FEDOTOVA, O.Ya.; LOSEV, I.P.; SKRIPCHENKO, N.I.; FILICHKINA, V.N.

Synthesis and study of N,N'-substituted polyureas. Izv. vys. ucheb. zav.; khim. i khim. tekh. 4 no. 2:271-274 '61.
(MIRA 14:5)

1. Moskovskiy khimiko-tekhnologicheskiy institut im. D.I. Mendeleyeva. Kafedra tekhnologii vysokomolekulyarnykh soyedineniy.
(Urea)

FILIPESCU, M. G.

(17)

152

Bucharest, Analele Universitatii C. I. Parhon (Seria Stiintele Naturii: Geologie-Geografie), Vol X, No 27, 1961,

1. "On the Cretacic Volcanism in the Western Part of the Metalliferous Mountains," Gratian CIOFLICA; pp 7-13.

2. "New Data on the Stratigraphy of Sedimentary Deposits of Northern Moldavia, Radauti-Prut Regiune, Darabani," C. GHEORGHIU, Gh. BIGU and G. RADU; pp 15-28.

3. "The Problem of the Lower and Upper Limits of the Paleogenic area in the Eastern Carpathians," M. G. FILIPESCU; pp 29-36.

4. "The Microfauna of the Higher Marine Series in the Vicinity of Jibou," I.Z. BARBU; pp 37-51.

5. "Contributions to the Study of the Eocene Mollusk and Echinides Fauna of the Iuna de Sus-Ciurila Region (South West of Cluj), N. TATARIM; pp 55-63.

6. "Preliminary Data Concerning the Stratigraphy of the Pliocene Between the Varbilaului and Prahovei Valleys," E. HANGANU; pp 65-79.

7. "Callovian Fauna of the Beroi-Hirsova Hill," Aurelia BARBULESCU; pp 81-89.

8. "Contributions to the Study of the Diatomics in the Oligocene of Bustenari," S. KRESTEL; pp 91-100.

9. "Concerning the System of the Geographic Sciences," Iuliana TOFAN; pp 101-109.

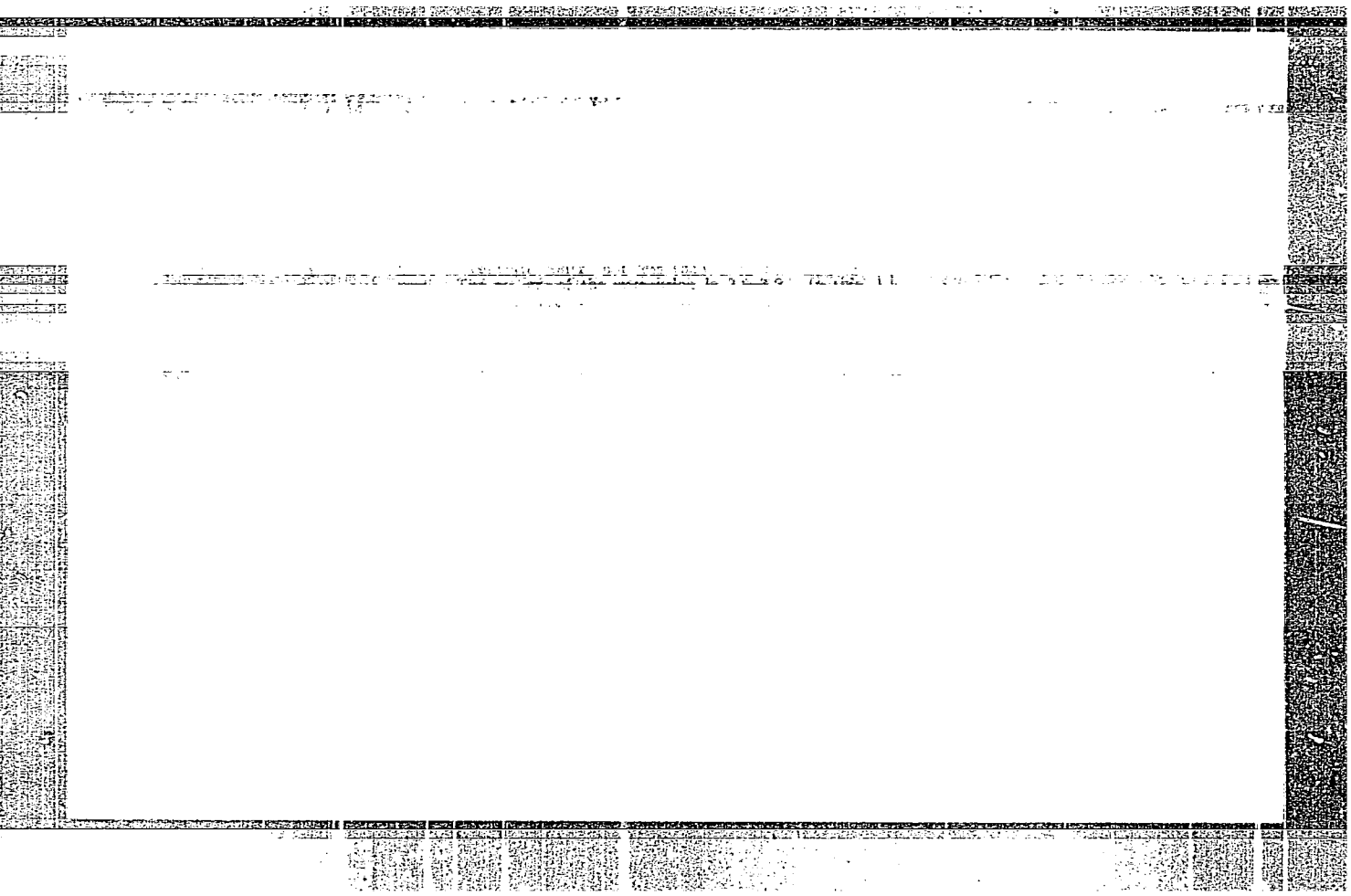
10. "Geomorphological Observations in the Lower Basin of the Buzau, Tr. NAUM; pp 111-126.

11. "The Platforms and Erosion Levels of the Curving Carpathians and Sub-Carpathians (The Sector between Bisca Chiojdului in the West and Cilnau in the East)," Tr. NAUM; pp 127-143.

12. "Piatra Creiului. Geomorphological Considerations," Valeria MICALEVICH-VELCEA; pp 145-153.

13. "Contributions to the Geomorphological Study of the Folovragi Caves," Silvia IANCU, Silvia LUPU and

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413030004-6"



APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413030004-6"

FILIMANOV, G.F.; LAZAREV, A.V.

Static operation of a cylindrical magnetron. Radiotekh. i elektron. 7 no.5:911-916 My '62. (MIRA 15:4)
(Magnetrons)

FILIMON, I.

Some considerations relative to the breaking of reinforced-concrete caissons subjected to bending. p 594.

REVISTA CONSTRUCTIILOR SI A MATERIALELOR DE CONSTRUCTII.(Asociatia Stiintifica a Inginerilor si Technicienilor din Rominia si Ministerul Constructilor si al Marerualelor di Constructii) Bucuresti, Rumania. Vol. 10, no. 12, Dec. 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no.6, June 1959

Uncl.

VOINA, N.I.; FILIMON, I.

Using lime tuff of the Hunedoara region for constructions. Studii tehn. Timisoara 9 no.1/2:143-151 Ja-Je '62.

AVRAM, C.N.; FILIMON, I.

Simple beton elements under the influence of eccentric compression.
Studii tehn Timisoara 9 no.3/4:325-337 Jl-D '62.

MATEESCU, Dan, prof. ing.; FLESERIU, I.; FLESERIU, E.; GADEANU, L.; BOTA, V.; ROSU, D.; FILIMON, I.; MAIOR, N.; IZDRAILA, V.; PAUNESCU, M.; ROSA, Sidonia

Economical, technical and scientific study on the construction of some apartment houses with metallic framework of light elements. Pt. 1-3. Bul St si Tehn Tim 7:287-321 '62.

Filimon, I. Mouvements bidimensionnels dans un milieu poreux. Com. Acad. R. P. Romîne 2 [illegible] (Romanian. Russian and French summaries) 1 - F/W

The author applies conformal mapping theory to study the two-dimensional problem of the infiltration of an incompressible fluid in a porous homogeneous [illegible]. The author starts from the [illegible] [illegible] boundary conditions [illegible]

The strip [illegible] of the plane [illegible] is mapped onto the circle $|Z|\leq 1$, by means of the relation

$$Z=(l/i\pi)\log\{Z-i/Z+i\}-l/2.$$

The solution found by the author is given by

$$\varphi(x,y)=\theta+\tfrac{1}{2}\omega l-\frac{4\omega l}{\pi^2}\sum_{0}^{\infty}\frac{\cos(2i+1)[illegible]}{(2i+1)[illegible]}$$

