L 40019-66

ACC NR: AT6017045

of the device is about 250 cps. The sensitivity of the instrument depends upon the type of loop circuit used and upon the position of the generator. The instrument can be adjusted to record both low and high frequency components of waves and hence can be used in varying degrees of turbulence. Orig. art. has: 3 figures, 1 table.

SUB CODE: 14,08/ SUBM DATE: none

Card 2/2

L 36050-66 EWT(d)/EWP(1) IJP(c) BC/GG

ACC NR: AT5017055 (N) SOURCE CODE: UR/2566/65/074/000/0085/0089

AUTHOR: Vershinskiy, N. V.; Borovikov, P. A.

ORG: none

TITLE: Design of stations with automatically controlled depth

SOURCE: AN SSSR. Institut okeanologii. Trudy, v. 74, 1965. Elektronnyye pribory dlya okeanologicheskikh issledovaniy (Electronic instruments for oceanological research), 85-89

TOPIC TAGS: measuring apparatus, oceanographic instrument

ABSTRACT: An automatic device for the continuous collection of oceanographic data is described. The device is based on a work by R. A. Zlotky ("A Concept for a Remotely Interrogated Synoptic Oceanographic Data Sampling Buoy," *Marine Sci. Instrumentation*, 1961, 1). The station consists of a signal buoy with a radar device and a signal light, a cable with an anchor at one end and a submerged lift buoy, and an instrument package which moves up and down the cable at programmed intervals. Data are stored in the memory of the measuring device and transmitted to a receiver when the device is near the ocean surface. The electric power required to move the package up and down the cable is calculated and a solution for a particular case is given. The design of a new electromechanical device with a considerably reduced power consumption is reported. Orig. art. has: 4 figures, 13 formulas.

SUB CODE: 08,14/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 003

Card 1/1 vmb

ACC NR: AP7002586 (A, N) SOURCE CODE: UR/0413/66/000/023/0081/0081

INVENTOR: Vershinskiy, N. V.

ORG: none

TITLE: Vibration temperature detector. Class 42, No. 189178

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 81

TOPIC TAGS: temperature gage, vibration measurement

ABSTRACT: This Author Certificate presents a vibration temperature detector based on the frequency change with temperature of the natural oscillations of a sensor. The sensor is placed between undamped oscillation excitation coils connected in a measuring circuit. To increase the accuracy of measurements, the sensor of the detector is in the form of a tuning fork made of material with a high temperature coefficient of frequency, e.g., nickel. The sensor is placed in a vacuum and is coupled through a heat conductor to a heat exchanger placed in the medium to be monitored.

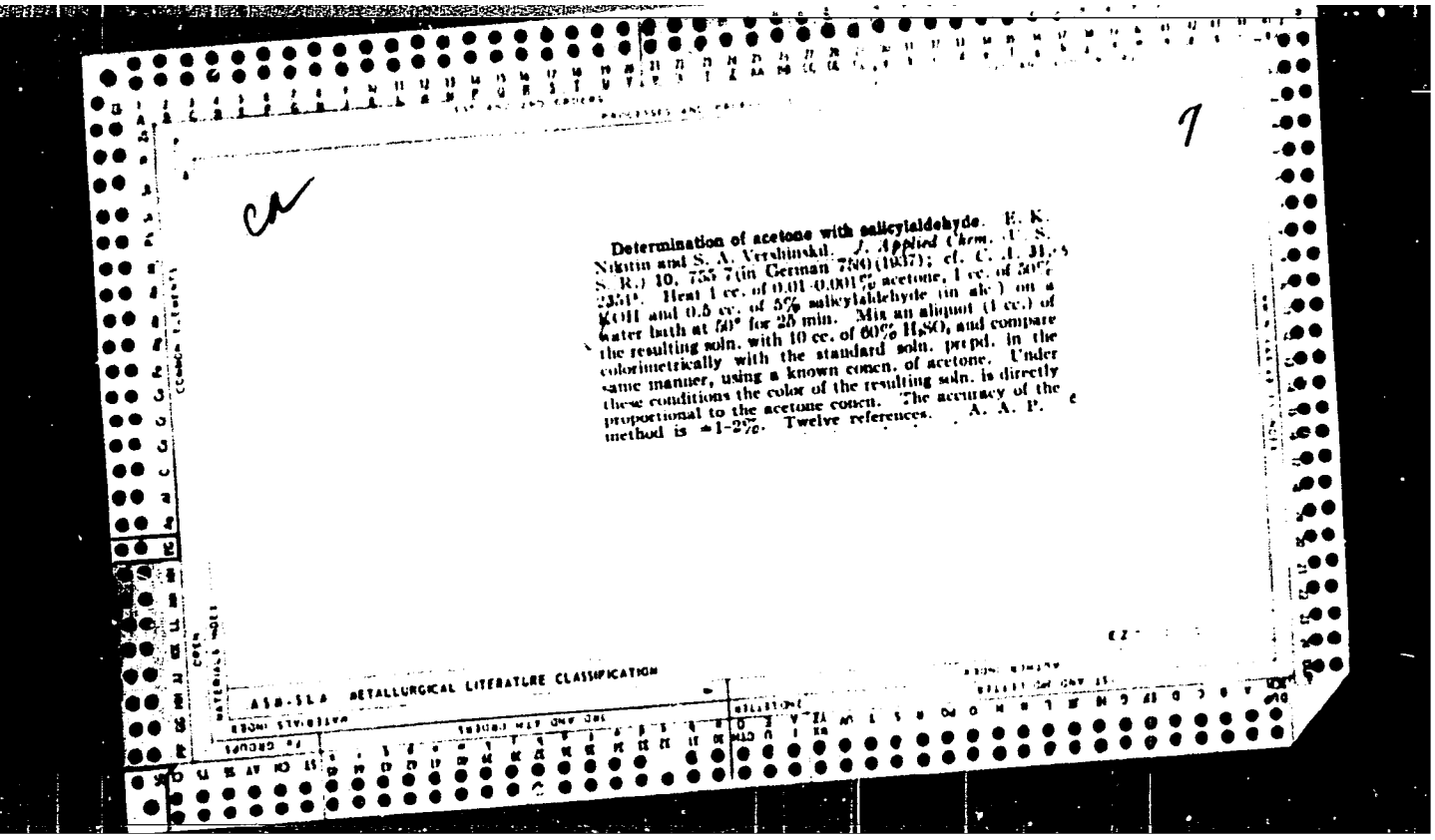
SUB CODE: 13, 14/ SUBM DATE: 02Sep65

Card 1/1 UDC: 536.55:534.014.1

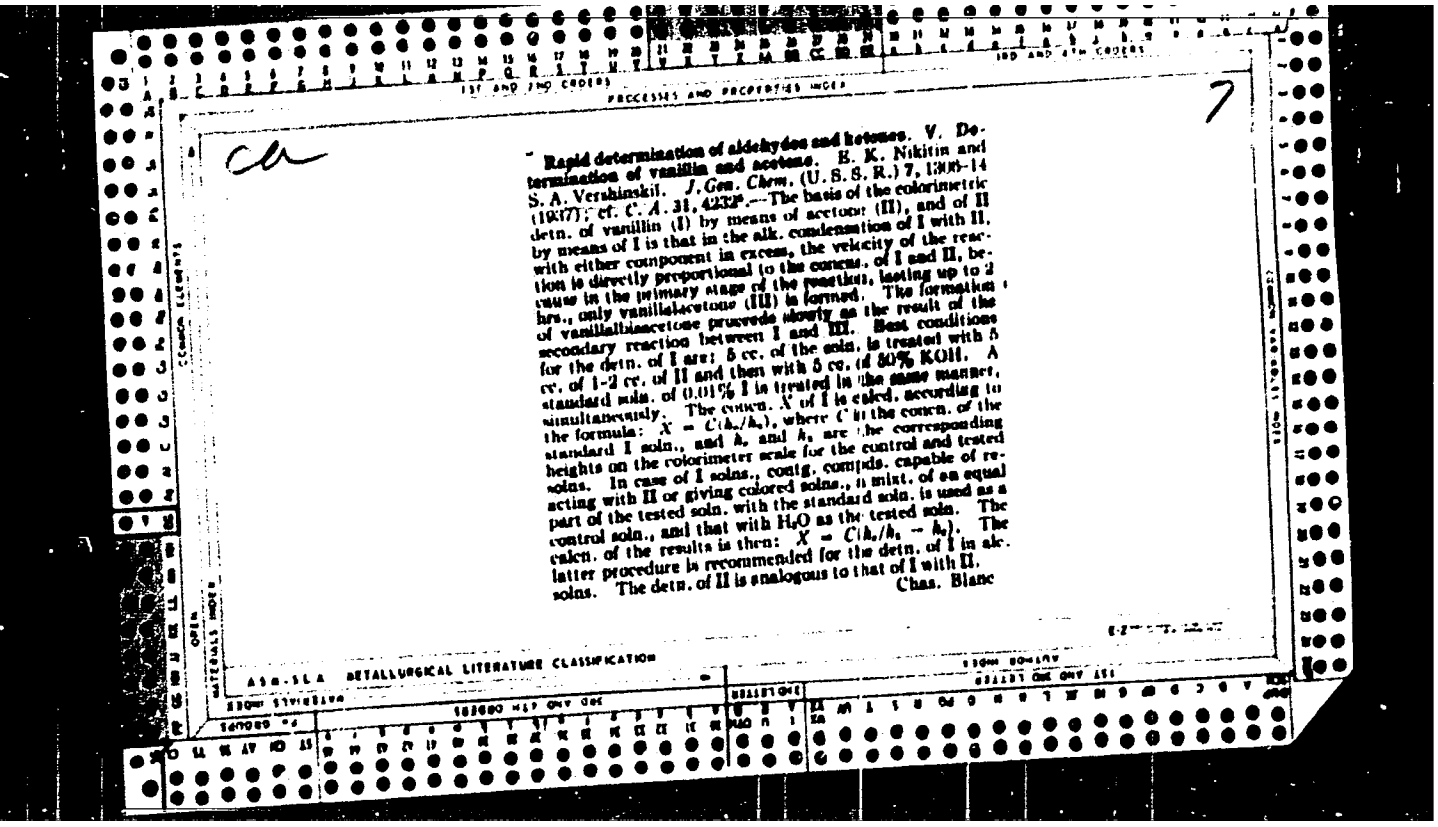
VERSHINSKIY, N.V., kand. tekhn. nauk

Underwater robots. Vest. AN SSSR 33 no.12:37-41 D '63.
(MIRA 17:1)

