05289
SOV/170-59-7-20/20

24(8)

AUTHORS: Kavaderov, A.V., Samoylovich, Yu.A.

TITLE: The Simultaneous Heating of "Thin" Bodies by Radiation and Convection

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 7, pp 110 - 113 (USSR)

ABSTRACT: In calculations of heating of bodies whose internal thermal resistance is
              insignificant, temperature drop along their cross section can be neglected
              and these bodies can be considered as "thin" bodies in the thermal sense.
              Analytical solutions on heating "thin" bodies by convection or by radia-
              tion at a constant temperature of the heat carrier are presented in Refe-
              rences 1 and 2. The authors analyze the case of simultaneous heating a
              "thin" body by radiation and convection during the heat transfer with a
              surrounding medium of constant temperature. The differential equation of
              heat equilibrium for this case, Formula 1, is transformed into an equation
              with dimensionless quantities, Formula 2, and integrated. The solution
              is given by Formula 8. The authors show that the formula obtained by
              B.V. Stark /Ref 2/ for the case of heating by radiation and the well-known

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The Simultaneous Heating of "Thin" Bodies by Radiation and Convection

formula for heating a "thin" body by convection $\overline{/}$Ref $\underline{1}\overline{/}$ are particular cases of the result obtained by the authors in the present paper. There are: 1 graph and 2 Soviet references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplo-tekhniki (All-Union Scientific Research Institute of Metallurgical Thermal Power Engineering), Sverdlovsk.

Card 2/2

69970
S/170/60/003/01/13/023
B022/B007

24.5200

AUTHORS: Kavaderov, A. V., Samoylovich, Yu. A.

TITLE: The Influence of the Dependence of the Thermal Diffusivity Coefficient and the Heat Capacity of Steel on the Results of the Calculation of Heating by Radiation

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 1, pp. 82 - 86

TEXT: With the major part of the steels used in practice a considerable change of the thermal diffusivity coefficient λ and the heat capacity coefficient c with temperature in heating up to 800° and more is found (Refs. 1-4). In the present paper the method of finite differences is used for the purpose of determining the temperature field in the plate in consideration of the dependence of the characteristics λ and c on temperature during heat exchange with the surroundings; this method has already previously been used (Ref. 5) for the purpose of solving a similar task under different boundary conditions. The change of the relative surface temperature $\theta_{o,\tau}$ and the average plate surface $\theta_{5,\tau}$ with the time Fo for a radiation criterion of Sk = 1 for carbonaceous steel

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The Influence of the Dependence of the Thermal
Diffusivity Coefficient and the Heat Capacity of
Steel on the Results of the Calculation of Heating by Radiation

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B022/B007

(Fig. 1) and high-alloy steel (Fig. 2) is shown in diagrams. From the results
it follows that the heating of articles made from high-alloy (austenite) steel
may be determined with an accuracy that is satisfactory for technical purposes
if mean values of thermal diffusivity-and heat-capacity coefficients are used
according to equation (11). In carbonaceous steel considerable errors occur
with this method, especially at the beginning of the heating period. There are
2 figures and 7 Soviet references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy
teplotekhniki, g.Sverdlovsk (All-Union Scientific Research In-
stitute for Metallurgical Heat Technology, City of Sverdlovsk)

Card 2/2

80277
S/170/60/003/02/10/026
B008/B005

24.5200

AUTHORS: Kavaderov, A. V., Samoylovich, Yu. A.

TITLE: A Precise Formulation of the Laws Governing Heating by
Radiation of an Infinite Plate?

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 2,
pp. 57-60

TEXT: The results of hydrostatic simulation of the heating of a plate by
radiation were checked by means of high-speed electronic computers of the
types "Strela" and "M-2". The task was solved by the method of finite dif-
ferences. The heat balance equation for the outer layer (Fig. 1) was used
for determining the surface temperature of the plate. A comparison of the
results obtained (Table 1) with Russel's quite reliable data checked by
D. V. Budrin (Ref. 4) showed good agreement. The heating of an infinite plate
by radiation was computed for a wide range of variation of the relative
initial temperatures ($\theta_{init.}$ = 0.15 ÷ 0.5) and of the radiation criterion
(RC = 0.5 ÷ 10). The temperature values were recorded in 21 points along the

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A Precise Formulation of the Laws Governing
Heating by Radiation of an Infinite Plate

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cross-section of the plate in the range of variation of the Fo criterion
starting from zero up to $1 \div 4$ after each 0.1. The results are shown by
Figs. 1 and 2. A comparison of the values computed by the method of finite
differences with the results of hydrostatic simulation showed that the
divergence did not exceed $1.0 \div 1.5\%$. Though the latter are slightly under-
rated, they give, on the whole, a proper characteristic of the heating pro-
cess of the plate. The programming and computations were carried out by
Yu. A. Samoylovich. There are 3 figures, 1 table, and 7 Soviet references.

ASSOCIATION: Vsesoyuznyy institut metallurgicheskoy teplotekhniki, g.
Sverdlovsk (All-Union Institute of Metallurgical Heat
Engineering, City of Sverdlovsk)

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SAMOYLOVICH, Yu. A.

Report presented at the Conference on Heat and Transfer.
Minsk, USSR, 5-10 June 61.

RM-2352
54

253. S. L. Grigoryev, P. I. Perelman, Diffusion of Charged Particles at the Presence of Recombination

254. T. L. Perelman, On Heat Transfer in Laminar Flow in the Inlet Part of a Tube

255. I. G. Factory, Solution of Some Problems with Phase Conversions by Operational Calculus

256. L. M. Simuni, Numerical Solution of Some Problems of Motion of a Liquid with Variable Viscosity

257. S. L. Perelov, On Conformal Transformation of Radiation Fields in Gases

258. Yu. A. Samoylovich, Calculation of Heating of Rectangular Bodies According to Technological Conditions

259. L. B. Mikk, Emissivity of Cylindrical Radiating Volume

260. Y. H. Traneev, V. M. Makin, P. R. Shklyar, Theory of Regeneration Heat Exchanger Design

261. F. L. Duchoni, On Calculation Method of Heat Transfer Through the Wall at Change of the Aggregation State of One or Both Heat Agents

262. A. V. Fandeyev, Yu. A. Zmitlovich, V. N. Kalugin, Peculiarities of Cooling of the Si-Heat Shapes by Radiation and Convection

263. G. N. Dubduh, Peculiarities and Some Results of Thermal Treatment Investigation of Tel-Engineered Unrefined Materials

264. L. S. Sirychko, Heat and Mass Transfer at Joint Free and Forced Convection

265. Yu. T. Lapin, Heat and Mass Transfer at Turbulent Flow of Gas Free-Side Gas at Foreign Substance Supply

266. A. B. Ginevskiy, L. L. Solodkin, Influence of Transversal Curvature of the Surface on Heat Transfer Rate of Axi-symmetrical Bodies in the Wind

267. A. A. Gukhman, On the Heat and Mass Transfer Theory at Convective Motion of Liquid

268. T. L. Sabbota, M. Kh. Iragimov, B. S. Macnikov, Measurement of Temperature Turbulence Pulsations in a Liquid Flow

269. A. A. Pomerantsev, On the Theory of Fusion and Burning of a Body (The Stephan Problem)

SAMOYLOVICH, Yu.A.

Calculation of the heating of rectangular solids proceeding from certain technological conditions. Inzh.-fiz.zhur. 4 no.11:73-80 N '61.
(MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplotekhniki, g. Sverdlovsk.
(Thermodynamics)

AUTHORS: Blokhin, Ye. P., Samoylovich, Yu. A., Gulunov, V. S., Sakharova, N. M., Liberman, L. F., Zolotuyeva, S. M.

TITLE: Accelerated heating of stainless steel ingots in heating pits with central burner

TEXT: At the Chelyabinskiy metallurgicheskiy zavod (Chelyabinsk Metallur-gical Plant) the cold 1X18H9T (1Kh18N9T) stainless steel ingots are reheated for 15 - 19 hours prior to rolling in recuperating heating pits with central bur-ner; in the first 10 - 11 hours a temperature of 1,280 - 1,300°C is attained, depending on the ferrite-content (alpha-phase) of the steel. The holding time is 5 - 8 hours; the ingot surface temperature is kept below 1,240-1,200°C. Tests were made to increase the reheating rate. Ingots of 530 x 530 - 620 x 620 mm (widening upward), weighing 4.5 tons were tested in the heating pit, with liquid slag skimming and fired with blast-furnace coke-gas (calorific value: 2,200 cal/standard m³). 13 ingots were heated at the maximum rate with a holding time of not longer than 1 1/2 - 2 hours; the entire heating period lasted 7 1/2 hours.

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A054/A127

Accelerated heating of...

