"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D., prof., doktor tekhn. nauk

New transactions of the Central Scientific Research Institute of Geodesy, Aerial Surveying, and Cartography in the field of stabilizing the aerial camera and determining the true flight altitude. Izv. vys. ucheb. zav.; geod. i aerof. no. 2:27-30 '57. (MIRA 11:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut geodezii, aeros"yemki i kartografii.
(Aerial photogrammetry)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

Konshin, M. D.

AUTHOR: Konshin, M.D., Doctor of Technical Sciences 6-11-4/13

TITLE: The Achievements and the Prospects of the Development of Air Photographs and Photogrammetry in the USSR (Dostizheniya i perspektivy razvitiya aerofotos"yemki i fotogrammetrii v SSSR)

PERIODICAL: Geodeziya i Kartografiya, 1957, Nr 11, pp. 24-32 (USSR)

ABSTRACT: At present air photographs are mostly taken by a ...-photograph camera AFA TE with an objective, 18 x 18 cm in size, with focal distances of 55, 70, 100, 200, 350, and 500 mm. The vision field angles of the objectives are 134, 123, 105, 66, 41, 29 degrees respectively. Since 1950 the RV-10 radio-altimeter is used for determining the real flying altitude. It is an impulse type and permits to obtain marks, corresponding to the radio-wave-radiation-moments and the reception of these moments after reflection from the earth's surface, on the screen of the oscillographic tube. The planimetric coordinates of the centers of projection are determined according to the radio-geodetical method by means of a special phase-apparatus. One of the largest theoretical works which was performed in the field of photogrammetry is the investigation of the problems on the treatment of air photographs

Card 1/2

APPRO

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M. D. (Dr. Tech. Sci.) KONSHIN, M.D.

"The determination of the elements of outer orientation in the flight and the methods for evaluating the accuracy of the devices used," Geodeziya i Kartografiya, 1957, Nr 12, pp 69-70 (USSR).

report presented at the Sci. Tech. Conf. for Geodesy, Aerial Photography and Cartography, 24-28 Oct 57, in honor of 40th Anniv. October Revolution. Organized by Main Office for Geodesy and Cartography, Home Office USSR, and Military-Topographical Office and Inst. for Engineers of Geodesy, Air Survey and Cartography, Moscow.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

SOV/154-58-1-7/22

AUTHOR: Konshin, M. D., Professor, Doctor of Technical Sciences

TITLE: Determining the Elevations of Ground Points by Radio Altimeter and Statoscope as Employed Abroad (Opredeleniye vysot tochek mestnosti s pomoshch'yu radiovysotomera i statoskopa, primenyayemoye za rubezhom)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1958, Nr 1, pp 53-56 (USSR)

ABSTRACT: On the strength of a comparison of methods used in Canada and in the USSR, the advantage of the method employed in Canada is established as the possibility of a continuous determination of the ground profile. Without doubt, this is interesting for a number of economical institutions, even if such a profile is not very accurate. On the other hand, in the USSR only the elevations of a few points identical with the principal points of the air photographs are determined. This method permits, by means of stereoscopic nets, to correct the reading of the radio altimeter, to evaluate and adjust data obtained by photogrammetry as well as to exclude obvious error readings. All this guarantees about

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

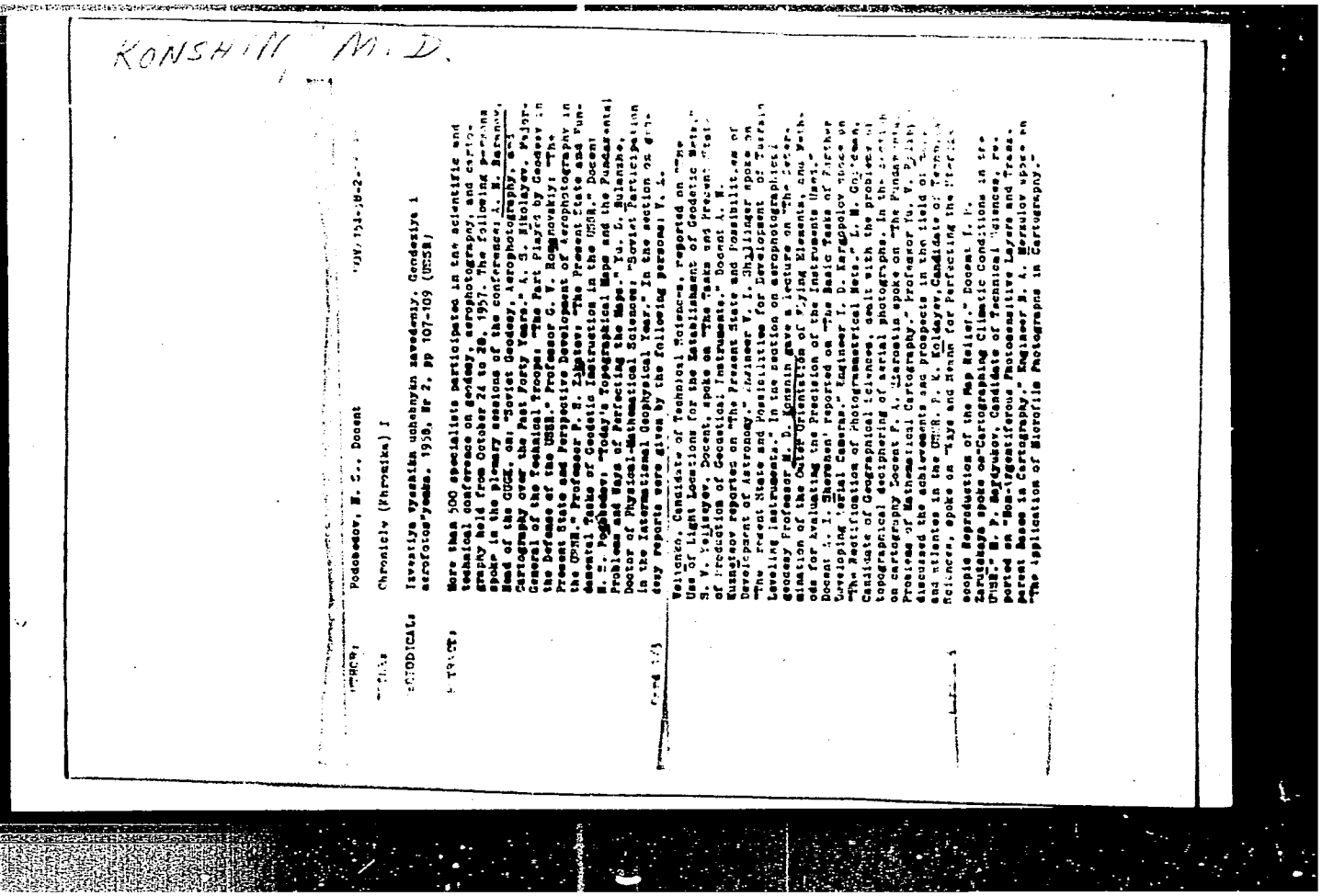
Determining the Elevations of Ground Points by Radio Altimeter and Statoscope as Employed Abroad

twice the accuracy obtained abroad. On the strength of the comparison carried out the conclusion is drawn that in Soviet designs of radio altimeters the impulse intensity ought to be considerably increased, whereas, for the solution of special problems in some branches of national economy, a continuous determination of the profile or rather a continuous determination of the radio altimeter readings might be useful. There are 4 references, 0 of which is Soviet.

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii
(Moscow Engineering Institute of Geodesy, Aerophotography and Cartography)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0



KONSHIN M. D.

AUTHOR: Podosenov, M. S., Docent

TITLE: Chronicle (Khronika) I

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy, Geodeziya i aerofotos"yemka. 1958, No 2, pp 107-109 (USSR)

ABSTRACT: More than 500 specialists participated in the scientific and technical conference on geodesy, aerophotography, and cartography held from October 24 to 28, 1957. The following persons spoke in the plenary sessions of the conference: A. N. Baranov, Head of the GUGK, on "Soviet Geodesy, Aerophotography, and Cartography over the Past Forty Years." A. S. Nikolayev, Major-General of the Technical Troops, "The Part Played by Geodesy in the Defense of the USSR." Professor G. V. Rosgonovskiy, "The Present State and Perspective Development of Aerophotography in the USSR." Professor P. S. Zakatov, "The Present State and Fundamental Tasks of Geodetic Instruction in the USSR." Docent E. S. Pogodaev, "Today's Topographical Maps and the Fundamental Problems and Ways of Perfecting the Maps." Yu. D. Bulanzhe, Doctor of Physical-Mathematical Sciences, "Soviet Participation in the International Geophysical Year." In the section on geodesy reports were given by the following persons: V. I. Valiakin, Candidate of Technical Sciences, reported on "The Use of Light Locations for the Establishment of Geodetic Nets." S. V. Yelisayev, Docent, spoke on "The Tasks and Present State of Production of Geodetic Instruments." Docent A. M. Rungisov reported on "The Present State and Possibilities of Development of Astronomy." Engineer V. I. Shalliger spoke on "The Present State and Possibilities for Development of Surface Leveling Instruments." In the section on aerophotography Professor M. D. Konshin gave a lecture on "The Determination of the Outer Orientation of Flying Elements, and Methods for Evaluating the Precision of the Instruments Used." Docent A. I. Sherbakov reported on "The Basic Tasks of Further Developing Aerial Cameras." Engineer I. D. Karappolov spoke on "The Rectification of Photogrammetrical Nets." L. M. Gorokhova, Candidate of Geographical Sciences, dealt with the problems of topographical deciphering of aerial photographs. In the section on cartography Docent P. A. Maroteia spoke on "The Fundamentals of Mathematical Cartography." Professor Yu. V. Polkan discussed the achievements and prospects in the field of [illegible] and atlases in the USSR. F. K. Kolesnyev, Candidate of Technical Sciences, spoke on "Ways and Means for Perfecting the Methods of Mapping Reproduction of the Map Relief." Docent F. P. Zarubskaya spoke on "Cartographing Climatic Conditions in the USSR." M. P. Kazakov, Candidate of Technical Sciences, reported on "Non-Argentiferous Photosensitive Layers and Their Application in Cartography." Engineer B. A. Berzulov spoke on "The Application of Microfilm Photographs in Cartography."

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M. P.

AUTHOR: Author, A. I., Docent SOV/154-58-2-15/22

TITLE: Chronicle (Khronika) III

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Geodeziya i aerofotos"yemka, 1958, Nr 2, pp 110-111 (USSR)

ABSTRACT: This is a report on the deliberations held from April 23 to 28 by the engineers and department heads of the technical supervision of geodetical activities of the Central Administration of Geodesy and Cartography of the MVD SSSR (Department of the Interior of the USSR). Opening speech and report by the Head of GUGK (Chief Administration of Geodesy and Cartography), S. P. Gerasimov: "On the Key Tasks of the GUGK With Respect to the Perfecting of Topographical and Geodetic Work of Importance to the National Economy, Such as the Analysis of the Accuracy of Measurements in Triangulations of the 2nd and 3rd Classes, and the Application of Optical Range Finders in Geodetic Work." U. S. Dobrynskiy, Candidate of Technical Sciences, reported on "Some Results of the Study of Centers and Bearing Points Within the Territory of the USSR." Engineer P. I. Parnov: "New Geodetical Instruments for Topographical Photographs." Engineer S. G. Gavrilov: "The Technical Planning of New Geodetical and Topographic Surveys." Engineer B. V. Troitskiy: "Marking Points for the Preparation of Surveys." Engineer I. V. Kiplon: "Analytical Methods for the Determination of Bench and Height Markers." Engineer S. I. Yurov: "On the Overall Preparations for Topographical Surveys in the AGP-Process." B. D. Zaprudov: "The Checking of Stereoscopic Aerial Photographs." Professor, Doctor of Technical Sciences, M. P. Konshin: "The Outer Orientation in the Photometrical Preparation of Aerial Photographs and Improvements in the Accuracy of Stereoscopic Measurements." G. A. Kryukennikov, Candidate of Technical Sciences: "Some Remarks on the Drobyshev-Stereograph." V. Ya. Sibkay, Candidate of Technical Sciences: "On Improving the Photographic Quality of Aerial Photos." Engineer Kashin: "Cadastre Work in Field-Partitioning in the Severo-Kavkaz-AGP." G. S. Dyakov: "On the Present State of Technical Instruction for Geodetic Work." Furthermore the meeting dealt with the envisaged rationalisation of the new geographic-geodetic technique (GUGK 1957). Lively discussions followed the lectures. On April 28 the head engineers of the AGP and the collaborators of the NIIGA i K (Moscow Engineering Institute of Geodesy, Aerophotography, and Cartography) discussed some questions relating to the work at the Institute of Geodesy (Lecture by P. Zakatov, Professor, Doctor of Technical Sciences).

