BRUKNER, Mirko, dipl. ing. (Zagreb)

Programming of the problems, and methods of co-acting with electronic calculating automata. Pt. 2. Geod list 18 no.10/12:245-263 O-D '64.

MYAGKOV,K.N., inzhener; MOSKVIN,G.V., inzhener; BRUKOV,A.T., inzhener; POCHTAREV,F.K., inzhener; PESHKOV,M.F., inzhener; KRYSHDEVICH,V.A., inzhener; MAKARYCHEV,V.V., kandidat tekhnicheskikh nauk; KUDRYASHOV, P.T., kandidat tekhnicheskikh nauk; KRIVITSKIY,M.Ya., kandidat tekhnicheskikh nauk; MATSELINSKIY,K.N., kandidat tekhnicheskikh nauk TESLER,P.A., kandidat tekhnicheskikh nauk

Large reinforced foam concrete panels for heated beamless floors of industrial buildings developed by the Central Scientific Research Institute of Construction and the Northern Urals Heavy Construction Trust. Rats. i izobr. predl. v stroi. no.81:18-19 '54. (MIRA 8:6)

1. Glavuralpromstroy (for Myagkov, Moskvin, Brukov) 2. Sevuraltyazhstroy (for Pochtarev, Peshkov, Kryshdevich) 3. TSentral'nyy nauchno-issledovatel'skiy institut promyshlennykh sooruzheniy (for Makarychev, Kudryashov, Krivitskiy, Matselinskiy, Tesler)
(Floors, Concrete)

BORTNICHUK, N.I., inzh.; BRUKOVSKIY, I.P., inzh.

Effect of the dimensions of the jacket of an induction furnace on its electrical parameters. Vest. elektroprom. 31 no.8:27-30 Ag '60. (MIRA 15:5)
(Electric furnaces)

MIKULINSKIY, Aron Semenovich; BRUKOVSKIY, I.P., red.; BORUNOV, N.I., tekhn. red.

[Vacuum electric furnaces for the production of alkali metals and alkaline earth metals]Vakuumnye elektricheskie pechi dlia polucheniia shchelochnykh i shchelochnozemel'nykh metallov. Moskva, Gosenergoizdat, 1962. 96 p. (Biblioteka elektrotermista, no.14) (MIRA 16:3)
(Electric furnaces) (Alkali metals)
(Alkaline earth metals)

MIKULINSKIY, Aron Semenovich; BRUKOVSKIY, I.P., red.

[Determination of the parameters of ore-smelting furnaces using the similitude theory] Opredelenie parametrov rudnotermicheskikh pechei na osnove teorii podobiia. Moskva, Energiia, 1964. 85 p. (Biblioteka elektrotermista, no.20) (MIRA 18:1)

EXCERPTA MEDICA Sec 13 Vol 13/8 Dermatology Aug 59

2053. CASE REPORT ON THE RECURRENCE OF CUTANEOUS LEISHMANIASIS (BOROVSKI'S DISEASE), TREATED WITH 'AKRICHIN' (Russian text) - Brukson A. A. Med. Inst., Tashkent - From the symposium: VOPR. DERM. I VENER. (Tashkent) 1957, 6 (223-224)

A 13-year-old girl was cured from cutaneous leishmaniasis within one month after the foci were treated 4 times (intracutaneously) with a 5% solution of 'akrichin' (mepacrine). The treatment was administered once a week. A relapse occurred 8 months later.

Mashkilleison Jr - Moscow (S)

EXCERPTA MEDICA Sec 13 Vol 13/8 Dermatology Aug 59

2057. EFFECTIVE CHRYSANOL THERAPY IN THE LUPOID FORM OF BOROVSKI'S DISEASE (Russian text) - Brukson A. A. Med. Inst., Tashkent - From the symposium: VOPR. DERM. I VENER. (Tashkent) 1957, 6 (225-228)

Three female patients with the lupoid form of Borovski's disease (cutaneous leishmaniasis) were treated with i. m. injections of the gold compound 'chrysanol'. All responded with complete clinical recovery; in one case, the patient was cured after 18 injections of a 5% solution of chrysanol (dose 1 ml.), the second patient after 10 injections of a 5% and 9 injections of a 10% solution of chrysanol; the 3rd patient needed 10 injections of a 5% and 19 injections of a 10% solution of chrysanol. The treatment of the 2nd patient had to be temporarily discontinued due to the development of a toxic capillary reaction and nephropathy. The treatment was continued successfully one month after the disappearance of the side effects.

