VORONITSYN, K.I., kand. tekhn. nauk, red.; TIZENGAUZEN, P.E., kand. tekhn. nauk, red.; NADBAKH, M.P., red.; TANTSEV, A.A., starshiy nauchnyy sotr., red.; ABRAMOV, S.A., kand. tekhn. nauk, red.; ABRAMOV, D.A., red.; BOGDANOV, N.I., starshiy nauchnyy sotr., red.; VINOGOROV, G.K., kand. tekhn. nauk, red.; GAVRILOV, I.I., starshiy nauchnyy sotr., red.; GUSARCHUK, D.M., starshiy nauchnyy sotr., red.; D'YAKONOV, A.I., red.; ZAV'YALOV, M.A., kand. tekhn. nauk, red.; ZARETSKIY, M.S., starshiy nauchnyy sotr., red.; KACHELKIN, L.I., starshiy nauchnyy sotr., red.; KISHINSKIY, M.I., kand. tekhn. nauk, red.; KOLTUNOV, B.Ya., starshiy nauchnyy sotr., red.; OSIPOV, A.I., kand. tekhn. nauk, red.; SHINEV, I.S., kand. ekon. nauk, red.

[Materials of the enlarged session of the Scientific Council of the Central Scientific Research Institute for Mechanization and Power Engineering in Lumbering on problems concerning power engineering and the electrification of the lumber industry] Materialy rasshirennoi sessii Uchenogo soveta TsNIIME po voprosu energetiki i elektrifikatsii lesnoi promyshlennosti. Moskva, 1961. 75 p. (MIRA 15:4)

(Continued on next card)

VORONITSYN, K.I.---(continued) Card 2.

1.Khimki.TSentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i energetiki lesnoy promyshlennosti. 2. Nachal'nik TSentral'nogo byuro tekhnicheskoy informatsii lesnoy promyshlennosti (for Nadbakh). 3. Direktor TSentral'nogo nauchno-issledovatel'skogo instituta mekhanizatsii i energetiki lesnoy promyshlennosti (for Voronitsyn). 4. Uchenyy sovet TSentral'nogo nauchno-issledovatel'skogo instituta mekhanizatsii i energetiki lesnoy promyshlennosti (for D'yakonov). 5. Nachal'nik otdeleniya energetiki i sredstv avtomatizatsii TSentral'nogo nauchno-issledovatel'skogo instituta mekhanizatsii i energetiki lesnoy promyshlennosti (for Zaretskiy).
(Lumbering) (Electric power)

KROTOV, Vladimir Romanovich; TORGONSKIY, Mikhail Nikolayevich; GASTEV, B.G., doktor tekhn.nauk, prof., retsenzent; GAVRILOV, I.I., inzh., retsenzent; TOVSTOLUZHSKIY, N.I., red.; PITERMAN, Ye.L., red. izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Organization of the construction of logging roads] Organizatsiia stroitel'stva lesovoznykh dorog. Moskva, Goslesbumizdat, 1962. 262 p. (MIRA 16:6)

1. Zaveduyushchiy kafedroy sukhoputnogo transporta lesa L'vovskogo lesotekhnicheskogo instituta (for Gastev). 2. Nachal'nik mekhanizatsii stroitel'stva lesozagotovitel'nykh predpriyatiy Tsentral'nogo nauchno-issledovatel'skogo instituta mekhanizatsii i energetiki lesnoy promyshlennosti (for Gavrilov).
(Forest roads--Design and construction)

KOMISSAROVA, Valentina Aleksandrovna, kand. tekhn. nauk;
GAVRILOV, I.I., red.

[Methods for the cementation of soils during the laying of top dressing on logging roads; a concise manual] Metody tsementirovaniia gruntov pri ustroistve dorozhnykh odezhd na lesovoznykh dorogakh; kratkoe rukovodstvo. Moskva, Lesnaia promyshlennost', 1964. 31 p.
(MIRA 17:12)

KISHINSKIY, Mikhail Il'ich, kand. tekhn. nauk, dots.; YEFIFANOV, Boris Yefimovich, kand. tekhn. nauk, dots.; SMIRENNIKOV, Pavel Stepanovich, inzh.; STRASHINSKIY, B.A., inzh., retsenzent; NOVIKOV, G.G., prepodavatel', retsenzent; GAVRILOV, I.I., red.

[Use and repair of logging roads] Ekspluatatsiia i remont lesovoznykh dorog. Izd.2., perer. Moskva, Izd-vo "Lesnaia promyshlennost'," 1964. 40. p. (MIRA 17:7)

1. Alatyrskiy lesotekhnicheskiy tekhnikum (for Novikov).

BORISOV, L.V.; GAVRILOV, I.I.; FRANTOV, G.A.; SHATOV, I.V.; POLYANTSEV, V.A., otv. red.; MARKOV, L.I., red.

[Use of precast reinforced concrete in the construction of automobile roads for hauling lumber; materials for a conference] Primenenie sbornogo zhelezobetona na stroitel'stve avtomobil'nykh dorog dlia vyvozki lesa; materialy k soveshchaniiu. Moskva, TSentr. nauchno-issl. in-t mekhanizatsii i energetiki lesnoi promyshl., 1964. 71 p. (MIRA 18:5)

GAVRILOV, I. K. Doc Cand Tech Sci -- (diss) "~~The~~ Experimental study of strength of pasted bulkheads on vessels." Mos, 1957. 15 pp 20 cm. (Moscow Technical Inst of ~~Pisciculture~~ Fish Industry and ~~Fish~~ Economy Industry im A.I. Mikoyan), 150 copies

(KL, 21-57, 101)

GAVRILOV, I.K.

Large ovarian cyst. Akush. i gin. 35 no.1:114 Ja-F '59. (MIRA 12:2)

1. Iz Krinichanskoy rayonnoy bol'nitsy (glavnyy vrach V.V. Kubryak) Dnepropetrovskoy oblasti.
(OVARIES--TUMORS) (CYSTS)

L 11260-66 (A) EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(j)/T/EWP(k)/EWA(h)/ETC(m) EM/WW/RM

ACC NR: AP5028475 SOURCE CODE: UR/0286/65/000/020/0056/0057

44,55 44,55 44,55 44,55 44,55

INVENTOR: Gavrilov, I. K.; Filippov, D. A.; Strukov, V. M.; Blatov, V. S.; Shalimov, A. S.; Vul, N. I.; Ivanov, A. S.; Belyakov, V. V.; Frolov, R. A.; Khantsis, R. Z.; Andriyevskaya, G. D.; Zelenskiy, E. S.; Kuperman, A. M.; Dobrovol'skiy, A. K. Dzhereliyevskiy, A. B.

44,55 44,55 44,55 44,55

76 B

ORG: none

TITLE: Method of fabricating fiberglass shells. Class 32, No. 175624

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1065, 56-57

TOPIC TAGS: shell, cylindrical shell, fiberglass shell, shell fabrication, fiberglass winding, solid fuel rocket, rocket case

ABSTRACT: This Author Certificate introduces a method of fabricating shells from fiberglass wound on a pattern which is then melted out or dissolved. To increase the strength of the shell, the winding is combined with the stretching of fiber by means of a fiber guide which rotates around the pattern. [DV]

SUB CODE: 11,19 SUBM DATE: 02Jul64/ ATD PRESS: 4171

HW

Card 1/1

GAVRILOV, Ivan Maksimovich

The open-hearth process of steel production Moskva, Metallurgizdat, 1941. 375 p. (48-35890)

TN740.G3

GAVRILOV, I. I.

24102 GAVRILOV, I. I. Konveyerizatsiya chulochnogo proizvodstva. (po materialam NIITP i fabrik za 1945-1946 G.G.) Sbornik rabot Nauch.-issled. In-TA trikotazh. Prom-sti za 1946 G. [illegible]. - L., 1949, S. 57-74.

SO: Letopis, No. 32, 1949.

VOLOSATOV, Vladimir Yemel'yanovich; GAVRILOV, I.N., red.; SHVARTS, A.M., tekhn. red.

[They are building a future]Oni stroiat zavtrashnii den'. Riazan', Riazanskoe knizhnoe izd-vo, 1960. 31 p. (MIRA 15:12)

(Ryazan--Petroleum refineries)

GAVRILOV, I.N. (Chelyabinsk)

Calculations for statically indeterminate frames using a method of given moment curves. Stroi.mekh.i rashch.soor. 4 no.5:14-18 '62. (MIRA 15:11)

(Structural frames)

DEMKIN, Nikolay Nikolayevich; GAVRILOV, I.N., red.; AZOVKIN, N.G., tekhn.red.

