KUZNETSOV, G.F., doktor tekhn.nauk; MOROZOV, N.V., kand.tekhn.nauk; LIVCHAK, I.F., kand.tekhn.nauk; TEMKIN, L.Ye., inzh., nauchnyy red.; TUMARKIN, D.M., inzh., red.izd-va; MEDVEDEV, L.Ya., tekhn.red.

[Manual on planning apartment houses and public buildings of panel and frame-panel construction] Rukovodstvo po proektirovaniiu zhilykh i obshchestvennykh zdanii s panel'nymi i karkasno-panel'nymi konstruktsiiami. Moskva, Gos.izd-vo lit-ry po stroit. i arkhit., 1955. 142 p. (MIRA 11:3)
(Apartment houses) (Building)

KUZNETSOV, G.F.

On the problem of standardization of construction details for buildings constructed of large blocks. Stroi.prom. 33 no.3:2-7 Mr '55. (MLRA 8:5)
(Building blocks)

KUZNETSOV, Grigoriy Filippovich, doktor tekhnicheskikh nauk; ISLANKINA, T.V., redaktor; FUKMAN, G.V., tekhnicheskiy redaktor

[Precast reinforced concrete panels in the construction of appartment houses and public buildings] Sbornyi zhelezobeton v stroitel'stve zhilykh i obshchestvennykh zdanii. Moskva, Izd-vo "Znanie," 1956. 38 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.4, no.19) (MLRA 9:8)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Kuznetsov)
(Precast concrete) (Concrete slabs)

KUZNETSOV, G.F.; MOROZOV, N.V.; ANTIPOV, T.P., DUZINKEVICH, S.Yu., inzhener, nauchnyy redaktor; BERDICHEVSKIY, G.I., redaktor; AGRANOVSKIY, Ye.A., tekhnicheskiy redaktor

[Structural elements of multi-story frame-and -panel and panel-built apartment houses] Konstruktsii mnogoetazhnykh karkasno-panel'nykh i panel'nykh zhilykh domov. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1956. 210 p. (MLRA 9:7)
(Apartment houses)

KUZNETSOV, G.F., doktor tekhnicheskiy nauk; RAZINKOV, P., redaktor; YEGOROVA, I., tekhnicheskiy redaktor

[Large panel construction; a collection of articles] Krupnopanel'noe stroitel'stvo; sbornik statei. [Moskva] Moskovskii rabochii, 1956. 237 p. (MLRA 10:1)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Kuznetsov)
(Precast concrete construction)

KUZNETSOV, G.

Heat insulating materials industry in the sixth five-year plan. Stroi.mat., izdel.i konstr. 2 no.9:1-4 S '56. (MLRA 9:11)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR.

(Insulating materials)

KUZNETSOV, O.F., inzhener.

Heat insulation design. Mev. tekh. i pered. op. v strei. 18 no.4: 25-28 Ap '56. (MLRA 9:7)
(Czechoslovakia--Insulation (Heat))

AUTHOR: Kuznetsov, G.F. (Member of the Academy for Building and Architecture, U.S.S.R.)

TITLE: Precast reinforced concrete for housing development. (Sbornyi zhelezobeton v stroitel'stve zhilykh domov).

PERIODICAL: "Beton i Zhelezobeton" (Concrete and Reinforced Concrete) 1957, No.2, pp. 37 - 43 (U.S.S.R.)

ABSTRACT: The assembly of multi-storey blocks of flats from large precast units and slabs is increasing although the cost is higher because of inadequate organisation and planning. Constructional schemes of assembled multi-storey blocks built of bricks and brick-blocks, carrying floor- and roof-slabs, could have 5-6 floors and walls of 40 mm thickness. Different types of structural solutions are analysed. The basic variations consist in the structural approach to internal spine walls and cross beams or panel partitions. Comparative values of the constructions are tabulated to point out the most economic types. The cement used for ordinary in situ constructions is Mark 110 and the reinforcement Mark St.3., for precast constructions cement Mark 200, for pretensioned reinforced constructions cement Mark 400 are used. A Leningrad block of flats is illustrated as an example. When analysing the constructional schemes of multi-storey blocks of flats based on large precast panel walls, big savings can be achieved

Precast reinforced concrete for housing development. (Cont.) 182

by reducing weight of the structure which corresponds to a reduction of the sizes of building units and of the reinforcement. Experience gained with the above type of construction has shown that the frame-less type is more economical than the skeleton building. The consumption of concrete is equal in both types but a 20 - 30% saving in steel is achieved with the frameless construction. The cement consumption in the latter case is increased by 5 to 10%. Economical advantages of frameless constructions decrease with the increasing number of floors because of the increasing thicknesses of load bearing partitions. The limit of super-imposed loading on a breeze concrete partition, 10 to 14 cm thick, or on other concrete slabs with a crushing strength of 70 to 100 kg/cm^2 represents 8 to 10 floors. Buildings constructed by methods described above appear to be most economical if the number of floors is restricted to 6. There are 2 diagrams, 5 photographs and 3 tables.

KUZNETSOV, O.

KUZNETSOV, O.

Industrial constructions of homes and prospects of their development. Gor. i sel'.stroi. no.6:2-5 Je '57. (MIRA 10:10)

1.Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR.

(Building)

KUZNETSOV, G. F.

AUTHOR: Idashkin, V. I. (Engineer). 97-57-9-15/17

TITLE: All-Union Congress on Large Panel and Large Block Construction (Vsesoyuznoye soveshchaniye po krupnopanel'nomu i krupnoblochnomu stroitel'stvu).

PERIODICAL: Beton i Zhelezobeton, 1957, Nr.9. p. 376. (USSR).

ABSTRACT: The Scientific and Technical Association of the Building Industry of USSR (Nauchno-tekhnicheskoye obshchestvo stroitel'noy promyshlennosti SSSR) and the Union of Architects of USSR (Soyuz arkhitektorov SSSR) organized this Congress to generalize experience of large panel and large block methods of residential building, and to further the development of this type of construction in USSR. The Congress was held from 4th - 10th June, 1957 in Chelyabinsk. Six hundred delegates attended, representing building organizations, planning and scientific organizations and factories manufacturing building materials. The Congress was opened by the Secretary of the Chelyabinsk KPSS, N. V. Laptev. A paper on "The Present Position and Future Developments in the Use of Large Panel and Large Block Construction" was read by G. F. Kuznetsov, a member of the Academy of Building and Architecture of USSR (Akademii stroitel'stva i arkhitektury SSSR). A paper on

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All-Union Congress on Large Panel and Large Block Construction

"Material Resources for Large Panel and Large Block Construction Methods" was read by A. N. Popov, also a member of the above Academy, and contributions on this subject were also made by the following: V. I. Bogomolov (Member of the Academy of Building and Architecture, USSR), Engineers P. F. Panfilov, V. M. Kopp and L. S. Raynus (Leningrad), A. B. Strutinskiy and V. A. Mikhaylov (Kiev), E. D. Samoylovich (Chelyabinsk), A. S. Krivorotov (Magnitogorsk), Candidate of Technical Sciences I. L. Zhodzishskiy (Sverdlov), Engineer V. N. Popko (Krasnotur'insk), and V. G. Lelichenko (Zhdanov). Papers on the results of investigations into the subject of large panel and large block building methods were read by:- Member of the Academy of Building and Architecture of USSR L. I. Onishchik, and A. V. Elkin; Doctor of Technical Sciences Prof. A. E. Desov; Candidates of Technical Sciences N. Ya. Spivak and E. M. Berzon, and Engineer A. A. Liberman read papers on the Technology of the production of large panels and blocks. It was generally agreed that large panels and blocks are too heavy. The answer lies in the technology of new building materials, especially in light aggregates and concretes. The high proportion of defective units damaged during transport and

All-Union Congress on Large Panel and Large Block Construction

assembly causes concern. The Congress made a number of recommendations for expansion, improvement in quality and reduction in costs. Lightweight aggregates such as Keramzit and Termozit, etc., are advocated, together with clinker and furnace slag. Highly active, quick-hardening cement should be used. Further investigations should be carried out on aerated concrete. Study and experience of large panel and large block construction shows that it is possible to reduce the assembly time by at least 20 - 30% by using the continuous method of assembly by employing two or three shifts, and by improved methods of assembly. The Academy of Building and Architecture of USSR was approached by the Congress to study types of cranes suitable for this particular assembly work.

AVAILABLE: Library of Congress.

1. Building industry-Conference

Card 3/3

SOV/97-57-11-2/10

AUTHOR: Kuznetsov, G.F., Dr. of Technical Sciences

TITLE: Wider Use of Precast Reinforced Concrete in Housing Construction. (Za shirokoye vnedreniye sbornogo zhelezobetona v zhilishchnoye stroitel'stvo).

