

SOV/124-58-5-5021

On the Operating Precision of Flexible-belt Transmissions

is obtained, and it is shown that in the case of the transmission parameters accepted in the manufacture of precision instruments the error resulting when the calculations are made with this formula does not exceed 2×10^{-15} . Reference is made to the satisfactory agreement between analytical expectations and the data obtained in experimental tests of instruments having a transmission of this type.

M.K. Kristi

1. Transmissions--Design
2. Poser transmission belts--Elasticity
3. Power transmission belts--Performance
4. Mathematics--Applications

AUTHOR: Tartakovskiy, V.A. (Leningrad) SOV/ 4058-1-18/21
TITLE: On the Representation of Large Numbers by Forms of "General Kind" With a Great Number of Variables (O predstavimosti bol'shikh chisel formami "obshchego vida" s bol'shim chislom peremennykh)
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy Ministerstva vysshego obrazovaniya SSSR, Matematika, 1958, Nr 1, pp 161 - 173 (USSR)
ABSTRACT: Let

$$F(x) = \sum_{i_1, \dots, i_k}^s a_{i_1 i_2 \dots i_k} x_{i_1} \dots x_{i_k} \quad \text{be a form of order } k.$$

of s variables x_1, \dots, x_s with integral coefficients and discriminant D_F . Let H' be the space of the points $h' =$

$$(h_1^{(1)}, \dots, h_s^{(1)}, \dots, h_1^{(k-2)}, \dots, h_s^{(k-2)}) \quad \text{and let}$$

$$\left\{ \Delta_F(h') \right\}_i^j = \sum_{j_1, \dots, j_{k-2}=1}^s a_{i j_1 \dots j_{k-2}} h_{j_1}^{(1)} \dots h_{j_{k-2}}^{(k-2)}$$

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"General Kind" With a Great Number of Variables

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be a quadratic matrix of order s . Let $\Gamma_\nu = \Gamma_\nu(F)$ be the algebraic manifold which is defined in H^1 by the condition $\text{rank } \Delta_F(h^1) \leq \nu$ ($\nu = 0, 1, 2, \dots, s-1$). Let d_ν be the dimension of Γ_ν . As forms of "general kind" the author denotes $F(x), D_F \neq 0$ for which $d_\nu \leq s(k-3) + \nu$ ($\nu = 0, \dots, s$). In a preceding paper [Ref 6] the number of certain integer points on the surface $F(x) = n$ was given (theorem A). There the author announced without proof some conclusions from theorem A concerning the representation of large numbers by forms of "general kind". In a very long theorem loaded with misprints the present paper brings the precise formulation of these conclusions and a long proof based on 6 lemmata. There are 6 references, 5 of which are Soviet, and 1 German.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki (Leningrad Institute for Precision Mechanics and Optics)

On the Representation of Large Numbers by Forms of
"General Kind" With a Great Number of Variables

SOV/140-58-1-18,21

SUBMITTED: October 29, 1957

Card 3/3

43-7-14/18

AUTHOR: TARTAKOVSKIY, V.A.

TITLE: On the Number of Representations of Large Numbers by Forms of "General Type" With Many Variables. I (O kolichestve predstavleniy bol'shikh chisel formami "obshchego vida" s bol'shim chislom peremennykh. I)

PERIODICAL: Vestnik Leningradskogo Universiteta, Seriya Matematiki, Mekhaniki i Astronomii, 1958, Nr 7 (2), pp 131-154 (USSR)

ABSTRACT: In the space $E = (x_1, \dots, x_s)$ let

$$F(x) = F(x_1, \dots, x_s) = \sum_{i_1, \dots, i_k=1}^s a_{i_1, \dots, i_k} x_{i_1}, \dots, x_{i_k}$$

be a form of k-th order with integral coefficients and a discriminant D_F being different from zero.

Let $H^{(\alpha)}$ be the space $(h_1^{(\alpha)}, \dots, h_s^{(\alpha)})$ with $\alpha = 1, 2, \dots, k-1$. Let

H_r be the direct sum $H_r = (H^{(1)}, H^{(2)}, \dots, H^{(r)})$ with $r = 1, 2, \dots, k-1$.

Especially let $H_{k-2} \equiv H'$ and its points be h' . Let $\Delta_{1, \dots, 1_r}^{m_1, \dots, m_r}$

Card 1/4 be the minors of μ -th order of the matrix

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$$\left\{ \Delta_F(h') \right\}_i^j = \sum_{j_1, \dots, j_{k-2}=1}^s a_{ij_1, \dots, j_{k-2}} h_{j_1}^{(1)} \dots h_{j_{k-2}}^{(k-2)} \quad (i, j=1, 2, \dots, s)$$

In H' the system of equations $\Delta_{1, \dots, l_{\nu+1}}^{m_1, \dots, m_{\nu+1}} = 0$ ($m_1, \dots, m_{\nu+1},$

$l_1, \dots, l_{\nu+1} = 1, 2, \dots, s$) defines for every $\nu=0, 1, \dots, s-1$ an algebraic manifold $\Gamma_\nu = \Gamma_\nu(F)$ of such h' in which the rank of $\Delta_F(h') \leq \nu$. Let the dimensions of the sets $\Gamma_\nu(F)$ be denoted by $d_\nu = d_\nu(F)$.

Forms of "general type" are forms $F(x)$ for which $d_\nu(F) \leq s(k-3) + \nu$ ($\nu=0, 1, \dots, s$).

Let $W(n)$ be the surface $F(x) = n$ and Σ be the sphere

$x_1^2 + \dots + x_s^2 = 1$. Let \tilde{N} denote the positive s -simplex x_1, x_2, \dots, x_s .

Let $\tilde{N}' = \tilde{N} \cap \Sigma$. Let $L = W(0) \cap \Sigma$.

Let \tilde{N} be chosen such that $\tilde{N}' \cap L$ is empty.

Theorem: Let $F(x) = F(x_1, \dots, x_s)$ be a form of general type

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 "General Type" With Many Variables.I

with positive coefficients and $D_F \neq 0$. Let the order of the form be $k \geq 3$ and let $s \geq s_k = \frac{3}{4} [4(k+1)]^{k+1}$. The s -simplex x_1, \dots, x_s be chosen like above. Let $r(n, F)$ be the number of integral points x_1, \dots, x_s on the surface $W(n): F(x) = n$. Then

$$r(n, F) = v(n) \gamma(n, F) + R(n, F).$$

Here $v(n)$ is the volume of that part of \tilde{N} , where $F(x) \in [n - \frac{1}{2}; n + \frac{1}{2}]$

and $v(n) = V(1) \frac{s}{k} n^{\frac{s}{k} - 1} + O(n^{\frac{s}{k} - 2})$, where $V(1)$ is that part

of \tilde{N} where $F(x) \in [0, 1]$. $\gamma(n, F)$ denotes the Hardy-Littlewood's

singular series
$$\gamma(n, F) = \sum_{q=1}^{\infty} \frac{1}{q^s} \sum_{1 \leq l \leq q}^{(1, q)=1} \sum_{x_1, \dots, x_s=0}^{q-1} e^{2\pi i \frac{1}{q} [F(x) - n]}.$$

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Further $R(n, F) = O(n^{\frac{s}{k} - 1 - \delta})$, where δ is a positive constant not depending on n which can be put $\delta = \frac{1}{13k}$.

In the present first part of the paper only the beginning of the proof is given.
4 Soviet and 1 foreign references are quoted.

SUBMITTED: 3 July 1957
AVAILABLE: Library of Congress
Card 4/4 1. Topology 2. Mathematics-Theory

SOV/43-59-7-1/17

16(1)
AUTHOR: Tartakovskiy, V.A.

