L 32058-66 EWT(1)
ACC NR: AR6016173 SOURCE CODE: UR/0058/65/000/011/D012/D012

AUTHOR: Zhevakin, S. A.; Strelkov, G. M.

TITLE: On the form of the spectral line due to collisions

SOURCE: Ref. zh. Fizika, Abs. 11D86

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 39-41

TOPIC TAGS: spectral line, light scattering, kinetic equation, molecular spectrum

ABSTRACT: It is shown that an error has crept into the derivation of the formula for the contour of the spectral line in the well known paper of Van-Vleck and Weisskopf. For an idealized model of the optical oscillator the correct form of the spectral line can be obtained by the kinetic-equation method. This method leads to the same spectral-line shape under three different assumptions concerning the mechanism of the collision between the optical oscillator and the molecules surrounding it. This spectral-line shape, unlike the spectral-line shape given by Van-Vleck and Weisskopf, makes it possible to describe satisfactorily the rotational spectrum of water vapor. [Translation of abstract]

SUB CODE: 20

Card 1/1

VOLOVIK, V.D.; STRELKOV, G.P.; CHERKASOV, A.S.; CHURSIN, G.N.

Determining the moisture in sand from the attenuatic [illegible] - fast neutron flux. Atom.energ. 16 no. 4:366-367 Ap '64. (MIRA 17:5)

LIPKOVICH, Z.; ESTRIN, G.; MIROSHNICHENKO, D.; TRUBITSYN, N.; STRELKOV, I., master; LARIONTSEV, A.; ROMANOVICH, K.

Experience of innovators and efficiency promoters. Stroitel' 8 no.10:25-26 O '62. (MIRA 15:11)

1. Predsedatel' komiteta professional'nogo soyuza rabochikh stroitel'stva i promyshlennosti stroitel'nykh materialov stroitel'nogo uchastka No.108 tresta Mosstroy No.18 (for Lipkovich).
(Building—Technological innovations)

L 38912-66 EWT(d)/EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) IJP(c)
ACC NR: AP6017640 JD/HM/HW (N) SOURCE CODE: UR/0133/66/00/001/0090/0091 44 B

AUTHOR: Kiselev, V. S. (Engr.); Strelkov, G. S. (Engr.); Sokolov, N. V. (Candidate of Technical Sciences); Tarnavskiy, A. L. (Candidate of Technical Sciences)

ORG: NIIMetiz; Beloretsk Steel Wire and Cable Factory (Beloretskoye staleprovoloch-no-kanatnoye proizvodstvo)

TITLE: Improvement of the quality of nichrome microwire 18 16

SOURCE: Stal', no. 1, 1966, 90-91

TOPIC TAGS: fine wire, nichrome alloy, metal drawing 18

ABSTRACT: After cold drawing, nichrome microwire 17 in the free state twists into curls 1-3 mm in diameter which under tension form loops and cause the wire to break. Several methods of reducing or eliminating this defect are discussed. An arrangement for eliminating the curl on a wire 0.090 mm in diameter by centering the finishing draw plate is described; a wire 0.030 mm in diameter with a curl 13-22 mm in diameter is thus obtained. Another arrangement is mentioned which produces such microwire without any curl at all. Thermal treatment of the wire was also investigated, but although the mechanical and electrical properties of the wire were satisfactory, its weldability was not, apparently because of a slight oxidation. The so-called spreading method involving the use of a D63-M flattening mill was also tested with good results. Orig. art. has: 5 figures. 14

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 001 UDC: 621.771.4/9

Card 1/1

STRELKOV, I. G.

2/149 STRELKOV, I . G. I BULG KOV, N. P. --O vliyanii pochvennykh usloviy na urozhay i semennuyu produktsiyu uzkolistnogo lyupina. Izvestiya Ak. n. na k BSSR, 1 49, No. 4, s. 121-29

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskov, 1 49

[illegible], I. [illegible]

363[illegible] Malcalkaloidnyye [illegible] kak sredstvo [illegible] [illegible] bazy Izvestiya [illegible], No. [illegible], S. 16[illegible]-7[illegible]

[illegible] Letopis' Zhurnal'nykh Statey, No. 4[illegible], 194[illegible]

STRELKOV, Ignatiy Georgiyevich

[Lupine and its use in White Russia] Lubiny i ikh prymianenne u BSSR. Minsk, Dziarzh. vyd-va BSSR, 1954. 33 p. (MLRA 10:8)
(White Russia--Lupine)

USSR/Fitting Out of Laboratories - Instruments, Their Theory, Construction, and Use, H

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62011

Author: Strelkov, I. G.

Institution: None

Title: Metrological Work on Low Temperatures

Original Periodical: Izmerit. tekhnika, 1955, No 1, 22-27

Abstract: Description of a procedure for measuring temperature below the lower limit of the International Scale (-183° C ≃ 90° K). Use was made of a Pt resistance thermometer of spectral pure Pt (IONKh-3) (diameter 0.05 mm, resistance 100 ohms) mounted in a special housing. Correlation between resistance and temperature was determined on the basis of Matissen's rule using the tables for the L6 thermometer of the National Bureau of Standards. For reproduction of the boiling point of hydrogen use was made of a system of 2 condensation thermometers (see preceding abstract)

Card 1/2

STRELKOV, I.G.

Dilatometry of solids and some of its applications. Zhur.neorg.khim. 1 no.6:1350-1357 Je '56. (MLRA 9:10)

1.Institut fizicheskikh problem Akademii nauk SSSR.
(Dilatometry) (Solids)

STRELKOV, I.G.

Perennial lupine in White Russia. Zemledelie 4 no.11:92-96 N '56. (MLRA 10:2)

1. Institut sotsialisticheskogo sel'skogo khozyaystva Akademii nauk BSSR.
(White Russia--Lupine)

STRELKOV, I. G.

J-4

USSR/Soil Cultivation. Organic Fertilizers.

Abs Jour: Ref Zhur-Biologiya, No 1, 1958, 1279.

Author : Strelkov, I.G.
Inst : Institute of Socialist Agriculture of the Academy of Science BelSSR
Title : How to Use Perennial Lupine for Fertilizer.

Orig Pub: Kolkhoznik Belorussii, ~~1256~~ 1956, No 6, 19-20.

Abstract: On the experimental base "Borovlyan" of the Institute of Socialist Agriculture of the Academy of Sciences BelSSR perennial lupine was planted with oats on the last plot of an eight-field rotation system. The lupine yield increased significantly upon application of PK Rye, sown with perennial lupine, gave the same yield as when sown on fallow land fertilized with 20 T/hectare of manure. Lupine also increased the yields of perennial grasses. To prevent lupine from interfering with the succeeding crops it is sown during

-14-

Card : 1/2

USSR/Soil Cultivation. Organic Fertilizers. J-4

Abs Jour: Ref Zhur-Biologiya, No 1, 1958, 1279.

the flowering phase, and not less than two plowings of the land are done, using gang plows with the moldboards removed, before sowing the winter crops.

-15-

Card : 2/2

USSR / Soil Science. Organic Fertilizers. J

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48674

crop rotations of the kolkhozes and sovkhozes of the non-chernozem belt, the leading place among the legume crops for soil improvement should be occupied not by the narrow-leaf bitter lupines, but by fodder lupine. -- N. N. Sokolov

Card 2/2

SHEMPEL', V.I., glav. red.; PROKOPOV, P.Ye., red.; STRELKOV, I.G., red.; RUBANOV, V.S., red.; LAZARCHIK, K., red.; LESHCHILOVSKIY, P., red.

[Methods for improving the fertility of turf-Podzolic soils. Priemy povysheniia plodorodiia dernovo-podzolistykh pochv; sbornik nauchnykh trudov. Minsk, Urozhai, 1965. 217 p. (MIRA 18:7)

1. Belorusskiy nauchno-issledovatel'skiy institut zemledeliya.

STRELKOV, Ignatiy Georgiyevich; NAGORSKAYA, Mariya Dmitriyevna; OSTROVOY, Illarion Petrovich; LARIN, V.D., red.; TIMOSHCHUK, R.S., tekhn. red.

[Perennial lupine]Mnogoletnii liupin. Minsk, Gos.izd-vo sel'-khoz.lit-ry, BSSR, 1962. 47 p. (MIRA 15:11)
(White Russia--Lupine)

STRELKOV, I.N.

Hydraulic press for repressing rotor iron. Biul.tekh.-ekon. inform.Gos.nauch.-issl.inst.nauch. i tekh.inform. 16 no.11: 36-37 '63. (MIRA 16:11)

STRELKOV, I.N.

The N-738 horizontal press for bending corner iron. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 18 no.7:49-50 Jl '65. (MIRA 18:9)

KHOKHLOV, A.L., dotsent; GOLOVATYY, G.M., kand.veter.nauk; STRELKOV, K.N., veterinarnyy vrach

Treating esophageal obstruction in cattle. Veterinariia 42 no.8:66-69 Ag '65. (MIRA 18:11)

1. Leningradskiy veterinarnyy institut (for Khokhlov). 2. Kamenets - Podol'skiy sel'skokhozyaystvennyy institut (for Golovatyy). 3. Kolkhoz "Druzhba", Borovskiy rayon, Kaluzhskaya oblast' (for Strelkov).

STRELKOV, L. K.

6
4E2c

18 18

Hydrodynamics of Liquid Steel in the Ingot Mould. L. A. Zborovskii, L. K. Strelkov, M. K. Skul'skii, and E. I. Rabinovich. (*Stal'*, 1957, (1), 24–30) [In Russian] The object of the investigation described was to find the duration and study the character of natural convection in the mould during the solidification of 7-ton ingots. ^{59}Fe and ^{32}P were used as tracers. It was found that with killed steel the colder layers at the solidification front descend and displace hotter metal along the ingot axial region; with rimming steel peripheral metal ascends and descends along the axial region. Metal circulation near the top of the ingot continues for most of the freezing time. It is suggested that ingot-solidification calculations must take liquid-metal convection into account as well as conductivity.—S. K.

137-1957-12-23350

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 72 (USSR)

AUTHOR: Strelkov, L. K.

TITLE: A Study of the Character and Rate of Erosion of Refractory Blast-Furnace Lining at the Magnitogorsk Combine (Izucheniye kharaktera i skorosti razgara ogneupornoy kladki domennykh pechey Magnitogorskogo kombinata)

PERIODICAL: V sb.: Primeneniye radioaktivn. izotopov v chernoy metallurgii. Chelyabinsk, Knigoizdat, 1957, pp 49-58

ABSTRACT: A large quantity of radioactive isotopes (Co^{60}, P^{32}, Ca^{45}, and W^{145}, with radioactivity ranging from 0.62 to 3000 mc, encased in steel or porcelain envelopes, were placed into the lining of the well or of the lower shaft section of blast-furnaces Nrs 3, 4, 6, 7, and 8, while the latter were undergoing repair or construction work. The disintegration of the lining was detected by the appearance of radioactivity in the pig iron, together with a general decrease in radioactivity in the vicinity of the sources. It was established that the most intense disinte-

Card 1/2

137-1957-12-23350

A Study of the Nature and Rate of Heat. of Fire-Proof Blast-Furn. Lin. (cont.)

gration of the furnace lining occurs during the period immediately following the firing up of the furnace, particularly in the lower section of the shaft; owing to their low binding strength, the carbon blocks of the furnace will begin to float as early as two months after the furnace was set in operation. The mixing of the pig iron in the hearth and in the "pit", which had formed in the bottom of the well, was found to be small.

L. Kh.

1. Furnaces 2. Refractory materials-Erosion

Card 2/2

STRELKOV L.K.

AUTHOR: ZBOROVSKIY,A.A., STRELKOV,L.K., SKUL'SKIY,M.K., engineers, and RABINOVICH,E.I., cand.of tech.sc. PA - 2374

TITLE: Hydrodynamics of Molten Steel in Molds. (Gidrodinamika zhidkoy stali v izlozhnitse, Russian).

PERIODICAL: Stal', 1957, Vol 17, Nr 1, pp 24 - 30 (U.S,S.R)

Received: 5 / 1957 Reviewed: 5 / 1957

ABSTRACT: The present work was intended to investigate the duration and the character of the natural convection of liquid steel in the ingot mold on the occasion of the casting of blocks of 7 t weight of quiet and boiling steel. For this purpose thin-walled aluminum ampules were introduced into the molten metal in a depth of 20 cm from the level, which had radioactive isotopes of iron Fe^{59} and of phosphorus P^{32}; this was done at certain intervals of time after the mold was filled with steel. The computation of the velocity of the molecular diffusion of Fe^{59} in liquid steel is carried out, and for the determination of the diffusion coefficient the Stockes-Einstein equation is used. The process of solidification in the molds is accompanied by intense mixing. When the quiet steel solidifies, the coldest layers of the liquid metal sink along the crystallization front and displace the metal with the higher temperature in the axial part of the block. In boiling steel the metal rises during the boiling period on the periphery of the melt and sinks in the axial zone.

Card 1/2

PA - 2374

Hydrodynamics of Molten Steel in Molds.

Mixing through ceases in the lower layers, but in the upper part circulation continues during the greatest part of the period of solidification. When the indicator is introduced from above, the marked atoms fix the contours of the crystallization front with sufficient accuracy only on the lateral edges of the block. When computing crystallization velocity it is necessary not only to take account of heat transfer because of the thermal conductivity but also of that due to the convection currents of the melt. The previously used computation method as employed for frozen ground does not express the true character of the phenomenon. (1 table and 13 illustrations).

ASSOCIATION: Metallurgical Combine of Magnitogorsk
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress.

Card 2/2

SOV/137-58-8-16554

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 46 (USSR)

AUTHORS: Zborovskiy, A.A., Strelkov, L.K., Skul'skiy, M.K., Rabinovich, Kh.I.

TITLE: Employment of Autoradiography Methods in Determination of the Rate of Solidification of Ingots of Rimmed and Killed Steel (Opredeleniye skorosti zatverdevaniya slitkov spokoynoy i kipyashchey stali metodom avtoradiografii)

PERIODICAL: V sb.: Staleplavil'n. proiz-vo, Moscow, Metallurgizdat, 1958, pp 184-196

ABSTRACT: Radioactive Fe^{59} was introduced into killed steel at different intervals of time following the casting of this steel into a 2400-mm high mold equipped with a lined cover and having the following dimensions: 760x680 mm (bottom) and 720x510 mm (top). Experimental ingots were rolled into square billets (120 mm per side), specimens were taken along the length of the rolled billet, and 5-mm thick transverse templets were cut from it for purposes of radiographic studies. Assuming that the ratio of the surface of activated zone to the surface of a transverse section of the ingot remains unchanged during

Card 1/2

Employment of Autoradiography Methods (cont.)

rolling, radiograms were employed in the computation of the thickness of a layer which had solidified by the time the isotope was introduced. The data obtained coincide almost completely with the curve $D=2.6\sqrt{t}$, where D is thickness of the solidified layer of metal (expressed in mm); t is the time (in minutes) which has elapsed after the mold had been filled; 2.6 (cm/min) is the solidification constant of the steel in a cast-iron mold (obtained by the method of overturning of analogous ingots). When the molds with the ingots were not disturbed until the metal had solidified completely and the isotope was introduced into the ingot in three successive portions, four boundaries of isotope distribution, i.e., four zones of activity (the maximum activity being in the central zone) were observed in all but one experiment. It is assumed that the appearance of an "extra" zone is the result of intensified agitation of metal during the displacement (shaking) of the molds, a fact which may, therefore, have an adverse effect on distribution of liquates in an ingot. The crystallization of rimmed steel was investigated in an analogous manner by introducing radioactive isotopes of Fe or S into ingots weighing 6.9 tons. In computing the thickness of the solidified layer, the volumetric reduction of metal which occurs during rolling, apparently, was not taken into consideration with sufficient accuracy because the results obtained diverge somewhat from the values obtained by means of the "Chipmen" formula. $D=3.05+22.56\sqrt{t}$. 1. Steel--Properties 2. Steel--Autoradiography

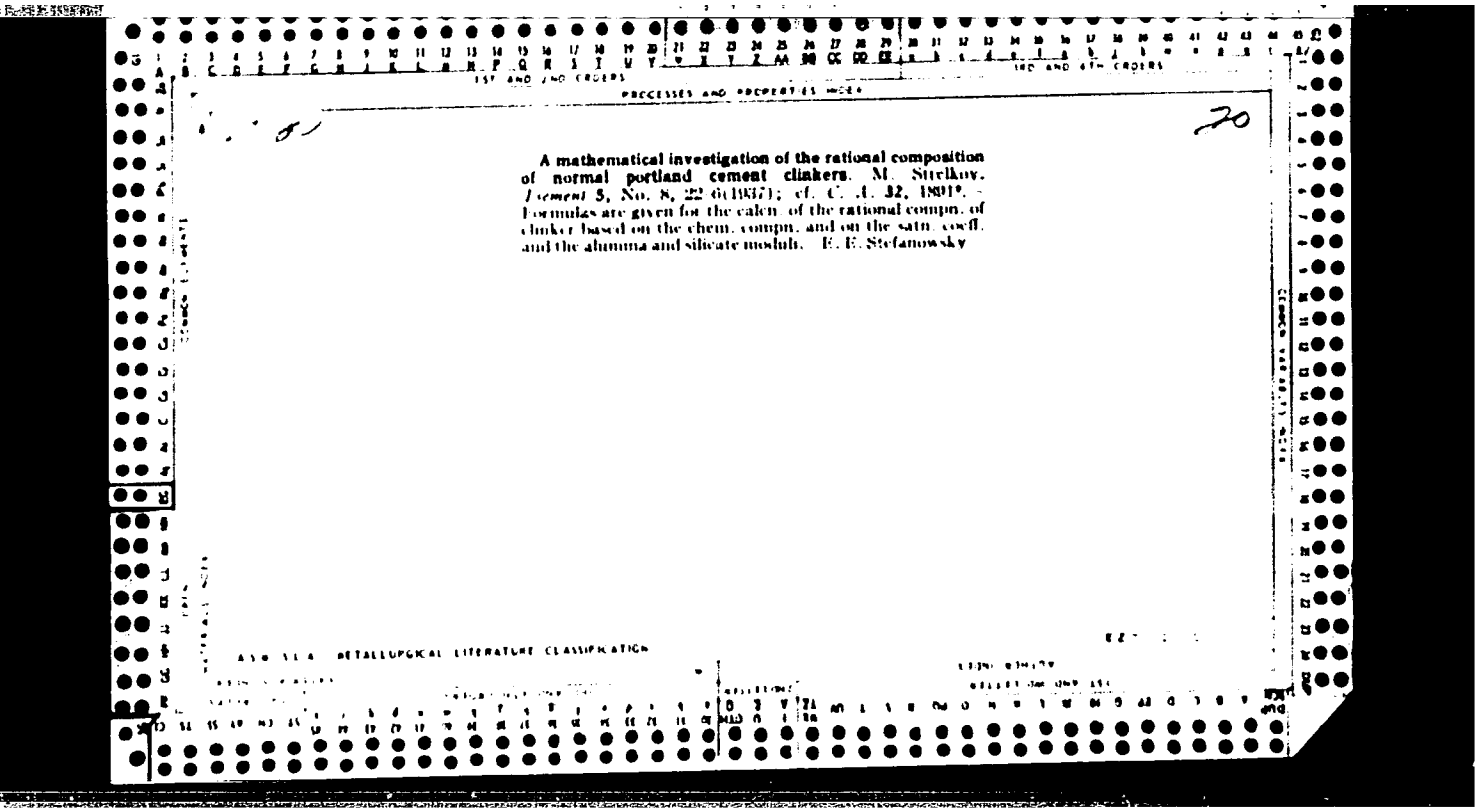
Card 2/2 3. Iron isotopes (Radioactive)--Applications L.K.

