

ZAMOLUYEV, V.K.; MUKHAROVA, L.N.; TAYTS, Ye.M.

Relation between the thermophysical and the mechanical properties
of highly carbonized polymers. Dokl.AN SSSR 133 no.5:1143-1145
Ag '60. (MIRA 13:8)

1. Institut goryuchikh iskopayemykh Akademii nauk SSSR.
Predstavleno akad. P.A.Rebinderom.
(Coal—Carbonization)

Z. A. M. Cluyev, V. K.

68-8-8/23

AUTHOR: Zamoluyev, V. K., Candidate of Technical Sciences

TITLE: The Influence of the Coefficient of Temperature Conductivity of the Coal Blend on the Quality of Coke. (Vliyaniye Koeffitsiyenta temperaturprovodnosti ugol'noy smesi na kachestvo koksa)

PERIODICAL: Koks i Khimiya, 1957, No.8, pp. 25-26 (USSR)

ABSTRACT: In view of the fact that the temperature conductivity of a coal blend has direct influence on the fissuring of coke, the influence of size distribution of a coal blend on this conductivity is discussed. It is pointed out that although the temperature conductivity of a blend increases with decreasing bulk density yet this overall increase is influenced by two opposing factors: bulk density and size distribution. Investigations on the temperature conductivity of the individual size fractions of coal (A. A. Agroskin and V. S. Zagreb'al'naya, Thermal Characteristics of Coal, Izd.A.N. SSSR, 1947) indicate that the conductivity of fine fractions 0.5-mm is much lower than that of coarser fractions. Therefore, if the proportion of this fraction in a blend is decreased, an increase of the temperature conductivity can be obtained. There are 3 references, all Slavic.

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68-8-8/23

The Influence of the Coefficient of Temperature Conductivity of the Coal Blend
on the Quality of Coke. (Vliyaniye Koeffitsiyenta temperaturoprovodnosti
ugol'noy smesi na kachestvo koksa)

ASSOCIATION: IGI AN SSSR

AVAILABLE: Library of Congress

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17.4313 2112 only

84357
S/191/60/000/008/009/014
B004/B056

AUTHOR: Zamoluyev, V. K.

TITLE: Thermophysical Properties of Highly Carbonized Polymer Materials //

PERIODICAL: Plasticheskiye massy, 1960, No. 8, pp. 46-48

TEXT: The author investigated the specific heat ²¹ c_p , the temperature coefficient α of thermal conductivity, λ and the thermal conductivity λ of the high-polymer material produced by the thermal decomposition of fossil coals, oil coke, and channel black in an inert gas between 1000° and 3000°C. c_p and α were determined according to G. M. Kondrat'yev at 20 - 35°C, λ was calculated from the equation $\lambda = \alpha c_p \gamma$ (γ = specific gravity). The differences between the measured values of parallel experiments did not exceed 1%. Fig. 1 shows the temperature dependence of c_p . The behavior of carbon black deviating from that of other materials.

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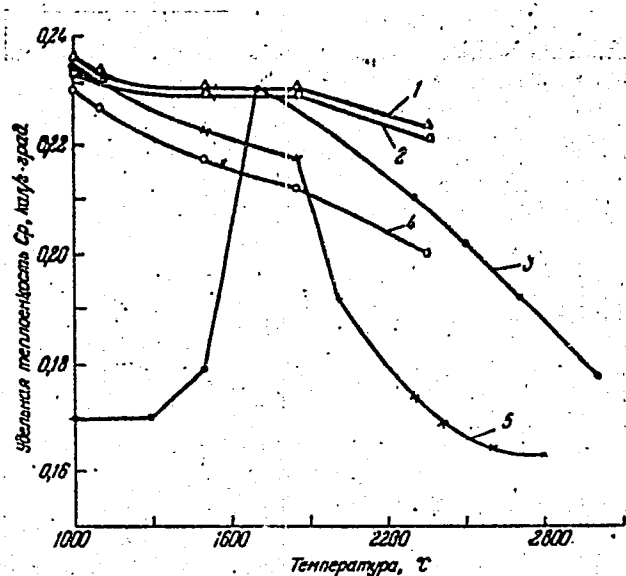
Card 1/3

Thermophysical Properties of Highly Carbonized Polymer Materials

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is explained by its chain-like structure (Ref. 4), which caused a low c_p at low temperatures. Between 1300° and 1700°C , the chains are destroyed (Ref. 5). At still higher temperatures, c_p for carbon black approaches the value which is characteristic of the beginning of carbon graphitization. Both in the case of carbon black and oil coke, an increase of the extension L_a of the plane carbon layers occurs, whereas the distance between the layers changes only little. Fig. 2 shows c_p as a function of the duration of heating; Fig. 3: a and λ as a function of temperature; and Fig. 4: a and λ as a function of time. In the case of channel black, a considerable decrease of a and λ occurs between 2700° and 3000°C . Numerous centers of phonon scattering form as a result of the destruction of atomic groups which bind the plane carbon layers. In virtue of these data, the author recommends using such materials as fillers, in order to vary c_p , a , and λ of plastics within a wide interval. There are 4 figures and 7 Soviet references. X

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Legend to Fig. 1: c_p of highly carbonized polymer substances as a function of temperature. 1 - Angren brown coal (45 min), 2 - Donets gas coal (45 min), 3 - channel black (10 min), 4 - Donets anthracite (45 min), 5 - oil coke (30 min).

Card 3/3

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S/020/60/133/005/017/019
B016/B060

5.1230
15.2220
AUTHORS:

Zamcluyev, V. K., Mukhanova, L. N., Tayts, Ye. M.

TITLE:

Relationship Between Thermophysical and Mechanical
Properties of Highly Carbonized Polymeric Materials 1

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 5,
pp. 1143-1145

TEXT: The authors of this paper discuss the relationship existing between specific thermal capacity, thermal diffusivity, heat conductivity, microhardness, as well as resistance to comminution of solid products. These products were obtained by thermal decomposition of fossil coals in the temperature range up to 2350°C, and can be regarded as highly carbonized polymers. At the same time, the authors established a functional relationship between variations in specific heat c_p and the magnitude of plane layers of carbon atoms. Nonsintering anthracites and Donets gas coal, whose variations in strength had been studied previously (Ref. 3), were examined. Proceeding from the experimental results

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Relationship Between Thermophysical and
Mechanical Properties of Highly Carbonized
Polymeric Materials

obtained by the determination of the specific heat and of heat conductivity as well as of the weight by volume, the authors calculated the values of the coefficient of heat conductivity. Microhardness was determined by an apparatus of the type ПМТ-2 (PMT-2) devised by M. M. Khrushchev and Ye. S. Berkovich; the resistance to comminution was established with the aid of the ВИМС (VIMS) microdispersometer. The materials examined chiefly consisted of carbon; therefore, the variations in thermophysical and mechanical properties of highly carbonized polymers are, on the whole, related to their structural transformations. As can be seen from Figs. 1 and 2, there is a regular relationship between the specific heat and the expansion L of the plane layers of carbon atoms deposited in single layers also rises. Consequently, the high-frequency oscillations of these atoms decrease in the range of Debye temperatures. An increase in the extension of plane layers of carbon atoms is the main cause of a drop in specific heat of highly carbonized polymers. Moreover, on a thermal decomposition of coals up to 1100°C , the chemical bonds

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Relationship Between Thermophysical and
Mechanical Properties of Highly Carbonized
Polymeric Materials

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between carbon atoms become closer. This is in agreement with results obtained and with a sudden rise in microhardness and heat conductivity when heating the initial coals up to 1100°C (Fig. 3). When the decomposition temperature rises beyond 1100-1300°C, processes of thermal destruction of the carbon side chains and a growth in the plane layers of carbon atoms take place until the stage of graphitization. The resistance to comminution of coals depends on two factors: material hardness and plasticity. Microhardness increases in the first heating stage (Fig. 3). The material also becomes more brittle. Hence, the resistance to comminution remains fairly constant, or even drops. The results obtained make it possible to evaluate the thermal stability of highly carbonized polymers, and can be used for the production of such materials with given thermomechanical properties. There are 3 figures and 3 Soviet references.