TITLE: ~~On the Number of Representations of Great Numbers by Forms of "General Type" With a Great Number of Variables. II (O koli- chestve predstavleniy bol'shikh chisel formami "obshchego vida" s bol'shim chislom peremennykh. II)~~

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki, mekhaniki i astronomii, 1959, Nr 7(2), pp 5-17 (USSR)

ABSTRACT: The present paper is the continuation of the first part published by the author in Vestnik Leningradskogo universiteta, Seriya matematiki, mekhaniki i astronomii, 1958, Nr 7(2). The §§ 1-7 contain the proof of the theorem A formulated in the first part. Finally (§ 8) the author formulates theorem B without a proof: Let $F(x) = F(x_1, x_2, \dots, x_s)$ be a form of k-th degree of "general type" with integral coefficients and $s \geq s_k = \frac{3}{4}(4k+4)^{k+1}$ variables. Let the positive coordinate-s-hedron \tilde{N} be an s-hedron of first kind for F. Then there exists a natural number $P_F = P$ so that for every n, which can be represented by the form $F(x) \pmod P$ and which is relatively prime with P, the singular series

On the Number of Representations of Great Numbers
by Forms of "General Type" With a Great Number
of Variables. II

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$\gamma(n;F)$ is greater than a positive constant b not depending on n . Thus every such n , if it is sufficiently large, can be represented by the form $F(x)$ in the N .

SUBMITTED: October 14, 1957

Card 2/2

TARTAKOVSKIY, V.A. (Leningrad)

Criterion of the separability of variables near the primitive
point of rest. Part 2: Proof of criteria. Mat. sbor. 52 no.1:537-
550 S '60. (MIRA 13:9)

(Differential equations)

TARTAKOVSKIY, Y.A. (Leningrad)

Criterion value of separability of variables near the primitive
point of rest. Part 1: Set of B-series. Mat. sbor. 51 no.2:155-
172 Je '60. (MIRA 13:9)

(Mathematical analysis)
(Aggregates)

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TARTAKOVSKIY, V. A.

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SECRET X-REF V. P.

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Print: 1/24 22 of 417 8/11/02 11:13 1550086 12/12/01 11/11/01 7

5(2, 3)

AUTHORS:

Novikov, S. S., Godovikova, T. I.,
Tartakovskiy, V. A.

SOV/20-124-4-29/67

TITLE:

Synthesis of Organomercuric Nitrogen Compounds (Sintez
rtut'organicheskikh nitrosoyedineniy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 4, pp 834-837
(USSR)

ABSTRACT:

As is known, many mercury salts of organic and inorganic acids are used for mercurization reactions, for the addition to double and triple bonds, etc. The authors found that the trinitromethane mercury salt readily mercurizes those compounds of the aliphatic series which contain a mobile hydrogen atom, as well as those of the aromatic and heterocyclic series. In this process substances with a common formula $R - HgC(NO_2)_3$ are produced.

The authors studied this reaction with malonic, acetoacetic and nitroacetic esters, with acetylacetone, acetone, cyclopentane, benzene, toluene, aniline, dimethyl aniline, furan and thiophene. Table 1 contains the conditions of reaction, yields and analyses of the final products. Trinitromethyl mercury aryls

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Synthesis of Organomercuric Nitrogen Compounds

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form, on the action of bromine, corresponding mercury bromides and bromo-trinitro methane which are transformed into mercury chlorides by concentrated HCl. It may be assumed that the mercurization products and the trinitro-methane mercury salts can exist as two interconvertible tautomeric forms, depending on the nature of the solvent. In this connection the authors point to the fact that their ultraviolet spectra are very different in polar and apolar solvents (Ref 2). In crystalline state, these substances are pure organo-metallic compounds $R - HgC(NO_2)_3$. The reaction of trinitro-methane mercury salt with nitro-benzene, m-dinitro-benzene, o-nitro-toluene and o-nitro-anisole takes place in a very particular manner. The substances synthesized therein are complex addition products of a mercury salt molecule to the molecule of the respective aromatic compound. By the action of alkalis the complex is destroyed under formation of the nitro-aromatic initial compound, mercury oxide and a corresponding trinitro-methane salt. The trinitro-methane mercury salt does not react with any compound containing the substituents in meta-position with respect to the nitro group. A structure of the complex

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Synthesis of Organomercuric Nitrogen Compounds

is suggested accordingly (see Scheme). By investigation of the interaction between $\text{Hg} [\text{C}(\text{NO}_2)_3]_2$ and ethylene in an aqueous or alcoholic solution the authors detected quite unexpectedly that in this case not an alcohol is formed but trinitro-methyl-3,3,3-trinitro-propyl mercury. The same compound is obtained by the action of trinitro-methyl mercury salt in ethylene in nitro-benzene and nitro-methane. Therefore, it may be taken for granted that the latter product is synthesized by direct addition of the elements of trinitro-methane mercury salt to ethylene (Scheme II). This is a new reaction. It is interesting that not only the salt mentioned is capable of addition reactions to the double bond but also the compounds of the type $\text{R} - \text{HgC}(\text{NO}_2)_3$. The addition of trinitro-methane mercury salt to the double bond was studied with propylene, styrene, cyclohexene, allyl alcohol as well as with the methyl ester of acrylic acid. The reaction takes place in any case according to scheme II. The constants and yields of some substances produced are given in table 3. Whereas symmetrical mercuri-organic polynitro compounds completely resist the action of acids, halogens and halogen salts, the

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Synthesis of Mercuri-organic Nitro Compounds

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asymmetrical ones enter into reaction with them according to the scheme mentioned. The trinitro-methane mercury salt cannot be added to olefins with isostructure (isobutylene, 3-ethyl pentene-3) which contain at least one quaternary hydrocarbon atom at the double bond. There are 3 tables and 5 references, 3 of which are Soviet.

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

PRESENTED: July 14, 1958, by A. V. Topchiyev, Academician

SUBMITTED: July 11, 1958

NOVIKOV, S.S.; GODOVIKOVA, T.I.; TARTAKOVSKIY, V.A.

Synthesis of organomercury nitro compounds. Report No.3: Reactions of the mercuric salt of trinitromethane with nitro derivatives of aromatic compounds. Izv.AN SSSR Otd.khim.nauk no.5: 863-865 My '60. (MIRA 13:6)

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

(Methane) (Nitro compounds) (Mercury compounds)

TARTAKOVSKIY, V.A.; NOVIKOV, S.S.; GODOVIKOVA, T.I.

Synthesis of organomercury nitro compounds. Report 4: Addition of trinitromethane mercury salt to unsaturated hydrocarbons. *Izv. AN SSSR. Otd. khim. nauk* no. 6: 1042-1049 Je '61. (MIRA 14:6)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Nitroform) (Olefins)

NOVIKOV, S.S.; TARTAKOVSKIY, V.A.; GODOVIKOVA, T.I.; GRIBOV, B.G.

Synthesis of organomercuric nitro compounds. Report No.5:
Addition of mercuric salt of trinitromethane to unsaturated
alcohols. Izv. AN SSSR Otd.khim.nauk no.2:272-276 F '62.
(MIRA 15:2)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Mercury organic compounds)
(Nitroform)
(Olefins)

NOVIKOV, S.S.; TARTAKOVSKIY, V.A.; GODOVIKOVA, T.I.; GRIBOV, B.G.

Synthesis of organomercuric nitro compounds. Report No.6:
Mechanism of the direct addition mercury salt of
trinitromethane to the double bond. Izv. AN SSSR Otd.khim.
nauk no.2:276-281 F '62. (MIRA 15:2)

1. Institut organicheskoy khimii im. N.E.Zelinskogo AN SSSR.
(Mercury salts)
(Unsaturated compounds)
(Nitroform)

SLOVETSKIY, V.I.; TARTAKOVSKIY, V.A.; NOVIKOV, S.S.