1. Institut okeanologii AN SSSR.

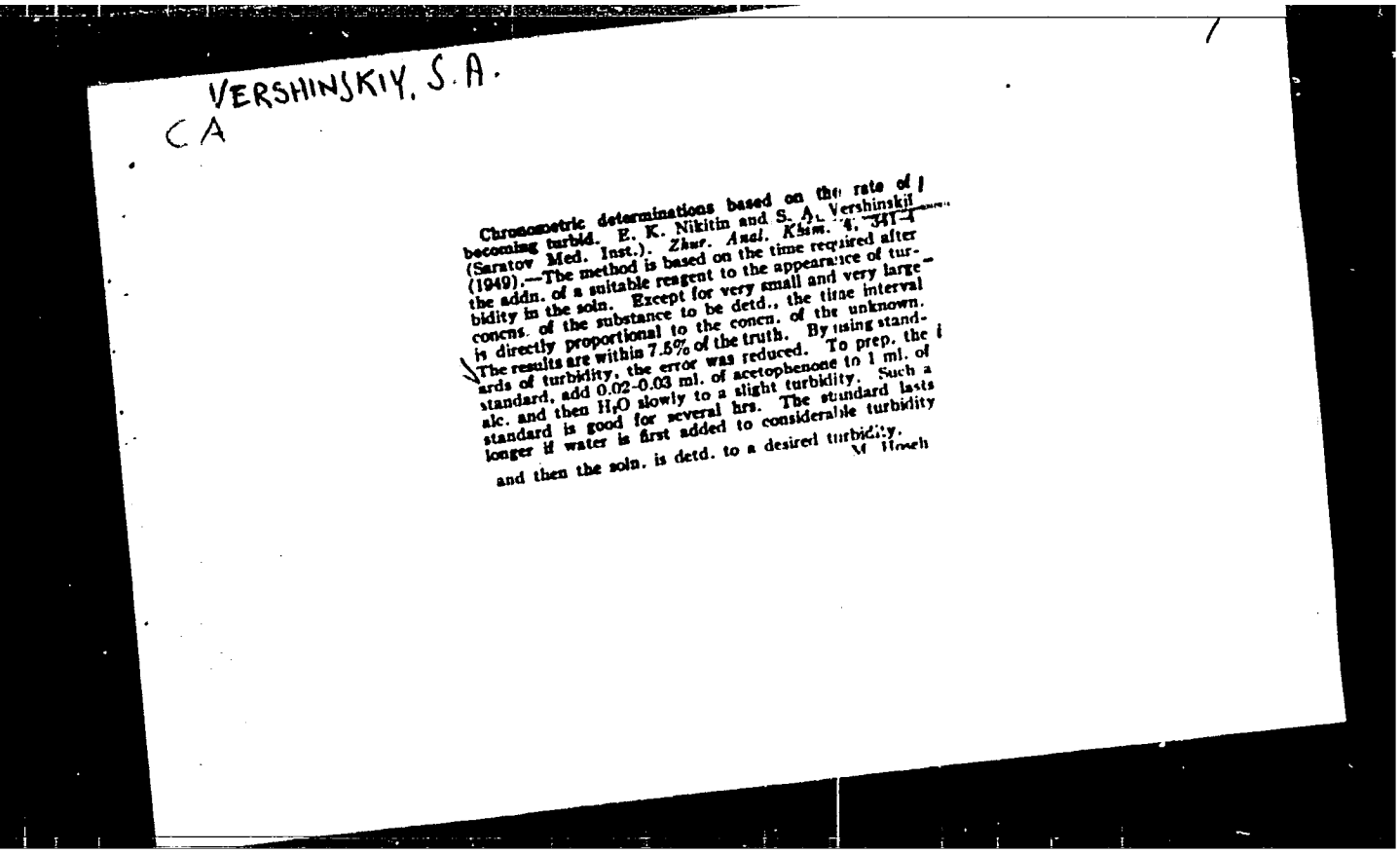


Determination of acetone with salicylaldehyde. E. K. Nikitin and S. A. Vershinskii. *J. Applied Chem. U. S. S. R.*) 10, 755-7 (in German 780) (1937); cf. C. A. 31, 2351[9]. Heat 1 cc. of 0.01-0.001% acetone, 1 cc. of 30% KOH and 0.5 cc. of 5% salicylaldehyde (in alc.) on a water bath at 50° for 25 min. Mix an aliquot (1 cc.) of the resulting soln. with 10 cc. of 60% H_2SO_4 and compare colorimetrically with the standard soln. prepd. in the same manner, using a known concn. of acetone. Under these conditions the color of the resulting soln. is directly proportional to the acetone concn. The accuracy of the method is ±1-2%. Twelve references. A. A. P.



Rapid determination of aldehydes and ketones. V. Determination of vanillin and acetone. B. K. Nikitin and S. A. Vershinskii. *J. Gen. Chem.* (U. S. S. R.) 7, 1308-14 (1937); cf. *C. A.* 31, 4232⁸.—The basis of the colorimetric detn. of vanillin (I) by means of acetone (II), and of II by means of I is that in the alk. condensation of I with II, with either component in excess, the velocity of the reaction is directly proportional to the concns. of I and II, because in the primary stage of the reaction, lasting up to 2 hrs., only vanillalacetone (III) is formed. The formation of vanillalbisacetone proceeds slowly as the result of the secondary reaction between I and III. Best conditions for the detn. of I are: 5 cc. of the soln. is treated with 5 cc. of 1-2 cc. of II and then with 5 cc. of 30% KOH. A standard soln. of 0.01% I is treated in the same manner, simultaneously. The concn. X of I is calcd. according to the formula: $X = C(h_s/h_0)$, where C is the concn. of the standard I soln., and h_s and h_0 are the corresponding heights on the colorimeter scale for the control and tested solns. In case of I solns., contg. compds. capable of reacting with II or giving colored solns., a mixt. of an equal part of the tested soln. with the standard soln. is used as a control soln., and that with H_2O as the tested soln. The calcn. of the results is then: $X = C(h_s/h_s - h_0)$. The latter procedure is recommended for the detn. of I in alc. solns. The detn. of II is analogous to that of I with II.

Chas. Blanc



VERSHINSKIY, S. A.

CA

Chronometric determinations based on the rate of becoming turbid. E. K. Nikitin and S. A. Vershinskii (Saratov Med. Inst.). *Zhur. Anal. Khim.* 4, 341-4 (1949).—The method is based on the time required after the addn. of a suitable reagent to the appearance of turbidity in the soln. Except for very small and very large concns. of the substance to be detd., the time interval is directly proportional to the concn. of the unknown. The results are within 7.5% of the truth. By using standards of turbidity, the error was reduced. To prep. the standard, add 0.02–0.03 ml. of acetophenone to 1 ml. of alc. and then H_2O slowly to a slight turbidity. Such a standard is good for several hrs. The standard lasts longer if water is first added to considerable turbidity and then the soln. is detd. to a desired turbidity.

M. Hoch

VERSHINSKIY, S. A.

35841. K metodike khronometricheskikh opredeleniy op skorosti ponutneniya. Zhurnal analit. Khimii, 1949, Vyp. 6, S. 341-44-Bibliogr: S. 344

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

VERSHINSKIY, S. V.

ALFEROV, A. A.; ARTEMKIN, A. A.; ASHKENAZI, Ye. A.; VINOGRADOV, G. P.; GALEYEV, A. U.; GRIGOR'YEV, A. N.; D'YACHENKO, P. Ye.; ZALIT, N. N.; ZAKHAROV, P. M.; ZOBNIN, N. P.; IVANOV, I. I.; IL'IN, I. P.; KMETIK, P. I.; KUDRYASHOV, A. T.; LAPSHIN, F. A.; MOLYARCHUK, V. S.; PERTSOVSKIY, L. M.; POGODIN, A. M.; RUDOY, M. L.; SAVIN, K. D.; SIMONOV, K. S.; SITKOVSKIY, I. P.; SITNIK, N.D.; TETEREV, B. K.; TSETVERKIN, I. Ye.; TSUKANOV, P. P.; SHADIKYAN, V. S.; ADELUNG, N. N., retsenzent; AFANAS'YEV, Ye. V., retsenzent; VLASOV, V. I., retsenzent; VOROB'YEV, I. Ye., retsenzent; VORONOV, N. M., retsenzent; GRITCHENKO, V. A., retsenzent; ZHEREBIN, M. N., retsenzent; IVLIYEV, I. V., retsenzent; KAPORTSEV, N. V., retsenzent; KOCHUROV, P.M., retsenzent; KRIVORUCHKO, N. Z., retsenzent; KUCHKO, A. P., retsenzent; LOBANOV, V. V., retsenzent; MOROZOV, A. S., retsenzent; OBLOV, S. F., retsenzent; PAVLUSHKOV, E. D., retsenzent; POPOV, A. N., retsenzent; PROKOF'YEV, P. F., retsenzent; RAKOV, V. A., retsenzent; SINEGUBOV, N. I., retsenzent; TEREMIN, D. F., retsenzent; TIKHOMIROV, I. G., retsenzent; URBAN, I. V., retsenzent; FIALKOVSKIY, L. A., retsenzent; CHEPYZHEV, B. F., retsenzent; SHEBYAKIN, O.S., retsenzent; DMITRIYAKOV, P. D., retsenzent; GARNYK, V. A., redaktor; LOMAGIN, N. A., redaktor; MORDVINKIN, N. A., redaktor; NAUMOV, A. N., redaktor; POBEDIN, V. F., redaktor; RYAZANTSEV, B. S., redaktor; TVERSKOY, K.N. redaktor; CHEREVATYY, N. S., redaktor; ARSHINOV, I. M., redaktor; BABELYAN, V. B. redaktor; BERNGARD, K. A., redaktor; VERSHINSKIY, S. V., redaktor; GAMBURG, Ye. Yu., redaktor; DERIBAS, A. T., redaktor; DOMBROVSKIY, K. I., redaktor; KORNEYEV, A. I., redaktor; MIKHEYEV, A. P., redaktor; MOSKVIN, G. N., redaktor; RUBINSHTEYN, S. A., redaktor; TSYPIN, G. S., redaktor; CHERNYAVSKIY, V. Ya., redaktor; CHERNYSHEV, V. I., redaktor; CHERNYSHEV, M. A. redaktor; SHADUR, L. A., redaktor; SHISHKIN, K. A., redaktor;

(Railroad handbook) Spravochnaia knizhka zheleznodorozhnika, Izd. 3-e, ispr. i dop. Pod obshchei red. V. A. Gornyka. Moskva. Gos. transp. zhel-dor. izd-vo, 1956, 1103 p. (MLRA 9:10)

1. Nauchno-tekhnicheskoye obshchestvo zheleznodorozhnogo transporta. (Railroads)

VERSHINSKIY, S.V., doktor tekhn.nauk; BOYCHEVSKIY, O.G., kand.tekhn.nauk; GREBENYUK, P.T., kand.tekhn.nauk

Investigating the shock absorption devices of automatic couplings. Vest.TSNII MPS 21 no.6:3-7 '62. (MIRA 15:9)
(Car couplings) (Shock absorbers)

VERSHINSKIY,S.V., kandidat tekhnicheskikh nauk; PRAVDIN,Zh.L., kandidat tekhnicheskikh nauk; FEDOSEYEV,A.V., inzhener

Results of tests of large-capacity tank cars. Tekh.zhel.dor. 7 no.1:30-31 Ja '48. (MLRA 8:11)
(Tank cars)

VERSHINSKIY, S.V.