Mushkilleison Jr - Moscow (S)

AKOVBYAN, A.A., prof.; BRUKSON, A.A., ordinator

Treatment of syphilis patients with bicillin I. Vest.derm.i ven. 33 no.5:46-50 S-O '59. (MIRA 13:2)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zaveduyushchiy - prof. A.A. Akovbyan) Tashkenskogo gosudarstvennogo meditsinskogo instituta.

(PENICILLIN ther.)
(SYPHILIS ther.)

BRUKSON, A.A, ordinator

Treatment of syphilis with bicillin 1 and 3. Med. zhur. Uzb. no.11: 60-64 N '60. (MIRA 14:5)

1. Iz kafedry kokhnykh i venericheskikh bolezney (zav. - prof. A.A. Akovbyan) Tashkentskogo gosudarstvennogo meditsinskogo instituta.
(SYPHILIS) (PENICILLIN)

BRUKSON, A.A.

Antitoxic function of the liver in the bicillin treatment of syphilis. Med. zhur. Uzb. no;9:58 S '61. (MIRA 15:2)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - prof. A.A.Akovbyan) Tashkentskogo gosudarstvennogo meditsinskogo instituta.
(PENICILLIN) (SYPHILIS) (LIVER)

BRUKSON, A.A., ordinator

Treatment of syphilis with bicillin-1 and bicillin-3. Vest. derm.i ven. no.1:36-42 '62. (MIRA 15:1)

1. Iz kafedry kozhnykh i venericheskikh bolezney Tashkentskogo meditsinskogo instituta (zav. - zasluzhennyy deyatel' nauki UzSSR prof. A.A. Akovyan).
(SYPHILIS) (BICILLIN)

BRUKSON, IA.

Volgo-Donskoi kanal i lesozagotovki. [The Volga-Don Canal and lumbering].
(Lesnoe khoz-vo i lesnaia promyshlennost', 1929, no. 4, (67) p. 60-62).
DLC: SD1.L4

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

BRUKSZO, Teresa; ROGOYSKI, Antoni

Activity of glutamic-oxalic and glutamic-pyruvic transaminase in normal newborn infants. Ginek. Pol. 33 no.2:169-173 '62.

1. Z Kliniki Poloznictwa i Chorob Kobiecych Instytutu Matki i Dziecka w Warszawie Kierownik: prof. dr med. J. Lesinski Dyrektor: prof. dr med. F. Groer.

(INFANT NEWBORN blood) (TRANSAMINASES blood)

BRUKSZO, Teresa; ROGOYSKI, Antoni

Behavior of glutamic oxaloacetic and glutamic pyruvic transaminases in hemolytic disease of the newborn. Ginek. pol. no.4:417-423 '62.

1. Kliniki Poloznictwa i Chorob Kobiecych Instytutu Matki i Dziecka w Warszawie Kierownik: prof. dr med. J. Lesinski Dyrektor: prof. dr. med. F. Croer.

(ASPARTATE AMINOTRANSFERASE) (ALANINE AMINOTRANSFERASE)
(ERYTHROBLASTOSIS FETAL) (ENZYME TESTS)

BRUKVA, M.F., radiolyubitel'-konstruktor

Pocket radio receiver. Nauka i zhyttia 11 no.7:44-45 Jl '61.
(MIRA 14:8)
(Radio--Receivers and reception)

BRUKVA, M., inzh.