ASSOCIATION: Institut goryuchikh iskopayemykh Akademii nauk SSSR
(Institute of Mineral Fuels of the Academy of Sciences,
USSR)

Card 3/4

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Relationship Between Thermophysical and
Mechanical Properties of Highly Carbonized
Polymeric Materials

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Handwritten mark resembling a stylized 'J' or '2'.

PRESENTED: March 23, 1960, by P. A. Rebinder, Academician

SUBMITTED: March 21, 1960

Card 4/4

21(1)

AUTHORS:

Kasatochkin, V. I., Zamoluyev, V. K., Kavernov, A. T.

SOV/89-7-3-19/29

TITLE:

The Relationship Between the Thermophysical Properties and the Atomic-molecular Structure of Carbon in Homogeneous Graphitization

PERIODICAL:

Atomnaya energiya, 1959, Vol 7, Nr 3, pp 272-275 (USSR)

ABSTRACT:

The following properties of a cracked petroleum coke are experimentally determined: Specific heat, temperature conductivity, thermal conductivity, and degree of graphitization, the samples being investigated under various isothermal conditions and temperatures. The initial material had a density of 1.405 g/cm^3 , a salt content of 0.08%, and a yield of volatile substance of 5.13%, a volume weight of $0.50 - 0.56 \text{ g/cm}^3$, and a grain composition within the range of 0 - 0.5 mm. Graphitization was carried out in a graphite furnace in nitrogen- or argon atmosphere. The degree of graphitization was radiographically measured according to reference 4 from the distance between layers. The X-ray pictures of the graphitization products were produced in cylindrical 70 and 43 mm chambers by means of filtrated copper- and iron radiation. The specific heat

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SOV/89-7-3-19/29

The Relationship Between the Thermophysical Properties and the Atomic-molecular Structure of Carbon in Homogeneous Graphitization

and the temperature conductivity coefficient were measured at 20 - 25°C according to references 5 and 6. The results obtained by parallel experiments deviated from each other by not more than 1%. From the specific heat and the temperature conductivity coefficient, the thermal conductivity coefficient was calculated. The measuring results are shown graphically, viz.: variation of the distance between layers $d(002)$

depending on the isothermal graphitization time; variation of specific heat and of the temperature conductivity coefficient depending on the isothermal graphitization time (in both cases the latter amounted to 10 - 180 min); variation of the specific heat and of the temperature conductivity coefficient and the degree of graphitization depending on graphitization temperature (1100 - 2800°C); relationship between specific heat, temperature conductivity coefficient, thermal conductivity coefficient and degree of graphitization. The endeavor is made to give a physical interpretation of the deviations of the curves from the linear course. On the basis of the results obtained it is possible to produce various

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SOV/89-7-3-19/29

The Relationship Between the Thermophysical Properties and the Atomic-molecular Structure of Carbon in Homogeneous Graphitization

carboniferous substances having certain definite thermo-physico properties from petroleum-coke. There are 4 figures and 9 references, 7 of which are Soviet.

SUBMITTED: November 21, 1957

Card 3/3

SOV/65-59-7-5/12

AUTHOR: Zamoluyev, V. K.
TITLE: Thermal Properties of Coals During their Thermal
Decomposition (Teplovyye svoystva kamennykh ugley v
protsesse ikh termicheskogo razlozheniya)
PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1959, Nr 7,
pp 20-23 (USSR)

ABSTRACT: The author has jointly published several papers
(Refs 3, 4, 5) on changes in the thermal diffusivity of
coals during their isothermal decomposition. He now
describes results of studies of specific heat, thermal
diffusivity and thermal conductivity of grade K, PS and
T. Donets Coals for isothermal heating at 500 and 700 °C.
The tests, in which T.V. Sheneleva participated, were
carried out on the vitrainized part (0-0.5 mm), obtained
by heavy-media concentration. Specific heats were
determined by G.M. Kondrat'yev's method, modified for
small samples (Refs 4, 6). The properties measured were
found to depend on the coal grade and the temperature
and duration of isothermal heating; Figs 1, 2 and 3 show
specific heat, thermal diffusivity and conductivity,
respectively, as functions of heating time (minutes) for

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SOV/65-59-7-5/12

Thermal Properties of Coals during their Thermal Decomposition

the different grades and temperatures. Coking coals (K and PS) showed considerable increase in specific heat on transition into the plastic state; a rapid fall occurs during the subsequent solidification. With non-caking coal (T) the specific heat only increases.

Considerable falls in the thermal conductivity of the caking coals occurred on transition into the plastic state and a subsequent hardening; with non-caking coal there was a relatively small fall in conductivity with a substantial reduction of specific heat.

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There are 3 figures and 6 Soviet references.

ZAMOLUYEV, V.K.

ZAMOLUYEV, V.K.; KASATOCHKIN, V.I. (Moskva).

Ratio of temperature conductivity of coals in various phases of
isothermal decomposition. Izv. AN SSSR. Otd. tekhn. nauk no.11:199-
200 N '57. (MIRA 11:1)

(Coal--Testing)

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only 2107, 2112, 2312

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B004/B056

11.5100

AUTHORS:

Kasat'chkin, V. I., Zamoluyev, V. K., Kaverov, A. T., and Usenbayev, K.

TITLE:

The Thermophysical Properties of the Transition Forms of Carbon \checkmark

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 1, pp. 121-124

TEXT: The authors give a report on the determination of the specific heat c_p , of the temperature coefficient α of thermal conductivity and of the thermal conductivity λ of the transition forms of carbon, obtained by heating petroleum coke, channel black, and thermal carbon black to temperatures of between 1000 and 3000°C in nitrogen- or argon atmosphere. c_p and α were determined according to G. M. Kondrat'yev (Ref. 7), λ was calculated according to the equation $\lambda = c_p \alpha \beta$ (β = weight by volume). The measurement results for c_p and α are represented in Figs. 1,2, the

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The Thermophysical Properties of the Transition Forms of Carbon

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calculated values of λ in Fig. 3 as a function of temperature. Fig. 4 shows λ as a function of the duration of heating of the substances mentioned at 1600 and 2500°C, as well as for coke coal (500°C) and coal of the type ПС (PS) (700°C). In Table 1 the degrees of graphitization γ are given. The results obtained are interpreted. 1) Petroleum coke: slight decrease of c_p below 1800°C by destruction of the side radicals. As a result of recombination of the liberated bindings, the spatial network of bonds, however, remains conserved. At 1800 to 2000°C, a considerable drop of c_p takes place by combination of neighboring carbon layers. Above 2000°C c_p decreases because of orientation of the carbon layers from $d_{max} = 3.42 \text{ \AA}$ to $d_{min} = 3.35 \text{ \AA}$ in graphitized carbon, $\gamma_{max} = 1$. In the case of thermal carbon black crystallization also sets in at 2000°C, graphitization, however, remains incomplete, $\gamma_{max} = 0.77$. The uniform course taken by the c_p -curve and the incomplete graphitization is explained by the forming of a spatial network of bonds, which contains

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The Thermophysical Properties of the
Transition Forms of Carbon

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thermostable =C=C=C= bonds between the carbon layers up to 3000°C. In channel black, c_p is low up to about 1300°C, it has a maximum at 1700°C, whereas between 2700 and 3000°C, c_p , α and λ fall. Channel black does not crystallize, $\gamma_{max} = 0.09$. Also in this case the cause is a (denser) spatial network of bonds, formed by the splitting off of oxygen-containing radicals and the forming of allene-carbon chains between the carbon layers. In fossile coals, a melting of the spatial network of bonds occurs at low temperatures similar as in the case of organic polymers. The properties of the carbon materials thus depend on the polymeric character of their structure and on the nature of the spatial network of bonds. Only for $\gamma = 1$ there is no spatial network of bonds. There are 4 figures, 1 table, and 12 references: 11 Soviet and 1 British.