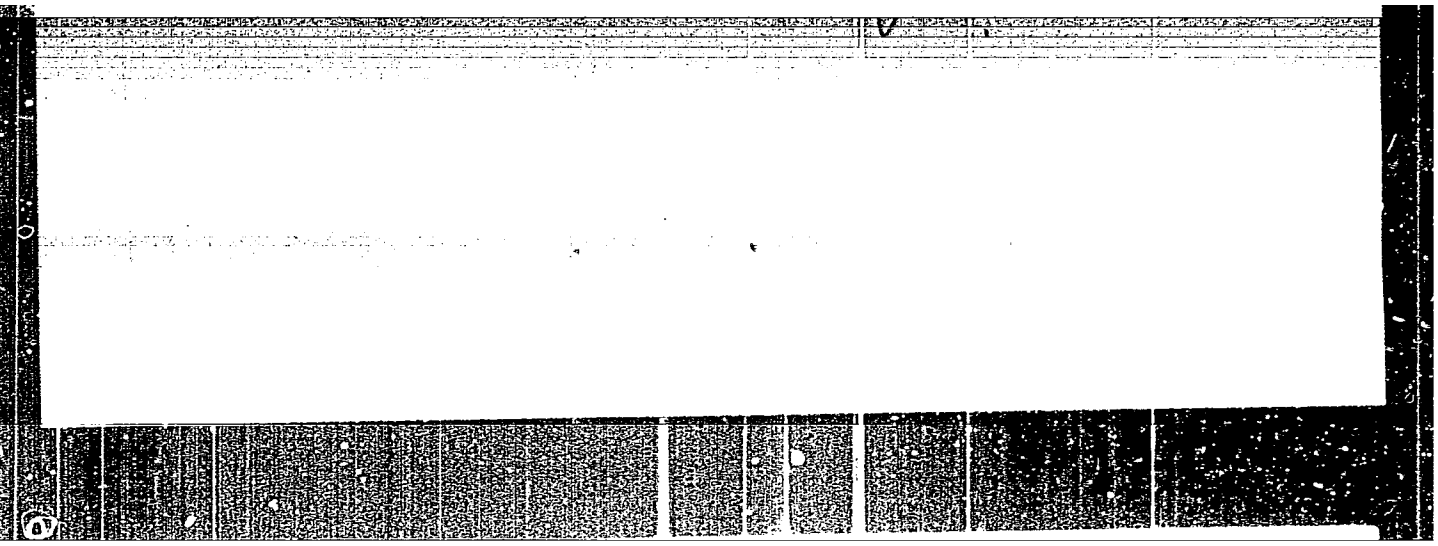
BARANOV, A.F., redaktor; RUDOY, E.F., redaktor; SOLOGUBOV, V.M., kandidat tekhnicheskikh nauk, otvetstvennyy redaktor toma; ALBEGOV, M.A., kandidat tekhnicheskikh nauk; VASIL'YEV, B.K., inzhener; VERSHINSKIY, S.V., kandidat tekhnicheskikh nauk; VINOGRADOV, G.P., kandidat tekhnicheskikh nauk; VINOKUROV, M.V., professor, doktor tekhnicheskikh nauk; GOLOVANOV, V.G., kandidat tekhnicheskikh nauk; GORDEYEV, A.S., dotsent, kandidat tekhnicheskikh nauk; GURSKIY, P.A., dotsent, kandidat tekhnicheskikh nauk; GUREVICH, A.N., kandidat tekhnicheskikh nauk; DOMBROVSKIY, A.B., dotsent; YEGORCHENKO, V.F., professor, doktor tekhnicheskikh nauk: IVANOV, V.N., professor, doktor tekhnicheskikh nauk; KARVATSKIY, B.L., professor, doktor tekhnicheskikh nauk; KOROLEV, K.P. professor, doktor tekhnicheskikh nauk; MUCHKIN, I.N., kandidat tekhnicheskikh nauk; POPOV, G.V., inzhener; PROSKURNEV, P.G. inzhener; SAFONTSEV, K.A., izhener: SEMICHASTNOV, I.F. dotsent, kandidat tekhnicheskikh nauk; SLOMYANSKIY, A.V., dotsent, kandidat tekhnicheskikh nauk; STEPANOV, A.D., dotsent, kandidat tekhnicheskikh nauk; SYROMYATNIKOV, S.P., akademik[deceased]; TERNOVSKIY, V.A., dotsent; kandidat tekhnicheskikh nauk; TRUBETSKOY, V.A., kandidat tekhnicheskikh nauk, KHOKHLOV, N.F., kandidat tekhnicheskikh nauk; SHARONIN, V.S., kandidat tekhnicheskikh nauk; SHLYKOV, Yu.P., dotsent, kandidat tekhnicheskikh nauk; YEVTUSHENKO, A.M. kandidat tekhnicheskikh nauk, retsenzent; IVANOV, V.N., professor, doktor tekhnicheskikh nauk, retsenzent; PANOV, N.I., dotsent, kandidat tekhnicheskikh nauk, retsenzent; SLOMYANSKIY, A.V., dotsent, kandidat tekhnicheskikh nauk, retsenzent; UTYANSKIY, L.K., inzhener, retsenzent; NEFYKSA, V.M., professor, doktor tekhnicheskikh nauk, retsenzent;

(Continued on next card)

BARANOV, A.F., -- (Continued) Card 2.

TOPORNIN, G.S., inzhener, retsenzent; DOMBROVSKIY, A.B., dotsent; retsenzent; POYDO, A.A., kandidat tekhnicheskikh nauk, retsenzent; YAKOBSON, P.Ye., laureat Stalinskoy premii; dotsent; kandidat tekhnicheskikh nauk, retsenzent; POPOV. A.A., professor, doktor tekhnicheskikh nauk, retsenzent; PROSKURNEV, P.G., inzhener, retsenzent; SAFONTSEV, K.A., inzhener, retsenzent; SERAFIMOVICH, V.S., kandidat tekhnicheskikh nauk; retsenzent; TRAVIN, P.I., inzhener, retsenzent; FOKIN, K.F., kandidat tekhnicheskikh nauk, retsenzent; SHCHERBAKOV, V.P., inzhener, retsenzent; SHADUR, L.A., dotsent; kandidat tekhnicheskikh nauk,retsenzent; ZIKHONOV, P.S., inzhener retsenzent; TKACHENKO, F.D., inzhener; retsenzent; BABICHKOV, A.M. professor, doktor tekhnicheskikh nauk, retsenzent; KOROSTYLEV, A.I. inzhener, retsenzent; LEVITSKIY, V.S., dotsent; kandidat tekhnicheskikh nauk, retsenzent; KLYKOV, A.F., inzhener, retsenzent; SOLOGUBOV, V.N. redaktor; SHISHKIN, K.A., redaktor; SLOMYANSKIY, A.V. redaktor; SALENKO, S.V., redaktor; YUDZON, D.M. tekhnicheskiy redaktor.

[Technical reference book for railroad men] Tekhnicheskii spravochnik zheleznodorozhnika. Redaktsionnaia kollegiia: A. F. Baranov, i dr. Glav.redaktor. E. F. Rudoi. Moskva, Gos.transp.zhel-dor.izd-vo. Vol. 6 [Rolling stock] Podvizhnoi sostav. 1952. 955 p. (MLRA 8:9)
(Railroads--Rolling-stock)



APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859520017-3"

VERSHINSKIY, S.V., kandidat tekhnicheskikh nauk.

On the design speeds of railroad cars. Vest. TSNII MPS 15 no.1: 8-17 Ag '56. (MLRA 9:12)

(Railroads--Cars)

VERSHINSKIY, S.V., kandidat tekhnicheskikh nauk; BOYCHEVSKIY, O.G., kandidat tekhnicheskikh nauk.

Problems of increasing railroad car speed by improving truck assembly design. Zhel.dor.transp. 37 no.5:40-44 My '56. (MLRA 9:8)
(Railroads--Cars)

VERSHINSKIY, S.V., kandidat tekhnicheskikh nauk.

Experimental investigation of the strength of natural weld joints of railroad car parts made of open-hearth and bessemer steels subjected to repeated impact loading. Trudy TSNII MPS no.116: 128-164 '56. (MLRA 9:11)
(Steel--Welding)

POPOV, Aleksey Aleksandrovich; SHADUR, Leonid Abramovich; NEVZOROVA, Nadezhda Nikiforovna; VERSHINSKIY, S.V., kandidat tekhnicheskikh nauk, redaktor; VERINA, G.P., tekhnicheskiy redaktor.

[Investigation of the strength of freight car truck frames and ways of decreasing their weight.] Issledovanie prochnosti ramy telezhki gruzovykh vagonov i puti snizheniia ee vesa. Moskva, Gos. transp. zhel-dor.izd-vo, 1957. 263 p. (Moscow, Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorzhnogo transporta. Trudy, no. 139). (MLRA 10:7)

(Railroads--Freight cars)

VERSHINSKIY, S.V., doktor tekhn.nauk, prof.; MEYSNER, B.A., kand.tekhn.nauk; ZAKHAROV, Ye.F., inzh.

Strength of the body of electric train cars. Vest.TSNII MPS 22 no.6:19-21 '63. (MIRA 16:10)

VERSHINSKIY, S.V., doktor tekhn.nauk; DOLMATOV, A.A., kand.tekhn.nauk

Design of cars for high-speed traffic. Zhel.dor.transp. 45 no.9:49-52 S '63. (MIRA 16:9)
(Railroads—Cars—Design and construction)

NIKOL'SKIY, Ye.N., prof., doktor tekhn.nauk; VERSHINSKIY, S.V., doktor tekhn. nauk, retsenzent; GALANOVA, M.A., [illegible] red. DEMKINA, N.F., tekhn.red.; TIKHANOV, A.Ya., tekhn.red.

[Railroad-car-type shells with openings; theoretical bases for stress investigation] Obolochki s vyrezami tipa vagonnykh kuzovov; teoreticheskie osnovy issledovaniia napriazhenii. Moskva, Mashgiz, 1963. 311 p. (MIRA 16:9)
(Elastic plates and shells) (Railroads--Cars)

VERSHINSKIY, S.V., doktor tekhn.nauk, prof.

Forces of the interaction of cars in a train in case of a different level of the coupling axes. Vest.TSNII MPS 21 no.8:3-7 '62. (MIRA 16:1)

(Car couplings) (Railroads--Brakes)

VERSHINSKIY, S.V., doktor tekhn.nauk

Technical specifications for cars to be used under new operating conditions. Vest. TSNII MPS 19 no.8:3-9 '60. (MIRA 13:12)
(Railroads—Cars—Construction)

VERSHINSKIY, S. V.

"Impact Strength of Welded Joints of Open Hearth and Bessemer Steel for Construction of Railroad Cars," Avtogennoye Delo (1953) No 6, pp 5/10.

B-73331, 1 Apr 54

VERSHINSKIY, S.V.; GOLOVANOV, A.L., red.; BOBROVA, Ye.N., tekhn. red.

[Longitudinal dynamics of cars and freight trains] Prodol'naia dinamika vagonov v gruzovykh poezdakh. Moskva, Gos. transp. zhel-dor. izd-vo, 1957. 262 p. (Moscow, Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy no.143). (MIRA 10:12)

(Railroads—Cars)

VERSHINSKIY, S.V., doktor tekhn.nauk; DOLMATOV, A.A., kand.tekhn.nauk

Increasing traffic speeds and improving car design. Zhel.dor. transp. 43 no.11:44-46 N '61. (MIRA 14:11)
(Railroads--Cars--Design and construction)
(Railroads--Train speed)

ZOLOTARSKIY, Aleksey Fedorovich; VERSHINSKIY, Sergey Vasil'yevich; YERSHKOV, Oleg Petrovich; IVASHCHENKO, Georgiy Ivanovich; SHESTYAKOV, Vladimir Nikolayevich; CHERNYSHEV, Mikhail Andreyevich, prof.; PERSHIN, S.P., red.