[Proskov'ia Kovrova, a Russian peasant woman] Praskov'ia Kovrova - russkaia krest'ianka. Riazan', Riazanskoe knizhnoe izd-vo, 1959. 31 p. (MIRA 14:2)
(Kovrova, Praskov'ia Nikolaevna)

MITIN, Vasiliy Ivanovich; FULIN, Yuriy Vasil'yevich; GAVRILOV, I.N., red.; AZOVKIN, N.G., tekhn. red.

[Ryazan-Solotcha-Klepiki-Tuma; guidebook] Riazan'-Solotcha-Klepiki-Tuma; putevoditel'. Riazan', Riazanskoe knizhnoe izd-vo, 1960. 159 p. (MIRA 14:7)

(Meshchera--Guideboks)

VOLOSATOV, Vladimir Yemel'yanovich; GAVRILOV, I.N., red.;
AZOVKIN, N.G., tekhn. red.

[People aim at the peaks] Liudi idut k vysotam. Riazan',
Riazanskoe knizhnoe izd-vo, 1961. 37 p. (MIRA 16:9)
(Ryazan--Chemical industries)
(Ryazan--Construction workers--Education and training)

1. GAVRILOV, I. S.

2. USSR 600

4. Mustard

7. Mixed scwings of peas and white mustard, Dost. sel'khoz., No. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SHMELEV, N.A., professor; SHLYAKHMAN, A.L.; GAVRILOV, I.S.; GOLENITSKAYA, O.N.; MYASNIKOV, A.L., professor.

Extrapulmonary tuberculosis with hepato-lienal syndrome. Terap.arkh. 25 no.2:89-90 Mr-Ap '53. (MLRA 6:5)
(Liver--Tuberculosis) (Spleen--Tuberculosis)

POLTEV, Vasiliy Ivanovich, prof.; PEROV, Aleksandr Andreyevich; DANILEVSKAYA, O.N., red.; GAVRILOV, I.S., red.; SHERMUSHENKO, T.A., tekhn.red.

[High honey yields] Vysokie medosbory. Leningrad, Lenizdat, 1961. 60 p. (MIRA 14:6)

1. Predsedatel' sektsii pchelovodstva Leningradskogo otdeleniya Obshchestva okhrany prirody (for Perov).
(Bee culture)

GRIGOROVSKIY, Vasiliy Yefimovich, kand. ekonom. nauk; GAVRILOV, I.S., red.; PRESNOVA, V.A., tekhn. red.

[Program for the new expansion of agriculture] Programma novogo Pod"-ema sel'skogo khoziaistva. Leningrad, Lenizdat, 1961. 73 p. (MIRA 14:8)

(Agriculture)

TAIROV, Mikhail Alekseyevich; GAVRILOV, I.S., red.; PRESNOVA, V.A., tekhn. red.

[Ways for increasing the yield and reducing the cost of vegetables and potatoes] Puti povysheniia urozhainosti i snizheniia sebestoimosti ovoshchei i kartofelia. Leningrad, Lenizdat, 1961. 95 p. (MIRA 15:10)

1. Direktor tresta spetsializirovannykh sovkhozov Leningradskoy oblasti (for Tairov).
(Vegetable gardening) (Potatoes)

PETROVA, S.M., kand. sel'khoz. nauk; SOVETKINA, V.Ye., kand. sel'khoz. nauk; GAVRILOV, I.S., red.; PRESNOVA, V.A., tekhn. red.

[Concise manual for the foreman in vegetable-growing] Kratkii spravochnik brigadira-ovoshchevoda. Leningrad, Lenizdat, 1961. 178 p. (MIRA 15:3)

(Vegetable gardening)

TAIROV, Mikhail Alekseyevich; GAVRILOV, I.S., red.; LEVONEVSKAYA, L.G., tekhn. red.

[Row crop cultivation is the road to abundance] Propashnaia sistema - put' k izobiliiu. Leningrad, Lenizdat, 1962. 62 p. (MIRA 15:5)

1. Nachal'nik Leningradskogo oblastnogo upravleniya sovkhozov (for Tairov).

(Rotation of crops)

SERGEYEV, Stanislav Vasil'yevich, traktorist; GAVRILOV, I.S., red.; PRESNOVA, V.A., tekhn. red.

[For over-all mechanization]Za kompleksnuiu mekhanizatsiiu. Leningrad, Lenizdat, 1962. 21 p. (MIRA 16:2)

1. Sovkhoz "Pobeda" Lomonosovskogo rayona, delegat XXII s"ezda Kommunisticheskoy partii Sovetskogo Soyuza (for Sergeyev).
(Farm mechanization)

GAVRILOV, I.S.; PARKHOMENKO, V.S., red.; PRESNOVA, V.A., tekhn. red.

[Intensive feed lot and pasture fattening of livestock] Intensivnyi otkorm i nagul skota. Leningrad, Lenizdat, 1963. 69 p. (MIRA 16:7)

(Leningrad Province--Swine--Feeding and feeds)
(Leningrad Province--Beef cattle--Feeding and feeds)

VASIL'KOV, Boris Pavlovich, kand. biol. nauk; GAVRILOV, I.S., red.; PRESNOVA, V.A., tekhn. red.

[Edible and poisonous mushrooms] S"edobnye i iadovitye griby. Leningrad, Lenizdat, 1963. 44 p. (MIRA 16:9)
(Mushrooms)

DROZDOV, Ivan Petrovich; GAVRILOV, I.S., red.; PRESNOVA, V.A., tekhn. red.

[Growing peas for cattle feeding] Vyrashchivanie gorokha na korm skotu. Leningrad, Lenizdat, 1963. 39 p. (MIRA 16:10)

(Leningrad Province--Feeds) (Peas as feed)

KASPIROV, Anatoliy Ivanovich, doktor sel'khoz. nauk, prof.;
GAVRILOV, I.S., red.; SHERMUSHENKO, T.A., tekhn.red.

[Winter rye and wheat in the Northwest] Ozimye rozh' i pshenitsa na Severo-Zapade. Leningrad, Lenizdat, 1963. 130 p. (MIRA 17:2)

DROZDOV, I.P.; GAVRILOV, I.S.; DMITRIYEV, N.N., red.

[Each farm should be provided with a cultivated pasture] Kazhdomu khoziaistvu kul'turnoe pastbishche. Leningrad, Lenizdat, 1965. 114 p. (MIRA 18:10)

GAVRILOV, I.S.; ZOTOVA, A.P., red.

[Home processing of vegetables, fruits, and berries] Pererabotka ovoshchei, plodov i iagod v domashnikh usloviiakh. Leningrad, Lenizdat, 1965. 158 p. (MIRA 18:12

L 62709-65 EPF(c)/EPA(s)-2/EWA(h)/EWP(j)/EWP(k)/EWT(d)/EWT(l)/EWT(m)/EWP(h)/T/EWP(l)/EWA(d)/EWP(w)/EWP(v) Pc-4/Pf-4/Pr-4/Ps-4/Pt-7/Peb EM/RM/WW/JD

ACCESSION NR: AP5019030 UR/0286/65/000/012/0065/0066

666.189 22.002.5

AUTHOR: Gavrilov, I. K.; Filippov, D. A.; Strukov, V. M.; Blatov, V. S.; Shalimov, A. S.; Vul, N. I.; Ivanov, A. M.; Belyakov, V. V.; Frolov, R. A.; Khantsis, R. Z.; Andriyevskaya, G. D.; Zelenskiy, E. S.; Kuperman, A. M.; Dobrovol'skiy, A. K.; Dzhereliyevskiy, R. B.

