KATAYEV, V.M.

Basic tasks of the plastics industry for 1965. Plast. massy
no.1:1-2 '65.   (MIRA 18:4)

KATAYEV, V. N.
    State Order of Lenin and Order of Labor Red Banner Inst of Physical Culture
    imeni P. F. Lesgaft.

KATAYEV, V. N.: "Programs and rules for competition in sporting gymnastics
in the USSR and their significance for the development of athletic mastery
of gymnasts." State Order of Lenin and Order of Labor Red Banner Inst of
Physical Culture imeni P. F. Lesgaft. Leningrad, 1956.
 (Dissertation for the Degree of Candidate in Pedagogical Sciences)

SO: Knizhnaya Letopis', No. 20, 1956.

KATAYEV, V   P

Tekhnicheskoye Normirovaniye Protossov mekhovogo Proizvodstva.
(Technical Standardization ofindustrial processes forfurs)
Moskva, Gizleoprom, 194?.
    122 p. tables, Diagrs.
    Discusses standardization method, giving examples based on the production of
industrial enterprises.

KATAYEV, V.F.

Sewing

Increasing labor productivity in sewing operations.
Leg. prom. 12 no. 4, 1952

Monthly List of Russian Accessions, Library of
Congress, July 1952. Unclassified.

KATAYEV, V. P.

Machinery in industry

Productivity reserve of equipment Leg. prom. 12 no. 5, 1952.

KATAYEV, V.P., inzhener.

Combined operations in fur processing. Leg.prom. 14 no.9:9-10 S '54.
(Fur)   (MLRA 7:9)

KATAYEV, V.P., kand.tekhn.nauk.

Semiautomatic and continuous flow lines for the processing of
fur sheepskin. Leg.prom. 17 no.8:12-15 Ag '57.   (MIRA 10:10)
        (Assembly-line methods) (Hides and skins)

ZUBIN, A.M., kand.biolog.nauk; KUZNETSOV, B.A., prof., doktor biolog.
nauk; MOSHKOV, A.N., kand.sel'skokhoz.nauk; PURIM, Ya.A., kand.
tekhn.nauk; CHATSKIY, P.I., kand.tekhn.nauk; SERGEYEVA, T.A.,
kand.tekhn.nauk; BARYKIN, A.M., kand.tekhn.nauk; LOSEVA, N.L.,
kand.tekhn.nauk [deceased]; RUMYANTSEV, M.Z., starshiy nauchnyy
sotrudnik [deceased]; LAPIDUS, L.G., starshiy nauchnyy sotrudnik;
FRENKEL', Ye.B., kand.tekhn.nauk; KHMEL'NITSKAYA, Ye.G., mladshiy
nauchnyy sotrudnik; KATAYEV, V.P., kand.ekonom.nauk; KLYAGINA, N.I.,
red.; MARTYNOV, S.F., red.; MINAYEVA, T.N., red.; PLEMYANNIKOV,
M.N., red.; KNAKNIN, M.T., tekhn.red.

[Manual on fur and sheep pelt garment manufacture] Spravochnik po
mekhovoi i ovchinno-shubnoi promyshlennosti. Vol.2.[Raw materials.
Semifinished and final products. Production technology] Syr'e.
Polufabrikaty i izdeliia. Tekhnologiia proizvodstva. 1959. 631 p.
(MIRA 13:3)

1. Nauchno-issledovatel'skiy institut mekhovoy promyshlennosti
(NIIMP) (for Rumyantsev, Lapidus).
     (Hides and skins)   (Fur—Handbooks, manuals, etc.)

KATAYEV, Ye. G.

PA 41/49T1

USSR/Chemistry - Diene, Synthesis   Apr. 49
         Chemistry - Synthesis

"Diene Synthesis With Selenophene and Its Homo-
logues," B. A. Arbuzov, Corr Mem, Acad Sci USSR,
Ye. G. Katayev, Sci kes Chem Inst imeni A. M.
Butlerov, Kazan State U imeni V. I. Ul'yanov-
Lenin, 3 pp

"Dok Ak Nauk SSSR" Vol LXV, No 4

Showed that selenophone, 2-methylselenophene, and
2,5-dimethylselenophene enter into diene synthesis
with maleic anhydride during heating at 150° for
16 hours. Diene synthesis does not occur at

41/49T1

USSR/Chemistry - Diene, Synthesis (Contd) Apr 49

lower temperatures (100 - 120°). Separation of
elementary selenium was observed in all reactions,
but separation of hydrogen selenide was not ob-
served. Submitted 3 Feb 49.

41/49T1

Katayev (y?)
CA

10

Diene synthesis with selenophene and its homologs
B. A. Arbuzov and E. G. Kataev (Kazan State Univ.).
Doklady Akad. Nauk S.S.S.R. 68, 93-5(1949). Heating
1 g. selenophene with 6 g. maleic anhydride 16 hrs. at 150°
in a sealed tube yielded Se and 32% 3,6-endo-(succineous-
hydride)-Δ⁴-tetrahydrophthalic anhydride (I), decomp. 345-
6°, subliming with difficulty; the free acid was isolated as

(I)
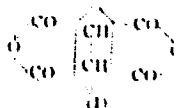
the tetra-Ag salt, converted by MeI to the tetra-Me ester,
m. 130-1°. 2-Methylselenophene similarly gave the 3-Me
analog of I, decomp. 298-8° (from AmOAc) [tetra-Me ester,
m. 166-7° (from AmOAc)], while 2,5-dimethylselenophene
gave the 3,6-dimethyl analog of I, decomp. 302-4° (tetra-Me
ester, m. 203.5-4.5°). CH₂:CHCN or 1,4-naphthoquinone
did not add to selenophene at 150-200°.   G. M. K.

CA [handwritten annotations]

Diene syntheses with 2,4-hexadiene. B. A. Arbuzov and B. G. Kataev (Kazan State Univ.) *Zhur. Obshchei Khim. (J. Gen. Chem.)* 20, 931-8(1950); cf. *C.A.* 44, 9027c. 2,4-*Hexadiene* (I) enters the diene synthesis less readily than piperylene. I (30 g.), 18 g. CH_2:CHCN, and 0.1 g. hydroquinone after 12 hrs. at 120-30° in a

sealed tube gave 40% 2,5-*dimethyl-3-cyclohexene-1-carbonitrile*, b. 82-3°, n_D^{20} 1.4678, d_4^{20} 0.9302; heated with the calcd. amt. of Br 2 hrs. at 2hr², then refluxed 18 hrs. with aq. alc. NaOH, it gave 2,5-MeC_6H_8COOH, m. 125°. I (17 g.), 25 g. $MeCH$:$C(CO_2Et)_2$, and hydroquinone (0.2 g.) after 13 hrs. at 170-8° gave 31% di-*Et 2,5,6-trimethyl-3-cyclohexene-1,1-dicarboxylate*, b. 128-9°, b₁₄ 144-5°, n_D^{20} 1.4641, d_4^{20} 1.0362, which on heating 7 hrs. with aq. alc. KOH gave 2,5,6-*trimethyl-3-cyclohexene-1-carboxylic acid*, b. 180-8°, an oil [amide, m. 183-4° (from MeOH)]. Similarly, I with $MeCH$:$C(CO_2Et)Ac$ for 18 hrs. at 180° gave 40% *Et 2,5,6-trimethyl-1-acetyl-3-cyclohexene-1-carboxylate*, b. 115-17°, n_D^{20} 1.4744, d_4^{20} 1.0247, which on heating with 25% aq. alc. NaOH gave 53% 2,5,6-*trimethyl-1-acetyl-3-cyclohexene*, b₁₄ 115-18°, n_D^{20} 1.4631; *semicarbazone*, m. 165-7° (from MeOH). I with $PhCH$:$C(CO_2Et)_2$ gave in 12 hrs. at 180° 30% di-*Et 2,5-dimethyl-6-phenyl-3-cyclohexene-1,1-dicarboxylate*, b₁ 170-80°, n_D^{20} 1.5231, d_4^{20} 1.0045. $PhCH$:$C(CO_2Et)Ac$ gave 40% *Et 2,5-dimethyl-6-phenyl-1-acetyl-3-cyclohexene-1-carboxylate*, b₁ 163-6°, n_D^{20} 1.5300, d_4^{20} 1.0606.
G. M. Kosolapoff

KATAEV, E. G.