[Railroad tracks and rolling stock for high speed traffic conditions] Zheleznodorozhnyi put' i podvizhnoi sostav dlia vysokikh skorostei dvizheniia. Moskva, Transport, 1964. 271 p. (MIRA 18:10)

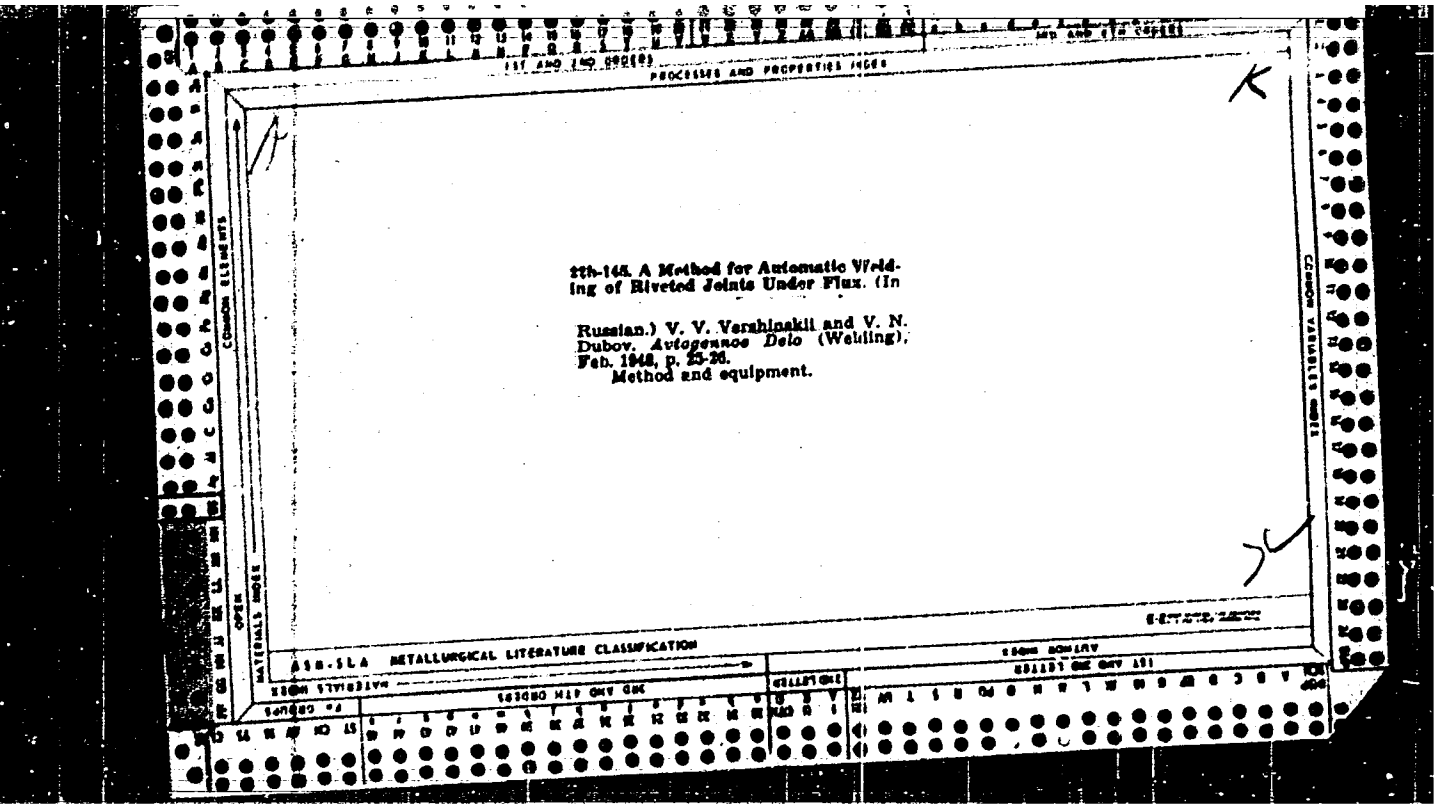
VERSHINSKIY, Sergey Vasil'yevich, doktor tekhn.nauk; NIKOL'SKIY, Yevgeniy Nikolayevich, prof., doktor tekhn.nauk; NIKOL'SKIY, Lev Nikolayevich, prof., doktor tekhn.nauk; POPOV, Aleksey Aleksandrovich, prof., doktor tekhn.nauk; SHADUR, Leonid Abramovich, prof., doktor tekhn.nauk; SARANTSEV, Yu.S., red.; BOBROVA, Ye.N., tekhn.red.

[Design of railroad cars for strength] Raschet vagonov na prochnost'. Pod red. A.A.Popova. Moskva, Vses.izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1960. 359 p. (MIRA 14:1)

(Railroads--Cars--Construction)

SOKOLOV, Ye.Ya., doktor tekhn. nauk; VERSHINSKIY, V.P., inzh.

Methods for calculating open heat supply systems in absence of automatic control equipment at consumers' entrances. Elek. sta. 36 no.11:31-36 N '65. (MIRA 18:10)



22h-145. A Method for Automatic Welding of Riveted Joints Under Flux. (In Russian.) V. V. Vershinskii and V. N. Dubov. *Avtogennoe Delo* (Welding), Feb. 1948, p. 25-26.
Method and equipment.

VERSHINSKIY, V.V.

B. T. R.
V. 3 No. 3
Mar. 1954
Welding and Joining

4269* Contact Welding of Roofs of All-Metal Railroad Passenger Cars. (Russian.) V. V. Vershinskii, T. A. Morozov, A. V. Meier, and P. B. Pankratov. *Vestnik Mashinostroeniia*, v. 33, no. 8, Aug. 1953. p. 82-88.
Special equipment is described. Photographs, diagrams.

VERSHINSKIY, V. V.

USSR/ Engineering - Welding equipment

Card 1/1 ; Pub. 128 - 10/31

Authors ; Vershinskiy, V. V., Morozov, I. A., Meyer, A. V., and Pankratov, P. B.

Title ; An apparatus of a new design for a contact spot-welding of large-diaphragm steel platforms

Periodical ; Vest. mash. 10, 50 - 52, Oct 54

Abstract ; A narrative report is given concerning the operation and function of a new type contact spot-welding apparatus, designed and produced by the Kalinin Rolling Stock Construction Factory. Diagrams; illustrations.

Institution : ....

Submitted : ....

VERSHINSKIY, V. V.

AID P - 5605

Subject : USSR/Engineering

Card 1/2 Pub. 107-a - 5/12

Authors : Vershinskiy, V. V., Eng., and A. V. Meyer, Eng.

Title : Mass-production spot welding of whole-metal passenger cars.

Periodical : Svar. proizv., 12, 16-18, D 1956

Abstract : The authors describe spot-welding machinery and shop practice in the assembly of passenger car flooring at the Kalinin Railroad-Car Building Plant. The installation consists of a stand handling 24m long and 3m wide car flooring coupled with a spot welding machine. The latter was added to the existing welding machinery for roofs and sides, thus completing the welding equipment for making passenger cars. One photo and 3 drawings.

AID P - 5605

Svar. proizv., 12, 16-18, D 1956

Card 2/2 Pub. 107-a - 5/12

Institution : As above

Submitted : No date

joints with thickness combinations of 2+2, 2+3, 3+4, 3+6, 3+10, 3+11 and 4+6 mm. However, this system has a comparatively low productivity and uses a considerable amount of power due to heat losses in the auxiliary electrode contact. The system is also extremely sensitive to slight contamination under the auxiliary electrode and the metal between the electrodes is heated up considerably. The system shown in Figure 2 is designed for minimizing shunting currents, maintaining constant resistance, reactance and other electrical parameters in the secondary welding circuit, producing joints with stable strength properties and eliminating deformations in welded sheet metal structures. Operational experience indicates that two-transformer welding systems with bilateral current supply have considerable technical and economic advantages over other welding methods and it is therefore recommended that welding equipment based on these systems should be more widely used in automatic production of large sheet metal structures. Orig. art. has: 6 figures.

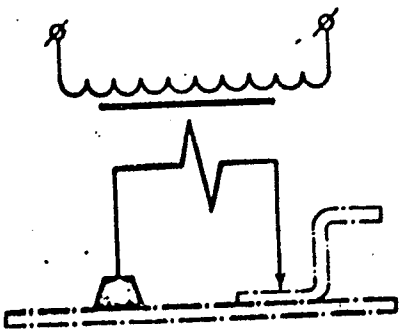


Fig. 1

ACC NR: AT[illegible]7349

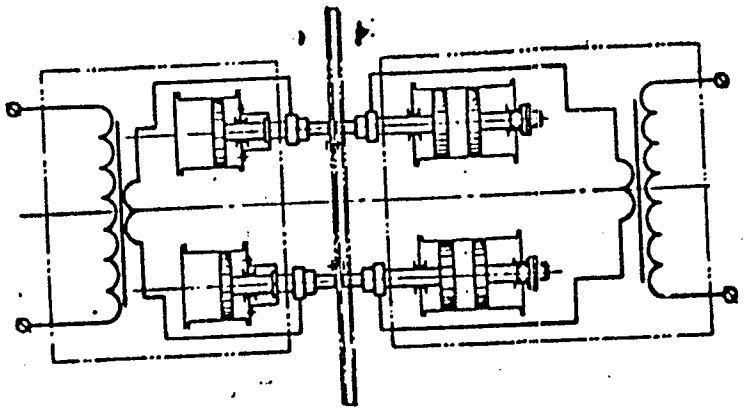


Fig. 2

SUB CODE: 13/ SUBM DATE: None

Card 3/3

CHIRKIN, Viktor Vasil'yevich, kand.tekhn.nauk; SOKOLOV, Ivan Georgiyevich, kand.tekhn.nauk; VERSHINSKIY, Vladimir Vasil'yevich, inzh. Primali uchastiye: BELAVENTSEV, N.V., inzh.; DOBKIN, S.Z., inzh. KAZANSKIY, G.A., inzh., retsenzent; SMIRNOV, A.V., red.; DANILOV, L.N., red.izd-va; SAFRANOVA, I.Yu., red.izd-va; UVAROVA, A.F., tekhn.red.; SOKOLOVA, T.F., tekhn.red.

[Technology of car construction] Tekhnologiia vagonostroeniia. Pod obshchei red. V.V.Chirkina. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 483 p. (MIRA 13:11)
(Railroads--Cars--Construction)

Vershinskiy, V.V.

VERSHINSKIY, V.V., inzhener; MEYER, A.V., inzhener.

Over-all mechanization in spot welding of sections of an all-metal railroad car. Svar. proizv. no.12:16-18 D '56. (MLRA 10:9)

1. Kalininskiy vagonostroitel'nyy zavod.
(Railroads--Cars--Construction)
(Electric welding--Equipment and supplies)

VERNIKOVSKIY, Yu., inshener.