ASSOCIATION: Institut goryuchikh iskopayemykh Akademii nauk SSSR
(Institute of Mineral Fuels of the Academy of Sciences,
USSR)

Card 3/4

The Thermophysical Properties of the
Transition Forms of Carbon

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B004/B056

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PRESENTED: June 10, 1960 by M. M. Dubinin, Academician

SUBMITTED: April 2, 1960

Card 4/4

KASATOCHKIN, V. I.; ZAMOLUYEV, V. K.; KAVEROV, A. T.; USMNBAYEV, K.

Thermophysical properties of transition forms of carbon. Dokl.
AN SSSR 135 no.1:121-124 N'60. (MIRA 13:11)

1. Institut goryuchikh iskopayemykh AN SSSR. Predstavleno akademikom
M.M.Dubininyam. (Carbon)

ZAKHLOJYEV, V.K.

Thermal and physical properties of highly carbonized polymer
materials. Plast.massy no.8:46-48 '60. (NIRA 13:10)
(Polymers)

68-58-6-4/21

AUTHORS: Zamoluyev, V. K., Candidate of Technical Science,
Mazankina, K. T., Candidate of Chemical Science and
Kasatochkin, V. I., Doctor of Chemical Science

TITLE: The Dependence of the Coefficient of Thermoconductivity on the
Degree of Interlattice Order of Coals During Isothermal
Decomposition (Zavisimost' koeffitsiyenta
temperaturoprovodnosti ot mezhsetochnoy uporyadochennosti
kamennykh ugley pri izotermicheskom razlozhenii)

PERIODICAL: Koks i Khimiya, 1958, Nr 6, pp 11-13 (USSR)

ABSTRACT: The coefficient of thermoconductivity and the degree of inter-
lattice order of the Donets coal of G (gas) and K (coking)
types under conditions of isothermal decomposition at
500 and 700°C were investigated. The determination of the
thermoconductivity coefficient of specimens obtained after
various heating times in a furnace was carried out at
20-40°C using the method of regular heating conditions
(Refs.4,5). The agreement between parallel determinations
was within 1%. Powder X-ray photographs of the same
specimens were also carried out using filtered copper
radiation. The experimental results are shown graphically
in Figs. 1 and 2 for G and K coals respectively. It was

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63-58-6-4/21

The Dependence of the Coefficient of Thermoconductivity on the Degree of Interlattice Order of Coals During Isothermal Decomposition

established that in the initial stages of isothermal decomposition of coals, the thermoconductivity coefficient substantially decreases and the degree of inter-lattice order sharply increases. Changes in the thermoconductivity coefficient and the degree of inter-lattice order of coals during the process of isothermal decomposition are determined by a rearrangement of steric bonds in the coal substance.

There are 2 figures, 1 table and 6 references, all of which are Soviet.

ASSOCIATION: IGI AN SSSR

1. Coal--Decomposition
2. Coal--Thermochemistry

Card 2/2

ZAMOLUYEV, V.K., doktor tekhn.nauk; MAZANKINA, K.T., doktor khim. nauk;
KRSATOCHKIN, V.I., doktor khim. nauk.

Effect of interlattice order of coal on the coefficient of heat
conductivity during isothermal decomposition. Koks i khim.
no.6:11-13 '58. (MIRA 11:6)

1. Institut goryuchikh iskopayemykh AN SSSR.
(Coal--testing) (Crystal lattices) (Heat--Conduction)

ZAMOLUYEV, V.K.

68-6-7/19

AUTHOR: Zamoluyev, V.K., Candidate of Technical Sciences, and Kasatochkin, V.I., Doctor of Chemical Sciences.

TITLE: Changes of the Coefficient of Temperature Conductivity of Coals during Isothermal Decomposition. (Izmeneniye koeffitsiyenta temperaturoprovodnosti kamennykh ugley pri izotermicheskom razlozhenii)

PERIODICAL: Koks i Khimiya, 1957, No.6, pp. 21 - 23 (USSR)

ABSTRACT: A study of temperature conductivity of Donets coals of the A, K and ΠC types at various stages of isothermal decomposition at various temperatures (400, 500 and 700 °C) was carried out. Vitrile component of the above coals separated in heavy liquids (properties Table 1) was taken for the investigation. The experimental results are given in Table 2 and a diagram. It is concluded that changes in the coefficient of temperature conductivity depend on the type of coal, temperature and time of decomposition under isothermal conditions. For coal types K and ΠC , a sharp decrease of the coefficient is observed during the transition of coal into the plastic state. Time of the transition of various coals into the plastic state is different; therefore, there is a possibility of increasing the coefficient of temperature conductivity of coal blends by a suitable choice of their components.

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68-6-7/19

Changes of the Coefficient of Temperature Conductivity of
Coals during Isothermal Decomposition.

There are 2 tables, 1 figure and 7 Slavic references.

ASSOCIATION: Institute of Mineral Fuels of the Academy of Sciences
of the USSR. (Institut Goryuchikh Uskopayemykh AN SSSR)

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ZAMOLUYEV, V.K., kandidat tekhnicheskikh nauk; KASATOCHKIN, V.I., doktor khimicheskikh nauk.

Change in the coefficient of heat conductivity of coals during isothermic decomposition. Koks i khim. no.6:21-23 '57. (MLRA 10:7)

1. Institut goryuchikh iskopayemykh AN SSSR.
(Heat--Transmission) (Coal--Carbonization)

Zamoluyev, V. K.

24-11-31/31

AUTHORS: Zamoluyev, V. K. and Kasatochkin, V.I. (Moscow)

TITLE: Coefficient of temperature conductivity of hard coal at various stages of isothermal decomposition. (Koeffitsiyent temperaturoprovodnosti kamennykh ugley na raznykh stadiyakh izotermicheskogo razlozheniya).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.11, pp. 199-200 (USSR)

ABSTRACT: Results are described of the study of changes in the coefficient of temperature conductivity of five grades of Donets coal, the data of which are given in a Table, as a function of the degree of isothermal decomposition at various temperatures. The tests were carried out with coal after decomposition in heavy liquids. The isothermal decomposition of the coal was effected in a quartz tubular furnace inside a stream of purified nitrogen at the temperatures 400, 500 and 700°C. After various heating times in the furnace, the coefficient of temperature conductivity was determined at 20 to 40°C according to the method of the regular thermal regime proposed by G. M. Kondratev and the author of this paper and perfected for investigating relatively small samples

Card 1/2(Refs.1,2). The results are given in the form of a

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Coefficient of temperature conductivity of hard coal at various stages of isothermal decomposition.

graph showing the changes in the coefficient of temperature conductivity of hard coal under conditions of low temperature decomposition at 400, 500 and 700°C.
There are 1 figure and 3 Slavic references.

SUBMITTED: March 11, 1957.

AVAILABLE: Library of Congress.

Card 2/2

ZAMOLUYEV, E. K. Kandidat tekhnicheskikh nauk.

