Investigation of the Mechanism of the Diazo   SOV/79-28-7-48/64
Substitution in Azo Dyes of the Naphthalene Series by Means of Heavy Nitrogen
Atoms

compound (I) by means of combining the sulfanilic adic, diazo-
tized by means of $NaN^{15}O_2$, with β-nephthene. In this case the
nitrogen atoms with 9% N^{15} are denoted by N^{*}. The rest are
simple atoms that do not depend on the indices, and which have
0,37% N^{15} (see scheme (1). The separated (IV) was combined
with β-naphthylamine after the diazo substitution. The dyes
(III) and (V) obtained were purified; their nitrogen was con-
verted to ammonium chloride and was then subjected to an isoto-
pic analysis (Table 1). The analysis of the dyes in the first
series shows that practically the whole excess of N^{15} (as
compared to the natural $0,37\% N^{15}$) is in a bound state (III). The
results of the second series show that the N^{*}-atom (I) does
not enter the dye (III), which points to a splitting off of the
nitrogen atom from the naphthalene nucleus. The results obtained
by means of the marked nitrogen atoms can be brought to agree-
ment with the mechanism of electrophilic substitution. The
author mentioned assumptions as to the details of the diazo

Card 2/3   substitution mechanism. There are 2 tables and 16 references,

Investigation of the Mechanism of the Diazo   SOV/79-28-7-48/64
Substitution in Azo Dyes of the Naphthalene Series by Means of Heavy Nitrogen
Atoms

        8 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk Ukrainskoy SSR
              (Institute of Physical Chemistry AS UkrSSR)

SUBMITTED: July 1, 1957

        1. Dyes—Chemical properties   2. Nitrogen compounds—Decomposition
        3. Benzenesulfonic acids—Chemical reactions   4. Nitrobenzene
        hydroxides—Chemical reactions   5. Radioisotopes—Applications

Card 3/3

S/079/60/030/05/39/074
B005/B016

AUTHORS: Geller, B. A., Samosvat, L. S.

TITLE: Elaboration of Syntheses of Organic Compounds Labeled With the Isotope N^{15}

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 5, pp. 1590-1594

TEXT: The authors of the present paper devised methods of synthesizing some aromatic nitrogen compounds which are marked with radioactive N^{15}. The following labeled compounds were prepared: Benzamide, aniline, α- and β-naphthyl amine, nitro-benzene. N^{15}-benzamide was synthesized from $N^{15}H_4NO_3$ or another ammonium salt, aqueous sodium hydroxide and benzoyl chloride in benzenic solution according to a method described in publications (Ref. 2). The yield in this synthesis was 93-96%. The labeled excess ammonium salt may be recovered in the form of $N^{15}H_4Cl$, which increases the effective yield up to 97-99%. N^{15}-aniline was obtained from benzamide by

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Elaboration of Syntheses of Organic Compounds   S/079/60/030/05/39/074

Labeled With the Isotope N^{15} B005/B016

Hofmann acid amide degradation. The intermediate N-bromo benzamide was not isolated. The yield of this synthesis was 84-87%. N^{15}-α-naphthyl amine was obtained according to a method described in publications (Ref. 6). This synthesis is made on the basis of $N^{15}H_4Cl$ which is allowed to react with α-naphthol in the presence of anhydrous sodium acetate and glacial acetic acid. The reaction mixture is heated for 8-10 h to 280°. The resultant precipitate is boiled with dilute sodium hydroxide. After cooling it is filtered, the residue is boiled under reflux with dilute hydrochloric acid. The hot solution is filtered. After addition of sodium hydroxide, α-naphthyl amine is isolated from the filtrate by water vapor distillation. The yield of this synthesis is 77-82%. By recovering the labeled excess ammonium chloride, the effective yield may be raised up to 90-92%. The recovery of the ammonium salt is described. N^{15}-β-naphthyl amine was synthesized similarly to N^{15}-α-naphthyl amine from β-naphthol, $N^{15}H_4Cl$, anhydrous sodium acetate, and glacial acetic acid. The yield was 68%, or 78%, respectively (considering the recovered ammonium chloride). N^{15}-nitro-benzene was obtained by nitration of benzene with labeled sodium nitrate and sulfuric acid. The authors determined the optimum conditions for this

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Elaboration of Syntheses of Organic Compounds   S/079/60/030/05/39/074
Labeled With the Isotope N^{15} B005/B016

reaction. The best yield is obtained with 80% sulfuric acid in excess
(500 ml excess per 1 mole of the nitrate). The performance of this
synthesis is described in detail. The yield was 91-94%. There are 2
figures and 9 references, 3 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii imeni L. V. Pisarzhevskogo
             Akademii nauk USSR (Institute of Physical Chemistry imeni
             L. V. Pisarzhevskiy of the Academy of Sciences, UkrSSR)

SUBMITTED: May 15, 1959

Card 3/3

5.3200
5.3610

S/079/60/030/05/54/074
B005/B125

AUTHORS: Geller, B. A., Samosvat, L. S.

TITLE: Investigation of the Mechanism of the Condensation of Amino Compounds With the Aid of N^{15}

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 5, pp. 1650-1656

TEXT: In the paper by A. I. Brodskiy, R. Yu. Sheynfayn, and B. A. Geller (Ref. 1) the mechanism of the formation reaction of phenyl-α-naphthylamine and of benzarylides in the condensation of two amino compounds was investigated. The authors of the present report studied the mechanisms of the splitting off of the amino group in the condensation of p-aminophenol with aniline, α-naphthylamine and benzamide, in the condensation of n-butylamine with aniline and in the condensation of p and m-chloraniline with α-naphthylamine. The carrying out of these condensations is described in detail. In all of these cases one of the initial components in the amino group was marked with N^{15}. By determination of the content of heavy nitrogen in each of the products which form (secondary amine; ammonium chloride or ammonia) it was determined where the amino group had been split off. Table 1 shows the results of the mass-spectrometric analysis for nitrogen for all
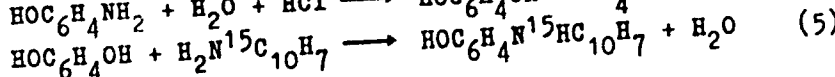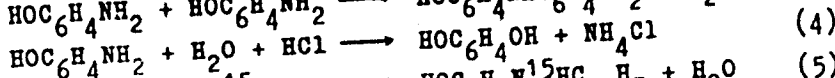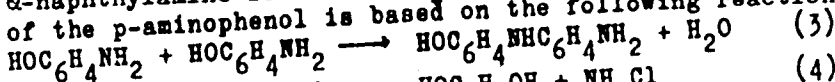
Card 1/4

Investigation of the Mechanism of the Conden-   S/079/60/030/05/54/074
sation of Amino Compounds With the Aid of N^{15} B005/B125

reactions investigated as well as the base constants of the amines con-
cerned in the reaction. In most cases the amino group was split off from
only one of the two components. The mechanism of the reaction between two
amines depends on in which properties the two amines most differ.
α-Naphthylamine always loses its amino group in the condensation with
amines of the benzene series regardless of their basicity. This behavior
is based on the fact that the stability of the quinoidal structure, the
formation of which is favored by the splitting off of the amino group, is
greater in naphthalene derivatives than in benzene derivatives. In the
condensation of α-naphthylamine with p-aminophenol the amino group is split
off from both components. The authors assume that the major direction of
this condensation is via the formation of the quinoidal form, where the
α-naphthylamine loses its NH_2 group. The splitting off of the amino group
of the p-aminophenol is based on the following reactions:

$$HOC_6H_4NH_2 + HOC_6H_4NH_2 \longrightarrow HOC_6H_4NHC_6H_4NH_2 + H_2O \quad (3)$$
$$HOC_6H_4NH_2 + H_2O + HCl \longrightarrow HOC_6H_4OH + NH_4Cl \quad (4)$$
$$HOC_6H_4OH + H_2N^{15}C_{10}H_7 \longrightarrow HOC_6H_4N^{15}HC_{10}H_7 + H_2O \quad (5)$$

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Investigation of the Mechanism of the Conden-   S/079/60/030/05/54/074
sation of Amino Compounds With the Aid of N^{15} B005/B125

Table 2 shows the dependence of the content of heavy nitrogen in each of
the two reaction products on the length of the reaction. When the two
amines strongly differ in their basicities, the stronger base loses its
amino group after the mechanism of a nucleophilic substitution. In the
condensation of amines with benzamide the ammonia which forms comes
entirely from the amide. Also here the splitting off takes place after the
mechanism of a nucleophilic substitution, where with the intermediate
formation of the ortho form of the acid amide the ammonia splits off.
This mechanism agrees with the assumption of Poray-Koshits (Ref. 5) for
the acylation of primary amines. It was determined that in the systems
studied no exchange of the nitrogen or the amino group occurred between
the two amines under the conditions of the condensation. All operations
carried out are described in an experimental section. The authors thank
Academician of the Akademiya nauk Ukrainskoy SSR (Academy of Sciences of
the Ukrainskaya SSR) A. I. Brodskiy for his assistance. In the present
report an apparatus according to D. Rittenberg (Ref. 12) is mentioned.
There are 2 tables and 12 references, 5 of which are Soviet.

