

MATKA, MIROSLAV

CZECHOSLOVAKIA/Analytical Chemistry - Analysis of Organic Substances. E-3

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 1424.

Author : Matka Miroslav, Navratil Frantisek, Filipi Josef

Inst :

Title : Analytic Determination of Indigosol Dyestuffs

Orig Pub: Chem. promysl, 1957, 7, No 7, 343-347.

Abstract: For the determination of indigosol dyestuff a potentiometric method is proposed which is based on oxidation of the leucoform of the dye with Ce-sulfate, K-bichromate or iron-ammonium alum. The method yields best results on determination of polycyclic dyes which are the derivatives of anthraquinone. When applied to dyestuffs of indigoid type the method does not yield reliable results. Admixtures of stabilizers and dispersing agents found in the dyestuffs are identified by the method of paper chromatography.

Card : 1/1

MATRKA MIROSLAV

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Application. Industrial Synthesis of Dyestuffs I-2

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2244

Author : Hanousek Vitazslav, Matrka Miroslav

Inst : -

Title : Oxidation of the Leuco-Base of Malachite Green with Sodium Bichromate in the Presence of Oxalic Acid.

Orig Pub : Chem. listy, 1956, 50, No 12, 1969-1973; Sb. Chekhosl. khim. rabot, 1957, 22, No 2, 473-478

Abstract : A study of the effect of the rate of addition of the oxidizing agent on the yield of malachite green (I), on oxidation of its leuco-base with $Ce(SO_4)_2$ or with $Na_2Cr_2O_7$ in the presence of oxalic acid. The experiments were conducted in a medium of 0.1 N- H_2SO_4 and the yields of I were determined colorimetrically. Satisfactory yields can be obtained only on a rapid addition of the oxidizing agent. On slow addition or on prolonged interruption during the

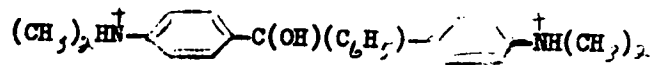
Card 1/2

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and
Their Application. Industrial Synthesis of Dyestuffs

I-2

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2244

addition of the oxidizing agent the yields are greatly reduced. The authors assume that a protonization and hydration of the I, that is formed, take place, with formation of the cation of the carbinol base (II), which is extremely sensitive to overoxidation, and further



II

that on oxidation of the leuco-base to I in the presence of oxalic acid there is formed an intermediate, reactive complex.

Card 2/2

MATRKA, M.; SAGNER, Z.

"Reductometric determination of anthraquinone by means of vanadium (II) sulfate. In German."

p.1131 (Sbornik Chekhoslovatskikh Khimicheskikh Rabot, Vol. 22, no. 4, Aug. 1957, Praha, Czechoslovakia)

Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 8, August 1958

CZECHOSLOVAKIA / Organic Chemistry, Synthetic Organic Chemistry. G-2

Abs Jour : RZhKhim., No 10, 1958, No 32426

Author : Vitezslav Hanousok, Miroslav Matrka.

Inst : Not given

Title : Dissociation of Diphenoquinono-(4,4')-bis-dimethylammonium
in Aqueous Medium [sic]

Orig Pub : Chem. listy, 1957, 51, No 2, 341-348; Sb. chokhosl. khim.
rabot, 1957, 22, No 5, 1464-1472.

Abstract : The spontaneous dissociation of diphenoquinono-(4,4')-
bis-dimethylammonium sulfate (I) in acid and alkaline media
was studied. In both cases the I solution was filtered after
having aged 48 hours and after the alkalization of the acid
solution; CH_2O was detected in the filtrate. The precipi-
tate was treated with $n\text{-CH}_3\text{C}_6\text{H}_4\text{SO}_2\text{Cl}$ in $\text{C}_5\text{H}_5\text{N}$, after which
 $n, n' \text{-} \text{C}_6\text{H}_4\text{N}(\text{CH}_3)_2$ (II) and a mixture of substances were
separated. $n, n' \text{-} (\text{CH}_3)_2\text{NC}_6\text{H}_4\text{C}_6\text{H}_4\text{N}(\text{CH}_3)\text{SO}_2\text{C}_6\text{H}_5\text{CH}_3$ (III) and
 $n, n' \text{-} \text{C}_6\text{H}_4\text{N}(\text{CH}_3)\text{SO}_2\text{C}_6\text{H}_4\text{CH}_3$ (IV) were separated from that

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CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs J. ur : RZhKhim., No 10, 1958, No 32426

mixture by chromatography on Al_2O_3 . The yields of CH_2O , II, III and IV (III and IV recouped into non-tosylated products) are correspondingly in % as follows: in acid medium - 50.5, 32.5, 14.0 and 12.0; in alkaline medium - 37.5, 44.0, 8.5 and 6.0. The following mechanism of I dissociation is suggested based on the obtained results, as well as on the magnitudes of oxidation-reduction potentials of N-methyl- and N,N-dimethylbenzidine, II, n,n' -(C_6H_4)₂(V) and n,n' -(CH_3)₂NC₆H₄N(CH₃)₂ (VI), which are 0.92, 0.90, 0.87, 0.86 and 0.86 v respectively and which have been determined by potentiometric titration with $Co(SO_4)_2$; I is aromatized by the subtraction of electrons from the methyl group with the simultaneous splitting off of a proton. The produced cation is neutralized by OH ions in N,N,N'-trimethyl-N'-oxymethylbenzidine, which decomposes further into VI and CH_2O ; VI oxidizes at the expense of I to diphenquinone-

Card 2/4

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs Jour : RZhKhim., No 10, 1958, No 32426

225° (from alcohol), or $n, n' - \text{CH}_3\text{CONH}(\text{C}_6\text{H}_4)_2\text{N}(\text{CH}_3)\text{SO}_2\text{C}_6\text{H}_4\text{H}_3$, yield 88%, melting point 168 to 169° (from alcohol). By the treatment of $n, n' - (\text{CH}_3)_2\text{N}(\text{C}_6\text{H}_4)_2\text{NH}_2$ or IX with $\text{C}_6\text{H}_5\text{H} \text{ } n - \text{CH}_3 - \text{C}_6\text{H}_4\text{SO}_2\text{Cl}$ (24 hours, about 20°), N, N' -dimethyl-VIII yield 92%, melting point 206 to 207° (from absolute alcohol)/, or X/yield about 100%, melting point 231 to 233° (from alcohol)/ is produced correspondingly, the latter is converted by hydrolysis (8 hours of boiling with 1.25 n. NaOH) into VIII, yield about 100%, melting point 163 to 168° (from alcohol). All the melting points are corrected.

Card 4/4

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MATRKA, M.

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and
Application, Part 3. - Industrial Synthesis
of Dyes. H

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 71732.

Author : Miroslav Matrka, Zdeněk Sagner.

Inst :

Title : Titration of Triphenylmethane Dyes in Presence
of Sodium Xylolsulfonate.

Orig Pub: Chem. průmysl, 1958, 8, No 1, 22-24.

Abstract: The use of VSO_4 as a reagent and the substitution
of alcohol with sodium m-xylolsulfonate in the
above mentioned method simplify and improve the
determination method; that method yields accurate
enough and reliable results.

Card : 1/1

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Organic Substances.

Abs Jour : Ref Zhur - Khimiya, No 10, 1959, 34656

Author : Matrka, Miroslav; Navratil, Frantisek

Inst : Not given

Title : Titration of 2-Naphthol-Sulfonic Acids with Iodine

Orig Pub : Chem. prumysl, 1958, 8, No 7, 363-364

Abstract : A method for the quantitative analysis of 2-naphthol-6-sulfonic acid, 2-naphthol-7-sulfonic acid and 2-naphthol-3,6-disulfonic acid, was described. Direct titration with a solution of iodine was employed. 0.005 gram/mole of the substance were dissolved in 3 ml of a 2.5 N aqueous solution of Na_2CO_3 and the diluted with water to 250 ml. To 25 ml of the solution thus obtained, 50 ml of the buffer solution at a pH of 7 were added. Potentiometric titration with a 0.1 N solution of I_2 was

Card 1/2

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Organic Substances.