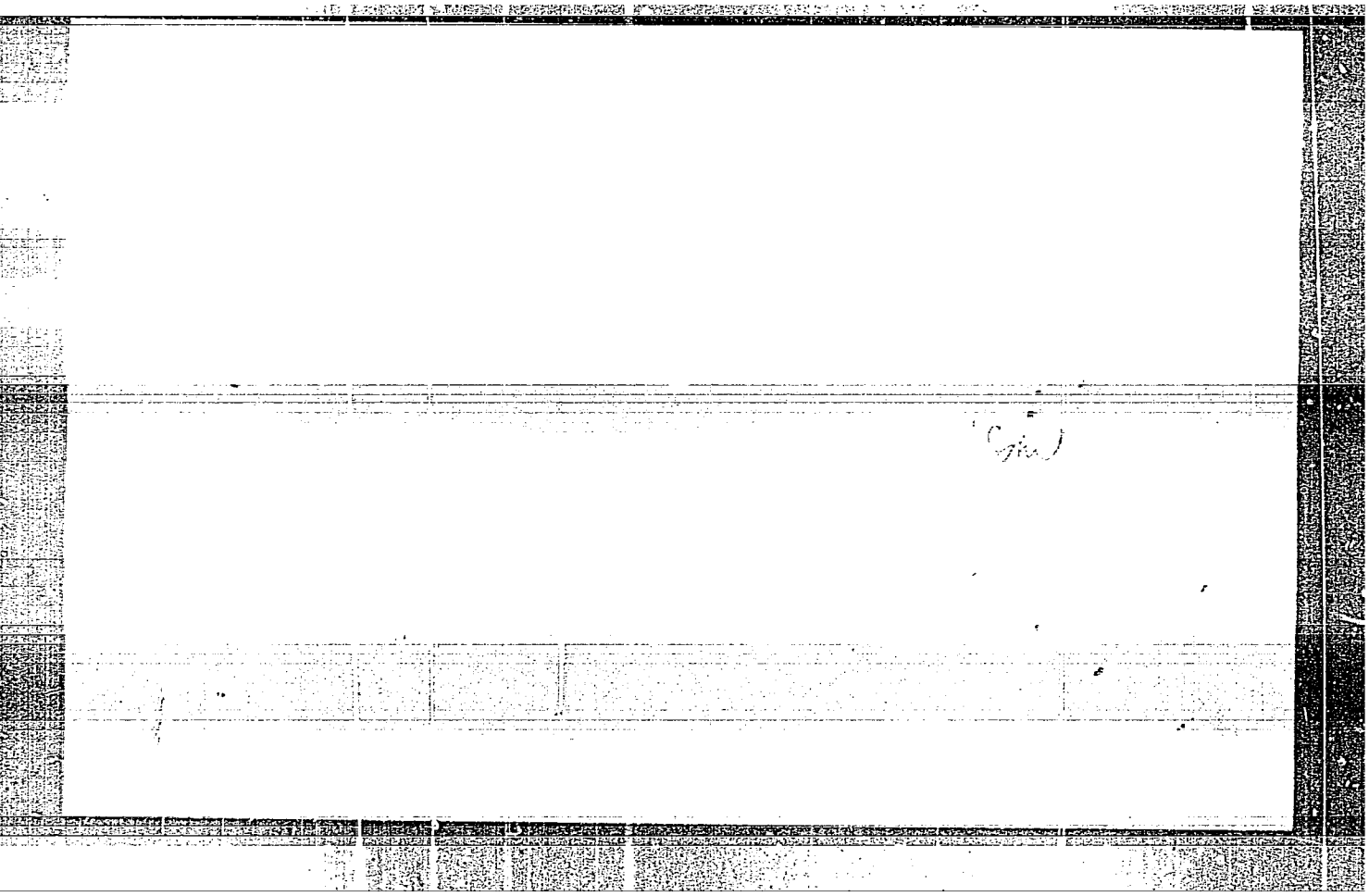
K. [illegible]

FILIMON, I.

5

Filimon, I. Sur le mouvement subsonique à circulation des fluides compressibles autour d'un obstacle circulaire. Rev. Univ. "C. I. Parhon" Politehn. Bucureşti Ser. Sti. Nat. 1 (1953), no. 2, 38–45. (Romanian. Russian and French summaries)

MR 17, 58[illegible] has described a [illegible]



On the Integro-Differential Equation of Prandtl. (Aerodynamics)

Fîlimon, Ioan. Sur l'équation intégro-différentielle de Prandtl. Acad. R. P. Romîne Bul. Şti. Secţ. Şti. Mat. Fiz. 9 (1957), 381–385. (Romanian. Russian and French summaries)

L'équation intégro-différentielle de Prandtl, concernant la détermination de la circulation autour d'un profil d'envergure finie, est équivalente à la résolution d'un problème aux limites mixtes ainsi que l'a démontré E. Trefftz.

En partant de cette dernière forme du problème de Prandtl, l'auteur démontre que pour les profils dont les paramètres de forme ont pour expression:

$$p(\sigma)=\frac{m_0+\sum_{k=1}^{k=\infty} m_{2k}\cos(2k\sigma)}{n_0+\sum_{k=1}^{k=\infty} n_{2k}\cos(2k\sigma)}$$

la détermination de la circulation se réduit à des quadratures.

Résumé de l'auteur

FILIMON, I.

"Corrections of compressibility in the continuous subsonic flows around a given obstacle."

p. 433 (Buletin Stiintific. Sectia De Stiinte Matematice Si Fizjce)
Vol. 9, no. 2, 1957
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

AVRAM, Constantin N.; FILIMON, I.; FRIEDRICH, R.

Study of the frameworks of reinforced concrete beams in the plastic stage. Bul St si Tehn Tim 9 no.1:215-222 Je-Je '64.

FI:IMON, R.

Contributions to computation in trigonometric leveling at great distances. p. 79. REVISTA MINELOR. (Asociata Stiintifica a Tehnicienilor din Rominia, Ministerul Industriei Carbunelui si Directia Generala a Minelor si Metalurgiei Neferoase) Bucuresti. Vol. 7, no. 2, Feb. 1956

So. East European Accessions List Vol. 5, No. 9 September, 1956

VECSEY, Jozsef, dr.; CSORBA, Lajos, dr.; FILEMON, Tibor, dr.

Role of early tracheotomy in the development of hypoxia after pulmonary resection. Magy.sebeszet 14 no.1:57-63 F '61.

1. Az Orszagos Koranyi Tbc. Intezet (Igazgato foorvos: Boszormenyi Miklos dr. kandidatus, tudomanyos vezeto: Foldes Istvan dr. kandidatus) Sebeszeti Osztalyanak (Foorvos: Ungar Imre dr.) kozlemenye.
(PNEUMONECTOMY compl)
(TRACHEA surg)
(ANOXIA etiol)

39155
S/120/62/000/003/019/048
E192/E382

9,3280

AUTHORS: Predein, B.A., Gorbachev, V.M., Sem'in, G.N., Uvarov, N.A., Filimonchev, M.I. and Shevtsov, V.A.

TITLE: A wideband pulse amplifier

PERIODICAL: Pribory i tekhnika eksperimenta, no. 3, 1962, 84 - 86

TEXT: The amplifier consists of three stages of distributed amplification, each consisting of 4 tubes. The output and middle stages are based on secondary emission tubes, type 6B-1P (6V1P). It is possible (by employing these tubes) to obtain a symmetrical output and high output voltages. However, since the tube 6V1P is nonlinear at small signals, the input stage is based on tubes, type 6Zh-22P (6Zh22P), whose input capacitance is almost identical with that of 6V1P, so that identical lines could be employed in all grid circuits. The distributed lines of the amplifier stages are in the form of lumped delay lines based on m-derived filters, the wave impedance of the anode, dynode and grid lines being 150Ω. The bandwidth of the amplifier is about 150 Mc/s per stage, which

Card 1/2

corresponds to a rise time of about 3×10^{-9} sec. The output of the amplifier is applied to the plates of an oscilloscope by means of a cable, type RK-50 (RK-50), about 1 m long. The amplification of the system at the anode output is about 240 and at the dynode it is about 160, the symmetrical output giving a gain of 400. The maximum amplifier output at the anode is 140 V and at the dynode-80 V. The longest pulses applied should not exceed 3 μs in order to avoid the fatigue effects in the secondary emission tubes. The authors express their gratitude to I.M. Cherednichenko for discussing the results and to A.V. Filatov and B.F. Krest'yaninov for preparing the experimental models of the device. There are 3 figures.

SUBMITTED: December 2, 1961

PREDEIN, I.A.; FILIMONCHEV, M.I.; Prinimali uchastiye:SEM'IN,G.N.;FILATOV, A.M.

Short time-interval meter. Izm.tekh. no.1:28-30 Ja '63.
(MIRA 16:2)
(Automatic timers)

L 27166-66 EWT(l)/EWP(e)/EEC(k)-2 IJP(c) WH
ACC NR: AP6009839 SOURCE CODE: UR/0413/66/000/004/0032/0033

INVENTOR: Fel'dman, N. E.; Filimoncheva, K. I.

ORG: none

TITLE: Increasing the piezoactivity of ceramic piezoelements. Class 21, No. 178664.

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 32-33

TOPIC TAGS: piezoactivity, piezoelectric ceramic element

ABSTRACT: An Author Certificate has been issued describing a method using heat treatment to increase the piezoactivity of piezoelectric ceramic elements. To raise the electromechanical coupling coefficient during radial vibrations, the blanks of piezoceramic elements with electrodes applied to them are heated to temperatures of 20—70C above the Curie point, cooled at maximum rate to room temperature, and polarized. [LD]

SUB CODE: 11/ SUBM DATE: 14Mar64/

Card 1/1 BK UDC: 621.372.412.002.2

FILIMONCHUK, I. I.