Hollow-filled walls with a reduced expenditure of nails. Sel'. stroi. 12 no.5:29 My '57. (MLRA 10:7)
(Walls)

CA

The dissolving capacity of a solvent and the viscosity of solutions of high-molecular compounds. A. Inger and M. Vershkain (Ural State Univ.). *Kolloid. Zhur.* 13, 123-8 (1951).—Cf. *C.A.* 45, 2250*i*.—Alfrey (*C.A.* 41, 2028*f*) expected the heat Q of soln. to det. the intrinsic viscosity ($[\eta] = \eta/\eta_0 c$ at $c = 0$; η_0 is the viscosity of solvent and c concn.) and the slope of the straight line "$\eta/\eta_0 c$ as function of c". This expectation is not confirmed. Thus $[\eta]$ of polyisobutylene (I) was 1.6 in C_6H_6, heptane, and isooctane, although the corresponding Q values are −1.62, −0.34, and 0.0 cal./g., whereas $[\eta]$ and Q in toluene were 2.15 and −0.43, resp. The $[\eta]$ of cellulose acetate (II), Ac no. 55.8, was 1.1 in $COMe_2$ and HCOOH, although their Q values are + 0.3 and +10.5, resp. Three fractions of cellulose nitrate (III) had $[\eta]$ 2–4 in $COMe_2$ and 0.5–1 in pyridine, although Q in pyridine is greater than in $COMe_2$. The slope of $\eta/\eta_0 c$ was greater for greater Q in the instance of II, greater for smaller Q in the instance of III, and showed no definite dependence on Q in the instance of I. The $[\eta]$ is not a measure of the dissolving capacity of a solvent.

J. J. Elkerman

NOSYREV, Boris Aleksandrovich. Prinimal uchastiye VERSHKAYN, Ye.R., starshiy inzh. D'YAKOVA, G.B., red.izd-va; MAKSIMOVA, V.V., tekhn.red.; MINSKER, L.I., tekhn.red.

[Handbook on mine drainage equipment] Spravochnoe rukovodstvo po rudnichnym vodootlivnym ustanovkam. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 251 p. (MIRA 14:12)

1. Proyektnyy institut Uralgiproruda (for Vershkayn).
(Mine drainage)

VERSHKOV, A. A.

USSR/Engineering
Publications
Electric Power Plants

Nov 48

"New Books on Power Engineering" lp

"Elek Stants" No 11

Includes Z. Ya. Beyrakh, A. A. Vershkov, and Ye. P. Fel'dman's "An Electomechanical Automatic System for Regulating Combustion in Boiler Units," M. P. Vukalovich and I. I. Novikov's "Equations Describing the States of Real Gases," G. S. Zhiritskiy's "Gas Turbines," and N. A. Kaptsov's "Electrical Phenomena in Gases and in Vacuo."

PA 54/49T54

SOV/175-58-6-30/41

AUTHORS: Vershkov, E., Engineer-Colonel, and Marketov, M., Engineer Lieutenant-Colonel

TITLE: The Purification of Oil

PERIODICAL: Tankist, 1958, Nr 6, pp 45-47 (USSR)

ABSTRACT: The authors state that lubricating oils used in internal combustion engines lose their original qualities during the working process. These changes are caused by an accumulation of impurities and also by the influence of high temperatures. The sediments in the motor oil are composed of oil - 80-85 %, water - 5-10 %, fuel - 3-5 %, ashes - 3-4% and products of oxidation of oil and fuel. Admixtures of a mechanical nature are most dangerous for the machine working parts. They might disturb the normal operation of the engine by accelerating wear of working parts. The lubricating system of the B-2 type engines includes filters of a rough-clean

Card 1/3

The Purification of Oil

and fine-clean types. The first is able to stop mechanical particles of 75 microns, the others - of 60 microns. The oil cleaning may also be done by centrifuging. Centrifugal separators may have either hydraulic or mechanical drive. The first, mounted on a type DT-54 tractor, are used for cleaning oil in tractor engines. The second - for oil cleaning in vessels and stationary Diesel engines. Centrifugation is applied for the periodic cleaning of lubricating oil of tank engines. For this purpose, an NSM-2 type vertical centrifugal separator of uninterrupted drive is used. The arrangement of the separator is shown in the diagram (Figure 1). Prior to the cleaning operation, the oil must be heated to a temperature of 80 to 85°C. This is necessary to reduce its viscosity. The main parts of the separator (Figure 1) are centrifuge, electric motor, electric heater, two-stage pump, friction

The Purification of Oil

coupling and base. Officers Pavlov and Borisov have produced a mobile oil cleaning unit shown in a drawing (Figure 2). It is in the form of a two-axle car. The entire oil separating equipment is mounted on the car. It includes a type "PN-28.5" d.c. electric motor of 2.2 kw capacity. Operation of the assembly is directed from a control panel shown on a drawing (Figure 3). Switches, a control bulb and a starter are mounted on the panel. There are 2 photographs and 1 sectional diagram.

VERSHKOV, I.F., elektromonter

Device for assembling and disassembling arc-suppressing chambers of MKP-110 cutouts. Energetik 8 no.8:23-24 Ag '60. (MIRA 13:10)
(Electric cutouts)

ACCESSION NR: AT4031813 S/2914/62/000/079/0084/0090

AUTHOR: Vershkov, M. V. (Candidate of technical sciences); Onishchenko, T. A.

TITLE: Antennas with planar reflectors for shore uhf radio-telephone stations

SOURCE: Leningrad. Tsentral'ny*y nauchno-issledovatel'skiy institut morskogo flota. Informatsionny*y sbornik, no. 79, 1962. Sudovozhdeniye i svyaz' (Navigation and communications), no. 20, 84-90

TOPIC TAGS: antenna, planar reflector antenna, shore radio-telephone station, uhf radio-telephone station, radio-telephone station, antenna design, reflector dimension harbor antenna design, harbor uhf system

ABSTRACT: The calculations of antenna pattern, directive gain and radiation resistance for this type of antenna are extremely complicated but may be accomplished in practice if the effect of the reflector is regarded as a mirror image of the exciter. In this case the expressions for the field and the directive gain are

$$E = 2E_1 \sin(mS\cos\varphi)\frac{\cos\left(\frac{\pi}{2}\cos\theta\right)}{\sin\theta} \qquad (1)$$

(Continued on Card 2)

Card 1/6

ACCESSION NR: AT4031813

$$D = \frac{480}{R_{\Sigma}} (1 - \cos m\ell)^2 \sin^2 (mS\cos\varphi); \quad \theta = 90^{\circ} \qquad (1)$$

where

E_1 = field intensity of a symmetrical dipole in free space.

R_{Σ} = radiation resistance of a system consisting of 2 symmetrical half-wave dipoles, excited in opposite phases and spaced 2S apart. Figure 1 of the Enclosure shows the variation of radiation resistance with S.

φ = azimuth angle reconed from point of maximum field

θ = elevation angle reconed from vertical

$m = \frac{2\pi}{\lambda}$

S = distance from dipole axis to reflector surface

ℓ = half length of dipole

Figure 2 of the Enclosure gives variation of directive gain with S. Figure 3 gives an example of pattern calculations for various values of S. The reflector dimensions should be selected in practice so that the projection of the exciter lies from 0.1-0.15 λ from the edge of the reflector. Dimensions are identical in both planes. The reverse radiation

Card 2/6

ACCESSION NR: AT4031813

will then be 30-40 db down from the main lobe. Recommended structure consists of vertical copper wires. Two examples of antenna design suitable for the harbors of Riga and Leningrad are given. It is hoped that the above method will be of assistance to the designers of harbor uhf systems. Orig. art. has: 6 figures and 1 formula.

ASSOCIATION: Tsentral'ny*y nauchno-issledovatel'skiy institut morskogo flota, Leningrad (Central Naval Scientific Research Institute)

SUBMITTED: 00 DATE ACQ: 05May64 ENCL: 03

SUB CODE: EC NO REF SOV: 002 OTHER: 000

Card 3/6

ENCLOSURE: 01

ACCESSION NR: AT4031813

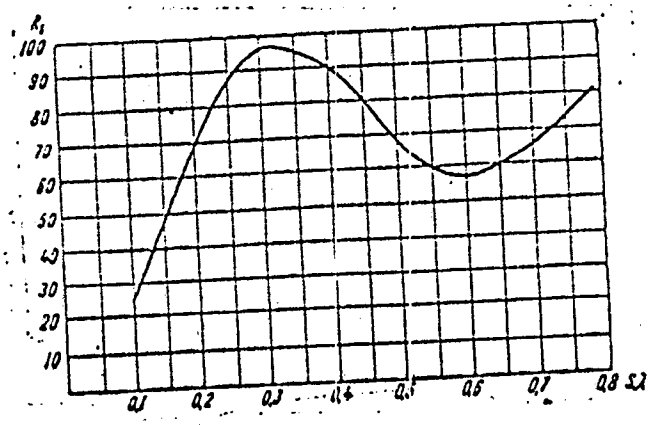


Fig. 1 - Variation of radiation resistance with distance from the reflector.

Card 4/6

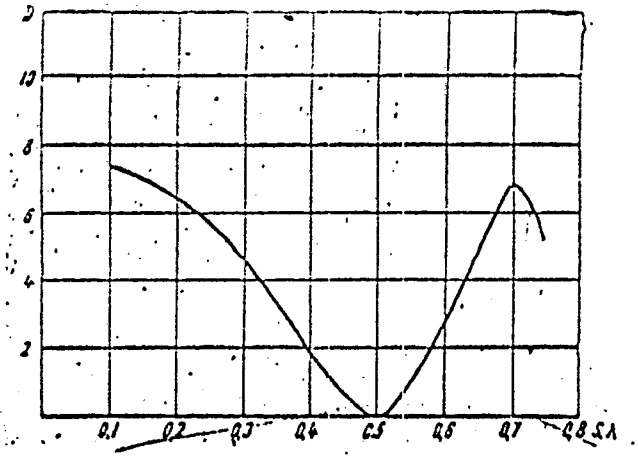


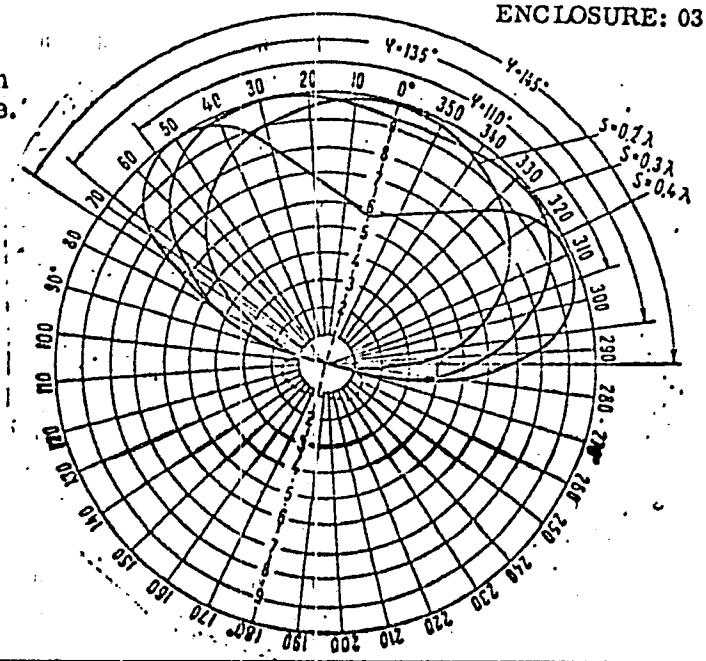
Fig. 2 - Variation of directional gain with distance from the reflector.

Card 5/6

ACCESSION NR: AT4031813

ENCLOSURE: 03

Fig. 3 - Directive patterns of an antenna consisting of a dipole with a planar dipole in horizontal plane.



