

Open fracture of the shin combined with chemical burns. Voen.-med. zhur. no.3:76-77 '65. (MIRA 18:11)

YEGOROV, V.I. (Moskva, st. [illegible] Berezhnaya, [illegible] zheleznoy dorogi. Do vostrebovaniya); KHEKHIN, A.F.; Kh[illegible], Yu.A.; OBSKIY, V.D.

Healing of fractures in Arctic regions. (Ortop., travm. i protez. 26 no.3:29-31 Mr '65. (MIRA 18.7)

OBST, B.

SLOPEK, Stefan; METZGER, Mieczyslaw; OBST, Bronislawa; HUDNICKA, Irena

Serological varieties of Shigella flexneri types 1, 2, 3, & 4. Arch. immun. ter. dosw. 5:59-76 1957.

(SHIGELLA
serol. varieties of Shigella flexneri types 1, 2, 3, & 4
(Pol))

OBST, Bronislaw

METZGER, Mieczyslaw; OBST, Bronislaw

Reduction of trimethylamine oxide (Wood-Baird test) as a test for the differentiation of enteric bacteria. Med. dosw. mikrob. 10 no.1: 41-46 1958.

1. Z Dzialu Bakteriologii i Antybiotyki w Instytutu Immunologii i Terapii Doswiadczalnej PAN im. L. Hirszfelda we Wroclawiu.

(BACTERIA
Enterobacteriaceae, differentiation by trimethylamine oxide reduction (Pol))

SKURSKI, A.; SLOPEK, St.; MICHALSKA, E.; OBST, B.

Studies on the mechanisms of the phagocytic reaction. II. Phagocytosis and S-R Dissociation of Gram-negative Bacilli). J.hyg. epidem., Praha 3 no.4:389-392 1959.

1. Polish Academy of Sciences, Hirszfeld's Institute of Immunology and Experimental Therapy, Wroclaw.
(PHAGOCYTOSIS)

OBST, B.

6

URNAME, Given Names

Country: Poland

Academic Degrees:

Affiliation:

Source: Warsaw, Postepy Higieny i Medycyny Doswiadczalnej, Vol XV, No 4, 1961, pp. 389-390.

Data: "Phagocytosis of Gram-Negative Bacteria in Sera of Various Species."

English abstract of /English/ article, originally published in Pathol et Microbiol, 1960, 23, 297.

Authors:

SLOPEK, Stefan, Prof. Dr., Director of the Ludwik Hirszfeld Institute of Immunology and Experimental Therapy (Instytut Immunologii i Terapii Doswiadczalnej im. Ludwika Hirszfelda), Polish Academy of Sciences (PAN--Polska Akademia Nauk), Wroclaw.

SKURSKI, A.

LISOWSKI, J.

MICHALSKA, E.

OBST, B.

OBST, J.; MATYASKO, J.

"Furniture Made of Honeycomb Sheets", P. 8, (TECHNICKE NOVINY, Vol. 2, No. 9, May 1954, Praha, Czechoslovakia)

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

OBST, Milan, inz.

Preparation of feldspar for ceramic purposes. Sklar a keramik 14 no. 3: 93-94 Mr '64.

1. Research Institute of Coarse Ceramics and Raw Material Preparation, Karlovy Vary.

L 18257-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD 63
ACCESSION NR: AP3002125 S/0185/63/008/006/0694/0699 59

AUTHOR: Psar'ov V. I., Kostur M. L., Obstra A. V.

TITLE: On phase separation in alloys of Cd-Sb and In-Sb systems by centrifuging the melt.

SOURCE: Ukrains'kyy fizychnyy zhurnal, v. 8, no. 6, 1963, 694-699

TOPIC TAGS: phase separation, centrifuge separation, excess phase, liquid phase, alloy, melt, crystal growth, silver alloy, electrical conductivity, thermal electromotive force, thermal E.M.F., transport phenomena, mercury alloy, InSb, CdSb, centrifuge.