Synthesis of organomercury nitro compounds. Report No.7:
Problem of tautomerism of the trinitromethane mercury salt.
Izv.AN SSSR.Otd.khim.nauk no.8:1400-1405 Ag '62. (MIRA 15:8)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Nitroform) (Mercury organic compounds) (Tautomerism)

NOVIKOV, S.S.; SLOVETSKIY, V.I.; TARTAKOVSKIY, V.A.; SHEVELEV, S.A.;
FAYNZIL'BERG, A.A.

On the existence of aci-forms of 1,1-dinitroalkanes and
trinitromethane. Dokl. AN SSSR. 146 no.1:104-106 S '62.
(MIRA 15:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
Predstavleno akademikom M.I. Kabachnikom.
(Paraffins) (Nitro compounds)

TARTAKOVSKIY, V.A.; SAVOST'YANOVA, I.A.; GRIBOV, B.G.; NOVIKOV, S.S.

Synthesis of γ -mercuridinitrohydrocarbons. Izv. AN SSSR. Ser.khim.
no.7:1328-1329 J1 '63. (MIRA 16:9)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Mercury organic compounds) (Hydrocarbons)

TARTAKOVSKIY, V.A.; SAVOST'YANOVA, I.A.; NOVIKOV, S.S.

Addition of a mercury salt of 1,1,3,3-tetranitrobutane to ethylene.
Izv. AN SSSR. Ser.khim. no.7:1330-1331 J1 '63. (MIRA 16:9)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Butane) (Mercury organic compounds) (Ethylene)

ACCESSION NR: AP4025017

S/0062/64/000/003/0583/0584

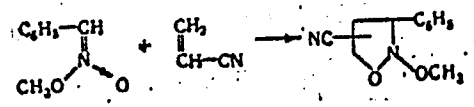
AUTHORS: Tartakovskiy, V.A.; Chlenov, I.Ye.; Smagin, S.S.; Novikov, S.S.

TITLE: Nitrocompounds obtained by 1,3 dipolar addition reaction

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 3, 1964, 583-584

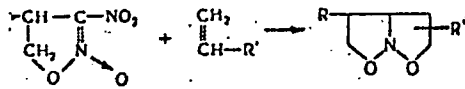
TOPIC TAGS: nitrocompound, 1 3 dipolar addition, addition reaction, phenylnitromethane, acrylonitrile, diazomethane, trinitromethane, nitroisozolidine series, trivalent nitrogen, covalent bond, dinitrocompound

ABSTRACT: This addition reaction between the aciform and unsaturated nitrocompounds, such as between the O-methyl ether of phenylnitromethane and acrylonitrile, may proceed as follows:



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yielding N-methoxy-3-phenylnitriloisoxazolidine. Such end products, which may be considered cyclic ethers of aciform dinitrocompounds will react further with formation of heterocyclic compounds of a new class, the isoxazolidine derivatives.



The O-methyl ether of trinitromethane (prepared from diazonethane and trinitromethane) can also enter into such 1,3 addition reaction. These compounds of the isoxazolidine series are the first examples of substances containing a trivalent nitrogen atom, covalently linked to 2 oxygen atoms. Orig. art. has: 2 formulas.

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

Card 2/3

ACCESSION NR: AP4025017

SUBMITTED: 11Dec63

DATE ACQ: 17Apr64

ENCL: 00

SUB CODE: CH

NR REF SOV: 000

OTHER: 000

Card

3/3

IOFFE, S. L.; TARTAKOVSKIY, V. A.; NOVIKOV, S. S.

Mechanism of the reduction of carbonyl-containing compounds with
diborane solution in tetrahydrofuran. Izv AN SSSR Ser Khim no. 4:
622-631 Ap '64. (MIRA 17:5)

1. Institut organicheskoy khimii im. N. D. Zelinskogo AN
SSSR.

IOFFE, S.L.; TARTAKOVSKIY, V.A.; MEDVEDEVA, A.A.; NOVIKOV, S.S.

Reduction of oximes with diborane solution in tetrahydrofuran.
Izv. AN SSSR. Ser. khim. no.8:1537-1538 Ag '64.

(MIRA 17:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

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CIA-RDP86-00513R001755020012-8
CIA-RDP86-00513R001755020012-8"

TARTAKOVSKIY, V.A.; SMAGIN, S.S.; CHLENOV, I.Ye.; NOVIKOV, S.S.

Methyl ester of phenylnitromethane in the reaction of 1,3-dipole
cycloaddition. Izv. AN SSSR. Ser. khim. no.3:552-554 '65. (MIRA 18:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

TARTAKOVSKIY, V.A.; GRIBOV, B.G.; NOVIKOV, S.S.

Synthesis of γ -bromodinitro compounds. Izv. AN SSSR. Ser. khim.
no.6:1074-1075 '65. (MIRA 18:6)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

TARTAKOVSKIY, V.A.; CHISHCHENKO, A.A.; CHLENOV, I.Z.; NOVIKOV, S.S.

Hexides of 3-nitroisoxazolines in 1,5-dipolar cycloaddition reaction.
Dokl. AN SSSR 164 no.5:1081-1084 © 1965.

(MIRA 13:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR. Submitted March 22, 1965.

L 1665-66 EWT(n)/EPF(c)/EWP(j)/T/EWA(c) RPL WW/JW/WE/RM

ACCESSION NR: AP5022937

42 UR/0062/65/000/008/1491/1494

39 543.422+547,232

44,56
44,55 B 44,56 44,56
AUTHOR: Ivanov, A. I.; Chlenov, I. Ye.; Tartakovskiy, V. A.; Slovetskiy, V. I.;
Novikov, S. S.

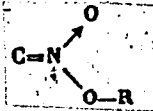
44,56
TITLE: Molecular absorption spectra of O-ethyl esters of dinitromethane and tri-
nitromethane

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 8, 1965, 1491-1494

TOPIC TAGS: IR spectrum, UV spectrum

ABSTRACT: The IR and UV spectra of several O-ethyl esters of geminal di- and trini-
troderivatives of methane were taken in order to examine the monochromaticity of
their aci-forms and anions. The IR spectra were taken with the UR-10 spectrophoto-
meter and the UV spectra were taken in a methyl chloride solution at 5°C with SF-4
spectrophotometer. The IR spectra of the title compounds confirmed their structure
by showing absorption bands corresponding to

C = N bond, N = C - NO₂, N = C(NO₂)₂ and

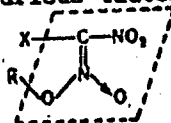


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L 1665-66

ACCESSION NR: AP5022937

The UV spectra indicate that in various tautomeric forms there is a constant structural fragment 3



with a maximum absorption in the region of 310-320 m μ (characteristic for aci-form) and a molar extinction coefficient of about 8000. The location of the maximum and absorption intensity are practically independent from X and R. This study revealed that the aci-forms and anions of gem-di- and trinitrocompounds are not monochromatic. (According to the literature data maximum absorption of anion derived from gem-di- and trinitroderivatives of methane occurs in 345-380 m region). Orig. art. has: 2 tables, 3 formulas.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo akademii nauk SSSR
(Institute of Organic Chemistry Academy of Sciences SSSR)

SUBMITTED: 02Dec64

ENCL: 00

SUB CODE: NP, OP

NO REF SOV: 005

OTHER: 003

Card 2/2 *OP*

TARTAKOVSKIY, V.A.; GRIBOV, B.G.; SAVOST'YANOVA, I.A.; NOVIKOV, S.S.