Effect of the coefficient of coal mixture heat conductivity
on the quality of coke. Koks i khim. no.8:25-26 '57. (ML2A 10:8)

1. Institut goryuchikh iskopayemykh AN SSSR.
(Heat--Transmission) (Coke)

SOV/24-58-5-26/31

AUTHORS: Zamoluyev, V. K., Kaverov, A. T. and Kasatochkin, V.I.
(Moscow)

TITLE: Thermo-physical Properties in the Process of Homogeneous Graphitisation of Carbon (Teplofizicheskiye svoystva v protsesse gomogennoy grafitizatsii ugleroda)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 5, pp 131-133 (USSR)

ABSTRACT: The results are described of investigations of the heat capacity, the temperature and heat conductivity and also of X-ray determination of the degree of graphitisation of the products of heat treatment of petroleum coke under isothermal conditions with various heating times at the temperatures 1800, 2000, 2150, 2300, 2400, 2600 and 2800°C. The initial petroleum cracking coke had a density of 1405 g/m³, an ash content of 0.08% and a yield of volatiles of 5.13%. The graphitisation was effected in a furnace with a graphite heater in an atmosphere of nitrogen and argon, whereby the temperature was regulated by means of a step-transformer so that a given temperature was maintained within $\pm 25^{\circ}\text{C}$. The results are graphed in Figs 1 and 2. It was found that the heat conductivity is determined predominantly by the dimensions of the monolayers and also

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SOV/24-58-5-26/31

Thermo-physical Properties in the Process of Homogeneous
Graphitisation of Carbon

by the valency bonds between adjacent "crystallites" and depends little on the degree of perfection of the crystal lattice of the graphite. It is concluded that for obtaining carbon-graphite materials with a relatively high thermal conductivity it is not necessary to carry out graphitisation and it is sufficient to effect the heat treatment of petroleum coke up to the initial stages of graphitisation. V. S. Shorstkin and T.V.Panfilov participated in the experimental work. There are 2 figures and 5 references, 4 of which are Soviet, 1 English.

SUBMITTED: July 17, 1957

Card 2/2

ZAMOLYI, Ferenc

Possibilities and ways of modernizing the general indexes of materials in the construction industry. Epites szemle 7 no.7:211-218 '63.

1. Epitesugyi Miniszterium Epitesgazdasagi es Szervezesi Intezet tagozatvezetoje.

Zanolyi, F.

Construction technology of dwelling constructions with medium and large blocks. p.416

MAGYAR EPITOIPAR. (Építőipari Tudományos Egyesület) Budapest, Hungary
Vol.8, no.8, August 1959

Monthly List of East European Accessions (EEAI) LC, Vol.8, no.11
November 1959
Uncl.

LAMOR, F.

by the USA. The trend of development after the first world

ZAMCR, F.

ZAMCR, F. Motorcar production at the Ganz Works. IV. p. 26.

Vol. 3, No. 1, Jan. 1956
JARMUVEK MEZOGAZDASAGI GEPEK
TECHNOLOGY
Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956

ZAMOR, F.

Motorcar production of the Ganz Works. III. (To be contd.) p. 365.
Vol 2, no. 12, 1955, Dec. JARMUVEK MEZOGAZDASAGI GEPEK. Budapest, Hungary.

So: Eastern European Accession. Vol 5, no. 4, April 1956

ZAMOR, Ferenc

The "Diesel Railway Traction" at 25. Jarmu mezo gep 5 no.5/6:
190 '58. ry. Jar

ACCESSION NR: AP3010786

S/0148/63/000/009/0156/0160

AUTHORS: Shul'ga, N. G.; Zamora, M. F.

TITLE: Dilatometric analysis of phase transformations in high-chrome steel

SOURCE: IVUZ. Chernaya metallurgiya, no. 9, 1963, 156-160

TOPIC TAGS: dilatometer, dilatometric analysis, dilatometry, phase transformation, steel, high-chrome steel, chrome, chromium, martensite steel, Kh13 steel, Kh17 steel, Kh18MTF steel, carbon, nickel

ABSTRACT: Authors carried out dilatometric studies on samples of Kh13, Kh17 and Kh18MTF steels. Microstructure of all annealed steel samples was ferrite with grain size of 8-5 and with a small amount of carbides. After hardening, the microstructure of the Kh18MTF steel sample remained ferrite, but the grain size was increased considerably and the carbide quantity visible under a microscope was reduced. The Kh13

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ACCESSION NR: AP3010786

steel had a martensite structure with a certain amount ferrite after hardening. Microstructure of the Kh17 steel samples depends largely upon their chemical composition. The microstructure of hardened Kh17(5) steel sample with a content of chromium on the upper and of carbon and nickel on the lower strain limit does not differ from Kh18MTF steel microstructure. The remaining Kh17 steel samples have a ferrite-martensite structure after hardening. The transformations in the steels were analyzed in connection with an analysis of the problem concerning the possibility of utilizing high-chrome steels without any other alloying additions in metal-to-glass seals. The measurements were carried out on a Chevenauer differential dilatometer with optical recording. Samples were heated to 1000-1100C. Higher temperatures were not used because the quartz begins to deform and precise measurements cannot be effected. Analysis of dilatometric curves shows that a ferrite-austenitic transformation takes place in some of the steels. No transformations take place in the case of Kh18MTF and Kh17(5) steels at heating up to

Card 2/4

ACCESSION NR: AP3010786

1100C. Curves for the Kh17 steels of other heats are also somewhat close to the curves for Kh18MTF steel at a temperature below critical, but differ by a change in path of the curve during ferrite-austenitic transformation. A reduction in the specific volume takes place in the Kh17(17) samples at 1000C, corresponding to an α - γ transformation. In some of the chrome steels (Kh13, Kh17) with a content of carbon and nickel on the upper strain limit, an austenite-martensite transformation can occur with air cooling, accompanied by an increase in volume and taking place at temperatures when the glass had already lost its plasticity. For this reason, they are unacceptable for glass-to-metal seals. In the case of a non-ferrite, high-chrome steel with glass seal, the utilization of heat treatment methods, assuring a non-martensite transformation, is the determining factor. Orig. art. has: 3 figures.

ASSOCIATION: L'vovskiy politekhnicheskij institut (Lvov polytechnic institute)

Card 3/4

SHUL'GA, N.G.; ZAMORA, M.F.

Characteristics of the use of alternating current for structural analysis of ferromagnetic materials by the electric resistance method. Defektoskopiia no.1:82-86 '65.

(MIRA 18:6)

1. L'vovskiy politekhnicheskii institut.

L 31987-66 EWT(m)/EWA(d)/T/EWP(t)/ETI IJP(c) JD
ACC NR: AR6009963

SOURCE CODE: UR/0137/65/000/012/1012/1013

AUTHOR: Zamora, M. F.

TITLE: Phase transformation in Kh17 high-chromium steel on heating and continuous cooling

30
B

SOURCE: Ref. zh. Metallurgiya, Abs. 12193

REF SOURCE: Vestn. L'vovsk. politekhn. in-ta, no. 4, 1965, 31-37

TOPIC TAGS: chromium steel, phase transformation Kh17 steel

ABSTRACT: The phase transformations in five melts of 17% Cr-St (chromium steel) (0.075—0.12% C, 16.0—18.0% Cr) have been studied by the dilatometer and resistometer method. The steel of one melt contained 0.53% Mo, 1.1% Ti, and 0.6% V. Phase transformations of the 1-st order were not observed in some steel melts up to 1100C; a partial $\alpha \rightarrow \gamma$ transformation was detected in a number of melts. A ferromagnetic transformation of the 2nd order was observed near the Curie point from the anomaly in volume and electric properties. Phase transformations in St Kh17 steel depend on fluctuations in chemical composition. The possibility of an $\alpha \rightarrow \gamma$ transformation is determined by the difference in Cr and Ni equivalents. With a difference of equivalents $> 14.6\%$ on

Card 1/2

UDC: 669.15'26.017.3

L 31987-66

ACC NR:AR6009963

heating the steel, a partial $\alpha \rightarrow \gamma$ can occur and upon cooling, partial hardening can take place. For St Kh17 steel, the Curie point is between 680 and 710C. N. Kalinkina. [Translation of abstract] [NT]

SUB CODE: 11/ SUBM DATE: 00

Card 2/2 LC

S/123/62/000/013/008/021
A004/A101

AUTHOR: Zamora, M. F.