The test ingot surface temperature was 1,280 - 1,300°C. At the same time check tests with the conventional 19-hours heating period and at a pit-temperature of 1,260 - 1,270°C were carried out. In the accelerated method a temperature of 1,280°C of the ingot surface was attained in 6 hours. The temperature differential in the middle section was 80°C and could be reduced to 30°C during the next 1 - 1 1/2 hours holding time. Over the height of the ingot, the maximum temperature differential was 100 - 150°C at the beginning of heating, but it was reduced after 3 - 4 hours in the accelerated process (in the conventional process this required 6 - 7 hours). The ingots reheated by the accelerated process had good rolling properties. There were no rejects in blooms due to surface defects and microstructure; the quick reheating process (at raised temperatures) did not increase the alpha-phase content of the finished product. The rejects of rolled products due to dross and haircracks were also reduced. As during accelerated heating the maximum temperature differential in the cross section between the ingot surface and the coldest point of the ingot may attain 550 - 650°C, the effect of heat stresses arising in the first period of heating had to be determined. Calculations (partly carried out by Yu. A. Samoylovich on a Strela computer), taking into account the high ductility of 1Kh18N9T grade steel, showed that at $\Delta t_{max} = 650°C$ the stresses are reduced from 118 to 66 kg/mm². As the tensile

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Accelerated heating of...

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strength of 1Kh18N9T steel specimens is rather high (above 150 kg/mm^2), the possibility of rupture due to heat stresses is remote. The accelerated reheating tests supported the accuracy of these calculations. There are 4 figures, 1 table and 7 Soviet-bloc references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplotekhniki (All-Union Scientific Research Institute of Metallurgical Heat Technique) and Chelyabinskiy metallurgicheskiy zavod (Chelyabinsk Metallurgical Plant)

Card 3/3

SAMOYLOVICH, Yu.A.

Thermal stresses in a plate and a cylinder heated by irradiation
and convection. Inzh.-fiz. zhur. 6 no.8:59-65 Ag '63.
(MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy
teplotekhniki, Sverdlovsk.

SAMOYLOVICH, Yu. A.

Stresses in a long rectangular prism. Inzh.-fiz. zhur. 7
no. 3:86-91 Mr '64.
(MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy
teplotekhniki, Sverdlovsk.

SAMYLOVICH, Yu.A.; BLOKHIN, Ye.P.

Determining the thermal diffusivity of cast steel. Inzh. fiz.
zhur. 7 no.6:27-31 '64.
(MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy
teplotekhniki, Sverdlovsk.

SAMOYLOVICH, Yu.A.

Using the net method for the solution of problems of heat conductivity
with variable thermophysical coefficients. Insh.-fiz. shur. 8 no.6:747-
753. Je '65.
(MIRA 18:7)

1. Institut metallurgicheskoy teplotekhniki, Sverdlovsk.

L 8961-66   EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k)/EWA(h)/ETC(m)   EM/WW

ACC NR: AP5027573   UR/0170/65/009/005/0597/0602

AUTHOR: Samoylovich, Yu. A.

ORG: Institute of Metallurgical Heat Techniques, Sverdlovsk (Institut metallurgicheskoy teplotekhniki)

TITLE: A simplified solution to the problem of the elastic-plastic equilibrium of a cylinder in a nonuniform temperature field.

SOURCE: Inzhenerno-fizicheskiy zhurnal, v.9, no.5, 1965, 597-602

TOPIC TAGS: plastic deformation, elastic deformation, mathematic analysis

ABSTRACT: In general, the radial and peripheral stresses in the plastic deformation zone are determined statically and are found by integration of the equilibrium equation:

$$\sigma_\theta - \sigma_r = -2k. \qquad (1)$$

where r is the coordinate along the radius of the cylinder. In particular with plastic deformation in the peripheral layers of a cross section of a cylinder heated from the outside, and in the absence of external loads, that is, when

$$|\sigma_r|_{r=R} = 0, \qquad (3)$$

Card 1/3   UDC: 536.12+536.27

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ACC NR: AP5027573

the radial and peripheral stresses are determined by the formulas:

$$\sigma_r = 2 \int_r^R \frac{kdr}{r},\qquad(4)$$

$$\sigma_\theta = 2 \left(\int_r^R \frac{kdr}{r} - k \right).\qquad(5)$$

The article develops a simplified method of calculation for the case where the plastic deformation is comparatively small and includes the peripheral layers of the cross section of the cylinder. Analysis shows that determination of the temperature stresses in the axial zone of the cylinder (that is, in the elastic deformation zone) on the basis of the assumption that the material is incompressible and on the basis of the Tresk creep condition is completely valid. The magnitude of the longitudinal deformation ε_z was found from the condition of the equality of the null moment of the longitudinal forces:

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ACC NR: AP5027573

$$\int_0^R \sigma_z \, r \, dr = 0. \qquad (27)$$

SUB CODE: ME,TD/ SUBM DATE:23Jun64/ ORIG REF: 006

OTH REF: 000

Card 3/3

SAMOYLOVICH, Z.Ya.

Forest survey by laboratory interpretation of aerial photographs based on reduced forest mensuration. Geog.sbor.no.5:144-164 '55.
(MLRA 9:6)

(Aeronautics in forestry) (Forests and forestry--Mensuration)

SAMOYLOVS'KIY, I.M.

Wooden water pipes and pavements in Kiev. Nar. z ist.tekh. no.2:
99-106 '55.   (MLRA 9:4)
(Kiev--Pipe, Wooden) (Kiev--Pavements, Wooden)

SAMOYLOVSKIY, I.M.

Zverinets; historical and topographical sketch of the territory of the Botanical Garden of the Academy of Sciences of the Ukrainian S.S.R. Trudy Bot. sada AN URSR 4:148-154 '57.   (MIRA 10:8)

(Kiev--History)

BERDINSKIY, I.S.; ORLOVA, L.D.; SAMOYLOVSKIKH, N.A.

Substituted hydroxycarboxylic acid hydrazides. Part 24: Diaryl and dialkylglycolic acid 3,4-dimethylphenylhydrazides. Zhur. org. khim. 1 no.7:1222-1225 Jl '65. (MIRA 18:11)

1. Permskiy gosudarstvennyy universitet imeni A.M.Gor'kogo.

SAMOYLOVSKIY, M. B.
25542

Iz Opyta Bureniya Skipovogo Stvola Sh. No. 45 "Kamyshinskoy".
Ugol', 1948, No. 6, S. 32-33

SO: LETOPIS NO. 30, 1948

SAMOYLOVSKIY, M. B.

    "Investigation of Sinking Supports in the Drilling of Deep Mine
Shafts." Cand Tech Sci, Dnepropetrovsk Mining Inst, Khar'kov, 1954.
(RZhMekh, Feb 55)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical
     Dissertation Defended at USSR Higher Educational Institutions
     (14)

SAMOYLOVSKIY, M.B., otvetstvennyy redaktor; KITAYSKIY, Ye.V., redaktor
izdatel'stva; ALADOVA, Ye.I., tekhnicheskiy redaktor; RADEINSKAYA,
A.A., tekhnicheskiy redaktor

[Organization diagrams for working horizontal and inclined shafts)
Skhemy organizatsii provedeniia gorizontal'nykh i naklonnykh
gornykh vyrabotok. Moskva, Ugletekhizdat, 1955. 143 1. (MIRA 9:9)
[Microfilm]

1. Khar'kov. Vsesoyuznyy nauchno-issledovatel'skiy institut
organizatsii i mekhanizatsii shakhtnogo stroitel'stva.
        (Coal mines and mining)

SAMOYLOVSKIY, M.B., redaktor; KITAYSKIY, Ye.V., redaktor; NADEINSKAYA, A.A.
tekhnicheskiy redaktor; KOROVENKOVA, Z.A., tekhnicheskiy redaktor.

[Studies in the construction of shafts] Issledovaniia po shakhtnomu
stroitel'stvu. Moskva, Ugletekhizdat, 1955.274 p.   (MLRA 9:4)

1. Khar'kov. Vsesoyusnyy nauchno-issledovatel'skiy institut organi-
zatsii i mekhanizatsii shakhtnogo stroitel'stva.
          (Shaft sinking)

SAMOYLCVSKIY, M. B.

N/5
664
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SAMOYLOVSKIY, M. B.

Vyacheslav Anisimovich Fedyukin. Krepleniye shakhtnkh stvolov i skvazhin, prokhodinykh bureniyem (Kongtruktsii, provizvodstvo rabot, raschety) (Strengthening mine shafts and pits by passage drilling (construction, production operations, estimates) by V. A. Feydukin i M. B. Samoylovskiy. Moskva, Ugletekhizdat, 1955
303 p. illus., diagrs., tables.
Bibliography: p. 301.

