"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLINTIR, V., Dr, and GRINDEANU, H., Veterinarian, of the Veterinary Laboratory (Laboratorul Veterinar), Sibiu.

"Identifying a Focus of Ornithosis in Goslings."

Bucharest, Revista de Zootehnie si Medicina Veterinara, Vol 13, No 7, Jul 63, pp 82-84.

Abstract [Authors' English summary modified]: A focus of ornithosis was diagnosed in goslings through isolation of the germ on mouse lungs after 2 blind passages. The disease was associated with paratyphosis. Mortality of the afflicted gosling stock was 40 percent.

Includes 2 Rumanian references.

1/1

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VOLINTIRU, T.

Properties of various domestic carbon blacks in rubber mixtures, and their utilization in the tire industry. p. 3.

REVISTA DE CHIMIE. Bucuresti, Rumania. Vol. 10, no. 1, Jan. 1959.

Monthly list of East European Accessions (EEAI), LC. Vol. 8, no. 9,/1959 Uncl.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

R/003/60/011/007/003/003
A125/A026

AUTHOR: Volintiru, T., Engineer

TITLE: The Behavior of "Cold" and "Soft" Butadiene-Styrenic Synthetic Rubbers in Rubber Mixtures Used for the Manufacture of Tires

PERIODICAL: Revista de Chimie, 1960, Vol. 11, No. 7, pp. 401 - 407

TEXT: Subject article analyses the characteristics of synthetic rubbers used in the production of tires. Among the rubber copolymers, butadiene-styrene rubber is the mainly used synthetic rubber, even exceeding the use of natural rubber in the production of tires (Refs. 1 - 5). Butadiene-styrene copolymers are composed of four types of structural units (Ref. 6), i.e., 1-4 transpolybutadiene, 1-4 cis-polybutadiene, 1-2 polybutadiene and polystyrene. Reference is made to the causes of this structural non-uniformity. These characteristics were improved by reducing the polymerization temperature. The reduction of temperature was made possible by the utilization of oxide-reduction ("redox") systems (Ref. 7). By reducing the polymerization temperature from 50 to 5°C, the distribution of macrostructure and microstructure was improved. The crystallization phenomenon is also more favorable with polymers prepared at low temperatures.

Card 1/3

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

R/003/60/011/007/003/003
A125/A026

The Behavior of "Cold" and "Soft" Butadiene-Styrenic Synthetic Rubbers in Rubber Mixtures Used for the Manufacture of Tires

To prove the correctness of these theoretical considerations, laboratory tests were performed with "cold" and "soft" butadiene-styrenic synthetic rubber, the first named "Buna-Hüls-150" and the latter "Europren-1,500", imported by Rumania for the first time in 1959. The studies were connected with the most important elements of the tire, i.e., the tread and the composition of the cord's rubber coating. The rubber mixture prepared on the basis of "Buna-Hüls-150" and "Europren-1,500" were compared with "SKS-30" rubber, previously depolymerized to a "Defo" of approximately 450 - 600 g. The following recipe was used for the tread mixture (parts of weight): synthetic rubber: 100; zinc oxide: 5; plasticizer: 14.5; "Carbomet" lamp black: 30; "Furnal R-300" furnace black: 30; anti-oxidizing agent PBN: 1; accelerator DM: 0.6; accelerator D: 0.6; and sulfur: 2.9. The proportion "Carbomet"/"Furnal R-300" was varied: 40/10, 40/20, 50/10 and 20/40. The cord's rubber coating was composed of: rubber: 100; zinc oxide: 5; plasticizers (including vulcanizing activators and adhesives), "R-300" furnace black: 30; phenylbetanaphthilamine: 1.0; accelerator DM: 0.6; D: 0.4; sulfur varying from 2.8 to 2.5. The natural-rubber/synthetic-rubber

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The Behavior of "Cold" and "Soft" Butadiene-Styrenic Synthetic Rubbers in Rubber Mixtures Used for the Manufacture of Tires

ratio is given in Table 6 and the results of the laboratory tests in Table 7. Rubber mixtures prepared with "cold" butadiene-styrene synthetic rubbers proved to be superior with regard to plasticity, resistance to rupture, elasticity, hardness, resistance to wear and resistance to fatigue. The author finally reviews the advantages of "cold" and "soft" butadiene-styrenic copolymer synthetic rubbers and recommends the construction of new Rumanian synthetic rubber plants on the basis of these procedures. There are 2 figures, 7 tables and 14 references: 3 Rumanian, 5 Soviet, 4 English, 1 German and 1 Unidentified.

Card 3/3

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

USSR/Mathematics - Homeomorphism, Nov/Dec 51
Countable Sets

"Homeomorphism of Countable Sets," A. Ya. Vol'pert, Slavyansk

"Matemat Sbor" Vol XXIX (71), No 3, pp 677-698

Proves 3 theorems: I. In order that countable set A of real numbers of homeomorphic set similar to set of all rational numbers, it is necessary and sufficient that A not contain isolated limit points. II. Set of all countable ordered types dense in itself acts as a continuum. III. Aggregate of all ordered types of

198T44

USSR/Mathematics - Homeomorphism Nov/Dec 51
Countable Sets (Contd)

set A, each of which is homeomorphic to a certain set B similar to set R of rational numbers acts as a continuum. Submitted 4 Apr 51.

198T44

VOLIPERT, A. YA.

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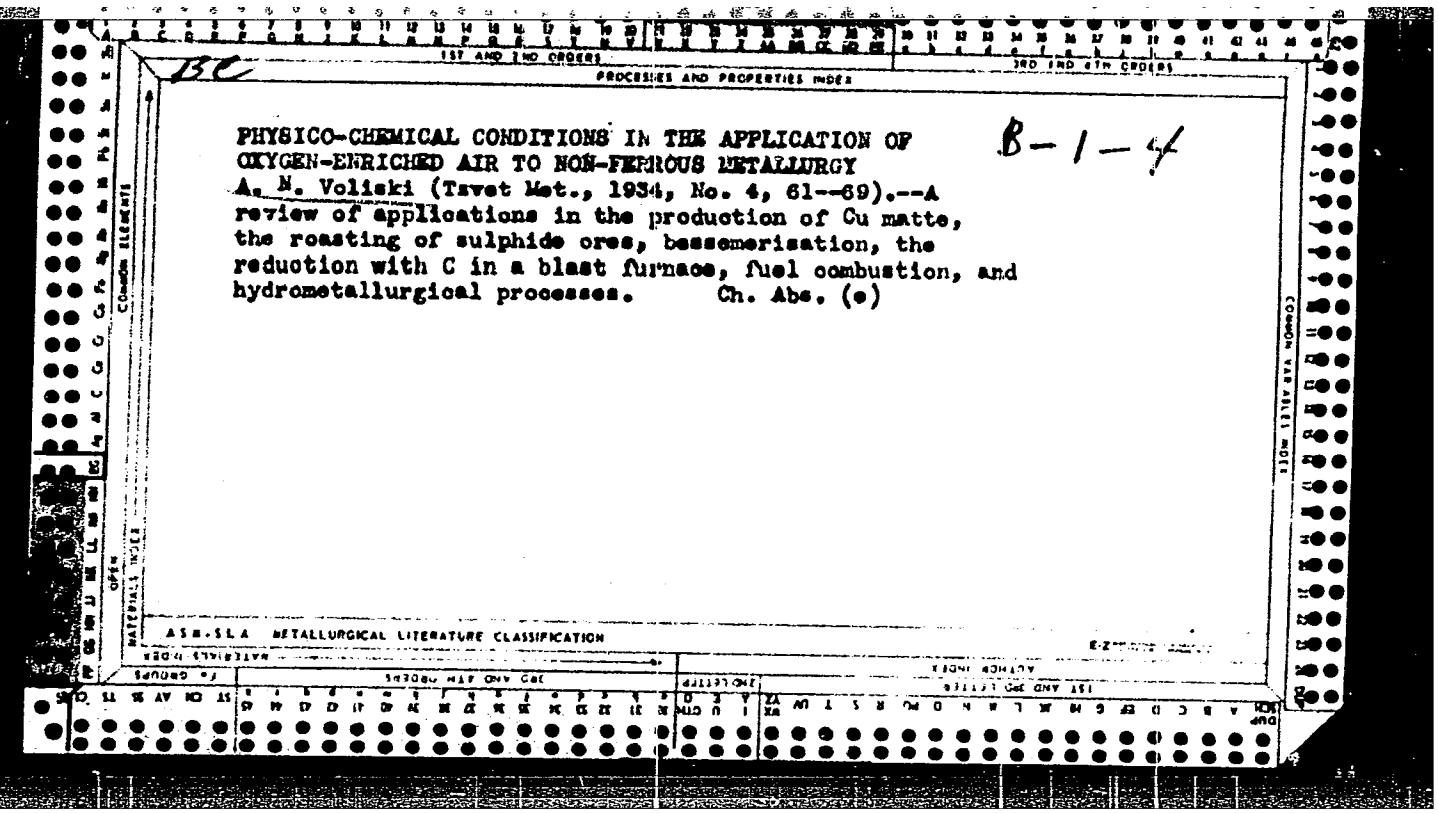