TITLE: Changes in the hardness of cemented carbon steel over the depth of the cementation layer

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 13, 1962, 28, abstract 13B172 ("Dokl. L'vovsk. politekhn. in-ta", 1961, v. 5, no. 1, Mekhanika, 189 - 197)

TEXT: Specimens of grade 20 steel were investigated which were cemented at 920°C. The hardenability of the cemented layer and the core were determined by the face-end method during hardening at 860 and 780°C. The C-distribution over the depth of layer was determined by the chemical analysis of the layers. It was found that the C-distribution over the depth of the cemented layer corresponds to a smooth curve with the maximum C-content (1.25%) on the surface. For specimens hardened at 860°C the maximum hardness corresponds to a depth of the cemented layer of 0.6 - 0.9 mm from the surface, while this depth amounts to 1.2 mm for specimens hardened at 780°C. Thus the maximum hardness does not cor-

Card 1/2

Changes in the hardness of...

S/123/62/000/013/008/021
A004/A101

respond to the maximum C-content, i.e. it is not located on the surface. These data confirm that an optimum C-content on the surface of the cemented layer should not exceed 1.1%, since the presence of a cementite lattice does not only cause an excessive brittleness of the surface layer, but the undissolved carbides promote, during the hardening, high-temperature austenite decomposition on the surface and the formation of a troostite structure below the martensite zone. Such an arrangement of the microstructure would cause tension stresses in the thin surface of the troostite zone and thus contribute to the formation of surface cracks. There are 6 figures and 4 references. ✓

E. Spivak

[Abstracter's note: Complete translation]

Card 2/2

L 36373-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD
ACC NR: AR6009964 SOURCE CODE: UR/0137/65/000/012/I013/I013 47

AUTHORS: Zamora, M. F.; Palash, V. N. B

TITLE: Investigation of phase transformation in high-chromium Kh17 steel at 650C temperature of isothermal soaking 15

SOURCE: Ref. zh. Metallur'giya, Abs. 12I99

REF SOURCE: Vestn. L'vovsk. politekhn. in-ta, no. 4, 1965, 38-43

TOPIC TAGS: austenite, ferrite, carbide, martensite, phase transition, temperature dependence, chromium steel, metal hardening

ABSTRACT: Samples of Kh17 high-chromium steel were held for 5 min at 1100C and quenched then held for 0.5-24 hr at 650C. The electric resistance, coercive force, and hardness dependence on length of holding were measured. The composition kinetics of austenite during isothermal soaking and the shape of the structural components (ferrite and carbides) were analyzed. Complete austenite decomposition 18

Card 1/2

L 36373-66

ACC NR: AR6009964

at 650C lasts for 2 hr, but even 1 hr of soaking results in the absence of martensite formation during subsequent cooling of samples.
E.Volin. [Translation of abstract] [NT]

SUB CODE: 11,13

Card 2/2

UDC: 669.15'26.017.3

SHUL'GA, N.G.; ZAMORA, M.F.

Dilatometric investigation of phase transformations in high
chromium steels. Izv. vys. ucheb. zav.; chern. met. 6 no.9;
156-160 '63. (MIRA 16:11)

1. L'vovskiy politekhnicheskii institut.

S/096/63/000/001/006/006
E194/E155

AUTHORS: Zakharov, Ye.S., Engineer; Vigak, V.M., Engineer;
Baryshnikov, A.P., Engineer; and Zamora, T.P.,
Engineer.

TITLE: The measurement of stress at high temperature by means
of self-compensating wire strain gauges

PERIODICAL: Teploenergetika, no.1, 1963, 68-70

TEXT: In making strain gauge measurements at high and possibly varying temperatures, the main gauge is usually glued to the part and a compensating gauge, which allows for changes in gauge wire resistance with temperature, is usually fixed to an unstrained lamina of the same material as the part under stress. This is not entirely satisfactory because, amongst other things, the two gauges do not receive the same heat treatment. In one particular case of measurements at 300 °C there were errors of up to 8 kg/mm². A new procedure uses four strain gauges set at angles of 45° to one another, alternate gauges being connected back-to-back for temperature compensation. Two further gauges are at right angles to one another on a lamina of the material under test which

Card 1/3

The measurement of stress at high ... S/096/63/000/001/006/006
E194/E155

is fixed to the test part at its two ends so that strain in it is unidirectional. Formulae can then be derived for the principal stresses in the part under test. If it is known that the position investigated is only in tension, or if the part is flat, three pairs of strain gauges each mounted on a lamina fixed to the part at the two ends may be used to determine the principal stresses. This has the advantage that all the gauges can be fixed to the lamina under laboratory conditions so that correct heat treatment is ensured. The procedure was checked by making bending tests on a steel beam at various temperatures between 20 and 300 °C, and gave fair agreement between the known stress and the indications of the gauges. The error is attributed to increased stiffness of the metal where the strain gauge laminae were attached, and would not arise in large components. The tests showed that the strain-gauge lamina operated satisfactorily both in tension and compression on a flat part. Accordingly, there is no need to fix gauges directly to parts which are either flat or convex in tension. In other cases four strain gauges are fixed to the part at 45° to one another, together with a lamina with two gauges, in order to

Card 2/3

The measurement of stress at high ... S/096/63/000/001/006/006
E194/E155

determine the principal stresses. Application of the method to stress determination in the flanges of a steam turbine is described.

There are 3 figures.

ASSOCIATION: Yuzhnoye otdeleniye ORGRES
(Southern Division of ORGRES)

Card 3/3



ZAKHAROV, Ye.S., inzh.; VIGAK, V.M., inzh.; BARYSHNIKOV, A.P., inzh.;
ZAKHORA, T.P., inzh.

Measurement of stresses at high temperatures using self-compensating
wire-type resistance gauges. Teploenergetika 10 no.1:68-70 Ja
'63. (MIRA 16:1)

1. Yuzhnoye otdeleniye Gosudarstvennogo tresta po organizatsii i
ratsionalizatsii rayonnykh elektrostantsiy i setey.
(Strain gauges)
(Strains and stresses—Measurement)

ZAMORA, T.P., inzh.; LABIY, Yu.Ya., inzh.; SIMKIN, Ye.L., inzh.; SIDO-
ROY, P.A., inzh.

Automatic control of boilers with ball barrel mills with-
out an intermediate dust bin. Elek.sta. 31 no.4:16-19
Ap '60. (MIRA 13:7)
(Boilers) (Automatic control)

SOV/142-2-5-14/19

AUTHOR: Zamora, Ye.F., Candidate of Technical Sciences, Docent

TITLE: Defense of Dissertations -
Dissertations for Obtaining the Scientific Degree of
Candidate of Sciences

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika,
1959, Vol 2, Nr 5, pp 629 - 630 (USSR)

ABSTRACT: On 6 March 1958, I.M. Simontov defended his candidate's
dissertation "Problems of Increasing the Selectivity
of Resonance Systems". Scientific supervisor was
Docent G.A. Shevtsov. Official opponents were Doctor
of Technical Sciences, Professor Yu.T. Velichko and
Candidate of Technical Sciences, V.P. Sigorskiy. I.M.
Simontov suggested a new selectivity criterion,
characterizing the capability of a system to suppress
noise spectrums. Simple, but effective methods are
suggested for increasing the selectivity of range re-

Card 1/5

SOV/142-2-5-14/19

Defence of Dissertations - Dissertations for Obtaining the Scientific Degree of Candidate of Sciences

sonance systems. Amplifiers with combined feedback are discussed, which are suitable for automatic selectivity control. - On 13 November 1958, I.A. Radchenko defended his candidate's dissertation "A Graphic-Analytic Method of Detector Stage Analysis and Calculation". Scientific supervisor was Doctor of Technical Sciences, Professor Yu.T. Velichko. Official opponents were Professor V.V. Ogiyevskiy and Candidate of Technical Sciences, L.Ya. Mazyuk. Based on the general theory of four-poles, I.A. Radchenko conducted a detailed graphic-analytic analysis of different detector stages and suggested a new method for their calculation. The known family of detector rectification characteristics $I = f(U_m)$ at $U_m = \text{const}$, is supplemented by another family of characteristics, plotted with a constant amplitude of the first harmonic of the input current. ✓