PA 54/49T37

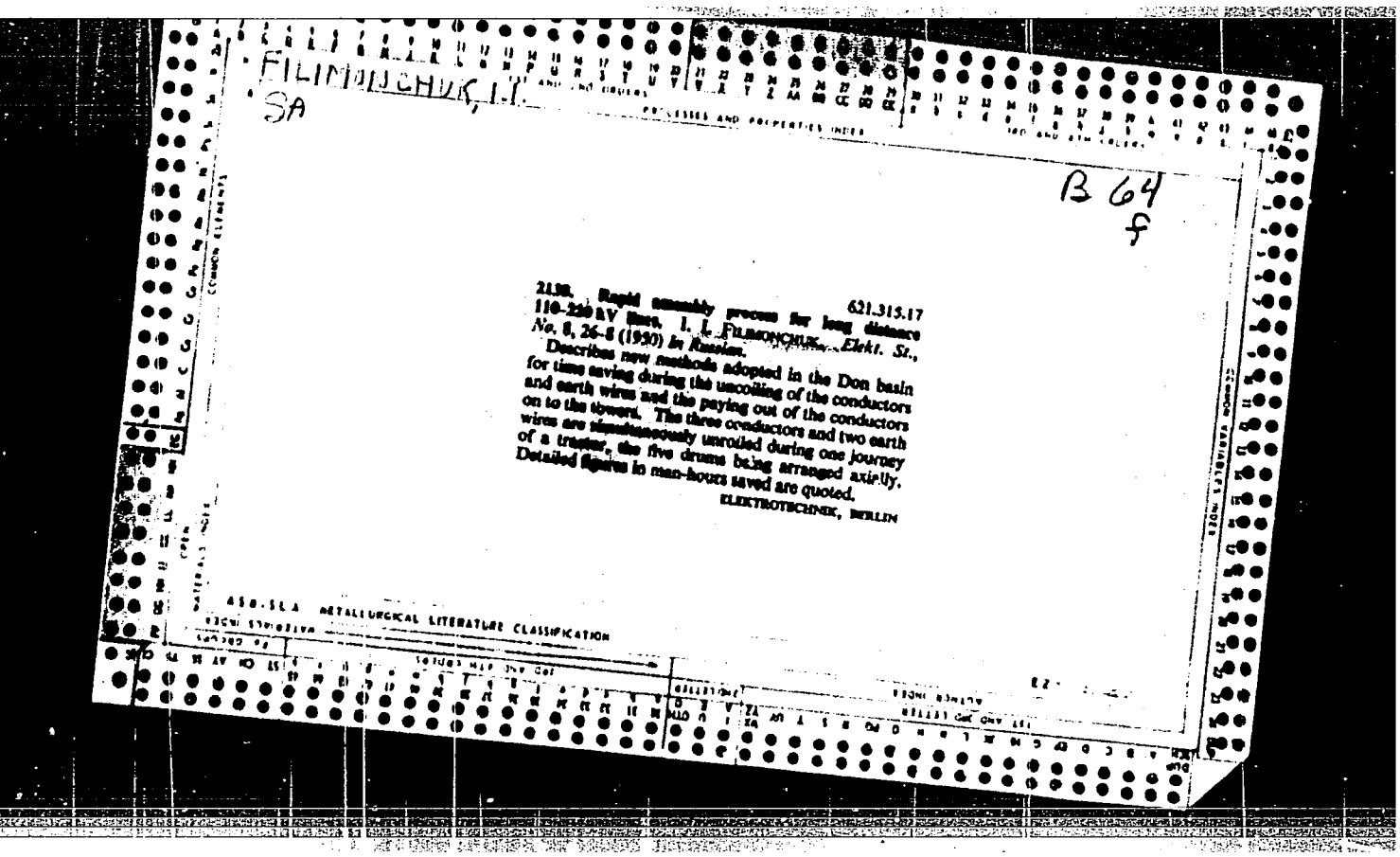
USSR/Electricity Dec 48
Transmission Lines
Electric Power Transmission

"Practical Experience in Rapid Construction of Electric Transmission Lines," I. I. Filimonchuk, Engr, 2½ pp

"Elek Stants" No 12

Notes that up to now the most labor-consuming work (pit excavation) is not mechanized. For this reason the Min for Elec Power Plants is taking steps to accelerate production of boring machines set on heavy caterpillar tractors for digging cylindrical holes for [illegible]-shaped and single-type wooden towers, and narrow-base pedestals for metal towers. It is also necessary to place other phases of work, such as assembling brackets, on mass-production basis in advance. Describes examples of new labor-saving methods.

54/49T37



FILIMONCHUK, I.I.
SA

B 64
f

2138. Rapid assembly process for long distance 110-220 kV lines. I. I. FILIMONCHUK. *Elekt. St.*, No. 8, 26–8 (1950) *In Russian.* 621.315.17

Describes new methods adopted in the Don basin for time saving during the uncoiling of the conductors and earth wires and the paying out of the conductors on to the towers. The three conductors and two earth wires are simultaneously unrolled during one journey of a tractor, the five drums being arranged axially. Detailed figures in man-hours saved are quoted.

ELEKTROTECHNIK, BERLIN

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

FILIMONCHUK, I. I.

"Rapid Erection of a 220 KV Electric Transmission Line," Rab. energ., 2, No.3, 1952

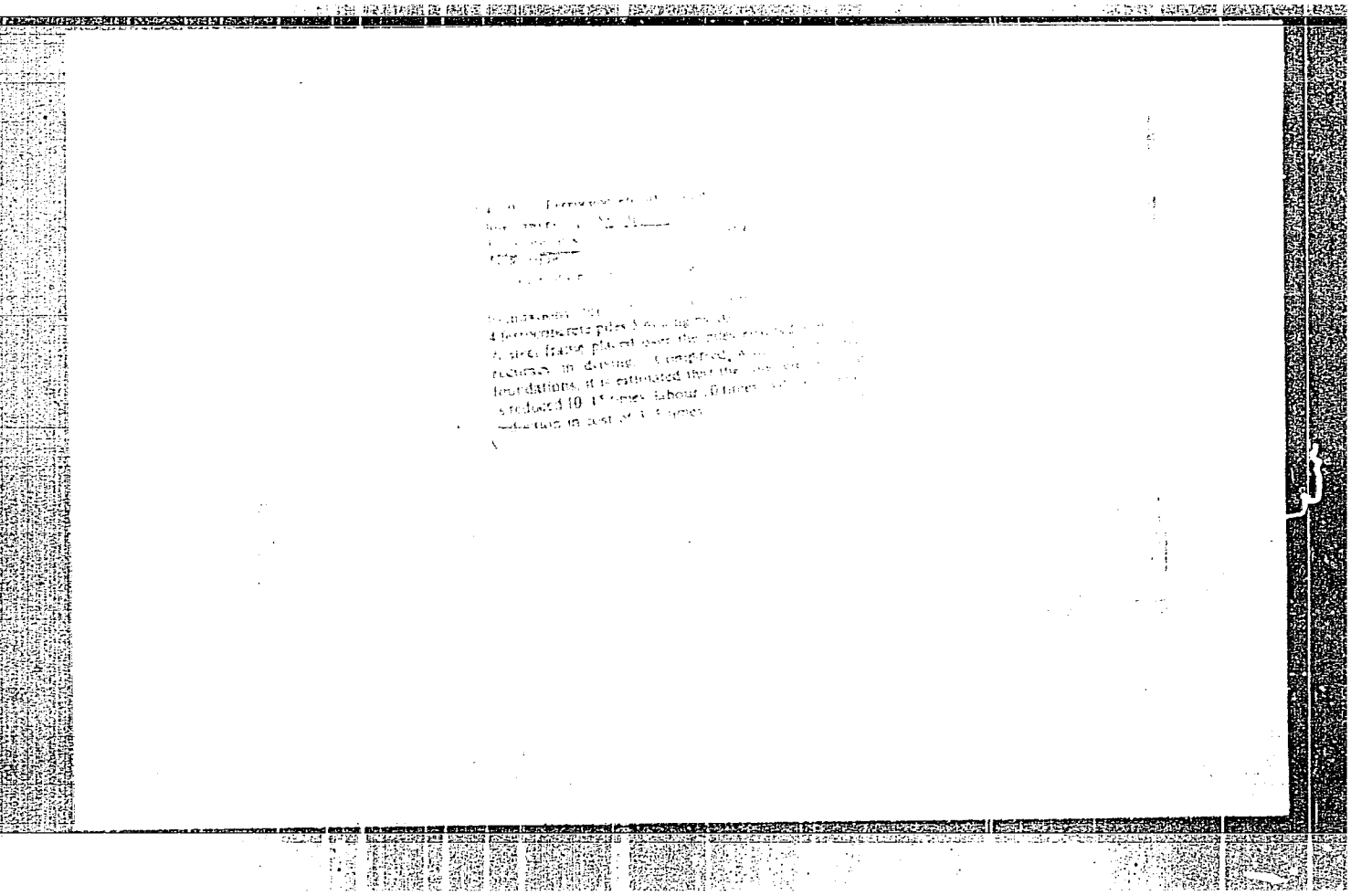
FILIMONCHUK, I. I. Eng.

"Spanning of 154 kv Electric Transmission Line Across a River," Rab .energ., 2, No.9, 1952

FILI[illegible]CHUK, I. I.

Novyi tip fundamentov dlia opor linii elektrop[illegible]dachi / New type of foundation for electric transmission line poles/. Moskva, Gosenergoizd t, 1953. 31 p.

SO: Monthly List of Russian Accessions, Vol. 7 No. 2 May 1954.



AID P - 3321

Subject	:	USSR/Power Engineering
Card 1/1		Pub. 26 - 7/28
Author	:	Filimonchuk, I. I., Eng.
Title	:	Driving of reinforced concrete piles into compact soil lines for transmission
Periodical	:	Elek. sta., 8, 25-27, Ag 1955
Abstract	:	The driving of ferro-concrete piles in the construction of transmission lines towers is described. Various types of drilling equipment are described. Four diagrams.
Institution	:	None
Submitted	:	No date

FILIMONCHUK, I.I., inzhener.

Rapid industrial-crew construction of transmission lines. Elek.sta. 27 no.12:22-24 D '56. (MLRA 10:1)
(Electric lines)

"220 kv Electric Transmission Towers with Hinged Connections" by Engineer I. I. Filimonchuk. Energetik, No. 6, June 1957, Pages 1 -- 5.

Description of high (21.5 meter) towers for transmission lines, bolted together of standard steel sections. Several advantages are claimed for this type of tower, primarily economy in metal (claimed to be approximately 25%), the use of small dimension standard steel parts, and the possibility of raising the productivity of shop operations by 50%. In addition, the transportation costs are considerably less than those involved in welded structures.

FILIMONCHUK, I.I., inzhener.

Reinforced concrete pile bases under transmission line poles.
Nov.tekh.i pered.op.v stroi. 19 no.10:8-10 O '57. (MIRA 10:11)
(Concrete piling) (Electric lines--Poles)

AUTHOR: Filimonchuk, I.I., Engineer. 104-3-10/45

TITLE: Mechanisation of the construction of electric transmission lines. (Mekhanizatsiya stroitel'stva liniy elektroperedachi)

PERIODICAL: "Elektricheskiye Stantsii" (Power Stations), 1957, Vol.28, No.3, pp. 29 - 33 (U.S.S.R.)

ABSTRACT: The article describes achievements to date in the mechanisation of transmission line construction by the method of mechanised columns.

The minimum element or cycle of any transmission line is completion of all kinds of work on one length between anchor towers. This length ranges from 3 - 6 km for 220 kV lines, 5 - 8 km for 400 kV lines and 2 - 3 km for 110 kV lines. The rate of construction of a single such span 3 km long on a 220 kV line was 4 days. The amount of work to be done and the equipment required are tabulated in detail. Several examples of line construction at this kind of speed are quoted. The use of reinforced concrete piles for tower foundations had great advantages over assembled reinforced concrete foundations and even more over monoblock foundations. The economy resulting from the use of pile type foundations is illustrated in detail by tables. On one line the costs per tower were

Card 1/3

Mechanisation of the construction of electric transmission lines. (Cont.)

cut to about a third of the original value.