BC

B-1-4

PHYSICO-CHEMICAL CONDITIONS IN THE APPLICATION OF OXYGEN-ENRICHED AIR TO NON-FERROUS METALLURGY

A. N. Voliski (Tsvet Met., 1954, No. 4, 61--69).--A review of applications in the production of Cu matte, the roasting of sulphide ores, bessemerisation, the reduction with C in a blast furnace, fuel combustion, and hydrometallurgical processes. Ch. Abs. (e)

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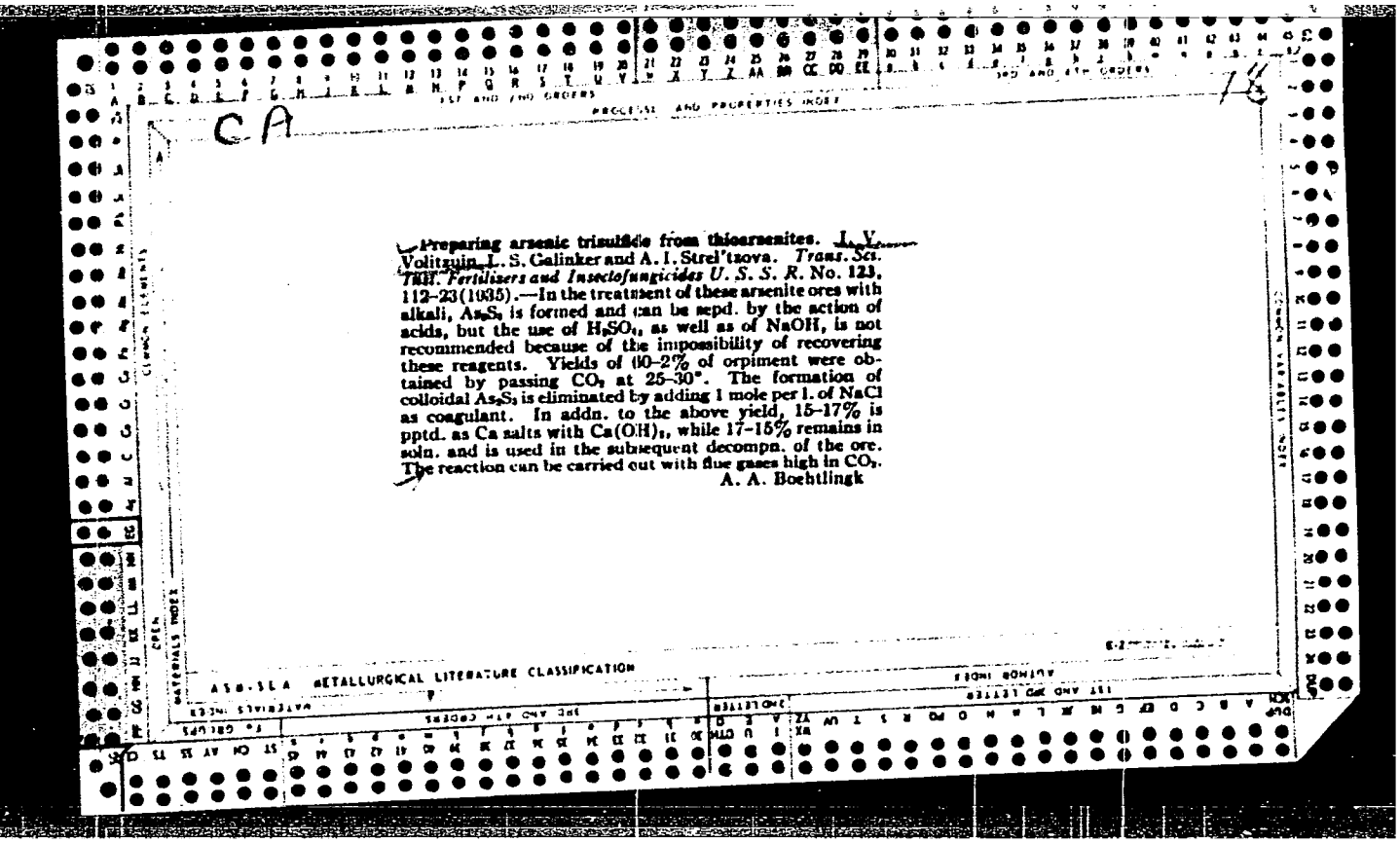

CA

Preparing arsenic trisulfide from thioarsenites. I. V. Volitzuin, L. S. Galinker and A. I. Strel'tsova. *Trans. Sci. Inst. Fertilisers and Insectofungicides U. S. S. R.* No. 123, 112–23 (1935).—In the treatment of these arsenite ores with alkali, As_2S_3 is formed and can be repd. by the action of acids, but the use of H_2SO_4, as well as of NaOH, is not recommended because of the impossibility of recovering these reagents. Yields of 90–2% of orpiment were obtained by passing CO_2 at 25–30°. The formation of colloidal As_2S_3 is eliminated by adding 1 mole per l. of NaCl as coagulant. In addn. to the above yield, 15–17% is pptd. as Ca salts with $Ca(OH)_2$, while 17–15% remains in soln. and is used in the subsequent decompn. of the ore. The reaction can be carried out with flue gases high in CO_2.

A. A. Boehtlingk

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

TOKAREV, V.A.; VOLIS, I.I.

Preservation of fodder yeast. Gidroliz. i lesokhim.prom. 15 no.2:27 '62. (MIRA 18:3)

1. Leningradskiy gidrolizhnyy zavod.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLITOVA, M.I., KATALKHERMAN, A.L., kand.farmatsevticheskikh nauk, SHTERN, M.R., provizor.

"Technology of drug forms" by P.E. Rozentsvaig. Apt.delo 7 no.3:87-92 My-Je '58 (MIRA 11:7)
(PHARMACY)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLITSKAYA, M., inzh.

Manufacture of prestressed reinforced concrete crane beams.
Energ. stroi. no.33:82-84 '63. (MIRA 17:8)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLIVACH, Valentin Savel'yevich; VASILINENKO, P.M.[Vasylynenko, P.M.], red.; SHARNEVSKIY, P.R.[Sharnevs'kyi, P.R.], tekhn. red.

[Kalyna Derevenko's school]Shkola Kalyny Derevenko. Stanislav, Stanislavs'ke oblasne knyzhkovo-gazetne vyd-vo, 1962. 18 p. (MIRA 15:11)

(Agricultural workers)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

STOJSIC, M.; VOJVODIC, Z.; MESIC, S.; VOLJEVICA, C.; SAHIRBEGOVIC, A.

Tuberculous meningitis in the Serajevo Infectious Clinic from July 1, 1955 to June 30, 1959. Tuberkuloza, Beogr. 12 no.4:433-454 '60.

1. Infektivna klinika, Sarajevo (predstojnik: prof. dr Bl.Dordevic)
(TUBERCULOSIS MENINGEAL epidemiol)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

STOJSIC, M., dr, doc.; KOSTIC, Z., dr; PUTNIK, Lj., dr; VOLJEVICA, C., dr; BAROS, T., dr; MILISAVLJEVIC, D., dr; LJUBUNCIC, L., dr; TERZIC, N. dr; GOLUB, B., dr.

Enteroviral paralysis. Cases observed during 1960 in the Serajevo Infectious Hospital and in the infectious ward of the Mostar hospital. Med. glasn. 15 no.11:375-380 N '61.

(POLIOMYELITIS epidemiol)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

STOJSIC,Milorad,d-r; SECIRBEGOVIC,Aziza; VOLJEVICA,Camila,d-r

Diagnosis of Heine-Medin disease. Med arh., Sarajevo 14 no.1: 73-85 Ja-F '60.

1. Infektivna klinika Medicinskog fakulteta u Sarajevu,Sef: prof. d-r Bl. Dordevic.
(POLIOMYELITIS diag.)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLJIN, V. ; CORBASCA, M. ; SANIELEVICI, A.

The X-ray tube with braking action of B-radiation of 90 Sr (90Y). p. 39.

ANALELE SERIA STINTELOR NATURII. Bucuresti, Rumania. Vol. 7, no. 18, 1958.

Monthly List of East European Accessions (EEAI), Vol. 8, no. 9, Sept. 1959. Uncl.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

GEORGESCU, I.I.; TEODORESCU, Gh.; VOLJIN, V.; CIOHODARU, L.

Radioactivity of the first solid fallout in Bucharest, during the 1962/63 winter. Studii cerc fiz 14 no.6:805-814 '63.

1. Institutul politehnic Bucuresti, Laboratorul de tehnica nucleara. Universitatea din Bucuresti, Catedra de structura materiei.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLJIN, V.; CIUDIN, T.

Determination of the relation of the Ce^{144} and Cs^{137} radionuclide concentration in the solid atmospheric precipitation on Bucharest during the winter 1963-1964. Pt. 2. Studii cerc fiz 16 no.10:1123-1129 '64.