Card 2/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M. D.

SOV/144-58-2-17/22

AUTHOR: Bel'chenkov, V. D., Candidate of Technical Sciences

TITLE: Scientific and Technical Conference of the MIIGA i K (Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii) and MIIGAiK (Moscow Institute of Engineers of Geodesy, Aerial Photography and Cartography)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1958, Nr 2, pp 114-115 (USSR)

ABSTRACT: G. A. Glazkova, Docent, Candidate of Technical Sciences, spoke on "The Relations Between Distortions in Cartographic Projections." L. A. Begemolov, Candidate of Technical Sciences, reported on "Topographical Deciphering From the Airplane and Helicopter of Aerial Photographs in Cartographing Inaccessible Regions." A. S. Tolstukhov, Assistant, spoke on "The Relief Reproduction of Plans on Topographical Maps (Scale 1 : 10 000 000)." G. D. Rikhter, Professor, Doctor of Geographical Sciences, dealt with the basic geographic structure of Antarctica and the consequent cartographical peculiarities of the region.

Card 1/3

Engineer Ye. M. Fellistov reported on the conference held in the MIIGA i K (Moscow Engineering Institute of Geodesy, Aerophotography, and Cartography) from May 6 to 10. The participants discussed various questions in relation with the design of geodetical and cartographical instruments. More than 300 delegates from many universities and scientific institutions, as well as 62 representatives of different agencies in Leningrad, Kiyev, Sverdlovsk, and other cities, participated in this conference. The Deputy Head of the GUGK, M. D. Konshin, read a paper on "Scientific Research in Aerial Geodesy." S. V. Tellezyev, Docent, reported on "The Present State of Production of Geodetical Instruments and Development of New Instruments." P. V. Drobyshev, Professor, gave a lecture on the construction of photogrammetrical instruments in the USSR and on developments in this field. In the different section questions relating to the design of geodetical and photogrammetrical instruments as well as instruments for aerial photography were discussed. Docent S. V. Tellezyev and Engineer (a. P. Zdobnikov Engineer-Inventor dealt with the new Warsheyder-instruments. V. M. Shavor, Candidate of Technical Sciences, reported on optical range finders of greater precision. V. A. Yelichko, Candidate of Technical Sciences, on optical range finders of medium accuracy. Engineer I. I. Andrianova and Yu. P. Popov, Candidate of Physical-Mathematical Sciences, spoke on modulators of optical range finders. Engineer L. V. Rabinovich spoke on the use of light alloys in the manufacture of geodetical instruments. Docent S. M. Marayev and Engineer V. K. Sayenko reported on new developments in the production of geodetical instruments. Professor D. Ya. Gal'perin dealt with the optical system in geodetical instruments. Engineer A. B. Burago, Engineer B. A. Shilin, Docent V. .. Frumelin, Docent I. M. Piroon, and Engineer A. V. Bakakov informed the participants on the results of the Scientific and Technical Conference held in Kiyev (Planning and Production of Geodetical Instruments).

Card 2/3

Card 3/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M. D.

"On Using the Elements of External Orientation in the Photogrammetric Evaluation of Aerial Photographs, and on the Increase of the Accuracy in Stereoscopic Measurements".

report presented at a Conference of the Chief Engineers and Directors of the Technical Control of Aerial Surveying Enterprises, Moscow Central Bureau of Surveying and Cartography, Min. of Interior USSR.
(Geodeziya i kartografiya, 1958, no. 6, 77-78)

Mbr. of the staff of: TsNIIGAiK

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D., doktor tekhn.nauk, prof., red.; KHOROZOV, S.V., red.; VASIL'YEVA, V.I., red.izd-va; ROMANOVA, V.V., tekhn.red.

[Methods used in determining the elements of outer orientation in flight] Primeniaemye metody opredeleniia v polete elementov vneshnego orientirovaniia. Moskva, Izd-vo geodez. lit-ry, 1959. (Leningrad. TSentral'nyi nauchno-issledovatel'skii institut geodezii, aerosʺemki i kartografii. (MIRA 13:2)
(Aerial photogrammetry)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

3(4) SOV/154-59-2-8/22

AUTHOR: Konshin, M. D., Professor, Doctor of Technical Sciences

TITLE: Scientific Research Work in the Field of Aerial Camera Construction for Topographic Purposes (Nauchno-issledovatel'skiye raboty v oblasti aerofotoapparatostroyeniya dlya topograficheskikh tseley)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1959, Nr 2, pp 47 - 52 (USSR)

ABSTRACT: The demands made on modern aerial cameras are very exacting. They cannot be considered all at the same time. The most important among them are investigated here. The elimination of aberration is the main problem to be solved when producing new lenses. Aerial cameras with plates are used abroad to eliminate the deformation of photographic material. This is impossible and inappropriate in the USSR where an abrupt decrease in efficiency would be the consequence. Now as before, aerial camera with films remains the principal type used for topographic purposes. 8 marks, i.e. points intended to check the film deformation, must be applied to them. The smoothness

Card 1/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

of the film at the moment of photographing depends on the accuracy of the platen and on the right combination of the film with it. Either a glass plate or an appropriate difference in the air pressure is applied to press the film against the plate surface. To maintain the elements of the internal orientation constant there must be a rigid connection of the lens with the backing frame. Under no circumstances a slotted shutter may be used with a topographic aerial camera. A time of exposure of up to 1:1000 sec may be appropriate, depending on various factors. Different light filters must be used when photographing objects with different spectral reflecting power and depending on the altitude from which the photographs are taken. Therefore the possibility must be provided of exchanging the light filters in the course of operation. When photographing ground sections with different optical exposure it is advisable that the quantity of light hitting the light-sensitive film layer be changed automatically. This may be brought about by changing the effective lens aperture or the time of exposure. The second way is preferable. The aerial

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

camera must be fitted out with a damping device for the diminution of oscillations and image distortions. In topographic aerial photographs, aerial cameras must be used with various focal lengths. Format 18 x 18 cm need not be changed. The construction of lenses with unequal angles of the entrance and exit of projecting rays (by M. M. Rusinov) must be considered. The required percentage of longitudinal overlaps in aerial photographs must be secured. This is specially important in mountainous regions. The shutter of the aerial camera must be synchronized with the instruments fixing the elements of external orientation for aerial photography during the flight. In this connection it is advisable to combine the shutter releasing with the beginning of a working cycle and to bring about the shutter release electrically. At present, topographic aerial photography must be made only with the use of gyrostabilizing devices. Such devices must be subdivided into three groups: 1) photographs with inclination angles of about 12-15' are obtained with the extreme value of 1° . Such devices are available in the form of"power gyroframes" (silovaya girorama). 2)Photographs with an inclination angle of 5-7' with the maximum value at 20'.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

There are no such devices as yet. 3)Photographs with an inclination angle of about 2' with the maximum value at 5'. These are not yet available either. With radar altimeters, efficiency must be increased, while an increase in accuracy will be hardly possible. On the condition of stabilizing the antenna of the radar altimeter, there is the possibility of determining, with a certain procedure, the height of points lying within the range of aerial photography. The author calls for the elaboration of an apparatus for the determination of the position coordinates with a mean error of 1-2 m for the compilation of maps at 1: 5000 and 1:10000; furthermore, an apparatus securing results with a mean error of 7-8 m in a radius of about 300-350 km; finally, an apparatus for the determination of the coordinates of the projection center with a mean error of 1-2 m in a radius of about 100 km.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut geodezii, aerofotos"yemki i kartografii (Central Scientific-Research Institute of Geodesy, Aerial Survey and Cartography)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D., doktor tekhn. nauk prof.

Determining the elements of exterior orientation in flight.
Trudy MIIGAIK no.31:57-61 '59. (MIRA 13:3)
(Aerial photogrammetry)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

LOBANOV, Aleksey Nikolayevich, prof., doktor tekhn.nauk; KONSHIN, M.D., prof., red.; VASIL'YEVA, V.I., red.izd-va; ROMANOVA, V.V., tekhn.red.

[Photographic triangulation by the use of electronic calculating machines] Fototriangulatsiia s primeneniem elektronnoi vychislitel'noi mashiny. Moskva, Izd-vo geodez.lit-ry, 1960. 144 p. (MIRA 14:2)

(Aerial photogrammetry)
(Electronic calculating machines)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D., professor, doktor tekhn.nauk

Choosing the plate size of aerial photographs. Izv. vys. ucheb. zav.; geod. i aerof. no.3:63-65 '60. (MIRA 13:10)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii.

(Aerial photogrammetry)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D., prof. doktor tekhn.nauk; LOBANOV, A.N., prof. doktor tekhn. nauk; LAVROV, N.P., dotsent, kand.tekhn.nauk

Ninth International Photogrammetric Congress and the development of photogrammetry abroad. Izv. vys. ucheb. zav.; geod. i aerof. i no.6:53-68 '60. (MIRA 14:5)
(Aerial photogrammetry--Congresses)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D., doktor tekhn.nauk; LOBANOV, A.N., doktor tekhn.nauk; LAVROV, N.P., kand.tekhn.nauk

Ninth International Photogrammetric Congress. Geod. i kart. no. 12:3-10 D '60. (MIRA 14:1)
(Photogrammetry—Congresses)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

28992
S/537/60/000/040/001/002
D039/D113

3.2300

AUTHOR: Konshin, M.D., Professor

TITLE: Photogrammetric plotting of gyro-stabilized aerial photographs

PERIODICAL: Moscow. Institut inzhenerov geodezii, aerofotos"yemki i kartografii. Trudy, no. 40, 1960, 75-80

TEXT: The article describes the possibilities of facilitating the photogrammetric plotting of gyro-stabilized aerial photographs. By reducing the axial angles of aerial photographs, plotting can be simplified and made more accurate, particularly when using analytical plotting methods. The presently used gyro-stabilizing aerial camera permits photographs with mean axial angles of 10-15' with a threshold value of 1° to be obtained, the mutual axial angles seldom exceeding 15'. Such photographs help to facilitate several photogrammetric plotting processes and extend the application of various methods. In compiling the map outline, multiplex horizontal photo-control is conducted, using the photopolygonometrical method and the graphic method of planimetric phototriangulation; the use of gyro-stabilized aerial photographs permits the perspective lines to be transformed when

Card 1/ 3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

Photogrammetric plotting...

plotting the photographs; it also helps accelerate the relative orientation process and eliminate the exterior orientation of the multiplex plot. In multiplex horizontal photo-control using both the above-mentioned methods, all stages of operation remain unchanged, the sole exception being that the principal point and not the nadir point serves as the top point of direction. When the axial angle of the main beam is 20°, the distance between the principal and nadir points when the focal length is 55, 70, 100, 140 and 200 mm will be 0.3; 0.4; 0.6; 0.8 and 1.2 mm respectively, and the direction error caused by breaking down the relief will be characterized by the data given in table 1. These data show that, by using gyro-stabilising mounts, the principal point can be taken as the top point of direction, since on a large breakdown of a section of the photograph, horizontal photo-control would have to be conducted on a multiplex machine. The next step is to rectify the aerial photographs obtained. The stereophotogrammetric method of surveying includes the following basic plotting processes which are described in detail: vertical photo-control by the parallax-free model method; the differentiated method of spatial phototriangulation; the method setting points of control on a stereometer and universal devices; the straight

Card 2/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

Photogrammetric plotting...

line method, topographical plotting on a stereometer and universal devices. When using the stereophotogrammetric methods of compiling a map original, orientation is much simpler if aerial photographs with small axial angles are used. If such photographs are used simultaneously with devices which, during flight, record the elements of exterior orientation, photogrammetric plotting will be considerably simplified. The results obtained on the stabilization of an aerophotographic camera are the first step made in this direction. Future research on increasing the stabilization accuracy will allow photogrammetric plotting of aerial photographs to be greatly simplified. There are 4 tables.

ASSOCIATION: Department of Photogrammetry of the Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii (Moscow Institute of Engineers of Geodesy, Aerial Photography and Cartography) [Abstracter's note: Name of association was taken from the first page of the journal].

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

FINKOVSKIY, Viktor Yakovlevich; KONSHIN, M.D., red.; VASIL'YEVA, V.I., red.izd-va; ROMANOVA, V.V., tekhn. red.