E

Abs Jour : Ref Zhur - Khimiya, No 10, 1959, 34656

Author : Matrka, Miroslav; Navratil, Frantisek

Inst : Not given

Title : Titration of 2-Naphthol-Sulfonic Acids with Iodine

Orig Pub : Chem. prumysl, 1958, 8, No 7, 363-364

Abstract : A method for the quantitative analysis of 2-naphthol-6-sulfonic acid, 2-naphthol-7-sulfonic acid and 2-naphthol-3,6-disulfonic acid, was described. Direct titration with a solution of iodine was employed. 0.005 gram/mole of the substance were dissolved in 3 ml of a 2.5 N aqueous solution of Na_2CO_3 and the diluted with water to 250 ml. To 25 ml of the solution thus obtained, 50 ml of the buffer solution at a pH of 7 were added. Potentiometric titration with a 0.1 N solution of I_2 was

Card 1/2

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Organic
Substances. E

Abs Jour : Ref Zhur - Khimiya, No 10, 1959, No. 34656

was effected using platinum and saturated calomel
electrodes. The error incurred by using the above method
was -0.25%. -- N. Turkevich

Card 2/2

E - 5

CZECHOSLOVAKIA/Laboratory Equipment. Instrumentation

F

Abs Jour : Ref Zhur - Khim., No 11, 1959, No 38470

Author : Matrka M., Smetana B., and Sagner Z.

Inst :

Title : A Burette for Reductometric Titrations

Orig Pub : Chem Prunysl, 8, No 7, 367-368, 1958

Abstract : In view of the fact that solutions of $TiCl_3$, $Ti_2(SO_4)_3$, and $CrCl_3$, which are used in practical chemical analysis in reductometric titrations, are oxidized by atmospheric oxygen on standing, the authors have designed a burette in which a 'gas seal' is maintained by H_2 produced by the reaction of HCl with Zn in a vessel attached to the burette. -- Ya. Satunovskiy

Card : 1/1

F-12

MATRKA, M.

TECHNOLOGY

PERIODICAL : CHEMICKY PRŮMYSL, VOL. 8, no. 11, 1958

Matrka, M. Bromination as an analytic method of analyzing triphenylmethane dyes. p. ~~581~~.
583

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 5,
May 1959, Unclass.

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of ^{E-3}
~~Organic Substances~~
APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R032932910012-9"

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27154.

Author : Gasparic, J. and Matrka, M.

Inst : Not given.

Title : The Identification of Organic Substances. XXII.
Paper Chromatography of N-Alkylated Benzidines.

Orig Pub: Chem Listy, 52, No 4, 749-750 (1958) (in Czech).

Abstract: The authors report the separation and identification of sixteen alkylated derivatives of benzidine (D) by chromatography on paper impregnated with 25% alcoholic solution of dimethylformamide (I), 10% alcoholic formamide (II), 10% kerosene (III) solution in cyclohexane (IV), or 10% α -bromonaphthalene (V) in chloroform and dried for 15 min in air. The chromatograms were developed with the following

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CZECHOSLOVAKIA / Analytical Chemistry: Analysis of E-3
Organic Substances,

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27154.

Abstract: mixtures: I-IV, II-IV, III-80% CH_3OH , and V-2% CH_3COOH ; the latter mixture is effective for tetra-alkylated B. The B is deposited on the paper in the form of 0.5-1% solutions in benzene. The chromatograms are developed by the descending method and the B are detected by spraying with a mixture of 0.1 N $\text{C}(\text{SO}_4)_2$ in 4 N H_2SO_4 and water (1 : 3); the CE (4+) oxidizes the B to the corresponding quinone diimines which are characteristically colored. Unsubstituted benzidine gives a yellow-greenish color which with increasing alkyl substitution changes to orange. The spots on the chromatogram appear immediately after spraying and do not fade for several hours. The minimum detectable quantity of B is 1-2. In systems with fixed polar phases the R_f

Card 2/3

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of E-3
Organic Substances.

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27154.

Abstract: values increase with increasing alkyl substitution;
when the inverted phase method is used, the R_f val-
ues decrease with increasing number of alkyl sub-
stituents. For Communication XXI see RZhKhim,
1958, 57228. -- K. Kamen

Card 3/3

85

Country : Czechoslovakia
Category : Analytical Chemistry. Analysis of Organic Substances. E-3
Abs. Jour. : Ref. Zhur.-Khimiya No. 6, 1959 19195
Author : Matrka, M.; Hanousek, V.
Institut. :
Title : Oxidimetric Determination of Malachite Green with Cerium(4+) Sulfate.
Orig Pub. : Chem. listy, 1958, 52, No 4, 755-757

Abstract : The new method of quantitative determination of malachite green (I) consists in potentiometric titration of the corresponding carbinol (II) with an oxidizing agent -- a solution of $Ce(SO_4)_2$. In the course thereof I is oxidized to diphenoquinone-(4,4')-bis-dimethylammonium and benzoic acid. Commercial I is first converted to II to separate it from oxidizable admixtures, for example $(COOH)_2$. The method is suitable for analysis of brilliant green (III), which need not be converted to the II. To a solution of 0.5 g I in 100 ml water are added 10 ml 1 N solution NaOH, precipitate of II is filtered off after 20 minutes on a G3 filter, washed with 20 ml 0.1 N solution NaOH, dissolved in 50 ml
Card: 1/3

Country : Czechoslovakia E-3
Category :
Abs. Jour. : 19195
Author :
Institut. :
Title :
Orig. Pub. :

Abstract : of 1 N H_2SO_4 , the solution is diluted with water to 100 ml and 10 ml thereof are titrated potentiometrically with 0.1 N solution of $Ce(SO_4)_2$, in 5% solution of H_2SO_4 using a smooth Pt-electrode and a Hg_2Cl_2 electrode. The potential is established instantaneously, at the point of equivalence (at about 590 mv) there is observed a well defined sudden change (200 mv per 0.1 ml of 0.1 N solution of Ce^{4+}). 1 ml 0.1 N solution Ce^{4+} corresponds to 8.66 mg II, 12.07 mg I in the form of oxalate, or 12.06 mg II [sic]. The results of potentiometric titration differ from the results of redoxmetric titration with 0.1 N solution of VSO_4 (by

Card: 2/3

E-46

Country : Czechoslovakia
Category :

E-3

Abs. Jour. :

19195

Author :
Institut. :
Title :

Orig Pub. :

Abstract : approximately 1%). The method is not suitable for analysis of crystal violet, methyl violet, and of the sulfonated dyes of this group. -- J. Vanecek.

Card: 3/3

~~XXXXXXXXXX~~ MATRKA, M.

Distr: AE20(1)

A note on the oxidation mechanism of Malachite Green. Vlastislav Matrka and Jaroslav Matrka (Výzkumný ústav chemického průmyslu, ČSAV, Chem. Abstr. 57: 177C (1956)). The oxidative fusion of Malachite Green (I) to EtOH and diphenylamine (II) is proved to proceed by way of a labile cyclopropane deriv. (III). This view is supported by the results of oxidation of an equimolar mixt. of I and Brilliant Green (IV) which gives exclusively sym. II and diphenylamine. 5,5'-dimethylbenzidine deriv. (V) whereas the asym. dyes, dimethylamine-N'-diethylamino-4-phenylphenol (VI) give only the asym. diphenylamine-4-phenylphenol (VII) and 5,5'-diethylbenzidine deriv. (VIII). Oxidation of a mixt. of PhNMe₂ and PhNEt₂ gives a mixt. of all three possible products, II, V, and VII. This result supports the tetrahedral course of the oxidative fusion. Dissolving 1 g. I in 100 ml. H₂O and 100 ml. N H₂SO₄, stirring the mixt. 2 hrs., adding 20 ml. 4N C₂H₅O₂ and 20 ml. 0.2N Na₂Cr₂O₇, stirring for 10 min., adding 0.5 g. Zn dust, alkalizing the soln. with NaOH to brilliant yellow, stirring, washing the ppt. with H₂O, drying at 100°, and extr. with EtOH gave 92.9% N,N,N',N'-tetramethylbenzidine (VIII), m. 194°. Acidification of the alk. filtrate gave 97.9% EtOH 194°. Acidification of 0.1 millimole VI with C₂H₅O₂ and Nor-Blander treatment with Zn dust, and paper chromatography CrO₃ reduction with Zn dust, and paper chromatography CrO₃ of the resulting mixt. revealed the presence of VII, N,N'-N,N'-tetramethylbenzidine (IX), and N,N'-dimethyl-N,N'