Reaction of intramolecular O-alkylation in the series of gem-dinitro compounds. *Izv. AN SSSR. Ser. khim.* no.9:1644-1648 '65.
(MIRA 18:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

IOFFE, S.L.; TARTAKOVSKIY, V.A.; NOVIKOV, S.S.

Selective reduction of aliphatic functional nitro compounds.
Usp. khim. 35 no.1:43-69 Ja '66. (MIRA 19:1)

1. Institut organicheskoy khimii AN SSSR imeni N.D. Zelinskogo.

TARTAKOVSKIY, V.D.

Fifth All-Union Conference on Acoustics. Akust.zhur. 8 no.1:
141-145 '62. (MIRA 15:4)
(Sound--~~Congresses~~)

SOURCE CODE: UR/0271/66/000/009/A060/A060

ACC NR: AR6035363

AUTHOR: Tartakovskiy, V. I.

TITLE: Analog equipment for automatic control of metal cutting machines

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs. 9A419

REF SOURCE: Sb. Avtomatizir. elektroprivod proizvod. mekhanizmov. T. 1. M.-L., 1965
274-278

TOPIC TAGS: ~~metal cutting~~ ^{machine tool,} automatic control system, digital analog converter, trigger circuit, interpolation, voltage divider, digital analog decoder, ^{analog system,} ~~digital control system~~

ABSTRACT: Large-current analog devices for simulation of displacements by means of voltages are coming into use in digital control systems. In such analog devices, symmetrical toroidal triggers with taps are used for voltage division. A circuit is presented of a digital-analogy converter with a conversion accuracy 0.0001%, in which such triggers are used. Such devices make it possible to carry out parabolic interpolation between reference points lying on the tool trajectory. The operation of the interpolator is explained, and a scheme is presented in which the interpolation is carried out by using the displacement of a capacitive pickup; voltages from the parabolic interpolation curve are fed to plates of equal length and width on a drum-type linear capacitive interpolator. The author reports the development, on the basis of the described devices and on the basis of tests, of two analog-control systems: 1. A positional system that controls alternately the horizontal and vertical motions of

UDC: 681.142.33/.34: 621.9-531.4

Card 1/2

ACC NR: AR6035363

the support or of the carriage. The information is inserted by means of perforated motion picture film. The numbers are memorized and transformed into voltages with the aid of the relays of a decoder. A vacuum tube comparison amplifier fixes exactly the correspondence between the path covered by the support and the dimensions specified by the program. The position pickup is a linear analog pickup with capacitive voltage pickoff. The attained reading accuracy is 0.03 mm. 2. Two-coordinate system controlling a milling machine for processing flat cams. The use of parabolic interpolation of the trajectory between three successive reference points decreases the number of programming points by approximately one order of magnitude and makes it possible to dispense with preparation of electronic computer programs. The maximum range of dimension modeling is 800 mm; the largest feed speed is 400 mm/min, and the accuracy with which the program is performed is 0.1 mm. The analog system affords a simple means of introducing corrections for the diameter and the wear of the milling cutter without changing the program. 4 illustrations. V. Sh. [Translation of abstract]

SUB CODE: 13,09

TARTAKOVSKIY, V.I.; ETKIN, A.A.; KOGAN, M.L.; SHPRINTSEN, G.I.

Analog position system of program control for boring and turning lathes.
Stan. 1 instr. 36 no.4;18-20 Ap '65. (MIRA 18:5)

L 44346-66
ACC NR: AP6026946

EWB(0)/EWP(1)

RP(e)

BB/GG

SOURCE CODE: UR/0115/66/000/007/0033/0038

AUTHOR: Tartakovskiy, V. I.; Kogan, M. L.

43
B

ORG: none

TITLE: Angle-to-voltage linear converter with an error of 0.001%

SOURCE: Izmeritel'naya tekhnika, no. 7, 1966, 33-38

TOPIC TAGS: electromechanical converter, angle to voltage converter, *linear converter, analog computer, computer component*

ABSTRACT: An electromechanical device is proposed whose output voltage (proportional to the input-shaft angle) is made up of three decimal-place voltages. The higher-place voltage is obtained from a 20-tap, 10-v, 1000-cps toroidal-core autotransformer via a shaft-driven 2-brush, 20-contact switch. The mid-place voltage, from a 24-tap toroidal-core transformer via a 2-brush, 24-contact switch. The lower-place voltage is supplied by two 90°-spaced rotary transformers driven by the same shaft; these transformers perform the interpolation in the mid-place voltage steps. Thus, the input shaft drives two sets of brushes and two rotary transformers. The linearity error in an experimental model is claimed to be 0.001%; the noise (quadrature and higher-harmonic voltages) error, 0.0025%. The converter is intended for analog computing devices, angle-transmission systems, and tool-feed systems of metal-working machines. Orig. art. has: 3 figures and 6 formulas.

[03]

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 001
Card 1/1 blg

UDC: 681.142.332.1

SITENKO, A.G. [Sytenko, O.H.]; TARTAKOVSKIY, V.K. [Tartakovs'kyi, V.K.]

Diffraction of splitting of deuterons. Ukr.fiz.zhur. 4 no.6:708-
723 N-D '59. (MIRA 14:10)

1. Khar'kovskiy gosudarstvennyy universitet im. A.M.Gor'kogo.
(Deuterons--Diffraction)

TARTAKOVSKIY, V. K.

S/185/60/005/004/002/021
D274/D306

AUTHOR: Tartakovs'kyy, V.K.
TITLE: On the diffraction scattering of particles with unit spin
PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 4, 1960, 445-448

TEXT: Diffraction scattering of ultrarelativistic particles with unit spin in a central field is considered. For waves satisfying the Daffin-Kemmer equation, Huygen's principle is formulated by

$$\psi(r) = \frac{1}{4\pi} \int \left\{ \bar{\beta} \frac{\partial}{\partial r} - E\beta_4 - \frac{E^2}{m} \beta_4^2 + \frac{E}{m} \left(\bar{\beta} \frac{\partial}{\partial r} \beta_4 + \beta_4 \bar{\beta} \frac{\partial}{\partial r} \right) - \frac{1}{m} \left(\bar{\beta} \frac{\partial}{\partial r} \right)^2 \right\} \times \quad (4)$$

$$\times \frac{e^{ip|r-r'|}}{|r-r'|} \bar{\beta} \psi(r') ds' = \frac{1}{4\pi} \int \frac{\hat{p}(\hat{p}+im)}{m} \cdot \frac{e^{ip|r-r'|}}{|r-r'|} \bar{\beta} \psi(r') ds', \quad p = \sqrt{E^2 - m^2}. \quad (4)$$

First, the elastic-scattering cross-section is derived:



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D274/D306

On the diffraction scattering...

$$d\sigma_s = \left(1 + \frac{1}{6} \frac{1}{1-\beta^2} \sin^2 \theta_s\right) \left| \int_0^{\infty} (1 - e^{2i\gamma(r)}) J_0(p \sin \theta_s r) \rho dr \right|^2 p^2 d\Omega_s \quad (7)$$

This expression differs by the factor in front of the integral from the expression for the elastic-scattering cross-section of particles without spin. Further, diffraction scattering is considered of a charged particle with spin 1 in a central field with the emission of a gamma quantum. It is assumed that the interaction of the charge with the electromagnetic field of the γ -quanta is weak. The element of the transition matrix is

$$U_{i,f} = -\frac{ie}{\sqrt{2\omega}} \int \psi_p^{(-)}(r) (2\beta_s^2 - 1) \hat{e} e^{-ikr} \psi_p^{(+)}(r) dr \quad (8)$$

where ω , k and e are the frequency, momentum and polarization of the emitted γ -quantum, p' and E' are the final momentum and energy of the particle; $\psi_p^{(-)}(r)$ is the wave function of the particle in the final state which at a great distance from the center of the field is in the form of a sum of plane- and spherical waves. Hence

On the diffraction scattering...