PERIODICAL: Beton i Zhelezobeton, 1957, Nr 11, pp 424-430. (USSR)

ABSTRACT: The advantages of precast reinforced housing constructions against the conservative brick-building technique are analysed. By precasting the building constructions it was possible to reorganize the building activities, using industrially manufactured products and carrying out assembly on the building site. Figure 1 illustrates town housing development where the above-described construction is used predominantly. Figures 2, 3 and 4 give examples of large panel and large block constructions of schools and blocks of flats and their assembly with the aid of cranes. Tables 1 and 2 give data on the required time of erection of 4-5 storey blocks of flats of various types of construction, in man-hours/m^3 of erected building. These figures show that the cost of building decreases with the increase in size of prefabricated building units and decrease in numbers of types of units. Figure 5 shows

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Wider Use of Precast Reinforced Concrete in Housing Constructions.

a factory pre-assembled sanitary unit as used in many blocks of flats in Moscow, Leningrad etc. The Academy for Building and Architecture of the USSR (Akademiya stroitel'stva i arkhitektury SSSR) i s testing two new types of floor construction consisting of a top panel, calculated for superimposed loads,and a lower panel forming the ceiling. Figure 6 shows a different type of new floor construction with a wood fibre ceiling slab as exhibited in 1957 at the Moscow Exhibition. Figure 7 illustrates cross-section of the above floor. During recent years it has been possible to lower the weight of the precast units by using light weight aggregate, aerated concrete etc. Figure 8 shows a hollow wall panel spanning two rooms. The weight of brick buildings is 500 - 550 kg/m^3, the weight of large block constructions 400-450 kg/m^3 but large panel buildings weigh only 250-300kg/m^3. It is aimed to reduce the weight of the latter construction to 200 kg/m^3. Recent developments indicate the possibility of casting whole 'boxes' (rooms) and assembling same. There are 8 figures and 2 tables.

Card 2/2 1. Housing projects--Construction 2. Reinforced concrete--Applications

AUTHOR: Kuznetsov, G. F. Member of ASIA,SSSR SOV/97-58-7-3/10

TITLE: Large Panel Constructions of Blocks of Flats and Evolution of This Building System. (Konstruktsii krupnopanel'nykh zhilykh domov i perspektivy ikh razvitiya).

PERIODICAL: Beton i Zhelezobeton, 1958, Nr.7. pp. 249 - 258. (USSR).

ABSTRACT: The large panel method of house construction has reached a new stage in development. Large building activity is taking place in Moscow (Fig.1), Leningrad, Kiyev, Magnitogorsk, Cherepovets etc. Advances in this method are mainly due to the work of the Academy for Building and Architecture of the USSR (Akademiya stroitel'stva i arkhitektury SSSR). This institute collected valuable data during 10 - 12 years of experiences with large panel constructions. In various places a new building scheme is being carried out called "semi-skeleton", where the weights of floor slabs are transmitted to load-carrying partitions, and from there directly onto central columns. Using this system L. G. Yuzbashev built four-five-storey blocks of flats in Cherepovets (Fig.2). Fig.3 illustrates the first construction using this system of load-bearing cross partitions put up in 1949-1950 in Magnitogorsk. The plans for this building were prepared by the Institute

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Large Panel Constructions of Blocks of Flats and Evolution of This Building System.

for Building Technique (Institut stroitel'noy tekhniki) and by Trust Magnitostroy (G. F. Kuznetsov, B. N. Smirnov, A. K. Mkrtumyan and Z. N. Nesterova). The first house erected using large panels with three lateral load-carrying walls was completed in Leningrad in 1953 by A. N. Vasil'yev and Z. M. Kaplunov. A similar construction was used in Leningrad where the walls were of clinker concrete, and the partition of gypsum concrete. Large panels made of Keramzit-concrete were also used for this constructional method in a building erected in Moscow by Ye.L. Iokheles. The method was further developed by ASiA, SSSR in an experimental building erected in 1954/1956 in Moscow and designed by B. N. Smirnov, N. V. Morozov, Yu. B. Monfred, Z. N. Nesterova, L. M. Vrangel', Sh. F. Akbulatov under the leadership of G. F. Kuznetsov. In this construction are load-bearing clinker concrete partitions calculated for compression, the floor units are also of clinker concrete Mk.100-150. Fig.4 illustraties detail of large panel skeletonless construction using load-carrying partitions. Fig.5 shows load-bearing partition designed for compression. This partition was

Large Panel Constructions of Blocks of Flats and Evolution of This Building System.

developed by Giprostrommash in conjunction with ASiA, SSSR (N. P. Rozanov, V. G. Kocheshkov, A. G. Rozenfel'd, Yu. B. Monfred, B. N. Smirnov and A. K. Mkrtumyan). A system using partitions designed to resist bending was used in a building in Moscow designed by V. P. Lagutenko. A new type of Keramzit-concrete was developed by the Institute for Building and Facing Constructions ASiA, SSSR (Institut stroitel'noy fiziki i ograzhdayushchikh konstruktsiy ASiA SSSR) and recommended by the Gosstroy Commission in 1957. Table on page 253 gives comparative technical and economical data on four various large panel buildings and values for buildings constructed from thin ribbed panels manufactured on stand of Eng. N. Ya. Kozlov, according to the design of SAKB APU of Mosgorispolkom. A new up-to-date method of manufacturing panels was developed by Eng. N. Ya. Kozlov. The technology of casting was worked out by Eng. M. Y. Yegnus of KB Glavmosstroy.

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Large Panel Construction of Blocks of Flats and Evolution of This Building System.

Lastly, a method was developed by Giprostrommash (Engr. A. A. Susnikov), Mintransstroy (Engr. G. S. Suren'yan) devised a method of producing panels in a vertical position. The SAKB APU Mosgorispolkom and Mosproyekt designed houses using thin ribbed partitions from fine-aggregate concrete (Fig.7). Both the above-mentioned organizations accepted the construction of partitions designed for compression (Fig.8). Construction of a house from thin hollow panels was designed by the Institute for Buildings and Facing Constructions (G. F. Kuznetsov, T. R. Antipov). Fig.10 illustrates a large panel construction of a house erected in Domodedovo and designed by KB of Mosoblstroymaterialy in conjunction with ASiA, SSSR, (A. A. Yakushev, Ya. M. Fel'man, G. N. Pachentseva, B. S. Akishev). Fig.11: a plan of a block of flats type S-58 built in 1957 in Gotvaldov (CSR) and designed

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SOV/97-58-7-3/10

Large Panel Construction of Blocks of Flats and Evolution of This Building System.

by Architect I. Koula. Fig.12: photograph of the above-mentioned house. There are 12 Figures and 1 Table.

1. Housing projects--Construction 2. Concrete--Applications
3. Construction materials--Design

Card 5/5

KUZNETSOV, G.F., inzh.; LATASH, M.M., inzh.; MILOVANOV, inzh.; SEREBRENNIKOV, S.S., inzh.

Erecting tunnel kilns of heat proof precast reinforced concrete elements. Nov. tekh. i pered. op. v stroi. 20 no.1:6-10 Ja '58. (MIRA 11:2)

(Kilns) (Precast concrete construction)

KUZNETSOV, G.F.; KHLUSOV, I.Ye., kand.tekhn.nauk; SHOLOKHOV, V.G., inzh.. Prinimali uchastiye: AKBULATOV, Sh.F., kand.tekhn.nauk; KRICHEVSKAYA, Ye.I., kand.tekhn.nauk; DOROKHOV, A.N., inzh.; NIKIFOROV, I.A., kand.tekhn.nauk; BOGDANOV, B.N., inzh.; AVRUTIN, Yu.Ye., inzh.; VISHNEVSKIY, N.D., inzh.; ARIYEVICH, E.M., kand.tekhn.nauk; LEVITAN, Ye.P., inzh.; TUPOLEV, M.S., prof., doktor arkhitektury. TEMKIN, L.Ye., inzh., red.; KHAVIN, B.N., red.izd-va; BOROVNEV, N.K., tekhn.red.

[Temporary instruction (SN 51-59) for planning and constructing combined roofs of residential and public buildings] Vremennye ukazaniia po proektirovaniiu i ustroistvu sovmeshchennykh krysh (pokrytii) zhilykh i obshchestvennykh zdanii (SN 51-59). Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 34 p. (MIRA 13:1)

(Continued on next card)

KUZNETSOV, G.F.---(continued) Card 2.