diethylbenzidine (X). 2, 0.36, 0.70, and 0.68, resp., on Whatman No. 2 impregnated with 10% 1-bromonaphthalene in EtOH and eluted with 7% AcOH. Similar procedure with an equimolar mixt. of I and IV gave only VIII and IX and not even a trace of X. Treating an equimolar mixt. of not even a trace of X. Treating an equimolar mixt. of PhNMe₂ and PhNEt₂ with C₂H₅O₂ and Na₂Cr₂O₇ and subsequently reducing with Zn dust gave VIII, IX, and X. Treating 0.027 g. p-MeNC₆H₄CH₂PhOH in 5 ml. H₂O and 5 ml. N H₂SO₄ with 2 ml. 2N C₂H₅O₂ and 4 ml. 0.1N Na₂Cr₂O₇, adding after 5 min. 0.2 g. Zn dust, and alkalizing the mixt. with NaOH gave by benzene extr. traces of VIII and IX. Stirring and heating 11.2 g. acetylbenzidine, 30 g. p-MeC₆H₄Et, 15 g. NaHCO₃, and 105 ml. H₂O 15 hrs. at 60-70°. Filtering off the cryst. product (12.3 g.), dissolving in 20 ml. C₂H₅N, adding 8 g. p-MeC₆H₄SO₂Cl in 10 ml. C₂H₅N, dig. the mixt. after 2 hrs. with 200 ml. H₂O and 35 ml. HCl, stirring, and treating the filtrate with 140 ml. 2.5N Na₂CO₃ gave 79% N,N'-dimethyl-N'-acetylbenzidine (XI), m. 163-6° (EtOH). Reducing 2.5 g. XI with 10 ml. HCl 3 hrs. and 5° (EtOH). Reducing 2.5 g. XI with 10 ml. HCl 3 hrs. and 5° (EtOH). Reducing the mixt. with NH₄OH gave 92% N,N'-diethylbenzidine (XII), m. 194-6° (EtOH). Stirring 2.4 g. XII, 3.8 g. Me₂SO, 2 g. NaHCO₃, and 50 ml. H₂O 3 hrs. at room temp., heating the mixt. 2 hrs. at 60°, adding 10 ml. 40% NaOH, reducing 2 hrs., cooling, sept. the solid product (2.8 g.), dissolving it in 10 ml. C₂H₅N, refluxing with 0.5 ml. Ac₂O, with H₂O, and recrystg. from 90% EtOH gave 71% X, m. 94.5-5°. M. Hazlíček

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JGJ

MATRKA, M.

1
 Rates of diazotization of aromatic amines. M. Matřka
 and V. Vanětek (Vysoká škola chem.-technol., Pilsen, Czech.).
Chem. zpr. 1959, 290-305; cf. *CA* 46, 6541b. The electro-
 metric dead-stop method was used to follow quantitatively the diazotization
 of aromatic amines. The effects of the concn. of HCl, temp.,
 replacement of HCl with HBr, H₂SO₄, and H₃PO₄, as well as the effects
 of substituents in the amine ring upon the rate of diazotization were
 studied. The bimolecular character of diazotization reaction was confirmed.
 Alexej B. Bořkovec

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1-729 (We)

MATRKA, M.

7

Gravimetric estimation of anthraquinone-sulfonic acids by means of benzidine. *Mitsuru Makiya, Prantick Nav-
 200 and Subashree Dasgupta (Vidya Bhavati, Mysore, For-
 1968-1970, India). Lab. Reports 9, 411-20 (1968).*

To the hot melt of 0.5 g. alkali salt of anthraquinone-sul-
 fonic acid in 80 ml. of water and 20 ml. 2.5N HCl was added
 20 ml. of hot aq. of benzidine (1 g. in 20 ml. of concd. HCl
 and 20 ml. of water). After standing 1 hr. in an ice bath,
 it was filtered, washed 3 times with 5 ml. of ice water, and
 dried at 105° to const. weight. The method was worked out
 on the salts of anthraquinone-1-sulfonic acid, anthraquinone-
 1-sulfonic acid, anthraquinone-1,8-disulfonic acid (K salt),
 anthraquinone-1,8-disulfonic acid, anthraquinone-1,8-disul-
 fonic acid, and anthraquinone-1,7-disulfonic acid. The ac-
 curacy is at 1.5% and can be raised by considering the soly-
 of benzidine salts of the above acids in N HCl. The draw-
 back of this method is that the eventually present alkali
 sulfates are detd. simultaneously. P. Chakrav-

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99(HA)

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CZECHOSLOVAKIA / Analytical Chemistry. Inorganic Analysis. E

Abs Jour : Ref Zhur - Khimiya, No 23, 1959, No. 81970

Author : Matrka, Miroslav; Navratil, František

Inst : Not given

Title : Photometric Determination of Nitrite with
N,N'-Tetramethylbenzidine

Orig Pub : Chem. prumysl, 1959, 9, No 2, 75-77

Abstract : A new method for the photometric determination of NO_2^- ions was developed, based on the oxidation by NO_2^- ions of N,N'-tetramethylbenzidine to orange-colored diphenoquinone (absorption maximum at 475 m μ), containing the cation $(\text{CH}_3)_2\text{N}^+ = \text{C}_6\text{H}_4 = \text{C}_6\text{H}_4 = \text{N}^+(\text{CH}_3)_2$. To 1 ml 0.1% solution of N,N'-tetramethylbenzidine in 1 N. HCl, 9 ml 1 N. HCl and 0.5-3 ml NaNO_2 solution to be analyzed

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CZECHOSLOVAKIA / Analytical Chemistry. Inorganic Analysis. E

Abs Jour : Ref Zhur - Khimiya, No 23, 1959, No. 81970

(0.01 g NaNO_2 in 1 liter) are added, allowed to stand for 15 min., diluted with water to 100 ml, and the optical density of the solution is measured at 500 m μ (bluish-green light filter) after 3 hours, using "3.5" [sic] cells. Beer's law is obeyed at NO_2^- concentrations 30 $\mu\text{g}/\text{ml}$. Oxidizing agents (CrO_4^{2-} , MnO_4^- , Ce^{+4}) and reducing agents (SO_3^{2-} , $\text{S}_2\text{O}_4^{2-}$) interfere. -- N. Turkevich

Card 2/2

MATRKA, M.