1. Faculty of Physics, Bucharest University.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

RUMANIA/Solid State Physics - Solid State Theory. Crystallography. E

Abs Jour : Ref Zhur Fizika, No 9, 1959, 20218

A thor : Sanielevici, Al; Volgin, V., Corbasca, M.
Inst : -
Title : X-Ray Tube with Deceleration of the β Radiation of Sr^{90} (Y^{90}).

Orig Pub : An. Univ. "C.I. Parhon" Ser. stiint. natur., 1958, No 19, 39-42

Abstract : To take radiographs of parts of light materials, an x-ray tube with deceleration of the radiation was constructed, in which the electron beam is emitted by a source Sr^{90} (Y^{90}), and the anti-cathode os a lead plate. The construction of the source of rays was made with account of the necessity for facilitating and insuring safety of its use without reducing the intensity of the beam. This construction eliminates the diffuse and backward-scattered radiations, which may fog the film, and a suitable

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

RUMANIA/Solid State Physics - Solid State Theory, Crystallography. E

Abs Jour : Ref Zhur Fizika, No 9, 1959, 20218

chanelling of the β-ray beam makes it possible to obtain clearly defined photographs. The use of a source of activity 1 -- 3.5 millicurie necessitates exposures from 30 minutes to two hours. This time can be reduced to several minutes by using sources with a greater activity and greater film sensitivity. The x-ray tube with slowing down of the radiation, thanks to its simplicity of arrangement and use, and also thanks to the low cost, can be used in laboratories that do not have expensive x-ray apparatus. It can find application in standardization of sintillation spectrometers for rays thanks to the K line of the characteristic x-radiation from lead.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLJIN, V.

Determining the Ce^{144} and Cs^{137} radionuclide concentration ratio in solid atmospheric precipitations. Studii cerc fiz 15 no. 1:55-59 '64.

1. Department of the Structure of Matter, Bucharest University.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLJIN, V.

Study of the characteristic spectrum emitted by an X-ray tube with Sr^{90} (Y^{90}). Studii cerc fiz 11 no.4:887-895 '60. (EEAI 10:8)

1. Universitatea "C.I.Parhon," Catedra de structura materiei.
(Spectrum analysis) (X-ray tubes) (Strontium)
(Lead) (Yttrium) (Radioisotopes)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

NIZNANSKA, J.; HOLAN,V.; JILEK,M.; TRNKA,J.;Technicka spoluprace: VOLJOVA,F.

Treatment of warts with liquid nitrogen. Cesk. derm. 39 no.1: 59-63 F'64

1. I. dermato-venerologicka klinika fakulty vseobecneho lekarstvi KU v Praze (prednosta: prof.dr. J.Konopik, DrSc.) a Kozni oddeleni OUNZ v Kladne (vedouci: MUDr. J.Niznanska).

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

ALENT'YEV, A.A., prof.; MYASNIKOV, A.A.; VOLK, A., red.

[Principles of glass technology] Osnovy tekhnologii stekla. Kiev, Kievskii ordena Lenina politekhn.in-t, 1958. 102 p. (Glass) (MIRA 12:3)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

SEVERDENKO, V.P., akademik, red.; KALACHEV, M.I., red.; YUSHKOV, A.V., red.; VOLK, A.A., red.; GURVICH, G.Ye., tekhred.

[Papers of the Conference on the Improvement of the Technology of the Working of Metals under Pressure] Materialy Konferentsii po usovershenstvovaniiu tekhnologii obrabotki metallov davleniem. Minsk, Izd-vo Belgosuniv. im. V.I.Lenina, 1958. 111 p. (MIRA 12:6)

1. Konferentsiya po usovershenstvovaniyu tekhnologii obrabotki metallov davleniyem.
(Metalwork--Congresses)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

LEONOVICH, K.M.; VOLK, A.F.

First results of the underground coal gasification using directed air blast at the level of the coal seam. Podzem. gaz. ugl. no.3:47-52 '58. (MIRA 11:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Podzemgaz.
(Coal gasification, Underground)

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L 8504-66 EWT(m)/EWP(v)/EWP(j)/T/ETC(m) WW/RM

ACC NR: AP5028477 SOURCE CODE: UR/0286/65/000/020/0063/0063

AUTHORS: Ratner, I. S.; Volovich, Z. M.; Baklanov, G. M.; Kulakovskiy, V. A.; Gorskiy, B. Z.; Volk, A. I.-Kh.; Andreyev, A. A.; Arkadzhovskiy, V. N.; Timofeyev, N. Ya.; Meytin, R. Ya.

ORG: none

TITLE: A device for saturating fibrous reinforcing materials with a binder. Class 39, No. 175641

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 63

TOPIC TAGS: bonding material, industrial instrument, mechanical motion instrument

ABSTRACT: This Author Certificate presents a device for saturating fibrous reinforcing materials with a binder. The device contains a mechanism for moving the material over a rigid base and a working percussion instrument. The latter is set into reciprocating motion in a plane normal to the motion of the material. To increase the productivity of the device while improving the saturation quality, the working instrument consists of spring-loaded plates mounted on a common traverse. Elastic supports are fixed to that side of the plates which is toward the material being worked.

SUB CODE: 13/ SUBM DATE: 13Dec62

Card 1/1 UDC: 678.026.2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, A.I.

S/191/63/000/004/010/015
B101/B186

AUTHORS: Volk, A. I., Arkdzhovskiy, V. N.

TITLE: Some theoretical and practical conditions for producing transparent glass reinforced plastics

PERIODICAL: Plasticheskiye massy, no. 4, 1963, 46 - 49

TEXT: A general definition is given of the concepts light absorption and permeability, based on western publications including Kunststoffe 48, no. 5, 20 (1958). Various factors are discussed that affect the light scattering and permeability of glass reinforced plastics, such as transparency and colorlessness of glass fiber and binder, chemical composition of the lubricant and its solubility in the binder. The following binder is suggested: 100 parts by weight of polydiethylene glycol maleinate phthalate containing 25 parts by weight of styrene, and 25 parts by weight of methyl methacrylate. n_D^{20} of this binder is 1.547 which is similar to that of aluminoboro-silicate being 1.548. Specimens of glass reinforced plastics 1.5 mm thick were produced from this binder and 30% glass fiber without lubricant. Their permeability to light was 86% and their physicomechanical

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Some theoretical and practical...

properties were considerably improved by thermal treatment at 80°C for 3 hrs. Specimens containing glass fiber treated with AC-1 (AS-1) lubricant or polyvinyl acetate, had a permeability of only 80 and 55 - 60%, respectively. Glass reinforced plastics showed a bending strength of 1500 - 1600 kg/cm^2, tensile strength = 1200 - 1300 kg/cm^2, impact strength = 30 - 40 $kg \cdot cm/cm^2$, permeability to light = 80 - 85%. The binder suggested is weatherproof and has a low viscosity. There are 4 figures. The English-language reference is: British Plastics, Sept. 372 - 405 (1958).

Card 2/2

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, A.I.; ARKDZHOVSKIY, V.N.

Some theoretical and pratical prerequisites for the production of transparent galss plastics. Plast.massy no.4:46-49 '63. (MIRA 16:4)
(Glass reinforced plastics)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

L 44368-66 EWT(m)/EWP(j)/T/EWP(v) IJP(c) RM/WW

ACC NR: AP6023062 (A) SOURCE CODE: UR/0191/66/000/004/0024/0026

AUTHOR: Volk, A. I.; Timofeyev, N. Ya.; Veprinskaya, M. N.; Shtern, K. A.; Kozorovitskiy, V. R.

ORG: none

TITLE: Investigation of the technological parameters for the continuous production of the polyester glass-plastic laminates

SOURCE: Plasticheskiye massy, no. 4, 1966, 24-26

TOPIC TAGS: laminated glass, laminated plastic, synthetic material, styrene

ABSTRACT: The effect of styrene content in the binder (18-34%), temperature of charge make-up (20°-60°C), and duration of charge gelatinization (3-9 minutes) on the mechanical properties of polyester glass-plastic laminates was investigated. The binder was composed of styrene and polydiethyleneglicolmaleinatephthalate. Polymerization of the laminates was conducted at 80°C using 1.5% benzoyl peroxide initiator. It was found that the higher the styrene content, the greater the rate of binder hardening. The best mechanical properties of laminates (highest bending strength) resulted from the use of binders containing 26-33% styrene. Orig. art. has: 2 figures, 3 tables.