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Nauchno-issledovatel'skiy institut stroitel'noy fiziki i ograzhdayushchikh konstruktsiy Akademii stroitel'stva i arkhitektury SSSR (for Kuznetsov, Khlusov, Sholokhov). 3. Direktor Nauchno-issledovatel'skogo instituta stroitel'noy fiziki i ograzhdayushchikh konstruktsiy Akademii stroitel'stva i arkhitektury SSSR; deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Kuznetsov). 4. Nauchno-issledov.institut zhilishcha (for Akbulatov, Krichevskaya). 5. Nauchno-issledov.institut proyektirovaniya Akademii stroitel'stva i arkhitektury SSSR (for Dorokhov). 6. Nauchno-issledov.institut po stroitel'stvu Minstroya RSFSR (for Nikiforov). 7. Gorstroyproyekt (for Bogdanov). 8. Mosproyekt (for Avrutin, Vishnevskiy). 9. Akademiya kommunal'nogo khozyaystva im. K.D. Pamfilova (for Ariyevich, Levitan). 10. Moskovskiy arkhitekturnyy institut (for Tupolev).

(Roofs, Concrete)

KUZNETSOV, G.F.

USSR

BASHLAY, K. I. - "Dimensional tolerances of heavy elements" (Session IV)

DELENYA, Ye. I. - "Research on conditions of work and ultimate state of steel frames of industrial buildings" (Session II)

BEKU, O. Ya. - "Research on the concrete strength theory" (Session II)

BOGDANOV (fnu) (probably Nikolay N. Bogdanov) and KULIKOV (fnu) - "General regulations adopted in new 'Instructions on design, erection and maintenance of flat roofs in the USSR' and the result of recent investigation of flat roof structures in the USSR" (Session VI)

BORISHANSKIY, M. S. - "Resistance of reinforced concrete members to the effect of transverse forces" (Session II)

GVOZDEV, A. A., Prof. Dr. - "Present state and problems of design of building structures" (Session II)

KUZNETSOV, Grigoriy F., Prof. - "Eastern European experience" (Session IV)

MOROZOV, N. V., and USHKOV, P. V. - "Problems of joining heavy elements in precast dwellings" (Session IV)

MURASHOV, V. I., Prof. Dr. - "Resistance to cracking and stiffness of reinforced concrete members" (Session II)

OVSYANKIN, V. I., Prof., President of Session II; also scheduled to present a paper in Session IV, title not given. Member of the Steering Committee for the Congress.

SHAPTIRO, Aleksey N., Prof. Dr. - "Design of carrying capacity of slabs and shells by the limit balance method" (Session II)

SHAGIN, F. P., GASTEV, G. A., Prof. Dr., and FEYLUK, D. A. - "Stability of multi-story buildings of heavy elements" (Session IV)

reports to be submitted for the Intl. Congress and Third General Assembly, Intl. Council for Building Research, Studies and Documentation, Rotterdam, Netherlands, 21-25 Sep 1959.

KUZNETSOV, G., doktor tekhn.nauk, prof.; SPIVAK, N., kand.tekhn.nauk; MOROZOV, N., kand.tekhn.nauk

Increasing the use of concretes made with expanded clay fillers in housing construction. Na stroi.Mosk. no.1:8-13 Ja '59. (MIRA 12:1)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Kuznetsov).
(Lightweight concrete)

KUZNETSOV, G.F., inzh.

Industrialization of heat insulating operations in 1959-1965.
Nov. tekh. mont. i spets. rab. v stroi. 21:1-3 '59.
(MIRA 12:8)

1.Glavteplomontazh Ministerstva stroitel'stva RSFSR.
(Insulating materials)

KUZNETSOV, G.F., inzh.; LATASH, M.M., inzh.; MILOVANOV, A.F., kand.tekhn. nauk

Operating tunnel kilns built of heat-resistant reinforced concrete panels. Nov.tekh.mont.i spets.rab.v stroi. 21 no.11: 18-21 N '59. (MIRA 13:2)

1. Glavteplomontazh, Soyuzteplostroy Ministroya RSFSR, Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR.
(Kilns) (Precast concrete construction)

KUZNETSOV, G.F., doktor tekhn. nauk, prof.; SHIVAK, N.Ya., kand. tekhn. nauk. Prinimali uchastiye: BAULIN, D.K., inzh.; KREYTAN,V.G., inzh.; BUADZE,V.Sh., inzh.; KONTRIDZE, M.D., inzh.; USOV,A.L., inzh.; BADZHAGYAN, V.S.; KLIMOVA, G.D., red. izd-va; ABRAMOVA, V.M., tekhn. red.

[Instructions for designing and manufacturing large lightweight slabs to go between stories of apartment houses and public buildings] Ukazaniia po proektirovaniiu i izgotovleniiu oblegchennykh krupnopanel'nykh mezhduetazhnykh perekrytii zhilykh i obshchestvennykh zdanii. Moskva, Gos.izd-vo lit-ry po stroit., arkhit.i stroit.materialam, 1961. 109 p. (MIRA 14:12)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut stroitel'noy i ograzhdayushchikh konstruktsiy. 2. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Kuznetsov).

(Precast concrete construction)

KUZNETSOV, G.F., prof.; SPIVAK, N.Ya., kand.tekhn.nauk

Keramzit concrete in large-panel housing construction. Bet. i zhel.-bet. no.2:58-63 F '61. (MIRA 14:2)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR. (for Kuznetsov).
(Concrete slabs) (Apartment houses)

KUZNETSOV, G.F.

Problems of the quality of large-panel apartment house construction. Bet. i zhel.-bet. no.10:476-3 of cover 0 '61.
(MIRA 14:12)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR.

(Precast concrete construction)
(Apartment houses)

VOLCHEK, I.Z., inzh.; BUNGALTER, V.D., inzh.; KUZNETSOV, G.F., inzh.

Manufacture of asbestos-silicate insulating articles. Mont. i spets. rab. v stroi. 24 no.5:13-15 My '62. (MIRA 15:5)

1. Nauchno-issledovatel'skiy institut stroitel'noy promyshlennosti i Glavteplomontazh.

(Insulating materials)

KUZNETSOV, G.F.; ANTTIPOV, T.P.; MOROZOV, N.V.; GORYACHEVA, T.V., red.izd-va; SHERSTNEVA, N.V., tekhn. red.

[Designs of brick-panel residential buildings] Konstruktsii kirpichepanel'nykh zhilykh zdanii. Moskva, Gosstroiizdat, 1963. 104 p. (MIRA 16:6)
(Building, Brick)
(Apartment houses--Design and construction)

KUZNETSOV, G.F., prof.

Designing self-draining joints in exterior walls of large-panel apartment houses. Bet. i zhel.-bet. 9 no.10:436-441 O '63. (MIRA 16:12)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR.

KUZNETSOV, G.F., doktor tekhn. nauk, prof.

Ways of using the brick industry for products required in industrial construction. Stroi. mat. 10 no.10:25-28 O '64.

(MIRA 18:2)

KUZNIECOW, Grigorij Filippowi[illegible] [Kuznetsov, Grigoriy Filippovich] (Moscow)

Large-sized panel building in the U.S.S.R. Przegl. budowl. i bud. mieszk. 36 no.10:567-573 O '64.

GRIZHKO, V.M.; VISHNYAKOV, V.A.; GRISHAYEV, I.A.; ZAVOLOKO, Ye.V.; KUZNETSOV, G.F.; OSTROVSKIY, Ye.K.; KHVOROSTENKO, V.I.

A 40 Mev. linear electron accelerator. Zhur. tekh. fiz. 34 no.10: 1903-1905 O '64. (MIRA 17:12)

LEVANOV, Nikolay Mikhaylovich, prof., doktor tekhn. nauk; SUVORKIN, Dmitriy Grigor'yevich, dots., kand. tekhn. nauk; KUZNETSOV, G.F., prof., doktor tekhn. nauk; GVOZDEV, A.A., prof., doktor tekhn. nauk

[Reinforced concrete elements] Zhelezobetonnye konstruktsii. Moskva, Vysshaia shkola, 1965. 871 p. (MIRA 18:10)

LUKASHEV, A.M., inzh.; KUZNETSOV, [illegible]

Reasons for low technical and economic [illegible] of operation at the "Komissarovskoe" Mine [illegible]. 7 no.10: 44-47 O '63. (MIRA 17:4)

1. Shakhtinskiy nauchno-issledovatel'skiy proyektno-konstruktorskiy ugol'nyy institut.

KUZNETSOV, G.G., gornyy inzh.

Concerning the book "The coal industry in capitalist countries", volume 3. Ugol' 39 no.6:77-78 Je'64 (MIRA 17:7)

1. Shakhtinskiy nauchno-issledovatel'skiy i proyektno-konstruktorskiy ugol'nyy institut.

FED'KO, A.M., gornyy inzh.; KUZNETSOV, G.G., gornyy inzh.

Economic efficiency of pillar and continuous mining systems.
Ugol' 39 no.7:51-54 Jl '64. (MIRA 17:10)

1. Shakhtinskiy nauchno-issledovatel'skiy i proyektno-konstruktorskiy ugol'nyy institut.

KUZNETSOV, G. G.