STRELKOV, N. I.

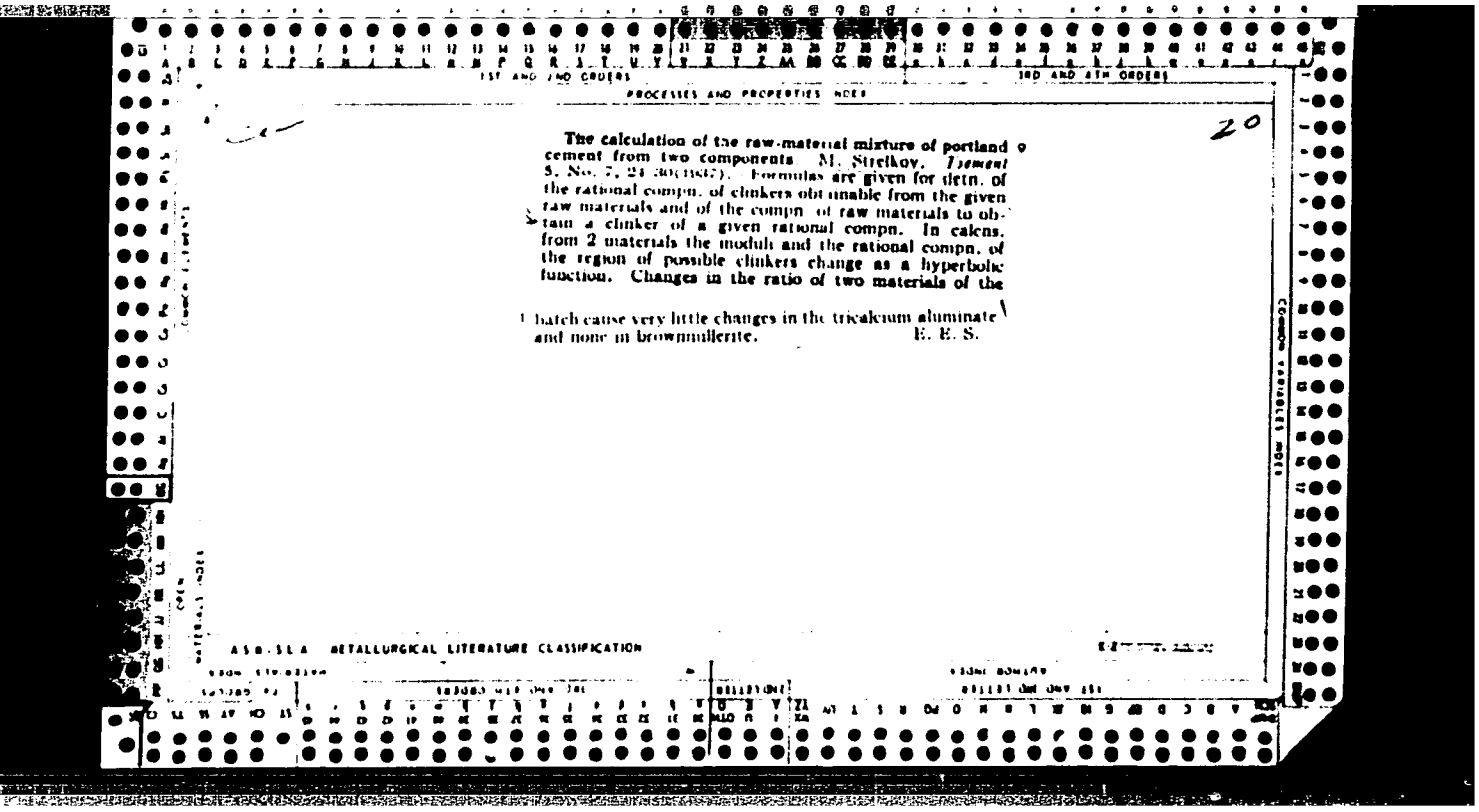
Saturating portland cement clinker with lime. M. I. Strelkov. *J. Applied Chem.* (U. S. S. R.) 13, 1818-28 (in French, 1828)(1940).—The equation of the "unified coeff. of satn. is based on the assumption that a complete equil. is reached in the burning of the clinker. According to modern conceptions, clinker constitutes a system in which the equil. of fusion is disrupted on cooling. The disruption of the equil. in cooling necessitates the introduction of the term "aluminate coeff." and the generalization of the V. A. Kind equation ("*Chemical Characteristics of Portland Cement*," 1932, p. 146). The coeff. of satn. used to calc. the rational compn. of the product is different from that used to calc. the proportions of raw materials. For raw-material calcns. can be used the "unified" coeff., the limiting values for which are detd. from $K_{sat.} = 1 - 1(p - 0.64)/5.95\ n\ (p + 1)$, where n and p are the silicate and the alumina moduli. The mineralogical compn. of the clinker depends upon the cooling rate. The calcn. of the rational compn. refers to the less probable case of attaining a complete equil. and therefore it may give only approx. values for the content of compds. in the clinker. A. A. Bochtlingk

1ST AND 2ND ORDERS | 3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX



A mathematical investigation of the rational composition of normal portland cement clinkers. M. Sterkov. *Cement* 5, No. 8, 22-6(1937); cf. C. A. 32, 1891⁹. — Formulas are given for the calcn. of the rational compn. of clinker based on the chem. compn. and on the satn. coeff. and the alumina and silicate modulus. E. E. Stefanowsky



1ST AND 2ND ORDERS

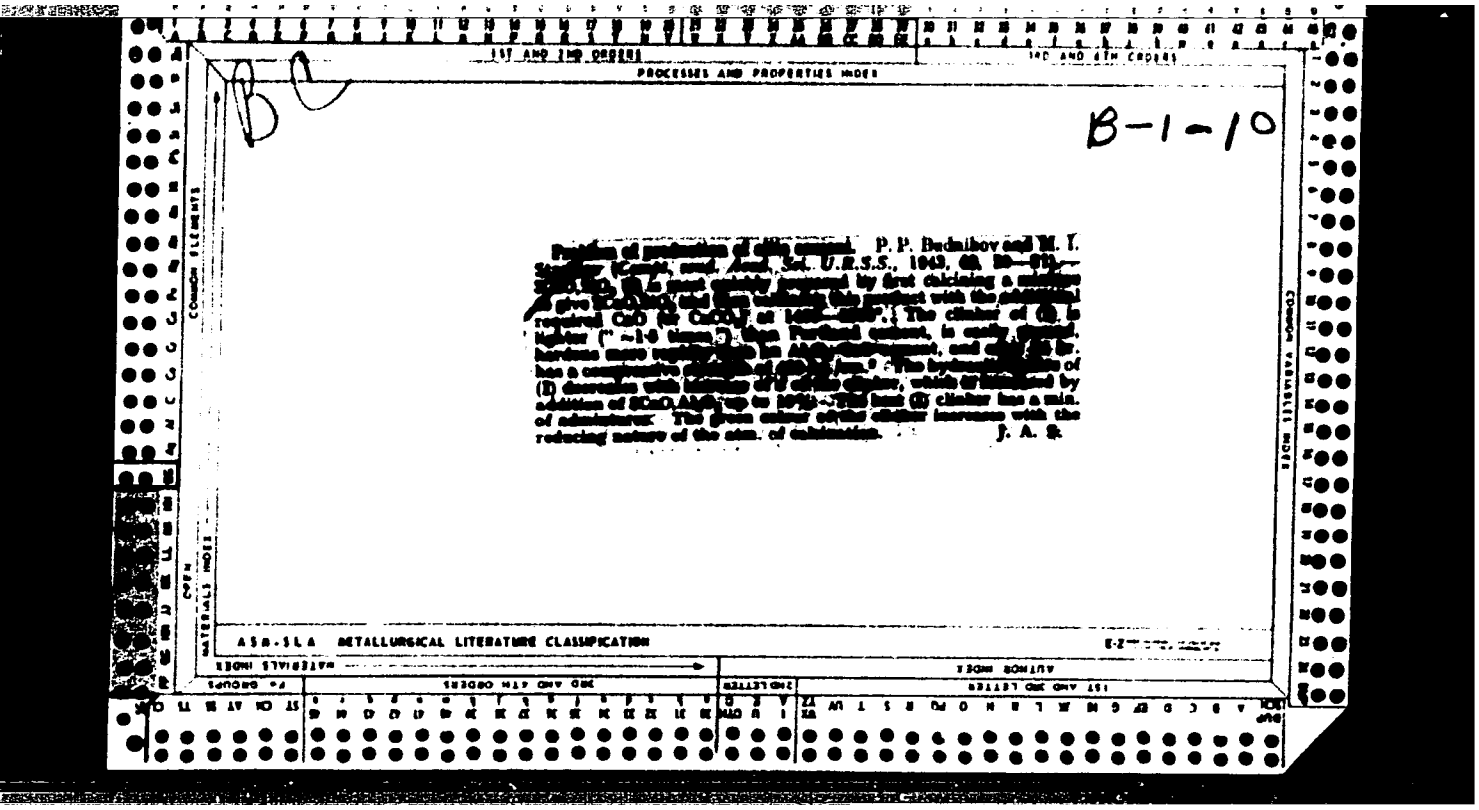
3RD AND 4TH ORDERS

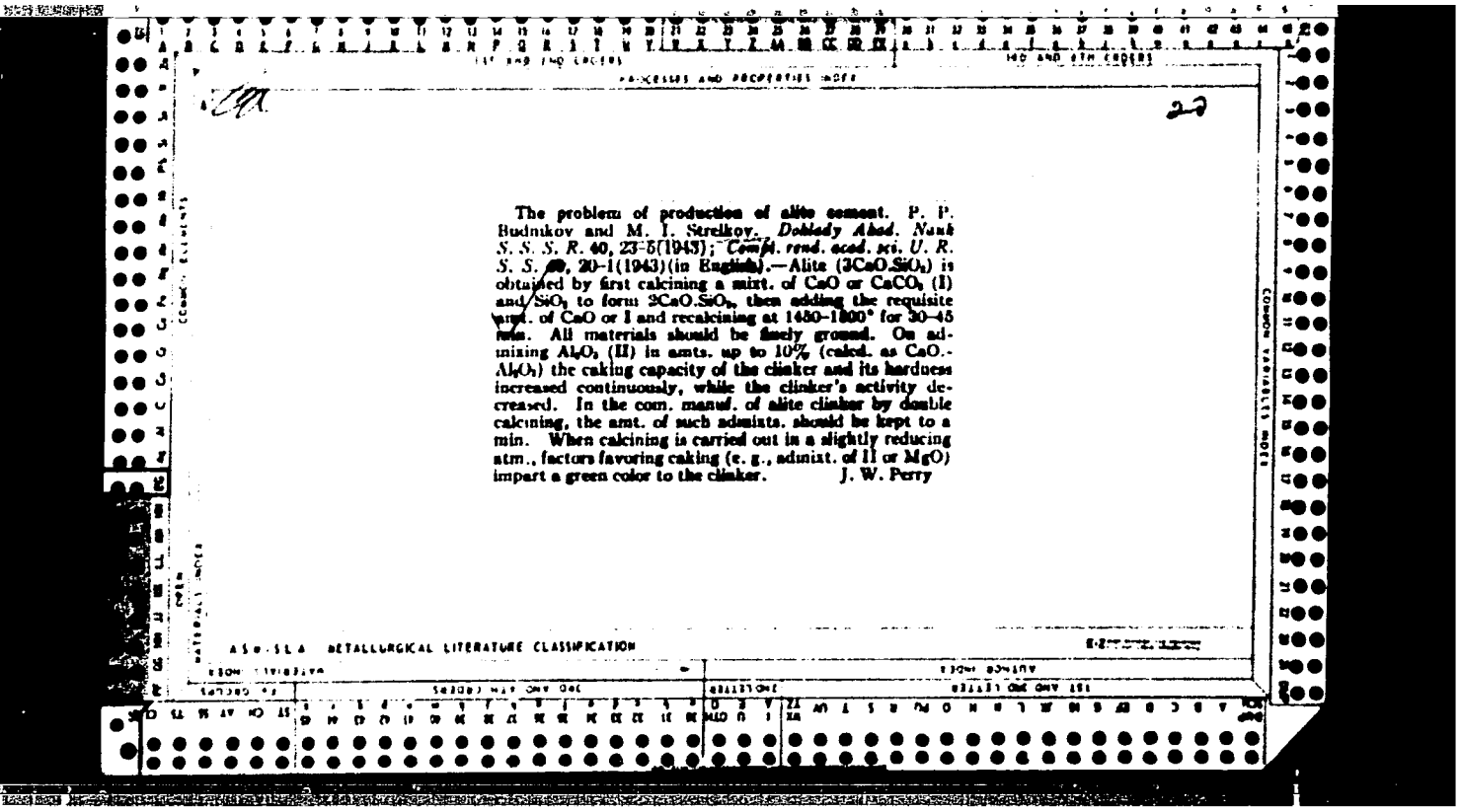
PROCESSES AND PROPERTIES INDEX

20

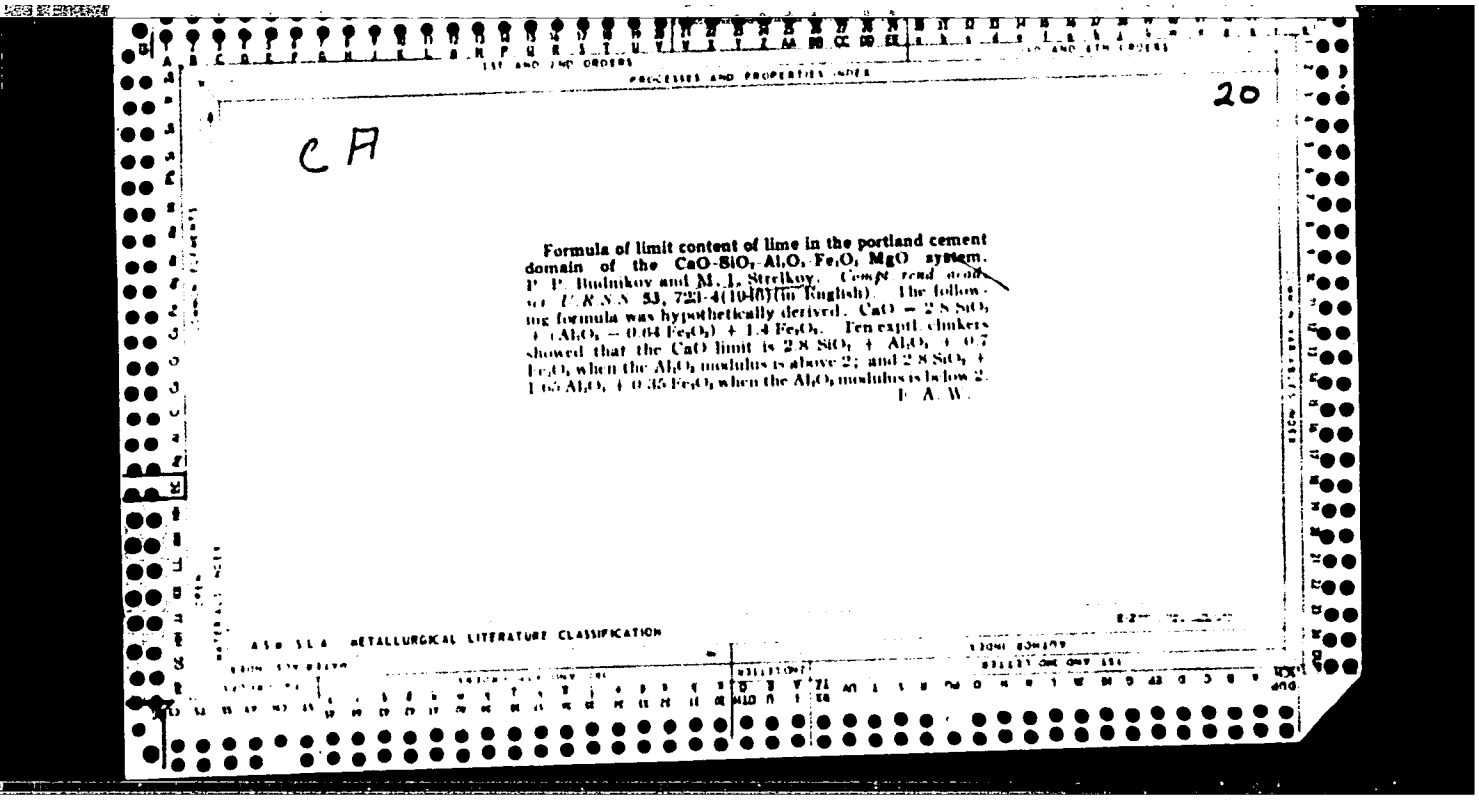
The calculation of the raw-material mixture of portland cement from two components. M. Strelkov. *Tsement* 5, No. 7, 28–30(1937). Formulas are given for detn. of the rational compn. of clinkers obtainable from the given raw materials and of the compn. of raw materials to obtain a clinker of a given rational compn. In calcns. from 2 materials the moduli and the rational compn. of the region of possible clinkers change as a hyperbolic function. Changes in the ratio of two materials of the batch cause very little changes in the tricalcium aluminate and none in brownmillerite. E. E. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