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the expression for the matrix element in the ultrarelativistic case assumes the form

$$U_{i-f} = -\frac{2\pi ie}{\sqrt{2\omega}} \int_{\vec{0}}^{\vec{\infty}} |1 - e^{i\mathbf{r}\cdot\mathbf{p}}\rangle I_0(|\mathbf{k}\bar{\theta} + \mathbf{p}'\bar{\theta}'| \rho) \rho d\rho \times \quad (10)$$

$$\times \bar{U}_p \left\{ \frac{\hat{e} \hat{f}_1 (\hat{f}_1 + im) \hat{n}}{m(p^2 - f_1^2)} + \frac{\hat{n}' \hat{f}_2 (\hat{f}_2 + im) \hat{e}}{m(p'^2 - f_2^2)} \right\} U_p$$

where

$f_1 = p' + k$, $f_2 = p - k$; $p' = (p'n)n + p'\bar{\theta}'$, $k = (kn)n + k\bar{\theta}$.
The differential cross-section of the emitted γ -quantum is

$$d\sigma_\gamma = \frac{2\pi}{V} |U_{i-f}|^2 \delta(E - E' - \omega) \frac{dp' dk}{(2\pi)^6} \quad (11)$$

By averaging with respect to initial polarization of particles and by taking the sum with respect to final polarization of particles and of the emitted γ -quantum, expression

Card 3/5

On the diffraction scattering...

S/185/60/005/004/002/021
D274/D306

$$d\sigma_1 = \frac{e^2 V'}{24m^2 p E} \left| \int_0^{\infty} (1 - e^{2i\eta(\rho)}) J_0(|k\vec{b} + p'\vec{b}'| \rho) \rho d\rho \right|^2 H_{\omega}(\vec{\theta}, \vec{\theta}') \frac{\omega d\omega}{(2\pi)^3} d\sigma d\sigma', \quad (12)$$

$$H_{\omega}(\vec{\theta}, \vec{\theta}') = \text{Sp} \left\{ \left[\hat{\beta}_1 \frac{\hat{f}_1(\hat{f}_1 + im)\hat{n}}{p^2 - f_1^2} + \frac{\hat{n}'\hat{f}_2(\hat{f}_2 + im)}{p'^2 - f_2^2} \hat{\beta}_1 \right] \times \right.$$

$$\left. \times \hat{p}(\hat{p} + im) \left[\frac{\hat{n}\hat{f}_1(\hat{f}_1 + im)}{p^2 - f_1^2} \hat{\beta}_1 + \hat{\beta}_1 \frac{\hat{f}_2(\hat{f}_2 + im)\hat{n}'}{p'^2 - f_2^2} \right] \hat{p}'(\hat{p}' + im) \right\}.$$

is obtained. In the limit, when

$$\frac{m}{E}, \frac{m}{\omega} \ll \theta, |\vec{\theta} - \vec{\theta}'| \ll 1. \quad (13)$$

another formula for H_{ω} is derived. If the particle momentum changes by one magnitude only, that formula becomes

$$H_{\omega}(\theta, 0) = \frac{3}{4} \omega^2 \left(E^2 + E'^2 - \frac{4}{3} EE' \right) \theta^2, \quad \theta' = 0$$

Card 4/5

On the diffraction scattering...

S/185/60/005/004/002/021
D274/D306

It is noted that in the approximation (13), the term of the cross-section due to spin is predominant. The obtained formulas are used for deriving expressions for the scattering (by nuclei) of fast charged particles with spin 1 (deuterons). There are 4 Soviet-bloc references.

ASSOCIATION: Kharkivs'kyi derzhavnyi universytet (Khar'kov State University)

SUBMITTED: December 29, 1959



SITENKO, A.G. [Sytenko, O.H.]; TARTAKOVSKIY, V.K. [Tartakovs'kiy, V.K.]

Polarization and quadrupolarization of deuterons in elastic scattering on nuclei. Ukr. fiz. zhur. 5 no. 5:581-590 S-O '60. (MIRA 14:4)

1. Fiziko-tekhnicheskiy institut AN USSR i Khar'kovskiy gosudarstvennyy universitet.

(Deuterons—Scattering)

TARTAKOVSKIY, V.K. [Tartakovs'kiy, V.K.]

Effect of the choice of the deuteron wave function on the magnitude of the stripping cross sections and the diffraction splitting. Ukr. fiz. zhur. 5 no.6:769-772 N-D '60. (MIRA 14:3)

1. Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo.
[Deuterons- Scattering]
(Nuclear reactions)

TARTAKOVSKIY, V. K., Cand Phys-Math Sci -- "Diffraction
interaction ^{between} of deuterons ^{and} ~~with~~ nuclei." Khar'kov, 1961.

(Min of Higher and Sec Spec Ed UkSSR, 1961. Khar'kov Order
of Labor Red Banner State U im A. M. Gor'kiy) (KL, 8-61,
229)

SITENKO, A.G. [Sytenko, O.H.]; TARTAKOVSKIY, V.K. [Tartakovs'kyi, V.K.]

Diffraction interaction of deuterons having semitransparent
nuclei with diffuse edges. Ukr. fiz. zhur. 6 no.1:12-19
Ja-F '61. (MIRA 14:6)

1. Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo.
(Deuterons—Diffraction)
(Nuclei, Atomic)

TARTAKOVSKIY, V.K. [Tartakovs'kiy, V.K.]

Polarization of nucleons generated in the diffraction fission
of deuterons. Ukr. fiz. zhur. 6 no.2:273-275 Kr-Ap '61.
(MIRA 14:6)

1. Khar'kovskiy gosudarstvennyy universitet im. A.M. Gor'kogo.
(Nucleons)
(Deuterons)
(Nuclear fission)

S/185/63/008/001/023/024
D234/D308

AUTHOR: Tartakovs'kyy, V. K.

TITLE: Stripping reactions at high energies

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 1, 1963,
142-144

TEXT: The author takes into account simultaneously the curvature, transparency and diffuse boundary of a nucleus. In the case of heavy nuclei the diffuse edge is neglected, and expressions for the integral and differential cross-section are given. For neutron stripping in the case of a light nucleus

$$\sigma = 2\pi \frac{a_p}{b^2} \left(1 - \frac{a_p}{4}\right) + \tilde{\gamma} \frac{a_n a_p}{b^2} \mu \left[\frac{2(a_n + a_p)}{3\mu + 2b^2} - \frac{1}{2\mu + b^2} - \frac{a_n a_p}{4(\mu + b^2)} \right] \quad (6)$$

Card 1/2

S/185/62/008/001/021/021
021/021

Stripping reactions at ...

The numerical results are found to agree well with experiment.

ASSOCIATION: Kharkivs'kyi derzhuniversytet im. O. M. Hor'koho
(Kharkiv State University im. A. M. Gor'kiy)

SUBMITTED: September 27, 1962

Card 2/2

ISMATOV, Ye. [Ismatov, IE.]; TARTAKOVSKIY, V.K. [Tartakovs'kiy, V.K.]

Polarization of nucleons produced in the fission of deuterons in the electromagnetic field of the nucleus. Ukr. fiz. zhur. 10 no.11:1271-1272 N '65. (MIRA 18:12)

1. Institut fiziki AN UkrSSR, Kiyev i Khar'kovskiy gosudarstvennyy universitet imeni Gor'kogo. Submitted August 4, 1965.

TARTAKOVSKIY, V.K. [Tartakovs'kyi, V.K.]; ISMATOV, Ye. [Ismatov, IE.]