Arbuzov, B. A. & Kataev, E. G. - "Diene syntheses with piperylene." (p. 68)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1950, Vol. 20, No. 1

KATAEV, E. G.

"Interaction of piperylene and hexadiene-2, 4 with unsaturated nitro compounds."
Kataev, E. G., Matveeva, P. S. (p. 405)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1953, Volume 23, No.3.

KATAEV, E. G.

Arbuzov, B. Z. and Kataev, E. G. - "Diene synthesis with 2,4-hexadiene." (p. 931)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1950, Vol. 20, No. 5.

Diene syntheses with piperylene. B. A. Arbuzov and E. G. Katacv (Kazan State Univ.). Zhur. Obshchei Khim. (J. Gen. Chem.) 20, 68-81(1950).—Piperylene (I) (20 g.), 16.4 g. $CH_2:CHCN$, and 0.1 g. hydroquinone after 24 hrs. at 170° gave 21 g. (64%) 3-methyl-3-cyclohexene-1-carbonitrile, b_4 68-70°, b_4 73-4°, n_D^{20} 1.4683, d_4^{20} 0.9289; this in boiling abs. EtOH in a dry HCl stream gave after 12 hrs. 40% of the corresponding Et ester, b_4 105-7°, b_{10} 138-40°, n_D^{20} 1.4619, d_4^{20} 0.0741, which on boiling with aq. alc. Na_2CO_3 12 hrs. gave 73% of the free acid (II), sirup, b_4 138-40°, n_D^{20} 1.4758, d_4^{20} 1.0397; Ag salt, colorless powder. Ozonization of 5 g. free acid for 16 hrs. in 50 ml. H_2O contg. 3 g. Na_2CO_3, followed by addn., in the cold, of 80 ml. 1% $KMnO_4$ soln., gave 1,3,4-pentane-tricarboxylic acid, m. 176-8° (from HCl). The above nitrile (1.3 g.) was dehydrogenated by heating 2 hrs. to 200° with 3.41 g. Br, then boiling 16 hrs. with 30% NaOH, which gave o-toluic acid, confirming the structure. Heating 60 g. acrolein, 115 g. I, and 0.5 g. hydroquinone 8 hrs. to 125-30° gave 70 g. (50%) 2-methyl-3-cyclohexen-1-al, b_4 66-8°, n_D^{20} 1.4653, d_4^{20} 0.9435 [semicarbazone, m. 107-8° (from EtOH)]; oxidation of the aldehyde (25 g.) with 65 g. $AgNO_3$ and 30 g. NaOH in dil. EtOH over 12 hrs. gave the trans form of II, m. 52-2.5° (from petr. ether); its Ag salt is a colorless powder; transformation to the acid

chloride (by PCl_3) and treatment with NH_4OH gave the amide, m. 157-8° (from H_2O); the liquid form of II failed to give the amide. I (18 g.) and 26 g. $MeCH:C(CO_2Et)_2$ in the presence of hydroquinone gave after 13 hrs. at 170-5° 71% di-Et 2,6-dimethyl-3-cyclohexene-1,1-dicarboxylate, b_4 123-4°, b_{14} 136-8°, n_D^{20} 1.4619, d_4^{20} 1.0416; hydrolysis with 25% EtOH-KOH 8 hrs. at 98° gave the free acid, m. 188° (from EtOAc), in 42% yield; decarboxylation at 200° gave 70% of the monocarboxylic acid, m. 55-6° (from EtOAc), which, heated 24 hrs. at 390° with Se, then oxidized with $KMnO_4$, gave isophthalic acid. I (14 g.) and 25 g. $PhCH:C(CO_2Et)_2$, in the presence of hydroquinone, gave in 12 hrs. at 190° 39.3% di-Et 2-methyl-6-phenyl-3-cyclohexene-1,1-dicarboxylate, b_4 170-2°, n_D^{20} 1.5306, d_4^{20} 1.1008; heating this with 25% alc. KOH 12 hrs. gave the free acid (54%), m. 183° (decompn.; from EtOAc), which on heating to 190° gave a sirupy mono-carboxylic acid (isolated as the Ag salt), while dehydrogenation with Se at 390° and oxidation of the product with $KMnO_4$ gave 3-phenylbenzoic acid, m. 159-61° (from dil. EtOH). I (14 g.) and 16 g. $AcC(:CHMe)CO_2Et$ similarly gave after 18 hrs. at 180° 71% Et 2,6-dimethyl-1-acetyl-3-cyclohexene-1-carboxylate, b_4 116-18°, n_D^{20} 1.4721, d_4^{20} 1.0326, which on sapon. with alc. KOH gave 45% 2,6-dimethyl-1-acetyl-3-cyclohexene, b_{11} 80-1°, n_D^{20} 1.4635, d_4^{20} 0.9259 (semicarbazone, m. 124°), and an unstated amt. of 2,6-dimethyl-3-cyclohexene-1-carboxylic acid, m. 56°. Similar reaction of I with $AcC(:CHPh)CO_2Et$ at 180° for 20 hrs. gave 44.5% Et 2-methyl-6-phenyl-1-acetyl-3-cyclohexene-1-carboxylate, b_4 165-7°, n_D^{20} 1.5288, d_4^{20} 1.0089, and 20.5% Et 3-methyl-2-phenyl-1-acetyl-4-cyclohexene-1-

carboxylate, b₁ 107-71°, m. 61° (from MeOH). Hydrolysis of the former ester with 25% alc. KOH gave 27% 2-methyl-6-phenyl-1-acetyl-3-cyclohexene, b₂ 150-0°, n¹⁵ 1.5301, and 53% 2-methyl-6-phenyl-3-cyclohexene-1-carboxylic acid, sirup, b₁ 160-70° (isolated as the Ag salt); dehydrogenation with Se as above gave m-PbC₆H₄CO₂H). Hydrolysis of the latter ester with alc. KOH gave 26% 3-methyl-2-phenyl-1-acetyl-4-cyclohexene (structure uncertain; gives a semicarbazone, m. 195°), and 70% 3-methyl-2-phenyl-4-cyclohexene-1-carboxylic acid, m. 83° (from dil. MeOH), which on dehydrogenation with Se and treatment with KMnO₄ gave 2-phenylbenzoic acid, m. 112-13°.

G. M. Kosolapoff

KATAYEV, Ye-G.
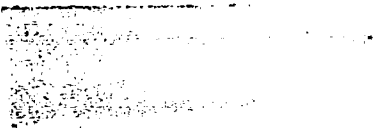
KATAYEV, Ye.G.

3

Interaction of abietic acid and p-benzoquinone.

Lab Org. Chem., Kazan

KATAYEV, Ye. G.

..., de ..... Mg (1.93 g.), 18.5 g. PhBr. and 12.5

KATAYEV, Ye. G.
KATAEV, E. G.
USSR/Chemistry

Card   : 1/1

Authors   : Arbuzov, B. A. Academician, and Kataev, E. G.

Title   : Reaction of diene hydrocarbons with sulfur and selenium

Periodical : Dokl. AN SSSR, 96, Ed. 5, 983 - 985, June 1954

Abstract   : Direct contacting of piperylene and hexadiene-2,4 with melted sulfur
               at 360 - 420° yielded 36 and 28% resp. of 2-methylthiophene and 2,5-
               dimethylthiophene. The reaction of divinyl, piperylene and hexadiene-
               2,4 with selenium at 360 - 420° led to the derivation of selenophene,
               2-methylselenophene and 2,5-dimethylselenophene. An increase in reac-
               tion temperature to 500° decreased the yield of selenophene, as well
               as the recovery of the unreacted diene as result of the excessive gas
               formation and resinification. At temperatures less than 300° one
               could observe dimerization of the dienes and there was practically no
               heterocyclization. Five references. Table.