TITLE: Winding machine. Class 32, No. 172009

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 65-66

TOPIC TAGS: glass reinforced plastic, plastic filament, fiber glass, filament winding, winding machine, filament wound article

ABSTRACT: This Author Certificate introduces a machine for fabrication of glass-reinforced plastic articles by filament winding. The machine includes a drive with a reductor and a mandrel mounted on a rotating shaft. To fabricate spherical shapes the machine is equipped with profiled guides transmitting to the mandrel a tilting motion around the vertical axis simultaneously with a rotation around the axis (see Fig. 1 of the Enclosure). Orig. art. has: 1 figure. [ND]

Card 1/2

L 62709-65

ACCESSION NR: AP5019030

4

ASSOCIATION: Organizatsiya gosudarstvennogo komiteta po aviatsionnoy tekhnike SSSR (Organization of the State Committee on Aviation Engineering, SSSR) 44,55

15

SUBMITTED: 19May64 ENCL: 01 SUB CODE: MT, IE

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4064

Card 2/3

L 62709-65
ACCESSION NR: AP5019030

ENCLOSURE: 01

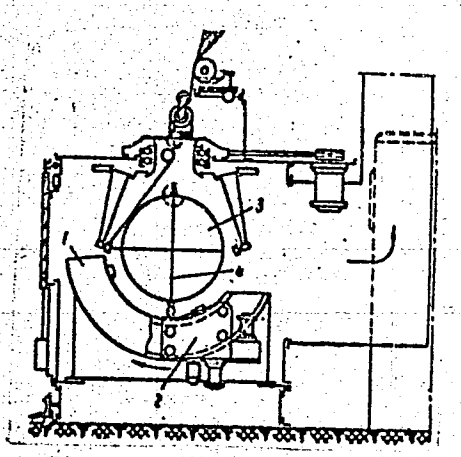

Fig. 1. Winding machine

1 - Shaped guide; 2 - reductor;
3 - mandrel; 4 - shaft.

Card 3/3

SOBOL', S.I.; NELEN', I.M.; SPIRIDONOVA, V.I.; BERLIN, Z.L; GORYACHKIN, V.I.; TARAKANOV, B.M.; SHKURSKIY, V.D.; Prinimali uchastiye: FREYMAN, A.K., inzh.; BRUK, B.M., inzh.; CHEBOTKEVICH, G.V., inzh.; OSPIN, V.G., inzh.; ALEKSANDROVA, N.N., laborant; SALTYKOV, I.B., laborant; TELKOVA, Ye.I., laborantka; TEPLYAKOV, Yu.M., laborant; GAVRILENKO, A.P., slesar'; KURGUZOV, A.S., elektrik; GAVRILOV, I.T., elektrik

Pilot-plant testing of the State Institute of Nonferrous Metals flow sheet for the autoclave retreatment of copper-molybdenum intermediate products. Sbor. nauch. trud. Gintsvetmeta no.19:319-339 '62. (MIRA 16:7)

(Nonferrous metals--Metallurgy)
(Leaching)

GOLYARKIN, F.Ye., kand. sel'skokhoz. nauk; YEMELINA, N.T., PETUKHOVA, Ye.A.; KHALENEVA, L.D.; GAVRILOV, I.V.; POPOV, B.V.

Pay more attention to the quality of stocked feeds. Veterinariia 41 no.7:4-7 Jl '64. (MIRA 18:11)

1. Moskovskaya veterinarnaya akademiya (for Yemelina, Petukhova, Khaleneva). 2. Vneshtatnyy korrespondent zhurnala "Veterinariya" Vladimirskaya oblast' (for Gavrilov). 3. Nachal'nik veterinarnogo otdela Stavropol'skogo krayevogo upravleniya proizvodstva i zagotovok sel'skokhozyaystvennykh produktov (for Popov).

L 3422-66 EWT(1) GS/GW

ACCESSION NR: AT5023743 UR/0000/65/000/000/0040/0049

AUTHOR: Gavrilov, I. V.; Duma, A. S.; Kislyuk, V. S.; Kur'yanova, A. N.

TITLE: Selenocentric coordinates of 160 base points on the lunar surface

SOURCE: AN UkrSSR. Figura i dvizheniye Luny (Shape and motion of the Moon). Kiev, Naukova dumka, 1965, 40-49

TOPIC TAGS: lunar surface, moon, selenography

ABSTRACT: Measurements of the space coordinates of craters contained in the Schrutka-Rechtenstamm catalog (Schrutka-Rechtenstamm, G., Mitteilungen der Universitatssternwarte, Wien, 1958, 9, 17, 251-303) were made at the GAO AN Ukr. SSR. The results, together with the data of Schrutka-Rechtenstamm and R. B. Baldwin (Baldwin, R. B., The Measure of the Moon. University of Chicago Press, Chicago, 1963), served as the basis for the cumulative catalog of space coordinates of 160 base points presented in the article. Initial results of a solution of a concrete selenodesic problem are presented, and their accuracy is discussed. Calculations show that the center of mass of the moon is located somewhat to the northeast of the accepted center of its figure. "In conclusion, the authors thank N. A. Vasilenko and calculators L. N. Zimina and S. A. Zaslavskaya

Card 1/2

L 3422-66

ACCESSION NR: AT5023743

for assistance in the computations." Orig. art. has: 4 figures, 4 tables, and 5 formulas.

ASSOCIATION: None

SUBMITTED: 12May65 ENCL: 00 SUB CODE: AA

NO REF SOV: 001 OTHER: 003

Card 2/2

GAVRILOV, I.V.

Observations of comet 1954 Vozrova at the Main Astronomical Observatory of the Academy of Sciences of the Ukrainian S.S.R. Astron.tsir. no.153:3 O '54. (MLRA 8:5)

1. Glavnaya astronomicheskaya observatoriya AN USSR (Kiyev, Goloseyevo).
(Comets--1954)

GAVRILOV, I.V.

Observations of details of the moon's surface at the Main Astronomical Observatory of the Academy of Sciences of the Ukrainian S.S.R. Astron.tsir. no.153:18-19 O '54.(MLRA 8:5)

1. Nauchnyy sotrudnik Glavnoy astronomicheskoy observatorii Akademii nauk USSR (Kiyev)
(Moon)

GAVRILOV,I.V.; ZHDANOVA,I.G.; ONEGINA,A.B.; SVYATOKHA,A.P.

Precise positions of minor planets Ceres, Hebe, Laetitia, and Nemausa. Astron.tsir. no.158:3-5 Ap '55. (MLRA 8:9)
(Planets, Minor)

YAKOVKIN, A.A.; GAVRILOV, I.V.

Automatic adapter for photographing the moon and methods for processing lunar photographs. Izv.Glav.astron.obser. 1 no.2:20-24 '56. (MLRA 9:8)

(Astronomical photography) (Moon--Photographs, maps, etc.)

GAVRILOV, I.V.

Relation of the moon's radius and the density of negatives in case of photographic observations. Astron. tsirk. no.175:8-10 D '56.
(MIRA 10:5)

1. Glavnaya astronomicheskaya observatoriya AN URSR, Goloseyevo.
(Moon--Observations) (Astronomical photography)

GAVRILOV, I.V.; KOLCHINSKIY, I.G.; OMEGINA, A.B.

Preliminary results of processing photographs of galaxies made for compiling a catalog of faint stars. Izv. Glav. astron. obser. AN URSR 2 no.1:73-91 '57. (MIRA 11:2)
(Stars--Photographic measurements)

GAVRILOV, I. V. and I. G. KOLCHINSKIY

"Computing Corrections of the Moon's Coordinates from Observations of the Eclipse of June 20, 1954 at the Main Astronomic Observatory of AS UkrSSR"

(Total Eclipse of the Sun, February 25, 1952 and June 30, 1954, Transactions of the Expedition to Observe Solar Eclipses) Moscow, Izd-vo AN SSSR, 1958. 357 p.

69365

3.1510

SOV/35-59-10-7855

Translation from: Referativnyy zhurnal. Astronomiya i Geodeziya, 1959, Nr 10, p 24 (USSR)

AUTHORS: Gavrilov, I.V., Kolchinskiy, I.G.

TITLE: Determinations of the Corrections of Coordinates of the Moon Through Observation of the Solar Eclipse Which Took Place on June 30, 1954, and which was Observed by the Main Astronomical Observatory of AS UkrSSR

PERIODICAL: V sb.: Polnyye solnechn. zatmeniya 25 Febr. 1952, i 30 June 1954. Moscow, AS USSR, 1958, pp 324-328

ABSTRACT: Observations of partial phases were carried out with the astrograph of the MAO AS UkrSSR (D = 400 mm, F = 5,500 mm) near Kiyev. The southern boundary of the total phase passed near the Observatory. Observations were carried out when the sky was not quite clear. Altogether, 36 photographs of partial phases were obtained, but it has only been possible to process 18. The measurement of the plates and their processing was carried out according to the method described in the A.A. Mikhaylov handbook "Theory of Eclipses".