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Investigation of the Mechanism of the Conden-   S/079/60/030/05/54/074
sation of Amino Compounds With the Aid of N^{15} B005/B125

ASSOCIATION: Institut fizicheskoy khimii imeni L. V. Pisarzhevskogo
Akademii nauk Ukrainskoy SSR (Institute of Physical Chemistry
imeni L. V. Pisarzhevskiy of the Academy of Sciences of the
Ukrainskaya SSR)

SUBMITTED: April 16, 1959

Card 4/4

82680

S/079/60/030/008/005/008
B004/B064

5.3610

AUTHORS: Geller, B. A., Dubrova, L. N.

TITLE: On the Mechanism of the Re-arrangement of N-Nitroamines

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 8,
               pp. 2646 - 2647

TEXT: In the introduction the authors discuss publications on the re-
arrangement of N-nitroamines in acid media to o- and p-nitroamines
(Refs. 1-10). Since no nitrating agent can be found in the reaction
medium, the authors assumed an intramolecular reaction. They investi-
gated the possibility of an intermolecular reaction in which no nitrat-
ing agent need occur, as two molecules of an N-nitroamine form an inter-
mediate complex, in which the exchange of the nitro groups takes place.

The joint re-arrangement of phenyl nitroamine containing 9.1% N^{15} with
non-tagged p-tolyl nitroamine was studied. In the case of intramolecular
re-arrangement the forming m-nitro-p-toluidine should have contained
0.37% N^{15}, in the case of intermolecular re-arrangement 1.82% N^{15}. The

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82680

On the Mechanism of the Re-arrangement of   S/079/60/030/008/005/008
N-Nitroamines   B004/B064

latter value was calculated on the basis of a statistical distribution
of the molecular collisions. Phenyl nitroamine-$N^{15}O_2$ produced according
to Refs. 1-3,11 and p-tolyl nitroamine were solved in ether in the molar
ratio of 1 : 1 and mixed with concentrated hydrochloric acid at $0^{\circ}C$. The
reaction products were separated after a few hours by steam distillation
and oxidation of the acetylated o-nitroaniline and m-nitro-p-toluidine
with potassium permanganate. The m-nitro-p-acetamino benzoic acid con-
tained 0.45-0.60% N^{15}, probably due to o-nitroacetanilide-N^{15} impurity; $\mathcal{U}$
this became also obvious from the melting point that was too low as com-
pared to published data. The results obtained were, however, sufficient
to exclude an intermolecular mechanism of the nitroamine re-arrangement.
There are 11 references: 2 Soviet, 3 US, and 6 German.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk Ukrainskoy SSR
              (Institute of Physical Chemistry of the Academy of
              Sciences Ukrainskaya SSR)

SUBMITTED: July 1, 1959

Card 2/2

GELLER, B.A.; SAMOSVAT, L.S.

Mechanism of reactions between phenylhydrazine and nitroso compounds studied with the aid of N^{15}. Zhur.ob.khim. 31 no.5:1681-1684 My '61. (MIRA 14:5)

1. Institut fizicheskoy khimii imeni L.V.Pisarzhevskogo Akademii nauk Ukrainskoy SSR.
                 (Hydrazine)   (Nitroso compounds)

GELLER, B.A.; SAMOSVAT, L.S.

Use of N^{15} in studying the mechanism of the reaction of nitroso aryls with hydrazoic acid. Dokl. AN SSSR 141 no.4:847-850 D '61.
(MIRA 14:11)
1. Institut fizicheskoy khimii im. L.V. Pisarzhevskogo AN USSR. Predstavleno akademikom M.M. Shemyakinym.
(Nitroso compounds) (Hydrazoic acid)

GELLER, B.A.; SAMOSVAT, L.S.

Mechanism of the interaction of nitroso aryls with hydronitric acid studied with the aid of N^{15}. Zhur.ob.khim. 32 no.10:3202-3206 O '62.   (MIRA 15:11)

1. Institut fizicheskoy khimii imeni L.V. Pisarzhevskogo AN Ukrainskoy SSR.
  (Nitroso compounds)   (Hydrazoic acid)   (Nitrogen—Isotopes)

GELLER, B.A.; SAMOSVAT, L.S.

Hydrogen exchange between the amino group and the aromatic ring.
Zhur.ob.khim. 33 no.12:4024-4025 D '63.   (MIRA 17:3)

1. Institut fizicheskoy khimii imeni L.V.Pisarzhevskogo AN UkrSSR.

GELLER, B.A.; SKRUNTS, L.K.

Study of the mechanism óf cyclization of cyclohexanone arylhydrazones with the aid of heavy nitrogen. Zhur.ob.khim. 34 no.2:661-664 F '64.
(MIRA 17:3)

1. Institut fizicheskoy khimii imeni L.V.Pisarzhevskogo AN UkrSSR.

GELLER, B.A.; SAMOSVAT, L.S.

Study of the mechanism of rearrangement of nitroaminopyridine by means of N^{15}. Zhur.ob.khim. 34 no.2:613-616 F '64.   (MIRA 17:3)

1. Institut fizicheskoy khimii imeni L.V.Pisarzhevskogo AN UkrSSR.

GELLER, B.A.; NEYMARK, I.Ye.; RUBANIK, M.Ya.; GRAGEROV, I.P.; POLYAKOV,
        M.V.; RUSOV, M.T.; DAIN, B.Ya.; REKASHEVA, A.F.; STRAZHESKO,
        D.N.; LUNENOK, V.A.; ROYTER, V.A.; SULIMA, L.V.; FOMENKO, A.S.

        Aleksandr Il'ich Brodskii, 1895- ; on his seventieth birthday.
        Zhur. fiz. khim. 39 no.6:1540-1541 Je '65.
                                                (MIRA 18:11)

ACCESSION NR: AR4028409   S/0275/63/000/011/V023/V023

SOURCE: Referativny*y zhurnal. Elektronika i yeye primeneniye.
Svodny*y tom, Abs. 11V133

AUTHOR: Gel'fand, Ya. S.; Goncharov, S. G.

TITLE: Semiconductor voltage stabilizers for BP-1000 power supply

CITED SOURCE: Tr. Vses. n.-i. in-ta elektroenerg., vy*p. 16,
1963, 79-90

TOPIC TAGS: power supply, voltage regulator, transmission line
relay protection, transistorized power supply, transistorized volt-
age regulator, continuous control, pulsed control

TRANSLATION: Normal operation of semiconductor devices used for
relay protection of high-voltage lines and apparatus calls for a
voltage on the order of 24--30 V with stability ±10%. At the same

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ACCESSION NR: AR4028409

time, the dc voltage which can be obtained from the BPT-1000 and
BPN-1000 power supply blocks used in 30 and 110--220 kV networks
fluctuates from -20 to +35%. Because of the low power (20--100 W)
consumed by the semiconductor relay-protection devices, it is ad-
vantageous to use transistorized voltage stabilizers with a silicon
reference ballast transistor. At low power (20--30W), it is most
convenient to use simple continuously operating stabilizers with
series-connected regulating transistor and a single-stage dc ampli-
fier. At 30--100 W, taking into account the large fluctuations of
the input voltage, it is preferable, in order to reduce the radiator
area, to employ pulse-regulated semiconductor stabilizers with
transistors and with ballast transistors. The known calculation
formulas and two practical transistorized stabilizer circuits with
continuous and pulsed regulation are presented. Notice is taken of
the complications involved in tuning stabilizers with pulsed regu-
lation and of the need for a special computation choke, which must
have nonlinear characteristics in order to decrease the overvoltage

Card   2/3

ACCESSION NR: AR4028409

on the transistor during the transient. Complete data on the cir-
cuits in question are presented. S. D.