"Era." Znan.ta pratsia no.9:31-32 S '62. (MIRA 15:11)
(Radio—Receivers and reception)

IL'IN, V. (Frunze); ZAYTSEV, V. (Guynaksk, Dagestanskoy ASSR); YEFREMENKOV, M. (Serpukhov, Moskovskoy obl.); CHUGAYEVSKIY, N., inzh. (Moskovskaya oblast'); BRUKVA, N. (Kiyev); SYCHAYEV, S. (Mytishchi); YEVTEYEV, V. (Rostov-na-Donu)

Exchange of experience. Radio no.4:20,33,36,39,40,53 Ap '65.
(MIRA 18:5)

NASEDKIN, I.F., kand.tekhn.nauk; TSVELODUB, B.I., inzh.; BRUKVA, N.A., inzh.

Steadily raise the technical level of building the super-structure. Transp. stroi. 12 no.8:10-12 Ag '62. (MIRA 15:9)
(Railroads—Construction)

BRUKVA, N.A., inzh.

Utilize possibilities of increasing the performance capacity of excavators. Trans. stroi. 13 no.8:50-51 Ag '63. (MIRA 17:2)

KISFALUDY, Sandor; technikai munkatars: BRULICH, Margit

Determination of ammonia in the blood by means of ninhydrin reaction. Kiserletes Orvostudomany 12 no.1:98-106 F '60.

1. Budapesti Orvostudomanyi Egyetem I. sz. Belklinikaja.
(AMMONIA blood)
(INDICATORS AND REAGENTS)

KISFALUDY, Sandor; Technikai munkatars: BRULICH, Margit

On normal and pathological ammonia content in the blood. Kiserl. orvostud. 14 no.2:205-211 Ap '62.

1. Budapesti Orvostudomanyi Egyetem I sz. Belklinikaja.

(AMMONIA blood)

KISFALUDY, S.; BRULICH, Margit.

Determination of the ammonia content in deproteinized blood. Acta med. acad. sci. Hung. 20 no.1879-87 '64

1. Medizinische Klinik (Direktor: Prof. Dr. I.Rusznyak) der medizinischen Universitat, Budapest.

ACC NR: AP6028453 SOURCE CODE: HU/0018/66/000/003/0237/0242

AUTHOR: Szemere, Pal--Semere, P.; Toth, Bela--Tot, B.; Brulich, Margit--Brulikh, M.

ORG: IV. Department of Medicine, Institute of Postgraduate Medical Education (Orvostovabbkepzo Intezet, IV. sz. Belgyogyaszati Tanszek); Department of Physiology, Veterinary Medical University (Allatorvostudomanyi Egyetem, Elettani Tanszek)

TITLE: Blood coagulation of hypo-, hyper- and normo-calcemic dogs treated with a coumarine derivative

SOURCE: Kiserletes orvostudomany, no. 3, 1966, 237-242

TOPIC TAGS: dog, coagulation, blood, blood chemistry, calcium, drug effect

ABSTRACT:
It was established that the effect of the coumarine derivative (Syncumar) is not influenced by the blood Ca level. In the course of development of hypocoagulability in response to coumarine treatment, the increased demand for Ca by the recalcification system can be noted early. The increased need for calcium is satisfied by the blood or by the Ca present in the solution added in the course of the determination (if it is present in sufficient amount there). It is probable that the Ca requirement is increased both in the extrinsic and intrinsic systems. On the basis of the experimental data obtained, it appears that the level of the labile factor decreased in the hypercalcemic dogs during the Syncumar treatment. Orig. art. has: 2 figures and 3 tables. [JPRS: 36,599]

SUB CODE: 06 / SUBM DATE: 23Mar65 / ORIG REF: 002 / OTH REF: 011

Card 1/1

BRULINSKI, T.

BRULINSKI, T. Modernization of the road service organization. p. 243

Vol. 11, no. 10, Oct. 1956
DROGOWNICTWO
POLITICAL SCIENCE
Warszawa, Poland

So: East European accession Vol. 4, No. 3, March 1957

BRULINSKI, Z.