SAMOYLOVSKIY, M.B., redakter; SAVIN, M.M., redaktor; ALADOVA, Ye.I., redakter.

[Control of water in vertical shaft sinking] Vodoulavlivanie pri
prokhodke vertikal'nykh stvolov shakht. Moskva, Ugletekhizdat, 1956,
74 p.   (MLRA 9:6)

1.Khar'kov, Vsesoyuznyy nauchno-issledevatel'skiy institut organiza-
tsii i mekhanizatsii shakhtnogo stroitel'stva.
     (Mine drainage) (Shaft sinking)

SAMOYLOVSKIY, M. B.

39.   SECTIONAL LINING FOR BORED MINE SHAFTS.
Nikolaenko, A.J.   (Nekhan. Trud. tyashel. Rabot (Mech. arduous Wk, Moscow),
a detailed description is given of

15-57-10-14885

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10, p 256 (USSR)

AUTHORS: Samoylovskiy, M. B., Ivanov, P. S., Khmel'nitskiy, L. Ya.

TITLE: Composite Mine Supports From Centrifugally-Cast Elements (Sbornaya krep' iz tsentrifugirovannykh elementov)

PERIODICAL: Shakhtnoye str-vo, 1957, Nr 1, pp 24-26

ABSTRACT: For reinforcing the principal mine workings (horizontal and inclined), supports of reinforced concrete are used, made of general-purpose fluted slabs by the VNIIOMShS (?). Such supports, having industrialized the reinforcing process, have shortened the working time and dispersal time of materials and have increased the productive labor of gallery and stope operations. The use of the centrifuge in producing support plates called for a change in the construction of supports

Card 1/2

15-57-10-14885

Composite Mine Supports From Centrifugally-Cast (Cont.)

from the general-purpose fluted slabs to shells. The casting-forms
of the shells are made from general-purpose elements of the shell
supports, being part of a thin cylinder with walls 40 mm thick having
a round attached insert and a basal bearing plate (shoe). The
attached insert of the elements of the support secures favorable
conditions for working. The technology of manufacturing the thin-
shell supports is described briefly. For the manufacture of these
supports and the attached inserts, brand 400 concrete is used;
brand 200 is used for the basal plate. Typical sections for the
reinforced concrete supports made of the elements of the thin-shell
members were designed by the VNIIMShS   , in cooperation with the
Yuzhgiproshakht (The Southern State Institute for the Design and
Planning of Mine Construction in the Coal Industry).
                                                      V. V. Zhukov
Card 2/2

SAMOYLOVSKIY, Mikhail Borisovich, prof.; KANAUROV, I.N., kand. tekhn.
nauk, retsenzent; GRABILIN, Yu.N., gornyy inzh., retsenzent;
KRASOVSKIY, I.P., gornyy inzh., retsenzent; CHERNEGOVA, E.N.,
red. izd-va; MAKSIMOVA, V.V., tekhn. red.

[Supporting vertical mine shafts]Kreplenie vertikal'nykh
stvolov shakht. Moskva, Gosgortekhizdat, 1962. 251 p.
(MIRA 15:11)

(Mine timbering)

SAMOYLOVSKIY, M.B., prof.

"Ways of controlling water in potassium and salt mines during shaft sinkin" by N.G.Trupak. Reviewed by M.B.Samoilovskii. Gor. zhur. no.5:80 My '62.   (MIRA 16:1)

1. Kemerovskiy gornyy institut.
    (Mine Water)   (Shaft sinking)   (Trupak, N.G.)

SAMOYLOVSKIY, M.B., prof.; SIGAYEV, Ye.A., inzh.

Lining mine shafts sunk by drilling. Izv.vys.ucheb.zav.;gor.zhur.
7 no.7:32-36 '64.   (MIRA 17:10)

1. Kemerovskiy gornyy institut. Rekomendovana kafedroy Shakhtos-
troyeniya Kemerovskogo gornogo instituta.

SAMOYLYAK, V., polkovnik

Red Banner Military School in Moscow. Voen.znan. 38 no.12:3-4
D '62.   (MIRA 15:12)
                (Moscow—Military education)

SAMOYLYUK, A.P.

Ways of improving seismic prospecting in the Folded
Carpathians. Geofiz. i astron. no.8:68-74 '65.

(MIRA 19:1)

1. Zapadnoukrainskaya geofizicheskaya razvedochnaya
ekspeditsiya.

SAMOYLYUK, A.P.

Graphic methods for solving certain direct seismic prospecting problems for the methodology of sounding. Geofiz. sbor. no.7:39-44 '64.

(MIRA 17:11)

1. Zapadno-Ukrainskaya geofizicheskaya razvedochnaya ekspeditsiya.

DVORETSKIY, A.I., inzh.; GORBANENKO, A.D., inzh.; SAMOYLYUK, A.V., inzh.;
        IVANOV, B.V., inzh.

Use of a liquid admixture VNIINP-102 in fuel oil with high sulfur
content. Elek. sta. 33 no.8:16-20 Ag '62.   (MIRA 15:8)
                (Boilers) (Petroleum as fuel)

SAMOYLYUK, N. D.

The DK_2-15 conveyer drive; instructions for use and maintenance. Moskva, Gostoptekhizdat, 1943. 58 p. (50-41613)

TJ1405.S3

SAMCYLYUK, N. D.

Ccal-Mining Machinery

Conveyor SKT-6 for procuring coal in the rocms cf thin strata. Mekh. trud. rab. 6 no. 4, 1952.

Monthly List of Russian Accessions, Library cf Congress, August, 1952. Unclassified.

SPIVAKOVSKIY, A.O.; TOPCHIYEV, A.V.; YEVNEVICH, A.V.; SAMOYLYUK, N.D.;
    FILATOV, N.V., dotsent [reviewer]

Valuable textbook ("Mining transportation equipment." A.O.Spivakovskii,
A.V.Topchiev. Reviewed by N.V.Filatov). Mekh.trud.rab. 7 no.7:45-46 Jl '53.
                                                          (MLRA 6:7)

1. Sibirskiy gorno-metallurgicheskiy institut (for Filatov).
                                              (Mine haulage)

USSR/MINING

Card 1/1

Authors   : Lapovenko, N. A., Cand. of Techn. Scs.; and Samoylyuk, N. D., Recipient
                  of Stalin Award.

Title   : Bibliography: Valuable guide book on mine transportation

Periodical   : Mekh. Trud. Rab. 2, 47, March 1954

Abstract   : A critique is presented on the book entitled "Mine Transportation"
                  written by Prof., Member corresp. of the Acad. of Scs. USSR, A. O.
                  Spivakovskiy and published by Ugletekhizdat. The material of the book
                  is thoroughly systematized, arranged in order and clear. The text of
                  the book is aided by many illustrations. Quality of the publication is
                  considered good.

Institute   : .....

Submitted   : .....

USSR/Mining - Bibliography

FD-821

Card 1/1   : Pub. 41 - 13/17

Author   : Samoylyuk, N.

Title   : Review of A. O. Spivakovskiy's book "Rudnichnyy transport"
                  (Mine transport)

Periodical   : Izv. An SSSR, Otd. tekh. nauk, 2, 101-103, Feb 1954

Abstract   : Describes a textbook for students of mining institutes majoring in
                  electromechanics. The book (Edition 2, Ugletekhizdat, 1953, 624 pp)
                  is highly evaluated by reviewer.

Institution   : --

Submitted   : --

SAMOYLYUK, Nikolay Deomidovich; FAYBISOVICH,I.L., redaktor; PROZOROVSKAYA,V.L.
    tekhnicheskiy redaktor

    [Movable scraping conveyers, models SKM-2 and KS-1.] Peredvyzhnye
    skrebkovye konveiery SKM-2 i KS-1. Moskva, Ugletekhizdat, 1955. 15p.
        (Conveying machinery)   (MIRA 9:3)

SAMOYLYUK, Nikolay Deomidovich; KONSTANTINOV, Arkadiy Andreyevich;
FAYBISOVICH,I.L., redaktor; PROZOROVSKAYA,V.L., tekhnicheskiy
redaktor; SABITOV,A., tekhnicheskiy redaktor