Card 1/2 The coordinates of the Sun and Moon were taken from the Astronomical Annual

69365

SOV/35-59-10-7855

Determinations of the Corrections of Coordinates of the Moon Through Observation of the Solar Eclipse Which Took Place on June 30, 1954, and which was Observed by the Main Astronomical Observatory of AS UkrSSR

USSR, without any corrections. The following corrections for the coordinates of the Moon were found: $\Delta\alpha$ = -0".68±0".41; $\Delta\delta$ = +0".28±0".12.

S.G.M.

Card 2/2

GAVRILOV, I.V.

Libration effects in the radius and the position of the moon's center. Astron.tsir. no.192:18-20 My '58. (MIRA 11:10)

1.Glavnaya astronomicheskaya (Pulkovskaya) observatoriya AN USSR, Goloseyevo.

(Moon—Libration)

SOV/35-59-9-6977

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, Nr 9, p 15 (USSR)

AUTHOR: Gavrilov, I.V.

TITLE: The Exact Positions of the Minor Planet Laetitia (39) Obtained Through Observations at the MAO AS UkrSSR

PERIODICAL: Astron. tsirkulyar, 1958, July 3, Nr 193, pp 14 - 15

ABSTRACT: Sixteen exact positions of the minor planet Laetitia are cited. They were determined from the plates obtained during July, 1954 - April, 1957, by a 400-mm astrograph (F = 5.5 m). The probable error in the position of the planet, on the average, amounts to ± 0".12 in both coordinates.

Main Geophys Observatory AS Ukr SSR (Bulkova)

Card 1/1

GAVRILOV, I.V. (Kiyev, Goloseyevo)

Observations of lunar occultations of stars at the Main Astronomical Observatory of the Academy of Sciences of the Ukrainian S.S.R. in Goloseevo. Astron. tsir. no.199:28-29 Ja '59.
(MIRA 13:2)

(Occultations)

GAVRILOV, I.V. (Kiyev, Goloseyevo).

Barycentric large relief near the edge of the moon. (MIRA 13:6)
Astron.tsir. no.206:5-6 D '59.
(Moon--Surface)

8484B

S/035/60/000/008/001/007
A001/A001

3,2300 (1080)
3,1550 (1057, 1129)

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1960, No. 8, p. 22, # 7408

AUTHOR: Gavrilov, I. V.

TITLE: Baricentric Large-Scale Relief of the Lunar Edge Zone

PERIODICAL: Astron. tsirkulyar, 1959, dek. 12, No. 206, pp. 5-6

TEXT: The author gives the name of large-scale relief of the lunar edge zone to the absolute baricentric heights of various parts of the most probable circles from which the small-scale relief is calculated. The determination of the large-scale relief has been carried out on the basis of data obtained during an investigation of the Moon by the photographic method (RZhAstr, 1959, No. 4, 2637). The following formula was used for the calculations of the large-scale relief:

$$\Delta H = \Delta r + b\beta_0 \pm 6\sin(\Pi \mp \alpha),$$

where ΔH is the height of a given point of the most probable circle over the baricentric circle with the radius equal to the Moon ephemeris radius (15'32",58);

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84843

S/035/60/000/008/001/007
A001/A001

Baricentric Large-Scale Relief of the Lunar Edge Zone

$\Delta r + b\beta_0$ is the correction to the Moon ephemeris radius and the libration effect in it; δ is the distance between the center of mass and the center of the Moon figure; α is the angle between the line δ and the axis η; Π is the position angle of an edge point counted from the lunar north pole. The calculation results are presented in a table where ΔH is given in units 0".1 as functions of the arguments Π and β (libration in latitude).

L. S. Nagornova

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

[redacted], I.V., Cand Phys-Math Sci-(diss) "Investigation of the shape of the lunar regional zone," Leningrad, 1960, 10 pp (Main Astronomical Observatory, AS USSR) (KL, 36-60, 113)

GAVRILOV, I.V.

PHASE I BOOK EXPLOITATION SOV/5721

Vsesoyuznaya astrometricheskaya konferentsiya.

Trudy 14-y Astrometricheskoy konferentsii SSSR, Kiyev, 27-30 maya 1958 g. (Transactions of the 14th Astrometrical Conference of the USSR, Held in Kiyev 27-30 May 1958) Moscow, Izd-vo AN SSSR, 1960. 440 p. Errata slip inserted. 1000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Glavnaya astronomicheskaya observatoriya (Pulkovo).

Resp. Ed.: M. S. Zverev, Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: N. K. Zaychik; Tech. Ed.: R. A. Zamarayeva.

PURPOSE: The book is intended for astronomers and astrophysicists, particularly those interested in astrometrical research.

COVERAGE: This publication presents the Transactions of the 14th Astrometrical Conference of the USSR, held in Kiyev 27-30 May 1958. It includes 27 reports and 55 scientific papers presented at the plenary meeting of the Conference

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Transactions of the 14th Astrometrical (Cont.) SOV/5721

and at the special sectional meetings. An appendix contains the resolutions adopted by the Conference, the composition of the committees, the agenda, and the list of participants at the Conference. A brief summary in English is given at the end of each article. References follow individual articles. The Presidium of the Astrometrical Committee (Chairman M. S. Zverev), which supervised the preparation of this publication, expresses thanks to the members of the secretariat: V. M. Vasil'yev, I. G. Kol'chinskiy, A. B. Onegina, and Kh. I. Potter.

TABLE OF CONTENTS:

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GAVRILOV, I.V.

Photographic lunar observations for geophysical purposes. Mezhdunar. geofiz. god [Kiev] no.2:79-83 '60. (MIRA 14:1)

1. Chief Astronomical Observatory of the Academy of Sciences of the Ukrainian S.S.R.
(Moon—Observations) (Astronomical photography)

L0447
S/035/62/000/009/004/060
A001/A101

3,2500

AUTHOR: Gavrilov, I. V.

TITLE: The baricentric large-scale relief of the lunar limb zone
("Barycentric large relief of the moon's border area")

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 9, 1962, 14, abstract 9A125 ("Izv. Gl. astron. observ. AN USSR", 1961, v. 3, no. 2, 68 - 76)

TEXT: The maps by A. A. Nefed'yev compiled in 1958 are the first attempt to construct the relief maps of the lunar limb zone, containing the heights of points over the baricentric sphere. The remaining existent maps and atlas of the limb zone relief (Hayn and Weimer) have a drawback that their heights of points referred to the most probable circles for particular librations, although it is known that neither coordinates of the centers nor radii of these circles are constant quantities. In order to reduce the heights taken from these maps to baricentric values, corrections ΔH_o should be added which are equal to the heights of the points of the most probable circles (for different librations and position angles) over the baricentric sphere. On the basis of photographic observations of the Moon at the GAO, AS UkrSSR, the values of ΔH_o are derived for librations in latitude from -7^o to $+7^o$ and for

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The baricentric large-scale relief of the...

all position angles (from 0 to 360° with intervals of 15°). The extremal values of ΔH_o attain -1".1 and +0".9.

Kh. Potter

[Abstracter's note: Complete translation]

Card 2/2

GAVRILOV, Igor' Vladimirovich[Havrylov, I.]; KILYEROG, N.M. [Kilieroh, N.M.], red.; DAKHNO, Yu.M., tekhn. red.

[Moon is in the objective] V ob'iektyvi - misiats'. Kyiv, Vyd-vo Akad. nauk URSR, 1962; 39 p. (MIRA 15:7)
(Moon--Surface)

GAVRILOV, I.V.; MAYOR, S.P.; MIZ', L.N.

Methods for and results of processing photographic observations of the moon. Izv. Glav. astron. obser. AN URSR 4 no.2:46-56 '62.
(MIRA 15:11)

(Astronomical photography)
(Moon—Photographs, maps, etc.)