DATE ACQ: 26Nov63   SUB CODE: SD   ENCL: 00

Card   3/3

GEL'FAND, Ya.S., kand.tekhn.nauk

Power supply units and charging devices for relay protection and
automatic control equipment. Elek. sta. 36 no.10:82-83 O '65.
(MIRA 18:10)

BEREZA, V.Sh.; GEL'FAND, Ya.Ye.

Automatic control of dry and wet grinding processes in the cement industry. Trudy LO NTO Priborprom. no.3:188-194 '56. (MIRA 10:8)
(Grinding machinery) (Automatic control)

GEL'FAND, Ya.Ye., inzh.; GIRSHOV, L.A., inzh.

    Automatic control of slurry viscosity. TSement 23 no.6:15-18
    N-D '57.   (MIRA 11:1)
                    (Cement industry) (Viscosimeter)

.25 (5)   SOV/101-59-5-2/11

AUTHORS: Gel'fand, Ya. Ye. and Girshov, L. A.

TITLE: The Automatic Regulation of the Charging of Tube-Ball Mills

PERIODICAL: Tsement, 1959, Nr 5, pp 3 - 6 (USSR)

ABSTRACT: In the wet process of cement manufacture, the basic require-
              ments are uniformity in fineness of grinding, a thorough
              amalgamation, and a correct chemical composition of raw
              material. The present article refers to the article published
              in this journal, Nr 6, 1957 (p 15), on the automatic regulat-
              ion of the grinding of the raw material in multi-chamber
              mills. The principle of the regulation of dosing of the raw
              material for grinding consists in maintaining the level of
              charged material in relation to the size of lumps entering
              into chamber I of the mill (Fig 1). The amount of the raw
              material fed into the mill is measured automatically by means
              of a belt balance. The filling level of chamber I is con-
              trolled by an electro-acoustic device, acting upon the
              mechanism of the disc-shaped feeder, thus insuring a reason-
Card 1/2   able proportion between the charge in chamber I and the

The Automatic Regulation of the Charging of Tube-Ball Mills   SOV/101-59-5/2/11

amount of material fed into the mill (Figure 1). Regulation
of the charging is done by the "Pendan" type dosing device,
in which a belt conveyor functions simultaneously as a weigher
and as a feeder. Such an arrangement maintains a definite
relation between the variable amount of the material charged
into the chamber and the position of the dose distributor.
Figure 2 shows the above arrangement. A static regulation of
the charging of chamber I of the raw material mill is shown
in Figure 3. This regulation assembly has been tested at the
"Oktyabr'", Nizhne-Tagil'skiy and Leningradskiy tsementnyye
zavody ("Oktyabr'", Nizhniy-Tagil and Leningrad Cement Plants).
Automatic regulation increases the productivity of the mills
by about 5 to 10%. The authors conclude that depending upon
the readiness of the plant, automatic regulation will be
introduced at all cement plants, using the wet grinding
process.
There are 3 diagrams.

Card 2/2

10(4)

AUTHOR: Gel'fand, Ya. Ye., Engineer   SOV/119-60-1-4/14

TITLE: An Apparatus for the Uninterrupted Automatic Control of the
            Viscosity of Liquids

PERIODICAL: Priborostroyeniye, 1960, Nr 1, pp 13 - 14 (USSR)

ABSTRACT: The viscosimeter described in this article is based on the
            principle of measuring the torque necessary for the purpose
            of causing a cylindrical body immersed into the liquid to be
            measured to rotate with a certain number of rpm Cylinder 4
            (Fig 1) is rotated by means of a two-phase asynchronous motor
            with short-circuited rotor. A change of viscosity also changes
            the torque of the motor. This leads to a change in the bridge
            current in the Wheatstone bridge (Fig 1). A calibrated
            instrument permits reading of viscosity. For purposes of
            recording, a potentiometer may be connected. The type PV-2
            instrument described was developed at the SPKBA of the
            "Sevzapmontazhavtomatika" trust, and is being produced in
            series at the "Reduktor" works. There are 2 figures.

Card 1/1

KOSENKO, B.; ZAYTSEV, K.; RODIONOV, D.; GEL'FAND, Ya.

Automatic control of wet grinding of raw materials.
TSement 26 no.1:5-10 Ja-F '60.   (MIRA 13:5)
    (Automatic control) (Milling machinery)

PHASE I BOOK EXPLOITATION   SOV/5528

Drabkin, G. S., I. P. Brovar, Ya. Ye. Gel'fand, and E. L. Itskovich

Avtomatizatsiya tsementnykh zavodov (Automation of Cement Plants)
   Leningrad, Gosstroyizdat, 1961. 399 p. Errata slip inserted.
   4,000 copies printed.

Scientific Ed.: A. I. Leontenkov, Engineer; Ed. of Publishing
   House: A. S. Rotenberg; Tech. Ed.: L. V. Voronetskaya.

PURPOSE: This book is intended for technical personnel of cement
   plants and design and planning offices.

COVERAGE: Descriptions are given of the technical characteristics
   of instruments, devices, and circuits of automatic monitoring,
   control, and regulation systems used in manufacturing processes
   at cement plants. Prospects for the development of complex auto-
   mation of the main manufacturing processes in cement plants are
   reviewed. Chs. I, III, VI-IX, and XIV were written by I. P.
   Brovar and G. S. Drabkin; Chs. II, V, and X-XII, by Ya. Ye.
   Gel'fand; and Chs. IV, XIII, and Sec. 16 of Ch. V, by E. L.

Card 1/8

Automation of Cement Plants   SOV/5528

   Tsikovich. There are 30 references: 27 Soviet (including 1
   translation), 2 English, and 1 German.

TABLE OF CONTENTS:

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S/105/61/000/012/001/006
E140/E463

AUTHOR: Gel'fand, Ya. S., Engineer
TITLE: The analogue computer investigation of current
            transformer transients

PERIODICAL: Elektrichestvo, no.12, 1961, 40-44

TEXT: This work was undertaken to study ferroresonant circuits
used for current sources in the power supplies for relay
protection systems developed at the All-Union Electric Power
Engineering Scientific Research Institute for a.c. systems.
The circuit used is based on the well-known π-equivalent circuit
for a transformer, with the hysteresis characteristic of the
transformer modelled by a diode function generator, including
capacitive delays.   Residual induction in the transformer core
was modelled by a d.c. bias.   The reduction in residual induction
occurring in the core after a.c. current is initiated is modelled
by an r.c. network with time constant approximately equal to the
time constant of the aperiodic component of the short-circuit
current.   There are 6 figures and 7 Soviet references.

Card 1/2

The analogue computer ...   S/105/61/000/012/001/( )
                                   E140/E463

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut
             elektroenergetiki (All Union Electric Power
             Engineering Scientific Research Institute)

SUBMITTED: July 21, 1961

Card 2/2

GEL'FAND, Ya.Ye.

        Automatic control and regulation of wet-raw grinding. TSement
29 no.6:12-13 N-D '63.   (MIRA 17:3)

1. TSentral'noye proyektno-konstruktorskoye byuro tresta "Sevzap-
montazhavtomatika".

YEDVABNIK, Yu.A.; GEL'FAND, Ya.Yo.; FINKEL'SHTEYN, I.V.

Automating the milling process in 3 x 14m separator cement mill at the Belgorod Cement Plant. Trudy Nizhgiprotsementa no.6:12-24 '64.
(MIRA 17:12)

1. Gosudarstvennyy vsesoyuznyy institut po proyektirovaniyu i nauchno-issledovatel'skim rabotam Yuzhgiprotsement (for Yedvabnik).
2. TSentral'noye proyektno-konstruktorskoye byuro tresta Sevzap-montazhavtomat'ka (for Gel'fand, Finkel'shteyn).

L 2589-66   EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)

ACCESSION NR: AP5019403   UR/0103/65/026/007/1223/1226
                                       62-501

AUTHOR: Gel'fand, Ya. Ye. (Leningrad)

TITLE: Method for determining statistical characteristics of controlled plants

SOURCE: Avtomatika i telemekhanika, v. 26, no. 7, 1965, 1223-1226

TOPIC TAGS: automatic control theory

ABSTRACT: A method is suggested for approximate determination of the
closeness and form of the connection between the input and output signals of a
plant which has both inertia and delay. The plant is approximated by a nonlinear
inertialess unit, a delay unit, and a first-order inertial unit connected in series.
The method is based on determination of a reciprocal dispersion function of
sequences which correspond to the extremal recorded values of the output signal.
Orig. art. has: 3 figures and 8 formulas.