[Manual for operating a topographic STD-2 stereometer] Posobie po rabote na topograficheskom stereometre STD-2. Izd.2., perer. i dop. Moskva, Izd-vo geodez. lit-ry, 1961. 98 p. (MIRA 14:11)
(Topographical surveying)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D.; SOKOLOVA, N.A.

Organizing stereotopographic surveys to the scale of 1:25 000 in mountainous regions. Geod.i kart. no.3:5-10 Mr '62. (MIRA 15:12)

(Topographical surveying)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D.; NAZAROV, N.D.

Use of radiogeodetic RGSTs stations in the production of topographic maps. Geod.i kart. no.6:37-46 Je '62. (MIRA 15:8)
(Radar in surveying) (Aerial photogrammetry)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KOMSHIN, M.D.

Errors caused by the wedge shape of filters. Geod.i kart. no.10:21-28 O '62. (MIRA 15:12)
(Photography, Aerial—Equipment and supplies)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D., doktor tekhn.nauk, prof.

Evaluating the accuracy of determining the plane coordinates of nadir points by means of radio geodetic stations of the Central Scientific Research Institute of Geodesy, Aerial Photography, and Cartography. Trudy TSNIIGAIK no.146:57-63 '62. (MIRA 15:11)

(Radar in surveying)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D., doktor tekhn.nauk, prof.

Evaluation of the accuracy of statoscope readings. Trudy TSNIIGAIK no.146:101-103 '62. (MIRA 15:11)
(Aneroid barometer)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D., doktor tekhn nauk, prof.

Determination of the closest points in processing aerial photographs of a mountain region. Trudy TSNIIGAIK no.146:105-108 '62. (MIRA 15:11)
(Photographic interpretation)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D.; ORLOV, V.K.

Determining the angles of tilt of aerial photographs to evaluate the quality of the flight. Trudy TSNIIGAIK no.146:133-145 '62. (MIRA 15:11)
(Aerial photogrammetry)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

BOSHNYAKOVICH, Igor' Dragomirovich; GLEBOVSKIY, Yuriy Sergeyevich; KONSHIN, M.D., red.; KHROMCHENKO, F.I., red.izd-va; ROMANOVA, V.V., tekhn. red.

[Photographic extension in the studies of geophysics and anomalies] Fotopriviazka aerogeofizicheskikh marshrutov i anomalii. Moskva, Gosgeoltekhizdat, 1963. 171 p. (MIRA 17:1)

(Aeronautics in surveying)
(Prospecting--Geophysical methods)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D.; AFREMOV, V.G.

Photogrammetric distorsion. Geod. i kart. no.2:39-45 F '64.
(MIRA 17:3)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D.

Analytic method for plotting photogrammetric nets. Geod. i kart. no.3:3-8 Mr '64. (MIRA 17:9)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.D.

Concerning the size of aerial photographs. Geod. i kart. no.1:37-40 Ja '65. (MIRA 18:3)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

ACC NR: AP7005642 (A) SOURCE CODE: UR/0413/67/000/002/0093/0093

INVENTOR: Derviz, V. D.; Konshin, M. D.; Afremov, V. G.; Zdobnikov, Ye. T.; Zotov, G. A.; Orlov, V. K.

ORG: None

TITLE: A precision stereo comparator. Class 42, No. 190592 [announced by the Central Scientific Research Institute of Geodesy, Aerial Photography and Cartography (Tsentral'nyy nauchno-issledovatel'skiy institut geodezii, aerofotos"yemki i kartografii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 93

TOPIC TAGS: cartography, aerial photograph, comparator, optic instrument

ABSTRACT: This Author's Certificate introduces: 1. A precision stereo comparator for measuring the coordinates of associated points on aerial photographs (positive transparencies). The device contains a stationary binocular optical system, two coordinate gauges, each consisting of a lower carriage and an upper carriage which moves along guides in the lower carriage, and automatic readout units based on calibrated pairs of diffraction gratings. Measurement accuracy is improved by making the signals from the readout unit independent of rotation of the transparent gratings with respect to the reflecting ruled gratings. All reflecting gratings in the instrument are situated in

Card 1/2 UDC: 528.722.6/81

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.P. [Konshyn, M.P.]; BEZGUDOVA, Zh.I. [Bezhudova, Zh.I.]; STEPANOVA, O.S., kand. khim. nauk

Effect of temperature on the content of three-dimensional structures in glyptal resins. Khim. prom. [Ukr.] no.1:41-42 Ja-Mr'63 (MIRA 17:7)

1. Odesskiy probkovo-linoleumnyy zavod "Bil'shovik" (for Konshin).
2. Odesskiy gosudarstvennyy universitet (for Bezgudova, Stepanova).

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

Konshin, M.E.

Chemistry of heterocycles XXIII. Synthesis of 9-phenylacridine based on 2-aminotriphenylcarbinol and the mechanism of this transformation. F. A. Petyunin, N. S. Panferova, and M. E. Konshin (Pharm. Inst., Molotov). *Zhur. Obshchei Khim.* 28, 159-61; *J. Gen. Chem. U.S.S.R.* 26, 163-5 (1956)(Engl. translation); cf. *C.A.* 49, 1003e. Lehmstedt and Dostal, *C.A.* 33, 5403⁹. Refluxing 1 g. 2-aminotriphenylcarbinol in 1 ml. PhNO₂ 5 min., cooling, adding 10% HCl (15 ml.), steam distg., and adding 10% NaOH gave *9-phenylacridine*, m. 184-5.5°; *picrate*, m. 227-8°. The yield is 87% after 5 min., 97% after 1 hr., and 86% in 2 hrs. Larger amts. of $PbNO_3$ tend to decrease the yield; best yields result from 1:1 wt. ratio. In PhCl the [illegible] very small even after [illegible] never raise the yield [illegible]

Chem

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M. Ye.

79-2-43/58

AUTHORS: Petyunin, P. A. and Konshin, M. Ye.

TITLE: Study of the Chemistry of Heterocycles. Part 27. Synthesis and Properties of Monohalogeno Derivatives of 9-Phenylacridine (Issledovaniya v oblasti khimii geterotsiklov. XXVII. Sintez i Svoystva monogaloidoproizvodnykh 9-fenilakridina)

PERIODICAL: Zhurnal Obshchey Khimii, 1957, vol 27, No 2, pp. 475-480 (U.S.S.R.)

ABSTRACT: This report is devoted to the development of a method for the derivation of monohalogeno derivatives of 9-phenylacridine and a study of their properties. It was established that the acridine cycle closes easier in halogeno-substituted 2-aminotriphenylcarbinol than in acetyl derivatives. Experiments with 5-iodo-2-aminotriphenylcarbinol showed that the new method cannot be applied for the synthesis of iodo-derivatives of 9-phenylacridine because of the intensive dehalogenation. Good results during the halogenation of methylanthranilate were obtained by application of the chloramide method. It was established that N-chloracetamide offers satisfactory results during the bromination but not during the chlorination of methylanthranilate. Chlorination is smooth only during the application of N,N-dichlorourea.

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-

Study of the Chemistry of Heterocycles. Part 27. 79-2-43/58

The reaction of phenyl magnesium bromide with halogeno derivatives of methylanthranilate yielded a number of hitherto unknown halogeno derivatives of 2-aminotriphenylcarbinol. The properties of these new compounds were investigated and described.

The authors also obtained a series of entirely new monohalogeno derivatives of 9-phenylacridine and studied their properties.

There are 15 references, of which 6 are Slavic

ASSOCIATION: The Molotov Pharmaceutical Institute

PRESENTED BY:

SUBMITTED: March 24, 1956

AVAILABLE: Library of Congress

Card 2/2

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.Ye., Cand Chem Sci—(diss) "Study in the field of halogen-substituted 9--phenylacridine." Perm', 1958. 12 pp (Min of Higher Education USSR. Perm' State U im A.M.Gor'kiy), 160 copies (KL,45-58, 142)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

79-28-4-28/60

AUTHORS: Konshin, M. Ye., Petyunin, P. A.

TITLE: Investigation in the Field of the Chemistry of the Heterocycles (Issledovaniye v oblasti khimii geterotsiklov) XXXII. Di- and Polyhalogen Derivatives of the 9-Phenylacridine, Having the Position of the Haloids in Different Benzene Nuclei (XXXII. Di- i poligaloidoproizvodnyye 9-fenilakridina s polozheniyem galoidov v razlichnykh benzol'nykh yadrakh)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 4, pp. 974-978 (USSR)

ABSTRACT: In the previous papers (Zhurnal Obshchey Khimii, 1957, Vol. 27, pp, 475, 1558) the authors have described the methods of obtaining mono- and dihalogen derivatives of the 9--phenylacridine on the basis of the 2-aminotriphenylcarbinol and its N-acyl derivatives. As 9-phenylacridine represents a polynuclear heterocycle, the authors applied this method for the synthesis of the di- and polyhalogen derivatives of the 9-phenylacridine, having the position of the haloids in different benzene nuclei. The very fact that the latter never before have been described in publications

Card 1/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

Investigation in the Field of the Chemistry of the Heterocycles. XXXII. Di- and Polyhalogen Derivatives of the 9-Phenylacridine, Having the Position of the Haloids in Different Benzene Nuclei

made this necessary. The initial di- and polyhalogen derivatives of the 2-aminotriphenylcarbinol were obtained from the interaction between the bromo-p-chloro-phenylmagnesium and the corresponding halogen-substituents of the methyl ester of the anthranilic acid with satisfactory results. Structure and properties of the compounds obtained are given in the Table (I - V). They are crystalline substances with weak basic properties. They do not dissolve in diluted mineral acids and in concentrated hydrochloric acid. It must be emphasized that the basic properties of the halogen derivatives of the 2-aminotriphenylcarbinol are to a high degree depending on the position of the haloids. Introducing halogen into aniline residue of the 2-aminotriphenylcarbinol has the greatest effect, and less effect when introduced into the other benzene nuclei. From the table it becomes evident that the melting points of halogen derivatives of the 9-phenylacridine steadily increase with the number of halogen atoms. There is 1 table.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

79-28-4-28/60

Investigation in the Field of the Chemistry of the Heterocycles. XXXII. Di- and Polyhalogen Derivatives of the 9-Phenylacridine, Having the Position of the Halogens in Different Benzene Nuclei

ASSOCIATION: Permskiy farmatsevticheskiy institut
(Perm' Institute for Pharmacy)

SUBMITTED: April 8, 1957

Card 3/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

PETYUNIN, P.A.; KHODYREVA, M.S.; KONSHIN, M.Ye.

Chemistry of heterocycles. Part 34: Synthesis and properties of aralkylamides of di(2-thienyl)-glycolic acid. Zhur.ob.khim. 31 no.6:1847-1849 Je '61. (MIRA 14:6)

1. Permskiy farmatsevticheskiy institut.
(Thiopheneglycolic acid) (Amides)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

5.3610

27519
S/080/60/033/006/039/041/XX
D228/D302

AUTHORS: Petyunin, P.A., Shklyayev, V.S., and Konshin, M.Ye.

TITLE: Synthesis of the N-alkylanilines

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 6, 196[illegible], 1428 - 1430

TEXT: According to N.N. Vorozhtsov (Ref. 1: Osnovy sinteza promezhutochnykh produktov i krasiteley (Bases of the Synthesis of Intermediate Products and Dyes), Goskhimizdat, 438, 324, 360, 1955), N-alkylarylamines are best prepared fro[illegible] the alkylation of aromatic amines with alcohols and halogenoalkyls or from the alkylamination of certain benzene derivati[illegible]es. Therefore, since anthranilic acid is readily decarboxylized to form aniline, the authors decided to utilize it as the basis of a method for synthesizing N-alkylanilines. In this respect they note that A.F. Bekhli (Ref. 4: Zh. org. khimii, 27, 701, 1957) also used the decarboxylation of anthranilic acid derivatives to obtain the β-proprionitriles. The experimental procedure [illegible]rises the following stages: Neutraliza-

Card 1/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

27519
S/080/60/033/006/039/041/XX
D228/D302

Synthesis of the N-alkylanilines

977, 1940; W.S. Fones, Chem. A. 44, 3921, 1950.

ASSOCIATION: Permskiy farmatsevticheskiy institut (Perm Pharmaceutical Institute)

SUBMITTED: September 14, 1959

Card 3/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

PETYUNIN, P.A.; KONSHIN, M.Ye.