The Kurgan-Makushino line was one of the first on the construction of which mechanised columns were organised. An essential condition for the efficient operation of a mechanised column is adequate storekeeping because the work proceeds at a rate of 0.75 km per day on 220 kV lines and 1.25 km per day on 110 kV lines leaving a completely finished transmission line. Therefore, late delivery from the stores cannot be tolerated. Except for loading and unloading the work is almost completely mechanised. A first brigade clears the trace of the line removing trees and undergrowth. Then a brigade of 23 men puts in the pile foundations, a brigade of 86 men assembles the towers, a brigade of 40 men erected the conductors, erecting two circuits simultaneously.

The absence of good mobile living accommodation provided with the necessary communal services and the absence of radio-communications must be recognised as defects in the work of the mechanised columns. However, this first experience of such work was very successful. The Kurgan-Makushino line was constructed in 120 days at a speed of 1.3 km of double circuit line per day.

Mechanisation of the construction of electric transmission lines. (Cont.)

Design organisations should study the work of the mechanised columns and have the working drawings ready a year before the start of the work. The levels of all kinds of technical supply to the columns should be improved. It is to be hoped that the positive experience of this work will be applied in all parts of the USSR.
There are 5 tables.

AVAILABLE: Library of Congress

Card 3/3

FILIMONCHUK, I.I., inzh.

Industrialization and mechanization of the construction of electric transmission lines and substations. Energ.stroi. no.6:104-109 '59. (MIRA 13:11)

1. Glavelektroset'stroy.
(Electric lines) (Electric substations)

FILIMONENKO, G.

From the practice of the Ust'-Kamchatsk District Finance Section.
Fin.SSSR 17 no.4:75-76 Ap '56. (MLRA 9:8)
(Ust'-Kamchatsk District--Finance)

BRYNZA, [illegible]

Atmospheric corrosion of waterproofed copper [illegible] in the presence of sulfur dioxide. Zhur. prikl. [illegible]. 37 no.6:1376-1380 Je '64. (MIRA 18:3)

L 20797-66 EWP(j)/EWT(m)/T IJP(c) RM

ACC NR: AP6005955 (A) SOURCE CODE: UR/0191/66/000/002/0067/0068

AUTHORS: Tomash, N. V.; Dremin, V. D.; Filimonenko, L. T.

ORG: none

TITLE: The composition of the polymer part of the preliminary polymer obtained in the first stage of polymerization in the synthesis of impact-resistant polystyrene

SOURCE: Plasticheskiye massy, no. 2, 1966, 67-68

TOPIC TAGS: polystyrene, polymer, polymerization, graft copolymer, copolymerization, IR spectrum, IR absorption, turbidimeter, impact strength

ABSTRACT: The composition of the polymeric part of the preliminary polymer obtained by two-stage graft copolymerization of styrene and butadiene-styrene rubber is studied. At the end of the stage of preliminary polymerization, the reacting mass contains 25--30% of polymer, excluding the starting rubber (7--10%). The composition of the prepolymer was determined by selective precipitation. An FEK-M photocolorimeter was used for turbidimetric titration. The polymer part was precipitated from a benzene solution with methanol. The

Card 1/3 UDC: 678.746.22--136.22--134.622

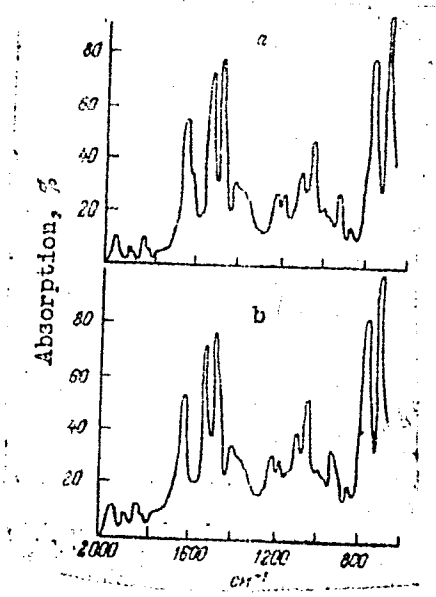
ACC NR: AP6005955

infrared spectra of the products from the solution of the polymer part agree with the spectra of butadiene-styrene rubber, the impact-resistant block polystyrene, and the free polystyrene (see Fig. 1).

L 20797-66

ACC NR: AP6005955

Fig. 1. Infrared spectra: a - pure polystyrene; b - product of polymer part from a benzene solution of it with an acetone-methanol mixture in 1:5.



Orig. art. has: 4 graphs.
SUB CODE: 11,07/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 001

Card 3/3

"A Simplified Method of Treating Ringworm in Long Horned Steer"

Diesel fuel is heated to 60-70 degrees in a metal vessel over coals or on a burner (avoiding flame) and rubbed into areas afflicted with ringworm, while still hot without preliminary removal of scabs. The latter fall off in 2-3 days] and the skin in the affected areas takes on a normal appearance. This method produced good results when applied to 130 calves. Recovery did not occur in three control calves who were treated with unheated diesel oil.

SO: Veterinariya, Vol 29, No 4, Apr 1952, pp 34-36
U-4807

FILIMONENKO, Ya. S.

Filimonenko, Ya. S. -- "The Use of the Bacteriophage for Prophylactic Purposes in Combating Calf Paratyphus." Min Higher Education USSR. Azerbaydzhan Agricultural Inst. Kirovabad, 1955. (Dissertation for the Degree of Candidate in Veterinary Science)

So: Knizhnaya Letopis', No 12, 1956

FILIPCNOV, A.

FILIPCNOV, A. -- "Aspects of Traction Processes and Traction Calculations in the Maneuvering of Locomotives." Min Railways USSR. Moscow Order of Lenin and Order of Labor Red Banner Inst of Railroad Transport Engineers imeni I. V. Stalin. Moscow, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No 1, 1956

FILIMONOV, A.

Device for checking ignition advance. Avt.transp. 40 no.1:21-22 Ja '62. (MIRA 15:1)
(Automobiles--Ignition--Testing)

FILIMONOV, A., kapitan

On social principles. Voen. vest. 42 no.7:55 Jl '62.
(MIRA 15:6)
(Military administration)

NECHAYEV, M.A.; FILIPCHOV, A.A., redaktor; AKATOVA, V.G., redaktor; KONYASHINA, T., tekhnicheskiy redaktor.

[Manual of employees of city gas works] Spravochnik rabotnika gorodskogo gazovogo khoziaistva. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1955. 349 p. (MLRA 9:4)
(Gas manufacture and works)

21051
S/019/61/000/004/021/110
A152/A127

9.2180 (3203, 1144, 1137)

AUTHOR: Filimonov, A.A.

TITLE: A method for examining dielectric heterogeneity of Rochelle dielectrics

PERIODICAL: Byulleten' izobreteniy, no. 4, 1961, 32-33

TEXT: Class 21g, 29_{12}. No. 135962 (658320/26 of March 10, 1960). This method of examining dielectric heterogeneity of "Rochelle dielectrics" (segneto-dielectrics) differs from others in that for simplifying the process of examination, a solid current-conducting layer is applied to one side of the Rochelle dielectric under test and an electric luminophor suspension in a transparent dielectric is applied to the other side; then a transparent electrode is put on the electric luminophor (e.g. a tin oxide film on a glass), whereupon the capacitor thus made is fed with an alternating electric current to excite the electric luminophor watching or photographing through the transparent electrode how the brightness of the luminophor's glow is distributed. 2. A variant differing in that for examining

Card 1/2

A method for examining dielectric ...

the process of polarization and repolarization of the Rochelle dielectric, the capacitor is subjected to the effect of a permanent electric field, or is fed with square current pulses.

Card 2/2

14.7800 (1137, 1138)

76645
S/070/61/006/005/003/011
E132/E560

AUTHORS: Zheludev, I.S., Filimonov, A.A., Yurin, V.A. and Romanyuk, N.A.

TITLE: The observation of the domain structure of ferroelectric crystals by means of electroluminescent materials

PERIODICAL: Kristallografiya, 1961, Vol.6, No.5, pp.676-680 + 1 plate

TEXT: A basically new method of showing up the domain structure of a ferroelectric has been tried out. It consists in using a paste of ZnS in a silicone oil spread on one surface of a plate of the crystal cut perpendicular to the ferroelectric axis. An electrode is applied to the opposite surface and a transparent electrode is firmly pressed down on to the luminescent paste. A glass plate coated with SnO_2 will serve as the latter. When an alternating voltage is applied across the assembly the field divides itself between the two layers inversely as the dielectric constants. A frequency below 1 kc/s was used, higher frequencies giving too much heating. A constant field can be applied to hold the domain structure fixed. The polarization of the domains then

The observation of the domain ... 5/070/61/006/005/003/011
E132/E560

adds and subtracts from the alternating field and at the optimum value regions oppositely polarized can be seen as light and dark. The method has been successfully tried for specimens of triglycine sulphate and guanidine aluminium sulphate. Specimens with the domain structure stabilised by irradiation with gamma-rays have been preferred. These have a very large hysteresis for the reversal of the polarization of the domains and are not so disturbed by the applied voltage as other specimens. The resolving power is poor. There are 5 figures and 18 references: 13 Soviet and 5 non-Soviet. The English-language references read as follows: Ref.1: W. I. Merz. Phys. Rev., 95, 3, 690, 1954; Ref.8: H. Toyoda, S. Waku, H. Hirabayashi. J. Phys. Soc. Japan, 14, 8, 1003, 1959; Ref.9: G. L. Pearson, W. L. Feldman. Bull.Amer. Phys. Soc., 7, 336, 1958.

ASSOCIATION: Institut kristallografii AN SSSR
(Institute of Crystallography AS USSR)

SUBMITTED: March 11, 1961

Card 2/2

FILIMONOV, A. A.

"Investigation of the Effect of Heat on Friction-Clutch Slipping." Cand Tech Sci, Khar'kov Polytechnical Inst imeni V. I. Lenin, Khar'kov, 1954. (KL, No 8, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (1L)

FILIMONOV A.A.

137-58-1-1929

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 259 (USSR)

AUTHOR: Filimonov, A.A.