The problem of production of alite cement. P. P. Budnikov and M. I. Strelkov. *Doklady Akad. Nauk S. S. S. R.* 40, 23–5(1943); *Compt. rend. acad. sci. U. R. S. S.* 40, 20–1(1943)(in English).—Alite ($3CaO.SiO_2$) is obtained by first calcining a mixt. of CaO or $CaCO_3$ (I) and SiO_2 to form $2CaO.SiO_2$, then adding the requisite amt. of CaO or I and recalcining at 1450–1600° for 30–45 min. All materials should be finely ground. On admixing Al_2O_3 (II) in amts. up to 10% (calcd. as $CaO.Al_2O_3$) the caking capacity of the clinker and its hardness increased continuously, while the clinker's activity decreased. In the com. manuf. of alite clinker by double calcining, the amt. of such admixts. should be kept to a min. When calcining is carried out in a slightly reducing atm., factors favoring caking (e. g., admixt. of II or MgO) impart a green color to the clinker. J. W. Perry

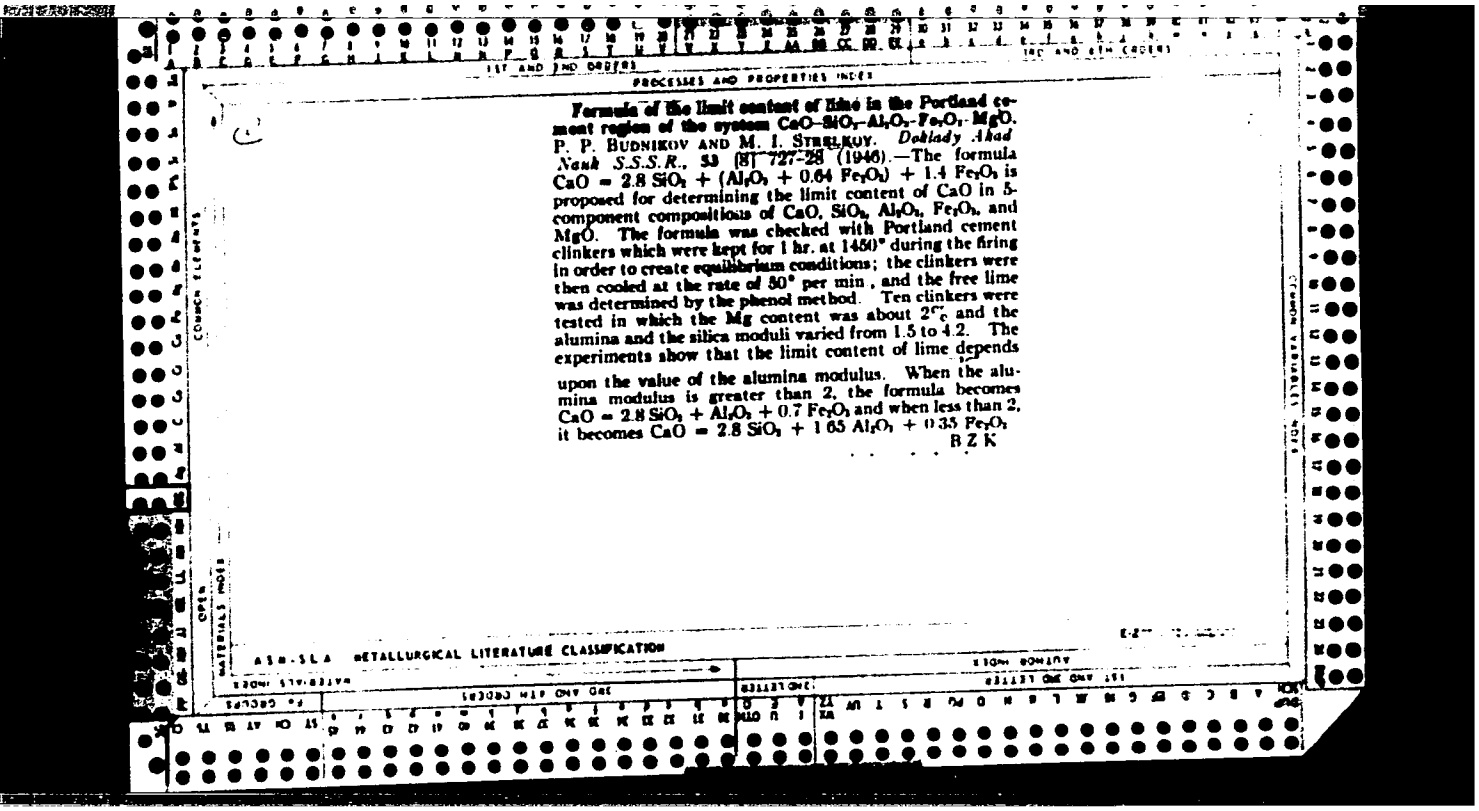


20

CA

Formula of limit content of lime in the portland cement domain of the CaO-SiO_2-Al_2O_3-Fe_2O_3-MgO system. P. P. Budnikov and M. I. Strelkov. *Compt. rend. acad. sci. U.R.S.S.* **53**, 723-4(1946)(in English). The following formula was hypothetically derived. $CaO = 2.8\,SiO_2 + (Al_2O_3 - 0.64\,Fe_2O_3) + 1.4\,Fe_2O_3$. Ten exptl. clinkers showed that the CaO limit is $2.8\,SiO_2 + Al_2O_3 + 0.7\,Fe_2O_3$ when the Al_2O_3 modulus is above 2; and $2.8\,SiO_2 + 1.65\,Al_2O_3 + 0.35\,Fe_2O_3$ when the Al_2O_3 modulus is below 2. F. A. W.

ASTIA METALLURGICAL LITERATURE CLASSIFICATION

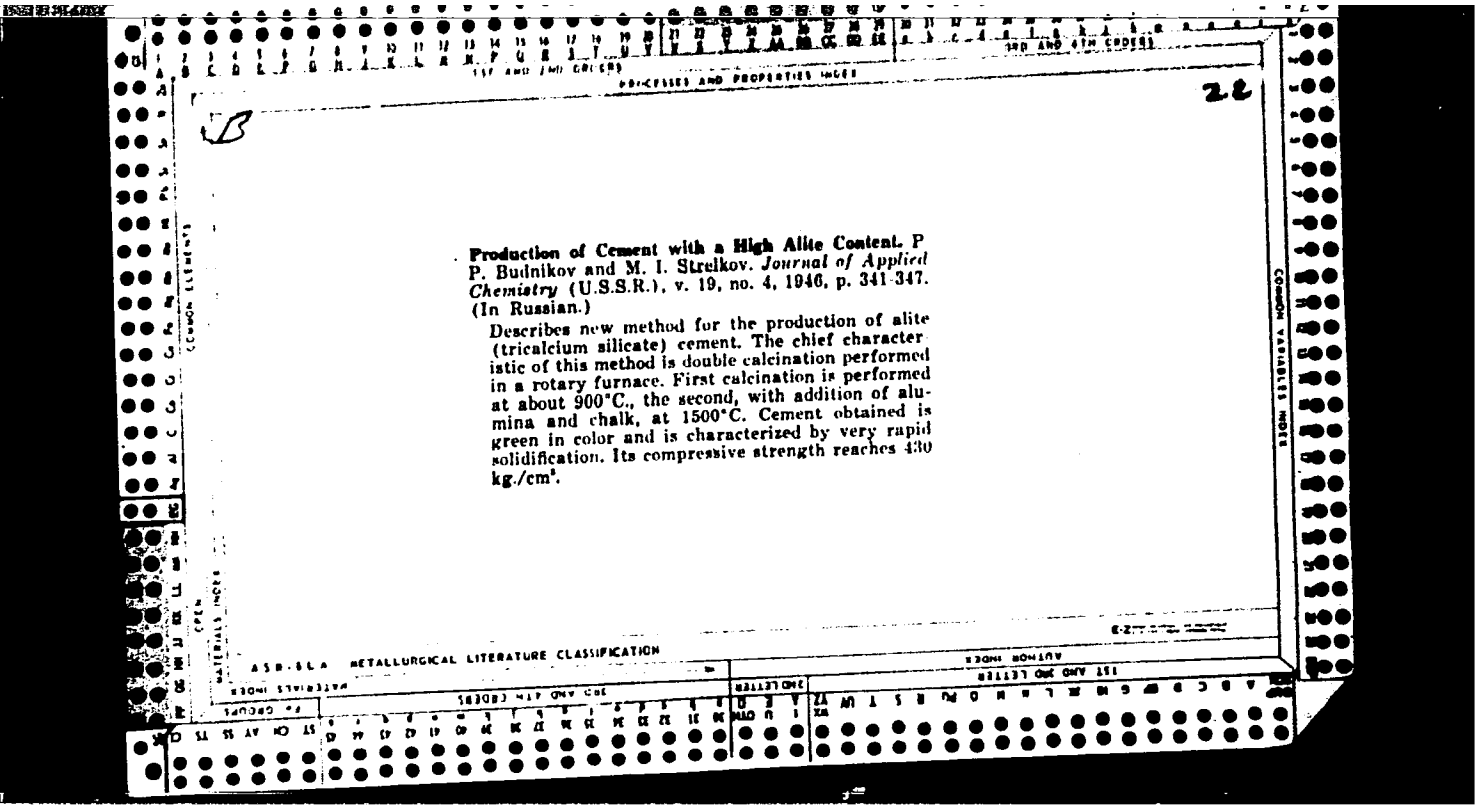


PROCESSES AND PROPERTIES INDEX

Formula of the limit content of lime in the Portland cement region of the system $CaO-SiO_2-Al_2O_3-Fe_2O_3-MgO$. P. P. BUDNIKOV AND M. I. STRELKOV. *Doklady Akad Nauk S.S.R.*, 53 [8] 727-28 (1946).—The formula $CaO = 2.8\ SiO_2 + (Al_2O_3 + 0.64\ Fe_2O_3) + 1.4\ Fe_2O_3$ is proposed for determining the limit content of CaO in 5-component compositions of CaO, SiO_2, Al_2O_3, Fe_2O_3, and MgO. The formula was checked with Portland cement clinkers which were kept for 1 hr. at 1450° during the firing in order to create equilibrium conditions; the clinkers were then cooled at the rate of 50° per min., and the free lime was determined by the phenol method. Ten clinkers were tested in which the Mg content was about 2%, and the alumina and the silica moduli varied from 1.5 to 4.2. The experiments show that the limit content of lime depends upon the value of the alumina modulus. When the alumina modulus is greater than 2, the formula becomes $CaO = 2.8\ SiO_2 + Al_2O_3 + 0.7\ Fe_2O_3$ and when less than 2, it becomes $CaO = 2.8\ SiO_2 + 1.65\ Al_2O_3 + 0.35\ Fe_2O_3$

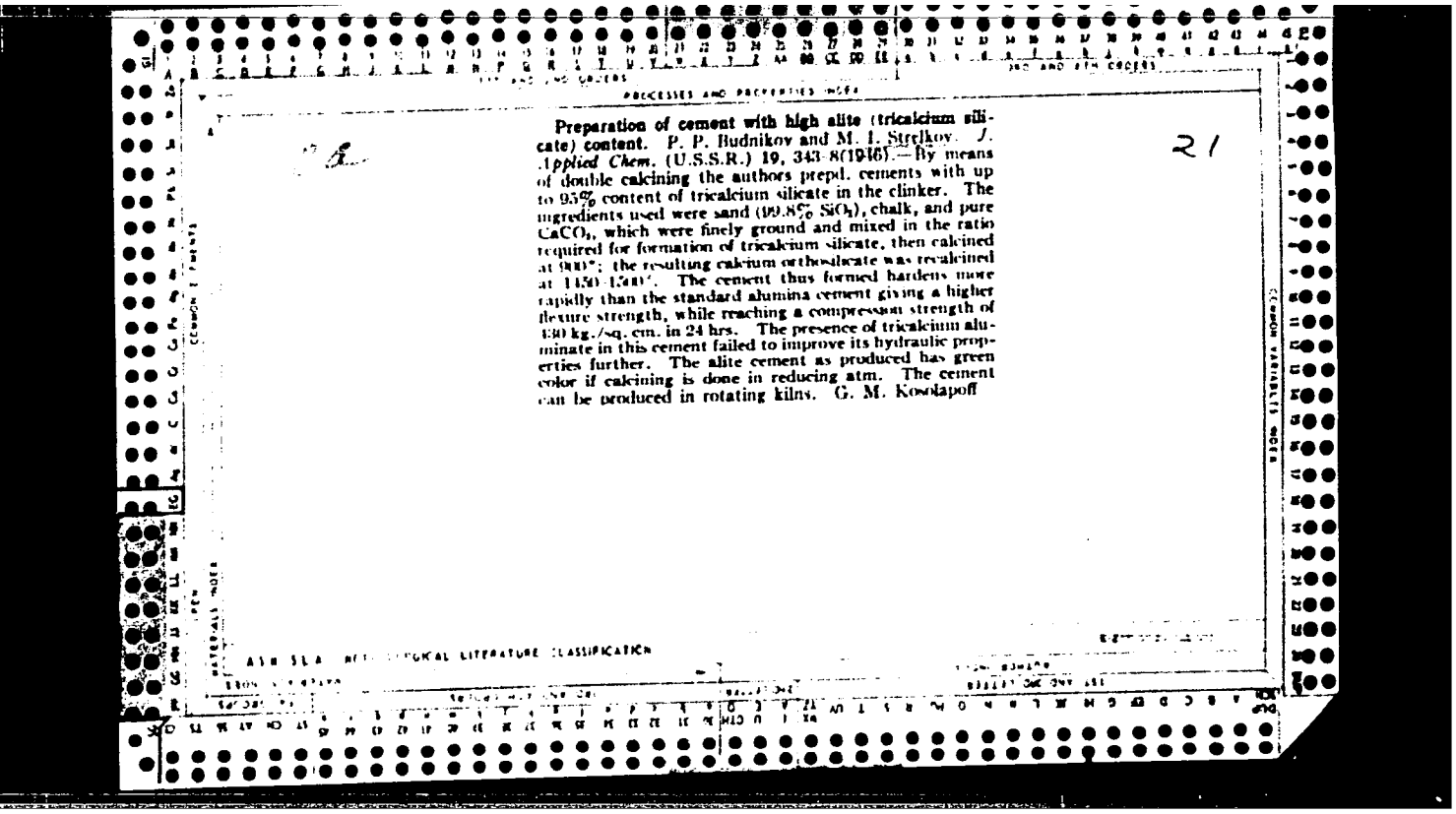
B Z K

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Production of Cement with a High Alite Content. P. P. Budnikov and M. I. Strelkov. *Journal of Applied Chemistry* (U.S.S.R.), v. 19, no. 4, 1946, p. 341-347. (In Russian.)

Describes new method for the production of alite (tricalcium silicate) cement. The chief characteristic of this method is double calcination performed in a rotary furnace. First calcination is performed at about 900°C., the second, with addition of alumina and chalk, at 1500°C. Cement obtained is green in color and is characterized by very rapid solidification. Its compressive strength reaches 430 kg./cm².



Preparation of cement with high alite (tricalcium silicate) content. P. P. Budnikov and M. I. Strelkov. *J. Applied Chem.* (U.S.S.R.) 19, 343-8(1946).—By means of double calcining the authors prepd. cements with up to 95% content of tricalcium silicate in the clinker. The ingredients used were sand (99.8% SiO_2), chalk, and pure $CaCO_3$, which were finely ground and mixed in the ratio required for formation of tricalcium silicate, then calcined at 900°; the resulting calcium orthosilicate was recalcined at 1450-1500°. The cement thus formed hardens more rapidly than the standard alumina cement giving a higher flexure strength, while reaching a compression strength of 180 kg./sq. cm. in 24 hrs. The presence of tricalcium aluminate in this cement failed to improve its hydraulic properties further. The alite cement as produced has green color if calcining is done in reducing atm. The cement can be produced in rotating kilns. G. M. Kosolapoff

9182 **Application of a Rectangular Coordinate System to Calculation of Portland-Cement Mixtures.** (In Russian.) M. I. Strelkov. *Zhurnal Prikladnoi Khimii*, v. 24, Dec. 1951, p. 1246-1256.