L 43544-65 EWG(v)/EWT(1) Pe-5/Po-4/Pq-4/Pac-4/Pae-2 GW/GS

ACCESSION NR: AT5009185 UR/0000/63/000/000/0397/0400

AUTHOR: Gavrilov, I.V.; Mayor, S.P.; Miz', L.N. 36 B+1

TITLE: Determination of ephemeris time from lunar photographic observations

SOURCE: Astrometricheskaya konferentsiya SSSR. 15th, Pulkovo, 1960. Trudy. Moscow, Izd-vo AN SSSR, 1963, 397-400

TOPIC TAGS: moon, astrometry, ephemeris time, lunar ephemeris, lunar coordinate, lunar figure, lunar center of mass

ABSTRACT: Experimental observations of the moon by the Markowitz method were begun in 1957 at the Glavnaya astronomicheskaya observatoriya Akademii nauk UkrSSR (Main Astronomical Observatory of the Academy of Sciences, Ukrainian SSR) using a new 400-mm astrograph (F=6,300 mm). This article presents the results of an analysis of plates obtained in 1958-1959. The observation method and the apparatus used have been described earlier (I.V. Gavrilov, Tr. 14-y Astrometr. Konf. SSSR, 1960). The method used for processing is described in this paper. The equatorial coordinates derived from processing of a pair of plates were obtained in the coordinate system 1950.0 (Yale catalogues system) and represent lunar topographic positions. For comparison with the ephemeris they should be reduced to the equinoctial moment of observation and the

Card 1/4

ACCESSION NR: AT5009185

influence of parallax should be taken into account. The coordinates reduced in this way can then be compared with the lunar ephemeris in the Astronomicheskiy yezhegodnik (Astronomical almanac). Table 1 in the text presents the results of the comparison. Lunar coordinates derived from measurements of the lunar limb represent the coordinates of the center of the figure of the lunar disk; as a result of asymmetry of the figure they do not coincide with the projection of the center of mass of the moon. Before using these coordinates for determining ephemeris time it is therefore necessary to correct them for noncoincidence of the center of the lunar figure and the lunar center of mass. This was done using a previously described method (I.V. Gavrilov, Izv. GAO AN UkrSSR, 3, No. 2, 1961). The corrections which must be applied to the previously determined coordinates of the center of the lunar figure in order to transform them to the coordinates of its center of mass were computed using the formulas:

$$\left.\begin{aligned}\Delta x &= -(\xi\cos C - \eta\sin C),\\ \Delta y &= -(\xi\sin C + \eta\cos C).\end{aligned}\right\}\ \ldots$$

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ACCESSION NR: AT5009185

Here C is the position angle of the lunar axis; ξ and η are the coordinates of the center of the lunar figure relative to its center of mass, determined using the formulas:

$$\left.\begin{aligned}\xi &= -0''.27 - 0''.025\beta_0\\ \eta &= +0''.21 + 0''.021\beta_0\end{aligned}\right\} \quad \text{for the western limb}$$

$$\left.\begin{aligned}\xi &= -0''.54 + 0''.003\beta_0\\ \eta &= -0''.06 + 0''.006\beta_0\end{aligned}\right\} \quad \text{for the eastern limb}$$

where β_0 is lunar libration in latitude. The results of reduction of the observed coordinates of the center of the lunar figure to its center of mass are also given in Table 1 of the text. After having the observed geocentric coordinates of the moon and its ephemeris, whose argument is ephemeris time, it is easy to use inverse interpolation to determine the moments of ephemeris time corresponding to the determined position of the moon. The corrections of lunar coordinates and the differences between ephemeris and Universal Time were found; the mean values are: $\Delta T\ (1958.53) = +31^s.62$ and $\Delta T\ (1959.44) = +30^s.85$. Orig. art. has: 2 formulas and 2 tables.

Card 3/4 Submitted 06Apr63

ACCESSION NR: AT4043450 S/0000/64/000/000/0031/0042

AUTHOR: Gavrilov, I. V., Kur'yanova, A. N.

TITLE: Investigation of the figure of the lunar disk

SOURCE: AN UkrSSR. Glavnaya astronomicheskaya observatoriya. Voprosy* astrometrii (Problems in astrometry). Kiev, Izd-vo Naukova dumka, 1964, 31-42

TOPIC TAGS: moon, lunar disk, lunar figure, lunar libration

ABSTRACT: Depending on the method used, certain investigators have concluded that the limb of the lunar disk at different librations is described well by a circle of a single radius; others believe that the circles at different librations have different radii and their centers do not coincide; still others feel that the limb of the lunar disk cannot be described by a circle and other curves must be found. The authors report an investigation using photographic observations of the moon made with an astrograph (D = 400 mm, F = 5,500 mm) having an automatically moving cassette. Five photographs (Nos. 308, 329, 354, 355 and 356) were used. The eastern and western limbs respectively, were illuminated on photographs 308 and 329. Photographs 354-356 were obtained immediately before a partial lunar eclipse. Radius vectors and position angles of points on the limb of the lunar disk were measured relative to a central mark. In addition, on plates 308 and 329, the rectangular

Card 1/5

coordinates of five craters were measured. The measured radius vectors and crater coordinates were corrected for instrument errors and the measurements were freed of the influence of differential refraction. On plates 354, 355 and 356, obtained near the time of the full moon, the measurements were made along the entire limb of the lunar disk (120 points). The measured radius vectors were reduced to find the most probable circle best coinciding with the measured points on the limb. Five series of irregularities of the lunar limb were obtained. The constructed profiles were compared with corresponding profiles from the Weimer Atlas, as shown in Figures 1 and 2 of the Enclosure; the agreement is considered quite good. Curves were also constructed using these data, but they failed to demonstrate convincingly the absence of ellipticity of the limb. The authors therefore computed the parameters of the most probable ellipse best coinciding with the points of the limb. This approach failed to demonstrate reliably that the lunar disk is elliptical. Application of Whittaker's method for smoothing irregularities of the limb revealed that representation of the figure of the disk by the most probable ellipse is formal and completely inadequate. The conclusion is drawn that elevations along the limb should be referred to a circle whose center coincides with the projection of the lunar center of mass. Orig. art. has: 8 formulas, 8 figures and 2 tables.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000514430003-1"

ACCESSION NR: AT4043450

ASSOCIATION: Glavnaya astronomicheskaya observatoriya AN UkrSSR (Main Astronomical Observatory, AN UkrSSR)

SUBMITTED: 11Mar64 ENCL: 02

SUB CODE: AA NO REF SOV: 006 OTHER: 004

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ENCLOSURE: 01

ACCESSION NR: AT4043450

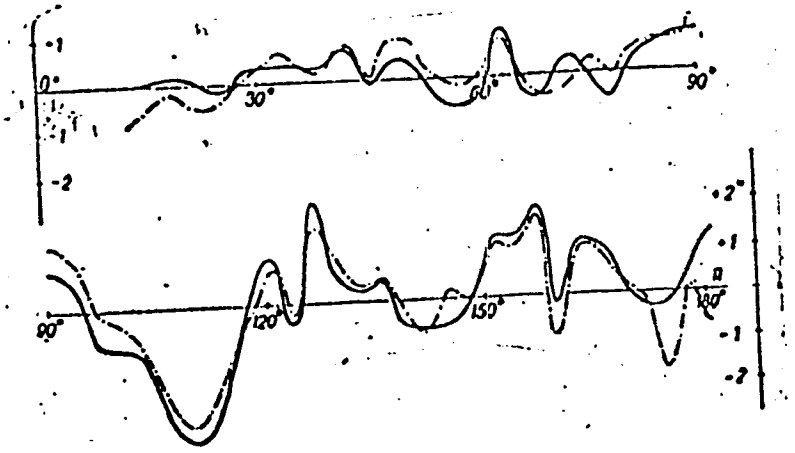

Fig. 1. Plate 308 -.- Goloseyevo; — Weimer

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ACCESSION NR: AT4043450

ENCLOSURE: 02

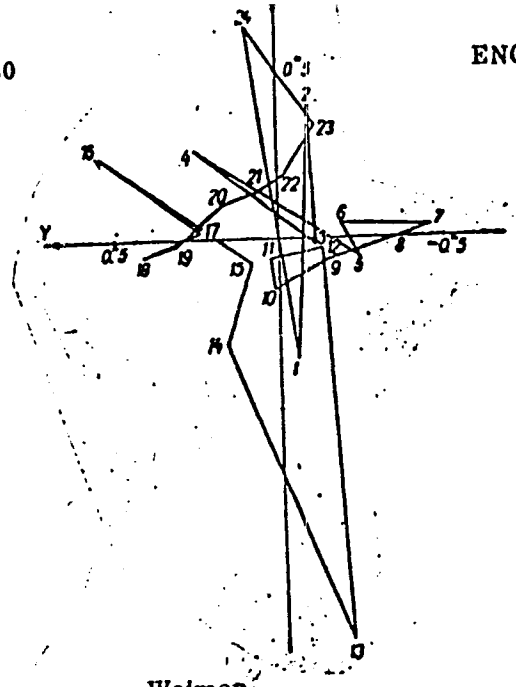

Fig. 1. Plate 355 -.- Goloseyevo; — Weimer.