S = 0.3λ
φ = 135°
D = 4.4 db
S = 0.2λ
φ = 110°
D = 6 db
S = 0.4λ
φ = 145°
D_{φ} = 0.5 db
$D_{\varphi \pm 50°}$ = 5 db

(relative to full wave dipole)

R_{Σ} = 96 ohms R_{Σ} = 70 ohms

R_{Σ} = 90 ohms

Card 6/6

VERSHKOV, Marat Vladimirovich; BYKOV, V.I., nauchnyy red.; FRISHMAN, Z.S., red. izd-va; KOTLYAKOVA, O.I., tekhn.red.

[Calculation and design of marine radiocommunication antennas] Raschet i proektirovanie sudovykh antenn radiosviazi. Leningrad, Izd-vo "Morskoi transport," 1963. 144 p. (MIRA 16:6)

(Radio--Installation on ships) (Radio--Antennas)

VERSHKOV, M.V.

Study of the operation of magnetic radiators. Radiotekhnika 17 no.8:15-21 Ag '62. (MIRA 15:7)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi imeni Popova.
(Antennas (Electronics)) (Cores (Electricity))

L 64466-65 EWT(d)/FSS-2
ACCESSION NR: AR5006553 S/0274/64/000/012/V026/V026

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz'. Sv. t., Abs. 12V157

AUTHOR: Vershkov, M. V.; Kosarev, I. A.; Morozov, A. P.; Onishchenko, T. A.

TITLE:

TOPIC TAGS:

TRANSLATION: The principles of [illegible] and receiver are described

Card 1/2

L 64466-65

ACCESSION NR: AR5006553

± 400 cps for radio transmission, or having a central frequency of 2300 cps and a deviation of ± 300 cps for wire transmission. A block diagram of the attachment is presented. It is noted that in foreign countries [illegible] transmissions in the USSR and to equip all navy ships with facsimile receivers. Some information is supplied on the technical and economic efficiency of using facsimile equipment in the navy. Three illustrations

SUB CODE: EC, MS ENCL: 00

Card 2/2

VERSHKOV, P.V., Cand Tech Sci --(diss) "Study of radiation and reception of radio-waves by magnetic antennae. (On the problem of the use of magnetic antennae on ships of the [redacted]." Len, 1959. 21 pp (Min of Maritime Fleet. Len Higher Engineering Maritime School im Adm S. O. Makarov), 150 copies (KL,31-59, 111)

S/058/61/000/009/046/050
A001/A101

9,1000

AUTHOR: Vershkov, M.V.

TITLE: Investigation of magnetic radiators

PERIODICAL: Referativnyy zhurnal. Fizika, no. 9, 1961, 273, abstract 9Zh265 ("Tr. Tsentr. n.-i. in-ta morsk. flota", 1960, no. 30, 108-112)

TEXT: The author presents exact electrodynamic formulae for the components of the field and resistance of radiation of a magnetic core in the form of an oblate spheroid symmetrically excited by an electric contour with uniform current distribution. As particular cases were obtained the relations, known earlier, for a spheroidal core of small electric dimensions, as well as for a cylindrical and spherical cores. A number of conclusions were drawn as to the properties and practical applicability of antennas of this type.

D. Duplenkov

[Abstracter's note: Complete translation]

B

Card 1/1

VERSHKOV, M.V., kand. tekhn. nauk, SHABANOV, L.G.

Industrial television and its use on ships of the merchant marine.
Inform. sbor. TSNIIMF no.102 Sudovozh. i sviaz' no.24:3-18 '63.
(MIRA 17:9)

VERSHKOV, M.V.

Methods for experimental investigation of magnetic receiver antennas. Trudy TSNIIMF no.23:56-61 '59. (MIRA 12:8)

(Radio--Antennas)

VERSHKOV, M.V.

Parameters of ferromagnetic materials used in high-frequency electromagnetic fields. Trudy TSNIIMF no.23:62-63 '59.
(MIRA 12:8)

(Magnetic materials)

S/194/62/000/007/098/160
D271/D308

AUTHOR: Vershkov, M.V.

TITLE: Some problems on the theory of magnetic radiators

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1962, abstract 7zh127 (Sb. tr. XIII Leningr. nauchno-tekhn. konferentsii, posvyashch. dnyu radio L. 1959, 133 - 151)

TEXT: The problem of excitation of a magnetic spheroidal core by a symmetrically placed electric frame with uniformly distributed current is solved in prolate spheroidal coordinates. Inner and outer region fields are sought in the form of expansion in spheroidal functions with unknown coefficients; the latter are determined from boundary conditions on the surface of the spheroid. Formulas are obtained for the antenna field in the distant zone, for radiation resistance and for impedance. The author analyzes particular cases of a spheroid which is small in comparison with wavelength, and a spheroid little differing from a sphere; in these cases the expressions are substantially simplified and are suitable for computation.

Card 1/2

Some problems on the theory of ...

S/194/62/000/007/098/160
D271/D308

Several conclusions are drawn from the theoretical results; in particular, a recommendation is made regarding rational choice of core geometry depending on the initial permeability of the ferrite. [Abstracter's note: Complete translation.]

Card 2/2

41248

S/194/62/000/007/136/160
I413/D308

9.1760

AUTHORS: Vershkov, M.V., and Onishchenko, T.A.

TITLE: Aerial systems for coastal UHF radiotelephone stations

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1962, abstract 7-7-151 s (Inform. sb. Tsentr. n.-i. in-t morsk. flota, no. 66, 1961, 38 - 45)

TEXT: When the frequency separation between stations is 250 kc/s, the distance between them can be reduced by using directional aerial. Simple directional aerials are investigated, using asymmetric roughly half-wave dipoles fed by coaxial cable, with the body of the metal mast serving as a reflector. To obtain non-directional aerials the recommended distance from the body of the mast is 0.70-0.75 λ, while for undirectional aerials it is about 0.25 λ. 4 references. [Abstracter's note: Complete translation.]

Card 1/1

VERSHKOV, M.V., kand.tekhn.nauk; ONISHCHENKO, T.A.

Antennas with flat reflectors for coastal ultrashort wave radiotelephone stations. Inform. sbor. TSNIIMF no.79 Sudovozh.i sviaz' no.20:84-91 '62. (MIRA 16:7)
(Radio, Shortwave—Antennas) (Radiotelephone)

VERSHKOV, M.V., kand.tekhn.nauk; ONISHCHENKO, T.A.

Antenna systems for coastal ultra-short-wave radiotelephone stations. Inform.sbor.TSNIIMF no.66 Sudovozh.i sviaz' no.[illegible] 38-45 '61. (MIRA 16:2)
(Radiotelephone) (Antennas (Electronics))

L 19210-63

ACCESSION NR: AR3004397 S/0274/63/000/005/B036/B036

SOURCE: RZh. Radiotekhnika i elektrosvyaz', Abs. 5B258

AUTHOR: Vershkov, M.V., Onishchenko, T.A.

TITLE: Basic requirements for call selector device for use in marine shortwave radiotelephone communications

CITED SOURCE: Inform. sb. Tsentr. n.-i. in-t morsk. flota, vy*p. 79, 1962, 76-81

TOPIC TAGS: marine radiotelephony, call selector, code selector, shortwave communication, radiotelephone, radiotelephony

TRANSLATION: The authors consider the basic requirements for a call selector device for use in international marine shortwave radiotelephone communications. Recommendations on the use of call selectors are given. The authors give technical data on call selector devices employing the pulse or frequency methods of signal coding. They recommend a 24-channel code selector for seagoing vessels; these would have up to 10,000 total code combinations. One illustration. Ye.M.

DATE ACQ: 25Jun63 SUB CODE: CO ENCL: 00

Card 1/1

VERSHKOV, M.V., kand.tekhn.nauk; ONISHCHENKO, T.A.

Basic requirements from a selective calling system intended for use in marine ultrashort wave radiotelephone service. Inform. sbor. TSNIIMF no.79 Sudovozh.i sviaz' no.20:76-81 '62. (MIRA 16:7)
(Radiotelephone) (Radio in navigation)

VERSHKOV, M.V., kand. tekhn. nauk; KOSAREV, I.A.; SHABANOV, L.G.

Scale for the determination of distaces between objects visible on the video control screen of a ship's television set. Inform. sbor. TSNIIMF no. 120. Sudovozh. i sviaz' no. 27:64-73 '64
(MIRA 19:1)

VERSHKOV, V.A., inzh.; BOBROVSKIY, V.M., inzh.

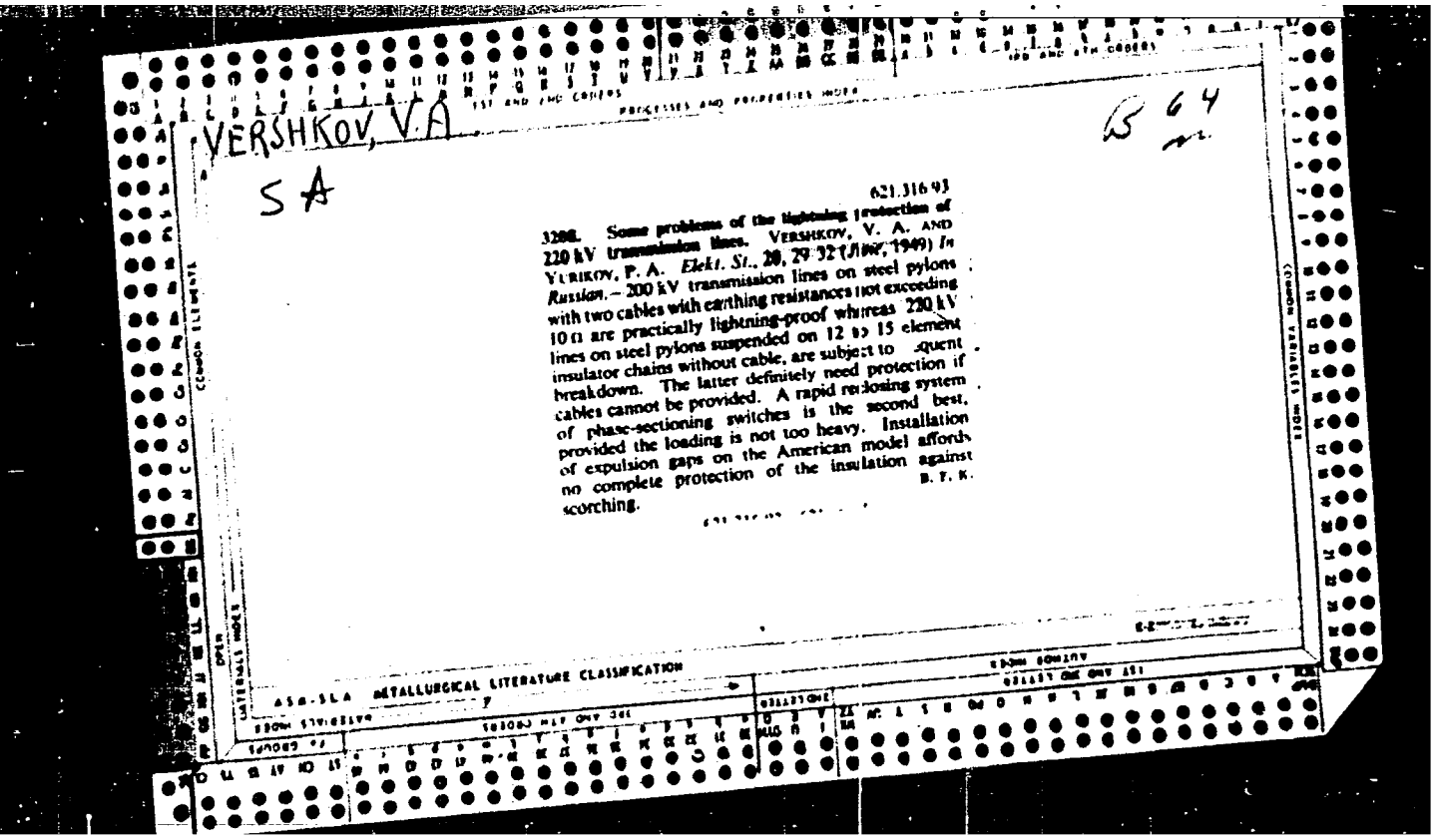
Location of damages on 500 kv. electric power transmission lines.
Elek. sta. 35 no.6:51-54 Je '64. (MIRA 18:1)

MIKHAYLOV, Yu.A., inzh.; ORLOV, V.N., kand. tekhn.nauk; POLOVOY, I.F., kand.tekhn.nauk; CHERNYAYEV, I.V., kand.tekhn.nauk; VERSHKOV, V.A., inzh.; NAUMOVSKIY, L.D., inzh.; TOPOLYANSKIY, L.B., inzh.