Describes mathematical development of above system. Diagrams and examples illustrate its use.

STRELKOV, M.I.

Use of rectangular systems of coördinates for the calculation of moist portland cement mixtures. Zhur. Priklad. Khim. 24, 1286-56 '51; J.Appl. Chem (U.S.S.R.) 24, 1413-22 '51 [Engl. translation]. (MLRA 5:11)
(CA 47 no.18:9586 '53)

BUDNIKOV, P., STRELKOV, M. I.

Binders (Chemistry)

"Chemistry of binding materials." Zhuravlev, V. F. Reviewed by P. Budnikov, M. I. Strelkov. Zhur. prikl. khim. 25, no. 6, 1952.

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

STRELKOV, M. I.

Chemical Abstracts
May 25, 1954
Cement, Concrete and
other Building Materials

Relationship between mineralogical composition of clinker and characteristics of two-component cement mixtures. M. I. Strelkov. *Dopovidi Akad. Nauk Ukrain. R.S.R.* 1953, 99–102(Russian summary, 102).—Examn. was made of the math. relation between tricalcium silicate and other minerals of portland cement clinker on one hand and content of unfired lime component or its titre on the other hand. Within narrow limits of cement mixts., this relation can be expressed by equations of the first order.
B. Z. Kamich

STRELKOV, M.I.

Physiological conditions of Anopheles maculipennis messeae during fall and epidemiological role of autumnal generation in Transvolga section of Saratov region. Med. parazit., Moskva no.1:35-40 Jan-Feb 1953.
(CLML 24:4)

1. Of Saratov Oblast Anti-Malarial Station (Head -- G. M. Uman).

STRELKOV, M. I.

The Presence of Gehlenite in Granulated Blast-Furnace Slags. M. I. Strelkov. (*Doklady Akademii Nauk S.S.S.R.*, 1953, **90**, (3), 411 [113]. [In Russian]. To verify statements in the literature that granulated blast furnace slags contain gehlenite, the velocity and degree of chemical reaction between calcium sulphate and this slag were investigated. Some samples were also studied by the microscope and X-rays. It is concluded that : (1) Gehlenite is not formed in normally granulated blast-furnace slags ; (2) the trisulphate form of calcium sulphate aluminate is produced during the interaction of slags with gypsum in saturated solutions ; (3) During boiling of the slag in lime-gypsum solutions, the monosulphate form of calcium sulphate aluminate is produced and this crystallizes in plates which at room temperature quickly transform into needles.—V. G.

Strelkov M. I.

USSR/

Principles of preparation of multicomponent raw mixtures. M. I. Strelkov. *Tsement*, 20 [4] 10-13 (1951).—The composition of a two component charge for a cement kiln can be determined on the basis of titer; a three-component charge also requires the determination of the Fe_2O_3. An example of calculations for a three-component mixture is given. B.Z.K.

STRELKOV, M.I., kandidat tekhnicheskikh nauk.

Automatic cement plant. TSement 21 no.1:5-8 Ja '55. (MLRA 8:4)
(Cement industries)

STRELKOV, M.I., Doc Tech Sci -- (diss) "Theoretical bases for obtaining clinkers of standardized mineralogical composition and the manufacture of quick-hardening highly durable cements." Len,1958. 16 pp. (Inst of Chemistry of Silicates, Acad Sci USSR). 120 copies. List of author's works at end of text. (24 titles).

(KL, 12-58, 98)

STRELKOV, M. [Strilkov, M.], kand.tekhn.nauk; KRYZHANOVSKAYA, I. [KRYZHANIVS'KA, I.], kand.tekhn.nauk; SYRKIN, Ya., kand.tekhn. nauk; BLOKH, K., inzh.; DOLZHKOVA, G. [Dolzhkova, H.], inzh.

Colored slag cements. Bud.mat.i konstr. 2 no.1:31-32 F '60. (MIRA 13:6)

(Slag cement)

STRELKOV, M.I.; KRYZHANOVSKAYA, I.A.; SYRKIN, Ya.M.; KIRYAYEVA, E.Ye.; ZDOROV, A.I.

Continuous preparing of raw mixes is the basis for the organization of an automatically controlled concrete plant. TSement 26 no.5:14-18 S-O '60. (MIRA 13:10)

(Cement plants) (Automation)

SYRKIN, Yakov Moiseyevich; FRENKEL', Mikhail Borisovich. Prinimal uchastiye STRELKOV, M.I., kand.tekhn.nauk; KOMENDANT, K.P., red.; ZELENKOVA, Ye.Ye., tekhn. red.

[Chemistry and technology of slag portland cement] Khimiia i tekhnologiia shlakoportlandtsementa. Kiev, Gosstroiizdat USSR, 1962. 176 p. (MIRA 15:7)

(Portland cement)

STRELKOV, M.I., kand.tekhn.nauk; CHUMAK, Z.P., inzh.

Electron microscope studies of the form and internal structure of $Ca(OH)_2$ separated out from supersaturated solutions. Stroi. mat. 8 no.12:36-38 D '62. (MIRA 16:1)
(Lime) (Electron microscope)

BUDNIKOV, P.P.; STRELKOV, M.I.; PLAKSINA, F.Ye.

Content of sulfides in granulated blast furnace slags. Izv. AN SSSR. Met. i gor. delo no.5:80-83 S-O '63. (MIRA 16:11)

STRELKOV, M.I.; CHUMAK, Z.P.

On pseudoforms of hydration of binders observed by the electron microscope. Dop. AN URSR no.8:1076-1080 '63. (MIRA 16:10)

1. Yuzhnyy nauchno-issledovatel'skiy institut promyshlennogo stroitel'stva. Predstavleno akademikom AN UkrSSR P.P. Budnikovym.
(Binding materials) (Hydration)
(Electron microscopy)

STRELKOV, M.I., kand. tekhn. nauk; BAKLANOV, G.M., inzh.; MININ, V.I., inzh.; DAVYDOV, B.V., inzh.; KUCHMENT, O.V., inzh.

Recent technological developments in the manufacture of reinforced contrete mine struts. Ugol' Ukr. 7 no.7:22-23 Jl '63. (MIRA 16:8)

(Mine timbering--Equipment and supplies)
(Reinforced contrete construction)

STRELKOV, M.I., kand. tekhn. nauk; FEDORYAKIN, B.F., inzh.

Intensification of the hydration process in hardening asbestos-cement products. Stroi. mat. 11 no. 12:24-26 D '65. (MIRA 18:12)

[illegible], M.[illegible]; [illegible]K, [illegible]

Electron [illegible]roscope study of C_3A hydration. Do[illegible]. AN URSR no.1[illegible]:1[illegible]-1600 '65. (MIRA 1[illegible]:1)

1. Kharkivs'kyi prombud NDIproyekt.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653520001-8"

STRELKOV, Mikhail Nikiforovich; LUR'YE, A.B., redaktor; MOLODTSOVA, N.G., tekhnicheskiy redaktor

[Assembling equipment on a stock farm] Montazh oborudovaniia na zhivotnovodcheskikh fermakh. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 139 p. (MLRA 9:12)
(Stock and stockbreeding)
(Farm mechanization)

STRELKOV, Mikhail Nikiforovich; IOFINOVA, M.A., red.; BARANOVA, L.G., tekhn.red.

[Assembling and operating equipment on stock farms] Montazh i ekspluatatsiia oborudovaniia zhivotnovodcheskikh ferm. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 175 p.
(MIRA 13:11)

(Agricultural machinery)

ZUYEV, A.I.; GLAZUNOV, P.D.; DANILENKO, N.M.; KISELEV, I.N.;
STRELKOV, M.N.; IOFINOV , S.A., prof., red.;
CHAPSKIY, O.U., red.; BARANOVA, L.G., tekhn.red.;
FRIDMAN, Z.L., tekhn. red.

[Concise manual for the agricultural machinery operator]
Kratkii spravochnik mekhanizatora sel'skogo khoziaistva.
[By] A.I.Zuev i dr. Moskva, Sel'khozizdat, 1963. 583 p.
(MIRA 17:1)
(Agricultural machinery)

STRELKOV, N.

Joint session of the clinical medicine and medical biology sections of the Academy of Medical Sciences of the U.S.S.R., the Central Administration of Resorts and Sanatoriums, Ministry of Health of the U.S.S.R., and the Central Institute of Resort Therapy. Vop.kur. fizioter. i lech.fiz.kul't. 21 no.2:83-88 Ap-Je '56. (MLRA 9:9)
(PHYSICAL THERAPY)

STRELKOV, Nikolay (Kislovodsk)

On the advice of the legendary general. Zdorov'e 6 no.12:24 D '60. (MIRA 13:12)

(CALLISTHENICS)

605

AUTHORS: Strelkov, N.K. and Volkov, V.V.

TITLE: Experience in the Application of Oil Mist Lubrication in Ball Bearing Supported Grinding Spindles (Opyt Prineneniya Smazki Maslyanym Tumanom Sharikopodshipnikovykh Opor).

PERIODICAL: "Stanki i Instrument" (Machine Tools and Cutting Tools, No.3, 1957, pp.40-41 (U.S.S.R.).

ABSTRACT: Tests at the IGPZ Imeni L.M. Kaganovicha are reported wherein ball bearings supporting internal grinding spindles previously packed with sodium-lithium soap loaded grease were lubricated by an oil mist produced by a compressed air pulveriser. The service life of these spindles was increased from about 100 to over 400 hours. The mist is supplied at a pressure of 200 to 300 kg/cm^2, 2 to 3 g/hr per spindle are used and 1 to 2 m^3/hr of compressed air.

Card 1/1

STRELKOV, N. M.

"Study of Glanders in Overworked and Undernourished Horses" included in

Chap. 1 - Infectious and Invasive Diseases (p 40) of

"Bolezni Loshadey (Equine Diseases)", Sbornik Rabot (Collection of works), Ogiz-Sel'khozgiz, 1947

Compiled by A. Yu. Branzburg and A. Ya. Shapiro under Editorship of A. M. Laktionova, State Press for Agric. Literature. In majority of cases, previously published in the journal Veterinariya or in one of the manuals issued by the Veterinary Admin. of the Armed Forces USSR

-W-9922, 1 May 1950, p 1

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STEMKOV, M. M. and POLKANOV, L. N.

"The effect of cold on components which are applied for serological diagnostics of glanders," Author's report. In symposium: Nauch.-prakt. raboty voyen.-v t. sluzhby, Moscow, 1948, p. 93-94

SO: U-3850, 15 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

SHELKOV, M. M. and POLIKAKOV, V. M.

"The activity of counter-tetanus anatoxin subjected to refrigeration," (Author's report), In symposium: Nauch-prakt. raboty voyen-vet. sluzhby, Moscow, 1948, p 95-96

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

STRELKOV, N.V.

Continuously improve rural telephone service. Vest. sviazi 25 no.6:25-26 Je '65. (MIRA 18:11)

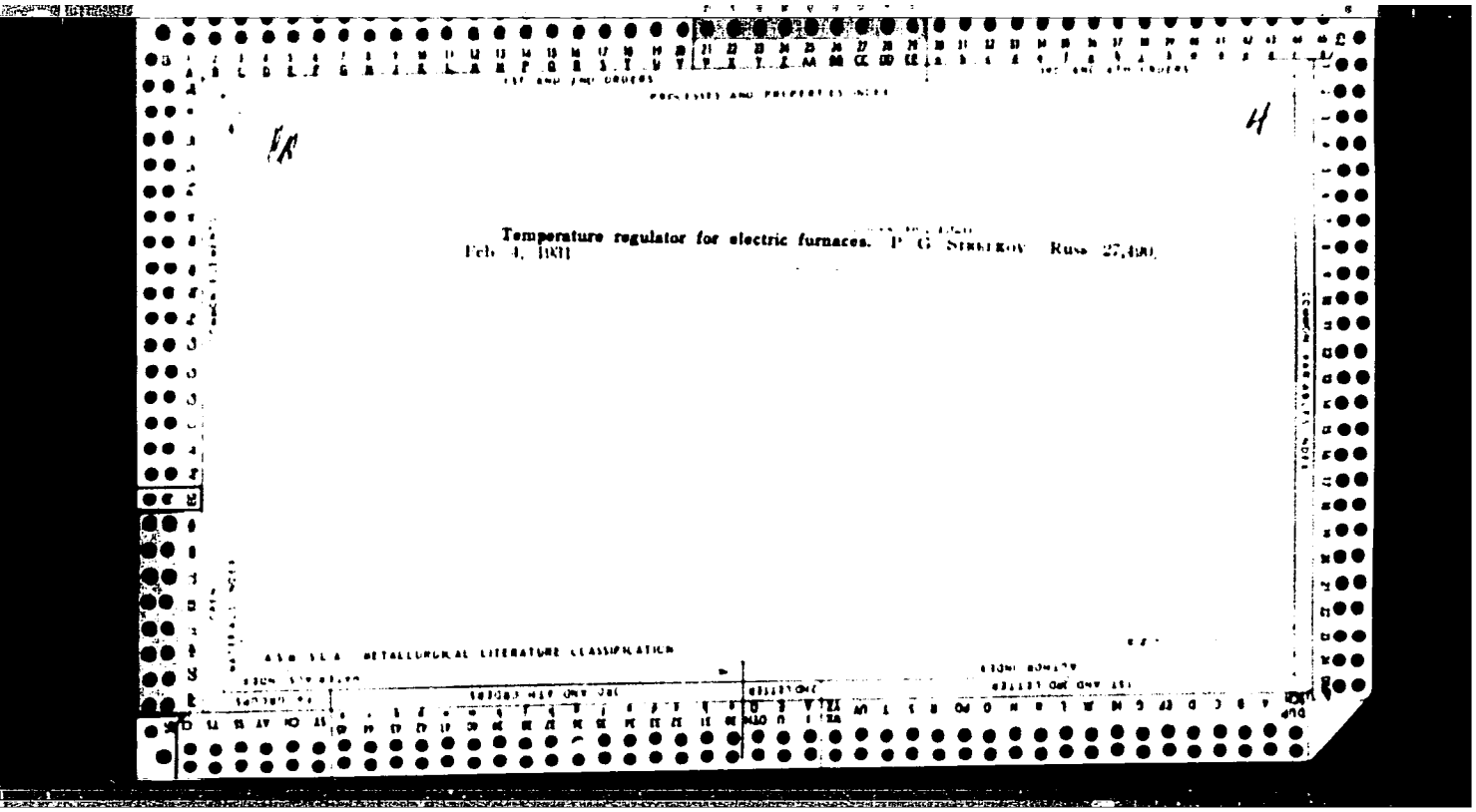
1. Nachal'nik Novosibirskogo oblastnogo upravleniya svyazi.

STRELKOV, P.

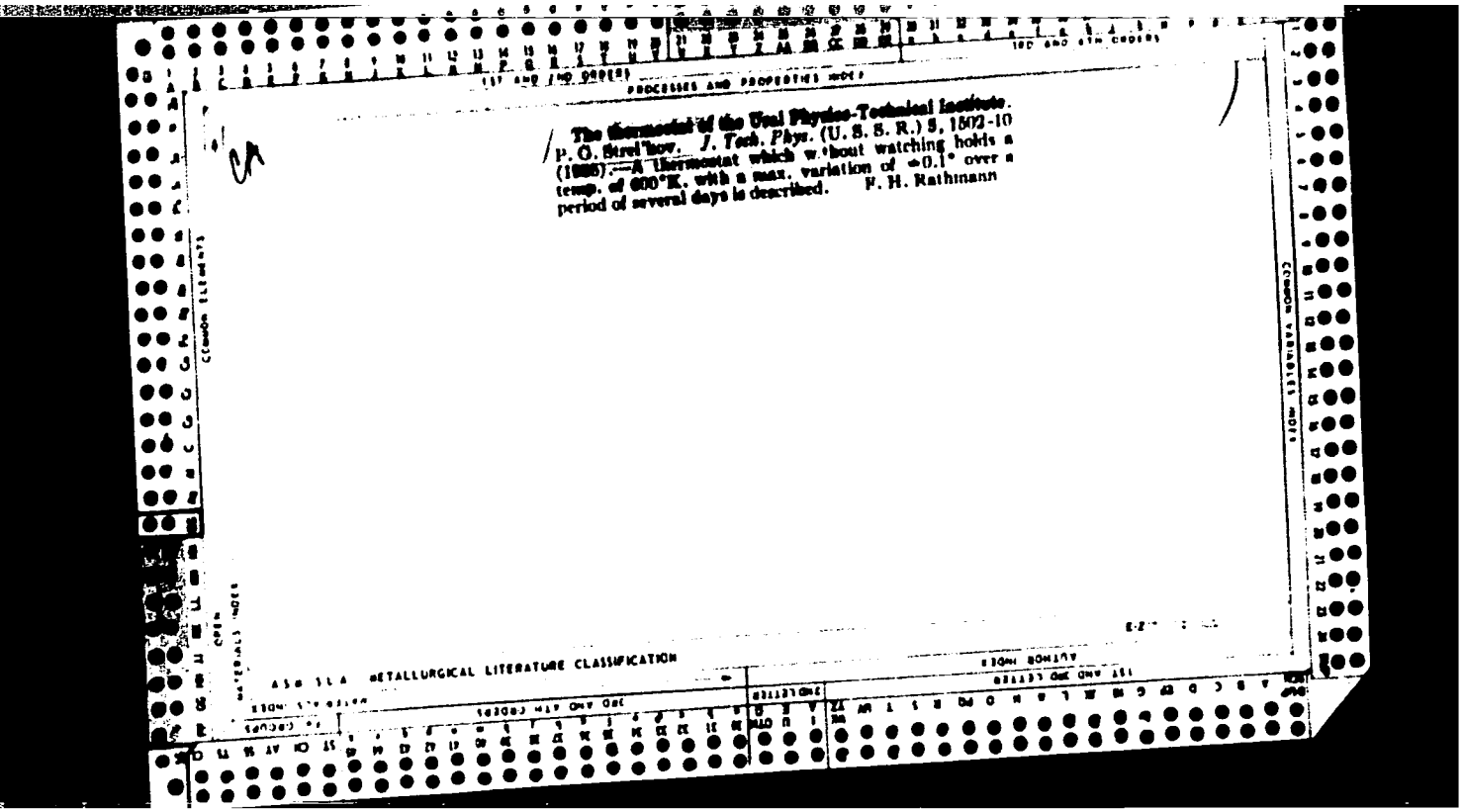
Electric equipment of a model. Voen.znan.31 no.7:28-29 Jl'55.
(Automobiles--Models) (MIRA 8:12)

STRELKOV, P.