Use of urotropine in the reaction of bromomethylation of aromatic hydrocarbons. Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.3:505-506 '62. (MIRA 15:7)

1. Permskiy farmatsevticheskiy institut, kafedra organicheskoy i biologicheskoy khimii.

(Hexamethylenetetramine)
(Bromomethylation) (Hydrocarbons)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, M.Ye.; PETYUNIN, P.A.

Chemistry of heterocycles. Part 36: Synthesis of 9,9-diaryl-substituted acridans. Zhur. ob. khim. 34 no.10:3429-3431 O '64.
(MIRA 17:11)

1. Permskiy farmatsevticheskiy institut i Khar'kovskiy farmatsevticheskiy institut.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

YEVSEYEV, I.G., kand. tekhn. nauk; KONSHIN, N.N., inzh.

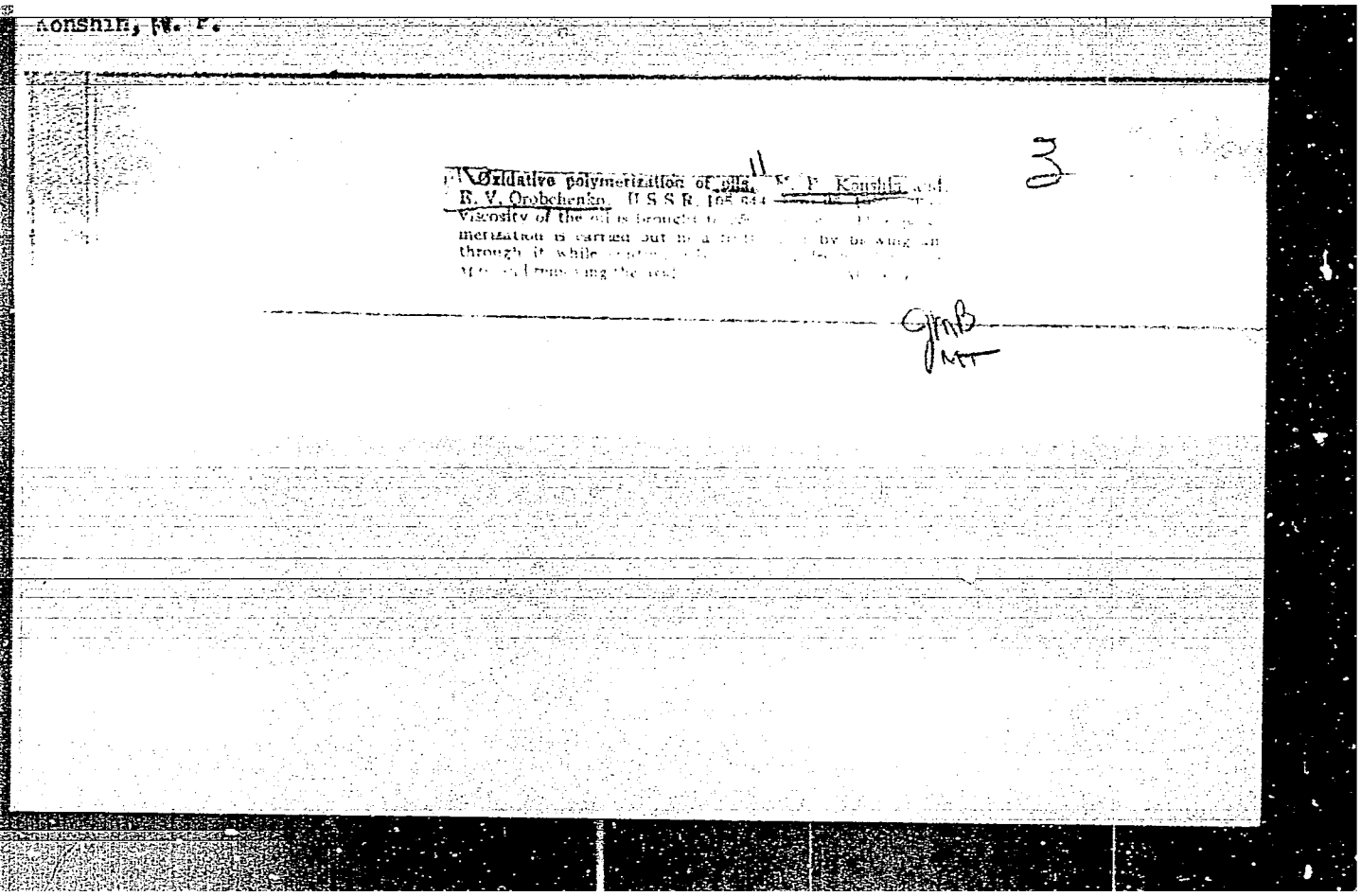
New valve-type discharger. Avtom., telem. i sviaz' 3 no.4:20-23 Ap '59. (MIRA 12:5)

1. Laboratoriya Vsesoyuznogo tsentral'nogo nauchno-issledovatel'skogo instituta.

(Lightning protection--Equipment and supplies)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0



APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

Konshin, N. P.

OROBCHENKO, Ye.V., inzh.; KONSHIN, N.P., inzh.; OROBCHENKO, Ye.A., inzh.

Substitute for edible fats in the manufacture of linoleum. Masl.-zhir. prom. 24 no.1:31-32 '58. (MIRA 11:3)

1.Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti (for Orobchenko, Ye.V.). 2. Odesskiy probochno-linoleumnyy zavod "Bol'shevik" (for Konshin, Orobchenko, Ye.A.)
(Linoleum)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

DANTSIN, M.I.; KONSHIN, N.P.; LEBEDEV, G.A.; ROZEN, O.B.; KAMENSKIY, I.V., nauchnyy red.; GUZMAN, M.A., red.izd-va; MEDVEDEV, L.Ya., tekhn.red.; SIROTINSKAYA, Ye.A., tekhn.red.

[Linoleum; production and use] Linoleum; proizvodstvo i primenenie. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 238 p. (MIRA 13:5)

(Linoleum)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

STEPANOVA, O.S., kand.khim.nauk; KONSHIN, N.P. [Konshyn, N.P.]; BEZGUDOVA, Zh.I. [Bezhudova, Zh.I.]

Continuous re-esterification of oils. Khim.prom. [Ukr.] no.1: 6-8 Ja-Mr '64. (MIRA 17:3)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, N.P.; STEPANOVA, O.S.; VAYSMAN, B.M.; GORYASHINA, G.I.

Determination of the readiness of modified glyptal resins, binding agents for linoleum. Nauch. ezhegod. Khim. fak. Od. un. no.2:102-112 '61. (MIRA 17:8)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

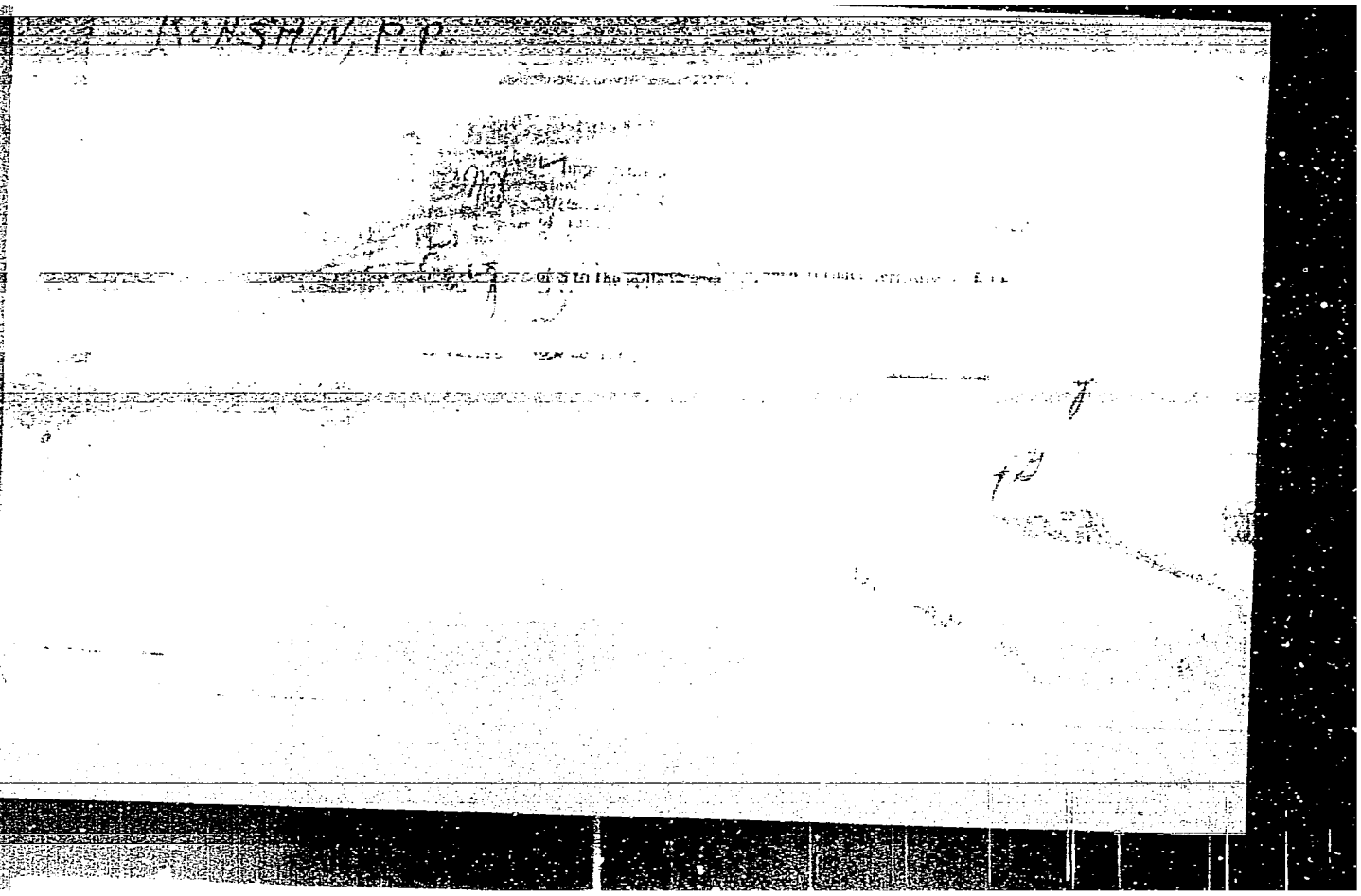
KONSHIN, N.I.

Substitute for cork in the production of glyptal linoleum. Stroi. mat. 10 no.9:6-7 S '64 (MIRA 18:2)

1. Direktor Odesskogo probochnogo-linoleumnogo zavoda "Bol'shevik".

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0



APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

BELOUSOV, A.S., inzhener; KON'SHIN, P.P., inzhener; KANTOR, S.Z.; SEMKOV, V.D.; SPORYSHKOV, P.N.; TURITSYN, V.V.; CHIZHIKOV, Yu.M. kandidat tekhnicheskikh nauk.

Improve the quality of hollow bore steel. Metallurg 2 no.2:21-28 F '57. (MLRA 10:4)

1. Zavod "Serp i molot" (for Belousov, Kon'shin). 2. TSentral'naya zavodskaya laboratoriya (for Kantor). 3. Starshiy kalibrovshchik Zavoda im. Serova (for Semkov). 4. Nachal'nik prokatnoy laboratorii (for Sporyshkov). 5. Rukovoditel' sortovoy gruppy TSentral'noy zavodskoy laboratorii Zavoda "Krasnyy Oktyabr'" (for Turitsyn). 6. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Chizhikov).

(Tool steel) (Boring machinery)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

Konshin, P.A.

TITLE: Improving the quality of hollow drilling steel. (Uluchshit kachestvo pustoteloy burovoy stali.)

PERIODICAL: "Metallurg" (Metallurgist), 1957, No. 2, pp. 21 - 27, (U.S.S.R.)

ABSTRACT: Rods of hollow drilling steel are used in rock drilling. In operation the rods are subjected to impact loads and also to the corrosive action of water flowing down their channel. In this symposium methods used at different metallurgical works for the production of hollow drilling steel are described.