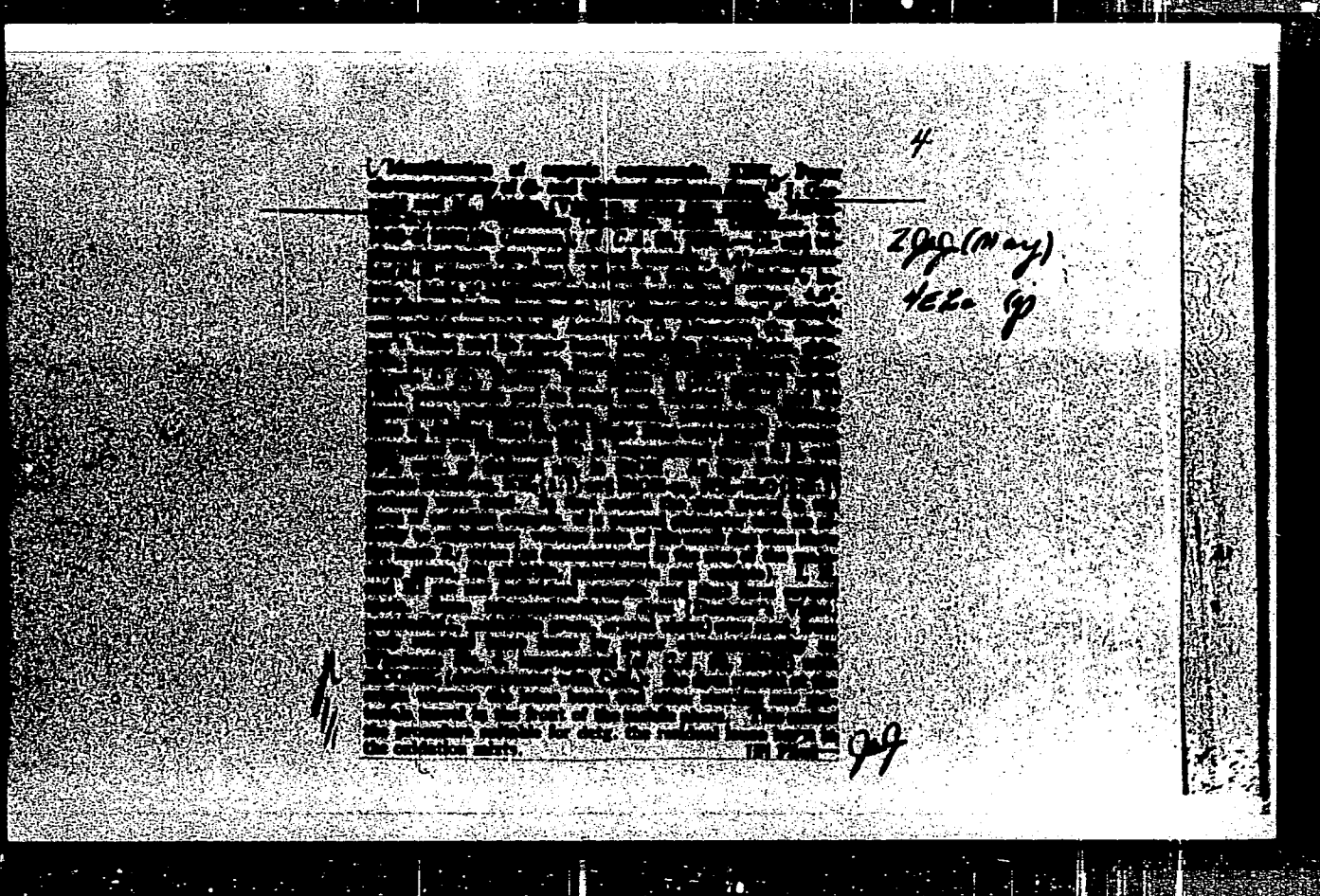
An international colloquim on azo dyes in Pardubice. p. 85

CHEMICKÉ PRŮMYSLI. (Ministeratvo chemického průmyslu) Praha, Czechoslovakia
Vol. 9, No. 2, Feb. 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 7, July 1959
Uncl.

COUNTRY : Czechoslovakia E-3
CATEGORY :
ABS. JOUR. : RZhKhim., no. 1959, no. 8 & 302
AUTHOR : Matrka, M.; Hancusek, V.
INST. :
TITLE : Oxymetric Determination of Malachite Green
with Cerium(4+) Sulfate.
ORIG. PUB. : Collect. Czechosl. Chem. Commun, 1959, 24,
No 4, 1347-1350
ABSTRACT : See RZhKhim, 1959, No 6, 19195.

CARD:



MA7RKA, m

The polarographic study of hydroxy triphenylmethanes
 from V. M. Kovaly, M. J. Prastik, N. V. Kovaly, and G. J. Chab
 (1974) *Collection of Czechoslovak Chemical Communications*,
 Chem. papers 19, 129-132 (1970). — First, 5×10^{-4} mole of a
 dye was dissolved in 20 ml. of EtOH. Then a mixt. of 1 ml.
 of the dye soln., 0.5 ml. of 0.5% gelatin soln., 3 ml. EtOH, and
 0.5 ml. of buffer soln. was placed in a Kalmus cell with a
 med. HgCl electrode in a stream of N. The polarographic
 behavior of Aurin, Eriochrome Aspirin B, Chromocyanine Blue
 R, Chromocyanine Brown 5R, and Naphthochromone Aurin
 was followed on an app. of the Heyrovsky V201 type. The
 dependence of the half-wave potentials on pH and the concn.
 curve of Aurin is shown. In the range of pH 6-8, a two-
 step (two-electron) reduction of the anion of benzoin
 through the radical form, was observed. The height of
 both the waves depends on the content of EtOH in the soln.
 Also, changes in the soln. of Aurin, probably due to oxida-
 tion, were observed. P. Catein...

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MATHKA, M.

Photometric determination of benzidine, diphenylpicrylhydrazyl, *o*-benzidine, *p*-benzidine, and *o*-diaminodiphenylmethane. V. Kratochvíl, M. Mathka, and J. Marhold (Výzkumný ústav org. syntézy, Písek, Československo). *Collection Czech. Chem. Commun.* 25, 101-7 (1960) (in German).—The detn. of small amts. of benzidine (I), *o*-benzidine, diphenylpicrylhydrazyl (II), *o*-tolidine, and *o*-diaminodiphenylmethane is based on the tetraazotization of the amines and their coupling with *N*-ethyl-1-naphthylamine (III) in aq.-alc. soln. The tetraazotized amines react first with one, then much more slowly with the second mol. of the passive component. The diazotization is carried out in 0.1N HCl soln. at 0-5° with 1% NaNO₂ soln.; the excess NaNO₂ is destroyed after 8-10 min. with 5% aq. soln. of NH₄SO₃; after 2-3 min., 0.5% soln. of III in 90% EtOH is added; the soln. is acid. with EtOH to a standard vol., and the extinction is measured at 620 or 545 m μ (for I or II, resp.).
 M. Hudlíček

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29 (NA)

Z/009/60/000/03/005/028
E112/E253

AUTHORS: Matrka, M., Navrátil, F., and Fišar, C

TITLE: Polarographic Study of Hydroxi-triphenyl-methane
Dyestuffs ✓

PERIODICAL: Chemický průmysl, 1960, Nr 3, pp 129-132

ABSTRACT: The authors present a detailed contribution to polarographic investigations of hydroxi-triphenyl-methane dyestuffs. The literature mentions that the reduction on the dropping mercury electrode of trihydroxy-triphenyl-methane (aurine) and its substituents, proceeds in two distinct mono-electronic waves. The authors offer the following electronic explanation: in mesomeric structure I, the dyestuff loses its quinone configuration and acquires a positive charge on the central carbon atom. Simultaneously oxygen acquires a negative charge. During reduction an electron is taken up by the central carbon atom, producing a free radical of structure II. In the second phase an additional electron is taken up producing the unstable form III, having a lone pair of electrons with a negative charge. This is stabilised into the anion of the leuco-base by acquiring a proton. The

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Z/009/60/000/03/005/028
E112/E253

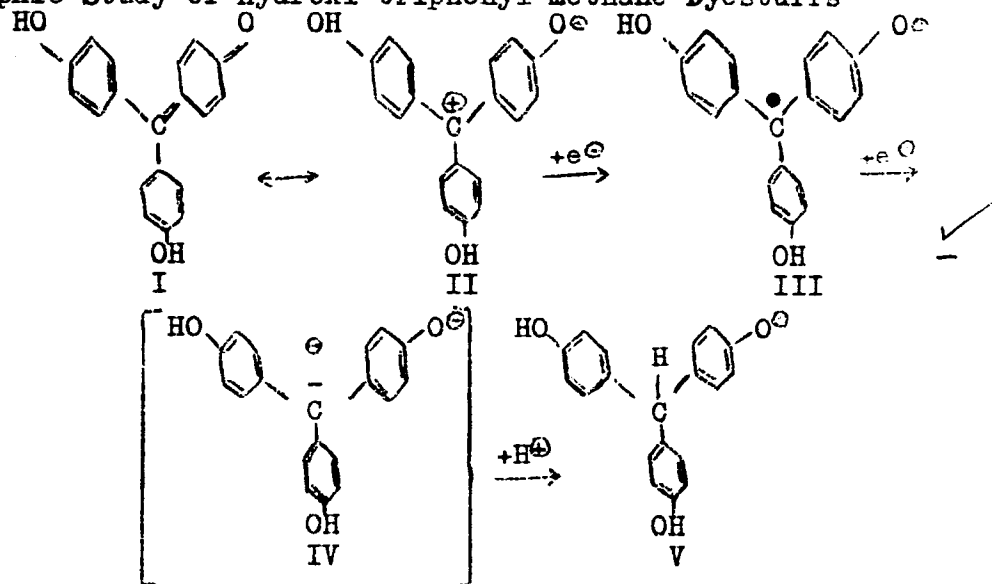
Polarographic Study of Hydroxi-triphenyl-methane Dyestuffs