ABSTRACT: The authors suggested a method for separation of crystals of CdSb and InSb compounds from the liquid excess phase (Cd, In) by means of centrifuging the liquid melt. The composition of compounds and cooling conditions are given in a table. It was found that processes of crystal growth and separation of phases take place simultaneously as the melt is moving. The method was used for alloying CdSb crystals through alloys of Cd -- Sb and their subsequent separation from the excess component of the alloy, the alloyed Cd. The CdSb compound was alloyed with up to 1 to 1.5% of silver. This resulted in an increase in

Card 1/4

L 18257-63

ACCESSION NR: AP3002125 2

electrical conductivity and decrease in thermal electromotive force. The CdSb compound was also alloyed with mercury, with no appreciable effect on either electrical conductivity or thermal electromotive force. The results are shown on Figs. 1 and 2 in enclosures 01 and 02, respectively. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Chernivets'ky*y Derzhuniversy*tet. (Chernivets State University)

SUBMITTED: 24 Nov 62	DATE ACQ: 12 Jul 63	ENCL: 02
SUB CODE: PH	NO REF SOV: 005	OTHER: 001

Card 2/4

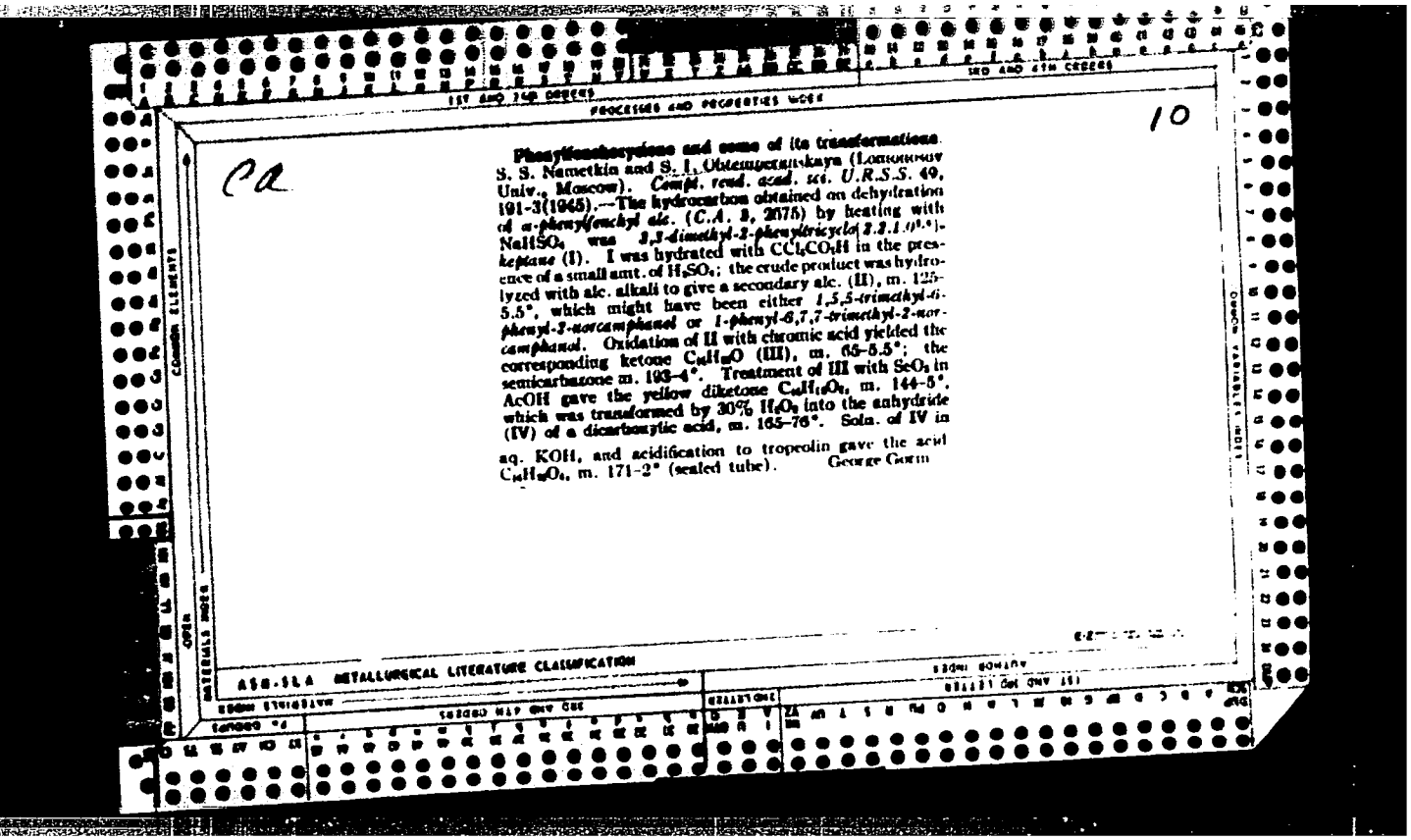
OBRUCHEV, I. Ye.