BRULINSKI, Z.; GANCZARCZYK, J. "Sewage from installations for purifying water." Gaz, Wodna I Technika Sanitarna, Warsaw, Vol 28, No 4, Apr. 1954, p. 98

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

BRULL, D.

"Work of an agronomist in a machine-tractor station; some experiences in Szczecin Province." p. 30 (Nowe Rolnictwo, Vol. ?, no. 7, July 1953. Warszawa.)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress, Feb. 1954, Uncl.

BRULL, D.

BRULL, D.

Spoldzielnia produkcyjna "Wspolny Siew" w Kani. Warszawa, Panstwowe Wydawn. Rolnicze i Lesne, 1953. 187 p. (The Wspolny Siew Production Cooperative at Kania).
DA Not in DLC Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

BRULL, D.

"Exploiting reserves in collective farms." (p. 25) NOWE ROLNICTWO (Panstwowe Wydawnictwo Rolnicze i Lesne) Warszawa, Vol 3, No 1, Jan. 1954.

SO: East European Accessions List, Vol 3, No 8, Aug 1954

BRULL, D

"Crops of collective farms depend on the work of machine-tractor stations." (p.42)
NOWE ROLNICTWO (Panstwowe Wydawnictwo Rolnicze in Lesne) Warszawa, Vol. 3, nó.4, Apr. 1954

SO: EAST European Accessions List, Vol 3, No. 8, August 1954

BRULL, J.

BRULL, J. Production of cellulose textile fibers in Rumania. P. 475

Vol. 7, No. 10, October 1956
INDUSTRIA TEXTILA
TECHNOLOGY
Bucuresti, Rumania

So: East European Accession, Vol. 7, No. 3, March 1957

H

Country : RUMANIA/Chemical Technology.
Category : Chemical Products and Their Applications. Artificial and Synthetic Fibres.
Abs. Jour : Ref. Zhur. - Khim., No. 10, 1959, 37132.

Author : Brull J., Molner E., Radulescu N.
Institut. : Scientific Association of Engineers and Technicians
Title : Various New Articles Manufactured from Viscose in the RPR.

Orig Pub. : II-a Conf. tehn.-stiint. a Ind. usoare. Textile. [Bucuresti], ASIT, 1957. 331-335.
Abstract : No abstract.

Card: 1/1

H-167

CZECHOSLOVAKIA / Chemical Technology. Chemical Products H
and Their Applications. Elements. Oxides. Mineral
Acids, Bases, Salts.

Abs Jour: Ref Zhur-Khimiya, 1959, No 4, 12327.

Author : Jiru, Pavel; Brull, Julius.
Inst : Not given.
Title : Surface Structure of Native Silica Gel Carriers and Catalysts for Oxidation of Sulfur Dioxide.

Orig Pub: Chem. prumysl, 1957, 7, No 12, 652-654.

Abstract: The possibility is investigated of obtaining from infusorial earth (IE) a catalyst or catalyst carrier by means of working the surface of IE. It was established that the addition of soluble salts favorably influences the surface structure of a carrier of IE Type SK. The process of vanadization of the catalysts obtained from IE of LM and SK qualities was investigated. Bib. 6 titles. -- I. Yelinek.

Card 1/1

BRUMAN, S., insh., chlen Kommunisticheskoy partii Sovetskogo Soyuza s 1917 goda (Moskva)

Truth will tell. Sov. profsoiuzy 19 no.20:38 O '63. (MIRA 16:11)

PLATON, M., ing.; BRUMARESCU, A., chim.

Chlorine requirements for the bleaching of paper pulps from annual plants and foliafe trees. Cel hirtie 12 no.4:128-134 Ap'63.

BRUMARU, G.

"Ensilage of cornstalks."

p. 20 (Drumul Belsugului) No. 9, Sept. 1957
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

"The importance of supplementary recompense."

p. 5 (Drumul Belsugului) No. 10, Oct. 1957
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

BRUMAT, A.

"Conference on the transportation equipment in industry." Reviewed by A. Brumat. Stroj vest 7 no. 4-5:118-119 0 61.