Registration of internal overvoltages in 110 to 500 kv. operational power distribution networks. Elek. sta. 36 no.2:48-52 F '65. (MIRA 18:4)

VERSHKOV, V.A., inzh.; BOBROVSKIY, V.M., inzh.; GLEBOV, E.S., inzh.

Concerning safety measures in working on the towers of 400 kv. and 500 kv. operating power transmission lines. Elek. sta. 34 no.3:60-64 Mr '63. (MIRA 16:3)
(Electric lines—Safety measures)
(Electric power distribution)



VERSHKOV, V.A.

SA

621.316.93

3208. Some problems of the lightning protection of 220 kV transmission lines. VERSHKOV, V. A. AND YELIKOV, P. A. *Elekt. St.*, 20, 29–32 (Mar., 1949) *In Russian.* – 200 kV transmission lines on steel pylons with two cables with earthing resistances not exceeding 10 Ω are practically lightning-proof whereas 220 kV lines on steel pylons suspended on 12 to 15 element insulator chains without cable, are subject to frequent breakdown. The latter definitely need protection if cables cannot be provided. A rapid reclosing system of phase-sectioning switches is the second best, provided the loading is not too heavy. Installation of expulsion gaps on the American model affords no complete protection of the insulation against scorching.

B. F. K.

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

MIKHAYLOV, Yu.A., inzh.; POLOVOY, I.F., kand. tekhn. nauk; CHERNYAYEV, I.V., inzh.; VASIL'YEV, N.N., inzh.; VERSHKOV, V.A., inzh.; GUSEV, V.S., inzh.

Study of internal overvoltages in a 500 kv. network of the Moscow Regional Power System Administration. Elek. sta. 35 no.5:67-71 My '64. (MIRA 17:8)

VERSHKOV, V.A., inzh.; GLEBOV, E.S., inzh.; MALYSHEV, R.A., inzh.

Lashing of wires on 400 to 500 kv. overhead power transmission lines. Elek. sta. 34 no.10:74-76 O '63. (MIRA 16:12)

VERSHKOV, V.A., inzh.; BOBROVSKIY, V.M., inzh.; GLEBOV, E.S., ~~inzh.~~

Melting of ice crusts on the conducting wires of 400-500 kv. electric power transmission lines. Elek. sta. 33 no.10:72-75 O '62. (MIRA 16:1)

(Electric lines—Overhead)

VERSHKOV, V.S., inzh.

Introduction of gas turbines on British warships. Mor. sbor. 46 no.5: 77-84 My '63. (MIRA 17:1)

VERSHKOVSKAYA, K. V.

Vershkovskaya, K. V. "On the sluggish bearing connected with the affliction of a cut in the mesencephalon," Sbornik naucn. trudov (Rost. n/D gos. med. in-t) Vol. VIII, 1948, p. 217-24

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

VERSHKOVSKAYA, O.V.; KRASNOVA, V.S.

Characteristics of the distribution of gallium in the Naugarzan and Takob fluorite-sulfide deposits (Central Asia). Krat. soob. IMGRE no.1:41-44 '60. (MIRA 17:3)

VERSHKOVSKAYA, O.V.; KRASNOVA, V.S.; RODIONOV, D.A.

Distribution of gallium in sphalerites from fluorite-sulfide deposits. Trudy Inst. min., geokhim. i kristallokhim. red. elem. no.6:3-8 '61. (MIRA 15:3)
(Soviet Central Asia--Sphalerite) (Gallium)

VERSHKOVSKAYA, O.V.

Gallium in the ores and minerals of the Khrustal'noye deposit. Trudy IMGRE no.10:201-208 '63. (MIRA 17:5)

VERSHKOVSKAYA, O.V.; SALTYKOVA, V.S.

Gallium in the country rock of fluorite-sulfide mineralization.
Geokhimiia no.5:440-445 '61. (MIRA 14:5)

1. Institute of Mineralogy, Geochemistry and Crystal Chemistry of Rare Elements, Academy of Sciences U.S.S.R., Moscow.
(Gallium) (Kurama Range--Granodiorite)
(Gissar Range--Granite)

SEVEROV, E.A.; VERSHKOVSKAYA, O.V.

Behavior of gallium during the albitization of granitoids. Dokl. AN SSSR 135 no.6:1498-1500 D '60. (MIRA 13:12)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov Akademii nauk SSSR. Predstavleno akademikom D.I. Shcherbakovym.

(Granite) (Gallium) (Albite)

VERSHKOVSKAYA, O. V.

Gally; metody issledovanii, rasprostraneniye v gornykh porodakh i mineralakh, tipy mestorozhdeniy (by) O.V. Vershkovskaya, V.S. Krasnova, (i) V.S. Saltykova. Moskva, Izd-vo Akademii Nauk SSSR, 1960.

145 p. diagrs., tables.

At head of title: Akademiya Nauk SSSR. Institut Mineralogii, Geokhimii i Kristallokhimii Redkikh Elementov.

Includes bibliographies.

VERSHKOVSKAYA, O.V., kand.geologo-mineral.nauk; KRASNOVA, V.S.; SALTYKOVA, V.S., kand.geologo-mineral.nauk; PERVUKHINA, A.Ye. Prinimal uchastiye LIZUNOV, N.V., kand.geologo-mineral.nauk. VLASOV, K.A., glavnyy red.; SHCHERBINA, V.V., doktor geol.-mineral.nauk, otv.red.; MERGASOV, G.G., red.izd-va; NOVICHKOVA, N.D., tekhn.red.

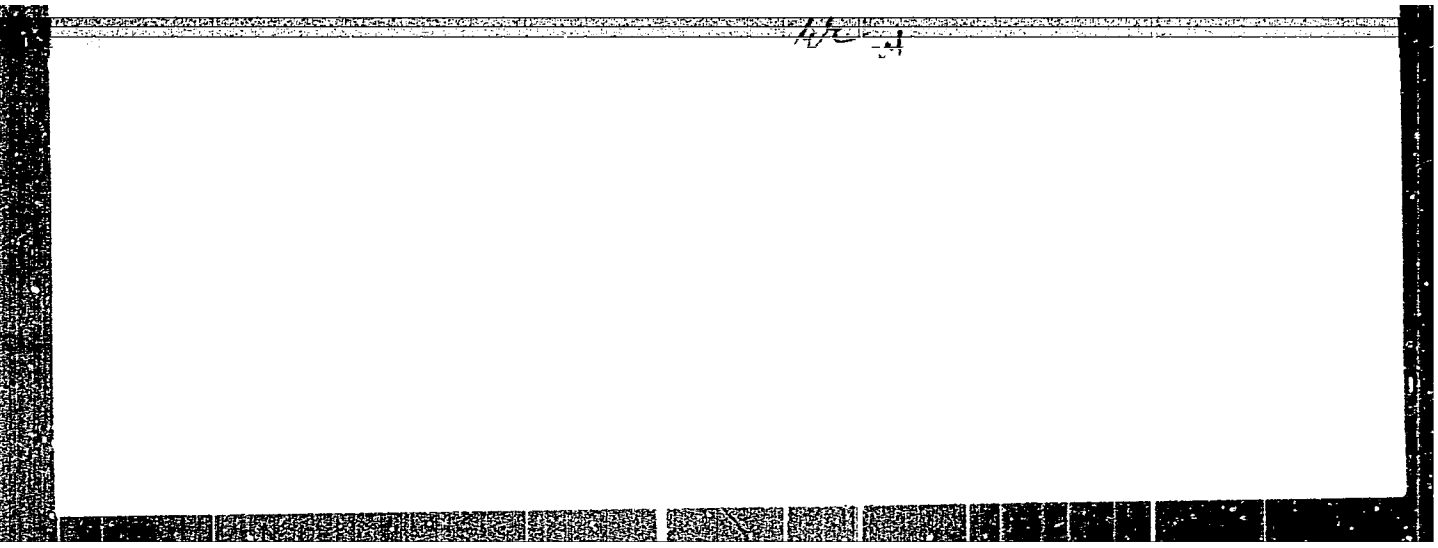
[Gallium; methods of study, distribution in rocks and minerals, types of deposits. Brief data on the uses and economic aspects of gallium in foreign countries] Gallii; metody issledovanii, rasprostranenie v gornykh porodakh i mineralakh, tipy mestorozhdenii. Kratkie svedeniia po primeneniiu i ekonomike galliia v zarubezhnykh stranakh. Moskva, Izd-vo Akad.nauk SSSR, 1960. 145 p. (MIRA 13:9)

1. Chlen-korrespondent AN SSSR (for Vlasov).
(Gallium)

VERSHKOVSKAYA, O.V.; FABRIKOVA, Ye.A.