TITLE: On the "Burning On" of Bearings with Lead-base Babbits (K voprosu "prizhiga" podshipnikov so svintsovistymi babbitami)

PERIODICAL: Nauchn. tr. Novocherkass. politekhn. in-t, 1955, Vol 30, pp 218-224

ABSTRACT: An investigation has been made into the effect of the components of the alloy and the temperature on the mechanical and antifriction properties and phenomena accompanying the process of "burning on". As a result of the investigation, the conclusion is drawn that "burning on" is not practicable, as it diminishes plasticity and σ_w.

P.N.

1. Bearings---Test methods 2. Bearings---Test results

Card 1/1

REZ, I.S.; SOHIN, A.S.; TSEPELEVICH, Ye.Ye.; FILIMONOV, A.A.

Experimental investigations aimed at finding new piezoelectrics. Kristallografiia 4 no.1:65-68 Ja-F '59. (MIRA 12:4)

1. TsNIIP.

(Piezoelectric substances)

FILIMONOV, A.A.

Performance of automatic ignition-advance devices of an automobile engine under unsteady conditions. Trudy NPI 131:31-39 '62.
(MIRA 16:3)

(Automobiles --Ignition)

FILIMONOV, A.

With our own forces. NTO 5 no.11:34-35 N '63. (MIRA 16:12)

1. Predsedatel' soveta Nauchno-tekhnicheskogo obshchestva Perechinskogo lesokhimicheskogo zavoda, Zakarpatskaya obl.

L 36341-65 EWG(j)/EWA(k)/FBD/EWT(1)/EPA(s)-2/EWT(m)/EEC(k)-2/EEC(t)/T/EWP(t)
EEC(b)-2/EWP(k)/IWP(b)/EWA(m)-2/EWA(h)/EWA(c) Pn-4/Po-4/Pr-4/Pt-10/Peb/Pi-4
ACCESSION NR: AP5008474 Pl-4 TJP(c) WG/JG S/0070/65/010/002/0255/0256

AUTHOR: Filimonov, A. A.; Lomova, L. G.; Suvorov, V. S.; Pakhomov, V. I.; Sonin, A. S. 81

TITLE: Second harmonic generation in potessium iodate monocrystals 14 21 B

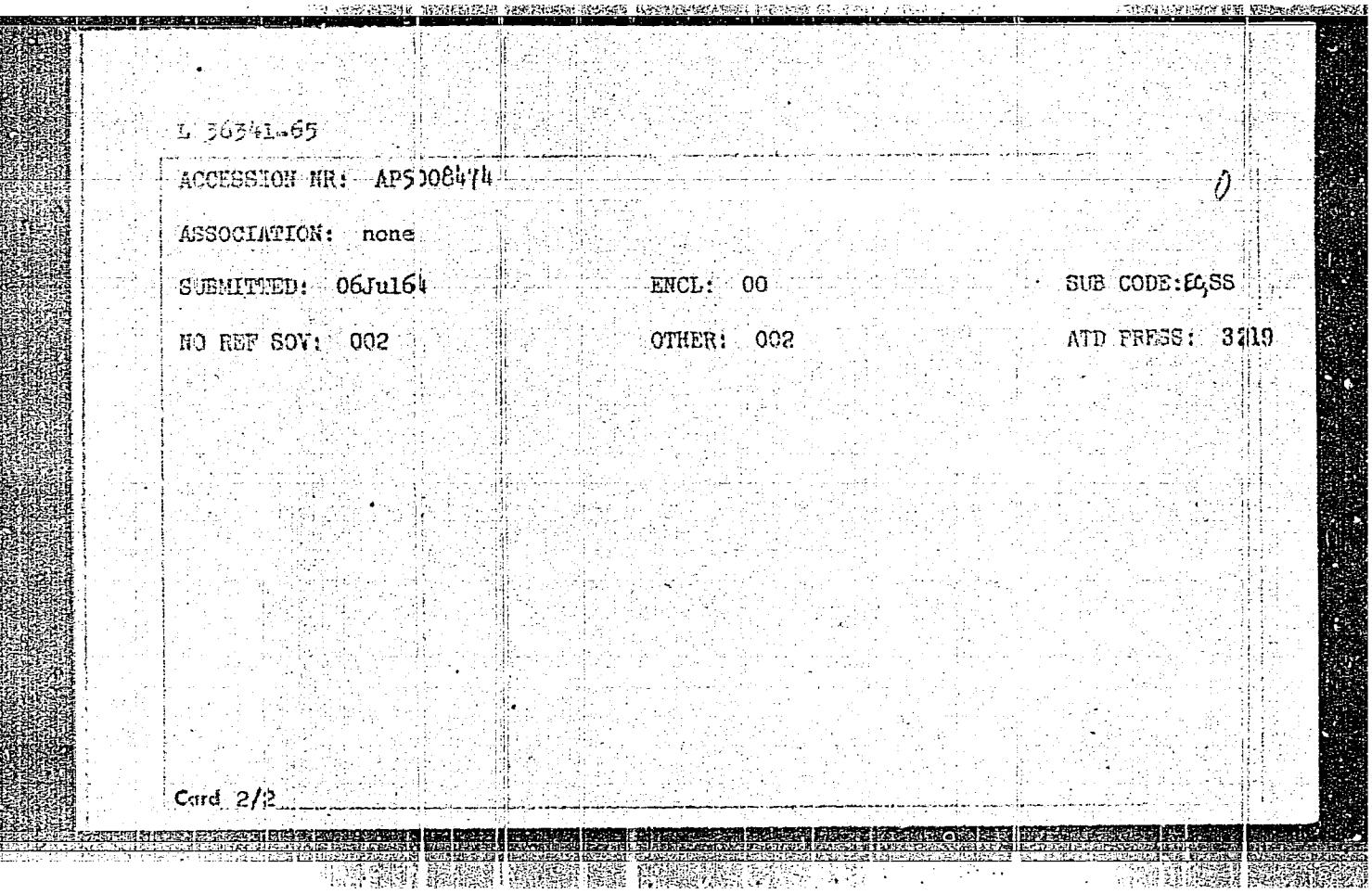
SOURCE: Kristallografiya, v. 10, no. 2, 1965, 255-256

TOPIC TAGS: laser, ruby laser, nonlinear optics, harmonic generation, second harmonic, potassium iodate, nonlinear effect, optical harmonic

17 27

ABSTRACT: A second harmonic generation in crystals of potassium iodate illuminated by a ruby laser emission (λ = 6943 Å) is reported. Maximum generation was in the [102], [120], and [012] directions and was of the same order of magnitude as that observed in ADP crystals in the direction of matching indices. The determination of the direction of matching indices in KIO_3 crystals was difficult because of low crystal symmetry and the difficulty of measuring refraction indexes. The minimal refraction indexes for the D_{Na} line with laser emission propagation in the [100], [010] and [011] directions were 1.7281, 1.7274, and 1.7278, respectively. The KIO_3 crystals exhibited high birefringence. It was determined from absorption spectra that the crystals were transparent between 0.4 and 6.2 μ. [CS]

Card 1/ 2



L 36341-65

ACCESSION NR: AP5008474 0

ASSOCIATION: none

SUBMITTED: 06Jul64 ENCL: 00 SUB CODE: EC,SS

NO REF SOV: 002 OTHER: 002 ATD PRESS: 3210

Card 2/2

KUKLIN, B.K., inzh.; Prinimali uchastiye: TARATUTA, N.K., gornyy inzh.; ZEL'VYANSKIY, A.Sh., gornyy inzh.; BAKHTIN, A.F., gornyy inzh.; BONDARENKO, Ye.D., gornyy inzh.; FILIMONOV, A.F., gornyy inzh. SOCHINSKIY, V.P., otv.red.; KHODNEVA, I.V., red.izd-va; IL'INSKAYA, G.M., tekhn.red.; BOLDYREVA, Z.A., tekhn.red.

[Selection of mining systems for flat Donets Basin seams] Vybor sistem razrabotki dlia pologikh plastov Donbassa. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 194 p. (MIRA 14:4)

(Donets Basin--Coal mines and mining)

FILIMONOV, A. F.

USSR/Geology - Electron Microscope Sep/Oct 53

"Study of Ore Structures by Means of the Electronic Microscope," F. V. Syromyatnikov and A. F. Filimonov

Iz Ak Nauk SSSR, Ser Geol, No 5, pp 135-140

State that exptl investigations show that the electron microscope not only exactly reproduces the characteristic structures which are distinguished in an optical microscope, but also reveals new peculiarities which have not been observed previously. Describe the application of the instrument and the procedure for using it.

265T75

KUKLIN, B.K.; prinimali uchastiye: ZEL'VYANSKIY, A.Sh., gornyy inzh.; BAKHTIN, A.F., gornyy inzh.; FILIMONOV, A.F., gornyy inzh.; TARATUTA, N.N., gornyy inzh.; BONDARENKO, Ye.D., gornyy inzh.; NEYKENBURG, V.Ye., kand. tekhn. nauk, otv. red.; NURMUKHAMEDOVA, V.F., red. izd-va; LOMILINA, L.N., tekhn. red.

[Analyzing the methods of mining flat seams in the Donets Basin] Analiz sistem razrabotki pologikh plastov Donbassa. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 415 p. (MIRA 14:6)

(Donets Basin--Coal mines and mining)

MEDYANTSEV, A.N., kand. tekhn.nauk; KUKLIN, B.K., kand. tekhn. nauk; FILIMONOV, A.F., inzh.; BAKHTIN, A.F., inzh.; SHUSHKOV, A.M., inzh.; SINYUGIN, V.M., inzh.; CHERNYAYEV, V.I., inzh.; BEYLIN, V.Ya., inzh.; ZEL'VYANSKIY, A.Sh., inzh.; ZHIZLOV, N.I., otv. red.

[Selecting systems of multiple-horizon mining of flat seams in the Donets Basin] Vybor skhem sovmestnoi razrabotki pologikh plastov Donbassa. Moskva, Gosgortekhizdat, 1963. 106 p. (MIRA 17:5)

1. Donetsk. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut. 2. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Kuklin). 3. Ukrainskiy filial Vsesoyuznogo nauchno-issledovatel'skogo marksheyderskogo instituta (for Medyantsev).