BRUMAT, Adolf, inz.

Program of the activity of the Commission for Quality Mark and Standardization of the Federation of Engineers and Technicians of the People's Republic of Slovenia. Nova proizv 12 no.4-5-6:328 D '61.

1. Predsednik Komisije za kvalitetni znak in standardizacijo pri Zvezi inzenirjev in tehnikov Ljudske Republike Slovenije.

BRUMAT, Adolf, inz.

Some ideas about standardization. Nova proizv. 14 no.5/6: 428-429 O '63

1. Clan Uredniskega odbora, "Nova proizvodnja".

BRUMAT, Adolf, inz.

Tenth anniversary of the Association of Mechanical Engineers and Technicians of Slovenia. Stroj vest 10 no. 1/2:29 Ap '64.

BRUMBAROV, D.

"Mine Timbering in Our Country", p. 4. (TEKHNICHESKO DELO, Vol. 5, no. 110, Sept. 1953, Sofiya, Bulgaria).

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 4, April 1954.

BRUMBERG, A.S.; DMITRIYEVA, V.S.

Cardiac modifications in malignant tumors. Arkh.pat., Moskva 13 no.3:82-83 May-June 51. (CLML 21:1)

1. Of the Department of Pathological Anatomy (Head--Prof.A.S. Brumberg), Kursk Medical Institute (Director--Prof, G.Ye. Ostroverkhov).

BRUMBERG, A. S.

Tumors

Changes in the lungs in non-pulmonary malignant tumors; paraspecific changes in tumor cases. Arkhiv pat. 14 No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952, Unclassified

ZOLOTOVA, N.M., dotsent; BELICHENKO, A.V., professor, zaveduyushchiy; BRUMBERG, A.S., professor, zaveduyushchiy; OSTROVERKHOV, G.Ye., professor, direktor.

Lip cancer. Stomatologiia no.3:36-39 '53. (MLRA 6:7)

1. Gospital'naya khirurgicheskaya klinika Kurskogo meditsinskogo instituta (for Zolotova and Belichenko). 2. Kafedra patologicheskoy anatomii Kurskogo meditsinskogo instituta (for Brumberg and Zolotova). 3. Kurskiy meditsinskiy institut (for Ostroverkhov). (Lips--Cancer)

BRUMBERG, A.S., prof., NOVOPOL'SKAYA, O.S.

Meeting of pathoanatomists and experts in forensic medicine from Kursk, Belgorod, Orel, and Bryansk Provinces. Arkh.pat. 18 no.2: 134-137 '56 (MIRA 11:10)
(ANATOMY, PATHOLOGICAL)

BRUMBERG, A.S., prof.; DOROSHENKO, V.V.

Work of the Kursk Province Pathological Society for 1958. Arkh. pat. 21 no.7:89-91 '59. (MIRA 13:5)

1. Predsedatel' Kurskogo oblastnogo obshchestva patologov (for Brumberg). 2. Sekretar' Kurskogo oblastnogo obshchestva patologov (for Doroshenko).
(KURSK PROVINCE--PATHOLOGICAL SOCIETIES)

BRUMBERG, A.S., prof.; VAKHURKINA, A.M.; VINOGRADOVA, T.P., prof.; LAVRISHCHEVA, G.I., kand. med. nauk; PERMYAKOV, N.K., doktor med. nauk; SMOL'YANNIKOV, A.V., prof.; STRUKOV, A.I., prof.; otv. red.; DVIZHKOV, P.P., prof., zamestitel' otv. red.; APATENKO, A.K., kand. med. nauk; SENCHILO, K.K., tekhn. red.

[Multivolume manual on pathological anatomy] Mnogotomnoe rukovodstvo po patologicheskoi anatomii. Otv. red. A.I.Strukov. Moskva, Medgiz. Vol.6. [Pathological anatomy of diseases of the osteoarticular system, muscles, and tendons] Patologicheskaia anatomiia boleznei kostno-sustavnoi sistemy, myshts i sukhozhilii. Red. toma T.P.Vinogradova. 1962. 518 p. (MIRA 15:4)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Strukov).
(BONES--DISEASES) (JOINTS--DISEASES) (MUSCLES--DISEASES)

BRUMBERG, D.S., inzh.