137-1957-12-23017

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 22 (USSR)

AUTHOR: Kuznetsov, G. G.

TITLE: The Effect of the Jigging Cycles on the Products of Concentration of Finely Divided Materials (Vliyaniye tsiklov otsadki na rezul'taty obogashcheniya tonkoizmel'chennykh materialov)

PERIODICAL: Kolyma, 1955, Nr 12, pp 9-16

ABSTRACT: A presentation of a theoretical analysis of existing types of jigging machines (JM) and their classification into 4 classes according to their hydrodynamic properties. The effect of the various construction features of the JM's on the effectiveness of the separation of finely divided materials (up to 0.2 mm) is studied, viz., tailings from gravitational concentration of quartz ore, with SnO_2 concentrate added to obtain approximately 1 percent of Sn in the charge. Crushed magnetite (1.65-0.42 mm) of constant layer thickness of 30 mm was used for the bed. Experiments and analysis have pointed out that the JM's with an oscillating sifter (at 556 pulsations per minute the extraction of the heavy component was increased 10.5 percent) are superior to those using the diaphragm type. The jigging cycle of these machines reflects the

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The Effect of the Jigging Cycles on the Products (cont.)

physical nature of the jigging process. JM's with an oscillating sifter have a wide range of amplitudes (0.8-2 mm); they do not require reciprocal movement of the entire mass of water and are, therefore, more economical. The conclusion is reached that JM's with an oscillating sifter of the Bendelyari type and the machines of the Mekhanobr Institute, owing to their hydrodynamic and technical properties, are the more perfected concentration apparatus, particularly for the concentration of finely divided materials.

M. L.

1. Metallurgy-USSR 2. Separators-Theoretical analysis

Card 2/2

SOV/137-58-10-20390

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 6 (USSR)

AUTHOR: Kuznetsov, G.G.

TITLE: Certain Regularities in the Pulsator Jigging of Finely Divided Tin-Bearing Material (O nekotorykh zakonomernostyakh otsadki tonkoizmel'chennogo olovonosnogo materiala)

PERIODICAL: Tr. Vses. Magadansk. n.-i. in-ta—i Mosk. tsvetn. metallurgii SSSR, 1956, division 4, Nr 15, 63 pp, ill.

ABSTRACT: The results of investigations of the pulsator jigging of fine materials are presented. The regularities of the influence of variable parameters on the process of separation of the ore materials by pulsator jigging are demonstrated. A number of practical and theoretical questions are investigated: 1) determination of optimum grain size and the most profitable weight density of the bed; 2) determination of critical bed thicknesses of various densities and grain sizes; 3) determination of optimum parameters for frequency and amplitude of screen oscillations with beds of different characteristics; 4) experimental verification of the hypothesis that the bed functions as a valve; 5) determination of the possibility of pulsator jigging without classification. M.M.

Card 1/1

1. Ores--Processing 2. Vibration--Applications 3. Industrial equipment--Performance 4. Industrial equipment --Design

137-1958-1-55

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 10 (USSR)

AUTHOR: Kuznetsov, G.G.

TITLE: Effect of Water in Pulsator Jig Dressing of Minute Materials (Vliyaniye vody v protsesse otsadki tonkikh materialov)

PERIODICAL: Kolyma, 1956, Nr 12, pp 35-41

ABSTRACT: The effects of handling water and water beneath the screen on the results obtained by pulsator jig dressing of minute materials have been investigated. The material subjected to separations were the tailings of gravitation beneficiation of quartz ores containing no Sn, to which cassiterite concentrate is added to introduce ~1 percent Sn into the mixture. The material was crushed in a rod mill to under 0.2 mm size. It was found that the maximum extraction of Sn and the maximum efficiency of the process was attained in the solid-to-liquid ratio interval of 1:1.5 - 1:5. Losses of cassiterite in the tailings increase with an increase in the speed of the rising current, and extraction increases at speeds of rising flow tending to zero. An increase in the flow of water beneath the screen results in diminishing the yield of product there, an increase in the heavy component percentage therein, and an

Card 1/2

137-1958-1-55

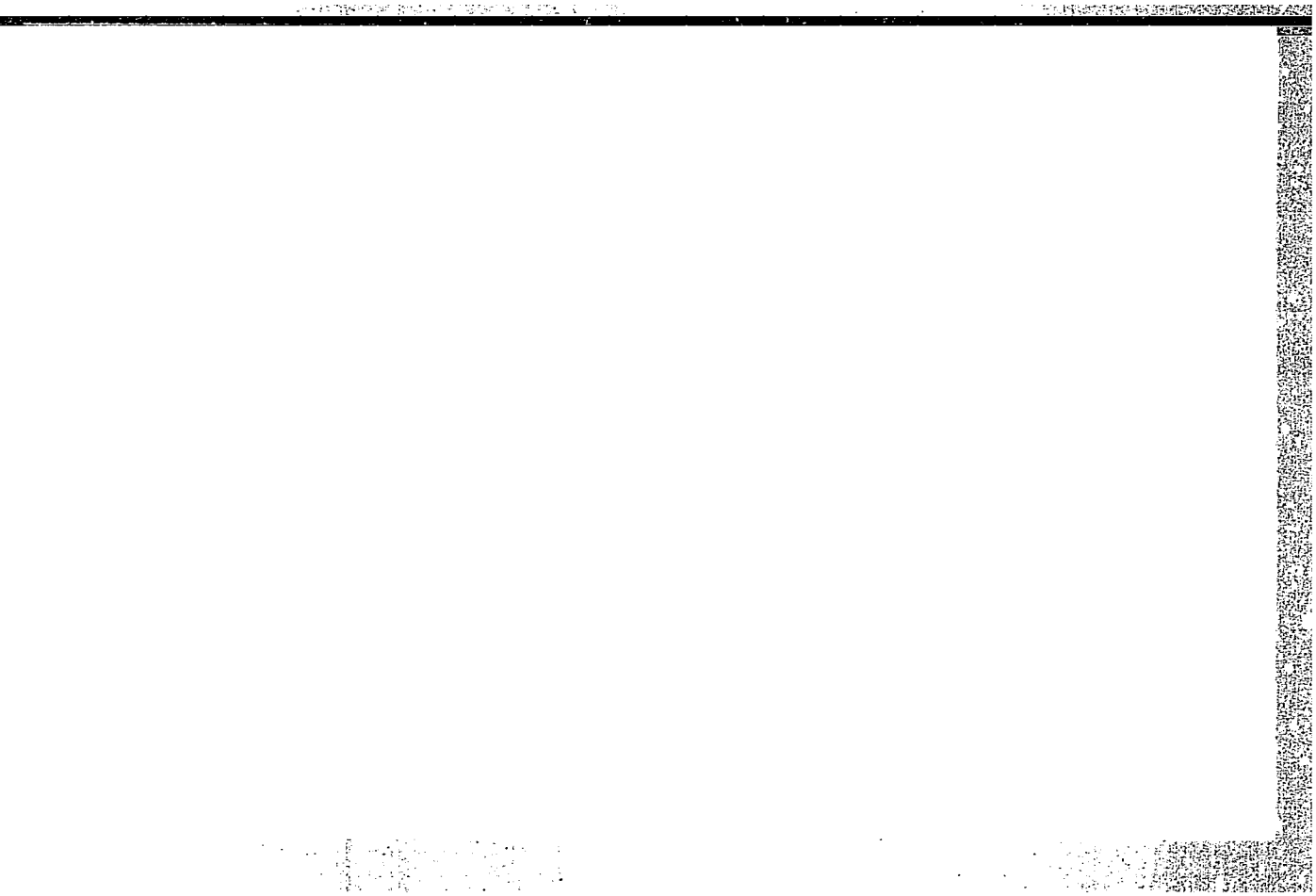
Effect of Water in Pulsator Jig Dressing of Minute Materials

increase in the loss of metal in the tailings. At a constant speed of rising flow of water from beneath the screen, the losses of tailings increase with any increase in the specific gravity and grain size of the bed material. A graphic method of approximated determination of the required speed of the water beneath the screen relative to the desired effectiveness may be recommended as an objective method for use in approximated estimates of the water required for this purpose.

A. Sh.

1. Ores--Processing--Test results 2. Ores--Processing --Effects of water

Card 2/2



APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928120007-2"

137-58-6-11345

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 12 (USSR)

AUTHORS: Kuznetsov, G.G., Makhno, S.M.