Electric motor. Voen.znan. 32 no.1:23-24 Ja '56. (MLRA 9:5)
(Automobiles--Engines--Models)

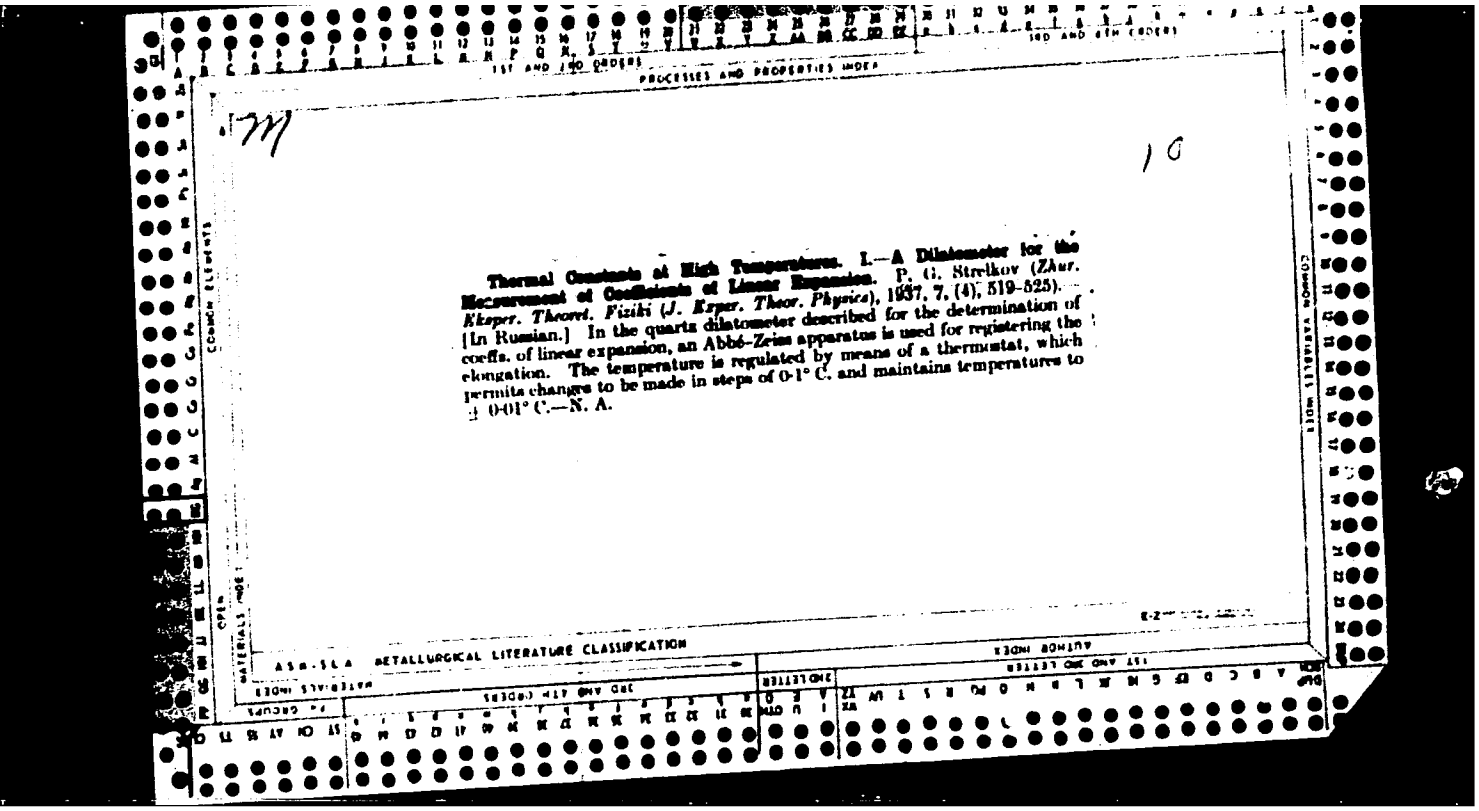


Temperature regulator for electric furnaces. P. G. Strelkov. Russ. 27,480, Feb. 4, 1931.



The thermostat of the Ural Physico-Technical Institute. P. O. Strel'kov. *J. Tech. Phys.* (U. S. S. R.) 8, 1892-10 (1938).—A thermostat which without watching holds a temp. of 600°K. with a max. variation of ±0.1° over a period of several days is described. F. H. Rathmann

METALLURGICAL LITERATURE CLASSIFICATION



Thermal Constants at High Temperatures. I.—A Dilatometer for the Measurement of Coefficients of Linear Expansion. P. G. Strelkov (*ZAur. Eksper. Theoret. Fiziki* (*J. Exper. Theor. Physics*), 1937, 7, (4), 519–525). [In Russian.] In the quartz dilatometer described for the determination of coeffs. of linear expansion, an Abbé-Zeiss apparatus is used for registering the elongation. The temperature is regulated by means of a thermostat, which permits changes to be made in steps of 0·1° C. and maintains temperatures to ± 0·01° C.—N. A.

STRELKOV, P. G.

VAL'TER, A. K.; ZACHKOVSKIY, V. G.; STRELKOV, P. G.

Thermic Constants in High Temperatures

II - Thermic Expansion of Rock Salt

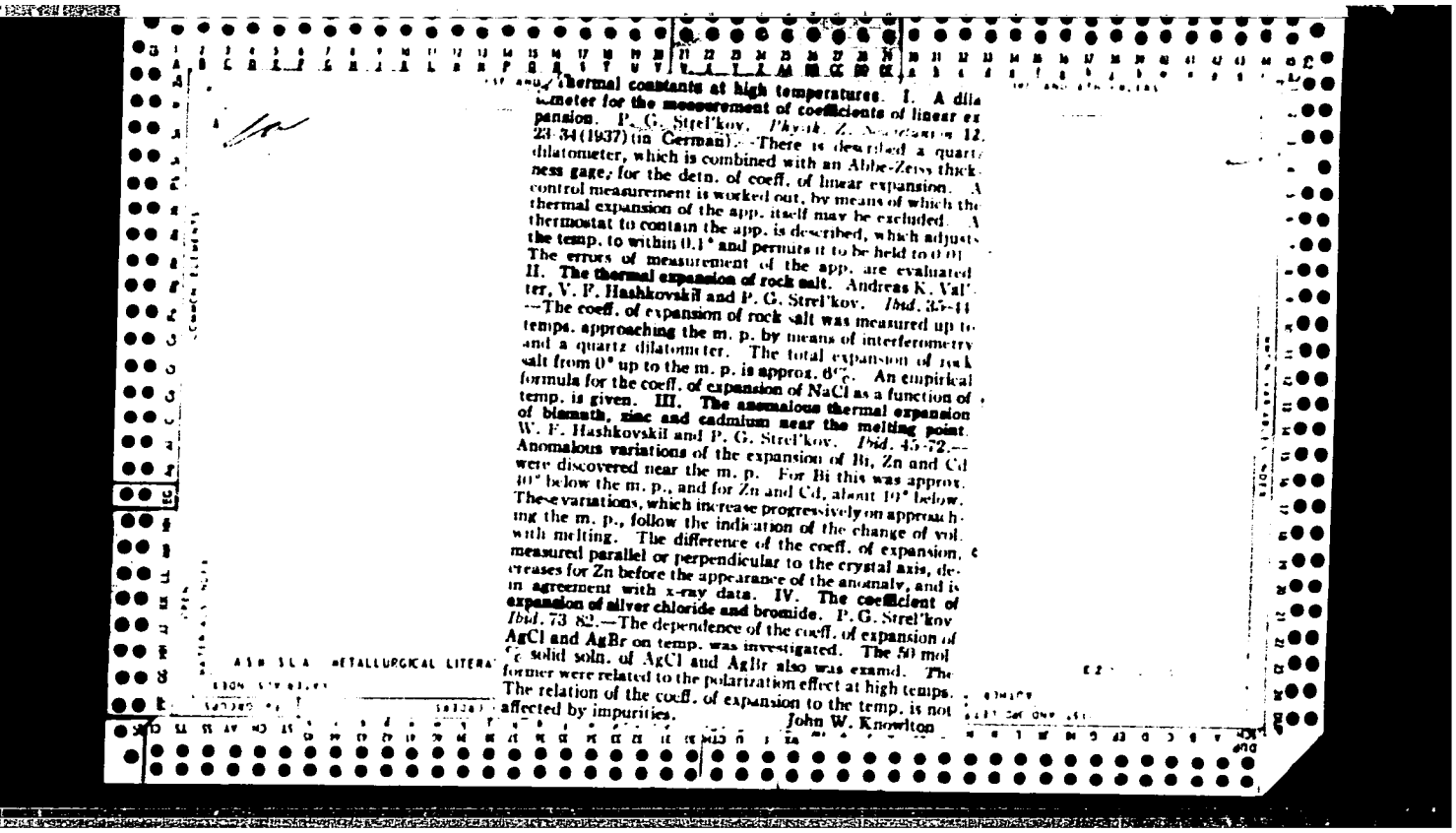
ZhETF 7, 52[illegible], 1937

Strelkov P.G.

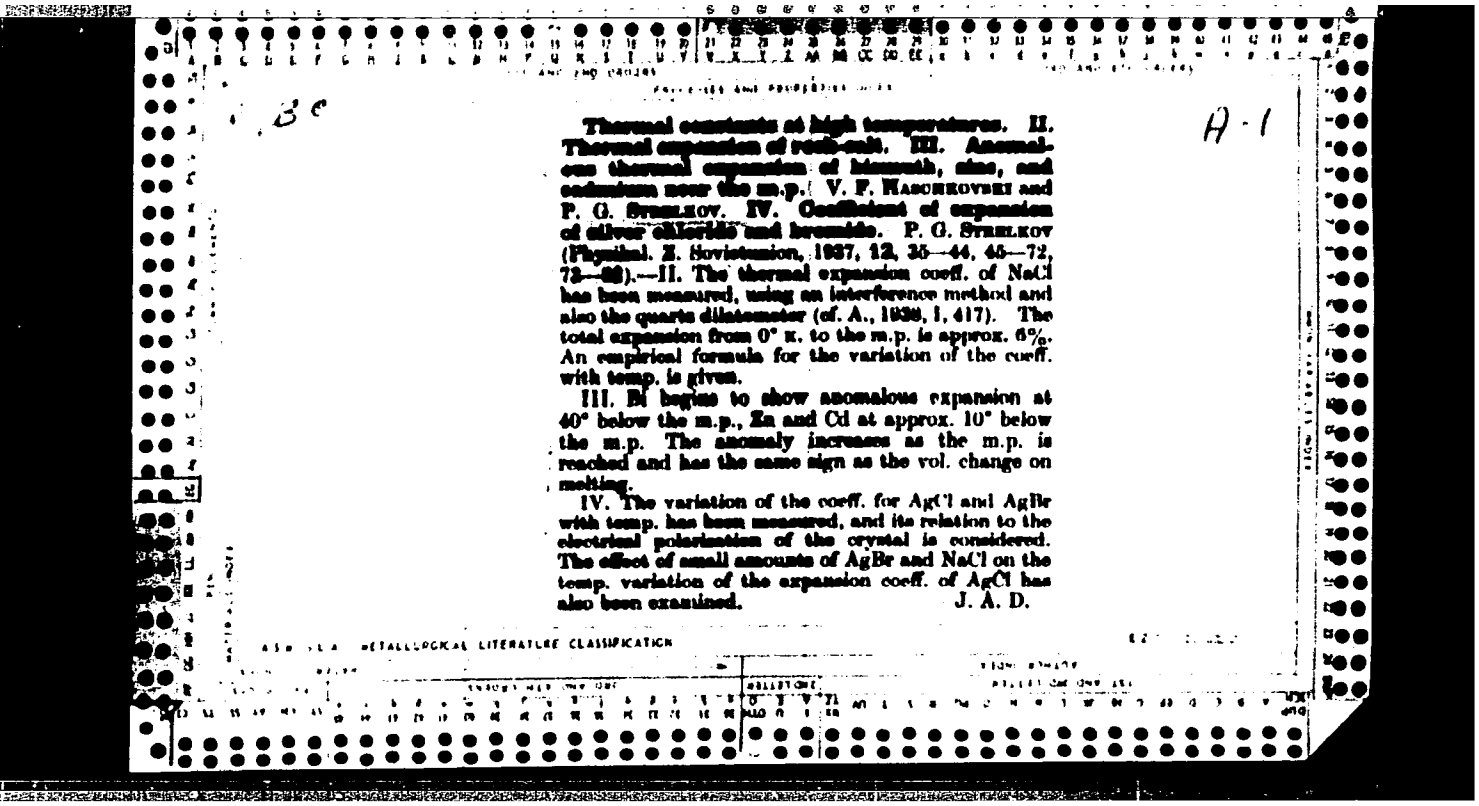
CACHKOVSKIY, F. V. ; STRELKOV, P. G.

Thermic Constants in High Temperatures. IV. Expansion Coefficient of Silver Chloride and Bromide.

ZhEHF 7 549, 1937



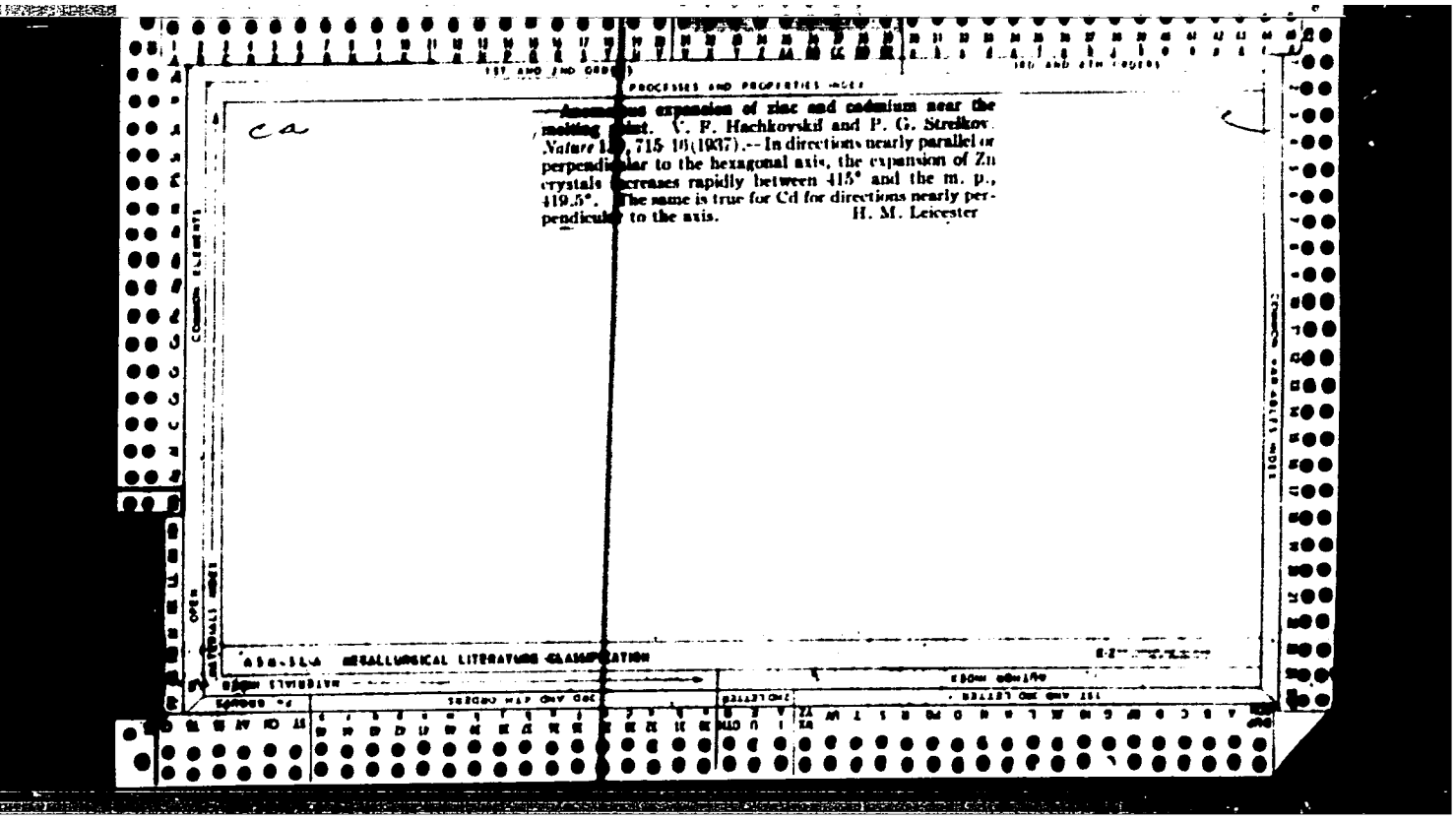
...thermal constants at high temperatures. I. A dila...meter for the measurement of coefficients of linear ex...pansion. P. G. Strel'kov. *Physik. Z. Sowjetunion* 12, 23-34 (1937) (in German).—There is described a quartz dilatometer, which is combined with an Abbe-Zeiss thick...ness gage, for the detn. of coeff. of linear expansion. A control measurement is worked out, by means of which the thermal expansion of the app. itself may be excluded. A thermostat to contain the app. is described, which adjusts the temp. to within 0.1° and permits it to be held to 0.01°. The errors of measurement of the app. are evaluated. II. **The thermal expansion of rock salt.** Andreas K. Val'ter, V. F. Hashkovskiĭ and P. G. Strel'kov. *Ibid.* 35-44.—The coeff. of expansion of rock salt was measured up to temps. approaching the m. p. by means of interferometry and a quartz dilatometer. The total expansion of rock salt from 0° up to the m. p. is approx. 6%. An empirical formula for the coeff. of expansion of NaCl as a function of temp. is given. III. **The anomalous thermal expansion of bismuth, zinc and cadmium near the melting point.** W. F. Hashkovskiĭ and P. G. Strel'kov. *Ibid.* 45-72.—Anomalous variations of the expansion of Bi, Zn and Cd were discovered near the m. p. For Bi this was approx. 40° below the m. p., and for Zn and Cd, about 10° below. These variations, which increase progressively on approaching the m. p., follow the indication of the change of vol. with melting. The difference of the coeff. of expansion, measured parallel or perpendicular to the crystal axis, decreases for Zn before the appearance of the anomaly, and is in agreement with x-ray data. IV. **The coefficient of expansion of silver chloride and bromide.** P. G. Strel'kov. *Ibid.* 73-82.—The dependence of the coeff. of expansion of AgCl and AgBr on temp. was investigated. The 50 mol % solid soln. of AgCl and AgBr also was examd. The former were related to the polarization effect at high temps. The relation of the coeff. of expansion to the temp. is not affected by impurities. John W. Knowlton