The first contribution is by A.S. Belousov and P.A. Konshin, engineers at the "Serp i Molot" Works. The blanks used at this works for rolling hollow drilling steel consist of U7 carbon steel of square section and with a hole drilled axially in which a core is inserted consisting of type EI94 austenitic type steel. One of the main features in the rolling of such blanks is the considerable difference in the strengths of the two steels. The other main feature is the lack of direct contact between the core and the rolls. Considerable improvements in rolling practice have been obtained at the works as a result of a series of investigations: blank-heating has been improved, the number of drawing passes has been increased, the shape of pre-finishing section has been selected which secures the uniform distribution of relative

and reduction, the stability of the [illegible] pass and the difference between the diameter of the core and the hole in the blank. At present, the drilling steel is supplied in lengths up to 6.5 m. Tests have shown that

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

ACCESSION NR: AT4019038 S/0000/63/000/000/0106/0112

AUTHOR: Kon'shin, V. A.

TITLE: The angular distributions of neutrons at small distances from the source in an anisotropically scattering medium

SOURCE: Voprosy* fiziki zashchity* reaktovov; sbornik statey (Problems in physics of reactor shielding; collection of articles). Moscow, Gosatomizdat, 1963, 106-112

TOPIC TAGS: nuclear reactor, reactor shielding, neutron, neutron angular distribution, neutron scattering, anisotropic scattering, neutron propagation

ABSTRACT: The author considers the problem of neutron propagation in a homogeneous, infinite, anisotropically scattering medium. A neutron transfer equation is given, analyzed and solved for a case in which the source is an infinite plane passing through the origin of the coordinates. The equation

$$\mu\frac{\partial I(\tau,\mu)}{\partial\tau}+I(\tau,\mu)=-k\int_{-1}^{+1}d\mu'\int_{0}^{2\pi}I(\tau,\mu')F\left(\mu\mu'+\sqrt{1-\mu^2}\sqrt{1-\mu'^2}\cos\varphi'\right)d\varphi'+\frac{S_0\delta(\tau)I(\mu)}{2\pi} \quad (1)$$

Card 1/6

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

is solved by means of a Fourier transform. A second-order Fredholm integral equation with degenerate kernel is derived in the form:

$$T(\alpha,\mu)=\frac{\lambda}{2}\int_{-1}^{+1}T(\alpha,\mu')\left[\frac{\left(1-\frac{5}{2}b_2\right)}{1+k\alpha\mu}\cdot 1+\frac{3b_1\mu}{1+k\alpha\mu}\mu'+\right. \tag{2}$$

$$\left.+\frac{15}{2}b_2\frac{\mu^2}{1+k\alpha\mu}\mu'^2+\frac{7,5b_2}{2}\frac{(1-\mu^2)}{1+k\alpha\mu}(1-\mu'^2)\right]d\mu'+\frac{q}{1+k\alpha\mu}=$$

$$=\frac{\lambda}{2}\int_{-1}^{+1}T(\alpha,\mu')\left[\sum_{k=1}^{k=4}a_k(\mu)g_k(\mu')\right]+\frac{q}{1+k\alpha\mu}.$$

with the solution, for the particular case of interest to the author, written in the form:

$$c_i-\lambda\sum_{m=1}^{k=4}a_{im}c_m=f_{i0} \tag{3}$$

Card 2/6

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

The constants $C_i(\alpha)$ are determined in the article, while $I(\tau, \Omega)$ are obtained with an inverse Fourier transform:

$$I(\tau, \mu) = \frac{q}{2\pi}\int_{-\infty}^{+\infty}\frac{(\cos\alpha\tau + i\sin\alpha\tau)(1-i\alpha\mu)}{1+\alpha^2\mu^2}d\alpha + \frac{0{,}378h}{4\pi}\int_{-\infty}^{+\infty}\frac{(\cos\alpha\tau + i\sin\alpha\tau)(1-i\alpha\mu)}{1+\alpha^2\mu^2}C_1(\alpha)\,d\alpha + \frac{1{,}22\mu h}{4\pi}\int_{-\infty}^{+\infty}\frac{(\cos\alpha\tau + i\sin\alpha\tau)}{1+i\alpha\mu}C_2(\alpha)\,d\alpha + \frac{1{,}87\mu^2 h}{4\pi}\int_{-\infty}^{+\infty}\frac{(\cos\alpha\tau + i\sin\alpha\tau)(1-i\alpha\mu)}{1+\alpha^2\mu^2}C_3(\alpha)\,d\alpha + \frac{0{,}94(1-\mu^2)h}{4\pi}\int_{-\infty}^{+\infty}\frac{(\cos\alpha\tau + i\sin\alpha\tau)(1-i\alpha\mu)}{1+\alpha^2\mu^2}C_4(\alpha)\,d\alpha. \quad (4)$$

The angular distribution of the scattered radiation is determined from the last formula:

Card 3/6

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

$$\bar{q}_{ij}(\tau,\mu)=\frac{0,378kq}{2\pi}\int_0^\infty\frac{(\cos\alpha\tau+\alpha\mu\sin\alpha\tau)}{1+\alpha^2\mu^2}C_1(\alpha)\,d\alpha+$$
$$+\frac{1,23kq}{2\pi}\int_0^\infty\frac{(\alpha\mu\cos\alpha\tau-\sin\alpha\tau)}{1+\alpha^2\mu^2}\mu C_2(\alpha)\,d\alpha+ \quad (5)$$
$$+\frac{1,87kq}{2\pi}\int_0^\infty\frac{(\cos\alpha\tau+\alpha\mu\sin\alpha\tau)}{1+\alpha^2\mu^2}\mu^2C_3(\alpha)\,d\alpha+$$
$$+\frac{0,94kq}{2\pi}\int_0^\infty\frac{(\cos\alpha\tau+\alpha\mu\sin\alpha\tau)}{1+\alpha^2\mu^2}(1-\mu^2)C_4(\alpha)\,d\alpha.$$

The first term of this equation is transformed as follows:

$$\int_0^\infty\frac{\cos\alpha\tau+\alpha\mu\sin\alpha\tau}{1+\alpha^2\mu^2}C_1(\alpha)\,d\alpha=\int_0^1\frac{\cos\alpha\tau+\alpha\mu\sin\alpha\tau}{1+\alpha^2\mu^2}C_1(\alpha)\,d\alpha+$$
$$+\int_1^\infty\frac{\cos\alpha\tau+\alpha\mu\sin\alpha\tau}{1+\alpha^2\mu^2}C_1(\alpha)\,d\alpha=\int_0^1\frac{\cos\alpha\tau+\alpha\mu\sin\alpha\tau}{1+\alpha^2\mu^2}C_1(\alpha)\,d\alpha+ \quad (6)$$
$$+\int_0^1\frac{\cos\frac{\tau}{t}+\frac{\mu}{t}\sin\frac{\tau}{t}}{t^2+\mu^2}\cdot C_1\left(\frac{1}{t}\right).$$

Card 4/6

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

ACCESSION NR: AT4019038

Similar transformations may be carried out for the remaining terms. Examples of the calculation of the terms are given in the article, along with a figure (see Figure 1 in the Enclosure) showing the calculated results of the angular distributions of scattered radiation $I_{scatt.}(\tau, \mu)$ for $\mu = -1; -0.5; 0; 0.5; 1$ and $\tau = 0.1; 0.5; 1$. The value $I_{scatt.}(\tau, \mu)$ given in units $q = \frac{S_0}{4\pi}$, where S_0 is the power of the source. It is clear from this figure that when $\tau \neq 0$ the angular distribution of the scattered radiation is symmetrical with respect to $\mu = 0$, which indeed is to be expected for a plane isotropic source. As the distance from the source increases, the peak of the angular distribution shifts from $\mu = -$ to $\mu = 1$; that is, the neutrons fly forward. Comparison with isotropic neutron scattering shows that in the case of an anisotropically scattering medium the angular distribution peak is shifted closer to $\mu = 1$ ($\Phi = 0°$), as is to be expected. This, with $\tau = 0.5$ the peak maximum shifts from $\mu \approx 0.2$ (isotropic scattering to $\mu \approx 0.5$ (anisotropic scattering). "In conclusion, the author expresses his gratitude to E. Ye. Petrov, V. V. Orlov and V. Ya. Pupko for the interest they displayed in this work." Orig. art. has: 2 figures and 10 formulas.

ASSOCIATION: None

SUBMITTED: 14Aug63	DATE ACQ: 27 Feb64	ENCL: 01
SUB CODE: NP	NO REF SOV: 000	OTHER: 004

Card 5/6

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

ACCESSION NR: AT4019038

ENCLOSURE: 01

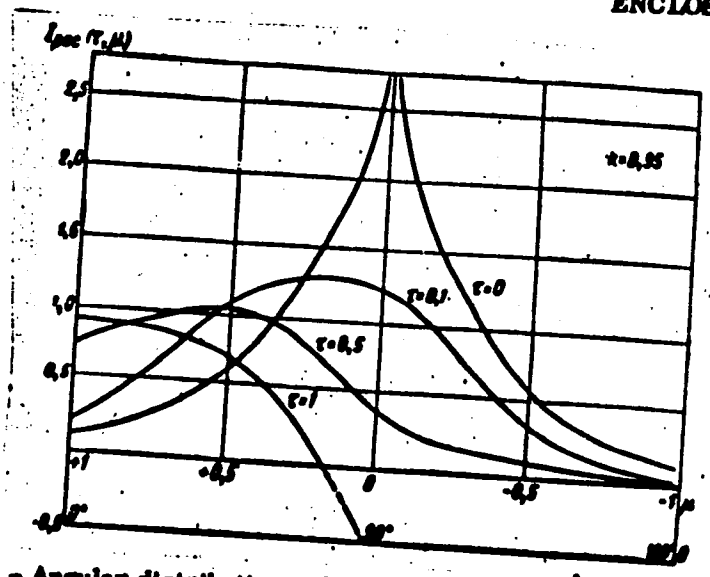


Fig. 1 - Angular distributions of neutrons at small distances from the source.

Card 6/6

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

L 2342-66 EWP(e)/EWT(m)/EPF(c)/EWP(i)/ETC/EPF(n)-2/EWG(m)/EWP(b) WW/WH
ACCESSION NR: AT5022114 UR/3158/65/000/008/0001/0018

61
56
B+1

AUTHORS: Kon'shin, V. A.; Matusevich, Ye. S.; Regyshevskiy, V. I.

TITLE: Emergence and angular distribution of secondary nuclear particles from planar shields, effected by protons having an energy of 660 mev

19

SOURCE: Obninsk. Fiziko-energeticheskiy institut. /Doklady/, no. 8, 1965. Vykhod i uglovoye raspredeleniye vtorichnykh nuklonov iz ploskikh zashchit pod deystviyem protonov s energiyey 660 Mev, 1-18

TOPIC TAGS: angular distribution, ionization, fission, helium, uranium, thorium, bismuth, lead, shielding, aluminum, cobalt, nickel, synchrocylotron, proton/ OIYaI synchrocyclotron

ABSTRACT: Measurements were made of the angular distribution of secondary nuclear particles emerging from planar layers of graphite (density 34 g/cm^2 - 0.35 of the nuclear path $\lambda\alpha$ of the primary proton); aluminum (density 28 g/cm^2 - 0.26 $\lambda\alpha$) and nickel (density 21 g/cm^2 - 0.15 $\lambda\alpha$, and 92 g/cm^2 - 0.66 $\lambda\alpha$) through which a beam of protons with an energy of 660 mev passed. The information was necessary for calculation of the required protection from the protons of high energy. The

Card 1/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

experiment was conducted in a synchrocyclotron OIYaI, and the beam of protons hitting the target was monitored by means of an ionization chamber filled with helium. The geometry of the experiment is shown in Fig. 1 on the Enclosure. Fission reactions of U^{238}, Th^{232}, Bi^{209}, and Pb were employed to register the secondary nuclear particles, by registering the traces left by the fission fragments on the photo-glass. The threshold value was 20-25 mev. Values for $\psi_i(\alpha)$ (number of nuclear particles flying in the direction (α) for Al, C, Ni, and Pb are shown graphically for three energy intervals. The first corresponds to the measurements with U^{238}, the second--with Th^{232}, and the third--with Bi^{209} and Pb. The greater the energy threshold, the greater is the decrease of $\psi_i(\alpha)$ with an increased angle. Apparently when $\alpha > 30^\circ$, $\psi_i(\alpha)$ can be represented for almost all targets by the following expression: $\psi_i(\alpha) = A_i \cdot \exp[-a_i \alpha]$, where constants A_i and a_i are functions of the atomic number Z of the target as well as of the latter's thickness d. The results of the work described agree with those obtained by V. A. Kon'shin, E. S. Matusevich, and S. S. Prokhorov (Sbornik statey, Voprosy fiziki zashchity, Atomizdat (v pechati)) who calculated the number of neutrons registered by graphite, copper, and aluminum targets, density 26 g/cm^2, in the interval of 30-660 mev and original energy of protons 660 mev. The authors

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

express their gratitude to S. G. Tsypin for support of this work, to V. P. Dzhelepov for enabling them to work on the synchrocyclotron, and to G. D. Stoletov for advice on the use of the accelerator. Orig. art. has: 2 tables, 7 figures, and 5 equations.