[Twelve-ton storage battery electric locomotive type 12 ARVI]
Dvenadtsatitonnyi akkumuliatornyi selektrovoz 12 ARVI. Moskva,
Ugletekhizdat, 1955. 18 p.   (MIRA 9:2)
                    (Electric locomotives)
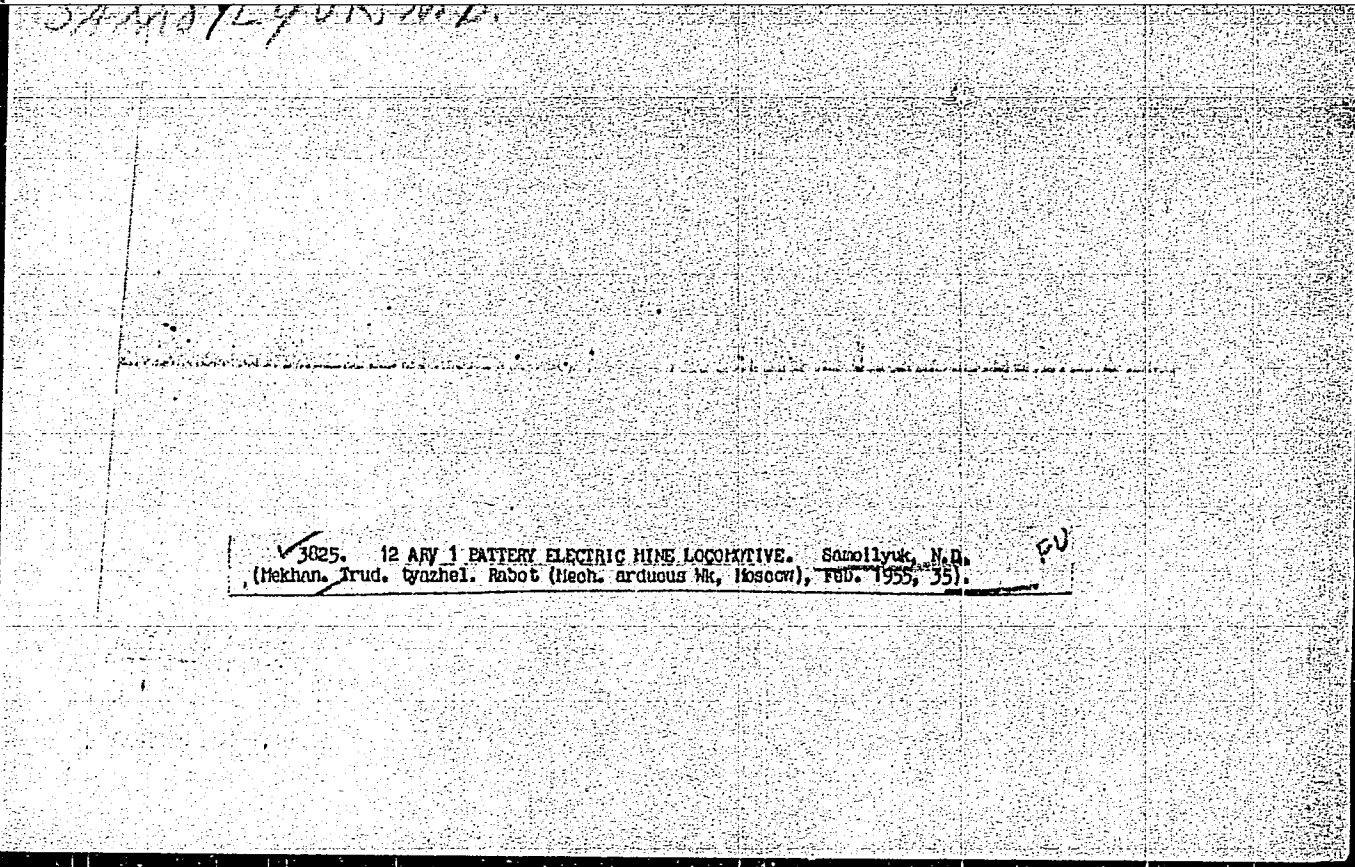
SAMOYLYUK, N.D.

3025.   12 AMP 1 BATTERY ELECTRIC MINE LOCOMOTIVE.   Samoilyuk, N.D.
(Mekhan. Trud. tyazhel. Rabot (Mech. arduous Wk, Moscow), Feb. 1955, 35).

SAMOYLYUK,N. inzhener

New scraper conveyors for drawing cperations. Mast. ugl. 4 no.4:
20-23 Ap '55.   (MLRA 8:6)
            (Conveying machinery)

SAMOYLYUK, N.D., inzhener.

The 12ARV1 battery-powered mine locomotive. Mekh.trud.rab. 9 no.2:35
F '55.   (MIRA 8:4)
        (Mine railroads) (Electric locomotives)

SAMOYLYUK, N.D., Cand Tech Sci -- (diss) "Setting *Establishment*
~~of~~ rational parameters and ~~and construction~~ *design* types of
~~heating~~ *scraper* conveyors for magmas with mechanized extraction

of coal." Mos, 1958, 18 pp including cover, 3 sheets

~~with~~ *of* graphs (Acad Sci USSR. Inst of Minig ~~Affairs~~)

120 copies (KL, 29-58, 133)

- 68 -

SAMOYLYUK, N.D.

Conditions for "nonfloating" of the traction chain in scraper
conveyer operation without guide pulleys. Nauch. trudy MGI
no. 20:75-83 '58.   (MIRA 11:8)
                    (Conveying machinery)
                    (Mine haulage)

SAMOYLYU, N.D., inzh.

A new series of underground conveyer scrapers should be developed.
Ugol' 33 no.5:10-16 My '58.   (MIRA 11:5)
                    (Coal mining machinery)

POLYAKOV, Nikolay Sergeyevich, prof.; SHTOKMAN, Il'ya Grigor'yevich,
prof.; KOMAROVA, Yevgeniya Kuz'minichna, dotsent; SPIVAKOVSKIY,
A.O., prof., retsenzent; ANDREYEV, A.V., dotsent, retsenzent;
VASIL'YEV, N.V., dotsent, retsenzent; YEVNEVICH, A.V., dotsent,
retsenzent; LOPATIN, S.I., dotsent, retsenzent; SOLOD, G.I.,
dotsent, retsenzent; SHAKHMEYSTER, L.G., dotsent, retsenzent;
SHORIN, V.G., dotsent, retsenzent; SAMOYLYUK, N.D., inzh.,
retsenzent; KOLOMIYTSEV, A.D., otv.red.; SHKLYAR, S.Ya., tekhn.red.;
KONDRAT'YEVA, M.A., tekhn.red.

[Problems and exercises on mine haulage] Sbornik zadach i uprazh-
nenii po rudnichnomu transportu. Izd.2., dop. i perer. Moskva,
Ugletekhizdat, 1959. 256 p.   (MIRA 13:4)

1. Chlen-korrespondent AN USSR (for Polyakov). 2. Chlen-korrespon-
dent AN SSSR (for Spivakovskiy). 3. Kafedra rudnichnogo transporta
Moskovskogo gornogo instituta (for Spivakovskiy, Andreyev, Vasil'yev,
Yevnevich; Lopatin, Solod, Shakhmeyster, Shorin).
                    (Mine haulage)

PHASE I BOOK EXPLOITATION   SOV/5431

Spivakovskiy, Aleksandr Onisimovich, Nikolay Deomidovich Samoylyuk, G. I. Solod,
and Lev Grigor'yevich Shakhmeyster

Podzemnyye konveyyernyye ustanovki (Underground Conveyer Installations) Moscow,
Gosgortekhizdat, 1960. 478 p. Errata slip inserted. 5,000 copies printed.

Resp. Ed.: A.O. Spivakovskiy; Ed. of Publishing House: A.D. Kolomeytsev;
Tech. Eds.: V.L. Prozorovskaya and Z.A. Boldyreva.

PURPOSE: This book is intended for engineering and technical personnel of the
mining industry engaged in designing and operating underground conveyers;
it may also be useful to students of mining institutes and mining tekhnikums.

COVERAGE: The book describes underground conveyers used in the mining industry
in the USSR and abroad and the construction of their most important individual
subassemblies and elements; the fundamentals of theory and calculations of
underground scraper conveyers, belt conveyers, slat conveyers, and combined
conveyers (new chain-belt and rope-belt conveyers) are discussed and basic
reference material regarding USSR underground conveyers is presented.

Card 1/8

SOV/5431

The first part of the book was written by N.D. Samoylyuk, Candidate of Technical Sciences; the second part by L. G. Shakhmeyster, Candidate of Technical Sciences; the third by G. I. Solod, Docent, Candidate of Technical Sciences; and the fourth by A.O. Spivakovskiy, Professor. Section 4 of Ch. VII (Part II) was written by O.G. Karbasoviy, Aspirant. There are 72 references: 53 Soviet, 10 English, 8 German, and 1 French.

TABLE OF CONTENTS:

Card 2/8

KLORIK'YAN, S.Kh., kand.tekhn.na k; SAMOYLYUK, N.D., kand.tekhn.nauk

SAMOYLYUK, N.P., kand. tekhn. nauk; DOMBROVSKIY, V.Ye., inzh.