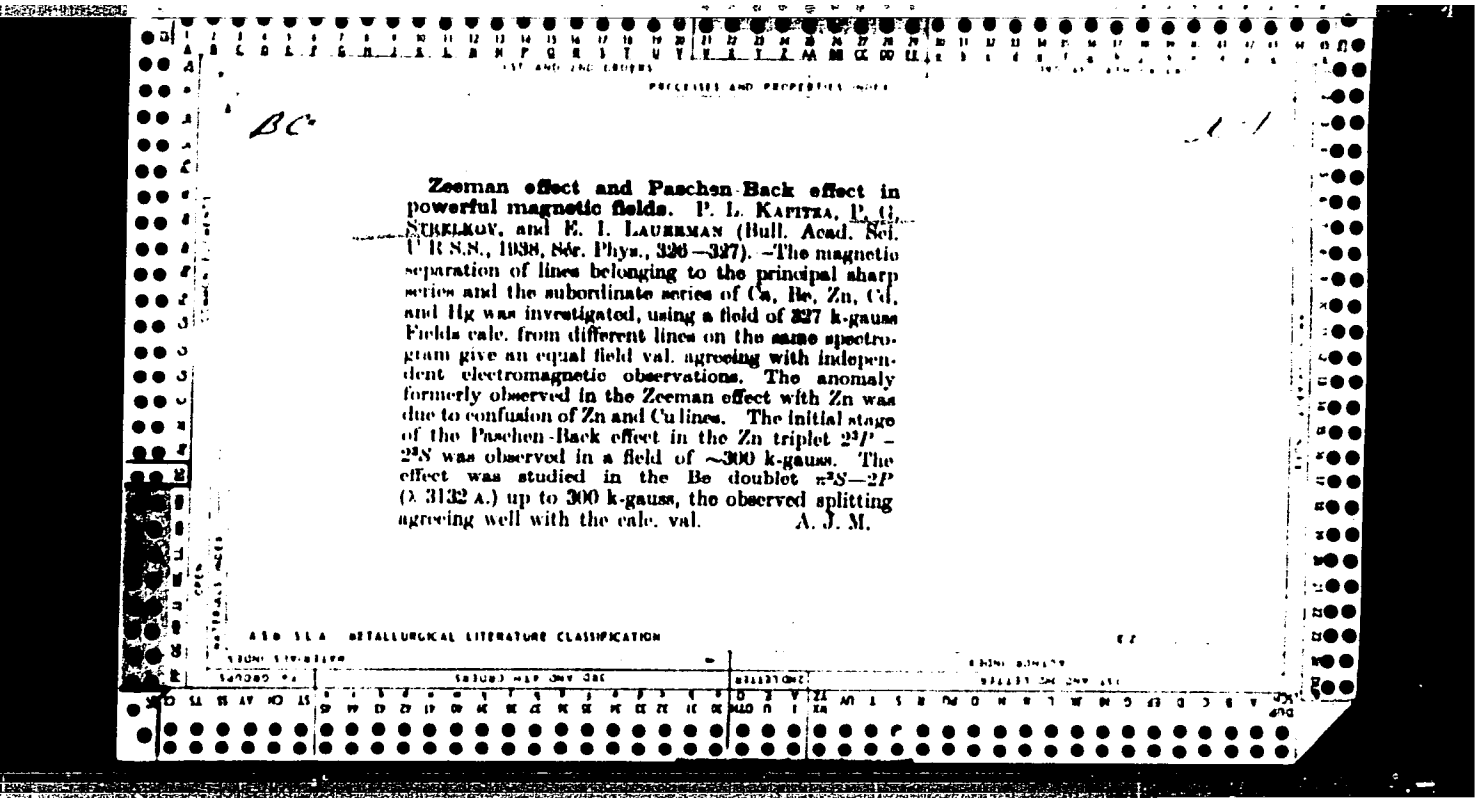
Thermal constants at high temperatures. II. Thermal expansion of rock-salt. III. Anomalous thermal expansion of bismuth, zinc, and cadmium near the m.p. V. F. KOSCHKOVSKI and P. G. STRELKOV. IV. Coefficient of expansion of silver chloride and bromide. P. G. STRELKOV (Physikal. Z. Sowjetunion, 1937, 12, 35—44, 45—72, 73—82).—II. The thermal expansion coeff. of NaCl has been measured, using an interference method and also the quartz dilatometer (cf. A., 1930, 1, 417). The total expansion from 0° K. to the m.p. is approx. 6%. An empirical formula for the variation of the coeff. with temp. is given.

III. Bi begins to show anomalous expansion at 40° below the m.p., Zn and Cd at approx. 10° below the m.p. The anomaly increases as the m.p. is reached and has the same sign as the vol. change on melting.

IV. The variation of the coeff. for AgCl and AgBr with temp. has been measured, and its relation to the electrical polarisation of the crystal is considered. The effect of small amounts of AgBr and NaCl on the temp. variation of the expansion coeff. of AgCl has also been examined. J. A. D.

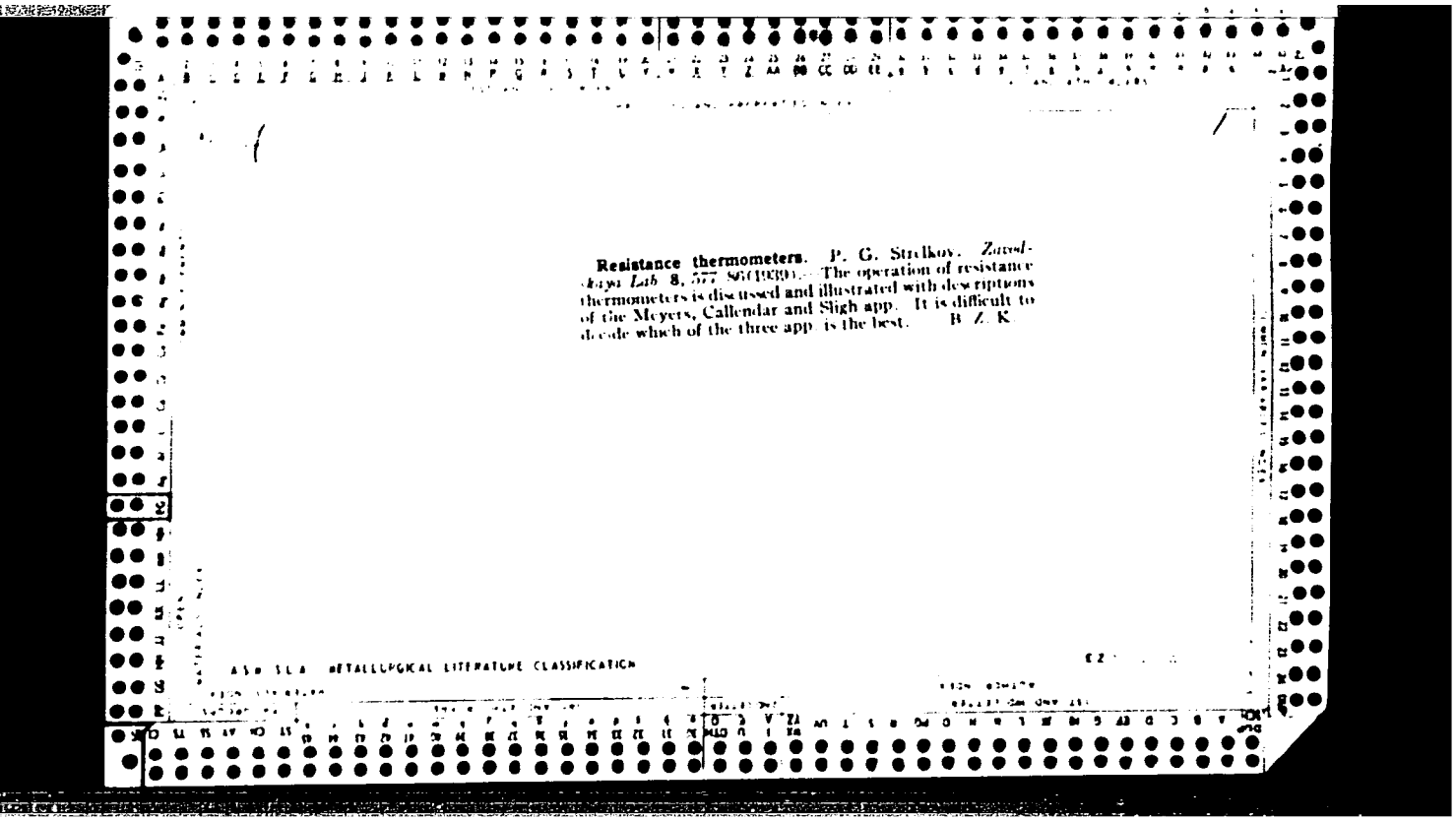


—Anomalous expansion of zinc and cadmium near the melting point. V. P. Hachkovskiĭ and P. G. Strelkov. *Nature* 139, 715-16(1937).—In directions nearly parallel or perpendicular to the hexagonal axis, the expansion of Zn crystals increases rapidly between 415° and the m. p., 419.5°. The same is true for Cd for directions nearly perpendicular to the axis. H. M. Leicester



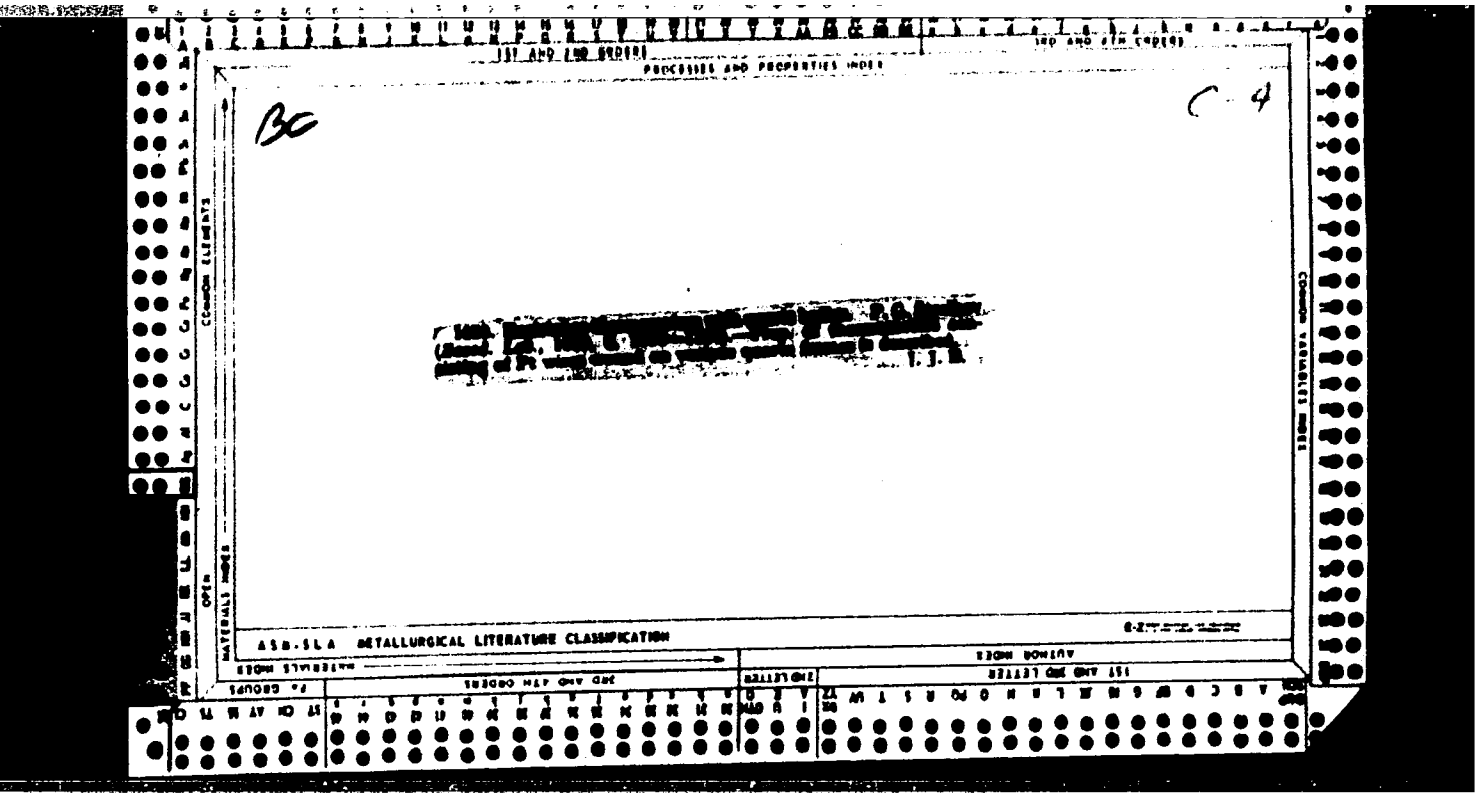
Zeeman effect and Paschen-Back effect in powerful magnetic fields. P. L. KAPITZA, P. G. STRELKOV, and E. I. LAUBERMAN (Bull. Acad. Sci. U.R.S.S., 1938, Sér. Phys., 326—327). —The magnetic separation of lines belonging to the principal sharp series and the subordinate series of Ca, Be, Zn, Cd, and Hg was investigated, using a field of 327 k-gauss. Fields calc. from different lines on the same spectrogram give an equal field val. agreeing with independent electromagnetic observations. The anomaly formerly observed in the Zeeman effect with Zn was due to confusion of Zn and Cu lines. The initial stage of the Paschen-Back effect in the Zn triplet $2^3P - 2^3S$ was observed in a field of ~300 k-gauss. The effect was studied in the Be doublet $n^2S—2P$ (λ 3132 A.) up to 300 k-gauss, the observed splitting agreeing well with the calc. val. A. J. M.