TITLE: Tests of a Method Developed by VNII-1 for Washing Prospectors' Samples of Gold-bearing Sands (Ispytaniya razrabotannoy VNII-1 skhemy promyvki razvedochnykh prob zolotonosnykh peskov)

PERIODICAL: Tr. Vses. Magadansk. n.-i. in-ta za 1956 g. Magadan, 1957, pp 147-149

ABSTRACT: A description is offered of a method of sampling that may be employed in prospecting and in exploitational operations. The system, combining mechanical pans with a concentration table, assures adequate recovery of M and is the method best suited to the washing of prospecting samples of Au-containing sands.

A.Sh.

1. Mining industry--Equipment 2. Gold--Production

Card 1/1

SOV/137-58-9-18281

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 8 (USSR)

AUTHORS: Kuznetsov, G. G., Kazurina, N. M.

TITLE: Concentration of Complex Tin-lithium Ore (Obogashcheniye kompleksnoy olovo-litiyevoy rudy)

PERIODICAL: Tr. Vses. Magadansk. n.-i. in-ta-l M-va tsvetn. metallurgii SSSR, 1957, division 4, Nr 18, 20 pp, ill.

ABSTRACT: The results of the investigation of the feasibility of the concentration of Sn-Li ore are reported. The content of useful Sn minerals, cassiterite and stannite, amounts to 0.42 and 0.06%, respectively. The Li minerals are lepidolite 4.6% and amblygonite 0.23%. The systems proposed are: 1) Combined gravitation - flotation; 2) magnetic separation of the whole ore, flotation of the nonmagnetic fraction, and finishing on tables. In the latter system dry grinding to 0.4 mm and also dry magnetic separation is carried out with the purpose of extraction of the Li concentrate. The more practicable version of the systems mentioned is the one conducted according to the scheme: flotation - concentration. For this, the ore is milled to 0.2-mm particle size, whereupon the Sn concentrate is separated by flotation.

Card 1/1 1. Lithium tin ores--Processing 2. Tin--Separation I. M.
3. Ores--Flotation

SOV/137-58-9-18274

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 7 (USSR)

AUTHOR: Kuznetsov, G. G.

TITLE: On the Problem of a Rational Type of Machinery for the Jigging of Ore Fines (K voprosu o ratsional'nom tipe mashin dlya otsadki melkikh rudnykh materialov)

PERIODICAL: Kolyma, 1958, Nr 1, pp 33-36

ABSTRACT: The technical and economic advantages of jigging machines with a movable screen over those equipped with diaphragms and pistons, especially in the concentration of fine material, are noted. A new design for such a machine with a round (plan-form) screen is proposed. In it, the depth of the trough is decreased owing to the application of two cones, the one inserted into the other. The drive is located under the trough. The chamber is accessible for observation of the process and changing of the screens. The screen moves vertically on a central shaft. The clearance between the housing and the screen is sealed by a ring-shaped rubber diaphragm. Comparative testing of jigging machines of various designs showed that the proposed machine is the most effective. I. M.

Card 1/1

1. Industrial equipment--Design 2. Industrial equipment--Operation 3. Industrial equipment--Test results

PHASE I BOOK EXPLOITATION SOV/5344

Tomashov, N. D., Doctor of Chemical Sciences, Professor, ed.

Korroziya i zashchita konstruktsionnykh metallicheskikh materialov; sbornik statey (Corrosion and Protection of Constructional Metals; Collection of Articles) Moscow, Mashgiz, 1961. 258 p. Errata slip inserted. 10,000 copies printed.

Ed. of Publishing House: N.P. Tevtaf'yeva; Tech. Ed.: G.V. Smirnova; Managing Ed. for Literature on Chemical and Textile Machine Building: V.I. Kyzhnova, Engineer.

PURPOSE: This collection of articles is intended for scientific and technical personnel concerned with the corrosion and protection of metals.

COVERAGE: The collection deals with problems of the corrosion of constructional metals in various environments and conditions. Articles discuss new methods for the investigation and testing of corrosion and give results of recent research conducted on the corrosion and protection of metal constructions. The corrosion of some new alloys is also considered. The collection includes articles generalizing the results of research conducted during the last 2-3 years in the Department for Corrosion of Metals of the Moskovskiy Institut stali (Moscow Steel Institute). Some of the articles were written in cooperation with the laboratory staffs of the "Serp i molot" Plant and Elektrostal'skiy Zavod im. M.I. Kalinina (Elektrostal Plant imeni M.I.Kalinin) and are based on investigations conducted at these plants. No personalities are mentioned. There are 219 references, Soviet and non-Soviet. References accompany each article.

TABLE OF CONTENTS:

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AVAILABLE: Library of Congress (TA462.T66)

S/137/62/000/004/144/201
A060/A101

AUTHORS: Kuznetsov, G. G., Zhuk, N. P., Lyubinskiy, B. E.

TITLE: Electrolytic etching of high-alloy alloys

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 104, abstract 4I635 (V sb. "Korroziya i zashchita konstrukts. metallich. materialov". Moscow, Mashgiz, 1961, 53 - 71)

TEXT: An investigation was carried out upon the electrolytic etching of steel Х18Н12М2Т (Kh18N12M2T) and alloy ЭИ435 (EI435) in solutions of H_2SO_4 (anodic, cathodic, alternating current, alternating current with bipolar connection of the specimens) and the effect of the H_2SO_4 concentration, the electrolyte temperature, and D upon the rate of this process, weight losses of the metal, and the quality of the specimen surface after etching. The polarization curves measured upon specimens of Kh18N12M2T and EI435 both with and without scale indicate that the scale etching is under anodic control in H_2SO_4 solutions. The scale of Kh18N12M2T under electrolysis is removed by the etching action upon the base metal under the scale by anodic polarization, which is further helped by

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Electrolytic etching of high-alloy alloys

S/137/62/000/004/144/201
A060/A101

the mechanical action of the gaseous O_2 given off. The etching action of the base metal at low values of D_A occurs as result of its slow dissolution in the passive state. For both alloys the anodic etching of the scale is most effective. The etching schedule is cited. The etching of the scale by alternating current is a longer process than anodic etching. Scale etching by alternating current yields results similar to those under ordinary etching with AC, but the rate of the process is lower. All the recommended methods of electrolytic etching of the scale on both alloys investigated are considerably more effective than ordinary dissolution of the scale in H_2SO_4 solutions; they accelerate the process of removing the scale, reduce the weight losses of the metal under etching, and raise the quality of the surface after etching. There are 11 references.

V. Tarisova

[Abstracter's note: Complete translation]

Card 2/2

1. YELFIMOV, N. G. : KUZNETSOV, G. I.

2. USSR (600)

4. Cabbage

7. Growing high yields of fodder cabbage. Dost. sel'khoz. no. 5, 1952

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

KOZLOV, V.S.; KUZNETSOV, G.I.; GAYDUKOV, V.P., redaktor; LUKINOVA, Ye.G., redaktor; MASOLOV, Ya.M., tekhnicheskiy redaktor.

[Deep well pump operation practice of the State Association of Azerbaijan Oil Industry] Osvoenie i ekspluatatsiia glubokikh skvashin nasosnym sposobom; opyt Aznefti. Moskva, Gos.nauchno-tekhn.izd-vo neftianoi i gorno-toplivnoi lit-ry, 1954. 31 p. (MLRA 8:4)
(Oil well pumps)

ISHCHUK, I., nauchnyy sotrudnik; KUZNETSOV, G. I., nauchnyy sotrudnik

Water injection into the coal seam. Mast. ugl. 8 no.7:8 Jl '59.
(MIRA 12:10)

1. Institut gornogo dela AN SSSR.
(Coal mines and mining) (Mine dusts)

KUZNETSOV, G.I., inzh.; MIKHALYUK, P.P., inzh.

Loosening coal massives by water infusion. Bezop. truda v prom. 4 no. 5:8-10 My '60. (MIRA 14:5)
(Selidovka—Coal mines and mining)

VEZIROV, R.R.; KUZNETSOV, G.I.; MARTIROSOV, S.G.

Some data on the temperature conditions of the mineral deposits of the Zyrya area. Azerb. neft. khoz. 39 no.3(405):29-30 Mr '60. (MIRA 14:9)

(Apsheron Peninsula--Earth temperature)

KUZNETSOV, G.I., gornyy inzhener

Preliminary loosening of the coal block in the hydraulically mined sections of Donets Basin. Ugol' 36 no.11:31-34 N '61. (MIRA 14:11)

1. Institut gornogo dela imeni A.A. Skochinskogo.
(Donets Basin--Hydraulic mining)

KUZNETSOV, G.I.

Step-by-step measurement with universal measuring microscopes.
Izm.tekh. no.4:20-21 Ap '63. (MIRA 16:5)
(Microscope)

KUZNETSOV, German Ivanovich; FAYN, Genrikh Moiseyevich; SHTAMBURG, Valentin Fedorovich; SHEINA, Antonina Aleksandrovna; MIKHEYEV, N.I., red.