KLEYMENOV, V.P., gornyy inzh.; FILIMONOV, A.G., gornyy inzh.

Studying the strength of reinforced concrete fastening rods.
Gor. zhur. no.6:71 Je '64. (MIRA 17:11)

1. Karagandinskiy nauchno-issledovatel'skiy ugol'nyy institut, Karaganda.

SPITSYN, M.A.; ELLIMONOV, A.I., kand. tekhn. nauk, dots., nauchn. red.; KOSTYUKOVETS, F.T., red.; MORGUNOVA, G.M., tekhn. red.

[Studying the adhesion of rail and wheels during braking] Issledovanie stsepleniia koles s rel'sami pri tormozhenii. Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1963. 40 p.
(MIRA 17:4)

FILIPCHOV, A. I. Cand Tech Sci

Dissertation: "Investigation of the Performance of the Separation System of Steam Boiler with Separating Drums."

28/6/50

All-Union Order of the Labor Red Banner Heat Engineering Sci Res Inst imeni F. E. Dzerzhinskiy

SO Vecheryaya Moskva
Sum 71

PANA[illegible]NKO, M.D.; TI[illegible]GREYEV, V.N.; FILIMONOV, A.I.

Steam Boilers

Using experimental data for the study of moisture removal. Izv. AN SSSR Otd.tekh. nauk no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.

FILIMONOV, A. I.

AID - P-74

Subject : USSR/Engineering

Card : 1/1

Authors : Panasenko, M. D., Kand. of Eng. Sci. and Filimonov, A. I. Kand. of Eng. Sci., Moscow

Title : Relative Velocity of Steam

Periodical : Izv. V.T.I., v. 21, #3, 10-14, Mr 1952

Abstract : The significance of water expansion due to rapid evaporation and bubbling is discussed and evaluated in special experimental equipment. Expansion of soluble and insoluble ingredients in water is related to the rate of evaporation and the height of water level. Two diagrams and 6 charts. 6 Russian references (1947-51).

Institution : Boiler Laboratory of the All-Union Heat Engineering Inst. im. F. E. Dzerzhinskiy (V.T.I.).

Submitted : August 25, 1951

1. PANASENKO, M.D.; FILIMONOV, A.I.; ROZENGAUZ, I.N.; KOT, A.A.; RUMYANTSEVA, V.A.

2. USSR (600)

4. Steam Boilers

7. Thermochemical testing of the boiler model TP-23 with staged evaporation. Izv. VTI 21 no.10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

Filimonov, A. I.

AID P - 1247

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 8/17

Authors : Kostrikin, Yu. M. and Filimonov, A. I., Kands. of Tech. Sci.

Title : Removal of salts and silicic acid from the steam-water loop by the method of "scavenging" the turbine

Periodical : Teploenergetika, 1, 34-37, Ja 1955

Abstract : The possibilities are considered for the removal of salts and silicic acid from the steam-water cycle of a steam-power station. The effectiveness of the suggested method of "scavenging" is analyzed.

Institution : All-Union Heat Technical Institute

Submitted : No date

FILIMONOV, A.I.

AID P - 2556

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 8/13

Authors : Filimonov, A. I., Kand. Tech. Sci., and Antonov, A. Ya., Engr.

Title : Influence of water cooling in gage glasses on readings

Periodical : Teploenergetika, 6, 37-39, Je 1955

Abstract : The causes for errors occurring in the readings of water gage glasses are analyzed. The possibilities of establishing the actual water level in the drum are presented with theoretical and mathematical equations. Suggestions for improvements in the design of the installations are made. Five diagrams. One American reference, 1953.

Institution: All-Union Heat Engineering Institute

Submitted : No date

FILIMONOV, A.I.

AID P - 2392

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 6/15

Authors : Filimonov, S. S., Khrustalev, B. A. and Kolchenogova, I.P., Kand. Tech. Sci.

Title : Research on heat transfer in boiler furnaces

Periodical : Teploenergetika, 7, 30-33, Jl 1955

Abstract : Tests made on heat transfer in specially-built furnaces are described. A comparison is made with standard equipment. According to the results reported, convective heat transfer is desirable for furnaces of small dimensions. The standard design of the boiler unit appears to be unsatisfactory for some types of furnaces. Four diagrams. Seven Russian references, 1949-1954.

Institution: Power Institute of the Academy of Science, USSR

Submitted : No date

AID P - 4223

Subject : USSR/Heat and Power Engineering

Card 1/1 Pub. 110 a - 4/15

Authors : Panasenko, M. D., I. N. Rozengauz, and A. I. Filimonov, Kand. Tech. Sci.

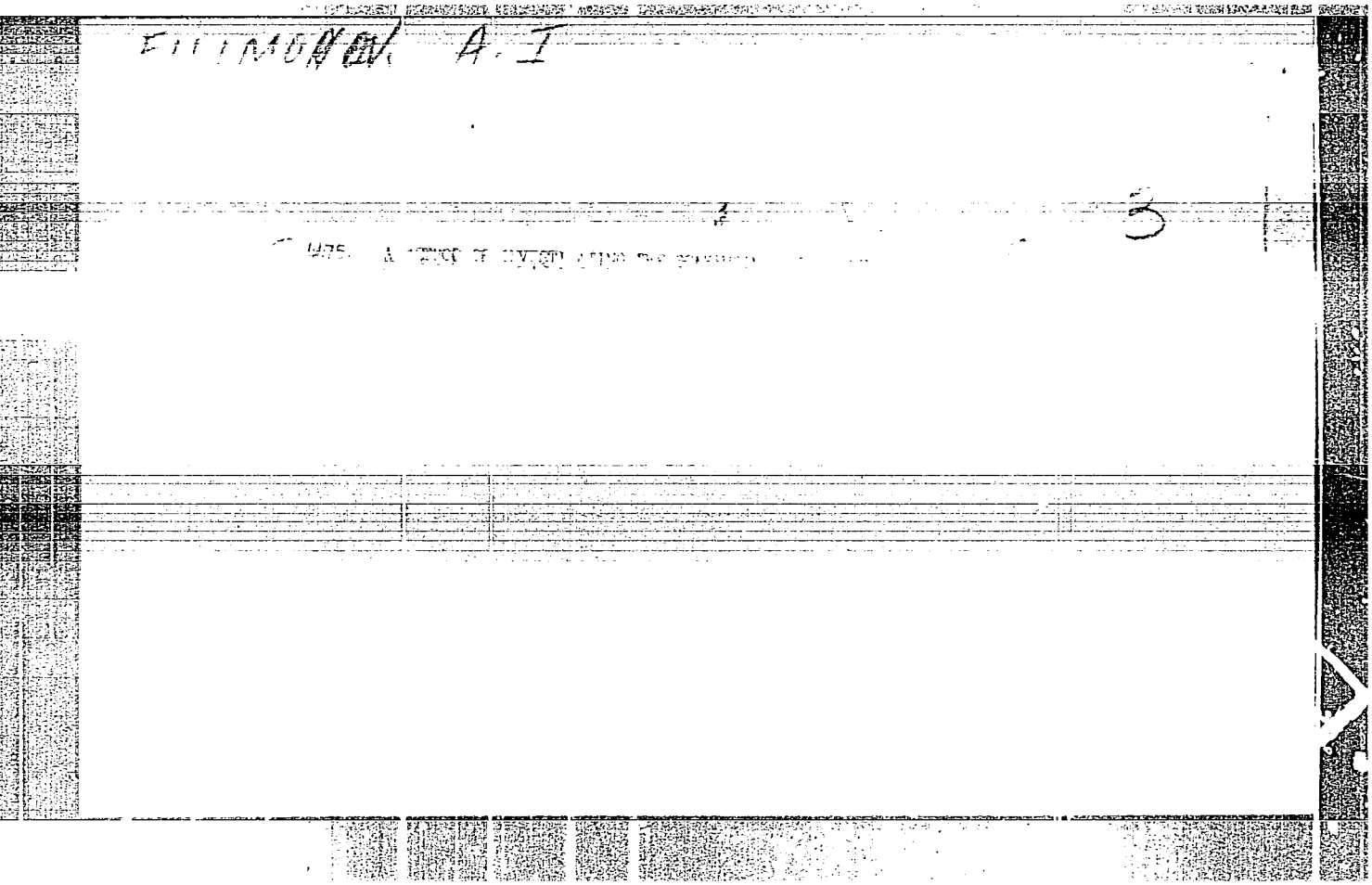
Title : Individual separators of the VTI type

Periodical : Teploenergetika, 3, 22-26, Mr 1956

Abstract : Three different types of separators designed by the VTI are discussed in detail. It is reported that TP-230 boilers equipped with these new separators produce steam of a better quality than the steam obtained from the standard-type equipment. Eight diagrams.

Institution : All-Union Heat Engineering Institute

Submitted : No date



Filimonov, A.I.

AUTHOR: Panasenko M.D., Candidate of Technical Sciences and Filimonov A.I., Candidate of Technical Sciences.

TITLE: The extraction of mineral admixtures from a steam power cycle. (Vyvod mineral'nykh primesey iz parosilvogo tsikla.) 96-7-11/25

PERIODICAL: "Teploenergetika" (Thermal Power), 1957, Vol.4, No.7, pp. 46 - 50 (U.S.S.R.)

ABSTRACT: Only direct flow boilers can be used in the latest power stations working at super-critical pressures or even in some cases at super high pressure. The problem of removing mineral admixtures from the steam cycle of these boilers is, therefore, important. Complete desalting of condensate requires expensive and complicated equipment. Other methods will often be more economical, for example, so-called blow-down from the turbine or the condenser.

In principle blow-down from the turbine is better than from the condenser since the moisture formed in the turbine usually has a much higher content of admixtures than turbine condensate. Using super-critical pressure and double reheat, turbine blow down

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The extraction of mineral admixtures from a steam power cycle. (Cont.) 96-7-11/25

can only be effected by wetting in some way the steam tapped for regeneration. The method of blow down from the condenser proposed by the present authors was considered by M.A. Styrikovich. However, he only considered the variant employing chemical desalting of the blow-down water and, therefore, concluded that the method was not suitable.

This article explains a new variant of blow-down from the condenser with the use of gas evaporators.