two-step reduction is therefore explained by the existence of a free radicle. The authors have studied the polarographic behaviour under neutral, alkaline and acid conditions. The most characteristic two-step waves were obtained in a neutral medium whereas acidic conditions suppressed it. Under alkaline conditions a not very well developed one-step dielectronic wave was obtained. The authors have established that basic dyestuffs, such as malachite green, show analogous polarographic properties to aurine. Two independent mono-electronic waves were obtained under neutral conditions. The authors have also established that the peak of the polarographic waves depends to a high degree upon the quantity of ethanole used as a solvent. They conclude that a standard solution of aurine undergoes a structural change, which manifest itself by decrease of peak of wave. ✓

Card 2/4

Z/009/60/000/03/005/028
E112/E253

Polarographic Study of Hydroxi-triphenyl-methane Dyestuffs



Card 3/4

Z/009/60/000/03/005/C28
E112/E253

Polarographic Study of Hydroxi-triphenyl-methane Dyestuffs

There are 5 figures, 2 tables and 8 references, 3 of which are Soviet, 2 English, 2 Czech and 1 Swedish.

ASSOCIATION: Výzkumný ústav organických syntéz, Pardubice-Rybitví ✓
(Research Institute for Organic Syntheses, Pardubice-
Rybitví) -

SUBMITTED: July 13, 1959

Card 4/4

MATRIKA, Miroslav; SAGNER, Zdenek; STERBA, Vojeslav; ARIENT, Josef

Decomposition mechanism of some basic triphenylmethane dyes in aqueous medium. Chem prum 11 no.11:574-577 N '61.

1. Vyskumny ustav organickych syntes, Pardubice-Rybitvi.

MATRKA, M.

Oxidation of N,N,N',N'-tetramethyl-4,4'-diamino-p-terphenyl. Coll
Cs Chem 26 no.3:827-833 Mr '61. (KAI 10:9)

1. Organisch-technologisches Laboratorium I, Forschungsinstitut für
organische Synthesen, Pardubice-Rybitvi.

(Terphenyl) (Methyl group) (Amino group)

MATEKA, M.; NAVRATIL, F.; STERBA, V.; ARIENT, J.

Potographic determination of 2,2'-bis-pyrazoleanthrone in the presence of pyrazoleanthrone. Coll Cz Chem 26 no.7:1763-1767 J1 '61.

1. Organisch-technologisches Laboratorium I, Forschungsinstitut für organische Synthesen, Pardubice-Rybitví.

(Anthrone) (Pyrazole)

MATRKA, M.; POSKOCIL, J.; SAGNER, Z.; STERBA, Z.

Oxydation of N,N,N',N'-tetraethyl-4,4'-diaminoazobenzene with cerium (IV)-sulfate. *Coll Cs Chem* 26 no.12:3177-3180 D '61.

1. Organisch-technologisches Laboratorium I, Forschungsinstitut für organische Synthesen, Pardubice-Rybitvi.

MATRKA, Miroslav

Oxidation of N,N-dimethyl benzidine to diphenquinone-(4)-
dimethylimino-(4)-imonium salt. *Chem prum* 12 no.3:138-139
Mr. '62.

1. Vyskumny ustav organickych syntez, Pardubice-Bybitvi.

MATRKA, Miroslav; SAGNER, Zdenek; NAVRATIL, Frantisek; STERBA, Vojeslav

Oxidation of N,N,N',N' - tetramethyl naphthidine to the dinaphthoquinone-(4,4')-bis-dimethyl immonium salt. Chem prum 12 no.4:178-182 Ap '62.

1. Vyzkumny ustav organickych syntez, Pardubice-Rybitvi.

MATRKA, M.; SAGNER, Z.

Formation of semiquinone in oxidation of N,N,N',N'-tetramethylbenzidine
to diphenquinone-(4,4')-bis-dimethyliminium salt. Coll Cz
Chem 27 no.7:1722-1726 JI '62.

1. Forschungsinstitut für organische Synthesen, Pardubice -
Rybitví.

MATRKA, Miroslav; NAVRATIL, Frantisek

Polagraphic evaluation of acid anthraquinone dyes. Chem
prum 12 no.9:498-499 S '62.

1. Vyzkumny ustav organickych syntez, Pardubice - Rybitvi.

MATRKA, Miroslav; PODSTATA, Jiri; SAGNER, Zdenek

Influence of temperature on the course of nitrite titration
of aromatic primary amines. Chem prum 12 no.10:549-551
0 '62.

1. Vyzkumny ustav organickych syntez, Pardubice - Rybitvi.

MATKA, Miroslav; NAVRATIL, Frantisek

Polarographic evaluation of metallized azo dyes. Chem pruz 12 no.11:
611-612 N '62.

1. Vyskumny ustav organickych syntez, Pardubice-Rybitvi.

GASPARIC, Jiri; MATRKA, Miroslav

Paper chromatography of nigrosines. Chem prum 13 no.1:22-23 Ja '63.

1. Vyskumny ustav organickych syntes, Pardubice - Rybitvi.

EDONICEK, Vladimir; MATRKA, Miroslav

Brommetric determination of N-methyl aniline and N-ethyl aniline. Chem prum 13 no.2:79-80 F '63.

1. Vyskumny ustav organickych syntez, Pardubice - Rybitvi.

MATRKA, Miroslav

"Simple experiments in general and physical chemistry" by
Eitel Dehn. Reviewed by Miroslav Matrka. Chem prum 13 no.6:
319-320 Je '63.

1. Vyzkumny ustav organickych syntez.

NAVRATIL, F.; MATRKA, M.

Oxidimetric determination of Hlancophor R. Chem prum 13 no.8:
415-416 Ag'63.

1. Vyzkumny ustav organickych syntez, Pardubice-Rybitvi.

MATKA, Miroslav.; SAGNER, Zdenek

Reaction of the N.N.N^o.^o-tetramethyl-4,4^o-diamino-p-terphenyl
with nitrous acid. Chem pruz 13 no.11:583-584 N^o63.

i. Vyzkumny ustav organickych syntez, Pardubice - Rybitvi.

MATRKA, M.; SYROVA, M.

N, N-dimethyl-4-aminodiphenyl as a new redox indicator. Coll
Cs Chem 28 no. 12:3446-3449 D '63.

1. Forschungsinstitut fur organische Synthesen, Pardubice-
Rybitvi.

MATRKA, Miroslav

Analytic determination of the xenoquinone-(4,4')-bis-dimethyliminium.
Chem listy 57 no.2:163-166 F '63.

1. Organicko-technologicka laborator I., Vyskumny ustav organickych
synthes, Pardubice - Rybitvi.

MAREK Mirosław

Use of N-alkylated aromatic diamines as reversible oxidation-reduction indicators. Chem listy 57 no.6:608-614 Je '63.

1. Vyzkumny ustav organickyh syntes, Pardubice - Rybitvi.

MATEKA, Miroslav; NAVRATIL, Frantisek

Study of diazotated N,N-dimethyl benzidine. Chem prum 14 no.2
68-71 P'64.

1. Vyzkumny ustav organickych syntez, Pardubice - Rybitvi (for
Marta). 2. Katedra technologie organickych latek, Vysoka skola
chemicko-technologicka, Pardubice (for Navratil).

MATRKA, Miroslav; SAGNER, Zdenek; VONDRAK, Frantisek

Polarometric coupling titration of 4-nitrobenzene diazonium chloride. Chem prum 14 no.4:198-200 Ap '64.