Institution : The V. I. Ulyanov-Lenin State University, The A. M. Butlerov Chemical
               Institute, Kazan

Submitted   : April 20, 1954

KATAYEV, YE. G.

KATAYEV, Ye. G.

Nitrodienes in diene synthesis. Soob.o nauch.rab.chl.VKHO no.2:49-53
'55.   .   (MIRA 10:10)
    (Chemistry, Organic--Synthesis)   (Nitro compounds)

KATAYEV, Ye.G.; TANTASHEVA, F.R.

Divinyl sulfoxide and divinyl sulfone in diene synthesis with
symmetric dienes. Dokl. AN SSSR 141 no.5:1101-1104 D '61.
(MIRA 14:12)
1. Kazanskiy gosudarstvennyy universitet im. V.I. Ul'yanova-Lenina.
Predstavleno akademikom B.A. Arbuzovym.
(Olefins)   (Sulfoxides)
(Sulfone)

KATAYEV, Ye.G.; BARINOVA, L.K.

Addition of thiourea and selenurea to undaturated electrophilic
reagents. Dokl. AN SSSR 141 no.6:1373-1375 D '61. (MIRA 14:12)

1. Kazanskiy gosudarstvennyy universitet im. V.I.Ul'yanova-Lenina.
Predstavleno akademikom B.A.Arbuzovym.
            (Urea--Spectra) (Addition reactions)

L 18995-63   EPF(c)/EWT(m)/EWP(q)/BDS   AFFTC/ASD   Pr-4   RM/WW/
JD/MAY/JG/AB
ACCESSION NR: AT3002455   S/2935/62/000/000/0211/0217

AUTHOR: Katayev, G. A.; Presnov, V. A.; Batuyeva, Ye. N.; Katayev, Yu. G.;
Lyuze, L. L.

TITLE: Effect of adsorption of some amines by the semiconductor upon the
fundamental parameters of germanium transistors (Conference on Surface Properties
of Semiconductors, Institute of Electrochemistry, AN SSSR, Moscow, 5-6 June 1961]

SOURCE: Poverkhnostny*ye svoystva poluprovodnikov. Moscow, Izd-vo AN SSSR, 1962,
211-217

TOPIC TAGS: semiconductor, adsorption, amine adsorption, transistor, germanium
transistor

ABSTRACT: The following aliphatic- and aromatic-series amines were used in the
experiments as adsorbates: hexamethylene-diamine, triethylamine, ammonia,
p-phenylenediamine, p-toluidine, dimethylaniline, benzidine, aniline, beta-
naphthylamine, diphenylamine, aniline black. The results of adsorbing by type
P-5 transistors are: (1) Reverse collector currents have decreased; (2) Gain has
increased or decreased depending on the amine basicity; (3) Adsorption bond
strength as judged by the time stability of the transistor parameters depends
on the amine nature; (4) Surface charge has become "less negative". The above
Card 1/2

L. 18995-63
ACCESSION NR: AT3002455

phenomena are explained by donor-acceptor interactions between the adsorbed molecules and Ge surface. Orig. art. has: 3 figures, 4 formulas, and 2 tables.

ASSOCIATION: Tomskiy gosudarstvenny*y universitet im. V. V. Kuyby*sheva (Tomsk State University)

SUBMITTED: 00   DATE ACQ: 15May63   ENCL: 00

SUB CODE: PH   NO REF SOV: 003   OTHER: 005

Card2/2

ARBUZOV, B.A.; KATAYEVA, L.M.; KATAYEV, Ye.G.; IL'YASOV, A.V.

Electron paramagnetic resonance studies of the dissociation
of di-(2,4,6-triphenyl)phenyl peroxide and di-(2,4,6-triphenyl)
phenyldiselenide to free radicals. Izv. AN SSSR Otd.khim.
nauk no.2:360-362 F '62.   (MIRA 15:2)

1. Kazanskiy gosudarstvennyy universitet im. V.I.Ul'yanova-
Lenina i Kazanskiy filial AN SSSR.
                    (Radicals(Chemistry))

S/079/62/032/008/006/006
D204/D307

AUTHORS: Katayeva, L.M. and Katayev, Ye. G.

TITLE: The absorption spectra of certain diselenides

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 8, 1962,
                  2710 - 2713

TEXT: The electronic absorption spectra of dimethyl
-(A), dibenzyl-(B), diphenyl-(C), and di-(2, 4, 6-triphenyl)-(D)
diselenides were measured on the СФ - 4 (SF-4) spectrophotometer
with a universal monochromator УМ-2 (UM-2), in the 220 - 550 mμ
region, to throw light on the structures of the organic compounds
of Se. Similarity of the spectra is explained by the presence of
the diselenide group and the excitation of the mobile p-electrons
of Se. The molar extinction coefficient (ε_{max}) of A at the maximum
was 331.1, similarly to the values of ε_{max} obtained by Bergson
for other aliphatic diselenides. This is ascribed to the presence
of R-chromophone (-Se-Se-) and the purely p-excitation in these
compounds. B, C and D showed similar behavior (R bands with maxima

Card 1/3

The absorption spectra ...

$S/079/62/032/008/006/006$
$D204/D307$

(λ_{max}) at 310 - 410 mμ) with ε_{max} < 2000 as in the aliphatic diselenides, but also gave rise to K bands, owing to the excitation of aromatic π - electrons, with corresponding $\varepsilon_{max} \sim 20,000$ and λ_{max} between 230 and 300 mμ. The excitation energies of p- and π- transitions varied between 92.3 - 69.8 and 120.7 - 96.9 kcal/mole respectively, decreasing from B to D. The diselenide bridge may transmit conjugation between the two aryl radicals, owing to the conjugation between the aromatic π- electrons and the p-electrons of Se, although this conjugation is impeded when a methylene group is placed between the -Se-Se- and the aromatic ring, as in B. The ir spectra measured in the region 860 - 1960 cm^{-1}, on a Hilger H-800 spectrometer, confirmed the presence of conjugation between the two π- systems in C and its absence in B. The authors acknowledge the assistance of V. S. Vinogradova, E. G. Yarkova and L. M. Galkina with the optical measurements. There are 3 figures and 1 table.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni
                V. I. Ul'yanova-Lenina (Kazan State University

Card 2/3

S/079/62/032/008/006/006
D204/D307

The absorption spectra ...

imeni V. I. Ul'yanov- Lenin)

SUBMITTED: July 10, 1961

Card 3/3

KATAYEV, Ye.G.; PETROV, V.N.

Reactions of selenols with acetylene derivatives. Part 1:
Reactions of selenophenol with 1-hexyne, phenylacetylene,
diphenylacetylene, and 2-methyl-5-ethynylpyridine. Zhur.ob.khim.
32 no.11:3699-3703 N '62.   (MIRA 15:11)

1. Kazanskiy gosudarstvennyy universitet imeni
V.I. Ul'yanova-Lenina.
                  (Selenophenol) (Acetylene)

KATAYEV, Ye.G.; PLEMENKOV, V.V.

Thionylamines in diene synthesis. Zhur. ob. khim. 32
no.11:3817-3823 N '62.   (MIRA 15:11)

1. Kazanskiy gosudarstvennyy universitet imeni
V.I. Ul'yanova-Lenina.
                    (Amines)
         (Chemistry, Organic—Synthesis)

KATAYEVA, L. M.; ANONIMOVA, I. V.; YULDASHEVA, L. K.; KATAYEV, Ye. G.

Reaction of selenols with acetylene derivatives. Part 2:
Structure of the products of interaction between selenophenol
and phenylacetylene and 2-methyl-5-ethynylpyridine. Zhur. ob.
khim. 32 no.12:3965-3971 D '62.   (MIRA 16:1)

1. Kazanskiy gosudarstvennyy universitet imeni V. I. Ul'yanova-
Lenina.

(Selenophene)   (Acetylene)

KATAYEV, Ye.G.; TANTASHEVA, F.R.