ASSOCIATION: none

SUBMITTED: 24Dec64   ENCL: 00   SUB CODE: IE

NO REF SOV: 003   OTHER: 000

Card 1/1

Explosion-proof ventilators. E. A. Gel'fand. *Trudy Vsesoyus. Nauch.-Issledovatel. Inst. po Tekh. Bezopasnosti v Neft. Prom.* 1954, No. 7, 58–70; *Referat. Zhur., Khim.* 1955, Abstr. No. 57465.—The use of Cu or Al alloys is recommended for the ventilator assemblies in places where there is danger of vapor or gas-air explosions.   N. V.

GEL'FAND, Ye.A., inzhener.

The VG-1 ventilation unit. Bezop. truda v prom. 1 no.4:29-30 Ap '57.
(Petroleum engineering)   (MIRA 10:6)

GEL'FAND, Ye.A.

Controlling gas escapes in pump houses, pumping of light-colored
petroleum products. Trudy VNIITB no.10:83-90 '58.   (MIRA 15:5)
                (Pumping machinery—Safety measures)

GEL'FAND, Ye.A.

VB-2 air cooler. Trudy VNIITB no.11:124-136 '59. (MIRA 15:5)
(Air—Cooling)

GEL'FAND, Yu.Ya., vrach; OSTROUMOVA, L.M., student III kursa

Case of metastasis of stomach cancer in the vermiform process.
Sbor. trud. Kursk. gos. med. inst. no.16:376-379 '62.
(MIRA 17:9)
1. Iz kliniki obshchey khirurgii (zav. - prof. Z.I. Rakhman)
Kurskogo meditsinskogo instituta.

GEL'FAND, Yu.S.; PORTNOVA, M.I.; CHURINA, A.A.

Analysis of increased navigation in 1961 in the lower Yenisey.
Probl. Arkt. i Antarkt. no.12:127-130 '63.   (MIRA 16:7)
                    (Yenisey River--Navigation)

GAL'PARSHTE A., LHOVSKIY, V.; GELIS, L.

Full-scale study of large-panel apartment houses in series
1-464P. Zhil. strol. no.7:10-14 '65.   (MIRA 18:8)

Z/011/61/018/001/009/014
E112/E453

AUTHORS: Goldberg, K.M., Gelfandbein, N.M, Falkovich, M.M.

TITLE: Automatic control of alcoholysis during alkyd resin
            production

PERIODICAL: Chemie a chemická technologie, 1961, Vol.18, No.1, p.32,
            abstract CH 61-442   (Lakokras. Materialy, 1960,
            No.1, pp.75-78)

TEXT.   An apparatus is described which registers changes in
electric conductivity of the reaction mixture and determines from
the change of resistance the equilibrium reached in the system:
vegetable oil-polyvalent alcohol.   The apparatus permits to
determine optimum times for the duration of the alcoholysis.
Side-reactions can thus be minimized and an alkylated product of
standard quality can be obtained.
1 sketch, 4 diagrams, 3 tables, 8 literature references.

[Abstractor's note: Complete translation.]

Card 1/1

GOL'DBERG, K.M.; GEL'FANDBEYN, N.M.; TVERSKAYA, B.I.

Use of indene-coumarone resins in the manufacturing of oil-
extended resin lacquers. Lakokras.mat.i ikh prim. no.1:71-72
'61.   (MIRA 14:4)

1. Khar'kovskiy lakokrasochnyy zavod "Krasnyy khimik".
        (Indene)   (Resins, Synthetic)
            (Lacquers and lacquering)

GOL'DBERG, K.M.; GEL'FANDBEYN, N.M.; Prinimali uchastiye: BARII'OTI,
A.S.; KAPUSTINA, A.I.; LINKOVA, L.M.; STRUKOVA, V.A.; SERKOVA,
L.V.; FRADKINA, TS.Ye.

Anticorrosive alkyd GF-020 priming. Lakokras.mat.i ikh prim.
no.2:71-74 '62.   (MIRA 15:5)

1. Khar'kovskiy lakokrasochnyy zavod "Krasnyy khimik".
(Protective coatings)

GEL'FANDLER, P. S.

33314. O Formirovanii Krony Stlantsev. Sad I Ogorod, 1949, No. 10, . 7-15

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

CATEGORY : Cultivated Plants. Fruits. Berries. Nuts. Tea.

ABS. JOUR : Ref Zhur - Biologiya, No. . . , 1959, No. 70444

AUTHOR : Gol'fandbeyn, P.S.; Kuryndina, T.I.

INST. :

TITLE : The Effect of Trimming on the Frost Resistance of Fruit Bearing Apple Trees.

ORIG. PUB. : Sad i ogorod, 1958, No.2, 50-53

ABSTRACT : In an orchard established in 1931 at Lipets-
kaya Oblast (of Antonovka apples) which was
rejuvenated by trimming in 1955 the new
growth was intensified and the winter hardi-
ness of the trees was increased during the
severe winter of 1955/56. When the wood was
shortened by 2-3 years 62.9% of the trees in
1956 had an additional growth all over the
crown and rosette was not observed. With th
thinning 60% of the trees had rosette and the

CARD: 1/2

S/280/63/000/001/008/016
E140/E435

AUTHOR: Gel'fandbeyn, Ya.A. (Riga)

TITLE: Estimating the error of the cross-correlation function
             as a function of the duration of observations

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye
             tekhnicheskikh nauk. Tekhnicheskaya kibernetika.
             no.1, 1963, 83-90

TEXT: It is assumed that the times of observation (experimental
registration) of two stationary random processes are finite and
identical and the error in determination of their cross-
correlation function is found.   The influence of nonvanishing
means and of the current mean values, in the general case unconstant,
are investigated.   Formulas are given for acceptable values of the
cross-correlation.   A particular case leads to the well-known
formulas for the autocorrelation function.   An approximate
estimate of the error is possible without calculation of the cross-
correlation function.   There are 2 figures.

SUBMITTED: May 29, 1962

Card 1/1

L 00082-66   EWT(d)/EWP(1)   IJP(c)   BC
ACCESSION NR: AR5013607   UR/0271/65/000/004/A018/A018
                                                 62-5.001.5

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitol'naya tekhnika. Svodnyy tom, Abs. 4A107

AUTHOR: Gol'fandbeyn, Ya. A.

TITLE: Statistical method for determining noise in controlled systems without disturbing their normal operation

CITED SOURCE: Izv. AN LatvSSR. Ser. fiz. i tekhn. n., no. 4, 1964, 109-118

TOPIC TAGS: automatic control system, automatic control system noise

TRANSLATION: A method of experimental determination of the noise correlation functions from specified input and output signals is substantiated. The investigated system is linear and, generally, nonstationary. The weight functions of the entire system and its components are assumed to be exactly known. The noise is applied to a point between the system input and output. The noise correlation function is obtained from the formulas that connect the correlation functions of the input and output signals in a linear system. Bibl. 5, figs. 2.

Card 1/1   SUB CODE: IE, MA   ENCL: CO

L 31109-65   EWT(d)/EPF(n)-2/EWP(1)   Po-4/Pq-4/Pe-4/Pae-2/Pu-4/Pk-4/P1-4   IJP(c)
WW/WI

ACCESSION NR: AT5000972   S/2690/64/006/000/0059/0071

AUTHOR: Gel'fandbeyn, Ya. A.

TITLE: Stochastic approximation of random precesses and its use in estimating
the dynamics of short-time automatic control systems

SOURCE: AN LatSSR. Institut elektroniki i vychislitel'noy tekhniki. Trudy, v. 6.
Riga, 1964. Avtomatika i vychislitel'naya tekhnika (Automation and computer
technology), no. 7, 59-71

TOPIC TAGS: automatic control, automatic control design, automatic control
system, automatic control theory

ABSTRACT: Conventional methods for determining the dynamic characteristics
of an automatic-control system (ACS) require large amounts of experimental
data, involve the use of computers, and are inapplicable in some nonstationary-
input cases. A new method is suggested which evaluates ACS by the results of its

Card 1/3

L 31109-65

ACCESSION NR: AT5000972   2

normal operation and does not impose any restriction on the system or its output
signals. The method is based on a time-statistical processing of the output
variable to obtain a corresponding stochastic approximation which is also a
function of time. Concepts of "present (square) mean functions" $\overline{x(t)}$ and $\overline{x^2(t)}$
are introduced; these functions correspond to the laws of variation of the mean
value and its square during the time of observation of the control process. It is
shown that the phase trajectory of the present mean function and the phase
trajectory of the controlled variable are mutually correspondent; no restriction
on the process under study is imposed. Further, it is proven that both phase
trajectories simultaneously correspond to a stable (or unstable) motion of the
output variable (inequalities 13). As an example, phase trajectories of the
present mean values of the output variable of a linear-vibrator-type system are
given in Table 1; for comparison, theoretical exact trajectories (nonaveraged)
are also shown. Detailed conclusions re stable and unstable migrations of the
ACS and its possible cycling are supplied. "In conclusion, the author wishes to
thank Professor B. I. Plotkin and Associate-Professor M. A. Gol'dman for their

Card 2/3

L 31109-65

ACCESSION NR: AT5000972   3

help and advice in writing this article, and also N. L. Plyushchevskiy and V. P. Yurin for the computation work." Orig. art. has: 4 figures, 37 formulas, and 3 tables.