1. Research Institute of Organic Syntheses, Pardubice - Rybitvi.

MATRKA, Miroslav

Conference on new synthetic dyes, their properties, preparation, and application. Chem prum 14 no.4:210 Ap '64.

1. Research Institute of Organic Syntheses, Pardubice - Rybitvi.

MATRKA, Miroslav

Polarometric coupling titration with a vibrating copper electrode.
Chem prum 14 no.6:317-319 Je '64.

"Thin-layer chromatography" by Kurt Randerath. Reviewed by Miroslav
Matrka. Chem prum 14 no.6:337-338 Je '64.

1. Research Institute of Organic Syntheses, Pardubice-Rybitvi.

MATREJA, Miroslav

Methods of kinetic measurement of diazotization reactions of primary aromatic amines. *Chemistry* 38 no. 7:778-781 (1964).

1. Organic and Technological Laboratory, Research Institute of Organic Synthesis, Pardubice (Czechoslovakia).

MATKA, Miroslav

Mechanism of permanganate oxidation of malachite green in acid medium. Chem svesti 14 no.10:550-552 0 '64.

1. Research Institute of Organic Syntheses, Pardubice-Rybitvi.

MATEKA, Miroslav; VERISOVA, Eva; NAVRATIL, Frantisek

Detection and determination of nitrites by the method of color reaction with N,N-dimethylbenzidine. Chem listy 58 no.11:1329-1333 N '64.

1. Organic Technology Laboratory, Research Institute of Organic Syntheses, Pardubice-Rybitvi.

CZECHOSLOVAKIA

~~STERBA, V.~~, MARHOLD, J.; SAGNER, Z.; STERBA, V.

Laboratory of Organic Technology and Toxicology,
Research Institute of Organic Synthesis, Pardubice-
Rybitvi - (for all).

Prague, Collection of Czechoslovak Chemical Communi-
cations, No 11, November 1965, pp 3956-3958.

"Paper chromatography of -substituted derivatives of
1-aryl-3,3-dimethyltriazene."

(4)

L 12930-66

ACC NR: AP6005639

SOURCE CODE: CZ/0079/65/007/002/0144/0145

AUTHOR: Neundalova, R.; Matousek, J.; Benova, R.

2/B

ORG: Psychiatric Polyclinic for Children and Adolescents, Prague

TITLE: Artistic disturbances in children [Paper was presented at the Third Interdisciplinary Conference on Experimental and Clinical Study of Higher Nervous Functions held in Mariánské Lázně from 19 to 23 October 1964.]

SOURCE: Acta medica superior, v. 7, no. 2, 1965, 141-145

KEYWORD: psychiatry, brain, EEG, psychopathology

ABSTRACT: Every childhood psychosis has probably an organic origin. Early infantile autism is promoted by a congenital tendency to autistic psychopathy, and by brain damage of the child. 6 children aged 8 to 15 years were studied for periods from 3 to 9 years. Detailed anamnestic and physical examinations proved a slight degree of organic damage to the brain, probably of a perinatal origin. All children had more or less abnormal EEG records with theta and delta waves forming unilaterally defined foci in temporal areas. In 4 cases sharp theta waves were observed. There was a general improvement in the condition of all the investigated cases.

ORG CODE: 01, 02 / COMM DATE: none / ORG REF: 005

and V. W.

MATOUSEK, M.

Hygienist Jakub Felix. Cesk. hyg. 10 no.9:572-573 0 '65.

1. Ustav dejin lekarstvi lekarske fakulty Palackeho Univer-
sity, Olomouc.

CZECHOSLOVAKIA

STARBA, V; BACHNEK, Z; MATRKA, M.

Research Institute of Organic Synthesis (Forschungsinstitut
fuer organische Synthesen), Pardubice-Rybitvi (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 10, 1969, pp 3333-3337

"Diazo-tization Kinetics of Nitraniline in an Environment of
Hydrochloric Acid."

L 31477-66 EWP(j) JW/RM

ACC NR: AP6023169

SOURCE CODE: CZ/0008/65/000/011/1361/1364

AUTHOR: Sterba, Vojeslav; Sagner, Zdenek; Matrka, Miroslav 24
E

ORG: Laboratory of Organic Technology, Research Institute for Organic Syntheses,
Pardubice - Rybitvi (Organicko-technologicka laborator, Vyzkumny ustav organickych
synthes)

TITLE: Kinetics of diazotization of aniline and p-chloroaniline using electrometric
determination of nitrous acid in the reaction mixture

SOURCE: Chemicke listy, no. 11, 1965, 1361-1364

TOPIC TAGS: chemical kinetics, aniline, chemistry technique, organic azo compound

ABSTRACT: The study was conducted in a medium of 0.1 N HCl at 0°,
10°, and 20°C. The progress of the reaction was continuously
followed by means of an electrometric method proposed by the
authors. The influence of the concentration of HCl upon the vel-
ocity constant of the reaction was investigated. The rate de-
creases with increasing acid concentration. The electrodes used
in the electrometric method are poisoned after some time by the
action of nitrous acid and that of nitrosylchloride. Orig. art. has: 7 figures
and 3 tables. [JFRS]

SUB CODE: 07 / SUBM DATE: 11Nov64 / ORIG REF: 005 / OTH REF: 001

Cord 1/1 MC

0915

1380

CZECHOSLOVAKIA

MATRKA, M; CHMATAL, V; SAGNER, Z

Organic Technology Laboratory, Research Institute
for Organic Synthesis, Pardubice-Rybitvi - (for all)

Prague, Collection of Czechoslovak Chemical Communi-
cations, No 2, February 1967, pp 893-896

"On the problem of the coloring aromatic diazo com-
pounds with quinondiazide structures."

CZECHOSLOVAKIA

MATRKA, M; MARHOLD, J; PIPALOVA, J

Toxicological and Organic Technology Laboratory,
Research Institute of Organic Syntheses, Pardubice-
Rybitvi - (for all

Prague, Collection of Czechoslovak Chemical Communi-
cations, No 12, December 1966, pp 4735-4740

"Photometric determination of small quantities of 1-
aryl-3,3-dialkyltriazene compounds."

MATRKA, SAGNER

Czechoslovakia / Analytical Chemistry.
Analysis of Organic Substances.

E-3

Abs Jour: Ref. Zhur - Khimiya No. 2, 1958, 4366

Author : Matrka, Sagner

Title : Reductometrid Determination of Anthraquinone
by Means of Vanadyl Sulfate.

Orig Pub: Chem. listy, 1957, 51, No. 1, 68-71

Abstract: A quantitative determination of anthraquinone (1) is carried out by titration with 0.1N vanadyl sulfate solution (11), reducing (1) to anthrahydroquinone (111). 0.0005 moles of (1) dissolved at 50°C in 70 ml. of glacial CH₃COOH, is diluted with 10 ml. of water and titrated potentiometrically with solution (11) in an atmosphere of N₂ at 50°C. The applied dilution of CH₃COOH insures a better solubility

Card 1/2

Czechoslovakia / Analytical Chemistry.
Analysis of Organic Substances.

E-3

Abs Jour: Ref. Zhur - Khimiya No. 2, 1958, 4366

of (1) and formed (111). The method is rapid
and the error of determination is $\pm 0.3\%$. The
method also can be used for technical (1).

Card 2/2

MATROKHIN, V.I., mostovoy master (stantsiya Kirov, Gor'kovskoy dorogi)

Small-pipe wells. Put' i put. khor. no. 8:35 Ag '58. (MIRA 11:8)
(Wells)

MATROKHIN, V.V. (Kirov)

New ideas in maintenance of wooden bridges. Pat' i put. khos. no.3:
26-28 Mr '57. (MELIA 10:5)

1. Mostovoy master Kirovskoy distantzii Gor'kovskoy derezi.
(Bridges, Wooden)

MATRONIN, Oleg Vasil'yevich; NESAULE, Zayga Erikovna; SAVEL'YEVA, Ye.,
red.