Dienophilic activity of β, β' -dichlorodivinyl sulfoxide, β, β' -dibromodivinyl sulfoxide, and β, β' -dibromodivinyl sulfone. Zhur.ob.khim. 33 no.7:2307-2310 Jl '63.   (MIRA 16:8)

1. Kazanskiy gosudarstvennyy universitet imeni Ul'yanova-Lenina.
    (Sulfoxide) (Sulfone) (Chemistry, Organic—Synthesis)

bonds as indicated by data of infrared and ultraviolet

latter). It is concluded that the a-b-a-m-t-s of the atoms S and Se,
gated with the unshared pair of p-electrons of the atoms S and Se.

ENCL: 00

Card 2/2

KATAYEV, Ye.G.; TANTASHEVA, F.R.; YARKOVA, E.G.

Reaction of triethyl phosphite with β-bromovinyl sulfones.

Zhur. ob. khim. 35 no.4:759 Ap '65.

(MIRA 18:5)

1. Kazanskiy gosudarstvennyy universitet im. V.I. Ul'yanova-Lenina.

L 31213-66   EWT(m)/EWP(j)   RM

ACC NR: AP6022793   SOURCE CODE: UR/0079/66/036/002/0254/0257

AUTHOR: Katayev, Ye. G.; Mannafov, T. G.

ORG: Kazan' State University im. V. I. Ul'yanov-Lenin (Kazanskiy gosudarstvennyy universitet)

TITLE: Phenylselenochloride in the Arbuzov rearrangement

SOURCE: Zhurnal obshchey khimii, v. 36, no. 2, 1966, 254-257

TOPIC TAGS: phenyl compound, organic phosphorus compound, absorption spectrum, IR absorption, UV absorption, conjugate bond system, organoselenium compound, electron shell, benzene

ABSTRACT: Phenylselenochloride reacts smoothly with trialkyl phosphites in inert solvents at low temperature according to the Arbuzov rearrangement, forming O,O-dialkyl-Se-phenyl-phosphates. O,O-Diethyl-Se-butylphosphate and O,O-dimethyl-Se-butyl-phosphate were produced by reaction of n-butylseleno-cyanate with dialkylphosphorous acids. O,O-Dimethyl-Se-butylphosphate was also produced by reaction of trimethyl phosphite with n-butylselenocyanate. The infrared and ultraviolet absorption spectra indicate conjugation of the unshared p-electrons of the selenium atom with the pi-electron shell of the benzene ring. The atomic refraction of selenium in O,O-dialkyl-Se-phenyl-phosphates is equal to 12.35, while that in O,O,Se-trialkylphosphates is 11.70. The authors thank E. G. Yarkova for producing the IR spectrum. Orig. art. has: 2 figures and 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 15Mar65 / ORIG REF: 006 / OTH REF: 003

Card 1/1 BLG   UDC: 547.26'118 + 546.2

L 36473-66   EWT(m)/EWP(j)   RM

ACC NR: AP6027040

SOURCE CODE: UR/0020/65/165/006/1313/1316

AUTHOR: Katayev, Ye. G.; Plemenkov, V. V.; Markin, V. V.

ORG: Kazan State University im. V. I. Ul'yanov-Lenin (Kazanskiy gosudarstvennyy universitet)

TITLE: Diethylphosphoric acid thionylamide in the diene synthesis reaction

SOURCE: AN SSSR. Doklady, v. 165, no. 6, 1965, 1313-1316

TOPIC TAGS: diene synthesis, phosphoric acid, chloride, organic amide, phenyl compound, isomer

ABSTRACT: The authors attempted to synthesize diethylphosphoric acid thionylamide by treating thionyl chloride with diethylphophoric acid amide; the attempt was successful, with the formation of (phosphonyl thionylamide) and release of hydrogen chloride following the addition of an equimolar amount of thionyl chloride to a benzene solution of diethylphosphoric acid amide and heating for 30 min. Since aromatic thionylamines, particularly those with electro-acceptor groups in the phenyl nucleus, as well as thionylsulfonamides, react fairly actively with various dienes, it was to be expected that phosphonyl thionylamide also would be an active dienophil; this was confirmed by reaction of phosphonyl thionylamide with various dienes (butadiene-1,3, isoprene, hexadiene-2,4, chloroprene, etc.). It was established that reaction between phosphonyl thionylamide and asymmetrically-substituted dienes is bound to lead to two structural isomers for each reaction. This article was presented by Academician B. A. Arbuzov on 12 April 1965. The authors thank Yu. Yu. Samitov, A. A. Musinaya and E. G. Yarkovaya for the plotting of the nuclear magnetic resonance and infrared spectrums and for valuable consultations concerning their interpretations. Orig. art. has: 1 figure and 1 table. [JPRS: 36,455]

SUB CODE: 07, 20 / SUBM DATE: 09Apr65 / ORIG REF: 004 / OTH REF: 006

Card 1/1

L 42953-66   EWT(m)/EWP(t)/ETI   IJP(c)   JD

ACC NR: AR6015873 | SOURCE CODE: UR/0275/65/000/012/B046/B046

AUTHOR: Katayev, Yu. G.; Otmakhov, I. I.

TITLE: Investigation of methods of protecting semiconductive germanium triodes

SOURCE: Ref. zh. Elektronika i yeye primenenlye, Abs. 12B340

REF SOURCE: Dokl. Nauchno-tekhn. konferentsii, posvyashch. Dnyu radio. Tomsk, Tomskiy
un-t, 1964, 7-11

TOPIC TAGS: germanium triode, semiconducting material, semiconducting film, protective
coating

ABSTRACT: An investigation was made of methods of protecting the surface of semiconductive
triodes (ST) with the aim of stabilizing their parameters by forming high-molecular material
films on their surfaces. The selection of materials is determined by the requirements of the
creation of an optimal and a stable surface charge. The film should have low electroconductiv-
ity, high hydrophobic property, satisfactory adhesion, and the necessary thermal and mechani-
cal properties. Use was made of supplementary processing of industrial lacs by means of
diffusion of low-molecular materials from a gaseous or liquid phase and diffusion of albumin

Card 1/2   UDC: 621.382.002.76:546.289

L 42953-66

ACC NR: AR6015873   O

from solutions, followed by shifting them to an insoluble state. Results of tests of ST with
various films are presented. [Translation of abstract] Bibliography of 5 titles. I. M.

SUB CODE: 09,11

Card 2/2

ACCESSION NR: AP4033052   S/0147/64/000/001/0153/0160

AUTHOR: Katayev, Yu. P.; Ly*sov, M. I.

TITLE: Theoretical investigation of the process of bending with consideration of the formation of zones of secondary plastic strain at stress relief

SOURCE: IVUZ. Aviatsionnaya tekhnika/ no. 1, 1964, 153-160

TOPIC TAGS: plastic deformation, elastic deformation, cylinder, cylindrical part, bending, plastic bending, load relief, load relief theorem, elasticity, residual stress, elastic unit

ABSTRACT: The authors note that the molding of cylindrical parts by the method of plastic bending is accompanied by a reduction of the curvature after relief of the load. This phenomenon, known as springing, reduces the accuracy of the molding process. The present paper deals with the problem of the scope of applicability of analytical methods for the calculation of this phenomenon of springing, based on the so-called load-relief theorem. This theorem proceeds from the assumption that the secondary strains and stresses, opposite in sign, which arise at the time of load relief in the outer sectional zones, do not exceed the elastic limit of the material. It is in the light of this premise

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ACCESSION NR: AP4033052

that the authors have considered a theoretical solution of the problem of springing. Unable to use an analytic interpretation of the load-relief theorem, since it expresses a linearity of relief, the authors state that the condition under which the unknown parameters may be derived is the equilibrium of residual stresses (see Figure 1 of the Enclosure). In a general form, this condition is expressed by the following equation:

$$\Sigma M_x = \int_0^{y_p} \tilde{\sigma} \cdot y \cdot dy + \int_{y_p}^{y_p'} \tilde{\rho}_1 \cdot y \cdot dy + \int_{y_p'}^{\frac{h}{2}} \sigma_2' \cdot y \cdot dy = 0. \qquad (1)$$

The solution of this equation requires that the dependence between the components of the residual stresses and strains be expressed in a unified system of coordinates, on the assumption that secondary plastic strains may occur in the III zones of the section. In the first part of the article, the authors have, therefore, considered stress as a function of strain with forward and backward elasto-plastic deformation. Equations are given which define the relative curvature and residual stresses in molded parts, with consideration of the formation of secondary plastic strain zones when the load is relieved, as a function of the relative curvature in the active stage. These equations make it possible to quantitatively estimate the effect of the secondary plastic strain zones that curvature

Card   2/4

ACCESSION NR: AP4033052

of the parts which remains after stress has been removed. Specific materials are con-
sidered, and it is found that this effect is negligible. Thus, for the purpose of techno-
logical computation the authors maintain that an equation derived with a linear load relief
may be successfully employed. Orig. art. has: 2 tables, 4 figures, and 19 formulas.