Polarization of Li^6 fission products in the electromagnetic field of the nucleus. Ukr.fiz.zhur. 10 no.12:1289-1294 D '65.
(MIRA 19:1)

1. Institut fiziki AN UkrSSR, Kiyev, i Khar'kovskiy gosudarstvennyy universitet im. Gor'kogo. Submitted July 30, 1965.

ACC NR: AP6023881

SOURCE CODE: UR/0109/66/011/007/1331/1332

AUTHOR: Vasil'yev, V. P.; Tartakovskiy, V. M.

ORG: Tashkent State University im. V. I. Lenin (Tashkentskiy gosudarstvennyy universitet)

TITLE: Problem of determining excess barium in "doubled" oxide-coated cathodes

SOURCE: Radiotekhnika i elektronika, v. 11, no. 7, 1966, 1331-1332

TOPIC TAGS: electronic tube cathode, oxide coated cathode

ABSTRACT: The results are reported of an experimental study of excess Ba in a pair of oxide-coated 5-mm diameter 70--80- μ thick cathodes firmly pressed together; the cathode base was made from 100- μ thick Ni. Ba content was determined by the radioactive-iodine tracer method; error, 10% or less; 8 specimens

Card 1/2

UDC: 621.385.7.011.2

ACC NR: AP6023881

were tested. It was found that: (1) The evaporation of excess Ba from "doubled" cathodes is more difficult than that from single conventional cathodes; the "doubled" set may sometimes contain much more excess Ba; hence, the results of electric-conductance and heat-conductance measurements in a "doubled" cathode cannot be directly applied to real cathodes; (2) The rate of excess-Ba formation increases when a current is passed through the coating. "V. N. Chernenko, a 5th-year student of Physics School, Tashkent University, took part in the work." Orig. art. has: 1 table.

SUB CODE: 09 / SUBM DATE: 13Sept65 / ORIG REF: 005 / OTH REF: 001

Card 2/2

TARTAKOVSKIY, V. Y.

18

CA

Preparation of chemically pure hydrofluoric acid. V. YA. TARTAKOVSKIY, *Mineral. Zhurn' 6, 863-DU(1931)*.—In the prepn. of c. p. HF, NaF is substituted for KF. Com. HF is distd. with the addn. of an excess of 1.5-3 parts of NaF above the quantity required for neutralization of H_2SiF_6 and H_2SO_4 . The soly. of Na $_2$ SiF $_6$ in HF in the presence of large amts. of NaF is negligible. Cl in HF is removed with PbCCl $_2$ as PbFCl which is sparingly sol. in dil. HF and completely insol. in 40% HF. CHAM. BLANC

ASD-3LA METALLURGICAL LITERATURE CLASSIFICATION

GROUP SYMBOL

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MATERIAL INDEX

GROUP SYMBOL

TARTAKOVSKIY V. Ya
12

7

Volumetric determination of silica in the presence of the compounds of aluminum and iron. V. TARTAKOVSKIY. *Mineral. Sibir'sk. No. 12, 1076-87(1911)*. - The method is based on conversion of silicates into silicates by treatment with HF and NaOH, and titration of the resulting Na_2SiF_6 (K_2SiF_6) in hot soln. with 0.5 N NaOH and phenolphthalein. (1) A sample of a silicate or quartz contg. 0.02-0.2 g. of SiO_2 is mixed with 10-20 cc. of 2 N NaOH and 5-6 cc. of HF, and evapd. to dryness on the water bath; then, to decomp. any NaAlF_4 formed, 1 g. of HCO_3Na for every 5 cc. of NaOH used is added, the soln. evapd. and the residue dried at 120-130° (whereby the free HCO_3Na is added) and titrated. NaF and the excess of HCO_3Na in the residue do not impair the titration of Na_2SiF_6 . Alkalies, alk. earth metals and Pb in silicates do not affect the results of analysis. (2) If analyzed silicates contain metals other than the ppt. their need, hydroxides formed by the treatment with NaOH (K_2SiF_6) is sepd. from the residue by heating it with HF and then adding 1st aq. 20% KCl and titrating with aq. 20% KCl, filtering, washing the ppt. with aq. 20% KCl and titrating with aq. 20% KCl. These 2 methods cannot be applied in the presence of salts of Al and Fe, because by the method (1) Al and Fe are pptd. by the treatment with NaOH and thus combine with NaF to form the complex of the type of cryolite which are titrated by NaOH, and being insol. in HF soln. of KCl cannot be sepd. from Na_2SiF_6 and K_2SiF_6 . By adding 3-4 g. of neutral NaF to 80-100 cc. of the soln., the action of NaOH on the compds. of AlF₃ and FeF₃ is checked, and thus the titration of hot solns. of Na_2SiF_6 with NaOH and phenolphthalein is possible. By the method (1) can be analyzed silicates contg. Th, and by the method (2) those contg. Ce, Ta, Zr, W and Ti.

CHAR BLANC

530-31A METALLURGICAL LITERATURE CLASSIFICATION

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Thursday, September 25, 2003 16:02:40-2
APPROVED FOR RELEASE Thursday, September 26, 2002 16:02:40-2
35020012-8

TARTAKOVSKIY V. Ya

7

10

Volumetric method for the detn. of silica in the presence of fluorides. V. YA
TARTAKOVSKIY. *Trans. Inst. Econ. Mineral. (U. S. S. R.)* N. 52, 21 pp (in English)
ORIGIN: C. C. A. 20, 3761. V. D. KARPENKO

ASM 31 A METALLURGICAL LITERATURE CLASSIFICATION

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TARTAKOVSKIY, V. Y.

711

The Determination of Metallic Magnesium, Magnesia, and Magnesium Fluoride in the Products of Electrolytic Recovery of Metallic Magnesium. V. Ya. Tartakovskii (*Trans. Ind. Econ. Mineral. (U.S.S.R.)*, 1934, (64), 16 pp.). (*Dokl. Akad. Nauk SSSR*, 1935, 20, 4892).—[In Russian.] Two methods were developed for the analysis of crude electrolytic Mg containing MgO and MgF₂. These methods are based on the fact that, in the presence of K₂Cr₂O₇ or HF, Mg becomes passive and insoluble in acids. In the first method the sample is treated with a mixture of AcOH and K₂Cr₂O₇; MgO dissolves, and Mg and MgF₂ are filtered off. The residue is then treated with dilute AcOH, which dissolves the Mg. In the second method, MgO is first converted into MgF₂ by means of HF; the Mg is then dissolved from the mixture of Mg and MgF₂ with AcOH. MgO and MgF₂ are determined by the first method.—S. G.

55-55A METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

REGION

1930-1939

REVISIONS

REVISIONS

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TARTAKOV SKII

V. Ya.

6

Recovering silver nitrate from the residue remaining after the determination of chlorides. V. Ya. Tartakovich. *Zashchita Lab.* 9, No. 1, 112(1940).—Add HCl (d. 1.19) to a flask contg. the residue in an amt. equal to 5% of the total vol. of the liquid, let stand for 12 hrs. and syphon off the clear soln. Wash several times with hot HCl (1:1) by decantation until a colorless soln. is obtained and 1-2 times with water and filter through a Büchner funnel. Add 3.5 l. of water to 2.5 kg. of the pressed-out AgCl. Add gradually, in the course of 3 days, 60 g. of thin Zn shavings, let the beaker stand for 2-3 weeks, keeping the vol. of the liquid at 3.5-4.0 l. Add 10-15 ml. of HCl (d. 1.19) at intervals of 2-3 days (the total vol. of the acid should not exceed 60-80 ml.). Syphon off the ZnCl₂ soln. when nearly all Ag is sepd. in the form of metallic Ag. Treat the residue with 1:1 HCl soln. with heating and const. stirring, wash twice with warm, dil. HCl, and with water and filter on a Büchner funnel. Dissolve the metallic Ag in HNO₃ (d. 1.14), filter, evap. on a water bath until the appearance of a film and crystallize out at 50-60° in a drying oven. Approx. 10 kg. of AgNO₃ and some residue contg. Ag were obtained from 12.5 kg. of pressed-out residue contg. 30% of water. The time required for the recovery of Ag was 56 hrs. (excluding the time required for the galvanic pptn. of Ag). The cost of the reclaimed AgNO₃ is approx. 5% of its market value.