New equipment for preparing protective plastics. Stroi.truboprov. 5 no.6:23-24 Je '60. (MIRA 13:7)
(Protective coatings) (Plastics)

BARSKIY, I.Ya.; BRUMBERG, I.Ye.

Ultraviolet fluorescence of cells in rat lymphosarcoma. TSitologiia 4 no.3:328-330 My-Je '62. (MIRA 16:3)

1. Laboratoriya mikroskopii Instituta tsitologii AN SSSR i Laboratoriya eksperimental'noy onkologii Instituta onkologii AMN SSSR, Leningrad.
(HODGKIN'S DISEASE) (CELLS) (FLUORESCENCE)

BRUMBERG, I.Ye.; BRUMBERG, Ye.M.

Ultraviolet fluorescence of cells in phagocytosis. Biofizika 9 no.2: 237-238 '64. (MIRA 17:12)

1. Institut biologicheskoy fiziki AN SSSR, Moskva, i Leningradskiy institut perelivaniya krovi.

BRUMBERG, Ye.M.; BRUMBERG, I.Ye.

Effect of glycolytic toxins on ultraviolet cell fluorescence.
Biofizika 9 no.6:748-750 '64. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

[redacted], I.S., [redacted]

Ultraviolet fluorescence of injured leucocytes. Biofizika 6 no.4:494-498 N-D '61. (MIRA 16:8)

1. Laboratoriya morfologii i khimii [illegible] Institute Biologicheskoy fiziki AN SSSR, Moskva.

BRUMBERG, I.Ye.; BRUMBERG, Ye.M.

Use of ultraviolet fluorescence microscopy for the study of the action of mouse blood plasma on LIO-1 tumor cells. Biofizika 9 no.4:502-505 '64. (MIRA 18:3)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

BRUMBERG, Ye.M.; BRUMBERG, I.Ye.

Some possible regulators of the cell growth in the organism. Dokl. AN SSSR 165 no.5:1171-1174 D '65.
(MIRA 19:1)

1. Institut biologicheskoy fiziki AN SSSR. Submitted June 25, 1965.

BRUMBERG, N.R.

Connection of wreath products with other operations on groups.
Sib.mat.zhur. 4 no.6:1221-1234 N-D '63. (MIRA 17:9)

BRUMBERG, R.M.

35318. BRUMBERG, R.M. Nekotrye voprosy rascheta differentsial'nykh i dirrerentsial(nO-) Besstuprnchatkh peredach. Trudy seminara po teorii mashin i mekhanizmov (Akad. Nauk SSSR. In-T Mashinovedeniya), T. VIII, Vyp. 30, 1949, S. 57-69.-Bibliogr: 6 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 34, Moskva, 1949

BRUMBERG, B. L.

Longitudinal bending of a beam with a plane lateral support. (Calculation of longitudinal bending stresses of a beam in the case that the deformation / in the zone of maxium deformation/ is limited by a plane surface. Calculations for various methods of fixing and support of the beams ends, various types of bending stresses, etc. It is claimed that this paper is an important contribution to the solution of a frequent engineering problem.)pp. 223 - 256.

A paper contained in the Symposium "Research on the Strength of Steel", edited by I. V. Kudryatseva, Mashgiz, 1951.

KOROLEV, A.A., kand.tekhn.nauk; BRUMBERG, R.M., inzh.

Studying experimental data on the distribution of unit pressure along the arc of gripping in the rolling process. Obr.met.davl. no.2:132-146 '53. (MIRA 12:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya.
(Rolling mills)

BRUMBERG, R.M.

3

USSR

1558. Brumberg, R. M., Dynamics of a differential gear with three rotating masses (in Russian), *Inzhener. Sbornik, Akad. Nauk SSSR* 17, 207–213, 1953.