37239. Proyekta programmy gosudarstvennoy pochvennoy karty SSSR. (Kratkaya informatsiya). Pochvovedenie, 1940, No. 11, s. 688-95

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

OBSYANNIKOV, Nikolay Nikolayevich; MAYSKAYA, N.I., red.; IL'YUSHENKOVA, T.P., tekhn. red.

[The SP-22 accounting machine; textbook for teaching the technique of machine operation] Bukhgalterskaia mashina modeli SR-22; posobie dlia obucheniia tekhnike raboty na mashine. Moskva, Gosstatizdat, 1961. 71 p. (MIRA 15:3)
(Accounting machines)
(Machine accounting--Study and teaching)



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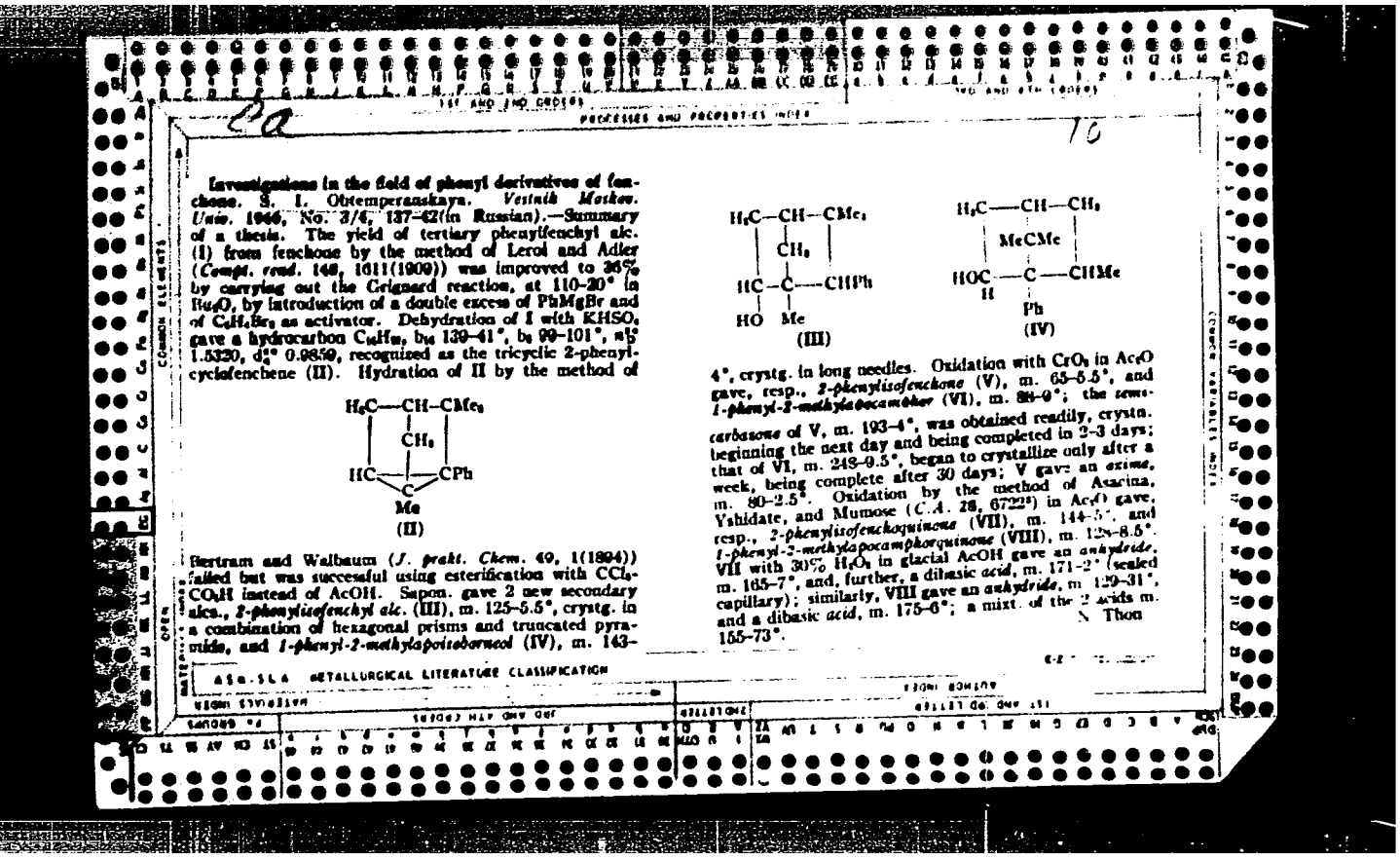
10