Card 2/5

SOV/142-2-5-14/19

Defense of Dissertations - Dissertations for Obtaining the Scientific Degree of Candidate of Science

In this way the input impedance of a detector may be determined with active and complex load. - On 13 November 1958, T.M. Sakharova defended her candidate's dissertation "A Graphic-Analytic Method of Calculating the Working Attenuation Characteristics of Low-Class Bridge Filters". Scientific supervisor was Doctor of Technical Sciences, Professor Yu. T. Velichko. Official opponents were Professor V.V. Ogiyevskiy, Candidate of Technical Sciences Ye. F. Zamora, T.M. Sakharova suggested a simple method of calculating accurately the frequency characteristics of the working attenuation of bridge filters by generalized graphs. - On 12 March 1959, V.V. Chervetsov defended his candidate's dissertation "Problems of Analyzing Multivibrators, Composed of Junction Transistors". Scientific Supervisor was Doctor of Technical Sciences, Professor Yu.T. Velichko. Official opponents were

Card 3/5

SOV/142-2-5-14/19

Defense of Dissertation ~ Dissertations for Obtaining the Scientific Degree of Candidate of Science

Doctor of Technical Sciences, Professor G.Ye. Pukhov and Candidate of Technical Sciences, Docent G.A. Shevtsov. V.V. Chervetsov suggested a method of calculating the basic multivibrator circuits composed of junction transistors. Transient processes occurring in multivibrators were analyzed. An effective method of frequency stabilization was developed, consisting of an LC circuit included in the multivibrator. - On 12 March 1959, L.Ya. Nagornyy defended his candidate's dissertation "The Analysis of Transistorized High-Frequency Amplifier Circuits". Scientific supervisor was Candidate of Technical Sciences, Docent G.A. Shevtsov. Official opponents were Doctor Technical Sciences, Professor Yu.T. Velichko and Candidate of Technical Sciences Ya.K. Trokhimenko. L.Ya. Nagornyy used the generalized method of unit voltages and oscillatory ✓

Card 4/5

SOV/142-2-5-14/19

Defense of Dissertation - Dissertations for Obtaining the Scientific Degree of Candidate of Science

circuit currents for the analysis of transistorized high-frequency amplifier circuits. The conformal transformation is recommended for investigating basic circuit parameters.

ASSOCIATION: L'vovskiy politekhnicheskiy institut (radiotekhnicheskiy fakul'tet) (L'vov Polytechnical Institute (Radio Engineering Faculty)) ✓

Card 5/5

ZAMORA, Ye.F., kand. tekhn. nauk, dotsent

Defense of dissertations in the L'vov Polytechnical
Institute. Izv. vys. ucheb. zav.; radiotekh. 6 no.6:714-
715 N-D '63. (MIRA 17:1)

ZAMORA, Ye.F., dots.

Defense of dissertations at the Lvov Polytechnic Institute. Izv.
vys.ucheb.zav.; radiotekh. 2 no.5:629-630 3-0 '59.
(MIRA 13:5)

1. L'vovskiy politekhnicheskiy institut, radiotekhnicheskiy fakul'-
tet.

(Transistor amplifiers)
(Pulse techniques (Electronics))
(Electric filters)

VEKSLER, Grigoriy Solomonovich, kand. tekhn. nauk; TETEL'BAUM,
Yak v Isaakovich, kand. tekhn. nauk [deceased]; KITAYEV,
V.Ye., kand. tekhn. nauk, retsenzent; OGIYEVSKIY, V.V.,
prof., retsenzent; ZAMORA, Ye.F., dots., retsenzent;
SHVITSOV, G.A., retsenzent; SHVETSKIY, B.I., retsenzent

[Electric power supply of radio apparatus] Elektropitanie
radioustroystv. Kiev, Tekhnika, 1964. 383 p.

(MIRA 17:9)

SOV/142-2-5-14/19

(
AUTHOR: Zamora, Ye.F., Candidate of Technical Sciences, Docent

TITLE: Defense of Dissertations -
Dissertations for Obtaining the Scientific Degree of
Candidate of Sciences

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika,
1959, Vol 2, Nr 5, pp 629 - 630 (USSR)

ABSTRACT: On 6 March 1958, I.M. Simontov defended his candidate's
dissertation "Problems of Increasing the Selectivity
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Simontov suggested a new selectivity criterion,
characterizing the capability of a system to suppress
noise spectrums. Simple, but effective methods are
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Card 1/5

SOV/142-2-5-14/19

Defence of Dissertations - Dissertations for Obtaining the Scientific Degree of Candidate of Sciences

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Card 2/5

SOV/142-2-5-14/19

Defense of Dissertations - Dissertations for Obtaining the Scientific Degree of Candidate of Science

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Card 3/5

SOV/142-2-5-14/19

Defense of Dissertation - Dissertations for Obtaining the Scientific Degree of Candidate of Science

Doctor of Technical Sciences, Professor G.Ye. Pukhov and Candidate of Technical Sciences, Docent G.A. Shevtsov, V.V. Chervetsov suggested a method of calculating the basic multivibrator circuits composed of junction transistors. Transient processes occurring in multivibrators were analyzed. An effective method of frequency stabilization was developed, consisting of an LC circuit included in the multivibrator. - On 12 March 1959, L.Ya. Nagornyy defended his candidate's dissertation "The Analysis of Transistorized High-Frequency Amplifier Circuits". Scientific supervisor was Candidate of Technical Sciences, Docent G.A. Shevtsov. Official opponents were Doctor of Technical Sciences, Professor Yu.T. Velichko and Candidate of Technical Sciences Ya.K. Trokhimenko. L.Ya. Nagornyy used the generalized method of unit voltages and oscillatory ✓

Card 4/5

SOV/142-2-5-14/19

Defense of Dissertation - Dissertations for Obtaining the Scientific Degree of Candidate of Science

circuit currents for the analysis of transistorized high-frequency amplifier circuits. The conformal transformation is recommended for investigating basic circuit parameters.

ASSOCIATION: L'vovskiy politekhnicheskii institut (radiotekhnicheskii fakul'tet) (L'vov Polytechnical Institute (Radio Engineering Faculty) ✓

Card 5/5

ANDRIYEVSKIY, A.I.; ANTANOVICH, A.V.; BOGATYREV, N.A.; GLUSHCHENKO, I.P.;
GUBENKO, T.P.; ZAMORA, Ya.F.; KARANDYEV, E.B.; LUKIN, V.I.; LUKIN,
N.I.; MAKSIMOVICH, N.G.; MOZER, V.F.; PETRENKO, S.I.; PAPERNYI, Ye.A.;
PRIVALOVA, K.A.; SITNITSKIY, Yu.I.; STASIKOV, Ya.T.; SHCHEPANKEVICH,
B.P.; CHUCHMAN, T.S.; YAGELLO, I.M.; BRILINSKIY, B.M. 1 dr.

G.E. Krushel'; obituary. Izv.vys.ucheb.sav.; energ. no.10:147
0 '58. (MIRA 11:12)

(Krushel', Georgii Evgen'evich, 1912-1958)

112-57-8-17526

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 8,
p 235 (USSR)

AUTHOR: Zamora, Ye.F.

TITLE: On the Design of AC-Supplied High-Pwer High-Frequency Oscillators

PERIODICAL: Nauch. zap. L'vovsk. politekhn. in-ta (Scientific Notes of the
L'vov Polytechnic Institute), 1956, Nr 27, pp 33-43 (In Ukrainian)

ABSTRACT: Two circuit diagrams of AC-supplied high power high-frequency
oscillators are presented. Physical phenomena transpiring in the
oscillators and the design principle are examined. Graphical relations
explaining the design are given. The graph presented shows that experi-
mental data well agree with design data. Design of a two G-450-tube
oscillator and also the AM oscillator operation are considered.
Bibliography: 4 items.