General equations are derived for relations among external moments, moments of inertia, velocities, and accelerations of three rotating masses connected by differential gearing. Effects of dry (Coulomb) friction are included.

Example is given of planetary gear train, driven through mass 1, in which mass 3 begins to move when brakes are applied to mass 2. Equations derived in article are applied to plot resulting velocities vs. time.

T. P. Goodman, USA

BRUMBERG, R. M.

"Dynamics of Differential Gears." Cand Tech Sci, Leningrad Polytechnic Inst, Leningrad, 1954. (RZhMekh, Apr 55).

SO: Sum. No. 704, 2 nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

BRUMBERG, R.M., inzhener; TRYNIN, V.V., inzhener.

Impact on elastic beams with their mass distributed on two elastic supports. [Trudy] TSNIITMASH no.63:208-221 '54. (MLRA 7:9)
(Girders)

BRUMBERG, R.M.

BRUMBERG, R.M., kandidat tekhnicheskikh nauk.

Vibrating platforms with elastically suspended automatic vibrators. Stroi. i dor.mashinostr. 2 no.8:25-27 Ag '57. (MLRA 10:9)
(Vibrators)

BRUMBERG, R.M., kand.tekhn.nauk

Single-shaft vibrator for actuating vertical vibratory conveyers.
Vest.mash. 40 no.6:17-22 Je '60. (MIRA 13:8)
(Conveying machinery) (Vibrators)

BRUMBERG, E.M., kand. tekhn. nauk

Regulating static moments of the unbalances of mechanical vibrators. Vest. mashinostr. 45 no.6:26-27 Je '65.
(MIRA 18:6)

AUTHOR: Brumberg, V. A.

TITLE: Constant configurations in the problem of four bodies, and their stability. (Nostoyannye konfiguratsii v probleme chetyrekh tel i ikh ustoychivost').

PERIODICAL: Astronomicheskii Zhurnal, 1957, Vol.34, No.1, pp. 55-74 (USSR)

ABSTRACT:

1. The equations of motion for the four body problem in a rectangular baricentric coordinate system with rotation components p, q, r, are given by (1.1). Configurations for which the ratios of the distances between the bodies are constant in time, are defined as constant configurations. An analytical expression of this definition is given in eq.(1.2). Eqs.(1.1) can therefore be reduced to (1.3).
Three cases are possible:

I. All points of the system lie on a straight line.

If one takes the x-axis as the straight line so that $q \equiv 0$, eqs. (1.4) result from (1.3), and the necessary condition for the existence of a straight line configuration is given by (1.5).
If $r \neq 0$ all the points describe similar Keplerian orbits (equal eccentricities; focus at the centre of mass of the system), and take up the same positions on them.
Eq.(1.5) was first given by Moulton (6) for the problem of N bodies, who showed that it leads to 1/2N! solutions.

II. Points of the system do not lie in the same plane.

It is shown (p.57) that the only constant spatial configuration is a right tetrahedron, in which the masses of

Constant configurations in the problem of four bodies, and their stability. (Cont.)

the points are arbitrary and the motion takes place down the straight lines which pass through the centre of inertia, and in the same direction for all the points.

III. Points of the system lie in a single plane but not in a single straight line.

The analysis of MacMillan and Bartky (4) is repeated (pp.58-61 inclusive).

2. The stability of circular solutions in the problem of four bodies is considered. Use is made of the results of Andoyer (1), (7) and Meyer (1) for the case of N bodies.

For circular motion $\varphi(t)$ = constant. The plane Oxy is taken as the plane of relative equilibrium of the given bodies. The origin of coordinates is taken at the centre of inertia of the system, and the constant angular velocity of the x and y axes about the z axis is put equal to n, the angular velocity in the circular motion of the points.

The equations of motion for this case are given by eq.(2.1) which may also be written in the form (2.2). It is shown that, whatever the masses and initial perturbations, which are perpendicular to the plane of unperturbed motion, the circular solutions are stable, in the first approximation, and the perturbed motion about the z-axis is periodic. Further aspects of the circular solutions are treated in some detail.