Phenylfluorenthecydene and some of its transformations. S. S. Nametkin and S. I. Obtemyerantskaya (Lomonosov Univ., Moscow). *Compt. rend. acad. sci. U.R.S.S.* 49, 191-3(1945).—The hydrocarbon obtained on dehydration of *α-phenylfenchyl alc.* (*C.A.* **3**, 2075) by heating with $NaHSO_4$ was *3,3-dimethyl-2-phenyltricyclo[2.2.1.0^{2,6}]-heptane* (I). I was hydrated with CCl_3CO_2H in the presence of a small amt. of H_2SO_4; the crude product was hydrolyzed with alc. alkali to give a secondary alc. (II), m. 125-5.5°, which might have been either *1,5,5-trimethyl-6-phenyl-3-norcamphanol* or *1-phenyl-6,7,7-trimethyl-2-norcamphanol*. Oxidation of II with chromic acid yielded the corresponding ketone $C_{16}H_{20}O$ (III), m. 65-5.5°; the semicarbazone m. 193-4°. Treatment of III with SeO_2 in AcOH gave the yellow diketone $C_{16}H_{18}O_2$, m. 144-5°, which was transformed by 30% H_2O_2 into the anhydride (IV) of a dicarboxylic acid, m. 165-76°. Soln. of IV in aq. KOH, and acidification to tropeolin gave the acid $C_{16}H_{20}O_4$, m. 171-2° (sealed tube). George Gorin



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PROCESSES AND PRODUCTS INDEX

76

Investigations in the field of phenyl derivatives of fenchone. S. I. Obtemperanskaya. *Vestnik Moskov. Univ.* 1946, No. 3/4, 137–62(in Russian).—Summary of a thesis. The yield of tertiary phenylfenchyl alc. (I) from fenchone by the method of Lerol and Adler (*Compt. rend.* 148, 1611(1909)) was improved to 36% by carrying out the Grignard reaction, at 110–20° in Bu_2O, by introduction of a double excess of PhMgBr and of $C_6H_4Br_2$ as activator. Dehydration of I with $KHSO_4$ gave a hydrocarbon $C_{16}H_{20}$, bp 139–41°, bp 99–101°, n_D^{15} 1.5320, d_4^{15} 0.9850, recognized as the tricyclic 2-phenylcyclofenchene (II). Hydration of II by the method of

(II)

Bertram and Walbaum (*J. prakt. Chem.* 49, 1(1894)) failed but was successful using esterification with CCl_3CO_2H instead of AcOH. Sapon. gave 2 new secondary alcs., *2-phenylisofenchyl alc.* (III), m. 125–5.5°, crystg. in a combination of hexagonal prisms and truncated pyramids, and *1-phenyl-2-methylapoisoborneol* (IV), m. 143–

(III)

(IV)

4°, crystg. in long needles. Oxidation with CrO_3 in Ac_2O gave, resp., *2-phenylisofenchone* (V), m. 65–5.5°, and *1-phenyl-2-methylapocamphor* (VI), m. 88–9°; the *semicarbazone* of V, m. 193–4°, was obtained readily, crystn. beginning the next day and being completed in 2–3 days; that of VI, m. 248–9.5°, began to crystallize only after a week, being complete after 30 days; V gave an *oxime*, m. 80–2.5°. Oxidation by the method of Asacina, Yshidate, and Mumose (*C.A.* 28, 6722[8]) in Ac_2O gave, resp., *2-phenylisofenchoquinone* (VII), m. 144–5°, and *1-phenyl-2-methylapocamphorquinone* (VIII), m. 128–8.5°. VII with 30% H_2O_2 in glacial AcOH gave an *anhydride*, m. 165–7°, and, further, a dibasic *acid*, m. 171–2° (sealed capillary); similarly, VIII gave an *anhydride*, m. 129–31°, and a dibasic *acid*, m. 175–6°; a mixt. of the 2 acids m. 155–73°.