ASSOCIATION: Institut elektroniki i vychislitel'noy tekhniki AN LatSSR (Institute of Electronics and Computer Technology, AN LatSSR)

SUBMITTED: 00   ENCL: 00   SUB CODE: IE, MA

NO REF SOV: 005   OTHER: 000

Card 3/3

L 2014-66

ACCESSION NR: AP5023294   UR/0371/65/000/004/0107/0115

AUTHOR: Gelfandbeins, J. (Gel'fandbeyn, Ya. A.) $\frac{31}{B}$

TITLE: Construction of a mathematical model of a nonstationary dynamic system with n inputs and a general output, based on the statistical characteristics of the input and output signals .

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 4, 1965, 107-115

TOPIC TAGS: dynamic system, electronic simulation, mathematic model

ABSTRACT: The article describes a method by which it is possible, without disturbing the normal operating conditions of the system and using only recordings of n input signals and a general output signal, to find the parametric transmission functions of n channels of the system taking into account the possibility of correlating the input signals. The method is extended to some nonlinear systems but the results are linearized statistically. It is also assumed that the input and output signals are nonstationary and that they can be represented in the form of the Fourier-Stieltjes integral. It is concluded that, by recording the input and output

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L 2014-66

ACCESSION NR: AP5023294   O

signals of a dynamic system in normal operation, the dynamic characteristics of
the system can be determined. To eliminate a great amount of calculation, an
evaluation can be made only from the magnitude of the statistical coefficient of
amplification. Orig. art. has 18 formulas and 1 figure

ASSOCIATION: None

SUBMITTED: 06Jan65   ENCL: 00   SUB CODE: EC, MA

NR REF SOV: 005   OTHER: 000

Card 2/2 · DP

L 15981-66   EWT(d)/T   IJP(c)
ACC NR: AP5027383   SOURCE CODE: UR/0371/65/000/005/0113/0118

AUTHOR: Gel'fandbeyn, Ya. A. -- Gelfandbeins, J.

ORG: none

TITLE: Verification of the hypothesis of abnormal functioning of the
control object by statistical methods during the process of operation

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk,
no. 5, 1965, 113-118

TOPIC TAGS: computer technology, control statistics, transmission data, dynamic
system

ABSTRACT: In many cases the abnormal functioning of a complex dynamic system
cannot be detected by examining the data or the graphs of its input and output
signals. The author proposes a statistical method for detection of abnormal
functioning of a dynamic system. In particular, a control object with two input
channels and one common output channel is considered whose behavior is described
by the equations

Card 1/3   2

L 15981-66
ACC NR: AP5027383

O

$$K_{x_1 y}(l_1, l_2) = \int_{-\infty}^{l_1} w_1(l_2, \xi) K_{x_1 x_1}(l_1, \xi) d\xi + \int_{-\infty}^{l_1} w_2(l_2, \xi) K_{x_1 x_2}(l_1, \xi) d\xi,$$

$$K_{x_2 y}(l_1, l_2) = \int_{-\infty}^{l_1} w_1(l_2, \xi) K_{x_2 x_1}(l_1, \xi) d\xi + \int_{-\infty}^{l_1} w_2(l_2, \xi) K_{x_2 x_2}(l_1, \xi) d\xi,$$

where $w_1(t, \xi)$ and $w_2(t, \xi)$ are the impulse functions of control channels which are subject to estimation; $K_{x_1 y}(t_1, t_2)$, $K_{x_1 x_j}(t_1 t_2)$ are respectively the corelation

and mutual-correlation functions of the signals which remain fixed during the normal operation; $x_1(t)$ and $x_2(t)$ are the electrical potentials of the input sig-
nals. From these equations the author derives the parametric transmission functions of the control channels. The discrepancies between the actual values of these functions and their values corresponding to the normal functioning yield an estimate of the abnormal behavior of the control object. The same kind of argu-
ment is given for the case where the number of input channels is greater than 2,

Card 2/3

L 15931-66
ACC NR: AF5027383   𝒪

and similar results are obtained. Orig. art. has: 3 figures and 15 formulas.

SUB CODE:09,12 / SUBM DATE: 16Feb65/ ORIG REF: 002

Card 3/3

L 27095-66   EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)   BC

ACC NR: AT5028443   SOURCE CODE: UR/2690/65/009/000/0015/0020

AUTHOR: Gel'fandbeyn, Ya. A.

ORG: none

TITLE: One method for determining characteristics of a nonstationary controlled plant under its normal operating conditions

SOURCE: AN LatSSR. Institut elektroniki i vychislitel'noy tekhniki. Trudy, v. 9, 1965. Avtomatika i vychislitel'naya tekhnika, 15-20

TOPIC TAGS: automatic control, automatic control system, automatic control theory, electronic feedback

ABSTRACT: A method is described of determining the impulse transient response of a nonstationary closed-feedback plant, under its normal operating conditions, when a nonstationary input disturbance and an internal noise are applied. This generalized single-loop block diagram is used (see figure):
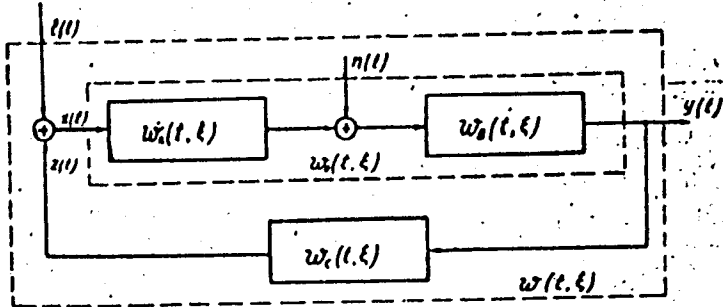
Structural diagram of a generalized nonstationary system

Card 1/2   UDC: 62-501.134

L 27095-66

ACC NR: AT5028443 /

A crosscorrelation-function formula is set up, and by solving its parts as integral Fredholm's equations of the first kind, the impulse transient responses of the plant are found. The final formula permits computing impulse transient responses from measured input, output, and feedback signals. "In conclusion, the author wishes to thank L. A. Rastrigin for his active part in discussing this article." Orig. art. has: 2 figures and 27 formulas.

SUB CODE: 13, 09 / SUBM DATE: none / ORIG REF: 002

Card 2/2

L 27097-66   EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)   BC

ACC NR: AT5028445   SOURCE CODE: UR/2690/65/009/000/0031/0048

AUTHOR: Gel'fandbeyn, Ya. A.

ORG: none

TITLE: Reducing the error in determining dynamic characteristics of a controlled plant under its normal operating conditions

SOURCE: AN LatSSR. Institut elektroniki i vychislitel'noy tekhniki. Trudy. v. 9, 1965. Avtomatika i vychislitel'naya tekhnika, 31-48

TOPIC TAGS: automatic control, automatic control system, automatic control theory, operations research, dynamic programming, signal correlation, error minimization

ABSTRACT: To determine dynamic characteristics of controlled plants under their normal operating conditions, statistical methods have been used which are based on this relation: $y(t) = \int_0^t w(\xi) x(t - \xi) d\xi$, where w(t) is the impulse transient response of the plant and x(t), y(t) are the input and output plant signals, respectively. This relation describes the plant that starts from rest. In practice, however, measurements are made during a certain period of normal operation; hence, the limit of

Card 1/2   UDC: 62-501.134

L 27097-66

ACC NR: AT5028445   3

integration and subsequent mathematical treatment are changed accordingly. It is
shown that by determining the plant signal correlation functions $K_x(\tau)$ and $K_{xy}(\tau)$,
not only the plant impulse transient response $w(\tau)$ can be found, but also its
maximum possible error, due to limited observation time and the boundary of
possible existence of $w(\tau)$. The error $w^\circ(\tau)$ and also the function $w(\tau)$ boundary
can be evaluated without preliminary calculation of the maximum impulse transient
response $w^*(\tau)$. "The author wishes to thank V. D. Samkova and N. L.
Plyushchevskiy for the computing work, and L. A. Rastrigin for his useful advice."
Orig. art. has: 11 figures and 55 formulas.