Stand testing of an 18x64 welded calibrated chain for wear
resistance. Ugol' 40 no.8:58-59 Ag '65.   (MIRA 18:8)

1. Gosudarstvennyy proyektno-konstruktorskiy i eksperimental'nyy
institut ugol'nogo mashinostroyeniya.

POLYAKOV, N.S.; FRENKEL', B.B., inzh.; SAMOYLYUK N.D., kand. tekhn. nauk;
    KROT, V.P.; SMIRNOV, V.K., kand. tekhn. nauk

    Results of the experimental testing of the SP-63 scraper
    conveyor. Ugol' 40 no.4:53-56 Ap '65.   (MIRA 18:5)

    1. FIH AN UkrSSR (for Polyakov, Smirnov). 2. Gosudarstvennyy
    proyektno-konstruktorskiy i eksperimental'nyy institut ugol'nogo
    mashinostroyeniya (for Samoylyuk, Frenkel'). 3. Dnepropetrovskiy
    ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema
    (for Krot).

SHAKHMEYSTER, L.G., kand.tekhn.nauk; KOTOV, M.A., kand.tekhn.nauk; KOST, G.N.,
kand.tekhn.nauk; KOLOYAROV, V.K., inzh.; SAMOYLYUK, V.N., inzh.

Industrial testing of the PRU-900 conveyor. Ugol' 40 no.3:37-41
Mr '65.   (MIRA 18:4)

L 17818-65   SSD/ASD(a)-5/AFWL
ACCESSION NR: AP4044079   S/0189/64/000/004/0030/0032

AUTHORS: Popovich, M.P.; Samoysovich, B. G.; Filippov, Yu. V.

TITLE: Rotator temperature on electric discharge in the ozonizer

SOURCE: Moscow. Universitet. Vestnik. Seriya 2. Khimiya, no. 4,
        1964, 30-32

TOPIC TAGS: ozonizer, electric discharge, rotator temperature,
spectroscopic determination, ozone synthesis, glow discharge, spark
discharge

ABSTRACT: The rotator temperature upon discharge of the ozonizer
under various conditions was studied spectroscopically to determine
means of increasing the efficiency of ozone synthesis. The rotator
temperature of the ozonizer (fig. 1) was determined under static
conditions at 4-10 kv, 2000 hertz frequencies, 0.5-3 hours exposure,
using (1) 95% He + 5% N_2 mixtures at 750, 400, 100 and 2 mm Hg
pressure, (2) N_2+O_2 mixtures containing 10, 21 and 50% O_2, at 700 mm

Card   1/4

L 17818-65
ACCESSION NR: AP4044079

Hg; (3) air, at 40 mm Hg. 4, 6, 8 and 10 kv and 1.5, 2.6, 3.0 and 4.5 ma current, respectively, and (4) moist air at 400, 100, 20 and 2 mm Hg. In the He-N$_2$ mixture and in moist air the rotator temperature was independent of pressure; the average temperature of the former was 780K, and of the moist air, 1260K. In N$_2$-O$_2$ mixtures the temperature increased slightly with increase in O$_2$ content. The temperature increased with increase in voltage and consequently with increase in current and ozonizer discharge. Thus a relationship between the rotator temperature and ozonizer discharge, and temperature and dry and moist gases was established. Previously obtained values (Yemel'yanov Yu. M, Fillipov, Yu. V., Zh. fiz. khimii, 36, 2263 (1962)) for the average temperature of the gas were lower than the values obtained spectroscopically. This was explained in that the latter measurements were of temperatures of the gas in the discharge channel, and not of the averaged temperatures. Examination of spectra of the ozonizer discharge between glass and iron electrodes (no iron lines detected) led to the conclusion that the individual local discharges were glow discharges and not spark discharges. "In conclusion I thank Prof. V. M. Tatevsko for consultation and constant interest in the work." Orig. art. has: 1 equation, 2 figures and 3 tables.
Card 2/4

L 17818-65
ACCESSION NR: AP4044079   0

ASSOCIATION: MGU Kafedra fizicheskoy khimii (Moscow State University,
             Department of Physical Chemistry)

SUBMITTED: 03Mar64   ENCL: 01

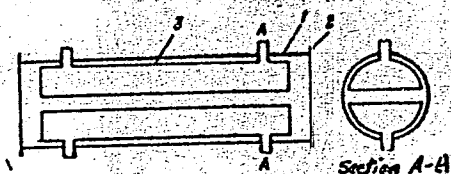SUB CODE: IC, EE   NR REF SOV: 003   OTHER: 000

Card 3/4

Figure 1

Ozonizer design: 1-glass tube; 2--quartz windows; 3--glass
electrodes

Card 4/4

AID P - 4381

Subject   : USSR/Power Engineering

Card 1/1   Pub. 110 a   -   7/17

Author   : Samozvantsev, M. P., Eng.

Title   : Evaporation of liquids of a lengthwise flow from a
plate surface.

Periodical : Teploenergetika,   5,   34-40,   My 1956

Abstract   : The article discusses the rulings of the evaporation
process of a lengthwise flow observed at high temperatures.
A theoretical analysis with 5 diagrams.

Institution : None

Submitted   : No date

L 14037-65   EPA/EWT(l)/EWP(m)/EPA(s)-2/EWT(m)/EPF(c)/EPR/FCS(k)/EWA(h)   Pea-4/
Pd-1/Pr-4/Ps-4/P+-10/Pi-4   SSD/AFWL/AEDC(b)/AFETR/AFTC(p)   WH/JW/JWD
S/0207/64/000/004/0126/0129
ACCESSION NR: AP4044731

B

AUTHOR: Samozvantsev, M. P. (Moscow)

TITLE: Stabilization of detonation waves by means bluff bodies

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 4,
1964, 126-129

TOPIC TAGS: detonation wave, supersonic combustion, bluff bodies,
flame front, Chapman-Jouguet wave, combustion

ABSTRACT: It has been previously assumed that in supersonic flows,
combustion takes place immediately behind the shock wave, i.e., that
no ignition delay occurs and the detonation wave is an infinitesimal-
ly thin surface.   It was therefore concluded that the strong detona-
tion wave in front of a bluff body should be transformed into a
Chapman-Jouguet detonation wave which is stabilized by the body. How-
ever, previous experiments revealed that although in the frontal part
of a 20-mm sphere a strong detonation wave is generated, it does not
change into a Chapman-Jouguet wave, but breaks down into a shock wave

Card 1/5

L 14037-65
ACCESSION NR: AP4044731

and a laminar flame front. To explain this phenomenon combustion kinetics and flow structure were theoretically analyzed in the present study. Analysis of the calculated results (see Fig. 1 of the Enclosure) shows that in case of a 20-mm sphere the flow behind the flame front is subsonic (curves M_{n3} and M_{n3*} do not intersect). This explains why the Chapman-Jouguet detonation wave cannot be stabilized under these conditions. In order to obtain flow at sonic velocity behind the flame front, the diameter of the sphere must be increased roughly 20 times, i.e., to 400 mm. This value is only approximate since the calculated ignition delay may differ from actual values by a factor of 2 to 3. The flow geometry is shown in Fig. 2. The necessary condition for the realization of the Chapman-Jouguet detonation is the formation of sonic flow in an arbitrary point behind the flame front, i.e., M_{n4} must reach unity. On the other hand, it is also necessary that M_n be sufficiently close to unity ($M_{n3} = M_3$ $\cos\gamma_3$, where γ_3 is the angle between the flow line and the normal to the flame front and M_{n3} is the Mach number behind the shock wave).
Orig. art. has: 17 formulas and 4 figures.

Card 2/5

L 14037-65
ACCESSION NR: AP4044731   0

ASSOCIATION: none

SUBMITTED: 27Apr64   ENCL: 02

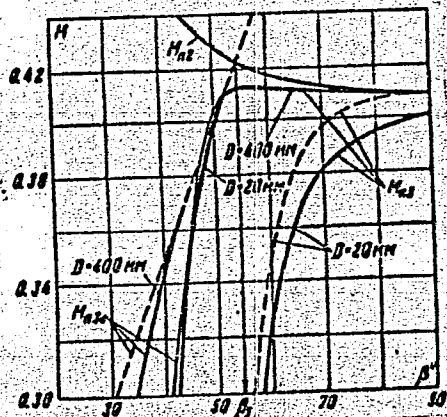SUB CODE: FP, PR   NO REF SOV: 003   OTHER: 006

Card 3/5

Fig. 1. Dependence of M_{n2}, M_{n3}, and M_{n3*} on β.

β = angle between the free flow and the shock wave. β_1 = 50°30', i.e., the angle for the detonation wave in a stoichiometric hydrogen-oxygen mixture propagating at at 0.25 atm, 300K and M = 4.5.

Card 4/5

L 14037-65
ACCESSION NR: AP4044731
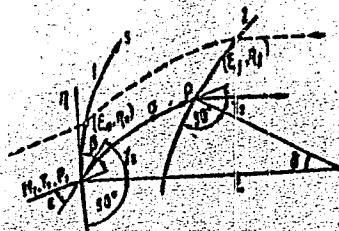
Fig. 2. Flow geometry.