[Queuing systems and means for improving them] Sistemy
massovogo obsluzhivaniia i puti ikh sovershenstvovaniia.
Riga, Izd-vo AN Latv.SSR, 1964. 53 p. (MIRA 17:11)

MATRONIN, S.V.; LISICHKIN, V.Ye.; MEL'NIKOV, N.I.; RUMYANTSEV, V.A.,
dots., retsenzent; MAKOVSKIY, G.M., inzh., red.;

[Testing compressing machines] Ispytanie kompressornykh ma-
shin. Moskva, Izd-vo "Mashinostroenie," 1964. 182 p.
(MIRA 17:7)

MATROS, Ion, ing., correspondent; CEAUS, Mircea, correspondent

Bulk Cement Depot, Baia Mare. Constr Buc 17 no.792:4 13
Mr '65.

MATROS, Yu.Sh.; BESKOV, V.S.

**Designing a contact apparatus with internal heat exchange as object
of regulation. Analysis of static characteristics. Khim.prom.
no.12:883-889 D '63. (MIRA 17:3)**

MATROZ, Yu.Sh.; BESKOV, V.S.

Design of a contact apparatus with internal heat exchange as the
object of automatic regulation. Khim. prom. 41 no. 5: 357-362
Ny '65. (MIHA 18:6)

NAKROKHIN, B.G.; SHIBANOV, G.V.; GINEVICH, G.I.; OBRATSOV, A.I.;
MATROS, Yu.Sh.; SKUE, G.I.; NAKROKHIN, V.B.; ITENBERG, Sh.M.;
RASHRAGOVICH, Kh.D.

Oxidation of methanol to formaldehyde on oxide catalysts.

Khim. prom. 41 no.2:17-19 F '65.

(MIRA 1814)

ROSLOV, Yu.Z.; FILATOV, K.V.; MATROSOV, A.N.

Semimounted electric mower. Sel'khozmaschina no.8:13-1; Ag '56.

(Mowing machines)

MATROSOV, B.D. [deceased]; KOZLOV, V.N.

Effect of temperature on the viscosity of mercury, water, and
some aqueous solutions. Sbor.rab.Lab.lesokhim. no.2:106-108
'58. (MIRA 12:8)

(Viscosity)

MATROSOV, B. F.

MATROSOV, B. F.

"The Effect of the Water Conditions of Pest-bog soils on the Yield and Quality of Potato Tubers." Acad Sci Belorussian SSR. Inst of Soil Improvement, Water and Swamp Economy. Minsk, 1956
(For the Degree of Candidate in Agricultural Science)

So: Knizhnaya Letopis' No. 18, 1956

MASHAKOV, S.M.; MATROSOV, B.P.

**Role of nitrogen in plant nutrition on peat bog soils. Biol.
Inst. biol. AN BSSR no. 3:136-142 '58. (MIRA 13:7)
(NITROGEN) (PLANTS--NUTRITION)**

17(1)

AUTHORS:

Mashtakov, S. M., Gol'dina, S. M.,
Matrosov, B. F.

SOV/20-124-1-66/69

TITLE:

The Effect of Molybdenum Upon the Supply of Mineral Nutrition Elements to the Plants and Upon the Development of Microflora Under Conditions of Peat Bog Soils (Vliyaniye molibdena na postupleniye v rasteniya elementov mineral'nogo pitaniya i razvitiya mikroflory v usloviyakh torfyano-bolotnykh pochv)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 1, pp 231-233 (USSR)

ABSTRACT:

The favorable influence of tracer elements upon the breeding of plants in peat bog soils has already several times been emphasized (Refs 1-4). In spite of the well-known important role of molybdenum in the life of higher plants (Refs 6-14) this effect has been little investigated. It was the aim of the authors to observe the changes of soil microflora in the case of a molybdenum introduction into peat soils. In this connection they wanted to determine the amount of NPK-elements accumulated in the plants (mineral nutrition nitrogen, phosphorus, potassium). Barley (*Hordeum nudum* = yachmen' golozernyy) and maize of the type Moldavskaya ryadovaya were:

Card 1/3

The Effect of Molybdenum Upon the Supply of Mineral SOV/20-124-1-66/69
Nutrition Elements to the Plants and Upon the Development of Microflora
Under Conditions of Peat Bog Soils

used for the experiments. The peat soil had pH 4.78 . It was fertilized with potassium phosphide. In addition to that the soil was sprayed with aqueous ammonium molybdate solution (5 and 10 mg per 1 kg absolutely dry soil . Tables 1, 2 show that molybdenum promotes the absorption of NPK elements and the protein synthesis. This effect can be explained by an increased activity of the microflora within the range of root systems. It is a well-known fact that molybdenum stimulates the development of azotobacter in the soil (refs 4-8). Thus the amount of assimilable nitrogen is increased. In the experiments carried out by the authors azotobacter had a favorable influence upon other physiological groups of soil microorganisms (Table 3). It was furthermore proved that as a result of the intensified development of azotobacter in the "rhizosphere" of maize the leaf of the latter grew considerably bigger. Thus the

Card 2/3

The Effect of Molybdenum Upon the Supply of Mineral Nutrition Elements to the Plants and Upon the Development of Microflora Under Conditions of Peat Bog Soils SOV/20-124-1-66/69

amount of carbohydrates formed by photosynthesis is increased and therefore also the crop (Table 4). Microorganisms were determined by F. P. Vavulo and Z. I. Konashevich. There are 4 tables and 18 references, 16 of which are Soviet.

ASSOCIATION: Institut biologii Akademii nauk BSSR (Institute of Biology, Academy of Sciences, ~~Belorussian~~ SSR)

PRESENTED: September 2, 1958, by A. L. Kursanov, Academician

SUBMITTED: September 1, 1958

Card 3/3

MASHTAKOV, S.M.; LEDOVSKIY, S.Ya.; MATROSOV, B.F.

Possible use of 5-aminotetrasole and 1-phenyl-3-methylpyrazolone-5
to stimulate fruit formation in tomatoes. *Biul. Inst. biol. AN*
BSSR no.5:196-199 '60. (MIRA 14:7)
(TOMATOES) (GROWTH PROMOTING SUBSTANCES)

NASHTAID, S.M.; **MATROSOV**, B.F.; **LEDOVSKIY**, S.Ye.

Use of the herbicide "dicotex-30" in flax fields under farm conditions. Biol. Inst. biol. AN BSSR no.5:200-204 '60.

(MIRA 14:7)

(FLAX)

(WEED CONTROL)

(ACETIC ACID)

NASHITAKOV, S.M.; MATROSOV, B.F.

**Preliminary experiments in the application of growth regulators
to potato plants grown in peat soils. Biol. Inst. Biol. AN
BSSR no. 5:205-209 '60. (MIRA 14:7)
(POTATOES) (PEAT SOILS) (~~GROWTH PROMOTING SUBSTANCES~~)**

BORMOTOV, V.Ye. [Bormatau, U.E.]; MATROSOV, B.F. [Matrosau, B.F.];
SAVCHENKO, V.K. [Savchanka, U.K.]

Characteristics of the formation of leaf apparatus in tetraploid
sugar beets. Vestsi AN BSSR. Ser. biial nav. no.1:82-89 '65.
(MIRA 18:5)

S/123/61/000/010/003/016
A004/A104**AUTHOR:** Matrosov, G. A.**TITLE:** The working accuracy of lathes with hydraulic carriage**PERIODICAL:** Referativnyy zhurnal, Mashinostroyeniye, no. 10, 1961, 41, abstract 10B272 ("Tr. Leningr. inzh.-ekon. in-ta", 1960, no. 30, 125-136)

TEXT: Observations of the operation of hydraulic carriages showed that the main instability of diametric dimensions takes place at the beginning of operation owing to the low oil temperature. It was found that the minimum oil temperature in the system, which would correspond to the moment of stabilization, is for the УП240 (UP240) hydraulic carriage about 33°C, for the type KCT-1 (KST-1) about 43°C and for the Ц-1 (CS-1) model about 50°C. Moreover the time necessary to attain this temperature is 120, 220 and 150 minutes respectively. The second factor affecting the accuracy of diametric dimensions is the negative rigidity arising because operations are carried out with a tool having a main angle in the plane $\varphi = 92-93^\circ$, particularly with non-uniform tolerances. An experimental machining of some component lots 30-80 mm in diameter under stable temperature conditions and a uniform tolerance over the blank length yielded an

Card 1/2

The working accuracy on lathes ...