The salt balance of a block consisting of a uniflow boiler without separator and a condensing turbine with no special procedures for removing salt from the cycle is considered theoretically. An equation is formulated for the balance of mineral substances in the cycle. The equation is valid for all mineral admixtures except those like iron and copper which are not considered in this article. The author makes two assumptions that are challenged editorially in footnotes. The first of these is that the quantity of mineral substances deposited on the heating surfaces of the boiler and

Card 2/6

The extraction of mineral admixtures from a steam power cycle. (Cont.) 96-7-11/25

turbine cannot be neglected, the footnote claims that sometimes they can. The second is that the amount of substance deposited may be of the order of 0.005 mg/kg which the editors claim is far too high. However, the system is analysed and numerical examples are given for the case of cooling water leaking into the turbine system. It is concluded that deposits in the turbine cannot be prevented only by purification of the make-up water since leakages into the condensate system cannot be entirely prevented. Therefore, some kind of continuous removal of mineral admixtures must be used. It is considered necessary to develop effective methods of purifying the blow-down and make-up water. This may be done by chemical de-salting, by the usual types of evaporators and other devices. However, a much cheaper method is distillation of the water in special "evaporators" working on flue gases towards the tail end of the furnace with subsequent condensation of the steam in air heating calorifiers. Developing the idea of D.A. Ermakov and N.S. Vasil'ev of the Kashira Power

Card 3/6

The extraction of mineral admixtures from a steam power cycle. (Cont.) 96-7-11/25
Station (KashirskoyGRES), the All-Union Thermo-technical Institute developed a cascade gas evaporator which besides producing condensate from chemically softened water permits the dimensions of the convective heating surfaces of the boiler to be reduced and facilitates the arrangement of the heating surfaces outside of the temperature region in which corrosion is dangerous. A possible circuit is illustrated in Fig. 3. The first stage air heater is replaced by a cascade medium pressure evaporator with step-wise evaporation. Blow-down water from the condenser is passed through a de-aerator and is delivered by pump to the first stage of evaporation. On the way the water is heated in a gas duct. Steam from the first stage of evaporation is directed to the last calorifier on the air duct in which the air is heated to 225 °C. The water that is not evaporated in the first stage passes to the second stage of evaporation at lower pressure and so on.

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Each stage of evaporation has its own circulation circuit and one or several separators (cyclones). Condensate is taken from the calorifiers in a similar way.

The extraction of mineral admixtures from a steam power cycle. (Cont.) 96-7-11/25

Chemically purified make-up water is delivered to the last stage of evaporation. The steam from this stage is further purified by the method of partial condensation. Condensate from the calorifiers passes to a deaerator. The circuit can give water of very high quality in respect of both salt content and silicic acid since the actual blow-down water from the condenser has a low content of admixtures and the steam is carefully purified. A calculation was made for a boiler with an output of 600 t/h with a superheated steam condition of 210 atm. and 610 C operating on Aralichevsk coal. The equipment illustrated in the diagram would have a steam output of about 67 t/h, ten extraction cyclones would be required and a low pressure drum of 1 400 mm diameter. Since the gas evaporator is installed in place of the first stage air heater the gas-way need not be so high and the quantity of metal required will be about the same.

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On comparing the various methods of purifying condensate (or other blow-down water from the cycle) by

The extraction of mineral admixtures from a steam power cycle. (Cont.) 96-7-11/25

chemical desalting and distillation in gas evaporators the following circumstances should be allowed for. In the gas evaporator the condensate is a product of double distillation, the output of which will be much purer than the initial condensate. The cost of the boiler equipment is hardly increased by the installation of the gas evaporator and its size is reduced. No additional staff are required. The method of blowing down condensate and treating it in gas evaporators can be used whatever the boiler pressure in view of the extreme importance of ensuring the requisite quality of steam for the operation of large boiler-turbine blocks particularly with super high steam conditions it is necessary to construct and test several installations with gas evaporators. There are 3 figures and 3 Slavic references.

Card 6/6

ASSOCIATION: All-Union Thermo-technical Institute (VTI)

AVAILABLE:

Filimonov, A.I.

FILIMONOV, A.I., kandidat tekhnicheskikh nauk; PRZHIYALKOVSKIY, M.M., kandidat tekhnicheskikh nauk; DIK, E.P., inzhener; PETROVA, I.N., inzhener.

Specific driving pressures in pipes with descending level at a steam loading of 17 to 180 atm [with summary in English]. Teploenergetika 4 no.10:22-26 O '57. (MIRA 10:9)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Boilers)

FILIMONOV, A.I., kand.tekhn.nauk

Efficiency of gas ejectors. Avt.i trakt.prom. no.9:9-12 S '57.
(MIRA 10:11)

(Automobiles--Engines--Cooling)

SOV/113-58-2-10/15

AUTHOR: Filimonov, A.I., Candidate of Technical Sciences

TITLE: A Method of Testing a Gas Ejector and the Operating Conditions of the Same (O metodike ispytaniy i rezhimakh raboty gazovogo ezhektora)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 2, pp 34 - 37 (USSR)

ABSTRACT: The work of a gas ejector is determined by the consumption, pressure, and temperature of the ejecting and the ejected gases. A simple diagram of an ejector is shown in Figure 1. The device used in the experiments is given in Figure 2. Several formulae are developed in the article for calculating the work of an ejector. The experimental results for nozzles of 25-200 mm in diameter and a mixing chamber of 1,500 mm length are given in Figure 3. There are two fields of operation for the nozzles: in ejectors with central supply of the high-pressure gas and in ejectors with peripheric supply of the high-pressure gas. Ejectors may be used in automobiles: 1) in place of a fan for blowing air through the radiator which increases the effective power of the

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engine by 5-10%, since the ejectors may be driven by exhaust gases (Figure 5); 2) for removing dust from the bin of the air cleaning device which reduces wear and increases reliability (Figure 6); 3) for reducing the counter-pressure in the exhaust which improves the cleaning of the cylinders etc. (Figure 7). There are 3 diagrams and 4 graphs.

1. Air ejectors--Test methods 2. Air ejectors--Operation
3. Air ejectors--Applications 4. Exhaust gases--Applications

SOV/96-59-7-15/26

AUTHORS: Filimonov, A.I., Candidate of Technical Sciences, and Dik, E.P., Engineer

TITLE: The Influence of Mass Exchange on the Formation of Deposits from Steam Solutions (Vliyaniye massoobmena na obrazovaniye otlozheniy iz parovykh rastvorov)

PERIODICAL: Teploenergetika, 1959, Nr 7, pp 69-74 (USSR)

ABSTRACT: The process of deposit formation in once-through boilers and turbines depends on the conditions. In the wet steam zones the substance is precipitated because the aqueous solution is evaporated to the concentration of saturation. In the super-heater and turbine, small particles of substances, which are already present, become coagulated, and substances dissolved in the steam crystallise out. Because of increase in steam conditions, and improvements in the quantity of feed-water and steam, a greater proportion of the total contamination is dissolved in the steam. It is, therefore, of great practical interest to study the crystallisation of substances from a single-phase steam solution in super-heater tubes and turbines. Simple

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The Influence of Mass Exchange on the Formation of Deposits from Steam Solutions

equations of crystallisation are formulated and it is shown that the rate of crystallisation may depend on diffusion or kinetic factors. In aqueous solutions both these factors may play a part, but the conditions of crystallisation of substances from steam solution are somewhat different. Precipitation from steam occurs at much higher temperatures than are usually encountered in aqueous solutions. At the higher temperatures the reactions are much faster and it may be supposed that the rate of crystallisation of substances from steam depends on mass exchange and not on kinetic processes. Moreover, molecules dissolved in steam are much less closely linked with the molecules of solvent than are ions in aqueous solutions. This also suggests that the kinetic part of the process occurs very rapidly during crystallisation from steam solutions. Accordingly, the equation for the quantity of substance precipitated assumes the form of equation (6), where β is the mass-transfer coefficient. The case of precipitation in a heated tube is then considered. Investigations on the solubility of sub-

The Influence of Mass Exchange on the Formation of Deposits from Steam Solutions

stances in steam have established that for many of them the nature of the solubility isobar is much the same. As the steam temperature rises, the solubility of the substance diminishes, reaches a minimum, and then begins to rise again, as shown in Figure 1. It is then shown that precipitate can form on the walls of a heated tube because it is at a higher temperature than the steam flowing through it, so that the steam in direct contact with the tube walls becomes super-saturated. The rate of deposit formation is given by expression (14). The analogy between the processes of mass- and heat-transfer may be used to determine the mass-transfer coefficient. Expression (16) is then derived for the coefficient. It is difficult to use this formula because there is no experimental data or reliable method of calculating the coefficient of diffusion of substance in steam. However, for super-heated steam the diffusion and thermal Prandtl criteria differ by not more than a factor of two. Expression (18) is then derived for the crystallisation

The Influence of Mass Exchange on the Formation of Deposits from Steam Solutions

head' and can be used, together with equation (13), to derive the salt content of the steam. The above equations are only valid if the substance does not crystallise in the volume of the steam. The conditions under which this requirement is fulfilled are then examined. Certain simplifying assumptions are made for this case and then expression (21) is derived as a particular solution of differential equation (18). According to formula (21), after crystallisation from the steam has started its salt content tends towards a straight line, as shown in Figure 3a; this is a graph of change of concentration of substance in the steam over the length of the heated tube. A simple criterion of the possibility of crystallisation of substance in the flow of steam is then derived. The relationship between the salt content of the steam and that of the feedwater is then considered. The examination of the problem is based on the simplified equation (21). Equation (23) is derived for the relationship and it is plotted in Figure 4. Figure 5 shows curves of the relationship between the

The Influence of Mass Exchange on the Formation of Deposits from Steam Solutions

quantity of substance precipitated from a kilogram of steam and the concentration of the substance in the feed-water. The curves indicate that the amount of substance precipitated depends not only on the solubility in the steam but on a number of other factors. The deposition of substances on steam turbine blading is then considered. When steam expands in a turbine the solubility of substances in it decrease sharply. As soon as the solubility becomes less than the concentration of substance in the steam the solution becomes super-saturated and crystallisation occurs. Unlike the case of a heated tube, where conditions favouring crystallisation occur only at the hot tube surface, in a turbine the whole body of steam is super-saturated; hence crystallisation could occur either on the surface or in the steam. In practice, crystallisation in the steam may be neglected both because the amount of salt is small and because it passes through the turbine very quickly. The amount of substance crystallising per unit time on the turbine blading is proportional to the coefficient of mass

The Influence of Mass Exchange on the Formation of Deposits from Steam Solutions

transfer, to the surface area of the blades and nozzles and to the 'crystallisation head', that is, the difference between the concentration of substance in the steam and its solubility under the given conditions. The conditions of crystallisation are likely to be very different in different stages of the turbine and it is, therefore, advisable to consider them for each stage in turn and to summate the results, as in equation (24). The conditions of deposit formation are then discussed. Although on straightforward theoretical grounds crystallisation would be expected to occur all over the blading, in fact deposits form mainly on the back of the blades where they are less likely to be washed off by the moving steam. Moreover, deposits are likely to be removed by vibration of the blading. Thus, the amount of deposit actually crystallising on the blades may be very much greater than the amount that remains there. It is considered possible that the effect of super-saturation of steam solutions might be used to extract substances from the cycle. In particular, it is of interest to know

The Influence of Mass Exchange on the Formation of Deposits from Steam Solutions

how much salt crystallisation can occur in the duct between the high- and low-pressure cylinders, because this would remove salt from the cycle.
There are 5 figures and 5 Soviet references.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut (All-Union Thermo-Technical Institute)

SOV/56-36-4-11/70

24(8)
AUTHORS: Peshkov, V. P., Zinov'yeva, K. N., Filimonov, A. I.