A5a-5L4 METALLURGICAL LITERATURE CLASSIFICATION

OBTEMPERANSKAIA, S.

Ushakova, N. and Obtemperanskaia, S.(Reviews and Bibliography) Defense of candidate dissertations at the Scientific Soviet of the Faculty of Chemistry in January and February, 1951. P. 150

SO: Herald of the Moscow University, Series on Physics-Mathematics and Natural Sciences, No. 3, No. 5, 1951

OBTEMPERANSKAYA, S.I.; AKTSHIN, P.A.

In the department of chemistry. Vest.Mosk.un. 8 no.8:177-178 Ag '53. (MLRA 6:11)
(Chemistry)

YEVSEYEV, A.M.; OBTEMPERANSKAYA, S.I.

In the Department of Chemistry. Vest.Mosk.un. 9 no.6:147-149 Je '54. (MLRA 7:8)
(Chemistry)

USSR/Chemistry - Dissertations OBTEMPERANSKAYA, S. I.

Card 1/1 : Pub. 129-24/25

Author : Obtemperanskaya, S. I.

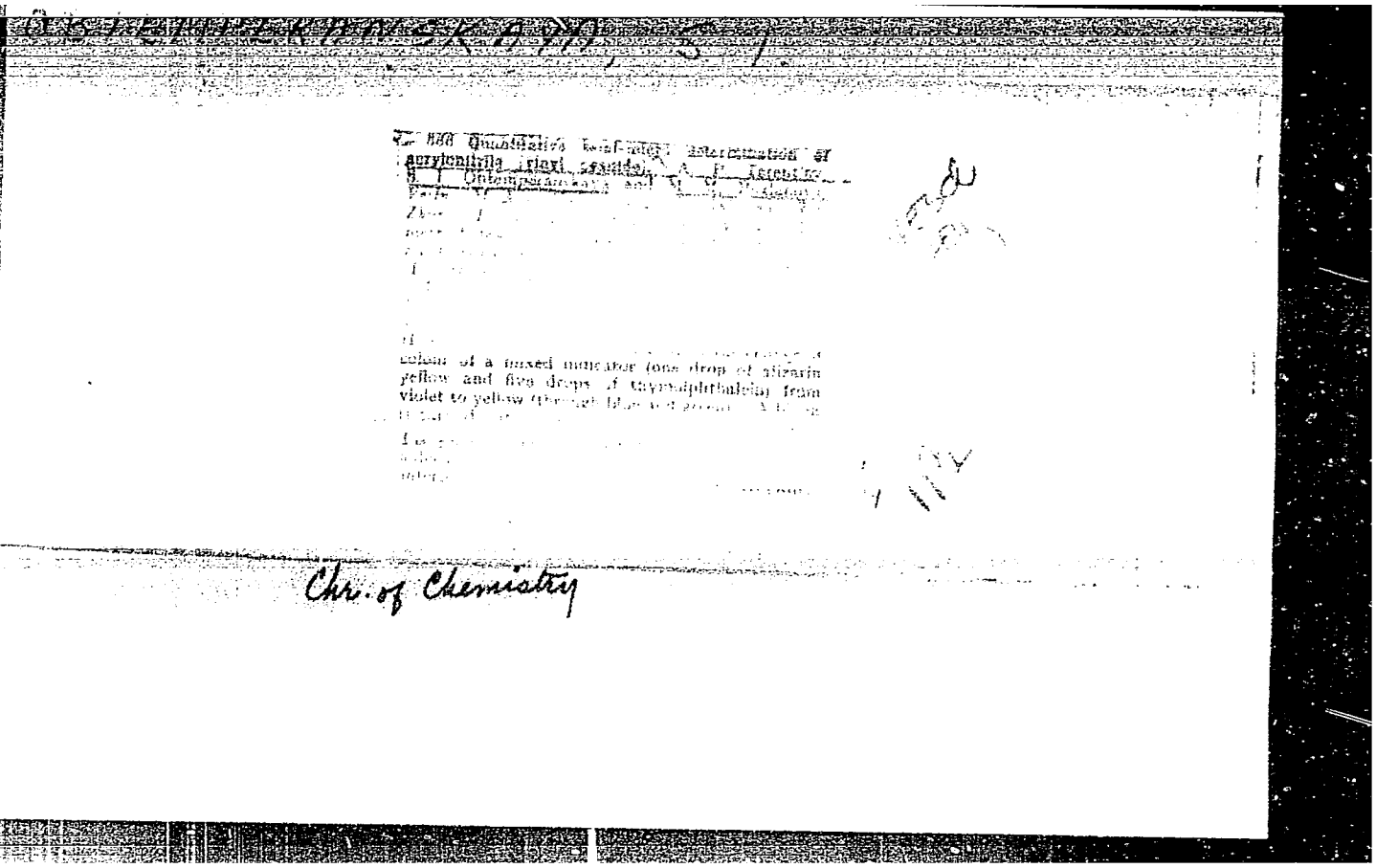
Title : The defense of doctoral dissertations. At the chemistry faculty.