[Drilling pipes from light alloys] Buril'nye truby iz legkikh splavov. Kuibyshev, Kuibyshevskoe knizhnoe izd-vo, 1964. 51 p. (MIRA 17:12)

SHTAMBURG, V.F.; KONDRAT'YEV, E.P.; KUZNETSOV, G.A.; REINA, A.A.; FAYN, G.M.

Drilling wells using light-alloy drilling pipes. Trudy VNIIBT no.12:72-92 '64 (MIRA 18:4)

KUZNETSOV, G.I., inzh.

Deformations of mooring structures on the Yenisey in the Abakan region. Transp. stroi. 14 no.6:25-26 Je '64.

(MIRA 18:2)

3(7) SOV/50-59-4-16/21

AUTHOR: Kuznetsov, G. I.

TITLE: The Problem of Ozone
(Problema ozona)

PERIODICAL: Meteorologiya i gidrologiya, 1959, Nr 4, pp 62-67 (USSR)

ABSTRACT: On the basis of foreign papers (Refs 2-25) (translations from English) and one Soviet paper by Sh. A. Bezverkhniy (Ref 1), a survey on the present state of the problem of ozone is given here. Bezverkhniy pointed out in 1955 that in Alma-Ata an analogous correlation between the quantity of ozone and the temperature exists in the stratosphere as it was found by Ch. Normand (Ref 20): the high temperature in the stratosphere is usually connected with a high ozone content. In Alma-Ata, the coefficient of the correlation with temperature at a height of 13 km attains the value of 0.88 ± 0.03.-Summarizing it can be said that there are many investigations where the course of the ozone content observed is explained according to latitudes and seasons from different standpoints and by means of different methods. Although none of these investigations can thoroughly explain the real picture, one thing is clear: the distribution of ozone depends very much on the circulation on a large scale in the troposphere and the lower

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stratosphere up to an altitude of at least 35 km. There are 2 figures, 1 table, and 25 references, 2 of which are Soviet.

3(7)
AUTHOR: Kuznetsov, G. I.

S/050/60/000/02/014/016
B007/B005

TITLE: All-Union Conference on Atmospheric Ozone

PERIODICAL: Meteorologiya i gidrologiya, 1960, Nr 2, pp 58-59 (USSR)

ABSTRACT: The All-Union Conference on Atmospheric Ozone was held in October 1959 at the fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta (Physics Department of Moscow State University). It was convened by: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya SSSR (Ministry of Higher and Secondary Special Education of the USSR), Glavnoye upravleniye gidrometeosluzhby pri Sovete Ministrov SSSR (Main Administration of the Hydrometeorological Service at the Council of Ministers of the USSR), and Akademiya nauk SSSR (Academy of Sciences of the USSR). The Conference was attended by 17 different organizations. 21 reports were delivered. L. A. Kudryavtseva (TsAO (Aerological Central Observatory)) reported on some results of investigation of the vertical ozone distribution in 1959 by means of rockets. A. S. Britayev (TsAO) presented a new chemical method of ozone determination. R. G. Romanova reported on ozone determination from an airplane for

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some horizontal and vertical sections. Ye. S. Kuznetsov presented methods of using electric computers in computing the vertical ozone distribution. K. Ya. Kondrat'yev reported on work done at the LGU (Leningrad State University) to investigate the infrared absorption spectrum of atmospheric ozone. R. S. Steblova spoke about experiments (new to the USSR) of determining the ozone-layer temperature spectroscopically. G. P. Gushchina spoke about the importance of turbulent mixing in seasonal and latitudinal variations of atmospheric ozone. A. Kh. Khrgian reported on the causes of the daily course of atmospheric ozone in different regions of the terrestrial globe. V. D. Reshetov presented an original qualitative hypothesis on ozone formation on water aerosols. T. P. Gushchin (GGO) reported on the relation between ozone content and position of the jet current axis. G. I. Kuznetsov (MGU (Moscow State University)) reported on the relation between ozone content and intensity of the zonal and meridional circulation. T. U. Karimova (AANII) and T. S. Gol'm (ANIO Dikson) reported on the characteristics of the seasonal and latitudinal ozone-content course according to observations made by the Soviet ozone-measuring stations in the Arctic. B. Ye. Shneyerov (GGO)

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spoke about observations of atmospheric ozone in the Antarctica. G. I. Kuznetsov (MGU) reported on the asymmetry found in the latitude distribution of the total ozone content with respect to the pole. Reports by A. S. Britayev (TsAO), T. S. Gol'm (ANIO Dikson), and R. G. Romanova (GGO) described the relation between ozone and some atmospheric parameters on different levels. Sh. M. Chkhaidze (Abastumanskaya astronomicheskaya observatoriya (Abastuman Astronomic Observatory)) could not ascertain such a relation. The Conference expressed the wish to hold similar conferences every 2-3 years. It was decided to publish the reports of the Conference.

S/169/63/000/002/018/127
D263/D307

AUTHOR: Kuznetsov, G. I.

TITLE: Ozone and general atmospheric circulation

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1963, 14, abstract 2B112 (In collection: Atmosfern. ozon, M., Mosk. un-t, 1961, 82-102 (summary in Eng.))

TEXT: Large variation of atmospheric ozone may be caused by its transport during dynamic processes occurring in the lower stratosphere, such as e.g. the interlatitudinal exchange, turbulent mixing, etc. All these processes are related to the general atmospheric circulation. The authors studied the connection between overall ozone concentration and the zonal circulation index. The zonal circulation index of the 40 - 65°N belt was used, encircling the entire northern hemisphere. Circulation indices for 1957-1958, for the 500, 300, 100 and 50 mb levels were determined by the Otdel' dinamicheskoy meteorologii Tsental'nogo instituta prognozov (Department of Dynamic Meteorology of the Central Forecasting Insti-

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tute). Correlation coefficients r between the overall ozone content (12 European stations) and the circulation indices for winter, spring, summer and autumn 1958 were calculated. Of 105 values obtained, r was positive in 37 and negative in 68 cases. A fairly clear trend was observed - increase in the ozone content with decreasing zonal circulation in the 40 - 65°N belt. A particularly clear negative connection occurs in winter and summer months. Greatest values of r are as a rule formed at the higher (100 and 50 mb) levels. A positive correlation between the two quantities was observed at some stations in early spring and autumn. The following explanation is proposed for this relation. Weakening of zonal circulation leads to increased interlatitudinal exchange, due to which ozone is transported from the northern O_3-rich regions to the south, where its content is increased. Conversely, during more intense zonal circulation and less pronounced interlatitudinal exchange, southward migration of ozone is hindered and ozone accumulates in latitudes 60 - 70°. A secondary summer maximum in the seasonal variation of the overall ozone content was noted at a number

of stations in the northern hemisphere (Alma-Ata, Abastumani, Voyeykovo, Ikl', Reykyavik) in 1957-1958. In June-July the average monthly ozone contents at these stations rose by 0.015 - 0.02 cm with respect to the overall annual course. It is suggested that this maximum is caused by advection. It is noted that, according to IGY data, the ozone contents are higher in the southern hemisphere than in the corresponding latitudes of the northern hemisphere (for the same seasons). [Abstracter's note: Complete translation.]

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S/169/63/000/002/024/127
D263/D307

AUTHORS: Khrgian, A. Kh. and Kuznetsov, G. I.

TITLE: On the daily variation of atmospheric ozone

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1963, 16, abstract 2B119 (In collection: Atmosfern. ozon, M., Mosk. un-t, 1961, 184-186 (summary in Eng.))

TEXT: The magnitude of the daily variation of ozone was determined from a consideration of daily ozone measurements taken during the IGY. It was found that the amount of ozone undergoes considerable non-periodic changes from day to day, although a systematic daily variation may be found by calculating the mean values of the overall ozone contents for individual hours. It was thus shown that at Vignia-di-Valle (Italy) during July-August the amount of ozone increased by 0.005 cm from 9 to 16 hrs and during September-November it increased by 0.006 cm from 10 to 16 hrs; in Elmasse (Sardinia) during July-September the overall ozone content increased by 0.011 cm between 9 and 16 hrs, and during October-December it rose by

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On the daily variation ...

S/169/63/000/002/024/127
D263/D307

0.016 cm between 8 and 16 hrs. The observed values of the daily accumulation of ozone are considerably higher than those calculated from the theory of photochemical equilibrium. It was also found that during the late evening and early morning hours the overall ozone contents were increased in comparison with the near-noon period. [Abstracter's note: Complete translation.]

Card 2/2

KUZNETSOV, G.I.

Some relationships between general circulation and atmospheric ozone. Izv. AN SSR. Ser. geofiz. no.3:467-477 Mr '61. (MIRA 14:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Atmosphere) (Ozone)

S/169/61/000/011/032/065
D228/D304

AUTHOR: Kuznetsov, G.I.