TITLE: He^3 Cryostats (Kriostaty s He^3)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 4, pp 1034-1037 (USSR)

ABSTRACT: For investigations at low temperatures (1 - 4.2°K) cryostats with He^4 are generally used. However, as the latter becomes superfluid already at 2.18°K, it is difficult, by means of such devices, to get near to absolute zero. A record achievement was attained by means of such a He^4-cryostat by Keesom (Leiden, 1932, Ref 1) with 0.71°K with the aid of a strong pump (pumping capacity 675 l/sec); Lazarev and Yesel'son (Ref 2) were able to attain the same value by means of a much weaker pump (15 l/sec). In the present paper the authors describe work carried out with cryostat devices operating with He^4 and He^3, which are able to attain and to maintain temperatures of up to 0.3°K. These devices are at the Institut fizicheskikh problem (Institute for Physical Problems). Use of the

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He^3 Cryostats

very rare isotope He^3 was found to be necessary, because at such low temperatures He^3 is not yet superfluid and therefore pumping out helium vapors presents no difficulties. Figure 1 is a schematical representation of the first device. In principle, the cooling vessel consists of a double Dewar vessel containing He^4; in its interior there is a second Dewar vessel, which contains 3 cm^3 of liquid He^3. Sucking off of the vapors is carried out by means of a thin-walled steel tube which is connected by means of a copper connecting piece with the Dewar vessel, by means of a mercury diffusion pump DRN-50 (30 l/sec) operating with a counterpressure of 25-30 torr.

Owing to the low temperature of the He^4-surrounding, this pump is able to operate without a pre-vacuum. The lowest temperature attainable by means of this device is about 0.3°K (p = 0.002 torr). Temperature measurement is carried out by means of a resistance thermometer (30μ phosphor-bronze wire) which had been previously gauged at He^3-vapor pressure. (Pressure measurement by means of a MacLeod manometer). If a regular supply of liquid He^3 is maintained, the device may be kept in operation for 8 - 10 hours with one and the same fil-

He^3 Cryostats

ling of gaseous He^3 (about 3 l). If the pumps are disconnected, the He^3 liquid increases within 3 hours from 0.3 to 1°K. The second model is, in principle, similar to the first (Fig 1b), the different construction of the cooling vessel is shown by figure 2. The mechanical Tepler-pump (mercury operating as a pre-vacuum pump was replaced in device 2 by an oil pump of the type NVG-2 developed at the NIVI. The He^3-vapors were also sucked off by means of a mercury diffusion pump which, in this case, however, worked with the pre-vacuum pump NVG-2. By means of this device it is possible to attain up to 0.35°K, by continuous operation 0.5°K. Temperature measurement was carried out as in the case of device 1. The two devices are described with all details by the present paper. There are 2 figures and 6 references, 3 of which are Soviet.

ASSOCIATION: Institut fizicheskikh problem Akademii nauk SSSR (Institute for Physical Problems of the Academy of Sciences, USSR)

FILIMONOV, A.I.

Case of lipomatosis of the small intestine with torsion. Khirurgiia no.6:111 Je '61. (MIRA 14:11)

1. Iz Gorodskoy tsentral'noy bol'nitsy imeni N.I. Pirogova (glavnyy vrach E.P. Zhil'tsova), Kuybyshev.
(INTESTINES--OBSTRUCTIONS) (INTESTINES--TUMORS)

TKACHENKO, V.K.; FILIMONOV, A.I.

Gasifier for obtaining pressures up to 100 atmospheres by means of liquid helium. Prib.i tekh.eksp. 6 no.5:203-204 S-O '61. (MIRA 14:10)

1. Institut fizicheskikh problem AN SSSR.
(High-pressure research--Equipment and supplies)

L 21215-66 EWT(1) GW

ACC NR: AP6011949 SOURCE CODE: UR/0213/65/005/006/1095/1099

AUTHOR: Filimonov, A. I.

ORG: Kaliningrad Department, Institute of Oceanology, AN SSSR (Kaliningradskoye otdeleniye Instituta okeanologii AN SSSR)

TITLE: Use of Alekseyev printing current meters for study of storm currents in the coastal zone of the sea

SOURCE: Okeanologiya, v. 5, no. 6, 1965, 1095-1099

TOPIC TAGS: ocean current, ocean dynamics

ABSTRACT: Surveys of coastal currents can be made with Alekseyev printing current meters. Setting out these current meters is simple and when suitable vessels and divers are available entails little difficulty. The most suitable current meters are of the BPV-2p type, whose small weight (28 kg) facilitates such investigations. The results, which are comparable to those obtained by other methods, make it possible to compute the water discharge along the coast and the motion of water normal to the shore and their interrelationship. In the coastal zone there are three methods which can be used in placement of the printing current meters. The article illustrates these methods. The first involves use of metal tripods made of waterpipes, anchored to the bottom and marked with a buoy. The tripods are assembled on shore and put into position

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by small craft. It also is possible to use a framework in the form of a prism with the base in the form of a rectangle. The framework is held in position by a 100-kg anchor and is marked with a buoy. It has the advantage that it can be placed without the aid of a diver, but it should be positioned at depths greater than 6-7 m; at lesser depths it is better to use tripods, due to their greater stability and strength. In the third method the current meters are suspended to a buoy; the buoy is held in position by three anchors with guys. Observational data for storm currents for 1962-1964 demonstrated that printing current gages can be used for successful measurement of the dynamics of the waters of the coastal zone. The meters can operate up to two months without replacement of the tapes. Orig. art. has: 3 figures. [JPRS]

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Card 2/2 dda

ACC NR: AT7001793 (N) SOURCE CODE: UR/0000/66/000/000/0028/0037

AUTHOR: Filimonov, A. I.

ORG: none

TITLE: Some data on coastal currents

SOURCE: AN SSSR. Okeanograficheskaya komissiya. Issledovaniya gidrodinamicheskikh i morfodinamicheskikh protsessov beregovoy zony morya (Studies of hydrodynamic and morphodynamic processes of the shoreline). Moscow, Izd-vo Nauka, 1966, 28-37

TOPIC TAGS: ocean current, oceanographic equipment

ABSTRACT: The article is based on materials collected by the Baltic Expedition of the Oceanology Institute of the AN SSSR and represents a study of coastal currents in the Baltic Sea between Klayped (transliterated name) and Zelenogradsk during five storms covering a period from July 23 to August 12, 1962. In contrast to the general primitive practice of using floats and tracer dyes to determine the speed of coastal currents, the present observations were conducted with the use of VDK wave pressure recorders, wave recorders, EMK wave velocity recorders, and BPV current meters with printout devices. On the basis of recorded data on coastal currents and wind velocity the following empirical formula was derived for finding the speed of a coastal current:

$$u = 0{,}045\,w - 8, \qquad (2)$$

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where u represents the speed of a coastal current and w represents wind velocity expressed in m/sec. Dependence of coastal current speed on wind velocity is determined by wind direction in relation to the coastline and may vary by 35 to 45 cm/sec for the same velocity depending on the storm phase. When storm intensity is decreasing the dependence may be expressed linearly; but, when storm intensity is increasing, the dependence curves may be of the first or second order. Proximity of the coastline affects the current in the following manner. The direction of the current strives to parallel the coastline, but actually the current can deflect by an angle of 15 to 20° toward or away from it. When the angle between wind and coastline is small, the current almost coincides with wind direction. When the angle between wind and coastline increases, the angle between wind direction and current increases. When the wind blows at a right angle to the coastline, the direction of the current is extremely unsteady. Large scale underwater structures are needed for more detailed and comprehensive hydrodynamic studies of coastal waters. Orig. art. has: 4 figures and 1 table.

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GUTERMAN, I.I., kand. tekhn. nauk; FILIMONOV, A.I., kand. tekhn. nauk; SHAANOV, A.I., inzh.

Balancing the D21 two-cylinder diesel engine. Trakt. i sel'khozmash. no.7:8-11 Jl '65. (MIRA 18:7)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut (for Guterman, Filimonov). 2. Vladimirskiy traktornyy zavod (for Shaanov).

YENIN, V.T., kand.tekhn.nauk; SAKOVICH, A.A., kand.tekhn.nauk; FILIMONOV, A.N., inzh., (Leningrad).

Prospective use of d.c. electric power transmission in the Soviet Union. Elektrichestvo no.11:88-92 N '57. (MIRA 10:10)

1.L'vovskiy politekhnicheskiy institut (for Yenin). 2.Vsesoyuznyy elektrotekhnicheskiy institut im. Lenina (for Sakovich).
(Electric power distribution)

FILIMONOV, A.N., inzh. (Leningrad)

Problems of long distance electric power transmission. Prospects for increasing the voltages of overhead power transmission lines. Elektrichestvo no.3:89-90 Mr '64. (MIRA 17:4)