Periodical : Vest. Mosk. un Ser. fizikomat. i yest. nauk, Vol 10, 187-188, Feb 1955

Abstract : On 10 December 1954, V. M. Peshkova defended the doctoral dissertation "Theoretical Principles and Practical Application of Oximes in Analysis". The official opponents were Corr-Mem Acad Sci Professor A. P. Terent'yev, Professor V. I. Kuznetsov, and Professor L. M. Kul'berg. On 12 November 1954, P. N. Kovalenko defended the doctoral dissertation, "Method of Combined Electrochemical Analysis". The official opponents were Corr. Med Acad Sci I. P. Alimarin, Professor Z. A. Iofa and Doctor Chem Sci. A. I. Busev. Both dissertations received favorable comments.

Institution :

Submitted :



Chr. of Chemistry

OBTEMPERANSKAYA, S.I.

In the Department of Chemistry. Vest.Mosk.un.11 no.5:149-152 My '56. (MLRA 9:10)
(Chemistry--Research)

OBTEMPERANSKAYA, S. I.

3

1-4E2c

2 may

2260. Determination of acrylonitrile [vinyl cyanide] by means of sodium sulphite. A. P. Terent'ev and S. I. Obtemperanskaya (M.V. Lomonosov Moscow State Univ.). *Zhur. Anal. Khim.*, 1956, 11 (5), 633–639.—The method is based on the determination of the amount of NaOH produced in the reaction—

$$CH_2{:}CHCN + Na_2SO_3 + H_2O = CH_2(SO_3Na)CH_2CN + NaOH.$$

The sample of vinyl cyanide (0·05 to 0·08 g) is contained in an ampoule which is broken under 3 to 5 ml of dioxan, 25 ml of 0·25 *N* Na_2SO_3 is added and the NaOH formed is titrated after 1 to 1·5 hr. with 0·1 *N* HCl in the presence of thymolphthalein. The method is accurate to ±0·2%. G. S. Smith

OBTEMPERANSKAYA, S.I.; TERENT'YEV, A.P.; BUZLANOVA, M.M.

Quantitative determination of thioalcohols and thiophenols. Vest.Mosk.un.Ser.mat., mekh., astron., fiz., khim. 12 no.3: 145-147 '57. (MIRA 11:3)

1.Kafedra organicheskoy khimii Moskovskogo gosudarstvennogo universiteta.

(Chemistry, Analytical--Quantitative) (Alcohol) (Phenols)

AUTHORS: Terent'yev, A. P., Obtemperanskaya, Z. I., 307/156-58-1-20/46
Yermolenko, N. V.