V. M. L.

Card 1/1

ZAMORA, Y. F.

SOV/141-58-10-20/24
 Andriyevskiy, A. I., Antanovich, A. V., Bogatyrev, N. A.,
 Gushchikov, I. P., Gushko, S. P., Zamiatina, I. P., Karan-
 deyev, K. B., V. I. Lakin, K. I., Maksimovich,
 S. G., Moez, V. A., Petrenko, S. I., Poperov, I. A.,
 Privalova, A. A., Sivitskiy, Yu. I., Stasikov, V. G.,
 Shchepetovskiy, B. P., Chuchman, T. S., Yagello, I. M.,
 Brillinskiy, B. M., and others

AUTHORS:

TITLE: G. Ye. Krushel', Deceased
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Energetika,
 1958, Nr 10, p 147 (USSR)

ABSTRACT: This is an obituary of Doctor of Technical Sciences,
 Professor Georgiy Yevgenyevich Krushel' of the
 L'vovskiy politehnicheskii institut (Lvov Polytech-
 nic Institute). Krushel' was born in Kocov in 1908
 as the son of an engineer. He died on July 20, 1958
 because of an accident. He graduated in 1931 from
 the "Proftekhkola". While working in the industry,
 G. Ye. Krushel' studied at the Kharkovskiy mekhaniko-
 mashinostroitel'nyy institut (Kharkov Institute of

Card 1/3

extensively prize moves for the feed runs of high-
 power boilers. Besides research work,
 Krushel' attracted his attention to the training of
 engineers in his field. The Soviet Union lost one
 of its foremost scientists. There is 1 photograph.

Card 3/3

ZAMIRANOVA, N.P.

✓ 235. MINING OF BROWN COALS IN UKRAINE (DNEPR BASIN). (ROZKRYTTA
B'YMYH UGLEI UKRAINY (DNEPROVSKII BASSEIN)). Akasov, V.P., Zamiranova, N.P.,
and Rybin, A.D. (Kiev: Gosstatizdat Ukr. S.S.R., 252pp.; abstr. in Ugol
(Coal, Moscow), Dec. 1955, 43). 50

(1)

ZAMORAVSKY, Z.; VESELY, R.

TECHNOLOGY

Periodical CHEMICKY PRUMYSL. Vol. 8, no. 2, Feb. 1958.

ZAMORAVSKY, Z.; VESELY, R. Polymers of β -hydroxymethylbenzoic acid. p. 106.

Monthly List of East European Accessions (EMAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

15-57-3-3916

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,
p 201 (USSR)

AUTHOR: Zamorenov, N. P.

TITLE: ~~_____~~
The Theory of Calculating Rock Pressure in Unconsolidated Rocks (K voprosu o teorii rascheta gornogo davleniya dlya nesvyaznykh porod)

PERIODICAL: Izv. Kiyevsk. politekhn. in-ta, 1956, Nr 17, pp 240-248

ABSTRACT: The rock pressure was calculated at a horizontal mine-working 4.6 m wide in a brown-coal mine in the **Dnepr Basin** where the roof rocks are chiefly unconsolidated (sands, sandy clays, etc.). Three methods were used. The calculated results compare favorably with actual measured values of rock pressure. By the "amount of slip" method, V. D. Slesarev obtained a value for the rock pressure of $p = 39.05$ tons/m². According to the method of P. M. Tsimbarevich (settling of an acute-angled parallelepiped) the rock pressure is 51.3 tons/m². The method of M. M. Protod'yakonov, calcula-

Card 1/2

15-57-3-3916

The Theory of Calculating Rock Pressure (Cont.)

ting the effect of collapsed roof rocks, gives a value of $p = 10.3$ tons/m². The maximum stress reported from 490 dynamometer tests averaged 8.8 to 9.7 tons/m². The author discusses the sharp divergence between the results obtained by Slesarev and Tsimbarevich and both, those obtained by observation and those calculated by Protod'yakov for conditions of unconsolidated, friable rock.

Card 2/2

Yo. P. Yo.

SOV/124-57-7-8293

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 7, p 130 (USSR)

AUTHOR: Zamorenov, N. P.

TITLE: On the Theory of Calculating the Rock Pressure in the Case of Loose Rock (K voprosu o teorii rascheta gornogo davleniya dlya nesvyaznykh porod)

PERIODICAL: Izv. Kiyevsk. politekhn. in-ta, 1956, Vol 17, pp 240-248

ABSTRACT: The author investigates the amount of pressure exerted on the support timbering of underground mine workings when the enclosing ground consists of loose rock. It is noted that the magnitude of the rock pressure as calculated by the V. D. Slesarev method [Mekhanika gornykh porod i rudnichnoye krepleniye (Rock Mechanics and the Support Timbering in Underground Mines). Ugletekhizdat, 1948] or by the P. M. Tsimbarevich method [Rudnichnoye krepleniye (Support Timbering in Mines). Ugletekhizdat, 1951] differs markedly from the magnitudes thereof obtained in mines by direct measurement with pressure capsules at the working faces. The author states that the theory of M. M. Protod'yakonov [Davleniye gornykh porod na rudnichnoye krepleniye (The Rock Pressure Exerted on Mine Support Timbering). Gos.

Card 1/2

SOV/124-57-7-8293

On the Theory of Calculating the Rock Pressure in the Case of Loose Rock

nauch-tekhn. gornoye izd-vo, 1938] makes it possible to obtain calculated rock-
pressure values in fairly good agreement with those obtained by direct measurement.
A. M. Kochetkov

Card 2/2

ZAMORENOV, N. P.

Aksentov, V. P., Zamoranzov, N. P., and Rybkin, A. D.:
Razrabotka burykh ugley Ukrainy (The Processing of
Ukrainian Brown Coals). Kiev: Gosudarst. Izdatel.
Tekh. Lit. Ukr. S.S.R. 1955. 251 pp.

Full 3

ZAHORENOV, N.P., dotsent.

From experience in rapid development mining of Dnieper Basin mines.
Trudy Inst. gor. dela AN USSR no.1:85-91 '51. (MLRA 10:8)
(Dnieper Basin--Lignite) (Coal mines and mining)

AKSENOV, V.P.; ZAMOHENOV, N.P., (deceased) HYBKIN, A.D.; KOCHERGA, L.,
redaktor; PITSHEBKO, V., tekhnicheskly redaktor.

[Mining Ukrainian lignite (Dniepr coal field)] Razrabotka burykh
uglei Ukrainy (Dneprovskii bassein). Kiev, Gos.izd-vo tekhn.
lit-ry USSR, 1955. 251 p. (MLRA 8:9)
(Ukraine--Lignite)

ZAMOREV, A.A

Study of the Two-Dimensional Inverse Problem of the Theory of Potential
Izv. AN SSSR, Ser. Geogr. i Geofiz. No. 4-5 (1941)

ZAMOREV, A. A.

Zamorev, A. A. "On the Determination of Derivatives of the Gravitational Potential and of Relationships Between the Moments of Disturbing Masses Referred to a Derivative Given in a Plane." *Izvestiia Akad. Nauk S.S.S.R., Leningrad-Moscow, Seriya Geograf. i Geofiz., No. 3, 1939, pp. 275-286.*

ZAMOREV, A. A.

Zamorev, A. A. "On the Interpretation of the Values of the Derivatives of the Magnetic Potential of Disturbing Masses." Trudy Geolog. Instituta Akad. Nauk S.S.S.R., Azerbaidzhanck. Filial, vol. 16, 1939, pp. 19-31. Also: Izvestia Akad. Nauk S.S.S.R., Moscow-Leningrad, Seriya Geograf. i Geofiz., No. 6, 1939, pp. 661-667.

ZAMOREV, A. A.