ASSOCIATION: Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR (State Committee on Uses of Atomic Energy, SSSR); Fiziko-energeticheskiy institut, Obninsk (Physical Energy Institute, Obninsk)

SUBMITTED: 00 ENCL: 01 SUB CODE: NP

NO REF SOV: 008 OTHER: 011

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

L 2342-66
ACCESSION NR: AT5022114 ENCLOSURE: 01

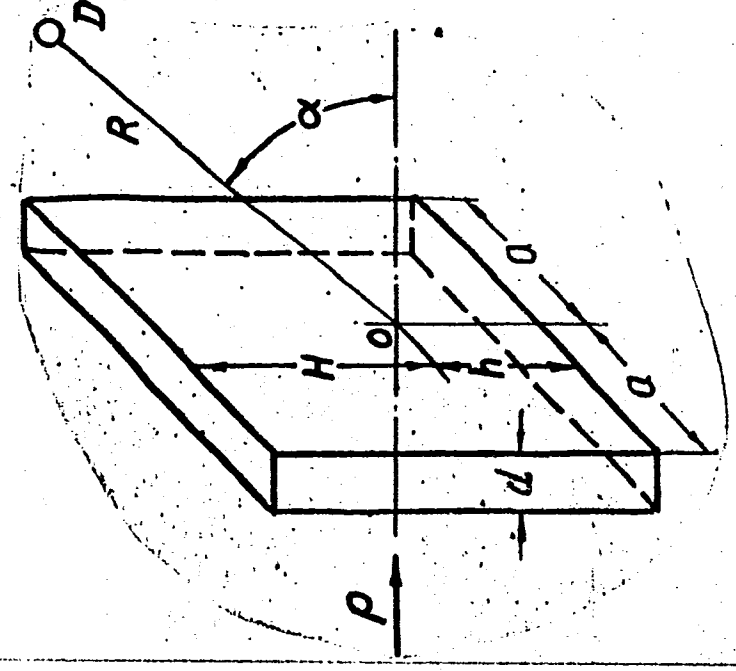


Fig. 1. Geometry of the experiment.
P- beam of protons; d- detector;
d,a,h,H- dimensions of the targets;
O- center of rotation, located on the axis of the beam

Card 4/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

L 2260-66 EWP(e)/EWT(m)/EPF(c)/EWP(i)/EPF(n)-2/EWP(b)/EWA(h) WW/DM/WH
ACCESSION NR: AP5016924 UR/0089/65/018/006/0573/0578
539.172.12:539.125.5

AUTHOR: Kon'shin, V. A.; Matusevich, Ye. S.; Prokhorov, S. S.

TITLE: Fluxes of secondary neutrons produced by 600 Mev protons in shields

SOURCE: Atomnaya energiya, v. 18, no. 6, 1965, 573-578

TOPIC TAGS: reactor shielding, neutron distribution, neutron flux, neutron interaction, neutron shielding, proton bombardment, proton interaction

ABSTRACT: The spatial and energy distributions of secondary neutrons in graphite and nickel blocks were measured with the aid of a set of threshold and resonance indicators. The measurements were carried out with the OIYaI synchrocyclotron. The diameter of the beam striking the blocks was 3 cm. The absolute values of the neutron flux in an infinite plate were obtained for a plane unidirectional source of protons. The energy distribution of the secondary neutrons in the interval 2.5×10^{-8}--6.6×10^{2} Mev was broken up into seven intervals for the graphite and six for nickel, in such a way that the bulk of the activity of each indicator was due to neutrons belonging to one group. The dose behind a flat shield of nickel or graphite was also determined as a function of the thickness of the shield. The neutron flux distribution exhibited a maximum close to the center of the shielding

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

L 05045-67 EWP(e)/EWT(m)/EWP(t)/ETI IJP(c) JD/WW/HW/JR/GD/WH

ACC NR: AT6027942 SOURCE CODE: UR/0000/66/000/000/0226/0235

42
40
B+1

AUTHOR: Kon'shin, V. A.; Matusevich, Ye. S.; Prokhorov, S. S.

ORG: None

TITLE: Energy and spatial distribution of a stream of secondary neutrons produced by protons with an energy of 660 Mev in blocks of graphite and nickel

15 27

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 226-235

18 19

TOPIC TAGS: proton, neutron, neutron energy distribution, radiative capture

ABSTRACT: The authors study the spatial and energy distribution of neutrons in thick (i. e. comparable with the ionization path of the primary 660 Mev protons) blocks of graphite and nickel. The neutrons in the blocks were produced by interaction of a monodirectional point beam of protons with the block material. The experiments were done on the synchrocyclotron at the OIYaI. The following indicators were used for measuring the spatial and energy distribution of the number of neutrons produced by reactions between the protons and the nuclei of the target: $In^{115}(n, \gamma)In^{116}$; $U^{238}(n, \gamma)U^{239}$; $Cu^{63}(n, \gamma)Cu^{64}$; $Al^{27}(n, \alpha)Na^{24}$; $P^{31}(n, p)Si^{31}$; $Mg^{24}(n, p)Na^{24}$; $C^{12}\left(\begin{smallmatrix} n, 2n \\ p, pn \end{smallmatrix}\right)C^{11}$. The efficiency of β-radiation was determined for each indicator as a basis for finding the absolute number of captures. The number of captures per gram weight of the indicators (In, U, Cu, Al, Mg, P) was

Card 1/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

measured and normalized to a single incident proton. The measurements were made with respect to radius r with center on the axis of symmetry of the proton beam. Curves are given showing the number of captures N as a function of r for indium, phosphorous, magnesium and aluminum indicators in nickel. The number of captures A from a plane monodirectional source of protons is determined by integrating the function $N(r)$ with respect to target area, i. e.

$$A = 2\pi \int_0^{\infty} N(r) r dr.$$

Figures are given showing A as a function of distance from the forward face of the nickel block for In, P, Al, Mg, U and Cu. Figures are also given for a graphite block showing $N(r) \cdot r$ as a function of thickness Z for indium and phosphorous indicators. Curves are given showing the number of captures from a plane monodirectional source as a function of the distance Z from the forward wall of a graphite block 120 cm thick for all indicators except carbon. Tables are given showing the neutron fluxes in various energy regions for both graphite and nickel. The neutron intensities are graphed as a function of thickness for both materials and it is shown that neutrons with energies below 4.65 kev are predominantly responsible for the neutron flux in graphite. A graphite block 120 cm thick shows a ratio of neutrons below this energy to those above of about 3.5 along the axis of symmetry. This ratio is 0.3 for a nickel block which is apparently due to the large absorption cross section in nickel at low neutron energies. Graphite and nickel show a difference in neutron fluxes below 4.65 kev by a factor of 30 while they differ by a factor of only 3 for neutron energies above 4.65 kev. The

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

L 05384-67 EWP(e)/EWT(m) WW/JR/GD/WH

ACC NR: AT6027943 SOURCE CODE: UR/0000/66/000/000/0236/0238

AUTHOR: Kon'shin, V. A.

ORG: None

TITLE: Calculation of the flux of secondary neutrons produced by protons with an energy of 660 Mev in a graphite block 120 cm thick

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 236-238

TOPIC TAGS: neutron, proton, graphite, nucleon interaction

ABSTRACT: Expressions are derived for calculating the neutron yield from a graphite block with a thickness equal to the ionization path of a 660 Mev primary proton and infinite dimensions in the other two directions. The results show a neutron flux of 0.22 neutr/cm^2·sec per incident proton. The yield of tertiary neutrons produced by cascade neutrons at the rear face of the graphite block was calculated assuming that the energy of the tertiary neutrons is 2/3 that of the cascade neutrons and that the number of secondary particles produced by bombardment of the carbon nucleus with protons is the same as for bombardment by neutrons. Calculations on these assumptions showed a flux of tertiary neutrons escaping through the rear face of the block equal to 0.03 neutr/cm^2·sec per incident proton. The cascade protons produced by primary protons do not

Card 1/2

L 05384-67

ACC NR: AT6027943

escape through the rear face of the block due to energy losses through ionization although they may initiate a nuclear cascade process by interaction with carbon nuclei. The flux of neutrons emitted by this process through the rear face of the block is 0.05 neutr/cm^2·sec per incident proton. The evaporative neutron flux is calculated assuming that the number of evaporative neutrons is independent of the energy of the incident proton and is equal to 1.5. Calculations based on this assumption give 0.2 neutr/cm^2·sec per incident proton escaping at the rear face of the block. It is pointed out that the theoretical numbers of neutrons and protons emitted in an elementary event during the interaction of high-energy protons are considerably dependent on the nuclear model which is used, particularly the nucleon density distribution. Orig. art. has: 1 table, 2 formulas.

SUB CODE: 20/ SUBM DATE: 12Jan66/ ORIG REF: 007/ OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

L 05383-67 EWP(e)/EWT(m)/EWP(t)/ETI IJP(c) JD/WW/HW/JR/GD/WH

ACC NR: AT6027944 SOURCE CODE: UR/0000/66/000/000/0239/0244

48
46
13+1

AUTHOR: Kon'shin, V. A.; Matusevich, Ye. S.; Prokhorov, S. S.

ORG: None

TITLE: Dose of secondary neutrons produced by protons with an energy of 660 Mev behind flat shielding of nickel, copper, aluminum and graphite

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 239-244

TOPIC TAGS: radiation shielding, neutron energy distribution, nucleon interaction

ABSTRACT: The authors measure the flux and energy distribution of secondary neutrons escaping from plane layers of graphite, aluminum, nickel and copper with a thickness of 26 g/cm^2 (approximately 10% of the ionization path of the primary protons). The experiments were done on the synchrocyclotron at the OIYaI. The beam of protons incident on the target was monitored by the reaction $Al^{27}(p,3pn)Na^{24}$ with a cross section of (11±0.5) mbarn at a proton energy of 660 Mev. The following indicators were used for measuring the number and energy distribution of the neutrons produced by reaction of the protons with target nuclei: $P^{31}(n,p)Si^{31}$; $Al^{27}(n,\alpha)Na^{24}$; $Mg^{24}(n,p)Na^{24}$ with absolute registration of ß-particles from decay of Si^{31} and Na^{24}. Tables are given showing

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

L 05383-67

ACC NR: AT6027944

2

neutron fluxes in various energy groups for interaction of 660 Mev protons with target nuclei behind a graphite target and in front of and behind copper, nickel and aluminum targets, and for the doses produced by neutrons behind targets made from these four materials with an incident stream of protons. In conclusion the authors thank Doctor of physical and mathematical sciences S. G. Tsypin and Professor I. I. Bondarenko (deceased) for consultation and interest in the work. Orig. art. has: 2 figures, 2 tables.

SUB CODE: 18/ SUBM DATE: 12Jan66/ ORIG REF: 005/ OTH REF: 008

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

EWI(m)/I/EWP(t)/ETI IJP(c) JD

ACC NR: AT6015890 SOURCE CODE: UR/3158/65/000/028/0001/0011

AUTHOR: Kon'shin, V. A.; Matusevich, Ye. S.; Regushevskiy, V. I. 49 45 13+1

ORG: Physicoenergetics Institute, State Committee for Use of Atomic Energy SSSR (Fiziko-energeticheskiy institut, Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR)

TITLE: Angular distribution and the number of cascade nucleons emitted by nuclei interacting with 660 Mev protons 19

SOURCE: Obninsk. Fiziko-energeticheskiy institut. Doklady, FEI-28, 1965. Uglovyye raspredeleniya i chislo kaskadnykh nuklonov, ispuskayemykh yadrami pri vzaimodeystvii s protonami s energiyey 660 Mev, 1-11

TOPIC TAGS: angular distribution, nucleon, proton, fission product, anisotropy

ABSTRACT: The present paper is concerned with the experimental test of the nucleon cascade theory proposed by Heisenberg and Serber. Seven different elements placed in a 660 Mev proton beam were used as targets. The interactions were investigated using the measurements of the angular distribution and the number of cascade nucleons emitted by different nuclei. A disc of 10 cm diameter and a thickness $0.1/\Sigma a$ (where Σa represents the inelastic cross section for 660 Mev protons) was used as a target. The proton beam was calibrated using the Al^{27} (p, 3pn) Na^{24} reaction, which is accurate

Card 1/2

LS

Card 2/2

APPROVED

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

L 22415-66 EWP(e)/EWT(m)/EPF(n)-2 WW/WH
ACC NR: AP6007947 SOURCE CODE: UR/0089/66/020/002/0132/0137

AUTHORS: Kon'shin, V. A.; Matusevich, Ye. S.; Regushevskiy, V. I.