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L 3423-66 EWT(1) GS/GW

ACCESSION NR: AT5023744 UR/0000/65/000/000/0061/0079 15 B+1

AUTHOR: Gavrilov, I. V. 55

TITLE: Lunar polygonometry technique 12 55

SOURCE: AN UkrSSR. Figura i dvizheniye Luny (Shape and motion of the Moon). Kiev, Naukova dumka, 1965, 61-79

TOPIC TAGS: polygonometry, lunar surface, astrometry, selenography

ABSTRACT: In solving selenodesic problems connected with the plotting of a grid of base points from measurements of lunar photographs, use may be made of not only photogrammetric methods, but also techniques of photographic astrometry, which were favored by the author because only a relatively small number of fundamental points determining the position of the coordinate planes are involved. The proposed lunar polygonometry technique involves primarily the use of methods based on relationships of analytic geometry, which makes it easy to treat with modern computing techniques. Convenient schemes for reducing the measurements, determining the space coordinates, and compiling and improving the catalogs of position points are presented. The method is also applicable to photographic

Card 1/2

L 3423-66

ACCESSION NR: AT5023744

observations made from automatic interplanetary probes. Orig. art. has: 1 figure and 31 formulas.

ASSOCIATION: None

SUBMITTED: 12May65 ENCL: 00 SUB CODE: AA, DP, ES

NO REF SOV: 003 OTHER: 007

Card 2/2 Mcd

ACC NR: AP6021792 (A, N) SOURCE CODE: UR/0413/66/000/012/0057/0057

INVENTORS: Gavrilov, I. V.; Sviridenko, N. N.; Trubetskov, L. V.

ORG: none

TITLE: A device for the grid protection of an ion converter. Class 21, No. 182793

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 57

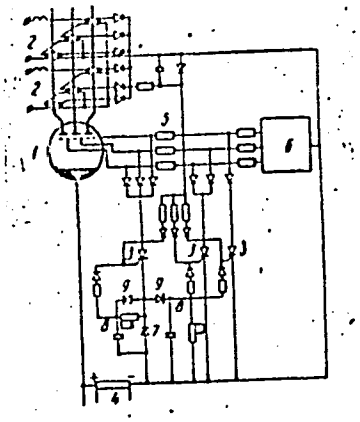
TOPIC TAGS: ionization detector, electron tube grid, electronic circuit

ABSTRACT: This Author Certificate presents a device for the grid protection of an ion converter with automatic repetitive triggering. The device contains thyristors and includes sensing elements of the arcing back- and overload-sensing gauges using magnetic elements. The design increases the reliability and response time of the device. Of its three thyristors, one is connected through separating diodes between the converter grids and the negative terminal of the bias voltage source (see Fig. 1). Two other thyristors are connected by anodes to the converter grids through separating diodes and grid resistances. These two thyristors are connected by the cathodes to the zero output of the grid control system. A stabilitron tube is included in the cathode circuit of the first thyristor. Two delay elements (RC circuits) are connected between the anode and cathode of the stabilitron tube. The effective resistances of the RC circuits are regulated and are shunted by diodes. The diodes are connected by the anodes to the cathodes of the stabilitron tube and the thyristors. These diodes

Card 1/2 UDC: 621.316.9:621.314.58

ACC NR: AP6021792

Fig. 1. 1 - ion converter; 2 - sensing element; 3 - thyristors; 4 - bias voltage source; 5 - grid resistances; 6 - grid control system; 7 - stabilitron tube; 8 - delay elements; 9 - diodes



are connected by cathodes to the common points of the capacitors and resistances of the RC circuits. The control electrode of the first thyristor is connected through a diode and resistance to the common point of one RC circuit. The control electrodes of the other two thyristors are connected to the common point of the other circuits. Orig. art. has: 1 figure.

SUB CODE: 09, 14/ SUBM DATE: 28Apr65

Card 2/2

ACC NR: AR6028775 SOURCE CODE: UR/0269/66/000/006/0072/0072

AUTHOR: Gavrilov, I. V.

TITLE: Improving the system of selenocentric position fixing of lunar surface details

SOURCE: Ref. zh. Astronomiya, Abs. 6.51.551

REF SOURCE: Tr. 16-y Astrometr. konferentsii SSSR, 1963. M.-L., Nauka, 1965, 114-118

TOPIC TAGS: lunar photography, lunar topography, position fixing

ABSTRACT: The only catalogue in existance using the horizontal and vertical coordinates of 150 points of the lunar surface compiled by G. Schrutka-Rechtenstamm according to the observations made by Frantz has a serious deficiency: there is no guarantee that the center of coordinates in this catalogue coincides with the center of the lunar mass because an unjustifiable assumption was made that the lunar disk coincides with the projection of the center of its mass. A method is proposed for bringing together the center of the system of coordinates and the center of the lunar mass utilizing the fact that the center of the Moon's mass is also the center of revolution. According to the photographs of the Moon corresponding to different librations the position of points of the lunar surface are described by the vectors $r_{ij}=(x_{ij},y_{ij},z_{ij})$ where i is the number of the point, and j is the number of the coordinate system which corresponds to a particular libration. By orthagonal transformation the points may be reduced to the initial catalogue coordinate system which corresponds to the

Card 1/2 UDC: 523.36+523.39

libration l = 0°, b = 0°. From the relationship

$$r_{ij} = Br_{i0} + q_j$$

where r_{i0} are radii-vectors of the points in the initial catalogue; B, system coordinate rotation matrix; and q_j the vector which transposes the center of the j-th system into the center of the system of coordinates of the initial catalogue. The vectors q_j are determined first and then the vectors $s_{ij} = r_{ij} + q_j$. The vectors s_{ij} have a common starting point which coincides with the center of the initial catalogue system and whose apexes lie on the spherical surfaces whose centers coincide with the center of the Moon's mass. This may be expressed by the relationship

$$|s_{ij} - \Delta r_0| = \text{const.}$$

When at least four measured coordinates from different librations are available the vector Δr_0 may be determined by the least squares method. This vector relates the coordinates of any catalogue to the coordinates of the initial catalogue where the centers of the lunar mass and the coordinates coincide. The following relationship is used: $\rho i = r_{i0} - \Delta r_0$. [Translation of abstract] N. B.

SUB CODE: 03

GAVRILOV, I. YE.

"Irrigation Technique for Grain Crops Under the Conditions of the Southern Trans-Volga Area." Sub 14 Feb 47, Moscow Hydraulic Engineering and Soil Improvement Inst imeni V. R. Vil'yams

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

GAVRILOV, I.Ye., kand. voyenno-morskikh nauk, dotsent, polkovnik

Airplane maneuver in installing a supplementary barrier from buoys. Mor. sbor. 49 no.11:47-50 N '65.
(MIRA 18:12)

ACC NR: AP6031293 SOURCE CODE: UR/0375/66/000/009/0047/0050

AUTHOR: Gavrilov, I. Ye. (Colonel)

ORG: none

TITLE: Submarine search effectiveness

SOURCE: Morskoy sbornik, no. 9, 1966, 47-50

TOPIC TAGS: antisubmarine warfare, antisubmarine aircraft, aerial reconnaissance

ABSTRACT: One of the missions of antisubmarine aviation is to search for submarines in a given area. To accomplish this the aircraft must start at some point and examine the area according to a set plan. Assuming that a pilot is assigned to search a specific area, he can properly fulfill the mission only if he starts precisely at the initial search position. If due to an error in position the aircraft is some distance from this precise point, the search will be carried out in an area other than the proper one. The greater the position error, the greater the area which will remain uninspected, thus reducing the effectiveness of the search. Taking possible initial position errors into consideration, a method for determining the area actually inspected is presented, which was earlier described by Ye. S. Ventsel' (Introduction to operations research, Izd-vo Sovetskoye radio, 1964). Orig. art. has: 3 figures and 5 formulas.