SUB CODE: 09, 12 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 001

Card 2/2 N

L 04415-67   EWT(d)   IJP(c)

ACC NR: AT6019741   SOURCE CODE: UR/3192/65/000/011/0059/0065

AUTHOR: Gel'fandbeyn, Ya. A.; Chubykin, N. L.   36
                                                                 B + 1

ORG: none

TITLE: The use of the registration and function reproduction unit (RRU) for the determination of the dynamic characteristics of systems during their normal operation using the Gauss-Seidel iteration method

SOURCE: Akademiya nauk Latviyskoy SSR. Institut elektroniki i vychislitel'noy tekhniki. Avtomatika i vychislitel'naya tekhnika, no. 11, 1965, 59-65

TOPIC TAGS: dynamic system, iterated integral, Fredholm equation, computer simulation

ABSTRACT: The method for the solution of first order Fredholm equations using an electronic model (continuously operating computer) and the registration and function reproduction unit (RRU) is investigated. It utilizes the Gauss-Seidel iteration method for the determination of the dynamic characteristics of systems during their normal operation. Following the development of the theory, the authors present the structural logical scheme for the realization of the Gauss-Seidel algorithm, and compare the calculated and exact values for the case when the kernel of

Card 1/2   UDC: 62-501.72

L 04415-67

ACC NR: AT6019741

the integral equation consists of the correlation function of the input signal. Orig. art. has: 15 formulas, 4 figures, and 1 table.

SUB CODE: 12, 09/   SUBM DATE: Nov64/   ORIG REF: 002

Card 2/2   vmb

GELFAND, M. B.

Extending knowledge of teaching methods. Mat. v shkole No 4, 1952.

GEL'FAT, L.Ya.; PROZOROVSKIY, N.G., otvetstvennyy red.; DOTSENKO, N.G.,
      vedushchiy red.; KUKHARENKO, Z.K., tekhn. red.

   [Signals of inland waterways of the U.S.S.R.] Signaly na vodnykh
   putiakh SSSR. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1958. 127 p.
          (Inland navigation)   (Aids to navigation) (MIRA 11:7)

Georgyan G.I.
C.A

Electrolytic reduction methods in analytical chemistry
VIII Qualitative test for tungsten. G. I. Gelfman
Izvest. Akad. Nauk Armyan. S.S.R., Fiz.-Mat. Estestiveni
Tekh. Nauki 3, 523-6 (1950). --The test soln. in 2.5% H_2SO_4
is placed in a glass tube of 0.5-1 cm. diam. and 8-10 cm.
long   The tube is open at both ends and has a collodion
membrane at one end. The tube is placed with the mem-
brane end in a beaker contg. 2.5% H_2SO_4. The cathode is
inserted into the glass tube, the anode into the beaker, and a
current at 4-6 v. is passed through the system. In the pres-
ence of W, the catholyte turns blue. Mo and V do not in-
terfere. Cu and H_2S_x do. In the presence of Mo the test
soln. is used as catholyte and analyte. In the anolyte Mo
turns MoO_2, which is indicated by a violet-red color. In
testing for W the catholyte should be protected by air cur-
rent so as to prevent oxidation by air.   M. Hooch

1952

KRENDAL', P.Ye.; KULESHOVA, A.V.; GEL'FEL'D, L.A.; TENKOV, V.D.;
SHAVTSOV, S.I., red.

[Practical exercises in the study of medical supplies]
Praktikum po meditsinskomu tovarovedeniiu. Moskva, Me-
ditsina, 1964. 200 p.   (MIRA 17:9)

SOV/121-58-9-5/21

AUTHORS: Gel'fel'd, O.M. and Rivkin, A.I.

TITLE: Polishing of Components of Complex Shape by the Immersion
             Method (Polirovaniye izdeliy slozhnoy formy metodom
             pogruzheniya)

PERIODICAL: Stanki i Instrument, 1958, Nr 9, pp 19 - 21 (USSR)

ABSTRACT: The immersion method operates with a free abrasive. A
             rotating drum with a convex bottom and an undercut rim is
             filled with abrasive powder which, under the action of
             centrifugal forces, forms a compact ring below the rim.
             The component to be polished is clamped on the end of a
             bellcrank, which, in the working position, penetrates the
             abrasive powder. The component rotates slowly about a
             stationary axis to achieve a uniform polishing action,
             whilst the drum rotates rapidly. A screen prevents the
             escape of abrasive near the polished component. Tests
             carried out at ENIMS have shown that the output, measured
             by the loss of weight of the component, is greatest when
             a mixture of abrasive, sawdust and machine oil is used.
             A sawdust settling factor is defined as the relative volume
             contraction of the mixture. The factor drops with the
             progress of polishing from the initial value of 1   to a
Card1/2   steady value of 0.35 after a typical period of 20 minutes.

SOV/121-58-9-5/21
Polishing of Components of Complex Shape by the Immersion Method

       In practice, fresh sawdust should be added after 15
minutes. After 10 additions, a stable mixture is obtained.
No other significant deterioration takes place. Smaller
abresive grain reduces the output. The drum speed has
the main effect on output. Grain size and drum speed have
opposite effects on the surface finish. Distortion of the
surface was tested with special, brick-shaped components.
Non-uniformity could be improved by correct positioning
of the specimen. The cost of polishing is claimed to
have been reduced to one-half. The main drawback of the
process is the high rate of heat formation.
There are 9 figures.

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20158
S/193/60/000/001/007/008
A004/A101

1.1100   2908

AUTHOR: Gel'fel'd, O. M.

TITLE: Model УГТ-1 (UGT-1) machine tool for the hydraulic abrasion machin-
            ing of pipes

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 1, 1960, 30-32

TEXT: The UGT-1 machine, designed by the Eksperimental'nyy nauchno-issledo-
vatel'skiy institut metallorezhushchikh stankov (Experimental Scientific Research
Institute of Metal Cutting Machine Tools) and fabricated by the "Stankokonstruk-
tsiya" Plant, is intended for the polishing of the interior surfaces of metallic
pipes of round cross section with a view to exposing and eliminating surface
defects. Polishing is effected with an abrasive mixture composed of: abrasive,
water, soda ash and sodium nitrite. Electrocorundum of a standard 60 - 80 mesh
is used as abrasive. The composition of the working fluid is the following (in
parts by weight): water - 100, abrasive - 46-48, soda ash - 2.2, sodium nitrite
- 2. The illustration shows the layout of the machine whose design provides for
a simultaneous processing of two pipes. The abrasive fluid is supplied to the
working zone with the aid of solution pump 1a from mixing tank 2 through a pair

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2015₈

S/193/60/000/001/007/008
A004/A101

Model ЧПТ-1 (UGT-1) machine tool ...

of sprayers 3 which are connected to the long shanks 4 fitted in the seats of mobile carriage 5. The carriage, traveling on round guides 6 of bed 7, supplies the sprayers during the machining process with the abrasive fluid. The carriage is driven by a hydraulic motor via a worm reducer. The pipes being machined are placed on the rubber-coated rollers of a two-position roller conveyer and are slowly rotated. The roller conveyer consists of ten roller stations 8. The rotation speed of the pipes can be varied by change wheels. The spent abrasive fluid flows off the pipes into the receiver of working chamber 9 and further into hopper 10, from where it is delivered by pump 1 (1b) into mixing tank 2. Compressed air is supplied from receiver 11 fed from the air mains of the plant. To flush the pipes after the abrasive machining, hot water from a special water system is delivered through the sprayers into the pipes. One of the main design elements is the sprayer, consisting of the nozzles and the shank. The latter is composed of two long pipes, one inserted into the other and fixed to the mobile carriage. The abrasive fluid is delivered through the outer ring-shaped channel while the air is supplied through the bore of the inner pipe. The working fluid is mixed with air in the mixing hollow of the sprayer and is sprayed in an atomized form through holes which are placed at an angle of 45° to the surface being machined. The following technical specifications are given: diameter of orifice being

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20158

Model УГТ-1 (UGT-1) machine tool ...