ASSOCIATION: None

SUBMITTED: 10Jul63   DATE ACQ: 11May64   ENCL: 01

SUB CODE: AS   NO REF SOV: 006   OTHER: 000
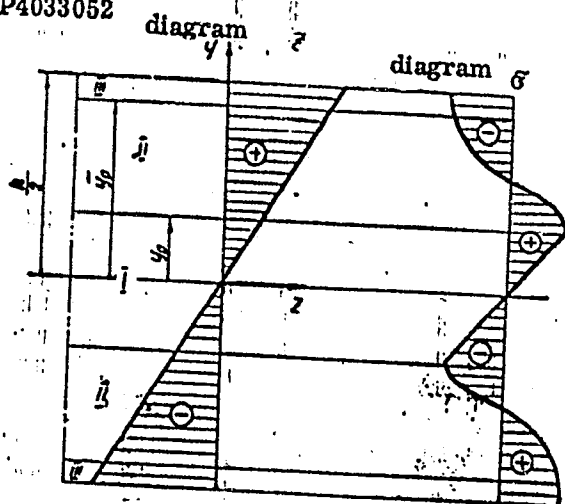
Card 3/4

diagram

diagram

Fig. 1 – Diagrams of residual strains and stresses.
I – elastic strain zone,
II – elasto-plastic strain zone
III – secondary elasto-plastic strain zone

Card 4/4

UR/0264/65/000/005/A003/A003
29.130

SOURCE: Ref. zh. Vozdushnyy transport. Svodnyy tom, Abs. 5A30

AUTHOR: Katayev, Yu.P.

TITLE: Problem of geometry of linings with discrete thickness along the generatrix

CITED SOURCE: Tr. Kazansk. aviats. in-ta, vyp. 84, 1964, 45-55

TOPIC TAGS: aircraft, aircraft material, aeronautic engineering

TRANSLATION: An analytical solution is given for determination of the curvature of generatrix parts with discrete thickness obtained by forming with subsequent chemical milling, which are used in aviation construction.   V.O.S.

SUB CODE: IE, 01

SUBM DATE: none

Card 1/1

ACCESSION NR: AP4040977   S/0147/64/000/002/0109/0125

AUTHOR: Ly*sov, M. I. ; Katayev, Yu. P.

TITLE: Effect of a subsequent reduction in the thickness of the metal on the curvature of formed pieces

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 2, 1964, 109-125

TOPIC TAGS: curvature, machine part curvature, cylindrical shell, waffle shell, part thickness, curvature thickness dependence, aircraft design, chemical machining

ABSTRACT: Cylindrical skins of variable thickness along the contour of the directrix and of the waffle type are widely employed in the design of modern aircraft. The manufacture of such skins from sheets of variable thickness may be complicated by the lack of uniform strength in the stock (bending with elongation cannot be used, while the process of bend-rolling and free bending become difficult to control). Thus, it is often advisable to manufacture these pieces from sheets of constant thickness, subsequently varying that thickness by the method of chemical etching (chemical machining). In the formed piece there are residual stresses which vary in magnitude and in sign according to the height of the section. If the piece is of stable form, these residual stresses are reciprocally balanced, their movement with respect to the axis of rigidity of the section being equal to zero. If such pieces are

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ACCESSION NR: AP4040977

subjected to chemical etching (as a result of which a metal layer of definite thickness is removed and the thickness of the material reduced), the equilibrium of the residual stresses is disrupted. Their equivalent P_z yields a moment M_x with respect to the axis of rigidity of the section. The new balanced state of the residual stresses is achieved as a result of a change in the form of the piece. The authors note that the determination of the magnitude of the change and the final form of the piece, at which the changed residual stresses in the section enter a state of balance, is essential in planning the technology and the equipment needed to ensure accuracy in the manufacture of the pieces. The authors have described the combinations of elastic and plastic strain zones in the forming process which may comprise the piece section, remaining after chemical treatment, depending on the ratio of removed layers from the convex and concave sides. Analytical functions are derived for the determination of the fundamental geometrical parameters of the piece after chemical machining. Various cases of practical interest are considered, for which the authors give the final formulas to determine the relative radius of curvature ξ_x (remaining after the chemical machining) of a layer, neutral with pure bending, and the parameters $\bar{y}_0$ and $\mathcal{E}_0$ which characterize its position. In the second part of the paper, for various forms of waffle-type pieces, analytical functions are found which permit the determination of their basic geometrical parameters after similar chemical treatment. In order to obtain waffle-type pieces,

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ACCESSION NR: AP4040977

chemical etching is basically carried out only from the concave side, while the bed thickness remains constant along the length of the generatrix. The bed of a piece, after chemical machining, may consist of various combinations of elastic and plastic strain zones, which are described in the article. Orig. art. has: 12 figures and 31 formulas.

ASSOCIATION: none

SUBMITTED: 10Jul63   ENCL: 00

SUB CODE: MM, AS   NO REF SOV: 003   OTHER: 000

Card 3/3

L 14533-66   EWT(d)/EWT(1)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/EWP(t)/P-2/EWP(k)/EWP(z)/
ACC NR: AT6003151   EWA(h)/ETC(m)-6/EWP(h)
                    DM/MJW/JD   SOURCE CODE: UR/2529/64/000/084/0045/0055

AUTHOR: Katayev, Yu. P.

ORG: Kazan Aviation Institute (Kazanskiy aviatsionnyy institut)

TITLE: On the problem of the geometry of skins with a discrete thickness along
the generatrix

SOURCE: Kazan. Aviatsionnyy institut. Trudy, no. 84, 1964. Aviatsionnaya
tekhnologiya i organizatsiya proizvodstva (Aviation technology and production
management), 45-55

TOPIC TAGS: aircraft material, buckling, shell buckling, similarity theory,
Poisson coefficient, first approximation, metal/ D16AM metal, D16AT metal

ABSTRACT: An analytic dependence of the magnitude of buckling of skins of various
shapes upon the factors determining it is obtained in the first approximation.
The solution is necessary to take into account deformation of the generatrices.
The work is based on experimental research on parts made from D16AM and D16AT
metals by bending, with subsequent chemical treatment. The theoretical solution
is examined under the following assumptions: the hypothesis of right normals;

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L 14533-66
ACC NR: AT6003151

that normal stresses on areas parallel to the central surface are negligible; that the curvilinear edges of the sheets rest freely on the crosspieces, which are absolutely rigid in their planes; and that the rectilinear edges of the sheets are loaded by a linear force T_0 and a linear moment M_0. The maximum buckling $\bar{W}$ is determined by

$$\bar{W}' = \bar{C}_1 \cdot \Phi_1 + \bar{C}_2 \cdot \Phi_2 + \bar{C}_1' \Psi_1 + \bar{C}_2' \Psi_2$$

where the coefficients $\bar{C}_1$, $\bar{C}_2$, $\bar{C}_1'$, $\bar{C}_2'$ are determined from

$$a_{11}\bar{C}_1 + a_{21}\bar{C}_2 + a_{31}\bar{C}_1' + a_{41}\bar{C}_2' = \frac{4}{\pi}\bar{T}_0;$$

$$a_{12}\bar{C}_1 + a_{22}\bar{C}_2 + a_{32}\bar{C}_1' + a_{42}\bar{C}_2' = \frac{4}{\pi}\bar{M}_0;$$

$$a_{13}\bar{C}_1 + a_{23}\bar{C}_2 + a_{33}\bar{C}_1' + a_{43}\bar{C}_2' = 0;$$

$$a_{14}\bar{C}_1 + a_{24}\bar{C}_2 + a_{34}\bar{C}_1' + a_{44}\bar{C}_2' = 0,$$

Comparison of the theoretical and experimental values of relative bucklings of the median directrices shows satisfactory agreement. Orig. art. has: 19 formulas, 1 table, 2 photographs, 4 diagrams, and 1 graph.