SUB CODE: 15, 01/ SUBM DATE: none/ ORIG REF: 001

Card 1/1

L 10907-67 TCH

ACC NR: AP6006524 (N) SOURCE CODE: UR/0375/65/000/011/0047/0050

32

AUTHOR: Gavrilov, I. Ye. (Colonel, Candidate of Military - Marine Sciences, Docent)

ORG: None

TITLE: Aircraft maneuvers when setting a supplementary buoy barrier

SOURCE: Morskoy sbornik, no. 11, 1965, 47-50

TOPIC TAGS: antisubmarine aircraft, antisubmarine warfare, sonobuoy

ABSTRACT: The process described in the article deals with ASW aircraft setting a supplementary buoy barrier in ASW exercises. The method introduced can be used to calculate the effect of wind on various types of aircraft in various maneuvering patterns, without the use of onboard automated systems. An aircraft intending to set a supplementary buoy barrier parallel to the barrier already in place, must overfly the initial barrier, turn 180° and set itself on a reciprocal course, ready to drop its buoys at a given spot. It is evident that certain factors will act on the aircraft and result in its not ending up in the position intended by the pilot. Speed, bank angle, and wind are the most important factors and must be reckoned with. Mathematical formulas are used to compute the effect of these factors and to compensate for them. Despite the large approximations used in the calculations, they deduce possible errors, specifically in aircraft time of departure from the point of initial setting of the buoys. Orig. art. has: 8 formulas and 4 figures.

SUB CODE: 15/SUBM DATE: None

Card 1/1

GAVRILOV, K. A.

"Influence of Forest Cultures on the Soil." Thesis for degree of Cand. Geological - Mineralogical Sci. Sub 23 Jun 49, Moscow Order of Lenin State U imeni M. V. Lomonosov

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva. Jan-Dec 1949

GAVRILOV, K.A.; PEREL', T.S.

Earthworms and other invertebrates in forest soils of Vologda Province [with summary in English]. Pochvovedenie no.8:133-140 Ag '58. (MIRA 11:9)

1.Institut lesa AN SSSR i Moskovskiy gosudarstvennyy pedagogocheskiy institut im. V.I. Lenina.
(Forest soils) (Soil fauna)

STARIK, I.Ye.; RATNER, A.I. [deceased]; [illegible] SKIY, I.A.; GAVRILOV, E.A.

Conditions of microquantities of radioelements in solutions. Part 3: Condition of Zr^{95} in aqueous solutions. Zhur. neorg. khim. 2 no.5: 1175-1182 My '57. (MLRA 10:8)

(Zirconium-Isotopes) (Water)

86741
S/120/60/000/006/016/045
E032/E314

26.1640

AUTHORS: Ponomarev, A.A., Khlebnikov, G.I. and Gavrilov, K.A.

TITLE: A Method for Controlling the Electrodeposition of α-active Isotopes

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 6, pp. 58 - 60

TEXT: A simple method of continuous control of the electrodeposition of α-active isotopes, which involves the use of standard scintillation counters and standard electronics, is described. The apparatus is shown schematically in Fig. 1. The cathode 2, on which the active substance is deposited, was in the form of a nickel foil, 1.5 to 5 μ thick. The area of the target was 5 x 10 mm^2. The material is deposited from the electrolyte 1 and the α-particles transmitted by the cathode produced scintillations in the ZnS phosphor 4. The scintillations reached the photomultiplier through the light pipe 5 and the output of the photomultiplier was

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A Method for Controlling the Electrodeposition of α-active Isotopes

recorded by a "standard block ПС-10 000 (PS-10 000)". The thickness of the cathode was chosen so that it would transmit α-particles and to ensure that the scintillations would give rise to photomultiplier pulses much greater than the dark current. The electrolytic device, which is attached to the apparatus, was of the type described by Yakovlev et al (Ref. 13). The above apparatus was used to investigate the effect of:

a) the concentration of the electrolyte (0.1 - 1 mol /litre);

b) the current density at the cathode (10 - 300 mA/cm^2) and

c) concentration of the deposited substance (20 - 100 $\mu g/cm^2$) on the amount and quality of the deposit in the case of the electrodeposition of Pu^{239} from a water solution of H_2CO_2 and NH_4CO_2H. The results obtained are summarised in Figs. 2 and 3. Fig. 2 shows the dependence of the amount of plutonium

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A Method for Controlling the Electrodeposition of α-active Isotopes

produced (%) as a function of the concentration of the electrolyte (mol/litre). The points marked 1 refer to the present method and the points marked 2 refer to the direct α-particle counting after electrolysis. Fig. 4 shows the dependence of the amount of plutonium deposited on the cathode current density and Curve 3 shows the counting rate as a function of time for C = 0.25 mol/litre and I_k = 150 mA/cm^2. It was found that the best plutonium deposits were obtained with a concentration of 0.25 mol/litre and a current density at the cathode of 100-200 mA/cm^2. Under these conditions, an 80-90% yield of plutonium was achieved. With small modifications the apparatus can also be used to investigate the deposition of α-active specimens by vacuum and electrostatic methods.

Acknowledgments are expressed to G.N. Olerov for valuable advice and suggestions and to V.A. Druin for assistance in the present work.

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S/120/60/000/006/016/045
E032/E514

A Method for Controlling the Electrodeposition of α-active Isotopes

There are 4 figures and 13 references: 7 Soviet, 6 English.

SUBMITTED: September 29, 1959

Card 4/4

FLEROV, G.N.; POLIKANOV, S.M.; KARAMYAN, A.S. [deceased]; PASYUK, A.S.; PARFANOVICH, D.M.; TARANTIN, N.I.; KARNAUKHOV, V.A.; DRUIN, V.A.; VOLKOV, V.V.; SEMCHINOVA, A.M.; OGANESYAN, Yu.TS.; KHAIZEV, V.I.; KHLEBNIKOV, G.I.; MYASOYEDOV, B.F.; GAVRILOV, K.A.

Experiments to produce element No. 102. Zhur. eksp. i teor. fiz. 38 no.1:82-94 Jan '60. (MIRA 14:9)

1. Sotrudniki Ob"edinennogo instituta yadernykh issledovaniy (for Polikanov, Oganesyan, Gavrilov). 2. Sotrudnik Instituta geokhimii i analiticheskoy khimii AN SSSR (for Myasoyedov).
(Transuranium elements)

23878
S/186/61/003/001/011/020
A051/A129

21.3100

AUTHORS: Gavrilov, K.A., Myasoyedov, B.F., Khlebnikov, G.I.

TITLE: The production of targets from plutonium for the irradiation on a cyclotron with multi-charge ions

PERIODICAL: Radiokhimiya, v 3, no 1, 1961, 62-67

TEXT: The article deals with a description of the production of targets made from specially purified samples of plutonium, which are used for producing the 102nd element. The authors studied the possibility of producing pure plutonium by eliminating ultra-small quantities of Fe, Tl, Hg, Bi, Pb, Pt. They were able to obtain Pu^{239}, Pu^{240}, and Pu^{242} isotopes, containing Pb $\leq$ 0.01 γ to 100 γ of Pu and other interfering elements below the sensitivity line of the activation method. Finally, they prepared targets, which were used for the production of the 102^{nd} element from purified samples of plutonium by the electrolytic method and the method of evaporation with

Card 1/

The production of targets from plutonium ...

tetraethyleneglycol. Admixtures, such as Tl, Hg, Bi, Pb, Pt, are thought to be rather dangerous in the target material, even in small quantities, since during the interaction of multi-charge ions with elements they form isotopes emitting α-particles with an energy close to the energy of the α-particles of the 102nd element and a great number of α-particles of other energy levels creating a rather high background impeding the viewing of the photoplates. The thickness of the plutonium layer on the targets was about 200 γ/cm^2. The quantity of the stabilizing material was not to exceed about 200 γ/cm^2 calculated on the copper equivalent. The administration of the plutonium isotopes had to be carried out on very thin linings to avoid a decrease in the energy of the bombarding particles, since the formation cross-section of the trans-uranium elements depends to a large extent on the energy of these particles. The work was based on the fact that plutonium (IV) is well extracted from a 5 n nitrate solution with diethyl ether, whereas the main interfering elements under these conditions barely pass into the ether phase (Ref 3). The second purification stage of plutonium was based on the formation of Pt, Bi, Hg, Tl^{3+} stable anion complexes and their sorption by the anionite within a wide range of HCl concentrations (Ref 4). The ex-

The production of targets from plutonium ...

periments showed that the NO_3^- ions even at low concentrations (~0.01 M) extremely hinder (~100 times) the purification of plutonium from lead and bismuth on the ion-exchanging column. It is assumed that when heating tetravalent plutonium in 11 n HCl its partial reduction to the tri-valent state takes place. The work carried out resulted in the production of plutonium samples as given above. The targets were produced by electrolysis [illegible] simple application of active solutions, using organic additives. [illegible] case of electrolysis the method of plutonium formation from formate [illegible] was chosen (Ref 5,6) en[illegible] stable layers. The [illegible] i.e., an interfering [illegible] the electrolytic process [illegible] lysis time, with respect [illegible] mineral acids and alk[illegible] even from 0.1 n sol[illegible] on the cathode is sh[illegible] were tested for [illegible] nickel, molybdenum, [illegible]

Card 3/6

S/196/61/003/001/011/020
A052/A129

The production of targets fr m plutonium ...