TITLE: Some conclusions from observations of atmospheric ozone during the International Geophysical Year

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 11, 1961, 8-9, abstract 11B68 (Mezhdunar. geofiz. god, Inform. byul., no. 9, 1961, 29 - 32)

TEXT: Some tentative conclusions are drawn on the basis of the analysis of the materials of observations at world-wide ozonometric stations. The meridional gradient of ozone over the USSR was found to be considerably greater, at least in 1957-1958, than over Western Europe. In the eastern hemisphere at latitude 42 - 43° the ozone content markedly diminishes towards the heart of the continent, reaching its maximum value in spring. For example, the difference in the ozone content between Vin'ya-di-Balla and Alma-Ata reaches 0.14 cm in April. The ozone content's maxima (mean daily values) decrease from the north to the south of the continent. The monthly

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Some conclusions from ...

S/169/61/000/011/032/065
D228/D304

amplitude of the ozone content (the difference in the maximum and minimum values of the mean daily ozone content for a given month) markedly grows in spring for all stations. A small secondary maximum is noted at all stations in July. The rapid accumulation of ozone is observed at all stations at the end of winter; this is, probably, explained by the abrupt intensification of photochemical processes in the stratosphere. [Abstractor's note: Complete translation].

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42135

3,5120

S/203/62/002/002/011/017
I046/I246

AUTHOR: Kuznetsov, G. I.

TITLE: Procedure for the calculation of the vertical distribution of atmospheric ozone

PERIODICAL: Geomagnetizm i aeronomiya, v. 2, no. 2, 1962, 305-312

TEXT: An extension of V. A. Ambartsumyan's mathematical method (1934) for investigating the atmospheric ozone layer by observations of the direct solar radiation in the ultraviolet. The author applies his formulas for the total amount of ozone and for the height of its center of gravity to specific observations made in summer 1957 in the lower reaches of the Volga; allowing for selective scattering on the atmospheric aerosol, he obtains $h_0 = 24.0$ km for the center of gravity of the ozone layer, this being in excellent agreement with the general curve in Ref. 3 (E. S. Epstein, A. Adel. Vertical ozone distribution from absorption and radiation by ozone. Ozone Chemistry and Technology. Washington, 1958, 221). The accuracy of the method is strongly improved when making observations on wide intervals of comparatively large zenith distances (not exceeding, however, 75–78° because of aerosol scattering). For optimum zenith distances, h_0 can be determined within $\sim 8\%$ in spring and $\sim 12\%$ in other seasons. There are 2 figures and 3 tables.

ASSOCIATION: Moskovskii gosudarstvennyi universitet. Fizicheskii fakul'tet (Moscow State University. Department of Physics)

SUBMITTED: July 4, 1931

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KUZNETSOV, G.I.

Effect of drainage on the counterpressure at the base of dams. Stroi. v raion. Vost.Sib. i Krain.Sev. no.3:81-92 '62.
(MIRA 17:12)

S/169/62/000/011/020/077
D228/D307

AUTHORS: Khrgian, A.Kh. and Kuznetsov, G.I.

TITLE: The meridional circulation of the atmosphere and the global transfer of atmospheric ozone

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 11, 1962, 19-20, abstract 11B132 (Geofiz. byul., Mezhduved. geofiz. kom-t pri Prezidiume AN SSSR, no. 11, 1962, 3-11)

TEXT: The relation between circulation at the 500-mb level and the total ozone content is examined. It is noted that the nature of the fluctuations in the variability of ozone (difference between the maximum and minimum mean-daily value for each month) and the index of meridional circulation are close to each other. The authors reckon that there is a quite definite relation between the total ozone content x and the meridional circulation index Γ_{1-2}. Thus, the correlation factor r in March 1958 between x for Vinia-di-Valle (Italy) and Γ_{1-2} is 0.55; in July 1957 r = 0.20. For the station Bismark (USA) in April 1958, r = 0.41. The average total ozone con-

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The meridional circulation ...

tent for 11 months (July 1957-May 1958) was calculated for Vinia-di-Valle, at different states of circulation (meridional and zonal). When the state of circulation at Vinia-di-Valle is meridional, $x = 0.348$ cm; for zonal circulation $x = 0.339$ cm, i.e. 2.6% more. The authors point to close relation between the total ozone content and the circulation type, characterized by the disposition of high-altitude ridges and troughs over West Europe and the Union's European territory. The nature of this relation, however, sometimes changes into an inverse one, on the transition from the cold to the warm season.

[Abstracter's note: Complete translation]

Card 2/2

KUZNETSOV, G.I., inzh.

Experimental studies of filtration at the contact of soil with concrete. Trudy Lab.gidr.sooruzh. VODGEO no. 4:153-163 '63. (MIRA 17:6)

KHRGIAN, A.Kh.; KUZNETSOV, G.I.; KONDRAT'YEVA, A.V.; NASILOV, D.I., otv. red.; VERSTAK, G.V., red.

[Collection of articles] Sbornik statei. Moskva, Nauka. No.8. 1965. 89 p. (MIRA 18:3)

1. Akademiya nauk SSSR. Mezhduvedomstvennyy geofizicheskiy komitet. II razdel programmy MGG. Meteorologiya.

DRABKIN, V.S.; KUZNETSOV, G.I.; FAYN, G.M.

Stand for assembling light alloy pipes with couplings. Mash. i neft. obor. no.7:26-27 '65.

(MIRA 18:12)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti.

L 5086-66 EWT(d) IJP(c)
ACCESSION NR: AT5024115 UR/2136/65/000/838/0001/0021

AUTHOR: Vilenkin, N. Ya.; Kuznetsov, G. I.; Smorodinskiy, Ya. A.

TITLE: Eigenfunctions of the Laplacian realizing the representation of the groups U(2), SU(2), SO(3), U(3), and SU(3), and the symbolic method

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-838, 1965. Sobstvennyye funktsii operatora Laplasa, realizuyushchiye predstavleniya grupp U(2), SU(2), SO(3), U(3), SU(3) i simvolicheskiy metod, 1-21

TOPIC TAGS: Laplace operator, characteristic function, function analysis, group theory

ABSTRACT: In order to find the irreducible representations of the groups U(n), in addition to the abstract-operative method, it is also possible to use the method employed by N. Ya. Vilenkin and Ya. A. Smorodinskiy (ZhETF, 46, 1793, (1964)). This method is based on the utilization of the Laplacian acting in the space of s_5 -homogeneous polynomials of the $6\pi_6$ degree. The solution obtained is used for the realization of the representation of the groups U(2), SU(2), SO(3), U(3), and SU(3). "The authors thank Yu. A. Danilov for his interest in the work and for discussions." Orig. art. has: 4 figures, 59 formulas, and an appendix with 10 formulas.
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ACCESSION NR: AT5024115

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ASSOCIATION: Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR (State Committee for the Utilization of Atomic Energy SSSR); Institut atomnoy energii im. I.V. Kurchatova (Institute of Atomic Energy)

SUBMITTED: 00 ENCL: 00 SUB CODE: MA

NO REF SOV: 006 OTHER: 002

Card 2/2

L 26686-66 EWT(d) IJP(c)

ACC NR: AP6016899 SOURCE CODE: UR/0367/65/002/005/0906/0917

AUTHOR: Vilenkin, N. Ya.; Kuznetsov, G. I.; Smorodinskiy, Ya. A.--Smorodinsky, Ya. A.

ORG: none

TITLE: Laplace operator eigenfunctions which realize the representations of the groups U(2), SU(2), SO(3), U(3) and SU(3), and a symbolic method

SOURCE: Yadernaya fizika, v. 2, no. 5, 1965, 906-917

TOPIC TAGS: Laplace equation, algorithm

ABSTRACT: The article presents a graphic method of solution of multidimensional Laplace equations which is applicable for both unitary and orthogonal groups. The use of symbols allows the formulation of a simple algorithm for writing the equations in new variables and solving them. The solutions obtained are used to realize the representations of the groups U(2), SU(2), SO(3), U(3), and SU(3). Orig. art. has: 69 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 06Apr65 / ORIG REF: 003 / OTH REF: 002
SOV REF: 003

Card 1/1 BLG

L 29892-66 EWT(d) IJP(c)

ACC NR: AP6020116 SOURCE CODE: UR/0367/66/003/002/0383/0395

AUTHOR: Kuznetsov, G. I.; Smorodinskiy, Ya. A. 31 B

ORG: Joint Institute for Nuclear Research (Ob"yedinennyy institut yadernykh issledovanniy)

TITLE: Integral representation of relativistic amplitudes in the non-physical region

SOURCE: Yadernaya fizika, v. 3, no. 2, 1966, 383-395

TOPIC TAGS: mathematic operator, relativity principle, differential geometry, Laplace transform

ABSTRACT: Methods of integral geometry are used to obtain the expansion of amplitudes in the non-physical parts of the Mandelstam plane in terms of the eigenfunctions of the Laplace operator on three-dimensional manifolds. Formulae are obtained for the inverse transformation. All calculations are performed in the spherical coordinate system. Orig. art. has: 3 figures and 75 formulas. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 12 / SUBM DATE: 09Aug65 / ORIG REF: 008 / OTH REF: 001

Card 1/1 CC

L 30481-67 EWT(1)/FWP GW

ACC NR: AT6030085 (N) SOURCE CODE: UR/0362/66/002/008/0859/0871

AUTHOR: Kuznetsov, G. I.; Kirgian, A. Kh.