S/123/61/000/010/003/016
A004/A104

accuracy of class 3a. The oil temperature conditions do not in any way affect the precision and stability of linear dimensions. By a statistical analysis of the linear dimension scattering characteristic the presence of systematic errors was made apparent which are caused by the inertness of the hydraulic carriage which is particularly remarkable in spots of abrupt transitions. By tests carried out under conditions excluding the effects of inertness (the copying device having chamfers and roundings-off; follow-up of the length errors) the accuracy of the linear dimensions of class 3a was established. There are 13 graphs and 3 figures.

Ye. Malakhovskiy

[Abstractor's note: Complete translation]

Card 2/2

S/123/62/000/013/015/021
A004/A101

AUTHORS: Rystsova, V. S., Matrosov, G. A.

TITLE: New methods of high-precision and high surface finish circular grinding

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 13, 1962, 102, abstract 13B635 (In collection: "Kachestvo poverkhnosti detaley mashin. v. 5", Moscow, AS USSR, 1961, 315 - 320)

TEXT: The authors describe circular grinding methods used at the Leningrad plants to obtain a surface finish of the 10th to 11th class and a precision of the 1st and 2nd class. Grinding is effected by the following methods: protracted grinding with no infeed ("s dlitel'nym vykhazhivaniyem"), with fine dressing of the wheel and with fine-grained graphite wheels. In long-time grinding without infeed wheels on a ceramic binder of a hardness from M3 to CM 1 (SM1) and a grain size of 80 - 100 are used. Steel parts are ground with wheels from electrocorundum, cast-iron parts with silicon carbide wheels with an allowance to be removed of 0.04 - 0.05 mm, wheel speed 20 - 30 m/sec, component speed

Card 1/2

S/123/62/000/013/015/021
A004/A101

New methods of...

10 - 30 m/min, longitudinal feed 0.1 - 0.3 of the wheel width, transverse feed 0.01 - 0.02 mm per double motion with no infeed at the end of cycle until the given dimension is reached. In grinding with fine dressing of the wheel the grinder is equipped with a special device which makes it possible to dress the wheel at a longitudinal feed of 0.01 mm per one revolution of the wheel. With this method the allowance amounts to 0.04 mm, the wheel speed is 35 m/sec, component speed 4 - 7 m/min, transverse feed 0.01 mm per double motion and longitudinal feed 3 - 0.5 mm per one revolution of the component. The wheel is dressed at a longitudinal feed of 0.01 mm/rev of the wheel and a depth of 0.01 mm. Grinding with graphite wheels is based on the method of grinding without infeed. The components are ground with wheels on a bakelite binder with graphite filler having a grain size of M28 and a hardness of M3 or CM 3 (SM3). These methods of fine grinding increase the efficiency and make it possible to automate finishing operations. There are 4 figures. ✓

I. Bronzoi'

[Abstracter's note: Complete translation]

Card 2/2

MATROSOV, G.A.; LANSKAYA, K.A., tekhn. red.

[Cooling with atomized fluids in metal cutting] Okh-
lazhdenie raspylennymi zhidkostiami pri rezanii metal-
lov. Leningrad, 1962. 23 p. (MIRA 17:4)

1. Leningrad. Leningradskiy inzhenerno-ekonomicheskij in-
stitut.

L 44353-66 EWT(d)/EWT(m)/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c) JE/Hv

ACC NR: AP6012613

SOURCE CODE: UR/0182/66/000/004/0044/0046

AUTHOR: Kasatonov, V. F.; Matrosov, G. A.; Saltykov, A. G.

ORG: none

TITLE: Improvements in the technology of the production of hollow forgings by means of hydraulic and steam-hydraulic presses

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 4, 1966, 44-46

TOPIC TAGS: metal forging, forge press, hot forging, metal industry

ABSTRACT: Owing to the conical and spherical shapes of mold bottoms, the production of hollow forgings normally involves the wastage of as much as 5-7% of ingot metal. In this connection, during 1963-1964 the Bol'shevik Plant carried out a study of the possibility of producing hollow forgings of the centering-ring type without having to scrap the bottom part of the ingot. It was found that this can be accomplished by using a core punch with a diameter that is 50 mm greater than the diameter of the cone-shaped part of the ingot bottom. Then the wastage of metal can be reduced to 1.42-1.48% and the labor-consuming as well as relatively unsafe operation of trimming the ingot bottom can be eliminated. The resulting blanks can be

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readily forged in a 3000-ton steam-hydraulic press ¹⁴ without requiring special additional press tools. Analysis of the hollow forgings thus produced revealed absence of sulfur accumulations, blowholes, vacancies and nonmetallic inclusions. This new technique can be employed to forge ingots weighing up to 10 tons each and produces metal savings amounting to 3-5% of the weight of the ingot. Orig. art. has: 1 table.

SUB CODE: 13, 11/ SUBM DATE: none/

Card 2/2 blg

BURMISTROV, Yevgeniy Vasil'yevich, inzh.; MATROSOV, Gennadiy
Aleksyevich, inzh.; SHIFRID, A.Sh., Fed.

[Machining heat-resistant and weakly magnetic materials]
Obrabotka zharoprochnykh i malomagnitnykh materialov. Le-
ningrad, 1963. 15 p. (Leningradskii dom nauchno-tekhniche-
skoi propagandy. Obmen peredovym opytom. Seriya: Mekhaniche-
skaia obrabotka metallov, no.19) (MIRA 17:4)

MATROSOV, G.F., inzhener; SHORIN, D.M., inzhener.

Efficient method of attaching smoke stacks to boiler fire grates.
Rech. transp. 16 no.3:19-21 Nr '57. (MLBA 10:4)
(Boilers, Marine)

MATROSOV, I., isobretatel'

On the eve of the First Congress of the All-Union Society of
Inventors and Efficiency Promoters. Isobr. 1 rats. no.5:9
Mg '59. (MIRA 12:8)

(Trade unions)

MATROSOV, I.K. laureat Stalinskoy premii; YEGORCHENKO, V.F.; KARVATSKIY,
B.L.; AGAPONOV, M.I.; KRYLOV, V.I.; PEROV, A.M.; KRUTITSKIY,
V.F.; SUYAZOV, I.G.; TIKHONOV, P.S., red.; KHITROV, P.A., tekhn.red.

[Automatic brakes; installation, operation, maintenance, and
repair] Avtotormosa; ustroystvo, upravlenie, obaluzhivanie i
remont. Izd.4., ispr. i dop. Moskva, Gos.transp.zhel-dor.isd-vo,
1951. 253 p. (MIRA 12:11)

(Brakes)

MATROSOV, Ivan Nikolayevich; BORSHCHESVSKAYA, S.I., red.; LEVONIEVSKAYA, L.G.,
USSR, Fed.

[Specialized production areas] Zamknutyi proizvodstvennyi uchastok.
[Leningrad] Lenizdat, 1956. 43 p. (MIRA 11:7)
(Machine-shop practice)

MATROSOV, Ivan Pavlovich; DUBROVSKIY, I.I., red.; POPOV, V.N.,
tekhn. red.

[The time of great achievements] Vremia bol'shikh sversheni.
Tambov, Tambovskoe knizhnoe izd-vo, 1961. 25 p. (MIRA 16:3)

1. Predsedatel' kolkhosa "Udarnik" Morshanskogo rayona (for
Matrosov).
(Morshansk District--Collective farms--Management)

KANEVSKIY, A.G., inzh.; MATROSOV, M.A., inzh.; SOKOLOV, F.G. inzh.

Let's raise the quality of construction in every way. Transp.stroi.
ll no.4:13-15 Ap '61. (MIRA 14:5)
(Construction industry)

MATROSOV, P.S.

**Finda of *Zonaletes rotatus* Luber. spores from the upper
Permian epoch in the saliferous deposits of Tuz-Tag. Dzh.
AN SSSR 95 no.3:623-624 Mr '54. (MIRA 7:3)**

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