"Determination of the Form of a Body by the Derivatives of the
External Gravitational Potential,"

Iz. Ak. Nauk SSSR, Ser. Geograf. i Geofiz., Nos. 1 - 6, 1942

ZAMCREV, A. A.

"Solution of the Inverse Problem of the Theory of the Potential," Dok. Ak.

32, No. 8, 1941.

Libr., Inst. Theoretical Geophysics, Dept. Physico-Math. Sci., Acad. Sci., 1941.

KISS, Dezzo; MATUS, Lajos; ZAMORI, Zoltan

Radiometric installation for determining the uranium, thorium
and radium contents of rocks. Energia es atom 15 no.8:368-
374 Ag 62.

1. Kozponti Fizikai Kutato Intezet.

KARDON, Bela; KISS, Dezso; FADEL MOHAMED ALI; LOVAS, Istvan; ZAMORI, Zoltan

Energy measurement of the gamma radiation due to slow neutron capture.
Koz fiz kozl MTA 8 no.2/3:87-105 '60. (HEAI 10:4)

1. A Magyar Tudomanos Akademia Kozponti Fizikai Kutato Intezete,
Magfizika I. Laboratorium.
(Gamma rays) (Neutrons) (Spectrometer)

ZAMORI, Z.

HUNGARY/Nuclear Physics - Installations and Instruments. Methods of Measurement and Research C-2

Abs Jour : Ref Zhur - Fizika, No 2, 1959, No 2627

Author : Kiss Dezso, Matus Lajos, Zamori Zoltan

Inst : -

Title : Automatic Recording Scintillation γ -Spectrometer

Orig Pub : Magyar tud. akad. Koep. fiz. kutato int. kozl., 1958, 5, No 6, 589-598, V.

Abstract : The authors have constructed a single crystal automatic recording scintillation γ -spectrometer. The resolving power of the instrument (for the 661-kev line) is 9.5%; the non-linearity is less than 1% up to 4.4 Mev; the stability is satisfactory. The entire spectrum can be photographed within five minutes. A modification of the instrument is proposed, which would permit an evaluation of the line intensity from the height of the photo line. The corresponding calculations are included.

Card : 1/1

L 40186-66 ENT(m)

ACC NR: AP6030061

SOURCE CODE: HU/0034/66/014/002/0161/0170

AUTHOR: Zanori, Zoltan

58

ORG: Central Research Institute for Physics, Budapest (Kozponti Fizikai Kutato Intezet) B

TITLE: Rapid coincidence loop and time-resolution

SOURCE: Magyar fizikai folyoirat, v. 14, no. 2, 1966, 161-170

TOPIC TAGS: nuclear physics, mathematic physics, time measurement, electronic circuit, transistor

ABSTRACT: The methods for calculating and measuring the time-resolving ability of fast coincidence loops (defined as loops having time-resolving abilities of 10^{-9} seconds or faster) employed in nuclear physics were described. It was shown that the resolving ability can be determined more accurately by measuring chance coincidences than by any other technique in current use. For circuits based on crystal diodes, high-current tubes, and transistors, the coincidence channel width can be reduced for permitting the measurements to be performed. The techniques involved were described and illustrated. Orig. art. has: 9 figures and 11 formulas. [JPRS: 36,845] 19

SUB CODE: 20, 09, 12 / SUBM DATE: 16Sep65 / ORIG REF: 001 / OTH REF: 002

Card 1/1 *9*

GULYAS, Imre; ZAMORI, Zoltan

Measuring isomeric limit cross-section ratio in case of the
 $Cs^{133}/n, \gamma/Cs^{134}, 134^m$ reaction. Koz fiz kozl MTA 11 no.6:
427-437 '63.

FRISCH, O.R., prof. (Cambridge); ZAMORI, Zoltan [translator]

A new source of energy? *Fiz szemle* 7 no.2/3:73-74 Ap-Je '57.

1. Harvelli Atomkutató Központ (for Frisch).

Country : HUNGARY E
Category : Analytical Chemistry. Analysis of Inorganic Substances
Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15100
Author : Kiss, D.; Zamori, Z.
Institut. : -
Title : Radiometric Methods for Determining Uranium and Thorium in Rocks
Orig Pub. : Energia es atomtechn., 1958, 11, No 1-2, 12-18
Abstract : Different radiometric methods for determining Th and U with a detailed explanation of the theoretical bases of each method are described. Examined were: the method of approximate determination of U and Th by measuring the α -activity (this method is the simplest but the least accurate, and can be used only when the content of one of the elements, U or Th, is predominant); G. Becquerel's method (measurement of α -activity after the removal of vola-
Card: 1/2

19

A scintillation γ -spectrometer with automatic recording.
 Dezso Kiss, Lajos Matyas, and Zoltán Zámori. *Magyar Tudományos Akad. Közlem. Fiz. Kém. Intézetek Közleményei* 5, 589-98(1957).—A single-crystal (NaI activated by Tl) scintillation spectrometer for measuring γ -rays produced in (n, γ) reactions is described. The resolving power measured on the 601-e.kv. line of Cs^{137} after certain correction was found to be 9.5%. The nonlinearity of the instrument was less than 1% up to 4.4 m.e.v. on the basis of measurements of several radioactive preps. The stability of the arrangement was checked and found to be satisfactory. A modification of the spectrometer is suggested in order to provide direct reading of the line intensity from the peak height, and calcs. are carried out for a $1 \times 1\frac{1}{2}$ in. crystal in the 0-1.5 m.e.v. range. The resolving power was taken as 10% for 601 e.kv. The numerical resistivity values resulting from the calcs., together with a schematics of the potentiometer necessary, are also given. John R. ...

5
 2.4E3C
 4C 3d

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Jc

OKUNEV, A.I.; KUSAKIN, P.S.; VATOLIN, N.A.; KOLMOGOROV, B.A.; ZAMORIN, L.N.

Obtaining metallic nickel directly from a liquid matte.

Trudy Inst. met. UFAN SSSR no.8:75-82 '63.

(MIRA 17:9)

KUREK, N.M., kandidat tekhnicheskikh nauk; ZAMORIN, P.K., kandidat
tekhnicheskikh nauk.

Experience in using brick blocks in constructing industrial
buildings. Stroi. prom. 33 no.4:2-5 Ap '55. (MLRA 8:6)
(Bricklaying)

ZAMORIN, P.K.
KUREK, N.M., kandidat tekhnicheskikh nauk; SOKOLOV, N.M., kandidat tekhnicheskikh nauk; KOPCHUGOV, V.A., kandidat tekhnicheskikh nauk; ZAMORIN, P.K., kandidat tekhnicheskikh nauk; SOROCHAN, Ye.A., inzhener; GAROVNIKOV, V.I., inzhener, nauchnyy redaktor; BEGAK, B.A., redaktor izdatel'stva; GUSEVA, S.S., tekhnicheskiy redaktor

[Use of precast foundations in building construction] Primenenie sbornyykh fundamentov v stroitel'stve zdaniy. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1956. 77 p. (MIRA 10:1)
(Foundations)

S/653/61/000/000/005/051
1042/1242

AUTHOR: Zamorin, V.A.

TITLE: The application of plastics in machinery construction

SOURCE: Plastmassy v mashinostroyenii i priborostroyenii.
Pervaya resp. nauch.-tekh. konfer. po vopr. prim.
plastmass v mashinostr. i priborostr., Kiev, 1959
Kiev, Gostekhizdat, 1961, 58-63

TEXT: This is a review of the applications of plastic substances in the Soviet industry. A number of synthetic glues and adhesives are mentioned. A rapidly setting plastic БКА (BKD) is used to line metal in bearings. The Moskovskiy khimiko-tekhnologicheskii institut im. D.I. Mendeleeva (Moscow Chemical Engineering Institute im. D.I. Mendeleev) developed a plastic based on the ЭА-5 (ED-5) epoxide resin, polyethylene polyamine, glass wool, and asbestos. Its compression

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