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 002

UDC: 678.06-419 : 677.521 : 69-932

Card 1/1

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

L 45889-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6024049 (A) SOURCE CODE: UR/0191/66/000/005/0032/0033

AUTHOR: Volk, A. I.; Shtern, K. A.; Timofeyev, N. Ya.; Veprinskaya, M. N. 41 B

ORG: none 15

TITLE: Effect of certain initiating systems on the setting of a binder for sheet fiber-glass reinforced plastics 15

SOURCE: Plasticheskiye massy, no. 5, 1966, 32-33

TOPIC TAGS: polyester resin, peroxide, copolymerization, reinforced plastic, polymerization initiator

ABSTRACT: The purpose of the work was to determine the type and amount of initiating admixtures promoting the copolymerization of polydiethylene glycol maleate phthalate resin with styrene (PN-1 resin) at 80-85°C. Combinations of pairs of peroxy compounds were chosen such that the activity of one peroxide manifested itself at a moderate temperature (70-80°C), and the activity of the other, at 100-120°C. Thus, the heat evolved by the action of the first, more active peroxide, leads to the initiation of the polymerization reaction by the second peroxide, whose decomposition temperature is higher. The following pairs were employed: benzoyl peroxide (BP) - methyl ethyl ketone peroxide (MEKP); BP - cyclohexanone peroxide (CHP); BP - cumene hydroperoxide (CHP). Graphs of variation of the temperature in the sample with time, characterizing the course of the exothermic process of copolymerization, were plotted. In all

UDC: 678.744.5.06-419.8:677.521:678.044.5

Card 1/2

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L 45889-66

ACC NR: AP6024049

cases, the use of pairs of peroxy compounds caused a faster setting of the polyester binder than in the case of each peroxide individually, and the ultimate strength in static bending was increased. The data obtained may be utilized in the manufacture of sheet fiber-glass reinforced plastics. Orig. art. has: 3 figures and 1 table.

SUB CODE: 11/ SUBM DATE: none/ OTH REF: 003 / SOV. REF: 001

Card 2/2 LC

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ACCESSION NR: AR4032151 S/0058/64/000/002/A016/A016

SOURCE: Ref. zh. Fiz., Abs. 2A172

AUTHORS: Shtrakikh, I. V.; Volk, A. N.

TITLE: High speed electronic analog to digital converters for multi-dimensional analysis (Survey article)

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern. radioelektronike. T. 2. Ch. 1. M., Gosatomizdat, 1963, 10-23

TOPIC TAGS: analog to digital converter, stepwise compensation, space coding, number register, code mask, cathode ray tube, converter resolution, converter accuracy

TRANSLATION: The two most promising methods of converting analog into digital information are considered. 1. The method of stepwise compensation or digit by digit "weighting." 2. Method of space

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ACCESSION NR: AR4032151

coding. In the first method the circuit forms pulses of known amplitude and compares them with the input voltage. The amplitude of formed pulses, which is uniquely connected with the states of the flipflops of the number register, varies at first in large steps and then in ever decreasing steps. The number-register flipflop state produced at the end of the cycle of successive comparisons determines the code for the value of the input voltage. The duration of the conversion by this method amounts to less than 10 μsec. Converters of this type can have a resolution time $\geq$ 0.2 μsec. The method of space coding is based on the use of the geometric representation of the employed code. The picture of the code is made in the form of a mask mounted in the screen of a cathode ray tube (CRT). The investigated signal is applied to the CRT deflecting plates. A combination of pulses corresponding to the code of the input-voltage amplitude is produced on the signal electrodes, which are located directly behind the mask. The resolution of the converters with space coding depends on the number of discrete levels which

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can be reproduced on the tube screen. For high-grade tubes the conversion accuracy is 0.1%. Yu. Semenov.

DATE ACQ: 31Mar64 SUB CODE: SD, CP ENCL: 00

Card 3/3

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67198

SOV/58-59-7-15749

24.7700

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 7, p 156 (USSR)

AUTHORS: Golovko, P.Ya., Volk, A.S.

TITLE: Electrical Conductivity of a Two-Component Ceramic of (Pb, Cd) TiO_3

PERIODICAL: Uch. zap. Armavirsk. gos. ped. in-t, 1958, Vol 3, Nr 3, pp 35 - 46

ABSTRACT: A ceramic of the (Pb, Cd) TiO_3 system was studied for the first time. It is shown that a semiconductor type of conductivity is characteristic of the investigated ceramic. Studying the temperature dependence of the electrical conductivity σ in the sample for various voltages of the electric field E, the authors discovered that as E increases, the break point of the curve $\lg \sigma = f(1/T)$ shifts in the direction of the lower temperatures. The temperature shift, expressed in ^{o}C, is directly proportional to E. The activation energy of the electrons of the fundamental lattice decreases markedly as E increases, while that of the electrons of the impurity atoms practically does not change under the same circumstance.

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67198

SOV/58-59-7-15749

Electrical Conductivity of a Two-Component Ceramic of (Pb, Cd) TiO_3

In the absence of transitions from one type of conductivity to another, $\lg \sigma \sim \sqrt{E}$. In the transition zone the linear dependence between $\lg \sigma$ and $\sqrt{E}$ is broken. A significant rise in σ with an increase in E already occurs when $E \approx 30$V/cm. 4

The authors' conclusions

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

YAKOVLEV, N.; VOLK, B.

Electromechanical floating machine. Stroitel' 8 no.6:14-15, 4 of cover Je '62. (MIRA 15:7)
(Plastering--Equipment and supplies)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

AUTHOR: Volk, B. 27-58-6-11/35

TITLE: "I Am a Working Man" ("Ya - rabochiy chelovek"). Graduates Maintain the Link with Their School (Vypuskniki podderzhivayut svyaz' so svoim uchilishchem)

PERIODICAL: Professional'no-Tekhnicheskoye Obrazovaniye, 1958, Nr 6, p 13-14 (USSR)

ABSTRACT: The graduates of professional schools very often maintain their link with the school. The Moscow School of Building Nr 4 receives letters from former students from all parts of the Union.

1. Education-USSR

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, B.

27-7-5/37

AUTHOR: Volk, B.

TITLE: Welcome, Friends! (Dobro pozhalovat', druz'ya!)

PERIODICAL: Professional'no - Tekhnicheskoye Obrazovaniye, 1957, # 7(146), p 7 (USSR)

ABSTRACT: The article describes the preparations made by the Moscow Technical School # 9 for the World Youth Festival in Moscow. Presents will be given to the foreign participants such as tools, albums with photos, needleworks. Plays and dances are being rehearsed and the metal workers are even studying Spanish to be able to converse with the visitors from Spain. Several lectures on Latin America have been delivered to brief the students on these countries. The school radio and a bulletin board tell the students of the progress made.

ASSOCIATION: Moscow Technical School of Metal Workers # 9 (Moskovskoye Tekhnicheskoye Uchilishche Metallistov # 9)

AVAILABLE: Library of Congress

Card 1/1

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, B.

Alarming signal. Pref.-tekh. obr.13 no.6:26-27 Je '56. (MLRA 9:9)
(Education and crime)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, DORIS

Sinyutnik Family

United family. Sem'ya i shkola. 4, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, B.G.; FURTO, G.S.; MARCHEVSKIY, Ya.I.

The MPTK-2 machine for laying heavy cables. Biul.tekh.-ekon. inform. no.12:49-51 '61. (MIRA 14:12)
(Electric cables)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

BUYANOVSKAYA, A.A.; GRINBART, S.B.; ZAYTSEV, Yu.P.; VOLK, D.T.

Hydrobiological conditions and food reserves of the Dniester Liman. (MLRA 9:7)
Trudy probl.i tem.sov.no.1:93-99 '51.
(Dniester Liman--Biology)

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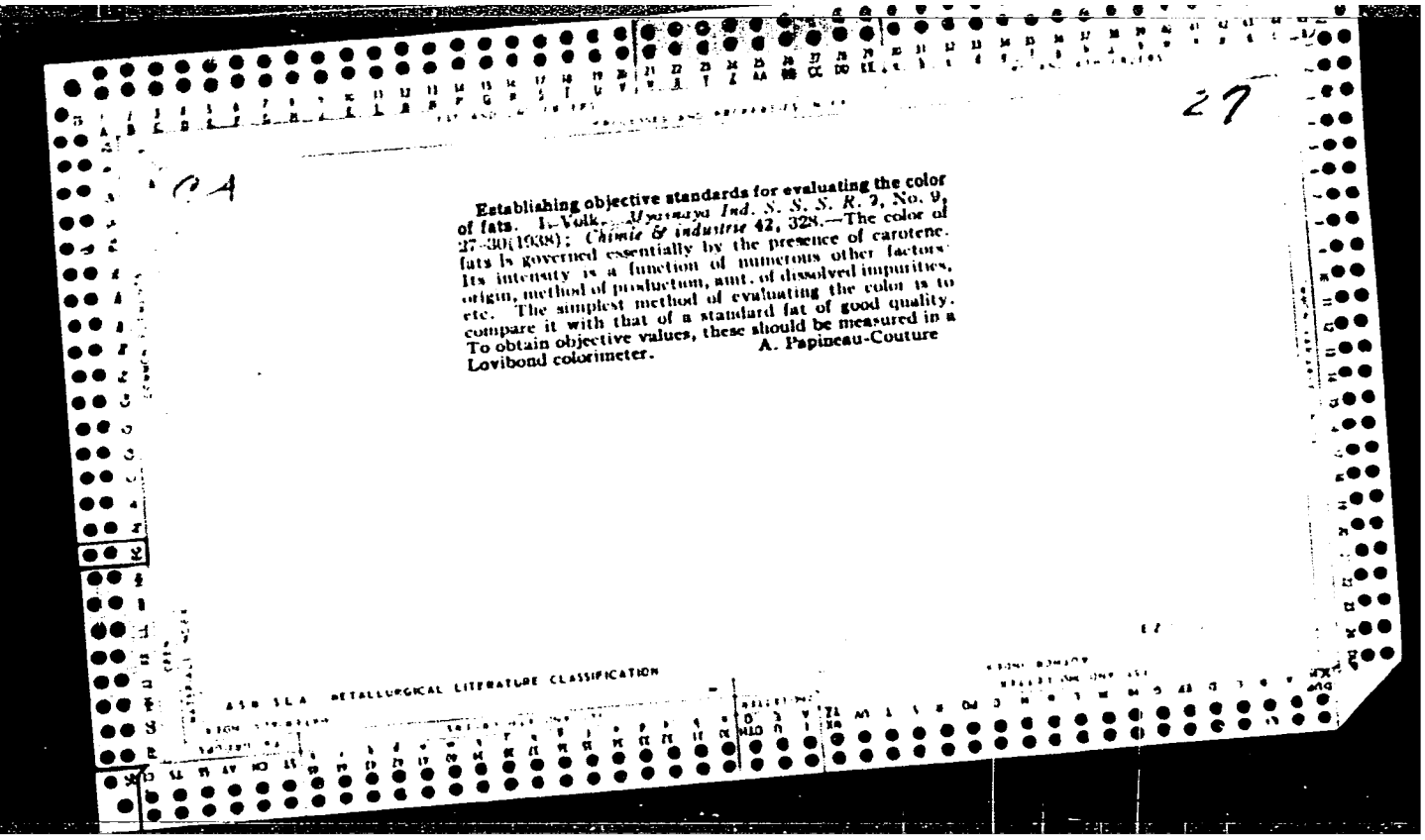