ORG: none

TITLE: Emergence of secondary nucleons from flat shields and angular distribution under the influence of 660-Mev protons

SOURCE: Atomnaya energiya, v. 20, no. 2, 1966, 132-137

TOPIC TAGS: nuclear reactor shield, angular distribution, graphite, aluminum, nickel, proton bombardment

ABSTRACT: The authors have measured the angular distributions of the secondary nucleons emerging from flat layers of graphite of thickness 34 g/cm^2 ($0.35\lambda_a$ - where λ_a is the nuclear range of the primary proton), aluminum (thickness 28 g/cm^2 -- $0.26\lambda_a$), and nickel (thicknesses 21 and 92 g/cm^2 -- 0.15 and $0.66\lambda_a$), induced by the passage of a normally-incident beam of 660-Mev protons through the shield. The

Card 1/2 UDC: 539.172.12:539.17.015

SUB CODE: 18 SUBM DATE: 29May65/ ORIG REF: 008/ OTH REF: 011

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002

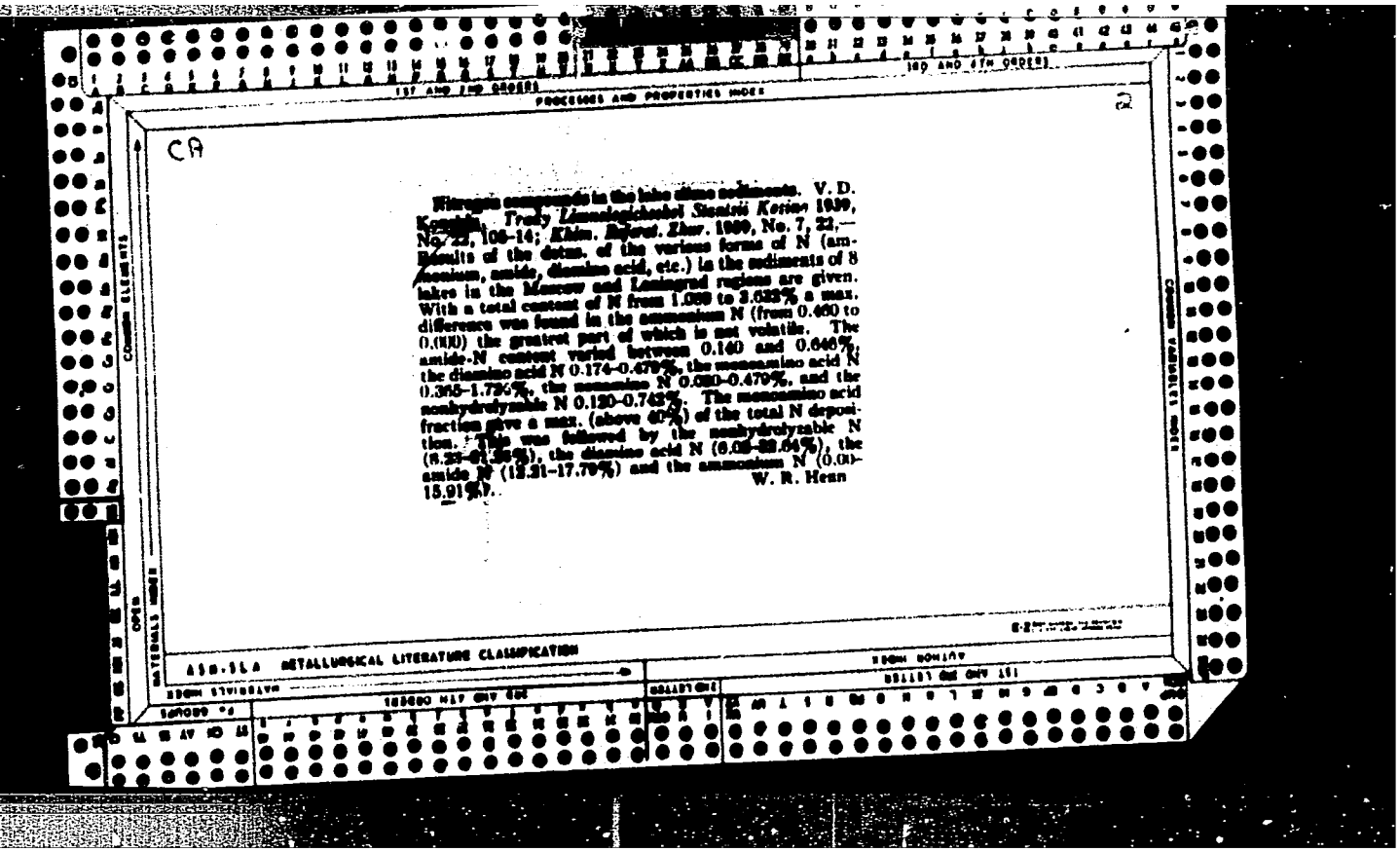
"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KON'SHIN, V.A.; MATUSEVICH, Ye.S.; REGUSHEVSKIY, V.I.

Cross sections of the fission of Ta^{181}, Re, Pt, Au^{197}, Pb, Bi^{209}, Th^{232}, U^{235}, and U^{238} by 150-660 Mev. protons. IAd. fiz. 2 no.4: 682-686 O '65. (MIRA 18:11)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0



CA

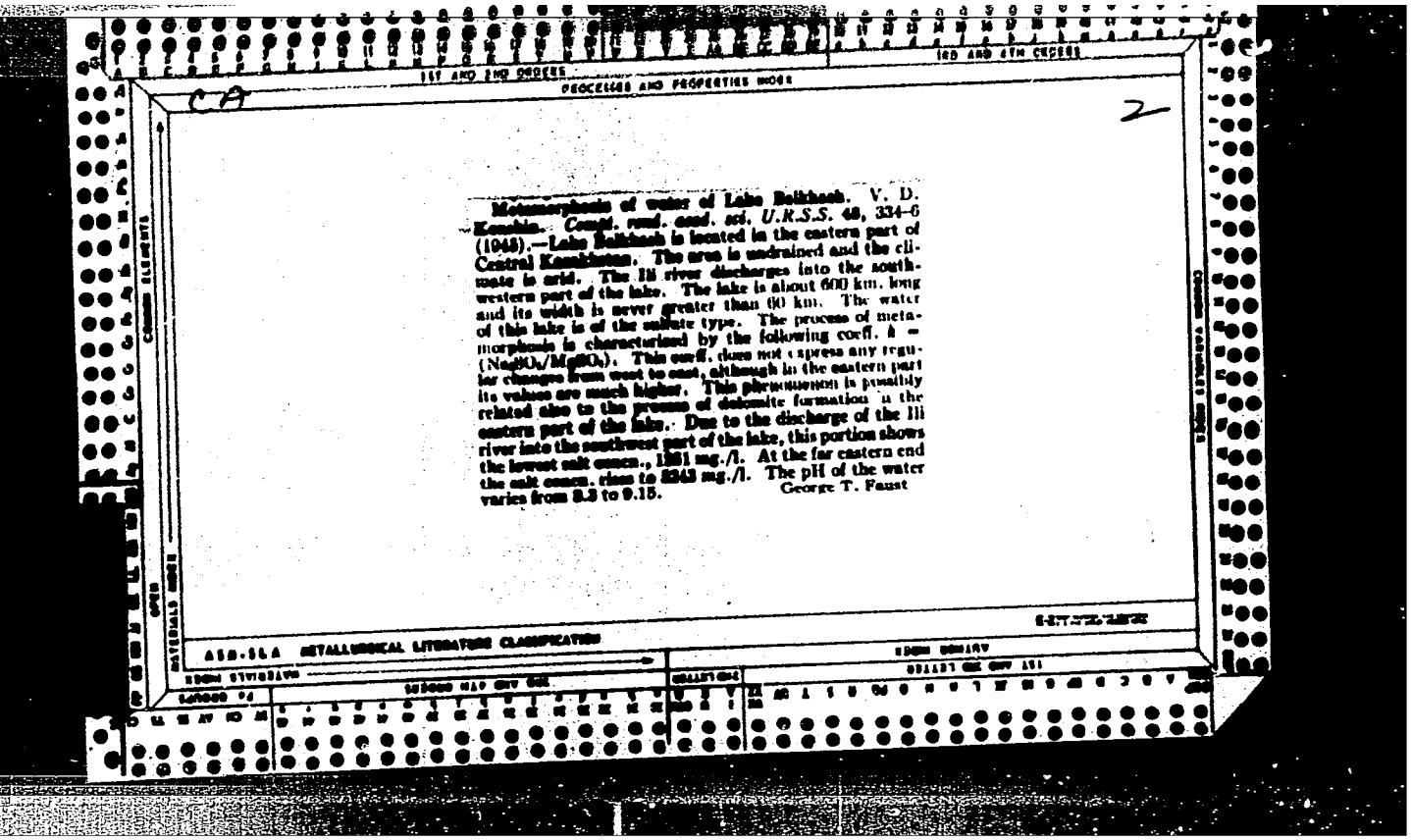
Nitrogen compounds in the lake slime sediments. V. D. Kopalin. *Trudy Limnologicheskoi Stantsii Kosine* 1939, No. 22, 105-14; *Khim. Referat. Zhur.* 1939, No. 7, 22.—Results of the detns. of the various forms of N (ammonium, amide, diamino acid, etc.) in the sediments of 8 lakes in the Moscow and Leningrad regions are given. With a total content of N from 1.080 to 3.633% a max. difference was found in the ammonium N (from 0.460 to 0.(HH)) the greatest part of which is not volatile. The amide-N content varied between 0.140 and 0.646%; the diamino acid N 0.174-0.479%, the monoamino acid N 0.365-1.726%, the ammonia N 0.080-0.470%, and the nonhydrolyzable N 0.120-0.743%. The monoamino acid fraction gave a max. (above 60%) of the total N deposition. This was followed by the nonhydrolyzable N (8.23-[illegible]%), the diamino acid N (6.08-28.64%), the amide N (12.21-17.79%) and the ammonium N (0.0)-15.91%).

W. R. Henn

A58-51A METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0



Metamorphosis of water of Lake Balkhash. V. D. Kondrin. Compt. rend. acad. sci. *U.R.S.S.* 48, 334–6 (1945).—Lake Balkhash is located in the eastern part of Central Kazakhstan. The area is undrained and the climate is arid. The Ili river discharges into the southwestern part of the lake. The lake is about 600 km. long and its width is never greater than 90 km. The water of this lake is of the sulfate type. The process of metamorphosis is characterized by the following coeff. $k = (Na_2SO_4)/(MgSO_4)$. This coeff. does not express any regular changes from west to east, although in the eastern part its values are much higher. This phenomenon is possibly related also to the presence of dolomite formation in the eastern part of the lake. Due to the discharge of the Ili river into the southwest part of the lake, this portion shows the lowest salt concn., 1351 mg./l. At the far eastern end the salt concn. rises to 2343 mg./l. The pH of the water varies from 8.3 to 9.15.

George T. Faust

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

[illegible], V. D. Cand. Geograph. Sci.

Dissertation: "Regime and Balance of Nitrogen in Lake Chernoye in Connection with General Hydrochemistry of Nitrogen in Lakes." Moscow Technical Inst. of Fish Industry and Economy imeni A. I. Mikoyan 28 Feb 47

SO: Vechernyaya Moskva, Feb, 1947

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, V. D.

"Chemostratification of Sapropelites of Some Lakes in the Middle Ural," Dok. AN, 58, No. 8, 1947

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, V.D.

Chemostratification of sapropels in lakes of the Central Urals.
Trudy Lab. sapr. otl. no.3:53-67 '49. (MLRA 10:8)
(Ural Mountain region--Sapropels)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, V. D.

PA 50/49T50

USSR/Hydrology Jun 49
Lakes

"Nitrogen Balance in the Black Lake, Kosin," V. D. Konshin, For Inst, Acad Sci USSR, 2 pp

"Dok Ak Nauk SSSR" Vol LXVI, No 5

Evaporation and a smaller flow in summer intensify accumulation; an increase, observed only in August, coincides with a period of intensive fluorescence. Submitted by Acad V. N. Sukachev, 12 Apr 49.