W. R. Henn

AS 6 55 A METALLURGICAL LITERATURE CLASSIFICATION

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A.C.S.

TARTAKOVSKII, V. Ya. *Chemistry of Hydroxides*

Colorimetric determination of aluminum, tin, molybdenum, and chromium by the hematoxylin method. V. YA. TARTAKOVSKII. *Zashchita Lek.*, 9 [9] 97 [1-75 (1940)]; *Khim. Referat. Zhur.*, 4 [3] 83 (1941).—T. investigated the conditions of formation of the hematoxylin complex. He worked out a method for determining Al in alkali hydroxides with the aid of hematoxylin. This method is more sensitive and accurate than the alizarin method. The interfering Fe is removed by extraction with amyl alcohol as Fe(CNS), or by introducing similar amounts of Fe in the standard samples used for color comparison. Hematoxylin reacts with many metals of the fourth and fifth group. Methods are given for determining Cr, Sn, and Mo in the presence of small amounts of Al and Fe. They are based on the greater resistance toward acid of the Cr, Sn, and Mo hematoxylin complexes than of the Al and Fe complexes. M.Ho.

APPROVED FOR RELEASE Thursday, September 20, 2001
APPROVED FOR RELEASE Thursday, September 20, 2001

TARTAKOVSKIY, V. Ya
SC

PROCESSES AND PROPERTIES INDEX

Recovery of uranyl acetate from the residues of sodium detordid-
ation. V. J. Tartakovskij (Zavod. Lab., 1940, 8, 1354).—The residue
is dissolved in HNO₃ (4:1-4), and U pptd. with NH₃. J. J. B.

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SEMI SYMBOLS

TABLE NO.

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TARTAKOVSKIY V. V. PROPERTIES INDEX

31

Pencil leads. V. V. Tartakovskiy and A. L. Kozlovskiy. U.S.S.R. 60,180, Aug. 31, 1947. As bonding agent is used a drying oil added to a mixt. of powd. pigment and filler. The mix is stirred with water, molded, and dried. If as filler is used kaolin or talcum, to the mix of filler, pigment, and drying oil is added an aq. soln. of starch or tragacanth. For small-diam. leads, instead of starch or tragacanth is used a water-sol. thermoplastic resin, e.g., phenol-C1141 M. Hosh

COMMON ELEMENTS

OPEN MATERIALS INDEX

COMMON ELEMENTS

ASM-11A METALLURGICAL LITERATURE CLASSIFICATION

PROPERTY INDEX

FROM DIVISION		RECORD MAP ONLY ONE		ILLUSTRATIONS		FROM DIVISION	
ST	CH	AV	NO	IS	SA	AN	LA

TARTAKOVSKIY, Ye.A. (Stalinabad, Tadzhikskoy SSR, skver Kuybysheva, d.70,
kv.2)

Extraction of foreign bodies from the esophagus and respiratory
tracts in children. Nov.khir.arkh. no.6:92-93 N-D '59.

(MIRA 13:4)

1. Kafedra gospital'noy khirurgii (zaveduyushchiy - prof. N.Z.
Monakov) Stalinabadskogo meditsinskogo instituta.
(ESOPHAGUS--FOREIGN BODIES) (RESPIRATORY ORGANS--FOREIGN BODIES)

TARTAKOVSKIY, Yo.Ya. (g.Perm')

Consolidated transportation units. Zhel.dor.transp. 43 no.8:
80-81 Ag '61. (MIRA 14:8)

1. Zamestitel' nachal'nika transportnogo upravleniya Permskogo
sovnarkhoza.
(Perm--Railroads)

Handwritten scribble
BRON, L.S.; TARTAKOVSKIY, Zh.E.

Limiting the heating of oil in hydraulic drives of automatic
machine tools. Stan. 1 instr. 28 no.12:9-13 D '57. (MIRA 10:12)
(Machine tools--Hydraulic driving)

SOV/28-59-4-1/19

28(3), 25(2)

AUTHORS: Genin, V.B., and Tartakovskiy, Zh. E., Engineers

TITLE: Types and Basic Parameters of Standard Units and Machine Tools Built From Standard Units (Tipazh i osnovnyye parametry normalizovannykh uzlov i agregatnykh stankov.)

PERIODICAL: Standartizatsiya, 1959, Nr. 4, pp 3-8 (USSR)

ABSTRACT: The article contains a brief general consideration of the economic advantages of "transfer" machine tools, 70 - 90 % of which consist of standard units which can be produced much cheaper than conventional machine tools. The authors also give detailed illustrated information on the "normalization" of a series of electrically-controlled pneumatic clamping heads and work tables completed at the Pervoye spetsial'noye konstruktorskoye byuro agregatnykh stankov i avtomaticheskikh liniy Mosgorsovnarkhoza, or "SKB-1",

Card 1/2

SOV/28-59-4-1/19

**'Types and Basic Parameters of Standard Units and Machine Tools
Built From Standard Units**

(1st Special Designing Bureau of "Transfer" Machine Tools and Automatic Production Lines of the Moscow City Sovnarkhoz). The information includes the principles of the "normalization" (chiefly a subdivision of the standard units into 3 sizes: small, medium and large) illustrated by tables of parameters. There are 5 diagrams, 6 tables and 3 Soviet references.

ASSOCIATION: SKB-1 Moskovskogo (gorodskogo) sovnarkhoza (SKB-1 of the Moscow(city) Sovnarkhoz).

Card 2/2

BRON, L.S.; TARTAKOVSKIY, Zh.E.; VLADZIYEVSKIY, A.P., doktor tekhn. nauk,
prof., red.; BORUSEMOY, I.V., red.; ALEKSEYEVA, T.V., tekhn. red.

[Standardized components of machine-tool units; catalog] Normali-
zovannye uzly agregatnykh stankov; katalog. Moskva, 1961. 347 p.
(MIRA 14:11)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy informatsii
mashinostroyeniya. 2. Chlen-korrespondent AN USSR (for Bunin, Odigin).
3. AN USSR (for Starodubov).
(Metallography) (Steel--Heat treatment)

TARTAKOVSKIY, Zh.E.; GENIN, V.B.