Gallium in sphalerites. Geokhimiia no.4:320-324 '57. (MIRA 12:3)

1. Institute of Mineralogy, Geochemistry and Crystallochemistry of Rare Elements, Academy of Sciences, U.S.S.R., Moscow.
(Kurama Range--Sphalerite) (Gallium)



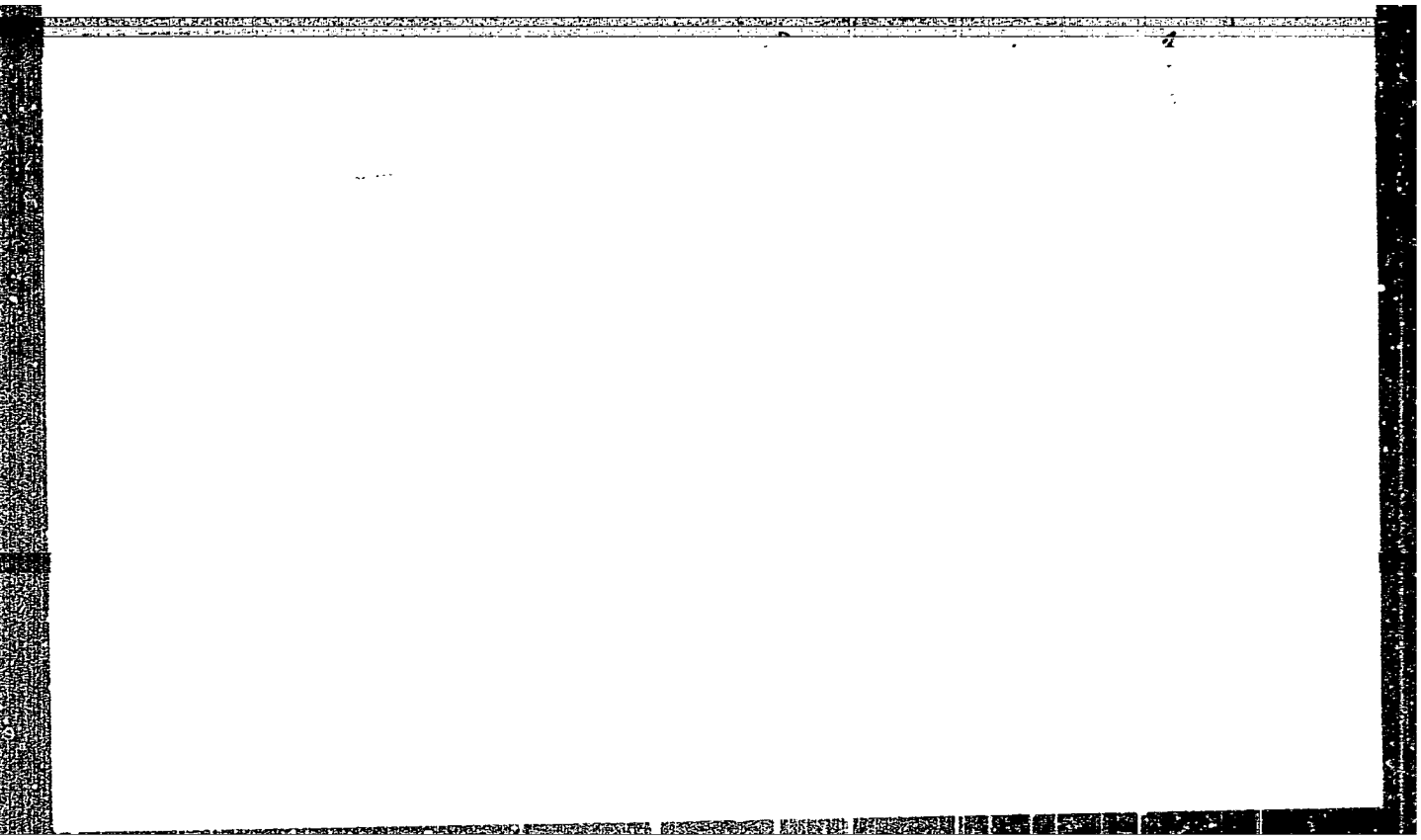
APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859520017-3"

VERSHKOVSKAYA, O.V.

Genetic types of gallium deposits and their industrial importance. Razved. i okh. nedr 23 no.10:1-6 O '57. (MIRA 11:2)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR.

(Gallium ores)



VERSHKOVSKAYA, O.V.

AUTHOR: Vershkovskaya, O.V. 132-10-1/13

TITLE: Genetic Types of Deposits of Gallium and Their Importance for Industrial Use (Geneticheskiye tipy rastorozhdeniy galliya i ikh promyshlennoye znacheniye)

PERIODICAL: Razvedka i okhrana nedr, 1957, # 10, p 1-6 (USSR)

ABSTRACT: Gallium is one of the rare metals which is dispersed over wide areas, and it is most frequently found in sphalerite, nepheline, spodumene, hackmanite, natrolite, lepidolite and germanite. The author classified the gallium containing deposits according to the various genetic types as follows:

1. Magmatic deposits, which occur in connection with alkaline nepheline syenites, found on the Kola peninsula, in the Ural mountains and in the Azov Sea area. These deposits are considered valuable sources for the production of aluminum and gallium.

2. Pegmatic deposits of acid magma. Several minerals of this group contain from 0.04 - 0.07 % gallium.

3. Pegmatic deposits of alkaline magma, contain from 0.05 - 0.1 % gallium.

4. Hydro-thermal deposits consist mainly of sphalerite and alunite gallium containing minerals.

Card 1/3

Genetic Types of Deposits of Gallium and Their Importance for Industrial Use

5. Pyritic-polymetallic deposits are widely found in the USSR in the Ural mountains, the Caucasus and in the Rudnoy Altay area. The main source of gallium in these deposits is sphalerite, with the contents of gallium ranging from 0.001-0.005 up to 0.01 %.

6. Polymetallic deposits with tin-containing minerals are located in the east Baykal area and in the Kirghiz SSR. Besides being a valuable source of gallium, these deposits contain indium and thallium.

7. Fluorite deposits with sulfides, occurring in mineral veins.

8. Alunite deposits, located in the Caucasus and Trans-Carpathian areas, contain from 0.001 - 0.003 % and up to 0.005 % of gallium.

9. Sedimentary bauxite deposits, containing from 0.002 - 0.003 up to 0.005 % of gallium. As in other foreign countries these deposits present a rational source for gallium in conjunction with the production of aluminum. The data given on deposits of gallium are not conclusive, as future prospecting may disclose further sources of this mineral.

132-10-1/13

Genetic Types of Deposits of Gallium and Their Importance for Industrial Use

ASSOCIATION: (IGEM)

AVAILABLE: Library of Congress

Card 3/3

S/007/61/000/005/002/002
B107/B223

AUTHORS: Vershkovskaya, O. V., Saltykova, V. S.

TITLE: Gallium in rocks enclosing fluorite-sulfide mineralization

PERIODICAL: Geokhimiya, no. 5, 1961, 440-445

TEXT: The behavior of gallium during the following hydrothermal alteration of the rock by mineral solutions was examined. This was studied in two deposits in Soviet Central Asia. The deposit of Naugarzan, Kuraminskiy Range, consists mainly of granodiorites which are, according to N. P. Vasil'kovskiy, Middle Carboniferous. In the deposit of Takob, Gissarskiy Range, the mineralizations are enclosed by porphyroid biotite granite, originating from the Upper Carboniferous according to I. S. Gol'dberg. The mineralizations consist of hydrothermal fissure filling: quartz, fluorite, calcite, galenite, sphalerite, and in Naugarzan also baryta. The sphalerites contain 0.001 to 0.09% gallium; the mean value for Naugarzan is 0.0227 and for Takob 0.0174% (mean value from 100 determinations). For the present study a silicate analysis was carried out of unchanged and hydrothermally changed granodiorite

Card 1/6

Gallium in rocks enclosing ...

(Naugarzan) and granite (Takob) (Table 1). Gallium was determined in various samples of these rocks and in the individual minerals by a method developed by V. S. Saltykova and Ye. A. Fabrikova (Ref. 3: Zh. analit. khimii 13, 63, 1958). This method allows the determination of 0.0001 % Ga with a maximum error of 5-6 %. The analyses were carried out by V. S. Saltykova and B. Volkov. The rocks examined contained 0.002 % Ga almost without exception. Thus, the gallium content remains constant in the hydrothermal change, although considerable quantities of aluminum were removed. Thus, the high content of gallium in sphalerite is not due to the leaching of the enclosing rock. Table 2 lists the gallium contents in the individual minerals. L. A. Borisenok and L. V. Tauson are mentioned. The silicate analyses were carried out by A. Laryukova and V. Kalinina. There are 3 tables and 7 Soviet-bloc references.

ASSOCIATION: Institut mineralogii, geokhimii i kristallokhimii redkikh elementov AN SSSR, Moskva (Institute of Mineralogy, Geochemistry, and Crystallochemistry of Rare Elements, AS USSR, Moscow)

SUBMITTED: November 2, 1960

Card 2/6

PHASE I BOOK EXPLOITATION SOV/4903

Vershkovskaya, O. V., V. S. Krasnova and V. S. Saltykova

Galliy: metody issledovaniy, rasprostraneniye v gornykh porodakh i mineralakh, tipy mestorozhdeniy (Gallium: Research Methods, Occurrences in Rock Formations and Minerals, Types of Deposits) Moscow, Izd-vo AN SSSR, 1960. 145 p. Errata slip inserted. 4,000 copies printed. pp. 137-145 written by Pervukhina, A. Ye.: Kratkiye svedeniya po primeneniyu i ekonomike galliya v zarubezhnykh stranakh (Concise Information on the Application and Economy of Gallium in Foreign Countries)

Sponsoring Agency; Akademiya nauk SSSR. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov.

Chief Ed.: K. A. Vlasov, Corresponding Member, AS USSR: Resp. Ed.: V. V. Shcherbina, Doctor of Geological and Mineralogical Sciences; Ed. of Publishing House: G. G. Mergasov; Tech. Ed.: N. D. Novichkova.

PURPOSE: This book is intended for scientists studying the mineralogy, geochemistry, and crystallochemistry of gallium.

~~Card 1/6~~

Gallium: Research Methods (Cont.) SOV/4908

COVERAGE: The book reviews the available data on the mineralogy, geochemistry, and crystallochemistry of gallium, and on its occurrence in rocks and deposits of various genetic types in the Soviet Union and in other countries. The work was carried out at the Institut mineralogii, geokhimii i kristallokhimii redkikh elementov AN SSSR (Institute of Mineralogy, Geochemistry, and Crystallochemistry of Rare Elements, AS USSR) under the direction of O. V. Vershkovskaya, Candidate of Geological and Mineralogical Sciences. The chemical determinations of gallium in minerals were made by Ye. A. Fabrikova, Candidate of Chemical Sciences, and by V. M. Romadova, Senior Laboratory Technician. The first chapter was written by V. S. Saltykova, Candidate of Geological and Mineralogical Sciences, except for the section on spectral analysis, written by L.V. Lizunov, Candidate of Geological and Mineralogical Sciences; the second and third chapters by V. S. Krasnova; the remainder by O.V. Vershkovskaya, except the section on gallium technology outside the USSR, written by A. Ye. Pervukhina. The authors thank T.N. Shadlun and V.V. Shcherbina, Doctors of Geological and Mineralogical Sciences, and V.I. Smirnov, Corresponding Member, AS USSR. There are 142 references, including 18 in the section on foreign developments, mostly Soviet (including five translations.).

~~Card 2/6~~

VERSHOVSKIY, G.M.

Plant for preparing weighting, and degassing drilling muds. Mash. i neft. obor. no.8:25-27 '63. (MIRA 17:6)

1. Neftepromyslovoye upravleniye "Sunzhaneft'".

VERSHKOVSKIY, V.G., inzh.; LOBOVICH, N.A., inzh.; MAKSIMOV, I.O., inzh.

Using isotopes in signaling, central control, and block systems. (MIRA 11:5)
Avtom., telem. i sviaz' 2 no.5:13-17 My '58.
(Railroads--Signaling--Block system)
(Radioisotopes)

VERSHKOVSKII, V. N. (ROSTOV-ON-DON)

"Geographic Spreading and Topographic Distribution of Species." (p. 393)
by Vershkovskii, V. N. (Rostov-on-Don)

SO: Progress of Contemporary Biology Vol. 32, No.3(6), 1951.