Establishing objective standards for evaluating the color of fats. I.—Volk. *Uyenaya Ind. S. S. S. R.* 2, No. 9, 27–30(1938); *Chimie & industrie* 42, 328.—The color of fats is governed essentially by the presence of carotene. Its intensity is a function of numerous other factors: origin, method of production, amt. of dissolved impurities, etc. The simplest method of evaluating the color is to compare it with that of a standard fat of good quality. To obtain objective values, these should be measured in a Lovibond colorimeter. A. Papineau-Couture

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, P.
Sec Ab B
V 56 Aug. 1953
Application
Electric Drives

Misc

3284. Development of the electric equipment of machine tools. P. VOLK. *Elektrotech. Z. [ETZ] B*, 5, 98–102 (*April* 21, 1953) *In German.*

The improvements made since the first electrically driven machine tools were introduced about 75 years ago are discussed. Replacement of the transmission drive by individual drive; pushbutton control; automatic control, e.g. by feelers; types of motors used, speed control, particularly by the Ward–Leonard method; amplifiers of valve, magnetic and amplidyne types; magnetic couplings, particularly the lamellar type; remote control and the use of the punched card system which enables the machine tool to be prepared for the next operation while still working on any given one, are described and illustrated.

R. NEUMANN

5-24-54

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, Irina

To save human life. Zdorov'e 7 no.1:18-19 Ja '61. (MIRA 13:12)
(SVERDLOVSK—ERYTHROMYCIN)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, I.M.

Elastic Oscillations with Damping Proportional to an Arbitrary Power of the Velocity (Ob Uprugikh Kolebaniakh pri Sporotivlenii, Proportsional'noi Proizvol'noi Stepeni Skorosti). I. M. Volk. *Prikladnaia* [illegible] *Mekhanika* (Moscow), Vol. 10, No. 1, 1946, pp. 125-[illegible] (In Russian.)

An analysis of the motion of a system with one degree of freedom, described by a differential equation

$$dx'dt + qx + px^n = 0, \quad (0 \le t \le T)$$

with initial conditions

$$x(0) = a, \quad x(0) = 0$$

where p, q, n, and a are certain positive constant values and $dx'dt$ is designated by x

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, I. M.

Volk, I. M. Elastic oscillations with damping proportional to a power of velocity. Appl. Math. Mech. [Akad. Nauk SSSR. Prikl. Mat. Mech.] 10, 125–134 (1946). (Russian. English summary) [MF 16839]

The paper deals with the motion of a system with one degree of freedom, described by a differential equation $\ddot{x}+q^2x+p\dot{x}^n=0$, $0\leqq t\leqq T$, with initial conditions $x(0)=-a$, $\dot{x}(0)=0$. *S. Lefschetz* (Princeton, N. J.).

Source: Mathematical Reviews, Vol 8, No. 2

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, I. M.

Volk, I. M. A generalization of the method of small parameter in the theory of non-linear oscillations of non-autonomous systems. C. R. (Doklady) Acad. Sci. URSS (N.S.) 51, 437–440 (1946).

The author applies the small parameter method of Poincaré to the system $dx_s/dt = X_s(x_1, \cdots, x_n, \mu, t)$, $s = 1, \cdots, n$, where the X_s are periodic functions of t, analytic functions of the x_s and meromorphic functions of μ within a domain $a' \leq |x_s| \leq b$, $|\mu| \leq \rho$. Results are obtained analogous to those obtained by Poincaré for the case where the X_s are analytic [illegible] R. Bellman (Princeton, N. J.)

Source: Mathematical Reviews, Vol. 8, No. 2.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

Volk, I. M.

Volk, I. M. Periodic solutions of non-autonomic systems depending upon the small parameter. Appl. Math. Mech. [Akad. Nauk SSSR. Prikl. Mat. Mech.] 10, 559–574 (1946). (Russian. English summary)

Consider the system

(1) $$dx_i/dt = X_i(x_1, \cdots, x_n, u, t), \quad i = 1, \cdots, n,$$

where X_i has the period T in t and is holomorphic in the x_i and meromorphic in μ in G: $a_i \leqq x_i \leqq b_i$, $|\mu| \leqq \rho$. Upon preserving in each X_i only the terms of lowest degree in μ there results a reduced system

(2) $$dx_i^0/dt = \mu^{k_i} X_i^0(x_1^0, \cdots, x_n^0, t), \quad i = 1, \cdots, n.$$

The author discusses the following problem of boundary layer type. Suppose that for $|\mu| \leqq \rho$ the reduced system (2) admits a periodic solution $x^0(\mu, t) = (x_1^0(\mu, t), \cdots, x_n^0(\mu, t))$ which approaches $x^0(t)$ as $\mu \to 0$. Does the initial system (1) possess a periodic solution for all $|\mu| \leqq \rho' \leqq \rho$ which again approaches $x^0(t)$ as $\mu \to 0$, and this regardless of the omitted terms in the passage from (1) to (2)? A strong sufficiency condition is given under the assumption that $x_i^0(\mu, t) = \mu^{m_i} x_i^*(\mu, t)$, where m_i is a nonnegative integer and $x_i^*(0, t) \not\equiv 0$ and is bounded. An application is made to boundary layer problems.

The following example may give some indication of the scope of the results obtained. Consider the equation

(3) $$\mu d^2x/dt^2 = ax + b\,dx/dt - \sin t + \mu F(\mu, x, dx/dt, t),$$

where F is a series in positive powers of $\mu, x, dx/dt$ whose coefficients are periodic with period 2π in t. The reduced equation $ax^0 + b\,dx^0/dt - \sin t = 0$ has the periodic solution

(4) $$x^0 = \frac{a \sin t - b \cos t}{a^2 + b^2}.$$

Then (3) has, for all $|\mu|$ sufficiently small and $b \neq 0$, a periodic solution very near (4). When $b = 0$ such a solution exists only for $\mu \geqq 0$ if $a > 0$ and $\mu \leqq 0$ if $a < 0$. [On these questions see also Friedrichs and Wasow, Duke Math. J. 13, 367–381 (1946); these Rev. 8, 272. Their general results and those of Volk appear to be quite distinct.]

S. Lefschetz (Princeton, N. J.).

Source: Mathematical Reviews, Vol 8 No. 6

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

Volk, I.M.

"A Generalization of the Method of Small Parameter in the Theory of Non-Linear Oscillations of Non-Autonomous System" Dok. AN, 51, No 6, 1946

Ural Industrial Inst., Sverdlovsk

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

Volk, I. M.

Volk, I. M. Generalizations of the method of small parameters in the theory of periodic motions of non-autonomous systems. Akad. Nauk SSSR. Prikl. Mat. Meh. 11, 433-444 (1947). (Russian. English summary)

The author returns to the topic of a previous paper [same journal 10, 559-574 (1946); these Rev. 8, 330]. With the same notations he considers this time the case when the reduced system admits a solution with the period mT. He not only discusses the existence of the solution of the basic system but also its representation in series of powers of the parameter μ. *S. Lefschetz* (Princeton, N. J.).

Solomon Lefschetz

Source: Mathematical Reviews, 1948, Vol. 9, No. 4

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

Volk, I. M.