Analysis of dimensional series. Standartizatsia 25 no.10:
3-6 0 '61. (MIRA 14:9)

(Dimensional analysis)

S/O28/62/000/002/002/004
D221/D303

AUTHORS: Polivanov, P.M., Osmolovskiy, F.A., and Tartakovskiy, Zh.E.
TITLE: The normalization of devices for unit machine tools
PERIODICAL: Standartizatsiya, ²⁶⁻no. 2, 1962, 9-16

TEXT: Over 80% of the unit machine tools designed by the Pervoye spetsial'noye konstruktorskoye byuro agregatnykh stankov i avtomaticheskikh liniy Moskovskogo gorodskogo sovnarkhoza (First Design Office of Unit Machine Tools and Automatic Lines of Moscow Town Sovnarkhoz) (SKB-1) consist of standardized items. The special sub-assemblies, of which fixing devices form the main part, amount to less than 20% of parts, but they require up to 50% of labor. The available systems of fixtures for machine tools, strip-assemblies (SRP) and universal build-up units (USP) have drawbacks. In 1961 the SKB-1 began work on normalization of devices for unit machine tools. Components were divided into typical groups, and fixing devices chosen for each group. The various methods of clamping are also tabulated. The devices are designated by three numbers and a letter which signify

Card 1/2

S/028/62/000/002/002/004
D221/D303

The normalization of devices ...

the type, position of clamping, number of locations and quantity of points of clamping. The normalization is determined by the applicability of one or another arrangement. Some permit complete standardization except for location nests. The units can be divided into three parts: Drive, lever system in the frame and the locating points. The first two are labor and metal consuming, and therefore, require maximum normalization. The hydraulic drive exhibits the best qualities, and SKB-1 developed a range of hydraulic clamps for multi-position vertical unit machine tools. It is made in both horizontal and vertical execution, a variety of number of positions and diameter of cylinders. Their operation may be controlled manually or automatically. The advantage of the standardized drive of clamping is characterized by its simplicity, small size and universality. It does not contain pipes with control valves. The disposition of the clamp drive in the center of a face plate is convenient. There are 5 figures, 4 tables and 3 Soviet-bloc references. ✓

Card 2/2

OSMOLOVSKIY, F. A.; TARTAKOVSKIY, Zh. E.

Standardization of conveyors for moving chips in automatic
machine-tool lines. Standartizatsia 26 no.10:10-16 0 '62.
(MIRA 15:10)

(Conveying machinery--Standards)

POLIVANOV, P.M.; OSMOLOVSKIY, F.A.; TARTAKOVSKIY, Zh.E.

Standard parts of clamping devices of machine-tool units.
Stan.i instr. 33 no.5:35-38 My '62. (MIRA 15:5)
(Machine tools)

BRON, L.S.; TARTAKOVSKIY, Zh.E.; VLADZIYEVSKIY, A.P., doktor tekhn.
nauk, prof., nauchn. red.; GROSMAN, L.A., red.; BONDAREV,
M.S., tekhn. red.

[Hydraulic equipment for machine tools in foreign countries;
a survey] Stanochnoe gidrooborudovanie za rube hom; obzor.
Moskva, 1963. 71 p. (MIRA 16:10)

1. Tsentral'nyy institut nauchno-tekhnicheskoy informatsii
po avtomatizatsii i mashinostroyeniyu.
(Machine tools--Hydraulic drive)

BRON, L.S.; TARTAKOVSKIY, Zh.E.

Hydraulic drive of power packs of machine-tool units abroad.
Stan.i instr. 34 no.4:28-33 Ap '63. (MIRA 16:3)
(Machin~~g~~ tools--Hydraulic drive)

TARTAKOVSKY, B. S.

33567. Vtorichnyy Shov Kak Odin Iz Sposobov Sokrashcheniya Srokov Lecheniya Legko Ranenikh. Uchen. Zapiski (Caernovits Gos. Med. In-t), T. 1, 1949, c. 97-102

SO: Letopis'nykh Statey, Vol. 45, Moskva, 1949

SOURCE: Pharmazeutische Zentralhalle (für Deutschland), May 1956, Unclassified.

TARTALJA, Hrvoje
SURNAME (in caps); Given Names

Country: Yugoslavia

Academic Degrees: Dr. Magister

Affiliation: Institute for History of Natural, Mathematical and Medical
Sciences of the Yugoslav Academy of Arts and Sciences (Institut
za povijest prirodoslovnih, matematičkih i medicinskih nauka
Jugoslavenske Akademije Znanosti i Umjetnosti), Zagreb

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Source: Zagreb, Farmaceutski glasnik, No 7-8, July-August 1961, pp 298-302.
Data: "Hospitalers (Knights Hospitalers) in Croatia."

TARTALJA, Hrvoje, dr mr. ph.

Milutin Barac, a pioneer of petroleum industry. Kem ind 10
no.6:167-170 Je '61.

1. Medicinski fakultet, Rijeka.

TARTALJA, H.

From the history of pharmacy in Yugoslavia. Bul se Young 9 no.4/5:
118 Ag-0 '64.

1. Institute of History of Mathematical, Medical and Natural
Sciences of the Yugoslav Academy of Sciences and Arts, Zagreb.

TARTAJA, H., prof. dr. mr. ph.

Prof. Gustav Janacek, 1848-1929; obituary. Farmaceut vest 15
no.1/3:28-30 '64.

TARTALJA, T.

History of pharmacy in Yugoslavia, and its present conditions. Bul so Young 8 no. 1/2: 31-32 F-Ap '63.

1. Institut za povijest prirodnih, matematičkih i medicinskih nauka JAZU, Zagreb.

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CIA-RDP86-00513R001755020012-8"

2

TARTAN, G. ; ARONOVA, D.L. [translator]

Processes used in weaving yarns containing synthetic fibers. Tekst.
prom. 20 no.9:84-86 S '60. (MIRA 13:10)
(Weaving) (Textile fibers, Synthetic)

TARTANKIN, B.M.

Defects must be eliminated. Neftianik 2 no.1:3/4 Ja '57. (MLRA 10:2)

1. Glavnyy mekhanik Krasnovodskogo tovaro-transportnogo upravleniya
Glavneftesbyta.
(Petroleum industry--Equipment and supplies)

4 /
DZHANASHVILI, A.G.; TARTARASHVILI, O.Sh.

Materials for studying the distribution of some chiroptera
in Zakataly District. Soob. AN Gruz. SSR 33 no. 3:667-669
Mr '64 (MIRA 17:8)

TARTARENKO, Ye.S.; SOBML', A.Ye.; NOVIKOVA, Z.N.

Utilization of antioxidants of biological origin for protection
of fats from rancidity. Mikrobiologiya 24 no.2:217-222 Mr-Ap '55.
(MIRA 8:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut pishchevoy pro-
myshlennosti, Khar'kov.

(FUNGUS,

Naumoviella oleaginoso, Naumoviella humicola & Mortier-
ella, isolation of lipids protective fats from rancidity)

(FATS,

rancidity, protection with lipids from Naumoviella humi-
cola, Naumoviella oleaginoso, & Mortierella)

TARTARINOV, B. P.: LEVITSKIY, M. V.

"Determining the Specific Electrical Conductivity of Highly Diluted Solutions of
Certain Electrolytes", Zhur. Obshch. Khim., 9, No. 17, 1939.
Institute for Railroad Transport Engineers, Rostov-on-Don. Received 3 March 1939.

Report U-1614, 3 Jan 1952.

I 25507-66 ENT(1)/ENT(m)/ETC(f)/EPE(n)=2/ETG(m)/1/EPE(f) 4/6/1
ACC NR: AP6011408 SOURCE CODE: UR/0057/66/036/003/0566/0568 B

AUTHOR: Tatarinova, N.V.; Chistyakov, P.N.

ORG: Moscow Engineering Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut)

TITLE: Dependence of the low postdischarge emission from a cold barium cathode on the experimental conditions 27

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 3, 1966, 566-568

TOPIC TAGS: electron emission, metal, barium, ultra high purity

ABSTRACT: The authors have investigated postdischarge emission from high purity barium films in order to determine whether postdischarge emission is due in the case of barium, as in the case of less active metals, to the presence of nonmetallic impurities. After the apparatus was cleaned by the usual high vacuum techniques it was sealed off at a vacuum of 10^{-7} mm Hg and barium was deposited on a molybdenum substrate. Xenon, purified by a high current glow discharge and containing less than one part per million of active impurities, was admitted from another part of the apparatus by breaking a glass partition, and the postdischarge emission of the barium film was recorded. The emission current one minute after cessation of the initiating discharge was 10^{-17} A; this is less by a factor of 1000 than the postdischarge emission previously observed by the authors (Radiotekhnika i elektronika, VIII, 7, 1246, 1963)

UDC: 537.553