S/193/6 / / 8
A004/A101

processed - 30-75 mm; maximum length of pipe being processed - 8,000 mm;
sprayer feed - from 0.03 to 4 m/min; pressure in the abrasive fluid mains - 2atm;
pressure in the air mains - 4 atm; rotation speeds of pipes being worked -
15-30-60 rpm; power of electric motor - 1.7 kw; overall dimensions (length x
width x height) - 18,910 x 1,200 x 2,300 mm; weight - 10 tons. There is 1 figure.
Figure
1) abrasive fluid mains; 2) air mains
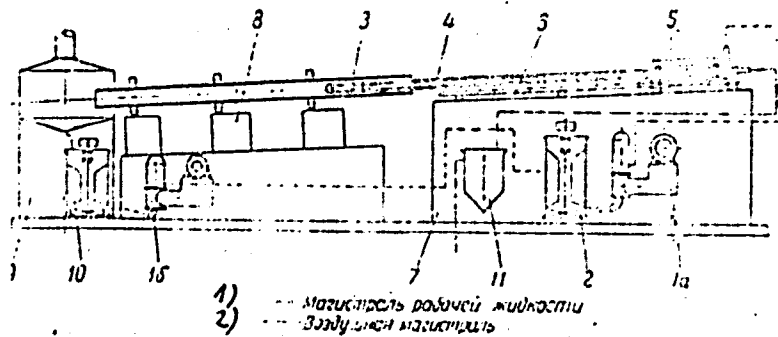
Card 3/3

S/121/61/000/012/001/007
D040/D112

AUTHOR: Gel'fel'd, O.M.

TITLE: The effect of heat liberation in a cylindrical grinder on the
             working accuracy of the latter

PERIODICAL: Stanki i instrument, no. 12, 1961, 9-12

TEXT: The effect of heat liberation in the hydraulic drive, grinding-spindle
bearings and wheelhead of a 3А151 (3 A151) cylindrical grinder on the lat-
ter's work accuracy was studied. The grinder was fitted with air and water
cooling systems. The cooling installation, described in detail, was used to
test whether a circulation system with a heat carrier would be effective: a
water solution of potassium dichromate $(Ca_2Cr_2O_7)$ was used as a heat carrier.
Electromagnetic valves actuated by ТДД-54 (TDD-54) thermostats regulated the
temperature of the heat carrier. Measurements revealed that the horizontal
deviation of the machine table from a straight line was 3μ when the oil in
the hydraulic drive system had a temperature of 34°C, and only 0.5μ when the
oil was cold; vertical deviation of the table was not affected so much by

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The effect of heat ...

cooling the oil. Heating of the machine frame walls by the sun also caused
deviations of the table up to 4.5 μ. Heat liberation in the spindle bear-
ings and oil in the grinding wheelhead, combined with cooling of a portion of
the wheelhead by the air stream from the fan of the electric motor, caused
angular displacements of the spindle. The wheelhead was displaced 6 μ toward
the workpiece after 1½ hours of operation of the hydraulic drive, during
which period the oil temperature rose by about $22^{\circ}C$; when the temperature
of the surrounding air dropped to $10^{\circ}C$, this displacement reached a maximum
of 48 μ. The article also includes graphs and diagrams showing the distor-
tion of the machine elements. Conclusions: (1) If an oil tank is placed in-
side the machine frame, the heat liberation in the hydraulic drive of cylin-
drical grinders (except for in-feed grinders) spoils the geometrical accuracy
of the machine; (2) external heat sources have a great effect on the geomet-
rical accuracy, e.g., uneven heating of individual frame walls by the sun
considerably affects the trajectory of the table travel in the horizontal
plane; (3) heating of the bearings of the grinding wheel spindle and the
oil in the grinding wheelhead causes considerable displacements of the spin-
dle in relation to the table. When an air stream from the motor fan cools a

Card 2/3

portion of the wheelhead, the spindle is tilted, which impairs the accuracy
of the shape of the axial cross section of the workpiece during in-feed
grinding; (4) the maximum displacement of the grinding wheelhead raises
upon a decrease of the temperature of the surrounding air; (5) Cooling the
oil in the hydraulic drive and in the grinding wheelhead casing reduces heat
deformations in the machine, but the cooling devices must be of a relatively
high capacity to reduce the heat deformations considerably In the case of
water cooling, when the temperature difference of oil and water in the heat
exchanger is insignificant, heat exchangers of considerable size must be
mounted on the grinder. There are 12 figures and 2 Soviet references

Card 3/3

GEL'FEL'D, O.M.

Forced vibrations in a circular grinding machine caused by the
unbalance of the grinding wheel. Stan.i instr. 32 no.7:17-22
Jl '61.   (MIRA 14:6)
          (Grinding machines--Vibration)

GEL'FEL'D, C M.

Investigating methods for straightening grinding wheels. Stan. i
instr. 36 no.4:27-28 Ap '65.   (MIRA 18:5)

MASLENIKOVA, Ye.M.; TIKHOMIROVA, A.N.; KRAYKO, Ye.A.; PENAR, O.I.; GVOZDOVA, L.G.; SOLOV'YEVA, L.Ya.; KULICHENKO, Ye.V.; GEL'FEMBEYN, A.Sh.

Study of the metabolism of vitamins in workers in the hot shop of a metallurgical factory. Vop. pit. 19 no.2:3-9 Mr-Ap '60.

(MIRA 14:7)

1. Iz laboratorii izucheniya vitaminov (zav. - prof. V.V.Yefremov) Instituta pitaniya AMN SSSR, Moskva.
            (VITAMINS)   (HEAT--PHYSIOLOGICAL EFFECT)

GEL'FENBEYN, L.G

1487.   DETERMINATION OF OPTIMUM RATIO OF FLOW VELOCITIES IN COUNTERFLOW
AIR-PREHEATERS OF GAS TURBINE PLANTS.   Gelfenbein, L.G,   (Teploenergetika,

(Heat Pwr Engng. Moscow), Nov. 1956, vol. 3, 51-54).   The results of a
theoretical study of tubular air preheaters with axial streamlining on the
counterflow principle are presented.   A new method is stated and formulae are
evolved for determining the economically advantageous ratios between gear
velocities and flow outside and inside the preheater tubes where the heat
transfer surface is invariable.   (L).   C.E.A..

Khar'kov Polytech Inst

8(6), 16(6)   SOV/112-59-4-6592

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 39 (USSR)

AUTHOR: Gel'fenbeyn, L. C.

TITLE: Determining the Optimum Ratio of Stream Speeds in Gas-Turbine-Plant
       Producers

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1957, Vol 24, pp 135-145

ABSTRACT: The optimum ratio of air and gas velocities in tubular regenerators
          is determined under the conditions of constant regeneration and constant hydraulic
          resistances. The problem is solved by determining the maximum heat-
          transfer factor $K_{max} = f/\sigma_{opt}\,t$, where $\sigma_{opt} = \dfrac{W_{gas}}{W_{air}}$.

          Solutions for regenerators with longitudinal and transverse streams are given.
          The values of σ_{opt} obtained from the above formula agree with results of
          detailed thermal computations of a number of regenerators.

                                                                    V.S.P.

Card 1/1

GEL'FEIIBEYN, L. O., Cand Tech Sci--(diss) "Determination of optimal parameters of the regenerators of gas-turbine installations." Khar'kov, 1958. 14 pp (Min of Higher Education UkSSR. Khar'kov Polytech Inst im V.I. Lenin), 150 copies (KL,30-58, 127)

- 7/ -

GEL'FENBEYN, L.G., inzh.

Development of highly efficient small heat exchangers for gas-turbine installations. Energomashinostroenie 4 no.1:27-30 Ja '58.
(Gas turbines)   (Heat exchangers)   (MIRA 11:1)

OEL'FENBEYN, L.O.

Heat transfer and resistance of the heating surface consisting of corrugated sheets with fine-grained edges during a crossing flow. Nauch.dokl.vys.shkoly; energ. no.1:125-136 '59.
(MIRA 12:5)

1. Rekomendovana Khar'kovskim politekhnicheskim institutom im. V.I. Lenina.
(Heat--Transmission) (Gas turbines)

GEL'FENBYN, L.G. (Khar'kov)

Selecting an effective heating surface for regenerators of gas-turbine installations. Izv. AN SSSR. Otd. tekh. nauk. Energ. i avtomat. no.1:62-70 Ja-F '60. (MIRA 13:2)
(Gas turbines)

86691

S/123/60/000/023/008/008
AC05/A001

26, 2181

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1960, No. 23, p. 351,
129164

AUTHOR: Gel'fenbeyn, L. G.