1 - Shock wave; 2 - flame front.

Card 5/5

SAMOZVANTSEV, V.A.; SAMOZVANTSEVA, Z.M.

Stratigraphy of the lower Cambrian of the southeastern margin
of the Aldan Shielf in the light of new data. Trudy VAGT
no.7:42-46 '61.   (MIRA 14:7)
        (Aldan Plateau—Geology, Stratigraphic)

SAMOZVANTSEV, V.A.

Lower Cretaceous intrusions of Ket-Kap Range and the adjacent
part of the Aldan Shield. Trudy VAGT no.7:97-102 '61.

(MIRA 14:7)

(Ket-Kap-Range—Rocks, Igneous)
(Aldan Plateau—Rocks, Igneous)

BASHARIN, A.K.; SAMOZVANTSEV, V.A.

Stratigraphy of the upper part of the late Pre-Cambrian of the Yudoma Valley. Geol. i geofiz. no.11:40-48 '64.

(MIRA 18:4)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

SAMOZVANTSEV, V.A.; SAMOZVANTSEVA, Z.M.

Stratigraphy of the lower Cambrian of the southeastern margin
of the Aldan Shielf in the light of new data. Trudy VAGT
no.7:42-46 '61.   (MIRA 14:7)
        (Aldan Plateau--Geology, Stratigraphic)

GOL'DENBERG, V.I.; SAMOZVANTSEVA, Z.M.

Mesozoic stratigraphy of the Toko through and some information about its coal potential. Trudy VAGT no.7:47-51 '61.
(MIRA 14:7)

(Aldan Basin—Coal geology)

L 42224-66

ACC NR: AP6031570

SOURCE CODE: RU/0003/66/017/001/0028/0031

AUTHOR: Hodor, I.; Peculea, M.; Sampaleanu, L.

ORG: Cluj Branch, Institute of Atomic Physics (Institutul de fizica atomica, Sectia Cluj)

TITLE: Influence of the operating parameters on the functional characteristics of a saturator

SOURCE: Revista de chimie, v. 17, no. 1, 1966, 28-31

TOPIC TAGS: chemical laboratory instrument, gas flow

ABSTRACT: The authors report the experimental results obtained with a direct-bubbling multi-tube saturator. The functional characteristics of the apparatus, i.e., variation of the vapor/gas ratio, degree of saturation and thermic yield in terms of the liquid level, thermic charge and gas flow, were determined and a method for selecting the most economical operating parameters is outlined. Orig. art. has: 9 formulas and 6 figures. [JPRS: 36,002]

SUB CODE: 07, 20 / SUBM DATE: none

Card 1/1

UDC: 66.074.4.001.2

MARCH, N.H.; SAMPANTHAR, S.

Electron correlations in metals: density matrix approach. Acta phys
Hung 14 no.1:67-76 '62.

1. Department of Physics, The University, Sheffield 10, England.
Presented by Albert Konya.

SAMPARA, N.P.

     Modernized carriage apron for screw-cutting lathes. Mashinostroenie
no.3:111-112 My-Je '62.   (MIRA 15:7)
           (Screw-cutting machines)

SAMPARA, N.P., inzh.

Modernization of the 736 transverse planing machine. Mashinostroenie
no.5:56-57 S-O '65.   (MIRA 18:9)

MICU, D.; SAMPHIRESCU-GHEORGHIU, Marcela; MAXIMILIAN, Stefania; MIHAILESCU,
        Eugenia; DANCESCU, Ileana

    Cyto-enzymatic anomalies in some acute leukoses.   Stud. cercet.
    med. intern. 5 no.4:419-421 '64.

SAIPILOV, B. Ts.

"Some Data on the Protein Metabolism of a Heifer During the
Period of Its Pregnancy." Cand Agr Sci, Moscow Order of Lenin
Agricultural Acad imeni K.A. Timiryazev, Moscow, 1955. (KL, No 9,
Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical
     Dissertations Defended at USSR Higher Educational Institutions
     (14)

C·a

10

Mechanism of the Friedel-Crafts reaction. III. Reaction of vinyl ethers and esters with benzene. V. V. Korshak, K. K. Samplavskaya, and A. I. Gershanovich (Moscow Chem. Tech. Inst. Mendeleeva). *J. Gen. Chem.* (U.S.S.R.) 16, 1065-70(1946)(in Russian); cf. *C.A.* 40, 4033[6].—C_6H_6 (120 g.) and 34 g. $AlCl_3$ were treated with 50 g. BuOCH:CH$_2$; after heating on a water bath, the mixt. was treated with dil. acid and the org. layer distd. with steam to yield 2 g. BuPh (I), b. 178-80°, unreacted C_6H_6, and a tarry residue, which, when subjected to dry distn., gave BuOH, acetaldehyde di-Bu acetal, b. 179-82°, and a small amt. of material, b. 216-20°, which was not investigated; no styrene was found in the condensate. It was apparent that the ether failed to condense with C_6H_6, but merely formed a polymer; the latter reacted with C_6H_6 only to a slight extent with formation of I. C_6H_6 (78 g.) and 200 g. $AlCl_3$ were treated with 43 g. AcOCH:CH$_2$ (slow addn.); a vigorous evolution of HCl took place, and the mixt. was heated to 60-70° several hrs. to yield, after the usual decompn., small amts. of AcPh, 1,1-*diphenylethane* (II), and 9,10-*dimethyl*-9,10-*dihydroanthracene* (III), m. 181-2° (from EtOH). III is readily obtained in 72% yield from 4 g. II and 3 g. $AlCl_3$ at 60-70°. AcH passed into a mixt. of C_6H_6 and $AlCl_3$ (no amts. given), followed by heating to 60-70° several hrs., gave up to 50% III and substantial yields of II, b. 162-4°.   G. M. Kosolapoff

METALLURGICAL LITERATURE CLASSIFICATION

SAMPLAVSKAIA, K. K.

Korshak, V. V. and Samplavskaia, K. K., The mechanism of the Friedel-Crafts reaction.
VII. The reaction of vinylidene chloride with benzene. p. 1470.

    The reaction of vinylidene chloride with benzene was studied in the presence of
aluminum chloride. It has been found that the products formed are: 1.1-diphenylethylene
and its dimer 1,1,3-triphenyl-3-methylhydrindene. A scheme is proposed which explains
the genetic connection between the three known dimers of 1,1-diphenylethylene.

<div style="text-align: right">

The Moscow Mendeleev Chemico-Techno-
logical Institute (Order of Lenin).
March 7, 1947

</div>

SO: Journal of General Chemistry (USSR) 18, No. 8 (1948)

Role of stereochemical factors in polymerization processes. V. V. Korshak and A. K. Samplavskaya (D. I. Mendeleev Chem. Tech. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* **59**, 497-500(1948).—A survey of substituted ethylenes capable or not of polymerization demonstrates an absence of any relation between polymerizability and polarity of the substituents or symmetry of the substitution. Thus, PhCH:CH₂, MeC:CH₂, ClCH:CH₂, Cl₂C:CH₂, and F₂C:CH₂ polymerize, whereas Br₂C:CBr₂, Cl₂C:CCl₂, Ph₂C:CPh₂, CH₂:CPh₂ do not. The determining factors are, rather, sterochem. In the first place, polymerizability is detd. by the size of the substituent group, H and F do not hinder polymerization, no matter how high the degree of substitution. In the case of Cl and Br, only mono- and asymmetrically disubstituted ethylenes polymerize; CH₂ has the same effect as Cl; in the case of Ph only the monosubstituted deriv. (styrene) is polymerizable. The steric nature of the effect is seen clearly in polyphenylated butadienes where Ph hinders polymerization only if it is substituted in positions 1 and 4, that is at the points active in polymerization; it has no effect if substituted in positions 2 and 3. Another effect of the sterochem. factor expresses itself in an early breaking off of the polymerization chain after the first few steps, factor unhindered, the reaction proceeds only as far as the dimer or the ester or trimer. Examples are Ph₂C:CH₂, ClCH:CHCl, MeCH:CHMe, MeC:CHMe. Polymerization of Ph₂C:CH₂ (below) and Lebedev, C.A. **36**, 447) can be conceived as proceeding over the intermediate
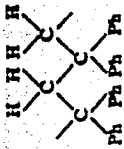
which, owing to repulsion between the Ph groups, rather than polymerize with another Ph₂C:CH₂ mol., will isomerize into either

H₂C—CPh₃
Ph₂C—CH₂
readily into

or Ph₂C:CHCH₂CPh₃, the latter polymerizing

In this case, the stereochem. effect brings about early rupture of the chain. The same point of view is applicable to instances where a compd. is incapable of polymerization but does copolymerize. N. Thon

C A

The mechanism of the Friedel-Crafts reaction   IX
The reaction of trichloroethylene with benzene.   V. V
Korshak. K. K. Samplavskaya, and M. A. Andreeva (D.
I. Mendeleev Moscow State Inst. Chem. Technol).   J
Gen. Chem. (U.S.S.R.) 19, 655-61(1949)(English transla-
tion). --See C.A. 44, 3470b.   E. J. C.