Volk, I. M. On the stability of periodic motions when the equations and their periodic solutions are known only approximately. Akad. Nauk SSSR. Prikl. Mat. Meh. 12, 647-650 (1948). (Russian)

Consider a system of ordinary first order differential equations whose right members are meromorphic functions of a small parameter μ. If all but the leading terms with respect to μ are neglected, a simplified system $dx_\nu/dt = \mu^{k_\nu} X_\nu(x_1, \cdots, x_n; t)$ $(\nu = 1, 2, \cdots, n)$ is obtained in which the k_ν may be positive or negative integers. In three previous papers [cf. Appl. Math. Mech. [Akad. Nauk SSSR. Prikl. Mat. Mech.] 10, 559–574 (1946); same journal 11, 433–444 (1947); 12, 29–38 (1948); these Rev. 8, 330; 9, 185, 538] the author investigated the existence, for small μ, of periodic solutions x_ν^* of the full system near a given periodic solution x_ν° of the simplified system. In the present paper it is shown that for sufficiently small $|\mu|$ the stability character in the sense of Liapounoff is the same for the x_ν^* as for the x_ν°. *W. Wasow* (Swarthmore, Pa.).

Source: Mathematical Reviews, Vol 10 No. 5

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

Volk, I.M.

2000

Volk, I. M. On periodic solutions of autonomic systems. Akad. Nauk SSSR. Prikl. Mat. Meh. 12, 29–38 (1948). (Russian)

This paper is a continuation of two previous articles by the author [Appl. Math. Mech. [Akad. Nauk SSSR. Prikl. Mat. Mech.] 10, 559–574 (1946); same journal 11, 433–444 (1947); these Rev. 8, 330; 9, 185] on the construction of periodic perturbations of differential equations which depend in a nonregular manner on a real parameter. Let $dx_\nu/dt = X_\nu(x_1, \cdots, x_n; \mu)$ $(\nu = 1, \cdots, n)$ be a system of ordinary differential equations whose right sides are regular analytic functions of the $x_1, \cdots, x_n$ and, at $\mu = 0$, meromorphic functions of μ. In contrast to the two previous papers the X_ν are here independent of t. If only the leading terms with respect to μ are preserved in the right members, a simplified differential system is obtained, of which a periodic solution, bounded at $\mu = 0$, is assumed to be known. The problem is to construct a periodic solution of the full system that tends to this given solution of the simplified system, as $\mu \to 0$. If certain conditions, too involved to be stated here, are satisfied, such a periodic solution can be found as a convergent series of the form $x_\nu = \sum_{r=0}^{\infty} y_{\nu r}(t, \mu)\mu^r$, where the $y_{\nu r}(t, \mu)$ are periodic solutions of a linear differential system whose homogeneous part is a somewhat modified form of the usual variational system. The $y_{\nu r}(t, \mu)$ are bounded but not necessarily analytic at $\mu = 0$. [It seems to the reviewer that the proof given is complete only for the special case that the variational equations have constant coefficients, since it is based on an incorrect statement in the first of Volk's three papers concerning the boundedness, at $\mu = 0$, of the transformation matrix that reduces the variational system to one with constant coefficients.] *W. Wasow* (Swarthmore, Pa.).

Source: Mathematical Reviews. Vol 9 No. 10

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, I. V.

"Periodic Resolution of Autonomous Systems," Prik. Matemat. i Mekh., 12, No 1, 1948

Ural Ind. Inst., Sverdlovsk,

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, I. M. PA 17/49T64

USSR/Mathematics - Equations, Differential Sep/Oct 48
Mathematics - Dynamics

"The Stability of Periodic Motions in Cases Where the Equations and Their Periodic Solutions are Known Only Approximately," I. M. Volk, Sverdlovsk, 4 pp

"Priklad Matemat i Mekh" Vol XII, No 5

Knowing the differential equations of the simplified systems and their periodic solutions, Volk proposes the analysis of the stability of the corresponding exact periodic solutions of the exact differential equations of the basic systems.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, I. M.

PA 61/49T98

USSR/Physics
Regulation
Servomechanics

Jul/Aug 49

"One Sufficient Condition for Stability of Motion in the Critical Case of Two Roots With Zero Real Parts," I. M. Volk, Ural Polytech Inst, Sverdlovsk, 4 pp

"Priklad Matemat i Mekh" Vol XIII, No 4

Proof of the following theorem: If the form $xY^{(m)}(x,y)$ minus $yX^{(m)}(x,y)$ is unique, and the system of differential equations describing disturbed motion admits of a holomorphic integral $H(x,y; x_1,\ldots,x_n)$ independent of t such that

61/49T98

USSR/Physics (Contd)

Jul/Aug 49

the limit of $H(e^x, e^y; e^{m}x_n)/H(e^x, e^y; 0,\ldots,0)$ as e approaches 0 is equal to 1 and the least-ordered member in the power-series expansion of $H(x,y;0,\ldots,0)$ is unique in these variables, then: (a) undisturbed motion is stable, and (b) for any numerically small initial values x_0 and y_0 of the variable x and y, the system of differential equations describing disturbed motion admits of a periodic stable solution. Submitted 17 Mar 49.

61/49T98

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

SUBJECT USSR/MATHEMATICS/Differential equations CARD 1/2 PG - 563
AUTHOR VOLK I.M.
TITLE On a class of oscillatory systems.
PERIODICAL Doklady Akad. Nauk 110, 189-192 (1956)
reviewed 2/1957

The author investigates permanent oscillations of the system

$$\frac{dx}{dt} = X(x,y) + \mu\left[P(\mu,x,y) + c\,U(c,\mu,x,y,z_1,\ldots,z_m)\right]$$

$$\frac{dy}{dt} = Y(x,y) + \mu\left[Q(\mu,x,y) + c\,V(c,\mu,x,y,z_1,\ldots,z_m)\right]$$

$$\mu^{-k}\frac{dz}{dt} = a_{\nu 1}z_1 + \ldots + a_{\nu m}z_m + P_\nu(x,y) + Z_\nu(c,\mu,x,y;z_1,\ldots z_m)$$

$$Z_\nu(0,0,x,y;z_1,\ldots,z_m) = 0 \qquad (\nu = 1,\ldots,m),$$

where the right hand sides are independent of t; c, μ are small parameters, k is an arbitrary number. It is assumed that the system

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Doklady Akad. Nauk 110, 189-192 (1956) CARD 2/2 PG - 563

$$\frac{d\xi}{dt} = X(\xi, \eta), \qquad \frac{d\eta}{dt} = X(\xi, \eta)$$

admits an integral independent of t.
For these systems conditions are given for the excitation of permanent oscillations and an approximative method for their determination is developed. The consideration is carried out in the phase space. Permanent oscillations of a non-linear electric system are determined as an example, the linear chain of which is formed by two oscillatory circuits.

INSTITUTION: Polytechnical Institute, Ural.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

AUTHOR: Volk, I.M. SOV, 140-58-3-5/34

TITLE: On Periodic Solutions of Quasi-Linear Differential Equations in a Class of Cases (O periodicheskikh resheniyakh kvazilineynykh differentsial'nykh uravneniy v odnom klasse sluchayev)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1958, Nr 3, pp 31-40 (USSR)

ABSTRACT: The author considers the system

$$\frac{dx_\nu}{d\vartheta} = \mu^{k_\nu}\left[p_{\nu_1}x_1 + \ldots + p_{\nu_n}x_n + P_\nu + U_\nu(\mu, c; x_1, \ldots, x_n, \vartheta)\right]$$

$$(\nu = 1, \ldots, n),$$

where μ and c are small parameters and $k_1, \ldots, k_n (k_1 \geqslant k_2 \geqslant \ldots \geqslant k_n)$ real constants. The right sides are 2π-periodic in ϑ, the p_{ν_j} and P_ν only functions of ϑ and continuous. The U_i vanish for $\mu = c = 0$. In two theorems the author gives sufficient conditions for the existence of periodic solutions. The conditions concern only the coefficients of the correspond-

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

On Periodic Solutions of Quasi-Linear Differential Equations in a Class of Cases

SOV/140-58-3-5/34

ing linear homogeneous system. They guarantee the existence of a unique periodic solution under arbitrary choice of the other terms of the quasi-linear system. For the periodic solution the author gives a representation by a double series.

ASSOCIATION: Kuybyshevskiy industrial'nyy institut imeni V.V. Kuybysheva (Kuybyshev Industrial Institute imeni V.V. Kuybyshev)

SUBMITTED: October 17, 1957

Card 2/2

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

16(1)

AUTHOR: Volk,I.M.