Mo, Pd and W are both passive and non-passive types and, hence, unsuitable due to their dissolution during the electrolytic process. The only suitable electrodes found were rods of rhodium or graphite. A study was made of the depositing process of plutonium depending on the concentration of the electrolyte, current density, time and type of lining (Al, V, Ni, Nb). The authors assume that under the selected conditions of electrolysis plutonium (IV) and (VI) are those deposited mainly on the cathode. Fig 2 is a graph of the relationship of the plutonium yield on the target to the amount of potassium bromate. The graphs (Figs 2-4) show that the change of the pH (from 3 to 7) has no significant effect on the electrolytic depositing process of plutonium. The graphite anode was also found to be successful in addition to the rhodium one. The authors point out that the advantage of the evaporation method with tetraethyleneglycol for producing targets lies in the fact that it eliminates the entering of impurities into the target, which can occur during electrolysis due to anode dissolution. It also gives good layers on small areas. There are 2 tables, 4 figures and 6 references: 4 Soviet-bloc, 2 non-Soviet-bloc.

Card 4/5

GAVRILOV, K.A.; MYASOYEDOV, B.F.; KHLEBNIKOV, G.I.

Preparation of targets from plutonium for bombardment with multiply charged ions in a cyclotron. Radiokhimiia 3 no.1:62-67 '61. (MIRA 14:3)
(Plutonium)

TAUBE, M.; GVUZD', Ye.; GAVRILOV, K.A.; MALY, Ya.; BRANDSHTETR, I.; VAN TUI-SEN; SARANTSEVA, V.R., tekhn. red.

[Extraction of fermium and mendelevium in the tributyl phosphate-nitric acid system] Ekstraktsiia fermiia i mendeleviia v sisteme TBF - HNO_3. Dubna, Ob"edinennyi in-t iadernykh issledovanii, 1962. 6 p. (MIRA 15:7)

(Fermium) (Mendelevium)

TAUBE, M.; GVUZD', Ye. (Gwozdz, E.); GAVRILOV, K.A.; MALY, Ya. (Maly, J.); BRANDSHTETR, I.; VAN TUN-SEN ['Wang T'ung-Seng]

Extraction of mendelevium and fermium in the TBP--HNO_3 system. Nukleonika 7 no.7/8:479-482 '62.

1. Ob"yedinennyy institut yadernykh issledovaniyi, Dubna, Laboratoriya yadernykh reaktsiy.

FLEROV, G.N.; POLIKANOV, S.M.; GAVRILOV, K.A.; MIKHEYEV, V.L.; PERELYGIN, V.P.; PLEVE, A.A.

Formation of spontaneously fissioning isomers in reactions involving α-particles and deuterons. Zhur. eksp. i teor. fiz. 45 no.5:1396-1398 N '63. (MIRA 17:1)

1. Ob"yedinennyy institut yadernykh issledovaniy.

ACCESSION NR: AP4020055 S/0186/64/006/001/0026/0035

AUTHOR: Brandshtetr, I.; Wang, T'ung-hseng; Gavrilov, K. A.; Gvuzd', Ye.; Maly*, Ya.; Taube, M.

TITLE: Extraction properties of fermium and mendelevium (TBF-HNO sub 3, TBF-HCl)

SOURCE: Radiokhimiya, v. 6, no. 1, 1964, 26-35

TOPIC TAGS: extraction property, fermium, mendelevium, TBF-HNO sub 3, TBF-HCl, partition chromatography

ABSTRACT: The extraction properties of fermium and mendelevium are studied for the first time by the partition chromatography method in the system TBF-HNO_3 and TBF-HCl. The separation of heavy actinides will be better during chromatographic extraction from solutions of hydrochloric acid than from solutions of nitric acid. In the extraction column, the heavy actinides behave like analogs of the following lanthanides. In HNO_3: Fm is the analog of europium, Md is between Eu and Gd; in HCl: Fm is the analog of Dy, Md is between Ho and Dy. It follows that during extraction from solutions of HNO_3, the actinides are shifted into 5

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ACCESSION NR: AP4020055

positions and in extraction from solutions of HCl, into 2 positions according to the relationship to lanthanides having a similar subshell. "The authors are grateful to Prof. G. N. Flerov for his constant attention and discussion of results, Ya. Varkhol, Z. Borkovskaya, V. P. Perely*gin and A. S. Tishinaya for help in the experiments, cyclotron maintenance groups for conduction irradiation, Ya. Mikyl'sky*y for the silica gel kindly submitted." Orig. art. has: 8 figs.

ASSOCIATION: None

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Card 2/2

L 12571-65 EWT(m)/EWP(b)/EWP(t) Peb DIAAP/IJP(c) JD/JG/JAJ
ACCESSION NR: AP5012920 PO/0046/64/009/010/0785/0794

AUTHOR: Mikul'ski, Ya.; Gavrilov, K. A.; Knoblokh, V.

TITLE: Partition chromatography of rare earths and trans-uranium elements in the tetra-butyl-hypophosphate/tetra-butyl-pyrophosphate/nitric acid system

SOURCE: Nukleonika, v. 9, no. 10, 1964, 785-794

TOPIC TAGS: chromatographic analysis, rare earth metal, fissionable metal, chemical separation

ABSTRACT: The article deals with the extraction characteristics of rare earths (Pm, Eu, Tb, Tm) and trans-uranium elements (Am, Cm, Cf, Fm, Md) in a TBHP/TBPP 1:1 / HNO system. The separation coefficients were measured by the partition chromatography method and found to be 1.34 for the rare earth elements, 1.25 for the lighter and 1.05 for the heavier trans-uranium elements. The experiment is described, both the set-up and the measuring procedure. The results are plotted as relative activity versus volume of eluent. The separation coefficient is calculated on the basis of a theoretical formula and the the obtained values are discussed.

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L 43571-65

ACCESSION NR: AP5012920

"The authors wish to thank Prof. G. N. Flerov, Corresponding member of the AN SSSR, for his constant attention and discussion of the results; I. Stary, V. Yermakov for processing the results; Z. Knoblokhova, A. Klimovskaya and V. Bochkov for their assistance in carrying out the experiments; the group who operated the cyclotron for conducting the experiments. The authors also thank T. Modro for his kind allocation of tetra-butyl-hypophosphate; P. V. Perelygina for assistence in mastering the partition chromatography method." Orig. art. has 12 graphs.

ASSOCIATION: Laboratoriya Khimii i Radiokhimii Institut Yadernoy Fiziki, Krakuv (Laboratory of Chemistry and Radiochemistry, Institute of Nuclear Research); Laboratoriya Yadernykh Reaktsiy, Ob'yedinennyy Institut Yadernykh Issledovaniy, Dubna (Nuclear Reaction Laboratory, Joint Institute of Nuclear Research); Institut Yadernykh Issledovaniy ChAN, Rzhezh (Institute of Nuclear Research ChAN)

SUBMITTED: 10Mar64 ENCL: 00 SUB CODE: IC, GC

NO REF SOV: 002 OTHER: 009 JPRS

Card 2/2 pb

GAVRILOV, K.A.

4

L 17213-65 EWT(m)/EWP(t)/EWP(b) DIAAP/IJP(c)/AFWL JD/JH

ACCESSION NR: AP4047420 S/0089/64/017/004/0310/0312 B

AUTHORS: Flerov, G. N.; Oganesyan, Yu. Ts.; Lobanov, Yu. V.; Kuznetsov, V. I.; Druin, V. A.; Perelygin, V. P.; Gavrilov, K. A.; Tret'yakova, S. P.; Plotko, V. M.

TITLE: Synthesis and physical identification of the isotope of the 104th element with mass number 260

27

SOURCE: Atomnaya energiya, v. 17, no. 4, 1964, 310-312

TOPIC TAGS: transuranium element, half life, spontaneous fission

ABSTRACT: In view of the fact that earlier estimates yielded a wide range of values for the half-life of the isotope 104^{260}/9, whereas experiments have shown that the element 102^{256} experiences spontaneous fission with a half-life of 1500 seconds, the authors developed a procedure for indicating the spontaneous fission, for use in searches

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