/10

(A

Mechanism of the Friedel-Crafts reaction. IX. Reaction of trichloroethylene with benzene. V. V. Korshak, K. K. Samplavskaya, and M. A. Andreeva. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 19, 800–5(1949); cf. *C.A.* 43, 2936*f*.— CHCl:CCl$_2$ (I) and C$_6$H$_6$ with AlCl$_3$ yield polynuclear products, which are identical to those obtained in a similar reaction of Ph$_2$C:CHCl with C$_6$H$_6$. Addn. of 30 g. I in 100 ml. C$_6$H$_6$ to 30 g. AlCl$_3$ in 300 ml. C$_6$H$_6$, followed by refluxing 1–1.5 hrs. on the steam bath (total time 3–4 hrs.), treatment with dil. HCl, and steam distn. of the org. layer gave 40–50 g. Cl-free residue, C$_6$H$_8$, m. 45–85°, mol. wt. 400–25, from which no individuals could be crystd. directly. Dry distn. of 30 g. gave 10 g. C and 18.5 g. distillate, b. 170–370°, which on fractionation gave Ph$_2$CH$_2$, b. 262–4° (this 5 g.) and 6 g. AlCl$_3$ after 5 hrs. on the steam bath gave 50% crude anthracene], Ph$_2$CH, m. 92° (from AcOH), and anthracene, m. 212–14°. Addn. of 48.4 g. CH$_2$:CCl$_2$ in 100 ml. C$_6$H$_6$ to 64 g. AlCl$_3$ in 200 ml. C$_6$H$_6$ with cooling over 2 hrs., followed by stirring 0.5–1.0 hr., gave 15 g. Ph$_2$C:CH$_2$; this (30 g.) treated with Cl until HCl evolution ceased gave 60.0% *Ph$_2$C:CHCl*, b$_7$ 170–5°; this (25 g.) in 100 ml. C$_6$H$_6$ added to 200 ml. hot C$_6$H$_6$ contg. 15.5 g. AlCl$_3$ and warmed 4 hrs. gave a mixt. of the same products as were obtained by using I (see above). The reaction of I is believed to proceed as follows: I → (C$_6$H$_6$, AlCl$_3$) → Ph$_2$C:CHCl → (C$_6$H$_6$) → Ph$_2$C:CHPh → (C$_6$H$_6$) → (Ph$_2$CH)$_2$ → (I, C$_6$H$_6$, AlCl$_3$) → Ph$_2$CHCH(C$_6$H$_5$)$_2$-CHCHPh$_2$, or the last step may also yield Ph$_2$CCH$_2$C$_6$H$_4$-CH$_2$CPh$_2$. The latter 2 products are cleaved on dry distn. into the final products, which were isolated.
G. M. Kosolapoff

Moscow Chemico-Tech. Inst. im. Mendeleyev

C H

High-molecular weight compounds. XXVI. Polymerization of vinyl iodide and some properties of 1,2-diiodoethane. V. V. Korshak, K. K. Samplayskaya, and N. M. Davol'skaya (D. I. Mendeleev Chem.-Technol. Inst., Moscow). Zhur. Obshchei Khim. (J. Gen. Chem.) 20, 2880-4(1950); cf. C.A. 44, 7217i; 45, 1513e.—C_2H_4 passed rapidly through an absorption train contg. 500 g. iodine with 150 ml. 80% EtOH and irradiated with a 1000-w. bulb was gradually transformed into $(CH_2I)_2$, yellow needles, which, after washing with aq. KI and drying, m. 79° (yield 280-50 g.). $(CH_2I)_2$ (140 g.) and 40 g. NaOH in 350 ml. EtOH heated on a steam bath gave 10.62 l. gas contg. 87% C_2H_4, tar, and CHI_3. Careful warming of 11.5 g. $(CH_2I)_2$ with 40 ml. 0.8% KI in Me_2CO gave 0.58 l. (83%) C_2H_4; in EtOH 36% is obtained; NH_4CNS in EtOH gave 19.7-46.2%. Slow addn. of 178 ml. 3 N EtONa in EtOH to 150 g. $(CH_2I)_2$ gave 14.5 l. gas contg. 81.6% C_2H_4, and 1-1.5 g. CH_2: CHI, b. 56°. Heating the latter (0.7 g.) with 1.5 ml. 0.1 N $Na_2S_2O_3$ at 150° (unstated time) caused polymerization to a dark crumbly solid, sol. in cresol and partly sol. in $(CH_2Cl)_2$ or $(CH_2Br)_2$. Heating 150 g. $(CH_2Br)_2$ with 130 g. KOH, 250 ml. H_2O, and 500 ml. EtOH to 80-5° (finally to 70-5°) gave 63% CH_2:$CHBr$, b. 16°. This (16 g.), let stand 7-10 days with 0.032 g. Bz_2O_2, gave 2-2.5 g. solid polymer; after 2 months a 100% yield is obtained; the polymer is a colorless crumbly solid, decomp. 120°, soly. in $(CH_2Br)_2$ 2, PhCl 1, cold dioxane 0.05, hot dioxane 0.6, $(CH_2Cl)_2$ 0.5, $PhCH_2Cl$ 0.2, EtBr 0.3%, poorly sol. in CS_2 and $PhNO_2$, insol. in EtOH, Et_2O, or Me_2CO. Boiling 3 g. polymer with 9 g. KOH in 500 ml. dioxane 16 hrs. gave 2 g. hydrolysis product contg. 5.5% Br. The cause of the poor polymerization of CH_2:CHI is the liberation of iodine, which acts as an inhibitor, and preventives, such as fine Ag or BF_3, were ineffective.   G. M. Kosolapoff

SAMPLAVSKAYA, K.K.

USSR.

Mechanism of the Friedel-Crafts reaction. XI. Products of condensation of polyhalogenated ethylenes and ethanes with benzene. V. V. Korshak and K. K. Samplavskaya. (D. I. Mendeleev Chem.-Technol. Inst., Moscow). Shornik Statel Obshchei Khim. 2, 1920-6 (1953); cf. C.A. 43, 2930d.—C_6H_6 (11-12 moles) and 1 mole $AlCl_3$ refluxed 1-3 hrs. with 1 mole $(CHCl_2)_2$ gave, after treatment with HCl and steam distn. of volatile materials, a dark solid product yielding on distn. Ph_2CH_2 and anthracene. Similar reaction with C_2HCl_3 gave a dark reaction product which on dry distn. yielded Ph_2CH_2, anthracene, and Ph_3CH. Similar reaction with C_2Cl_4 also gave a resinous product yielding on dry distn. Ph_3CH and anthracene. The reaction with C_2Cl_6 gave p-xylene, Ph_2CH_2, Ph_3CH, and anthracene. Thus the reaction tends to yield products of highly branched nature. The polymeric resinous products formed initially in the reaction are apparently essentially linear polymers built up from dihydroanthracene links, terminating in CH_2-Ph units; the pyrolytic decompn. in dry distn. is expected to give rise to the fragments cited above.   C. M. K.

Samplavskaya, K.K.

USSR/Chemical Technology. Chemical Products and their Application.   J-12
          Glass. Ceramics. Building Materials.

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27593

Author : A.F. Kapustinskiy, K.K. Samplavskaya.
Inst   : Moscow Institute of Chemistry and Technology.
Title : Modification of Isothermal Diphenyloxide Calorimeter for Work
         in Region of Thermochemistry of Silicates. Determination of
         Heat of Formation of Fluosilicic Acid.

Orig Pub: Tr. Mosk. khim.-tekhnol. in-ta, 1956, vyp. 22, 47-52.

Abstract: An isothermal calorimeter of the Hermann-Bunsen type making the
          study of protracted reactions possible was used for the determi-
          nation of the heat of dissolution of silicates in HF; diphenyl-
          oxide, the melting point of which is practically equal to the
          standard ($26.5°$), was chosen as the operating liquid. The work
          of the calorimeter was checked with the heat of dissolution of
          chemically pure MgO in chemically pure HCl; $\Delta H_{1600} = 35.8$ kcal

Card   : 1/2   -54-

USSR/Chemical Technology. Chemical Products and their Application.   J-12
    Glass. Ceramics. Building Materials.