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet)

TITLE: Atmospheric ozone and its variations, connected with circulation over the Atlantic Ocean

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 8, 1966, 859-871

TOPIC TAGS: atmospheric ozone, atmospheric circulation, radiosonde, synoptic meteorology, atmospheric wind field, atmospheric pressure, air temperature, atmospheric front, stratosphere, wind gradient

ABSTRACT: The observations of the total amount of atmospheric ozone, measured on board the ship M. Lomonosov during a cruise over the tropical Atlantic in August-November 1963, are analyzed in conjunction with data of ships radiosonde measurements and meteorological observations, and with the world syonptic maps. The data consisted of 1350 observations made with a universal ozone meter (GGO no. 2) calibrated against direct sunlight. The radiosonde and radiowind observations made simultaneously with the ozone measurements gave the air temperature, the wind velocity, and the pressure. The observations showed that the ozone content varies greatly in time and space. A lower ozone content was observed in the region of the intratropical convergence of the trade winds (ozone equator). A maximum of ozone, connected with more intense photochemical processes in the stratosphere and the maximum insulation, was observed

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L 10248-67

ACC NR: AP6030085

to the south of the ozone equator. Penetration of cold fronts farther south also increases the ozone content. This is accompanied by strong western wind propagating from the upper troposphere downward. The connection between the ozone content and the 26-month cycle and the vertical stratification of the circulation in the tropics is also discussed. The conclusions confirm that changes in temperature, pressure, and wind velocity in the upper troposphere are appreciable in the tropical region and are accompanied by strong meridional currents contributing to appreciable change of air between the hemispheres. These nonperiodic fluctuations of the circulation and air exchange cause the great variability of the ozone content. The results prove that a study of the ozone can contribute to data on the circulation in the tropical belt. The authors thank the members of MGI AN UkrSSR and Corresponding Member AN UkrSSR A. G. Kolesnikov for help in organizing the research and for supplying the materials for the aerometeorological observations. Orig. art. has: 9 figures and 2 tables.

SUB CODE: 04/ SUBM DATE: 12Mar66/ ORIG REF: 008/ OTH REF: 001

Card 2/2

L 08175-67 EWT(1)

ACC NR: AP6024882 SOURCE CODE: UR/0056/66/051/001/0216/0221

49
48
B

AUTHOR: Kuznetsov, G. I.

ORG: Joint Institute of Nuclear Research (Ob"yedinennyy institut yadernykh issledovaniy)

TITLE: A remark on the multidimensional Coulomb problem

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 216-221

TOPIC TAGS: hydrogen, atomic spectrum, wave function, Coulomb interaction, continuous spectrum, line spectrum

ABSTRACT: The relation between the degeneracy of the levels of the hydrogen atom and hidden symmetry of the system, first pointed out by V. A. Fok (Z. Physik v. 98, 145, 1935), is considered in this paper for the multidimensional case. Explicit expressions (with all normalization factors) are obtained for the wave functions of the discrete as well as continuous spectrum of an f-dimensional Coulomb potential. The procedure used is that of considering the coordinate of the momentum vector as the stereographic projection of the points of an (f + 1)-dimensional hypersphere and showing that the Fourier transform of the wave function when projected on this hypersphere is a known solution of the angular part of a certain Laplace equation. An "addition theorem" is derived for the functions of the continuous spectrum on this basis. These functions form a convenient representation basis for the rotation group O(f + 1) and

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for the Lorentz group $L(f + 1)$. A method for obtaining a different form of solution is also indicated. As an example, it is shown that a solution which coincides with the function for the symmetric top exists for the hydrogen atom ($f = 3$). The author thanks Ya. A. Smorodinskiy for a discussion of the results and critical remarks. Orig. art. has: 2 figures and 21 formulas.

SUB CODE: 20/ SUBM DATE: 21Jan66/ ORIG REF: 009/ OTH REF: 002

Card 2/2 mst

ACC NR: AP7001550 SOURCE CODE: UR/0020/66/171/003/0587/0589

AUTHOR: Kuznetsov, G. I.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Atmospheric ozone over the tropical belt of the Atlantic Ocean

SOURCE: AN SSSR. Doklady, v. 171, no. 3, 1966, 587-589

TOPIC TAGS: atmospheric ozone, atmospheric circulation, atmospheric temperature gradient, atmospheric current, radiosonde

ABSTRACT: The author reports on ozone distribution investigations made together with observations of air currents and temperatures in the free atmosphere over the tropical part of the Atlantic (between 25° north and 25° south latitude) in August - November 1963 on the exploration ship "Mikhail Lomonosov." The results showed that whereas the pressure and temperature were quite constant near sea level, there were strong variations in the air currents in the free atmosphere, accompanied by noticeable changes in the ozone content (X). A clearly pronounced maximum, X = 0.293 cm (total height of ozone in atmospheric column), was observed directly above the equator (6°N - 4°S), and was found to be of photochemical origin. Somewhat farther to the north (6 - 16°N) a local minimum was observed (X = 0.260 — 0.270 cm), due to convergence of the trade winds. This minimum could be traced also over the

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African shore. The observed latitude variation of the ozone content was found to be subject to sporadic fluctuations connected with sharp variations of the upper-atmosphere circulation, including waves in which the ozone content rose to as high as 0.398 cm. An analysis of the ozone content, carried on together with radiosonde observations, shows that the abrupt increase in the ozone content is due to strong currents under the tropopause, with meridional velocity components exceeding 20 m/sec. These currents are evidence of an influx of air from higher southern (and sometimes northern) latitudes. This confirms other observations of north-south air exchange. The author is grateful to the management of the Marine Hydrophysical Institute AN UkrSSR for the opportunity of participating in the cruise of the "Mikhail Lomonosov." Orig. art. has: 1 figure.

SUB CODE: 04/ SUBM DATE: 12Jan66/ ORIG REF: 003/ OTH REF: 001
ATD PRESS: 5112

Card 2/2

KUZ'MICH, I.A., kand.tekhn.nauk; ISHCHUK, I.G., kand.tekhn.nauk; KUZNETSOV, G.I., inzh.

Weakening the coal massif is a means of increasing the efficiency of hydraulic mining. Ugol' 40 no.3:34-36 Mr '65. (MIRA 18:4)

1. Institut gornogo dela im. A.A.Skochinskogo.

KUZNETSOV, G. K.

"A Rapid Method for the Quantitative Determination of Sugar," Zavodskaya Laboratoriya, No 8, 1952, pp 958-959.

KUZNETSOV, G.K.

Improving the wringing process of retted bast fiber materials.
Izv.vys.ucheb.zav.; tekh.tekst.prom. no.6:30-33 '59.
(MIRA 13:4)

1. Kostromskoy tekstil'nyy institut.
(Textile fibers) (Flax processing machinery)

KUZNETSOV, G, K,, Cand Tech Sci — (diss) "Investigation of the operating conditions for bast-fiber materials," Kostroma, 1960, 16 pp, (Moscow Textile Institute)

(KL, 38/60, 108)

KUZNETSOV, G.K.

Determining optimum characteristics of the elastic casing of wringing rollers. Izv.vyz.ucheb.zav.;tekh.tekst.prom. no.5:29-35 '60.
(MIRA 13:11)

1. Kostromskoy tekstil'nyy institut.
(Textile machinery--Testing) (Bast)

KUZNETSOV, G.K.

Equation of power expended in rolling with smooth rolls. Izv. vys.ucheb.zav.; tekh.tekst.prom. no.3:33-38 '61. (MIRA 14:7)

1. Kostromskoy tekstil'nyy institut.
(Textile machinery)

KUZNETSOV, G. K.

New design of the wringer-washer machine for retted flax straw. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.4:37-41 '62. (MIRA 15:10)

(Flax processing machinery)

KUZNETSOV, G.K.

Drive of the elastic top roll of the pressing pair. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.3:41-49 '62.
(MIRA 17:10)

1. Kostromskoy tekhnologicheskiy institut.