SUB CODE: 13/   SUBM DATE: 01Oct63/   ORIG REF: 001

Card 2/2   01

KATAYEVA, A.A.; MENDEL'SON, L.N. .

The activity unit of invertase. Ferm. i spirt.prom. 31 no.3:1-3
'65.   (MIRA 18:5)

1. Kazgipropishcheprom.

MENDEL'SON, L.N.; KATAYEVA, A.A.

Unit of activity of pectin splitting enzymes. Ferm. i spirt.
prom. 31 no.7:11-15 '65.   (MIRA 18:11)

1. Kaz. Gosudarstvennyy institut po proyektirovaniyu
predpriyatiy pishchevoy promyshlennosti.

KATAYEVA, A.D.

Treatment of erosions of the cervix uteri by means of diathermo-
coagulation. Akush. i gin. 36 no.3:70-73 My-Je '60.

(MIRA 13:12)

(UTERUS—DISEASES)   (ELECTROSURGERY)

SLASTIKHIN, M.A.; KATAYEVA, G.A. (Leningrad)

Effect of a lytic cocktail on certain biochemical indices of the blood in traumatic and anaphylactic shock. Biul.eksp.biol. i med. 48 no.9:71-77 S '59.
(MIRA 13:1)

1. Predstavlena deystvitel'nym chlenom AMN SSSR V.N. Chernigovskim.
        (HIBERNATION, ARTIFICIAL eff.)
        (ALLERGY exper.)
        (SHOCK exper.)
        (BLOOD chem.)

KATAYEVA, G.A.; FILIN, V.I.   (Leningrad)

Study of the secretory and enzymatic function of a denervated
segment of the small intestine in man. Klin. med. 41 no.2:
116-118   F'63   (MIRA 17:3)

1. Iz kliniki obshchey khirurgii (nachal'nik -- prof. V.I.
Popov) Voyenno-meditsinskoy ordena Lenina akademii imeni
S.M. Kirova.

D'YACHENKO, P.K.; KATAYEVA, G.A.; POMOSOV, D.V.; RYAZHKIN, G.A.; STENGARTSEV, V.I.; FOY, L.K.; CHUDAKOV, V.G.; YANCHUK, N.M.

Effectiveness of neuroplegic substances and hypothermia in the prevention and treatment of traumatic shock in irradiated animals. Voen.-med. zhur. no.7:86 Jl '61.   (MIRA 15:1)
(AUTONOMIC DRUGS)   (HYPOTHERMIA)
(SHOCK)   (RADIATION SICKNESS)

KATAYEVA, G.A.; FILIN, V.I.

Secretory function of the denervated small intestine in man.
Fiziol. zhur. 47 no.11:1414-1418 N '61.   (MIRA 14:11)

1. From the Clinical Hospital for General Surgery, S.M.Kirov
Military Medical Academy, Leningrad.
(INTESTINES--SURGERY)

KATAYEVA, G. A.   *and others*

"The Effectiveness of Neuroplegics and Hypothermia in the
Prophylaxis and Treatment of Traumatic Shock in Irradiated Animals."

Voyenno-Meditsinskiv Zhurnal, No. 12, December 1961, pp 62-73

dissolution), 102-104

was found that an increase in the pH of the solution causes a shift in the potentials of

ASSOCIATION: TPI

ABSTRACT. The authors have investigated the dissolving of gallium arsenide in hydrogen peroxide in the presence of sulfuric and phosph... that the rate of dissol...

EPSHTEYN, V.V.;KATAYEVA, G.M.

Physical geographical and physical chemical characteristics of sapropelic Lake Ushchemerovo. Trudy Lab.sapr.otl no.6:69-82 '56.
(Ushchemerovo, Lake--Sapropels)   (MLRA 9:11)

BALABANOVA, Z.M., kand. biolog. nauk; DEKSBAKH, N.K., doktor biolog. nauk;
    KATAYEVA, G.M., nauchnyy sotrudnik

    Vladimir Vasil'evich Epshtein (1902-1960). Okhr. prir. na Urale
    no.2:163-166 '61.   (MIRA 17:7)

AUTHOR: Tykachinskiy, I. D., and Katayeva, O. V.

TITLE: Intensification of Glass Founding with Ammonium Salts (Intensifikatsiya varki stekla putem vvedeniya ammoniynykh soley)

PERIODICAL: Steklo i Keramika, 1957, Vol. 14, Nr 1, pp 3-7 (U.S.S.R.)

ABSTRACT: A study was conducted at the Glass Found Laboratories of the Volga Scientific Research Institute for Comprehensive Study of Structures, Building Materials, and Sanitary Engineering (Laboratorii steklovareniya VNIIA), to determine the effect of ammonium salts on a glass found process and the clarity of commercial alkali and alkali-less glass. Two types of glass and three admixtures were used for the above mentioned purpose; an alkali-less glass, No. 13: SiO_2-62.0%; Al_2O_3-18.5%; CaO-15.3; MgO-4.2%; F'-4% above 100; and a common window pane glass: SiO_2-72.5%; Al_2O_3-2.0%; CaO-6.5%; MgO-4.0%; Na_2O-15.0%. The admixtures NH_4Cl, NH_4NO_3 and $(NH_4)_2SO_4$ were applied in the amount of from 0.5 to 5% (* the amount of admixtures is given in % according to charge weight). The study of the rate of glass found under laboratory conditions was conducted according to A. P. Zak's method, and under the semi-industrial conditions according to the quantity of admixtures. The glass founding was performed in especially designed uniform fireclay cruicible furnaces, heated to 1370 ± 50, 1420 ± 50, and 1450 ± 50 temperatures. During the experiments, the temperatures were kept constant.

Card 1/1

Card 2/2

KATAYEVA, G.V.

AUTHORS: Tykachinskiy, I.D., Katayeva, G.V.   72-2-2/20

TITLE: On the Effect of the Acceleration of Ammonium-Sulfate on the Process
             of Glass Melting (Ob uskoryayushchem deystvii sul'fata ammoniya na
             protsess steklovareniya).

PERIODICAL: Steklo i Keramika, 1958,   V. 15   Nr 2, pp. 4-5 (USSR)

ABSTRACT: The best effect is attained by an addition, with respect to weight,
             of 3% ammonium-sulfate. The authors describe in detail what invest-
             igations they carried out and, occasionally, also refer to a previous
             work. The following conclusion is drawn: Ammonium-sulfate forms
             chemical compounds with the layer components as well as with the
             layer as a whole. The existence of $(NH_4)_2SO_4$ in the layer, thanks to
             its being melted at a temperature of $350°$, leads to the formation of
             a liquid intermediate layer, by which interaction among layer compo-
             nents is promoted. In the temperature range of $350-530°$ the ammonium-
             sulfate decomposes into the gaseous products NH_3, SO_3 and H_2O. The
             ammonia acts mechanically upon the layer by mixing it. Group SO_3 and
             steam react, owing to their high chemical activity, with the layer
             components and accelerate the process of melting. The addition
Card 1/2 $(NH_4)_2SO_4$ to the alkali-free layer leads to the earlier formation

On the Effect of the Acceleration of   72-2-2/20
Ammonium-Sulfate on the Process of Glass Melting

       of a liquid phase by the formation of $CaSO_4$ and the euteotic mix-
ture CaF_2-$CaSO_4$, which melts at a temperature of 960°, and it also
leads to a more rapid formation of silicate and glass. There is
1 Slavic reference.