TITLE: An Investigation of the Heat Exchange and the Resistance of a Heating
             Surface Made up to Corrugated Sheets With Fine-Grained Protrusions

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1960, Vol. 29, No. 2, pp. 171-185

TEXT: The author reports on tests of blocks of regeneration heat exchangers
made up of corrugated sheets with smooth and fine-grained surface structure. The
relations are stated between the heat emission and the hydraulical resistance and
the Re-number for longitudinal and transversal flow around the surface mentioned.
For checking the experimental method, a bundle of staggered pipes of smooth surface
was investigated. It turned out that the resistance and the heat emission are high-
er at fine-grained surface structure, and the amount of exchanged heat is greater
approximately by 90% for this surface structure than for the smooth-pipe bundle,
and greater by 25% than for the smooth corrugated surface, provided that power
consumptions for the sucking of gas are the same in all these cases.   K. V. V.
Translator's note: This is the full translation of the original Russian abstract.
Card 1/1

GEL'FENBEYN, L.G., kand.tekhn.nauk; KHAVKIN, Yu.I., kand.tekhn.nauk

    Construction and operating characteristics of a gas turbine
    regenerator made from corrugated sheets with projections. Tep-
    loenergetika 8 no.7:29-32 Jl '61.   (MIRA 14:9)

    1. Khar'kovskiy politekhnicheskiy institut i Leningradskiy
    zavod "Ekonomayzer".
                  (Gas turbines)

S/124/61/000/011/024/046
D237/D305

AUTHOR: Gel'fenbeyn, L.G.

TITLE: Investigating heat exchange and resistance of the
               heating surface, consisting of undulating sheets
               with fine-grained projections

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 11, 1961, 89,
               abstract 11B594 (Tr. Khar'kovsk. politekhn. in-ta,
               1960, 29, no. 2, 171 - 185)

TEXT: By comparing the effectiveness of a series of compact heat-
ing surfaces whose characteristics of heat emission and resistance
were known, and using the coefficient $E = Q/AR$ and relation $\alpha f(R)$
(Q -- heat emitted by the heating surface; R - power lost in over-
coming the resistance, α - coefficient of heat emission). The au-
thor deduces that the high efficiency heating surface should be
ribbed in possess the property of causing the turbulence in the
boundary layer. An easily constructed heating surface is described
consisting of undulating sheets with fine-grained spherical projec-

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Investigating heat exchange and ...

S/124/61/000/011/024/046
D257/D305

tions. Results of experiments with this surface in a longitudinal
and transverse air flow are given. Further comparison of this sur-
face with other surfaces which is based on the coefficient E, shows
its high efficiency. 7 references. [Abstractor's note: Complete
translation].

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Card 2/2

GEL'FENBEYN, L.G., kand. tekhn. nauk; BULANIN, V.I., kand. tekhn.
          nauk, retsenzent; MELEYEV, A.S., inzh., red.; PA EYEV,
          N.M., inzh., red. izd-va; GORDEYEVA, L.P., tekhn. red.

    [Regenerators of gas-turbine systems]Regeneratory gazoturbin-
    nykh ustanovok. Moskva, Mashgiz, 1963. 177 p. (MIRA 16:4)
                      (Gas turbines)

GEL'FENBYN, L.L.

[Russian embryology in the second half of the 19th century] Russkaia embriologiia vtoroi poloviny XIX veka. Khar'kov, Izd-vo Khar'kovskogo gos. univ. imeni A.M.Gor'kogo, 1956. 353 p.   (MLRA 10:3)
     (EMBRYOLOGY--HISTORY)

GEL'FENBEYN, L.L.

AUTHOR: Gel'fenbeyn, L.L., and Novakovskiy, M.S.   3-58-4-9/34

TITLE: University and School (Universitet i shkola)

PERIODICAL: Vestnik Vysshey Skoly, 1958, # 4, pp 33 - 37 (USSR)

ABSTRACT: The author refers to press discussions on deficiencies in
               pedagogical training which have allegedly resulted from the
               insufficient number of instruction hours allotted to this field.
               The experience of the Khar'kovskiy universitet (Khar'kov Uni-
               versity) has illustrated another cause for these deficiencies.
                   The university curricula provide sufficient time for the pe-
               dagogical training, but the majority of the general and special
               lecture courses, as well as the practical and laboratory exer-
               cises lack a definite pedagogical trend; instructors do not
               emphasize those sections and questions which are of greatest
               significance to the future secondary-school teacher.
                   The USSR Ministry of Higher Education is also to blame for
               approving the general and special-course programs without
               taking into account the secondary school teachers training.
               Universities do not sufficiently utilize their possibilities
               to organize specialized optional courses. University in-
               structors are themselves insufficiently familiar with school
Card 1/2   life; there is no liaison between university and school.

University and School   3-58-4-9/34

            The poor liaison between Khar'kov University and the se-
        condary school is then described, and means of bettering this
        contact are given.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet imeni A.M. Gor'kogo
              (Khar'kov State University imeni A.M. Gor'kiy)

AVAILABLE: Library of Congress

Card 2/2

BERDICHEVSKAYA, Nina Aleksandrovna; ZAVALISHINA, Natal'ya Grigor'yevna;
STOLETNYAYA, Anna Marklanovna; GEL'FENBEYN, L.L., otv.red.;
TROFIMENKO, A.S., tekhn.red.

[A textbook of ore dressing] Khrestomatiia po obogashcheniiu poleznykh
iskopaemykh. Khar'kov, Izd-vo Khar'kovskogo gos.univ., 1959. 102 p.
(MIRA 14:1)

(Readers and speakers--Ore dressing)

DITMAN, Irina Alekseyevna; MEDVEDER, Lyudmila Dmitriyevna; STOLETNYAYA,
     Anna Markianovna; GEL'FENBEYN, L.L., otv.red.; TROFIMENKO, A.S.,
     tekhn.red.

[Mining; a reader] Mining. Khrestomatiia po gornomu delu.
Khar'kov, Izd-vo Khar'kovskogo ordena Trudovogo krasnogo znameni
gos.univ. imeni A.M.Gor'kogo, 1959. 120 p. (Text in English with
vocabulary).   (MIRA 12:12)
                    (Mining engineering)

BERKASH, Galina Vasil'yevna; FAVOROVA, Nina Leonidovna; GEL'FENBEYN, L.L.,
otv.red.; TROFIMENKO, A.S., tekhred.

[Chrestomathy in the English language for higher educational
institutions and faculties specialising in building construction]
Building construction. Khrestomatiia po angliiskomu iazyku dlia
stroitel'nykh vuzov i fakul'tetov. Khar'kov, Izd-vo Khar'kovskogo
gos.univ.im.A.M.Gor'kogo, 1960. 162 p.   (MIRA 13:10)
          (English language--Textbooks for foreigners)
                    (Building)

ARTYUKHOVA, Viktoriya Iosifovna; KOVALENKO, Vasiliy Yegorovich; MALKINA,
    Yelena Borisovna; GEL'PERIN, L.L., otv.red.; PLETENITSKIY,
    V.Yu., tekhn.red.

[Collection of texts in the English language for use in chemical
engineering schools] Sbornik tekstov na angliiskom iazyke dlia
khimiko-tekhnologicheskikh vuzov. Khar'kov, Izd-vo Khar'kovskogo
gos.univ., 1960. 273 p.   (MIRA 13:12)
  (Chemical engineering)   (English language--Translating)

GEL'FENBEYN, L.L.; SHKORBATOV, G.L.

Schools need one consolidated course in general biology. Biol.
v shkole no.3:32-34 My-Je '63.   (MIRA 16:10)

1. Khar'kovskiy gosudarstvennyy universitet.

GEL'FENFEYN, L.S.; CHERNYAGINA, T.B.

Antibiotic therapy of suppurative perineal and gluteal wounds
following surgery on the rectum. Khirurgiia 40 no.2:49-51
F '64.   (MIRA 17:7)

1. Proktologicheskoye otdeleniye (zav. - prof. A.N. Ryzhikh)
Gosudarstvennogo onkologicheskogo instituta imeni P.A. Gertsena
na baze 67-y bol'nitsy (glavnyy vrach P.S. Petrushko), Moskva.

SABLIKOV, M.V., akademik; GEL'FENBEYN, S.A., inzh.

Automatic tractors in the fields. Nauka i zhizn' 27 no.8:
17-21 Ag '60.   (MIRA 13:9)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni
V.L.Lenina (for Sablikov).
    (Tractors)   (Automatic control)