SOV/140-59-1-5/25

TITLE: On the Limit Cycle of a Dynamic System of Differential Equations in a Class of Cases (O predel'nom tsikle dinamicheskoy sistemy differentsial'nykh uravneniy v odnom klasse sluchayev)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 1, pp 35-44 (USSR)

ABSTRACT: The author considers the system

$$\frac{dx}{dt} = X(x,y) + \mu\left[P(\mu,x,y) + cU(c,\mu,x,y;z_1,\ldots,z_m)\right]$$

$$\frac{dy}{dt} = Y(x,y) + \mu\left[Q(\mu,x,y) + cV(c,\mu,x,y;z_1,\ldots,z_m)\right] \quad (1)$$

$$\mu^{-k}\frac{dz_\nu}{dt} = a_{\nu_1}z_1+\ldots+a_{\nu_m}z_m+P_\nu(\mu,x,y)+cZ_\nu(c,\mu,x,y;z_1,\ldots,z_m)$$

$$(\nu=1,\ldots,m).$$

The system generalizes the case treated by Pontryagin [Ref 1]. Under very numerous and partly very complicated assumptions the author gives the conditions for the existence of a limit cycle continuously depending on μ and c, which for $\mu^2+c^2\to 0$ tends

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On the Limit Cycle of a Dynamic System of Differential Equations in a Class of Cases SOV/140-59-1-5/25

to the limit cycle of the degenerated system ($\mu = 0$). The construction of the limit cycle is made with the aid of successive approximations. As an example the author considers an electrical system of oscillations. The system (1) was already treated by the author in [Ref 3,4]. There are 4 Soviet references.

ASSOCIATION: Kuybyshevskiy industrial'nyy institut (Kuybyshev Industrial Institute)

SUBMITTED: March 25, 1958

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, I.M.

On a limiting case in the theory of periodic solutions of Liapunov's systems. Izv. vys. ucheb. zav.; mat. no.6:8-15 '61. (MIRA 15:3)

1. Kuybyshevskiy industrial'nyy institut.
(Mechanics, Analytic) (Differential equations) (Series)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, Irina

New Borisov. Zdorov'e 6 no.5:22-24 My '60. (MIRA 13:6)
(BORISOV--PUBLIC HEALTH)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, Irina

Giuzel' and the yellow bird. Zdorov'e 6 no.2:24 F '60. (MIRA 13:5)

(TAKHTA-BAZAR (MARY PROVINCE)--COLLECTIVE FARMS)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, Irina (Turkmenskaya SSR, Mary-Karakumy).

In the deserts of Turkmenistan. Zdorov'ye 4 no.12:25-26 D '58
(MIRA 11:12)

(TURKMENISTAN--PUBLIC HEALTH, RURAL)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, J.

"The July 1954 flood in the Bavarian sector of the Danube basin."
Tr. from the German. p. 78

VIZUGYI LOZLEMENYEK. Hydraulic Engineering (Kozlekedesugyi Miniszterium. Vizgarzadalkodasi Tudomanyos Kutato Intezet) Budapest, Hungary, Vol. 37 No. 1/2. 1955.

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

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

16,3400

31912
S/140/61/000/006/001/007
C111/C444

AUTHOR: Volk, J. M.

TITLE: On a limit case in the theory of periodic solutions of Lyapunov systems

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, no. 6, 1961, 8-15

TEXT: Considered is the Lyapunov system

$$\frac{dx}{dt} = \lambda_1 y + X, \qquad \frac{dv}{dt} = \lambda_2 x + Y$$

$$\frac{dx_\nu}{dt} = p_{\nu 1} x_1 + \cdots + p_{\nu n} x_n + X_\nu , \quad (\nu = 1, \ldots, n), \tag{1.1}$$

where λ_1, λ_2 and $p_{\nu j}$ are real constants; λ_1, $\lambda_2 < 0$; the equation:

$$\Delta(\rho) = \begin{vmatrix} p_{11} - \rho & p_{12} \cdots & p_{1n} \\ \cdots\cdots\cdots\cdots & \cdots\cdots\cdots & \cdots\cdots\cdots \\ p_{n1} & p_{n2} \cdots & p_{nn} - \rho \end{vmatrix} = 0$$

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

On a limit case in the theory . . .

does not possess any zeros being multiples of $\sqrt{|\lambda_1 \lambda_2|} = \lambda$ or 0; X, Y, X_ν being power series of x, y, $x_1, \ldots, x_n$, beginning with terms of at least second order; the system possessing a first integral

$$H(x, y, x_1, \ldots, x_n) = \text{const}, \qquad (1.2)$$

where H is a power series in x, y, $x_1, \ldots, x_n$, containing terms of second order which do not vanish for $x_1 = \ldots = x_n = 0$. It is known that (1.1) possesses periodic solutions which are represented by power series, the convergence radius of which converging to zero with $\lambda \to 0$ such that the case $\lambda = 0$ is excluded.

The author investigates this special case not assuming $\lambda \neq 0$. The author supposes that λ_1, λ_2, X, Y, X_ν are $|\delta| \leq \delta_0$ analytic functions of a small parameter δ, that the right hands of (1.1) for $\delta \leq |\delta_0|$ are analytic in x, y, $x_1, \ldots, x_n$ and that the expansions of X, Y, X_ν in terms of x, y, $x_1, \ldots, x_n$ begin with terms of at least second order.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

On a limit case in the theory . . .

The system (1.1) is then written down in the following form

$$\frac{dx}{dt} = P(x,y) + U(x,y;\ x_1,\ldots,\ x_n;\ \delta),$$

$$\frac{dy}{dt} = Q(x,y) + V(x,y;\ x_1,\ldots,\ x_n;\ \delta), \qquad (2.1)$$

$$\frac{dx_\nu}{dt} = p_{\nu 1}x_1 + \ldots + p_{\nu n}x_n + P_\nu(x,y) + U_\nu(x,y;\ x_1,\ldots,\ x_n;\ \delta),$$

$$(\nu = 1,\ldots,\ n),$$

where P, Q and P_ν consist sets of those terms of the series expansions of (1.1) in powers of δ, x, y, $x_1,\ldots,\ x_n$ which do not vanish for $\delta = x_1 = \ldots = x_n = 0$. In the expansions of U and V in terms of powers of x, y, $x_1,\ldots,\ x_n$ there are terms of smaller than first order and terms $A_j x_j$ missing; in the expansions of $P_\nu + U_\nu$ the terms of smaller than second order are missing. Further on $\Delta(0) \neq 0$ and the existence

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

On a limit case in the theory . . .

of a first integral

$$H(x,y;\ x_1,\ldots,\ x_n;\ \delta) = \text{const}, \qquad (2.2)$$

is demanded where H ought to be analytic in $x^2+y^2+x_1^2+\ldots+x_n^2+\delta^2 \leq R^2$.

At last the following new demands are set up: a) The power series of P and Q are

$$P(x,y) = -ay^m + P_*(x,y),$$
$$Q(x,y) = bx^k + Q_*(x,y), \qquad (2.3)$$

where $a > 0$, $b > 0$, $k \geqslant 1$, $m \geqslant k$, k and m being odd, P and Q containing terms of at least (k+1)-th order, where terms containing y are of at least m-th order, and terms of m-th order vanish for $x = 0$.

b) The expansion of $H(x,y;\ 0,\ 0,\ldots,\ 0)$ in terms of powers of x and y contains at least one term of (k+1)-th order.

Under these assumptions it is proved that (2.1) possesses, in a sufficient small neighborhood of the origin, a family of periodic solutions,

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

On a limit case in the theory . . .

depending on the arbitrary constants t_0 (initial value of t) and μ.

A scheme for the construction of the periodic solution is given. As an example for the considered limit case a pendulum of length l and of weight Q is given which is kept in the upper equilibrium by a spiral spring with spring constant c, where $c = Ql$.

There is one figure and 4 Soviet-bloc references.

ASSOCIATION: Kuybyshevskiy industrial'nyy institut (Kuybyshev Industrial Institute)

SUBMITTED: April 10, 1959

Card 5/5

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, P.; ZAGORSKIY, G., red.; POKHLEBKINA, M., tekhn. red.

[How to keep tractor and motor vehicle tires in good condition] Chto nado znat' po ukhodu za traktornoi i avtomobil'noi rezinoi. Moskva, Mosk. rabochii, 1962. 15 p. (MIRA 15:6)
(Tires, Rubber)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, R. B.

31044. VOLK, R. B. Sluchay Fibrosarkomy Selezenki. V sb: Voprosy Ostroy Vnutrenney Kliniki. M., 1949, c. 297-301.

SO: Letopis' Zhurnal'nykh Statey, Vol. 42, Moskva, 1949

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

CHUDESOV, I.D.; BORISOV, A.M.; ZAYTSEVA, S.I.; DOLGOPOLOV, N.L.; KRAVTSOV, Yu.I.; VOLK, P.I.

[Technology of the repair of tires of motor vehicles, tractors and agricultural machinery] Tekhnologiia remonta shin avtomobilei, traktorov i sel'skokhoziaistvennykh mashin. Moskva, 1963. 200 p. (MIRA 18:5)

1. Perovo. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

31043. VOLK, R. B.

O Klinike i patologii pervichnogo raka pecheni. V sb: Voprosy ostroy vnutrenney Grekova, 1949, No. 4, s. 42-43

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

30943. VOLK, R. B.

Materialy Voirosu o leclebnykl krovopuskaniyakl (Po Materialam Kand Discertatsii) V SB Voprosl ostroy Vnutrenney Klinini. M., 1949 S 121-32

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

Volk, R. B.