ASSOCIATION: Institute for Glass (Institut stekla).

AVAILABLE: Library of Congress

Card 2/2

KATAYEVA, G.V.

AUTHORS: Engver, Ye.A., Chief Engineer of the   72-2-3/20
             "Proletariy" Works, Katayeva, G.V., Orlova, M.P.,
             Collaborators of the Institute for Glass

TITLE: The Practical Application of Ammonium-Sulfate for the Acceleration
             of the Process of Glass Smelting (Praktika primeneniya sul'fata
             ammoniya kak uskoritelya varki stekla).

PERIODICAL: Steklo i Keramika, 1958, V.15   Nr 2, pp. 6-7 (USSR)

ABSTRACT: The staff of the "Proletariy" works, together with the working group
             of the Institute for Glass, carried out a practical test with the
             continuous glass-smelting furnace Nr 2 having a total surface of
             141.6 m. A.L. Nikanorova participated in this work. The authors
             further describe the temperature conditions of the furnace, the chem-
             ical composition of the glass, and the composition of layers. The
             correlation of the Na_2O-quantities, which were introduced by soda
             and sulfate into the layer, was 90:10, the moisture content of the
             layer 0.5%. 20-25% of scrap was added. Before the use of ammonium-
             sulfate the layer contained 0,15% F', which exercises no noticeable
             influence on the acceleration of glass smelting. This quantity was,
Card 1/2   however, left in the layer also further. After the introduction of

KATAYEVA, G. V., Cand Tech Sci -- Research into the effect of ammonium salts on the process of scouring glass." Moscow, 1960. 16 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin Chemical Technology im D. I. Mendeleyev); 100 copies; price not given; (KL, 26-60, 135)

VESELOV, V.V.; KATAYEVA, I.S.; OBRECHKIN, D.B.; POPOVA, N.V.

Production of surface-active and washing substances by sulfonation
of the oxidation products from thoroughly hydrogenized petroleum
fractions. Masl.-zhir. prom. 24 no.10:19-22 '58. (MIRA 11:10)

1. Moskovskiy zavod "Sloshnyye efiry."
   (Washing powders) (Paraffins) (Sulfonation)

VESELOV, V.V.; KATAYEVA, I.S.; ORECHKIN, D.B.; POPOVA, N.V.

Simplified model of a machine for testing solutions of cleaning
compounds. Khim.i tekh.topl.i masel 5 no.4:63-66 Ap '60.
                                    (MIRA 13:6)
(Cleaning compounds--Testing)

KATAYEVA, K.A., inzhener; NAGOVITSYN, D.F.; LEBEDEV, A.A.

Reduction of rimmed metal in the ladle. Stal' 16 no.12:1083-1085
D '56.   (MLRA 10:9)

1. Novo-Tagil'skiy metallurgicheckiy zavod.
                        (Steel--Metallurgy)

KATAYEVA, L. M.

Sep 52

USSR/Chemistry - Amines

"Parachor and Structure of Secondary Amines," B. A. Arbuzov and L. M. Katayeva, Kazan' State U

Zhur Fiz Khim, Vol 26, No 9, pp 1298-1302

The parachors of seven secondary amines were detd and the viscosity of dil benzene solns of five amines were measured. Indicated that the parachor method is most probamines was measured. Both the aliphatic and the viscometric method of secondary amines with hydrocarbon able structure is the structure directions from the N atom. aromatic amines in opposite chains pointing

26T20

KATAYEVA, L.M.

ARBUZOV, B.A.; KATAYEVA, L.M.

The structure of molecules of secondary amines. Soob.o nauch.rab.
chl.VKHO no.1:34-36 '53.   (MIRA 10:10)
                         (Stereochemistry)   (Amines)

aliphatic alcohols. Ternary alloys are not suscen... . The re-
sults are based on Gilding's theoretical considerations of the

KATAYEVA,L.M.; SMUTKINA,Z.S.

Polymorphism of monochloroacetic acid.   Zhur.fiz.khim. 29 no.3:
428-434 Mr '55.   (MIRA 8:7)

1. Gosudarstvennyy universitet imeni V.I.Ul'yanova-Lenina,
Kazan'.   (Acetic acid)

KATAYEVA, L. M.

USSR/ Physical Chemistry - Liquids and amorphous bodies. Gases   B-6

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11068

Author   : Katayeva L.M.
Title   : Polymorphic Transformations in Liquid Monochloracetic Acid

Orig Pub : Zh. fiz. khimii, 1956, 30, No 3, 645-650

Abstract : Measured were the density and viscosity (using Ostwald's viscosimeter of
the closed type) of monochloracetic acid in the liquid and the supercooled-
liquid state (46-70° at 1-2° intervals). It was ascertained that viscosity
decreases monotonously, and density linearly, with increasing temperature.
Processing of the results by a known procedure (Slavyanskiy V.T., Dokl. AN
SSSR, 1947, 58, 1077; RZhKhim, 1954, 28539; Yrany E.P., J. Amer. Chem. Soc.,
1938, 60, 2106; 1939, 61, 1734) permitted to detect two polymorphic trans-
formations of modification $\gamma \to \beta$ and $\beta \to \alpha$. On plotting functional-
scale graphs for the same polymorphic substance in accordance with different
standards it was found that in some instances the polymorphic transforma-
tions are not reflected by the graphs. In this connection it is pointed out
that it is necessary to formulate additional criteria to which must conform
the standard substance in the method of V.T. Slavyanskiy.

Card 1/1   (V.I. Ul'yanov-Lenin State U.)
                                              Kazan

KATAYEVA, L. M.

USSR/Physical Chemistry - Molecule, Chemical Bond, B-4

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 143

     Author: Katayeva, L. M.

Institution: Kazan University - *Chair Phys. Chem.*

      Title: Parachor and Rheochor of Monochloroacetic Acid

   Original
  Periodical: Uch. zap. Kazansk. un-ta, 1956, Vol 116, No 1, 171-174

   Abstract: The parachor of monochloroacetic acid (I) has been measured over the
              temperature range 40-80°. The experimental values of the parachor
              were found to be less than the theoretical value calculated on the
              assumption that there is no association and using the group values
              of Gibling (171.3). The packing effect was found to be 1.2-1.9%,
              which points to the presence of considerable association in I.
              Measurements of the rheochor of I, $R = M \cdot \eta^{1/8} \cdot d^{-1}$ (η - viscosity,
              d - density), likewise show large differences between the experi-
              mental values and the theoretical values calculated on the basis of
              group and atomic R values; the difference between these values de-
              creases with increasing temperatures.
  Card 1/1

KATAYEVA, L. M.

AUTHOR: Katayeva, L.M.   76-12-22/27

TITLE: The Application of the Parachor Method With the Investigation of Molecular Associations of Some Organic Substances (Metod parakhora v primenenii k izucheniyu assotsiatsii molekul nekotorykh organicheskikh veshchestv).