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27593

    was received at the dilution of 1600, which agreed with biblio-
    graphical data to 0.5%. The magnitude of the heat of formation
    of H_2SiF_6 $\triangle H_{298}$ = -554.6 $\pm$ 0.4 ($\pm$ 0.07%) cal was found by
    the determination of the heat of dissolution of crystalline
    quartz (99.9% of SiO_2 and 0.05% of adsorbed water) in HF solu-
    tion.

Card   : 2/2   -55-

KAPUSTINSKIY , A.F. [deceased]; SAMPLAVSKAYA, K.K.

Heat of formation of magnesium orthosilicate. Zhur.neorg.khim. 6
no.10:2237-2240 0 '61.   (MIRA 14:9)
              (Magnesium silicate) (Heat of formation)

KAPUSTINSKIY, A.F. [deceased]; SAMPLAVSKAYA, K.K.

Heat of formation of anhydrous cadmium oxalate. Zhur.neorg.khim.
6 no.10:2241-2242 O '61.   (MIRA 14:9)
                    (Cadmium oxalate) (Heat of formation)

SELIVANOVA, N.M.; MAYYER, A.I.; SAMPLAVSKAYA, K.K.

Thermal decomposition of copper selenate. Zhur.neorg.khim. 7
no.5:1074-1083 My '62.   (MIRA 15:7)
                    (Copper selenate--Thermal properties)

KUDRYAVTSEV, A.A.; SELIVANOVA, N.M.; DRAKIN, S.I., dots.; MAYYER,
    A.I.; SAMPLAVSKAYA, K.K.; SOLOKHIN, V.A.; STAKHANOVA,
    M.S.; BUNDEL', A.A., prof., retsenzent; KARAPET'YANTS, M.Kh.,
    doktor khim. nauk, prof., red.; MEL'NIKOVA, T.I., red.

[Laboratory work in general and inorganic chemistry] Prakti-
kum po obshchei i neorganicheskoi khimii. [By] A.A.Kudriavtsev
i dr. Moskva, Mosk. khimiko-tekhnol. in-t im. D.I.Mendeleeva.
Pt.2. [Work in the chemistry of elements] Raboty po khimii ele-
mentov. 1963. 122 p.   (MIRA 16:10)
            (Chemistry--Laboratory manuals)
                (Chemical elements)

MAYYER, A.I.; SAMPLAVSKAYA, K.K.; SELIVANOVA, N.M.

Thermal decomposition of copper selenite. Zhur. prikl. khim.
36 no.8:1659-1664 Ag '63.
(MIRA 16:11)

DRAKIN, Sergey Ivanovich; KUDRYAVTSEV, Aleksandr Andreyevich;
     SELIVANOVA, Nadezhda Mikhaylovna; MAYYER, Antonina
     Ivanovna; SAMPLAVSKAYA, Kira Karloyna; SOLOKHIN, Viktor
     Alekseyevich; STAKHANOVA, Mariya Sergeyevna; ALAVERDOV,
     Ya.G., red.; FEDOROVA, T.P., red.; KARAPET'YANTS, M.Kh.,red.

     [Laboratory work in general and inorganic chemistry]
     Praktikum po obshchei i neorganicheskoi khimii. Moskva,
     Vysshaia shkola, 1964. 268 p.   (MIRA 18:4)

SAMPLAVSKAYA, K.K.; SELIVANOVA, N.M.; MAZEPOVA, V.I.

Thermal stability of iron selenate. Izv. vys. ucheb. zav.; khim. i khim. tekh. 7 no.4:540-543 '64.

(MIRA 17:12)

1. Kafedra obshchey i neorganicheskoy khimii Moskovskogo khimiko-tekhnologicheskogo instituta im. D.I. Mendeleyeva.

SAMPYLOV, I. I.

IOFFE, A.F., akademik, redaktor; SAMPYLOV, I.I., akademik redaktor;
VERSHININ, P.V., redaktor; KOLIASEV, F.Ye., redaktor; CHUDNOVSKIY,
A.F., redaktor; REVUT, I.B., redaktor; STEPANOV, L.N., redaktor

[Problems in agricultural physics] Voprosy agronomicheskoi
fiziki. Pod obshchei red. A.F.Ioffe i I.I.Samoilova. Red.
kollegiia P.V.Vershinin i dr. Leningrad, 1957. 327 p. (MIRA 10:6)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni
V.I.Lenina.
            (Agricultural physics)

ACC. NR: AT6032596   (N)   SOURCE CODE: UR/2546/66/000/152/0011/0018

AUTHOR: Samrov, V. P.

ORG: none

TITLE: The relationship between the eddy cloud structures and heavy seas

SOURCE: Moscow. Tsentral'nyy institut prognozov. Trudy, no. 152, 1966. Planetarnaya tsirkulyatsiya atmosfery i iskusstvennyye sputniki Zemli (Planetary circulation of the atmosphere and artificial earth satellites), 11-18

TOPIC TAGS: ocean dynamics, eddy current, cloud formation, meteorologic satellite

ABSTRACT: The author notes the increasing use of meteorological satellites to gather information but appraises such information as still being scanty and inadequate. Much of the article is based on data gathered by the Tiros satellite in September and October 1963. Of the 45 whirlwinds of that period, twelve were reported by the satellites but could not be verified by synoptic analysis. At the same time, thirteen were detected by synoptic analysis but missed by the satellites. Much of this inconsistency was due to the lack of information from sources other than satellites. As regards the relationship between the eddy cloud structure and the high seas, there are cases when it is nil. This is the case when the height of waves and the wind velocity are 1 m and 5 m/sec, respectively. Various causes of the wave formation are discussed. High seas,

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ACC NR: AT6032596

however, may advance ahead of the cyclone by about 24 hr if the wave height exceeds 3 m. The sea turbulence may last for as much as 72 hr. Orig. art. has: 4 figures.

SUB CODE: 22,04,08/   SUBM DATE: none/   ORIG PEF: 002

Card 2/2

L 41693-66 EWT(1) GW

ACC NR: AT6006574 (N)

SOURCE CODE: UR/2546/65/000/142/0051/0057

AUTHOR: Samrov, V. P.

16
B+1

ORG: none

TITLE: Some results of the numerical calculation of large scale currents in the North Atlantic

SOURCE: Moscow. Tsentral'nyy institut prognozov. Trudy, no. 142, 1965. Morskiye prognozy i raschety (Marine forecasts and calculations); materialy Vsesoyuznogo soveshchaniya, noyabr' 1963 g., 51-57

TOPIC TAGS: ocean dynamics, atmospheric circulation, ocean current, ATMOSPHERIC PRESSURE

ABSTRACT: Large scale currents were evaluated on the basis of atmospheric pressures at sea level, using an equation developed by V. B. Shtokman. The Chebyshev equation

$$P(x,y) = A_0 + A_{10}\alpha_{10}(x,y) + A_{01}\alpha_{01}(x,y) + A_{11}\alpha_{11}(x,y) + \ldots,$$

of 16 terms, where $P(x,y)$ is the current at xy coordinate point, α_{ij} are the standard Chebyshev polynomials, and A_{ij} are the expansion coefficients, was applied to 99 selected points in the North Atlantic. Evaluation of large scale currents was made using a numerical method based on the Shtokman equation of a large scale current and 67

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L 41693-66

ACC NR: AT6006574 O

points located between 20°-70° NL were studied. Munk's linear equations and A. S.
Sarkisyan's data were applied for the evaluation of β-effects and stationary and
transient wind currents. The investigation shows that 1) the calculated large scale
currents qualitatively reflect the classic current picture of the North Atlantic; 2)
the study indicates the need for better net selection or the use of natural components
in preference to the Chebyshev polynomials. Orig. art. has: 5 figures.

SUB CODE: 04,08/   SUBM DATE: none

Card 2/2 af

L 19656-63   EWP(q)/EWT(m)/EWP(B)/BDS   AFFTC/ASD   JD/HW
                                               S/0058/63/000/008/E082/E082
ACCESSION NR: AR3006998   62

SOURCE: RZh. Fizika, Abs. 8E568

AUTHOR: Tuzov, L. V.; Ty*china, V. I.; Ky*dy*raliyev, O.; Samsaliyev,
Zh.

TITLE: X-ray diffraction investigation of recrystallization of
plastically deformed zinc and tin-lead alloy

CITED SOURCE: Sb. Materialy* 10 Nauchn. konferentsii prof.-pre-
podavat. sostava Fiz.-matem. fak. Sekts. fiz., Frunze, 1961, 33

TOPIC TAGS: zinc, lead-tin alloy, recrystallization, plastic de-
formation, grain size

TRANSLATION: Recrystallization of zinc and of the alloy 92% Sn + 8%
Pb was investigated. The Zn specimens were deformed by 2 to 62%.
After annealing (30 min. at 200 and 300°C and 15 min. at 410°C for

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