TITLE: The Determination of Chlorine and Bromine in Organic Compounds by Means of Magnesium Nitride (Opredeleniye khlora i broma v organicheskikh soyedineniyakh pri pomoshchi nitrida magniya)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 83-85 (USSR)

ABSTRACT: Many methods of determination of halide in organic compounds are known. A critical survey of the usual methods (Refs 1 -5) is given. These methods have certain shortcomings. The method suggested by the authors may be carried out easily, it is quick and not dangerous. It is based upon a reductive decomposition of a chlorine- and bromine-containing substance by magnesium nitride at 650 - 800°. Then the haloid ion in the formed magnesium hydrogen salt is determined by means of the argentometric titration according to Fol'gard. No quantitative reproducable results were obtained in the iodine determination. The reaction mass does not smelt with the glass and may be removed easily from test tube. No explosions take place if the reaction product is acidified. The method of production of

Card 1/2

The Determination of Chlorine and Bromine in Organic Compounds by Means of Magnesium Nitride

SOV 156-58-1-20/46

magnesium nitride is described. The quantitative chlorine- and bromine determination in organic compounds is divided in a semi-micromethod and a micromethod. The determination results are given in table 1 (semi-micromethod, 18 organic compounds, and in table 2 (micromethod, 8 compounds). The errors occurring do not surpass + 0.3%, compared to the content, determined theortically. There are 2 tables and 5 references, 4 of which are Soviet.

ASSOCIATION: Kafedra organicheskoy khimii Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Chair of Organic Chemistry of the Moscow State University imeni M.V. Lomonosov)

SUBMITTED: October 15, 1957

Card 2/2

OBTEMPERANSKAYA S I

AUTHORS: Terent'yev, A. P., Obtemperanskaya, S. I., 32-2-12/60
Buzlanova, M. M.

TITLE: Potentiometric Method for the Determination of Acrylnitrile With Sodiumsulfite (Potentsiometricheskiy metod opredeleniya akrilonitrila s pomoshch'yu sul'fita natriya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 157-157 (USSR)

ABSTRACT: Although acrylnitrile is produced industrially there is no satisfactory method for its determination. For this reason the present method was developed. It is based on the reaction between acrylnitrile and sodiumsulfite:

$$CH_2=CH\cdot CN + Na_2SO_3 + H_2O \rightarrow \begin{matrix} CH_2-CH_2CN \\ | \\ SO_3Na \end{matrix} + NaOH$$

To the dried and distilled sample of the substance dioxane and a certain amount of 0,5 n sodiumsulfite solution is

Card 1/2

Potentiometric Method for the Determination of Acryl- 32-2-12/60
nitrile With Sodiumsulfite

added. After having stirred with an agitator the solution to be investigated is titrated potentiometrically with 0,1 n hydrochloric acid in a bulb. According to a table mentioned the accuracy of the method is between 99,77 and 100,25 %. There is 1 figure.

ASSOCIATION: Moscow State University, imeni M. V. Lomonosov
(Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

AVAILABLE: Library of Congress

1. Acrylnitrile-Determination 2. Sodium sulfite-Applications
3. Titration

Card 2/2

AUTHORS: Terent'yev, A. P., Obtemperanskaya, S. I., SOV/32-24-7-12/65
Buzlanova, M. M.

TITLE: A Potentiometric Method of the Determination of Acrylonitrile With the Help of Hydroxylamine (Potentsiometricheskiy metod opredeleniya akrilonitrila s pomoshch'yu gidroksilamina)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 7, pp. 814 - 815 (USSR)

ABSTRACT: For the quantitative determination of acrylonitrile the reaction with hydroxylamine was used:

$$CH_2=CH.CN + NH_2OH \longrightarrow \underset{NHOH}{CH_2}-CH_2 CN$$

The reaction proceeds quantitatively in a neutral or weakly alkaline medium. The forming β-hydroxyl-amino proprionitrile can be titrated potentiometrically with a 0,1 n hydrochloric acid solution, if the excess quantity of free hydroxylamine is bound by acetone. A ЛП-5 lamp potentiometer and a glass electrode were used. The oxime produced in the reaction of hydroxylamine with acetone is neutral and does not disturb the determination. The results obtained from parallel determinations with pure

Card 1/2

A Potentiometric Method of the Determination of Acrylonitrile With the Help of Hydroxylamine

SOV/32-24-7-12/65

acrylonitrile are given in table, together with the exact prescription for the analysis. This method can be used for the quantitative determination of acrylonitrile in colored solutions. There is 1 table.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im.M.V.Lomonosova (Moscow State University imeni M.V.Lomonosov)

Card 2/2

SOV/156-59-2-22/48

5(2), 5(3)

AUTHORS: Terent'yev, A. P., Obtemperanskaya, S. I., Dolgikh, V. A.