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 12, pp.2748-2756 (USSR)

ABSTRACT: The parachor method for investigating the intermolecular interaction in some alcohols, amines, and their derivatives was applied here. The following group-values determined in ref. 1 were applied for computing the theoretical amounts of the parachor for substances in non-associated state: $CH_3(C)$ 55.2, $(C)CH_2(C)$ 39.8, $(C)CH_2(N)$ 39.6, $(C)CH_2(O)$ 39.2, $CH_2=(C)$ 49.7, $(O)CH=(C)$ 33.9, $(C)-O-(C)$ 21.5, $(C)NH_2$ 47.9, $NH > 32.0$, $N<$ 13.0. Both the density and surface tension of the ethylene diamine, mono di-, and triethylanolamine, vinyl-monoethylanolamine-ester, divinyl-diethyl-anolamine-ester, β, β', β''-trimethoxy- and tripropoxy triethylamine were measured ⊾ $20°$. The association of the enumerated substances and of the -propylamine, n-propyl alcohol and ethylene glycol, the surface

Card 1/3

The Application of the Parachor Method With the Investigation   76-12-22/27
of Molecular Associations of Some Organic Substances

tension and density-values of which were learned from literature,
were investigated according to the parachor method. It is shown that
the mono-,di-, and triethylanamine are associated to a substantial
extent. The total esters of triethylanolamine are monomer. It is
shown with the example of ethanolamine, n-propylamine, n-propyl al-
cohol, ethylene diamine and ethylene glycol that the degree of asso-
ciation increases with an increase of the number of amino-groups in
the molecule, and especially with a substitution of the same by hy-
droxyl-groups. It is shown that the data obtained according to the
parachor-method for monoethylanolamine agree with those from optical
methods. The correction with respect to closing of the five-membered
ring with the formation of an intermolecular hydrogen bond, is ap-
plied and it is concluded that an intermolecular hydrogen-bond exists
in the molecules of the vinyl-mono-and diethylanomaline-esters. This
corresponds to the data obtained by other methods. The results of
this elaborate investigation were discussed with B.A.Arbuzov. M.F.
Shostakovskiy and I;A.Chekulayeva made their investigations on
vinyl-mono- and diethylanomaline esters available. There are 6 tables
and 15 references, 8 of which are Slavic.

Card 2/3

The Application of the Parachor Method With the Investigation   76-12-22/27
of Molecular Associations of Some Organic Substances

ASSOCIATION: Kazan' State University imeni V.I.Ul'yanov-Lenin (Kazanskiy
gosudarstvennyy universitet im. V.I. Ul'yanova-Lenina).

SUBMITTED: September 26, 1956

AVAILABLE: Library of Congress

Card 3/3

ARBUZOV, B.A.; KATAYEVA, L.M.

Electron paramagnetic resonance study of the interaction between
sodium diethylphosphite and di- and triphenylmethyl halides. Izv,
AN SSSR Otd.khim.nauk no.1:172-174 Ja '62.   (MIRA 15:1)

1. Kazanskiy gosudarstvennyy universitet im. V.I.Ul'yanova-Lenina.
                    (Radicals (Chemistry)--Spectra)

ARBUZOV, B.A.; KATAYEVA, L.M.; KATAYEV, Ye.G.; IL'YASOV, A.V.

Electron paramagnetic resonance studies of the dissociation
of di-(2,4,6-triphenyl)phenyl peroxide and di-(2,4,6-triphenyl)
phenyldiselenide to free radicals. Izv. AN SSSR Otd.khim.
nauk no.2:360-362 F '62.   (MIRA 15:2)

1. Kazanskiy gosudarstvennyy universitet im. V.I.Ul'yanova-
Lenina i Kazanskiy filial AN SSSR.
                         (Radicals(Chemistry))

S/079/62/032/008/006/006
D204/D307

AUTHORS: Katayeva, L.M. and Katayev, Ye. G.

TITLE: The absorption spectra of certain diselenides

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 8, 1962,
                2710 - 2713

TEXT: The electronic absorption spectra of dimethyl
-(A), dibenzyl-(B), diphenyl-(C), and di-(2, 4, 6-triphenyl)-(D)
diselenides were measured on the CΦ- 4 (SF-4) spectrophotometer
with a universal monochromator ^{y}M-2 (UM-2), in the 220 - 550 mμ
region, to throw light on the structures of the organic compounds
of Se. Similarity of the spectra is explained by the presence of
the diselenide group and the excitation of the mobile p-electrons
of Se. The molar extinction coefficient (ε_{max}) of A at the maximum
was 331.1, similarly to the values of ε_{max} obtained by Bergson
for other aliphatic diselenides. This is ascribed to the presence
of R-chromophone (-Se-Se-) and the purely p-excitation in these
compounds. B, C and D showed similar behavior (R bands with maxima

Card 1/3

The absorption spectra ...

S/079/62/032/008/006/006
D204/D307

(λ_{max}) at 310 - 410 mμ) with ε_{max} $<$ 2000 as in the aliphatic·
diselenides, but also gave rise to K bands, owing to the excita-
tion of aromatic π - electrons, with corresponding $\varepsilon_{max} \sim$ 20,000
and λ_{max} between 230 and 300 mμ. The excitation energies of p-
and π- transitions varied between 92.3 - 69.8 and 120.7 - 96.9
kcal/mole respectively, decreasing from B to D. The diselenide
bridge may transmit conjugation between the·two aryl radicals,
owing to the conjugation between the.aromatic π- electrons and
the p-electrons of Se, although this conjugation is impeded when
a methylene group is placed between the -Se-Se- and the aromatic
ring, as in B. The ir spectra measured in the region 860 - 1960
cm^{-1}, on a Hilger H-800 spectrometer, confirmed the presence of
conjugation between the two π - systems in C and its absence in
B. The authors acknowledge the assistance of V. S. Vinogradova,
E. G. Yarkova and L. M. Galkina with the optical measurements.
There are 3 figures and 1 table.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni
                 V. I. Ul'yanova-Lenina (Kazan State University

Card 2/3

The absorption spectra ...

imeni V. I. Ul'yanov- Lenin)

SUBMITTED: July 10, 1961

S/079/62/032/008/006/006
D204/D307

Card 3/3

KATAYEVA, L.M.; KATAYEV, Ye.G.

Absorption spectra of some diselenides.   Zhur.ob.khim. 32
no.8:2710-2713 Ag '62.   (MIRA 15:9)

1. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova-
Lenina.
                    (Selenides—Spectra)

KATAYEVA, L. M.; ANONIMOVA, I. V.; YULDASHEVA, L. K.; KATAYEV, Ye. G.

Reaction of selenols with acetylene derivatives. Part 2:
Structure of the products of interaction between selenophenol
and phenylacetylene and 2-methyl-5-ethynylpyridine. Zhur. ob.
khim. 32 no.12:3965-3971 D '62.   (MIRA 16:1)

1. Kazanskiy gosudarstvennyy universitet imeni V. I. Ul'yanova-
Lenina.

(Selenophene)   (Acetylene)

gated with the unshared pair of p-electrons of the atoms S and Se

SUB CODE: EP, OP   ENCL: 00

L 1323-66   EWT(m)/EWR(1)/EWP(t)/EWP(b)   JD

ACCESSION NR: AP5020929   UR/0142/65/008/003/0362/0364

AUTHOR: Katayeva, N. A.; Kharin, A. N.; Romanenko, L. V.; Kolesov, L. N. (Docent)

TITLE: Obtaining ferrite precipitates on metals by the electrophoretic method

SOURCE: IVUZ, Radiotekhnika, v. 8, no. 3, 1965, 362-364

TOPIC TAGS: electrolytic deposition, ferrite

ABSTRACT: The use of the electrophoretic method for deposition of ferrite particles
on copper wire was investigated. The zinc-nickel ferrite used (Fe_2O_3, 65.9%; NiO,
9.6%; ZnO, 24.5%), had a density of 4.67 gm/cm^3 and magnetic permeability μ_0 = 1000.
It was mixed with ethyl alcohol and ball milled for 150 hr, after which a 5—10%
ferrite suspension was obtained by decantation. To improve the electrolytic prop-
erties of the suspension, one drop of a 6% aqueous solution of cerium nitrate was
added to the suspension. Before deposition, the copper wire was bathed in a 10%
alkaline solution at 60—90C for 15 min, rinsed in distilled water, etched with
HNO_3 for 10 sec, and rinsed again. Deposition was conducted for 2—10 min under a
current of 2—20 mamp, depending on the surface area of the wire. Adhesion of the
ferrite particles was assured by dipping the ferrite-covered wire into a 1:4 solu-

Card 1/2