30945. VOLK R. B. AND POROZHNIKOVA, L. A.

Klihichesie hablyudeniya Nad Sovetskim Vodorastorimym prepatom Kamfory--u-Kamfora-Vi . VSB: Voprosy ostroy Vnutrenney Kliniki. M., 1949, s 132-35

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

Volk, R B.

30981. VOLK, R. B. AND POROZHNIKOVA, L. A.-K

Voprosy o strongiloidoze. Vsb: Voprosy ostroy vnutrennoy kliniki. M., 1949, s. 324-28

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, R.B., kand.med.nauk

Some diagnostic errors in the treatment and prevention of cardiac asthma. Sbor.nauch.-prak.rab.Poliklin.im.F.E.Dzerzh. no.2:64-72 '61. (MIRA 16:4)

(ASTHMA)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, R. G. Cand. Med. Sci.

Dissertation: Concerning the Mechanism of the Normal and Pathological Vessel-Moving Reactions of the Nasal Mucous Membrane." First Moscow Order of Lenin Medical Inst. 16 Jul 47.

SO: Vechernyaya Moskva, Jul, 1947 (Project #17836)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, R.G., kandidat meditsinskikh nauk.

Urofulsanilamide therapy of chronic suppurative otitis media.
Vest.oto-rin. 16 no.5:20-24 S-O '54. (MLRA 7:12)

1. Iz poliklinik No. 1 Ministerstva zdravookhraneniya SSSR.
(OTITIS MEDIA, therapy,
sulfanilamide with urea)
(UREA, therapeutic use,
otitis media, with sulfanilamide)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, S.

[Toward the conquest of space] Po puti zavoevaniia kosmosa. Munich, Izd. TSentr. ob"edineniia polit. emigrantov iz SSSR (TsOPE). 1961. 52 p. (MIRA 14:9)

(Artificial satellites) (Lunar probes) (Astronautics)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, S.

Turkestan Siberian railroad; essay on its construction. Moskva. Molodaia gvardiia, 1930.
92 p.

Syr.4 HE143

. Turkestano - Sibirskaia zheleznaia doroga.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

LENTIN, Albert Paul; VOLK, S.I.[translator]; POTEKHNIN, I.I., red.

[Senegal today]Senegal segodnia. Moskva, Izd-vo vostochnoi lit-ry, 1961. 68 p. Translated from the English.
(MIRA 15:9)

(Senegal—Description and travel)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, S.I. (Kiyev)

Elastic conic shells loaded along the generatrices and in points of contour circumferences. Prikl. mekh. 1 no.11: 20-27 '65. (MIRA 19:1)

1. Institut mekhaniki AN UkrSSR. Submitted May 27, 1965.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, Stepan Stepanovich; ARKHAROVA, V.G., red.; TIKHONOVA, I.M., tekhn. red.

[European contrasts; notes of a Soviet tourist] Evropeiskie kontrasty; zametki sovetskogo turista. Leningrad, Lenizdat, 1961. 168 p. (MIRA 14:11)

(Europe, Western--Description and travel)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

L 6413-66 EWA(c) IJP(c) JD/HW/GG/WH
EWT(l)/EWP(e)/EPA(s)-2/EWT(m)/EWP(i)/EPA(w)-2/EWP(t)/EWP(k)/EWP(b)

ACC NR: AP5027414 SOURCE CODE: UR/0181/65/007/011/3344/3347

AUTHOR: Leonidova, G. G.; Volk, T. R.

ORG: Institute of High Pressure Physics, AN SSSR, Moscow (Institut fiziki vysokikh davleniy AN SSSR)

TITLE: Investigation of phase transition in barium titanate at high hydrostatic pressure

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3344-3347

TOPIC TAGS: barium titanate, piezoelectric crystal, ferroelectric crystal, second order phase transition

ABSTRACT: The dielectric characteristics of a $BaTiO_3$ single crystal are studied at pressures up to 8.5 kilobars in isothermal conditions to determine the nature of phase transition in this material as related to the variation in the constants A and B of the Devonshire equation. A reduction in the absolute value of B with pressure indicates that a second order transition may be observed in conformity with the Landau-Ginzburg theory at some critical hydrostatic pressure. We consider it our

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

L 6413-66 6
ACC NR: AP5027414 44, 55

duty to thank L. F. Vereshchagin for directing the topic of this work. The authors are also grateful to V. I. Gvozdev for assistance in conducting the experiment.
Orig. art. has: 2 figures, 2 tables.

SUB CODE: 20/ SUBM DATE: 07Jun65/ ORIG REF: 005/ OTH REF: 010

Card 2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

L 15150-65 EWT(1)/FCC/EEC(t) Po-4/Pi-4 RAEM(c)/AFETR GW

ACCESSION NR: AP4049464 S/0215/64/000/011/0117/0120

AUTHOR: Volk, V. E.

B

TITLE: An experiment to use data from an aerial magnetic survey to study the earth's crust in the Arctic basin

SOURCE: Sovetskaya geologiya, no. 11, 1964, 117-120

TOPIC TAGS: earth crust, geomagnetic field, aerial magnetic survey

ABSTRACT: Previous aeromagnetic data indicate that magnetized rocks occur at depths of 20-30 km in the Arctic region. Data for the present study were obtained in 1961-62 during an aerial magnetic survey made by members of the NIIGA (D. V. Levin, S. M. Kryukov, A. M. Karasik, and V. E. Volk) over the sea in the Arctic part of the Soviet Union. The surveyed area extends from the Barents and Kara Seas on the south to the oceanic expanse of the Nansen basin on the north (nearly to the pole). In this region most of the magnetic anomalies have a subeasterly trend, and the depth to magnetic bodies changes systematically along a north-south line. A schematic section of the crust along a north-south line (60° E long.), extending from 74°30' N lat. almost to the pole, is included in the paper. From Novaya Zemlya to about 83° N lat. (just north of Franz Josoph Land),

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the layers of the crust appear fairly uniform. Magnetic rocks appear a short distance below the level of the adjacent ocean floor. A magnetic layer within the "granitic" layer occurs at a depth of about 3 to 3.5 km. This magnetic horizon is discontinuous, and it rises slightly toward the north, from 3.5 km in the Kara Sea near Novaya Zemlya to about 3 km at Franz Joseph Land. The top of the "basaltic" layer is found at about 17 km near Novaya Zemlya, rises to about 8 km half way to Franz Joseph Land (79°30' N lat.), and continues at about that level, declining very slightly near Franz Joseph Land. The Mohorovicic discontinuity is at about 32 km near Novaya Zemlya, rises to about 22 km at 79° N lat., then bows downward in the vicinity of Franz Joseph Land, reaching 32 km again, before bowing upward sharply to about 10 km at 83° N lat. From this point northward the Mohorovicic discontinuity remains about level for some distance, bows down to about 20 km between 86°30' and 87° N lat, and then rises again to 10 km at 87°30'. At 82°30' N lat. the magnetic horizon within the "granitic" layer and the "granite-basalt" interface ceases rather abruptly. The sea floor descends sharply to about 3 km, and this is underlain only by the "basaltic" layer, which is on the order of 5 km thick here, swelling to about 10 km between 86°30' and 87°30' N lat., before thinning down to less than 5 km northward. The

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

L 15154-65

ACCESSION NR: AP4049464

indicated swelling in thickness of this layer involves both a rise in the oceanic floor (top of the crust) and a downward bowing of the Mohorovicic discontinuity (bottom of the crust). Orig. art. has: 1 figure.

ASSOCIATION: Nauchno-issledovatel'skiy institut geologii Arktiki (Scientific Research Institute for Geology of the Arctic)

SUBMITTED: 00 ENCL: 00

SUB CODE: ES NO REF SOV: 006 OTHER: 002

Card 3/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, V.E.; KRYUKOV, S.M.; LEVIN, D.V.

Basic characteristics of the subsurface structure in the western part of the Taymyr depression according to aeromagnetic data. Uch. zap. NIIGA. Reg.geol. no.3:107-128 '64.

(MIRA 18:10)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

KARASIK, A.M.; VOLK, V.E.

Some characteristics of the quantitative interpretation of high-precision aeromagnetic surveying. Trudy NIIGA 132:180-186 '62.
(MIRA 16:4)

(Magnetic prospecting)
(Aeronautics in surveying)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

LEVIN, D.V.; KRYUKOV, S.M.; VOLK, V.E.

Structure of the western part of the Khatanga depression according to aeromagnetic data. Uch. zap. NIIGA. Reg. geol. no.2:84-118 '64. (MIRA 19:1)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, V.F., vrach; DUBOVYY, K.I., vrach; KOTELYANSKAYA, K.Ye.

Organizing work for the protection of vision in the school-children of Rovno Province. Oft. zhur. 18 no.1:50-51'63
(MIRA 17:4)

1. Iz glaznogo otdeleniya Rovenskoy oblastnoy bol'nitsy.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5

VOLK, V.G.

Built-up welding of rapidly wearing parts by means of cast iron chips. TSement 24 no.1:28 Ja-Fe '58. (MIRA 11:4)

1.Kramatorskiy tsementnyy zavod.
(Machinery--Maintenance and repair)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860510014-5"