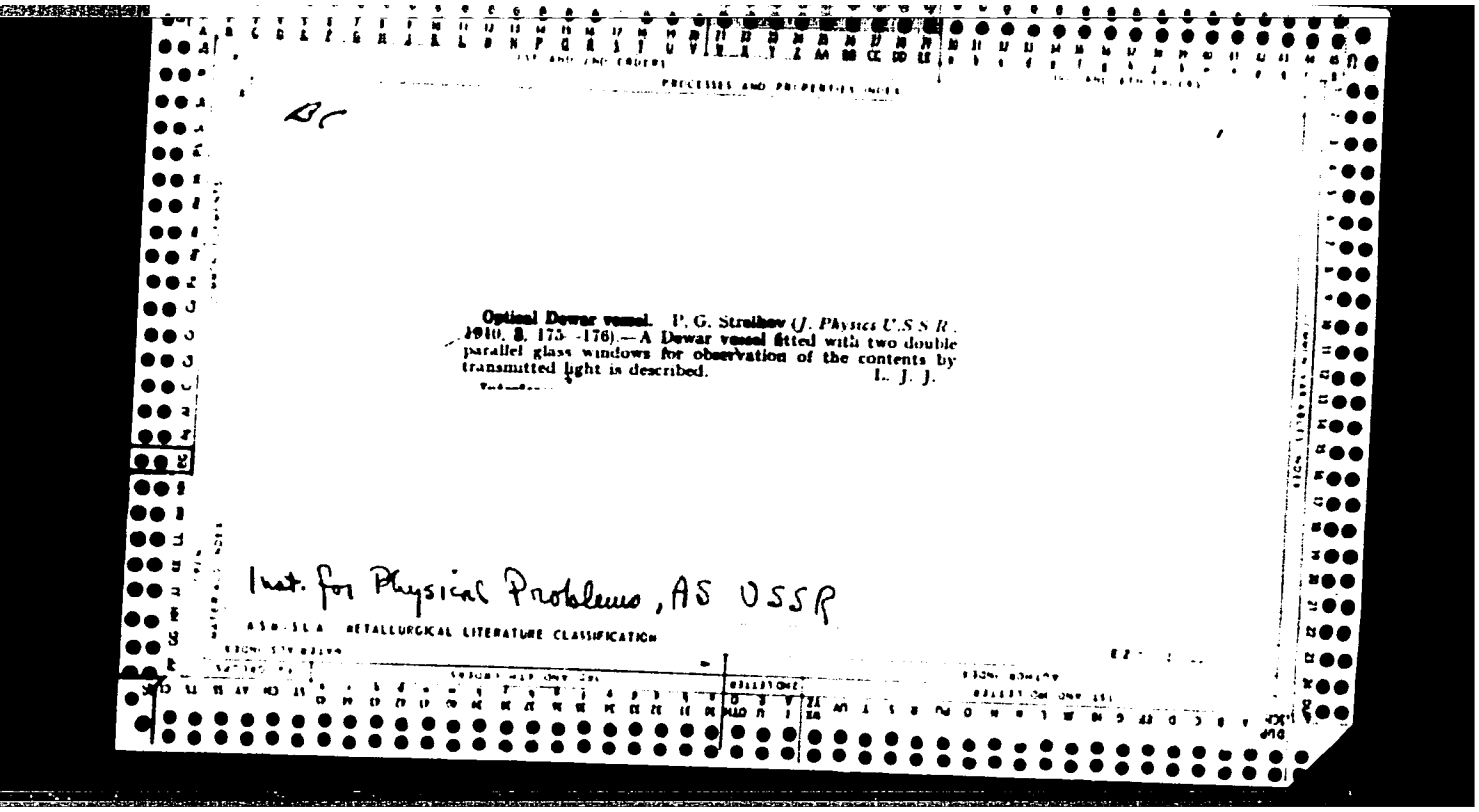
A 38 VI A METALLURGICAL LITERATURE CLASSIFICATION



Resistance thermometers. P. G. Strelkov. *Zavodskaya Lab.* **8**, 577–86(1939).—The operation of resistance thermometers is discussed and illustrated with descriptions of the Meyers, Callendar and Sligh app. It is difficult to decide which of the three app is the best. B. Z. K.

ASM STEEL METALLURGICAL LITERATURE CLASSIFICATION





Optical Dewar vessel. P. G. Strelkov (*J. Physics U.S.S.R.*, 1940, **3**, 175–176).—A Dewar vessel fitted with two double parallel glass windows for observation of the contents by transmitted light is described. L. J. J.

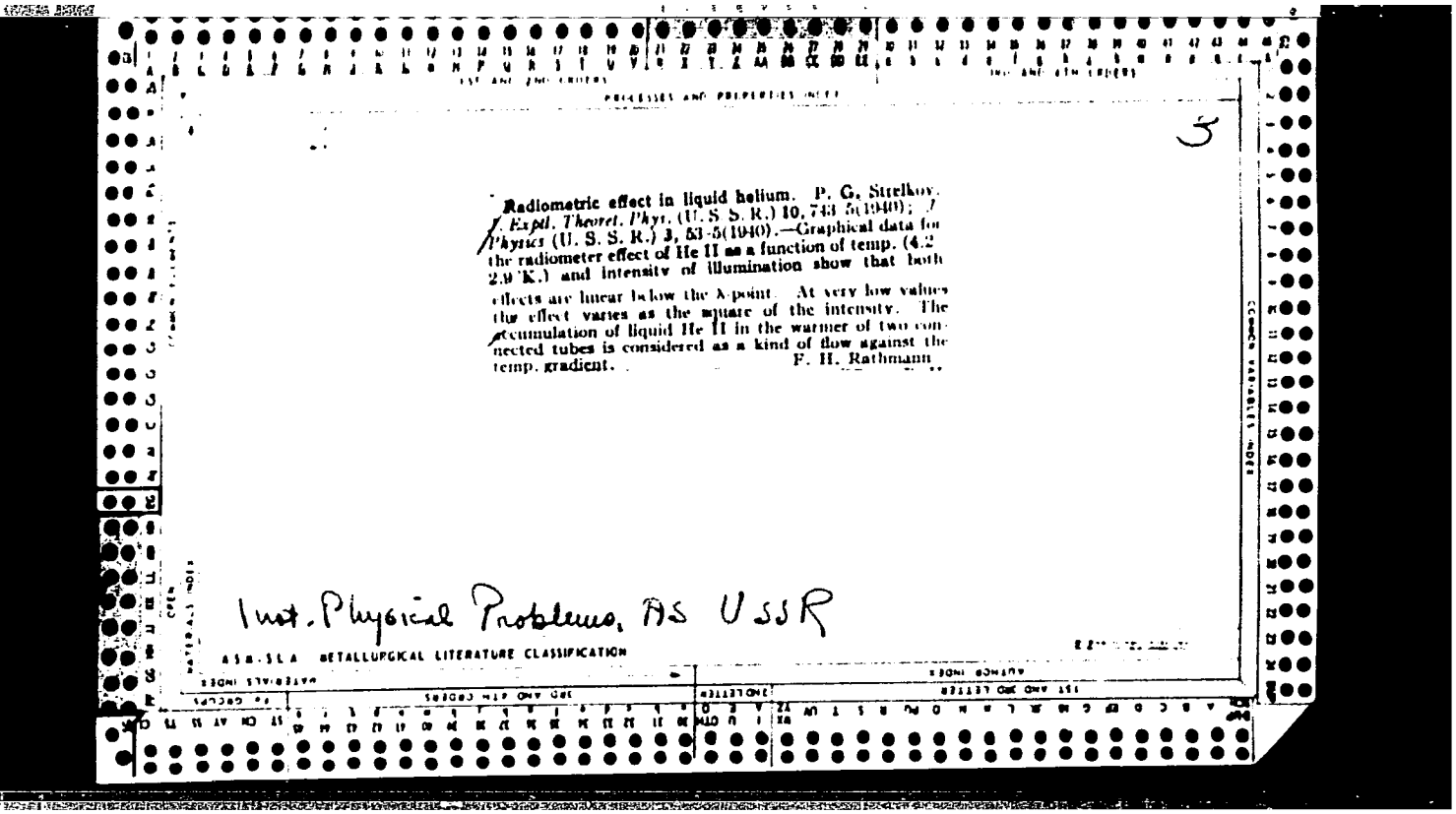
Inst. for Physical Problems, AS USSR

PROCESSES AND PROPERTIES INDEX

Heat transfer in helium II. P. G. Strelkov (*J. Phys. U.S.S.R.*, 1940, 3, 175—178).—The apparent thermal conductivity of liquid He II was estimated from the size of the cylindrical bubble formed on an electrically heated wire immersed in the liquid. The vals. obtained differed markedly according as the wire was free or pressed between two plates.

L. J. J.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

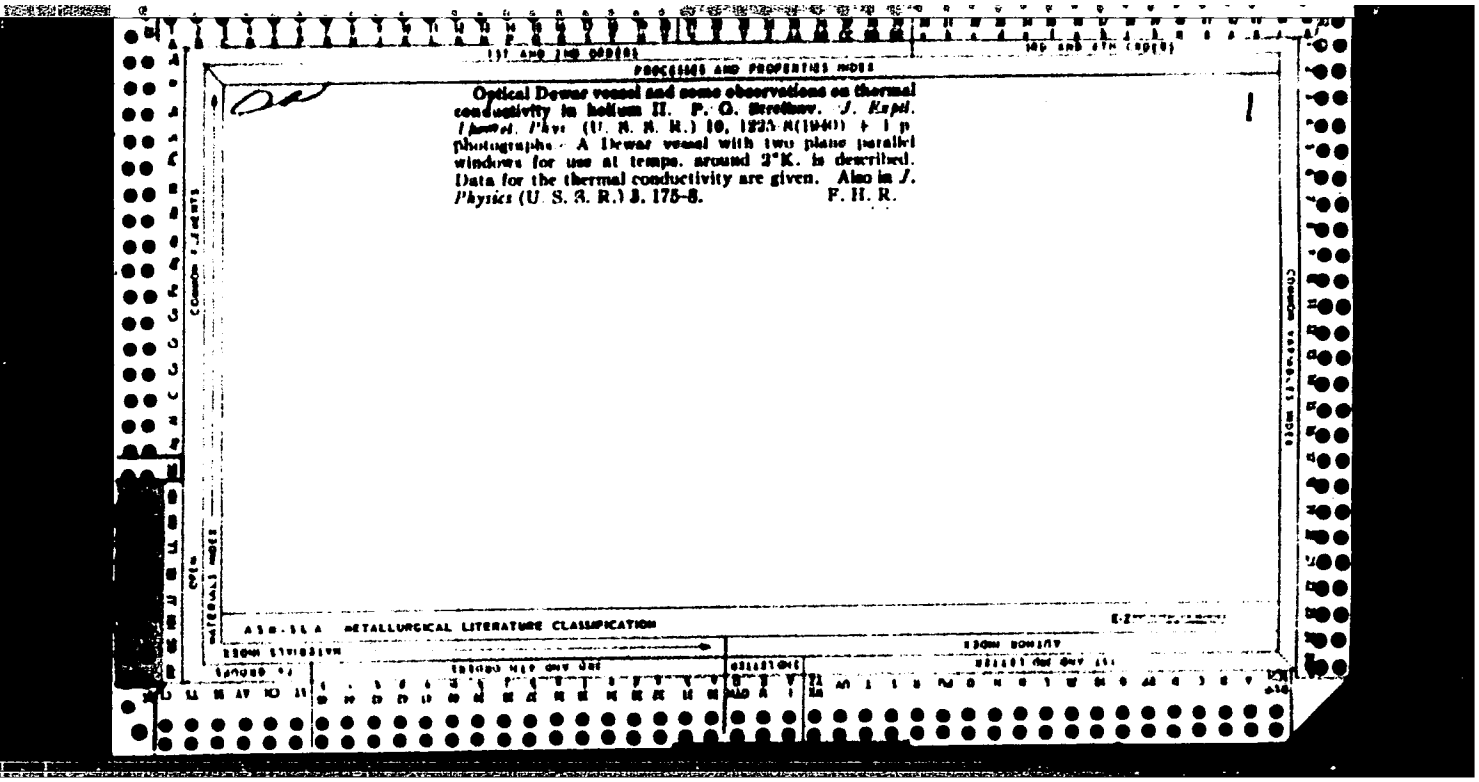


5

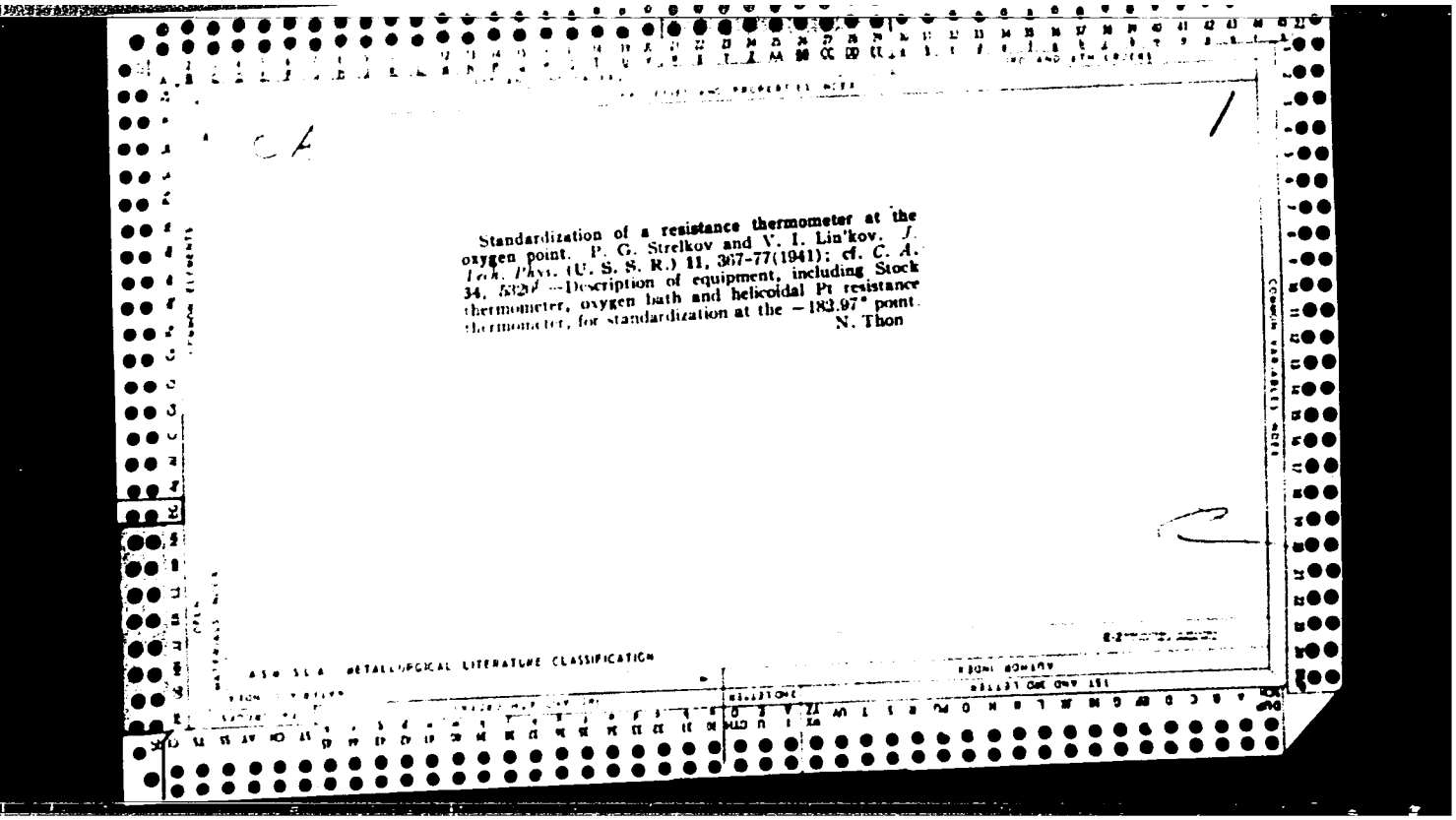
Radiometric effect in liquid helium. P. G. Strelkov. *J. Exptl. Theoret. Phys.* (U. S. S. R.) **10**, 743-5(1940); *J. Physics* (U. S. S. R.) **3**, 53-5(1940).—Graphical data for the radiometer effect of He II as a function of temp. (4.2-2.9° K.) and intensity of illumination show that both effects are linear below the λ-point. At very low values the effect varies as the square of the intensity. The accumulation of liquid He II in the warmer of two connected tubes is considered as a kind of flow against the temp. gradient. F. H. Rathmann

Inst. Physical Problems, AS USSR

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Optical Dewar vessel and some observations on thermal conductivity in helium II. P. G. Strelkov. *J. Exptl. Theoret. Phys.* (U. S. S. R.) 10, 1225-8(1940) + 1 p. photographs. A Dewar vessel with two plane parallel windows for use at temps. around 2°K. is described. Data for the thermal conductivity are given. Also in *J. Physics* (U. S. S. R.) 3, 175-8. F. H. R.



Standardization of a resistance thermometer at the oxygen point. P. G. Strelkov and V. I. Lin'kov. *J. Tech. Phys.* (U. S. S. R.) 11, 367-77(1941); cf. *C. A.* 34, 5820.—Description of equipment, including Stock thermometer, oxygen bath and helicoidal Pt resistance thermometer, for standardization at the −183.97° point.
N. Thon

STRUMINSKIY, B. V. (Prof.) Dr. Physico-Math. Sci.

"Some Notes on the Technology of Manufacture of Mineral Oils," Khimiya, No.2, 1945.

Inst. Phys. Problems, AS USSR

C. A.

Work done on thermometry of low temperature. P. G. Strelkov. *Trest. Abad. Nauk S.S.S.R., Ser. Fiz.* 14, 115-21 (1950).—The investigated region lay between 10-14°K. and 300°K. Pt resistance thermometers with quartz sleeves were calibrated at the b.p. of S, the b.p. and m.p. of H_2O, and the b.p. of O_2. Pt of 99.9998% purity and $R_{373}/R_0 = 1.3924$ was used in the latest models. Temps. between 10 and 90°K. were also measured with Pt resistance thermometers calibrated with the b.p. value of H_2 and the standard L6 of the American Bureau of Standards. With these were established: the O_2 triple point at 54.37°K., the transition point in solid O_2 at 43.79°K. The b.p. of H_2 depends on its content of ortho and para varieties. An app. was developed contg. 2 condensation thermometers one of which was filled with 25% para-H_2 and the other contained 99.8% para-H_2 held in equil. by a catalyzing Al_2O_3 gel. S. Pakswer

STRELKOV, P. G.