50/49T50

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, V. D.

Lakes - Borovoye Reservation

Comparative chemical characteristics of bottom deposits of some lakes of the "Borovoye" group in northern Kazakhstan, based on their light active components. Trudy Lab. sapr. otl., No. 5, 1951.

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHIN, V.D. (Moskva)

Fuel gas of Lake Kivu. Priroda 51 no.5:118-119 My '62.
(MIRA 15:5)

(Kivu, Lake--Methane)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

8 (3) SOV/112-57-5-10216

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1957, Nr 5, p 92 (USSR)

AUTHOR: Apanovich, G. G., Konshin, V. M.

TITLE: Device for Twisting Bus Conductors by 90° (Prisposobleniye dlya skruchivaniya shinnoy medi na 90°)

PERIODICAL: Inform.-tekhn. sb. M-vo elektrotekhn. prom-sti SSSR, 1955, Nr 82, pp 10-11

ABSTRACT: A drawing and description are supplied of a device for twisting bus conductors 90°, as used at Moskovskiy transformatornyy zavod (Moscow Transformer Plant). The manual device permits twisting buses sized 25 x 4.4 mm to 60 x 5 mm; the latter size requires preliminary heating. A detachable jaw and tap wrench assembly is provided for each size bus conductor.

I. Ya. B.

Card 1/1

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KOUSHIN, V.N.; [illegible]

Driving mechanism of a telescope for observations of the moon and planets. Izv.GAO no.4:158-161 '6[illegible]. (MIRA 14:10)
(Telescope)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

ACCESSION NR: AP3008536 S/2984/63/000/000/0013/0016

AUTHORS: Zhurkin, N. S.; Konshin, V. M.; Bruk, G. L.

TITLE: Control system for the 2.6 m telescope

SOURCE: Novaya tekhnika v astronomii; materialy* soveshch. Komissii priborostroyen. pri Astronom. sovete AN SSSR, Moskva, 18-20 apr. 1961 g. Moscow, Izd-vo AN SSSR, 1963, 13-16

TOPIC TAGS: control system, automatic control, telescope, EMU 12A motor, MI 32T motor

ABSTRACT: The basic problems of this system were worked out in 1959 at the Krymskaya astrofizicheskaya observatoriya AN SSSR (Crimean Astrophysical Observatory AN SSSR). The system involves the following devices: 1) a central panel for automatic and semiautomatic control, 2) a computer for refraction correction, coordinate computation, conversion of equatorial to altazimuth coordinates, and final determination of corrected position, 3) generator of stable frequency for controlling hour-angle rotation, 4) auxiliary panel for semiautomatic control of dome, and 5) auxiliary control apparatus for directing observer's platform. Movement of the telescope for automatic orientation is effected by means

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

L 14496-66 EWT(1) IJP(c) WW/GG
ACC NR: AP6004200 SOURCE CODE: UR/0069/66/028/001/0153/0155

AUTHORS: Bruns, S. A.; Klassen, V. I.; Kon'shina, A. K.

ORG: Mining Institute im. Skochinskiy, Moscow (Institut gornogo dela)

TITLE: Change of the extinction of light by water after subjecting the latter to the action of magnetic fields

SOURCE: Kolloidnyy zhurnal, v. 28, no. 1, 1966, 153-155

TOPIC TAGS: water, magnetic field, light absorption

ABSTRACT: The effect of alternating magnetic fields on the light transmittance of water was studied. Distilled water (specific conductance 2 x 10^{-6} mho) was passed through a glass tube 610 mm long and 6 mm in diameter. The flow rate of the water was 0.6 m/sec, and 9 electromagnets were arranged along the tube. The currents through the magnets were so arranged that adjacent magnets generated fields opposite to each other. These currents could be varied from 0—4.5 amp, permitting a variation of the magnetic field from 0—1500 oersteds. Ten minutes after the water was subjected to the magnetic field, its light transmittance was determined as a function of the magnetic field strength and wavelength of the incident light. The experimental results are presented graphically in Fig. 1. It was found that the magnetic field changed the light transmittance of water by 30% and that the change was a periodic function of the

UDC: 541.183.3

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

ACC NR: AR7000880 SOURCE CODE: UR/0058/66/000/009/E097/E097

AUTHOR: Kuznetsov, V. V.; Kon'shina, E. N.

TITLE: Diffusion of electrolytic hydrogen through iron of various structure

SOURCE: Ref. zh. Fizika, Abs. 9E776

REF SOURCE: Tr. Yestestvennonauchn. in-ta pri Permsk. un-te, v. 11, no. 3, 1965, 21-23

TOPIC TAGS: annealing, electrolytic heat treatment, gas diffusion, electrolysis, hydrogen diffusion, iron

ABSTRACT: The diffusion of an electrolytic H_2 through nonannealed and annealed Armco-Fe at 16—18C is studied. It is determined that if Fe polarization occurs in a solution of chemically pure I N H_2SO_4, the H_2 diffusion rate through the Fe membrane depends only very slightly on the grain size of the membrane material. Introduction of As_2O_3 (10 mg/l As) into the electrolyte increases the H_2 diffusion rate through the membrane of annealed Fe, almost 10 times as compared with the diffusion through a membrane of nonannealed coarse grained Fe. It is assumed

Card 1/2

ACC NR: AR7000880

that the presence of As in the electrolyte increases the contribution of the boundary diffusion of hydrogen. I. Marchukova. [Translation of abstract]

[GC]

SUB CODE: 11/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-

Card 2/2

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

L 01232-66 EPF(c)/EWP(z)/EWT(m)/EWP(i)/ETC/EWG(m)/EWP(b)/T/EWA(d)/EWP(t)
IJP(c) JD/JG

ACCESSION NR: AP5022148 UR/0364/65/001/009/1115/1118
541.13

AUTHOR: Kuznetsov, V. V.; Kon'shina, E. N.

TITLE: Diffusion of electrolytic hydrogen through bimetallic membranes

SOURCE: Elektrokhimiya, v. 1, no. 9, 1965, 1115-1118

TOPIC TAGS: hydrogen, electrochemical process, electrolytic cell, electrode, iron, gold, copper, silver, lead, cadmium, zinc

ABSTRACT: The purpose of this work was to investigate the kinetics of the diffusion of electrolytic hydrogen through iron membranes, coated either on the polarized side or on the diffusion side of the membrane with galvanic deposits of different metals. The experiments were conducted with 0.16 mm unfired Armco sheet iron. The deposits of copper, silver, zinc, cadmium and lead were made in the appropriate electrolytes. These galvanic deposits were made in a special cell and only on one side of the iron membrane. The diffusion of hydrogen through such membranes was investigated in an all-glass cell. The electrolyte was 1 N H_2SO_4, the anode was platinum and the apparent surface of the membrane cathode was 9 cm^2. The diffusion side of the membrane was in contact with distilled water, the volume of

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KUZNETSOV, V.V.; KARASIK, A.S.; KON'SHINA, E.N.

Kinetics of the deposition of arsenic on various metals from acid and alkaline solutions. Zhur. fiz. khim. 39 no. 1:21-25 Ja '65 (MIRA 18:1)

1. Permskiy gosudarstvennyy universitet imeni A.M. Gor'kogo. Submitted August 13, 1964.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

SHAPIRO, N.I.; KONSHINA, I.Z.

Comparative studies on preparations of diphtheria toxin and anatoxin. Vop. med. khim. 10 no.5:479-482 S-O '64. (MIRA 18:11)

1. Leningradskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KONSHINA, I.Z.

Production of a highly purified diphtheria anatoxin and its characteristics. Report No.1: Production of a highly-purified diphtherial anatoxin. Zhur.mikrobiol. epid. i immun. 32 no.4: 19-22 Ap '61. (MIRA 14:6)

1. Iz Leningradskogo instituta vaktsin i syvorotok.
(DIPHTHERIA) (TOXINS AND ANTITOXINS)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

SHAPIRO, N. I.; KONSHINA, I. Z.

Production of highly purified diphtheria antitoxin and its characteristics. Report No. 2: Electrophoretic and antigenic analysis of highly purified diphtheria antitoxin and intermediate fractions. Zhur. mikrobiol., epid. i immun. 32 no.8:24-27 Ag '61. (MIRA 15:7)

1. Iz Leningradskogo instituta vaktsin i syvorotok.

(DIPHTHERIA) (TOXINS AND ANTITOXINS)
(PAPER ELECTROPHORESIS)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

KON'SHINA, T.A.

Newly detected focus of tularemia in Sverdlovsk Province. Zhur. mikrobiol., epid.i immun. 33 no.4:68-70 Ap '62. (MIRA 15:10)

1. Iz Sverdlovskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.

(SVERDLOVSK PROVINCE--TULAREMIA)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

LASHKEVICH, A.M.; TERENT'YEVA, A.A.; IVANOVA, L.S.; BORODULINA, M.A.; VELICHENKO, I.N.; NIKULENKO, V.S.; KONSHINA, T.I.; SHAKHOVA, T.P.; NYASHINA, A.A.; YASINSKAYA, Z.A.; AGAL'TSEVA, N.B.; SEL'MENSKAYA, Ye.G.; KRETSMER, V.L.; KONONOVICH, L.K.; FEDORAYEVA, A.M.; TKACHUK, L.Ya.; VYATKINA, G.A.; SLOUSHCH, V.S.; RACHINSKAYA, L.N.; PORTNAYA, R.Yu.; KARAKOVSKAYA, E.M.; POKROVSKAYA, M.A.; KORNEVA, A.I.; YERSHOVA, K.F., otv. red.; Prinimal uchastiye KAMANOV, M.I., red.; LAGAREVA, A.P., otv. za vypusk; NIKITINA, I.P., tekhn. red.

[Economy of Novosibirsk Province; collection of statistics] Narodnoe khoziaistvo Novosibirskoi oblasti; statisticheskii sbornik. Novosibirsk, Gosstatizdat TsSU SSSR, 1961. 331 p. (MIRA 15:6)

1. Novosibirsk. Oblastnoye statisticheskoye upravleniye. 2. Nachal'nik Statisticheskogo Upravleniya Novosibirskoy oblasti (for Yershov). 3. Zamestitel' nachal'nika Statisticheskogo Upravleniya Novosibirskoy oblasti (for Kamanov).
(Novosibirsk Province—Economic conditions)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

MEL'KHEYEV, Matvey Nikolayevich; YEROFEYEV, I.A., red.; KONSHINA, V.A., red.; DRANNIKOVA, M.S., tekhn. red.

[Geographic names; toponimy dictionary; textbook for teachers] Geograficheskie imena; toponimicheskii slovar'. Posobie dlia uchitelei. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 99 p. (MIRA 15:2)
(Names, Geographical--Dictionaries)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

SAFIULLIN, Anvar Zakirovich; KONSHINA, V.A., red.; TYUTYUNNIK, S.G., red.kart; KREYS, I.G., tekhn.red.

[Studying one's native territory in the course on the economic geography of the U.S.S.R.; based on the example of Orenburg Province] Izuchenie svoei oblasti v kurse ekonomicheskoi geografii SSSR; na primere Orenburgskoi oblasti. Moskva, Uchpedgiz, 1963. 91 p. (MIRA 17:1)

1. Uchitel' geografii Asekeyevskoy sredney shkoly, Orenburgskoy oblasti (for Safiullin).

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

ORLOV, Vasiliy Ivanovich; KONSHINA, V.A., red.; PASHCHENKO, O.V., red.kart; SHVARTSBREYM, L.D., tekhn. red.

[Western Siberia; studies on nature and economy. Textbook for teachers] Zapadnaia Sibir' (ocherki o prirode i khoziaistve); posobie dlia uchitelia. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 190 p. (MIRA 15:4)
(Siberia, Western--Economic geography)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0

ALEKHIN, Vasiliy Vasil'yevich, prof.; GOVORUKHIN, Vasiliy Sergeyevich, prof.; KUDRYASHOV, Leonid Vasil'yevich; SHIBANOVA, A.A., red.; KONSHINA, V.A., red.; PODOL'SKAYA, M.Ya., red. kart; MAKHOVA, N.N., tekhn. red.

[Plant geography and the principles of botany] Geografiia rastenii s osnovami botaniki. Izd.2. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 531 p.
(MIRA 15:4)

(Phytogeography)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824410002-0"