TITLE: The Qualitative Determination of Sulphur, Halogens, Carbon, Phosphorus, Arsenic, Antimony and Bismuth in Organic Compounds by Means of Magnesium Nitride (Kachestvennoye opredeleniye sery, galoidov, ugleroda, fosfora, mysh'yaka, sur'my i vismuta v organicheskikh soyedineniyakh pri pomoshchi nitrida magniya)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 2, pp 305-306 (USSR)

ABSTRACT: The determination is based upon the reducing decomposition of the organic substance by magnesium nitride (Mg_3N_2) at 650-800°. In this connection the halogens form magnesium - halogen compounds, sulphur is partly separated as hydrogen sulphide, partly it forms magnesium sulphide; arsenic, antimony and bismuth are partly precipitated on the walls in elementary form, partly they form arsenide, antimonide and bismuthide together with magnesium; phosphorus forms magnesium phosphide and carbon is separated as coal and carbon black after acidification with nitric acid. The individual elements are determined according to the usual qualitative methods.

Card 1/2

SOV/156-59-2-22/48

The Qualitative Determination of Sulphur, Halogens, Carbon, Phosphorus, Arsenic, Antimony and Bismuth in Organic Compounds by Means of Magnesium Nitride

There is 1 Soviet reference.

PRESENTED BY: Kafedra organicheskoy khimii Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Chair of Organic Chemistry, Moscow State University imeni M. V. Lomonosov)

SUBMIT...: November 28, 1958

Card 2/2

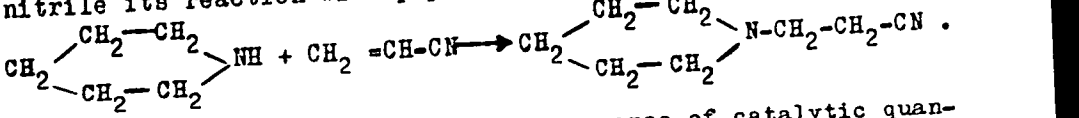
SOV/75-14-4-27/30

5(3)
AUTHORS: Terent'yev, A. P., Buzlanova, M. M., Obtemperanskaya, S. I.

TITLE: Quantitative Determination of Acrylonitrile by Means of Piperidine

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 4, p 506 (USSR)

ABSTRACT: The authors used for the quantitative determination of acrylonitrile its reaction with piperidine:



The reaction is quantitative in the presence of catalytic quantities of acetic acid. The formed β-(N-piperidyl)-propionitrile has basic properties and can be titrated with acid. The weighed-in sample of acrylonitrile is treated at room temperature during 30 minutes with an excess of piperidine. The piperidine excess is bound by acetic anhydride and the β-(N-piperidyl)-propionitrile then is titrated with a solution of concentrated hydrochloric acid in anhydrous methanol. A mixture of methyl red and methylene blue is used as indicator. The amide and the acetic acid formed in the reaction of piperidine with acetic anhydride do not

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Quantitative Determination of Acrylonitrile by Means of Piperidine

SOV/75-14-4-27/30

disturb the titration. Prior to the analysis the acrylonitrile has to be dried over calcium chloride and distilled. Purified dioxane is used as solvent for the reaction. As piperidine may always contain impurities though it has been thoroughly purified and as these impurities react with acid and are not bound by acetic anhydride, a blank test has to be conducted simultaneously with the determination. Acrylic acid and its esters disturb the described determination method; ethylene cyanohydrin does not disturb the determination. For checking the method the authors determined acrylonitrile also with the sulfite method (Ref 2). The results are in good accordance. One table lists the results of 6 determinations with the new method. The error does not exceed 0.3%. The paper contains a detailed description of the preparation of the methanolic hydrochloric acid and the indicator as well as the process of determining acrylonitrile. There are 1 table and 2 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: April 3, 1958

Card 2/2

OBTEMPERANSKAYA, S.I.; LIKHOSHERSTOVA, V.N.

Quantitative microdetermination of boron in organic compounds by combustion in oxygen. Vest.Mosk.un.Ser. 2: Khim. 15 no.1:57-59 '60. (MIRA 13:7)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.
(Boron--Analysis)

TERENT'YEV, A.B.; OBTEMPERANSKAYA, S.I.; BUZLANOVA, M.M.; VLASOVA, T.Ye.

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