536.531

7209. Production and calibration of a group of resistance thermometers with quartz frames. N. A. BRILLYANTOV, V. I. LINKOV AND P. G. STRELKOV. *J. Tech. Phys., USSR*, 20, 335-44 (*March*, 1950) *In Russian.*

USSR/Physics - Low Temperatures
Liquid Hydrogen

1 Mar 52

"A New-Type Gas Thermometer and the Determination of the Temperature of Boiling Hydrogen," A. S. Borovik-Romanov, P. G. Strelkov, Moscow State Inst of Measures and Measuring Instruments

"Dok Ak Nauk SSSR" Vol 83, No 1, pp 59-61

By subject instruments the authors obtain the following value for subject temp of boiling hydrogen: 20.380 ± 0.0022°A. Submitted 9 Jan 52 by Acad M. M. Dubinin.

234T92

PG

USSR/Chemistry- Potassium Salts Aug 52

"Measurements of Specific Heat Between 12 and 300° K: Specific Heat and Entropy of Potassium Chloride," P. G. Strelkov, Ye. S. Itskevich, V. N. Kostryukov, and G. G. Mirskaya, Inst of Phys Prob imeni S. I. Vavilov Acad Sci USSR; Moscow State Inst of Measures and Measuring Instruments

"DAN SSSR" Vol 85, No 5, pp 1085-1088

In a specially constructed apparatus, the specific heat and entropy of potassium chloride were measured. The results agree with those obtained by other workers. Submitted by Acad M. M. Dubinin 4 Jun 52.

239T25

STRELKOV, P.G.

[Group programs for extracurricular children's organizations; young electricians' group (first year)] Programmy krushkov vneshkol'nykh detskikh uchreshdenii; krushok iunykh elektrotekhnikov (1-i god zaniatii). Moskva, Uchpedgiz, 1953. 15 p. (MLRA 6:12)

1. Tsentral'naya stantsiya yunykh tekhnikov imeni N.M.Shvernika. (Electricity)

STREIKOV, P. G.

Chemical Abst.
Vol. 48 No. 3
Feb. 10, 1954
Apparatus, Plant Equipment, and
Unit Operations

A dilatometer for small-size samples. P. G. Streikov, O. I. Kosourov, and B. N. Samoilov. *Izvest. Akad. Nauk S.S.S.R., Ser. Fiz.* 17, 383–8(1953).—A vacuum dilatometer is described for direct and differential readings. The small size sample is placed on a polished quartz table carried by a quartz tube. A quartz loop terminating with a rod through the center of the quartz tube is suspended on the sample. The rod carries a steel piece at the bottom part attracted by a magnetic table in such a way that a small quartz wheel carrying a mirror is held between the rod and the magnet and can rotate upon elongation of the rod. The sensitivity is 2×10^{-4} mm. The differential device carries 2 wheels. Measurements of the thermal elongation of quartz (cubic pieces with 3 mm. side) are indicated in the region 20–925° and the change in coeff. at the transition point $\alpha \rightarrow \beta$ of quartz is well shown. A sliver of Ag 2.16 mm. long has been measured between 21 and 812°. The measurements on Ag are in good agreement with other dilatometric measurements, but are smaller by 8% at high temp. than data obtained by x-ray analysis. S. Paksweer

9-16-54 JJP

STRELKOV, P.

For skilled hands: wind-driven electric station. Tekh. molod. 21 no.6: 36-37 Je '53. (MLRA 6:6)
(Windmills)

STRELKOV, P., inzhener.

For skillful hands; electroetching pencil. Tekh.molod. 21 no.8:39 Ag '53. (MLRA 6:7)
(Marking devices)

STRELKOV, P. G.

USSR/Physics - Cryogenics techniques FD-501

Card 1/1 : Pub. 146-18/18

Author : Strelkov, P. G.

Title : Some improvements in the techniques of experimental physics at very low temperatures

Periodical : Zhur. eksp. i teor. fiz., 24, 248, Feb 1953

Abstract : Improves method of obtaining high vacuum by sorption of residual gas by cooled carbon. Finds application of "carbon pump" very efficient at helium temperatures.

Institution : Institute of Physical Problems. Acad. Sci. USSR

Submitted : October 8, 1952

USSR/Physics - Cryogenics of O_2 1 Jun 53

"Heat Capacity of Solid Oxygen Below 4° K," M. O. Kostryukova and P. G. Strelkov, Inst of Phys Problems imeni Vavilov, Acad Sci USSR

DAN SSSR, Vol 90, No 4, pp 525-528

Conclude that solid oxygen passes over into another class of magnetics between 10 and 4.2° K, but around 10° K is described by the formula $g/X=(1/3)(2nmck/eh)$ in A. S. Borovik-Romanov's investigation (Zhur Eks i Teor Fiz 21, 1303 (1951)), who, along with the authors, was the first to construct necessary

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apparatus to conduct these measurements in the region 4.2-2.5° K. State that the mentioned transition has been studied neutronographically by R. P. Ozerov (Usp Fiz Nauk, 47, 445 (1952)). Presented by Acad L. D. Landau 31 Mar 53.

(PA 56 no. 672: 8384 '53)

STRELKOV, P.G.

USSR/Physics - Low temperatures calibration

FD-898

Card 1/1 Pub 153-7/26

Author : Borovik-Romanov, A. S., Orlova, M. P., and Strelkov, P. G.

Title : Equipment for producing the temperature of boiling hydrogen

Periodical : Zhur. tekh. fiz. 24, 1219-1223, Jul 1954

Abstract : The first step in the establishment of a temperature scale from 14 to 90°K is described, taking the boiling point of H as reference point. The equipment and the methods to determine this point within tolerances of ± 0.003°K is outlined. Six references including 3 foreign. Tables; graphs.

Institution : --

Submitted : December 16, 1953

Strelkov, P.G.

USSR/Physics - Measuring Instruments

Card 1/1 Pub. 147 - 22/27

Authors : Strelkov, P.G.; Borovik-Romanov, A.S.; and Orlova, M.P.

Title : Thermodynamic investigations at low temperatures. Part 1.-Measurement of temperatures between 12 and 300° K.

Periodical : Zhur. fiz. khim. 28/2, 345-352, Feb 19 ,

Abstract : A technique was developed for the manufacture of thermometers with international scale graduation. The technique of calibrating thermometers, at a temperature corresponding to the boiling point of hydrogen, is described. A simple way of fixing the scale of a platinum resistance thermometer, by reducing it to the standard table, is explained. The technique described can also be applied in measuring the temperatures between 12 and 300° K with deviations from the thermodynamic scale of about 0.03 - 0.04°. Fifteen references: 8-USSR; 3-USA; 2-German and 2-English (1929-1952). Tables; drawings.

Institution : State Institute of Measures and Measuring Instruments, The S.I. Vavilov Institute of Physical Problems, Moscow

Submitted : June 8, 1953

STRELKOV, P. G.

USSR/Chemistry

Card 1/1

Authors : Strelkov, P. G., Tsikevich, E. S., Kostryukov, V. N., Mirskaya, G. G., and Samoylov, B. N.

Title : Thermodynamic investigations at low temperatures. Part 2.- Measurement of specific heat of solids and liquids between 12 and 300° K.

Periodical : Zhur. Fiz. Khim. 28, Ed. 3, 459-472, March 1954

Abstract : A vacuum calorimeter arrangement with screening shields was constructed which enables to measure at low temperatures the specific heat of substances which at room temperature are either in solid or liquid states. The vacuum housing of the calorimeter is sectional because of the sectional vacuum compressor functioning at low temperatures. The installation is equipped with all other auxiliary devices. Calibration is made on the empty calorimeter. The described arrangement enables to conduct measurements in a temperature range of from 12-300° K. Three references. Drawings, graphs.

Institution : Acad. of Sc. USSR, the S. I. Vavilov Institute of Physical Problems and the Moscow State Institute of Weights and Measures

Submitted : June 6, 1953

STRELKOV, P. G.
USSR/Chemistry - Specific Heat

Card 1/1

Authors : Strelkov, P. G., Itskevich, E. S., Kostryukov, V. N., and Mirskaya, G. G.

Title : Thermodynamic Studies at Low Temperatures. III. Specific Heat of Potassium Chloride Between 12 and 300° K. Entropy of Potassium Chloride at 298, 16° K.

Periodical : Zhur. Fiz. Khim. Vol. 28, Ed. 4, 645-649, Apr 1954

Abstract : A study of the specific heat of potassium chloride between 12 and 300° K, and the entropy of potassium chloride at 298, 16° K, is presented. Data compiled on the specific heat of potassium chloride at low temperatures indicate that the discrepancies in contemporary measurement methods can cause an error in the entropy at standard temperatures. Seven references; tables; graphs.

Institution : S. I. Vavilov's Institute of Physical Problems of the AS of the USSR, and the Moscow Institute of Measures and Measuring Instruments.

Submitted : June 8, 1953

STRELKOV, P. G.

USSR/Chemistry - Specific Heat

Card 1/1

Authors : Kostryukov, V. N., Alikhanyants, R. A., Samoylov, B. N., and Strelkov, P. G.

Title : Termodynamic Studies at Low Temperatures. IV. Methods for Measuring the Specific Heat of Condensed Gases.

Periodical : Zhur. Fiz. Khim. Vol. 28, Ed. 4, 650-655, Apr 1954

Abstract : A general description is given of a calorimetric apparatus, used for measuring the specific heat of condensed gases at low temperatures, and the determination of the volume of gas by means of weighing it under condensed condition. Four references; tables; graphs, drawings.

Institution : S. I. Vavilov's Institute of Physical Problems of the AS of the USSR.

Submitted : June 8, 1953

Strelkov, P.G.

USSR/Chemistry Analysis methods

Card 1/1 Pub. 147 - 17/25

Authors : Kostryukov, V. N., and Strelkov, P. G.

Title : Thermodynamic investigations at low temperatures. Part 5. Melting, pre-melting and pseudo-phase conversion of Hg.

Periodical : Zhur. fiz. khim. 28/10, 1825-1830, Oct 1954

Abstract : Calorimetric investigations, carried out close to the melting point, showed no anomalies in the specific heat of pure Hg in solid, liquid and supercooled states. The absence of measurable phenomena, caused by the existence of hetero-phase fluctuations in solid Hg, was established. Experimental pre-melting of solid Hg was brought about by the addition of Zn, Tl and Zn + Tl to the pure mercury. During Tl concentration in the mercury ranging from 0,02 to 0,1% the specific heat peak was observed at a melting point of the Tl-Hg eutectics. Eleven references: 7-USSR; 3-USA and 1-English (1915-1954). Table; graphs; drawing.

Institution : Academy of Sciences USSR, The S. I. Vavilov Institute of Physical Problems

Submitted : March 13, 1954

USSR/Physics - Solid oxygen

Card 1/1 Pub. 22 - 9/56

Authors : Borovik-Romanov, A. S.; Orlova, M. P.; and Strelkov, P. G.

Title : Magnetic and thermal properties of three modifications of solidified oxygen

Periodical : Dok. AN SSSR 99/5, 699-702, Dec 11, 1954

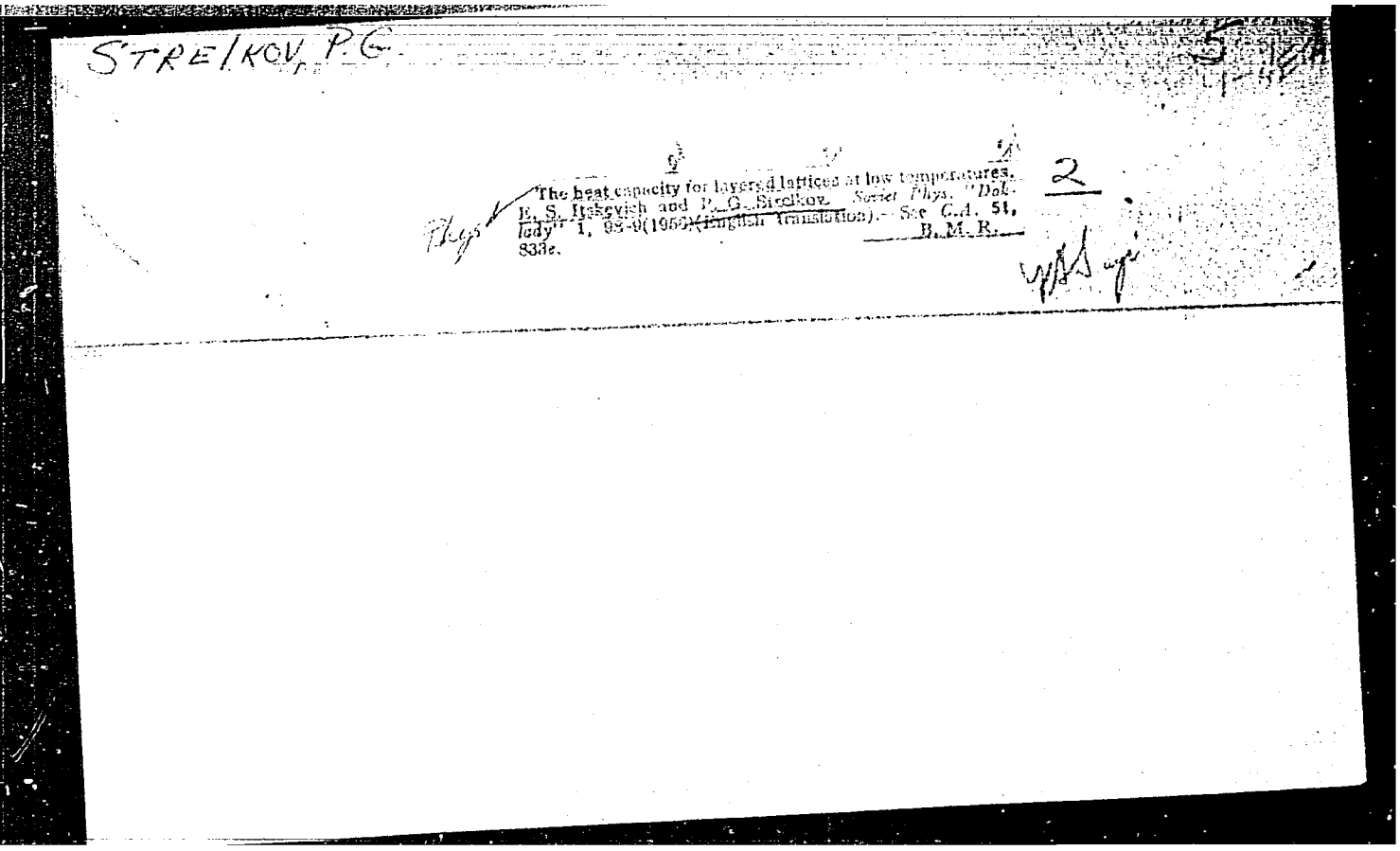
Abstract : Experiments were conducted to determine the magnetic and thermal properties of solidified oxygen in the following three modified states: α - at the temperature lower than 23.88°K; β - at the temperature between 23.88°K and 43.80°K; and γ - at the temperature between 43.80°K and 54.37°K. Specific heat of oxygen at various temperatures was determined in view of Debye's temperature factor. Anti-ferro-magnetic properties of oxygen in its α and β states were checked by ballistic methods with the help of Denar's flask. Magnetic susceptibility of oxygen in its γ state was measured and found to obey, as well as in the case of liquid oxygen, Curie's law $\chi = \frac{C}{T - \Delta}$. Fourteen references 7-USSR (1911-1954). Graphs; diagram.

Institution : Moscow State Institute of Measures and Measuring Devices

Presented by: Academician P. L. Kapitsa, August 5, 1954

STRELKOV, P.G.

Technical reports on low-temperature metrology. Izm. tekh. no.1:22-27 Ja-F '55. (MIRA 8:9)
(Low temperature research) (Thermometry)



STRELKOV, P.G.

The heat capacity for layered lattices at low temperatures. E. S. Itskevich and P. G. Strelkov. *Soviet Phys. "Doklady"* 1, 93-9(1956)(English translation).—See *C.A.* 51, 833e. *B.M.R.*

2

STRELKOV, P.G.

Dilatometers for solid bodies and some of their applications. P. G. STRELKOV. *Zhur. Neorgan. Khim.*, 1 [6] 1350–57 (1956). The general properties of dilatometers useful in thermal investigations of solid bodies are briefly reviewed. A model developed by S is described. The sample is placed on a pedestal, and a stirrup made of quartz rests on it, supporting a long quartz rod. This rod supports an iron yoke which is held against the poles of a magnet with a needle free to roll between yoke and poles. Change in dimension of the sample causes the needle to roll, and the motion is detected by the use of a mirror and an optical lever. Differential shrinkage of two samples is directly observed by the use of a second stirrup, rod, and yoke, rolling a needle on the first yoke. Examples of the use of the dilatometer are described briefly. 10 figures, 18 references. D.T.W.

LFH

STRELKOV, Petr Georgiyevich; YEFREMOVA, Ye.V., redaktor; ANDRIANOV, B.I., tekhnicheskiy redaktor

[Homemade telephone apparatus] Samodel'nye telefonnye apparaty. Moskva, Izd-vo DOSAAF, 1956. 71 p. (MLRA 10:2)

STRELKOV, P.G., inzhener; FILIPPOVA, V.S., redaktor; DZHATIYEV, S.G., tekhnicheskiy redaktor

[Programs for extracurricular and school study groups; homemade wind-power electric plant (description and designs)] Programmy kruzhkov vneshkol'nykh uchrezhdenii i shkol; samodel'naia vetrianaia elektricheskaia stantiia (opisanie i chertezhi). Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosv. RSFSR, 1956. 84 p. (MLRA 10:4)

1. Russia (1917- R.S.F.S.R) Glavnoye upravleniye shkol. (Technical education) (Wind power) (Electric power production)