Constant configurations in the problem of four bodies, and their stability. (Cont.)

3. The stability of some special circular solutions in the problem of four bodies is considered.
I. Straight line. With a suitable choice of initial conditions this configuration is conditionally stable, and two families of circular orbits exist which are near to the position of relative equilibrium.
II. Square. As in I this configuration is unstable but the instability is not absolute.
II. Rhombus. Configuration is unstable.
III. Equilateral triangle. (three equal masses, fourth mass at the centre) Configuration is unstable.

4. An attempt is made to apply the theory of constant configurations to the stars of the Trapezium of Orion. In this system (Fig.8) it is assumed that E and F are only projected on the general background of the trapezium and their mass is small. Therefore, in the first approximation, the trapezium may be taken as consisting of four bodies A,B,C,D, where $CD \simeq AC$ and $m_D \simeq m_A$. It is shown that within the limits of this model the Trapezium of Orion cannot form a plane constant configuration. It is possible, however, that these stars form a spatial constant configuration. 10 Figs. 1 Table. 10 references, 3 of which are Russian.

State Astronomical Institute
imeni P. K. Shternberg.

Recd. April 18, 1956.

ERUMBERG, V. A.: Master Phys-Math Sci (diss) -- "Relativistic corrections in the problem of three bodies". Leningrad, 1958. 6 pp (Acad Sci USSR, Main Astronomical Observatory), 100 copies (KL, No 6, 1959, 123)

BRUMBERG, V.A.

Relativistic corrections in the theory of the motion of the moon. Biul.Inst.teor.astron. 6 no.10:733-756 '58. (MIRA 13:3)

(Moon)

3(1)

AUTHOR: Brumberg, V.A.

TITLE: The Equations of Motion and the Coordinate Conditions in the Relativistic Problem of N Bodies

SOV/33-35-6-9/18

PERIODICAL: Astronomicheskiy zhurnal,1958,Vol 35,Nr 6,pp 893-903 (USSR)

ABSTRACT: The author derives the equations of motion in the relativistic problem of N bodies in an arbitrary coordinate system. At each stage of the EIH - method (approximation method of Einstein, Infeld and Hoffman) four arbitrary functions were introduced into the expression for the gravitational potential. After an introduction to the problem and to the basic idea of the EIH-method in §§ 1 and 2, it is proved in §§ 3 and 4 that the equations of motion do not depend on the introduced arbitrary functions. In § 5 the author investigates the motion of a test particle in the field of the N bodies. The author mentions V.A. Fok [Ref 7].

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The Equations of Motion and the Coordinate Conditions in the Relativistic Problem of N Bodies SOV/33-35-6-9/18

There are 21 references, 1 of which is Soviet, 5 are American, 6 English, 1 is Irish, 4 are Polish, 1 is Canadian, 1 Italian, 1 French, and 1 Indian.

ASSOCIATION: Institut teoreticheskoy astronomii Akademii nauk SSSR (Institute of Theoretical Astronomy of ths AS USSR)

SUBMITTED: November 18, 1957

Card 2/2

10.5300

35736
S/124/62/000/003/002/052
D237/D301

AUTHOR: Brumberg, V.A.

TITLE: Trajectories of double collision in the restricted three-body problem

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 3, 1962, 12, abstract 3A81 (Byul. In-ta teor. astron. AN SSSR, 1960, 7, no. 10, 833 - 843)

TEXT: The method of determining the trajectories of double collision i.e. direct hit trajectories of one body on another body in the plane, restricted, circular three-body problem, is investigated. Differential equations of motion are transformed into elliptical variables of Tile [Transliteration] and normalized. The system is reduced to a single 2nd order differential equation in which one of the elliptical coordinates takes the part of the independent variable, by means of the Jacobi integral. The boundary problem corresponding to the double collision trajectory is solved by the method of successive approximations. At the same time a theorem is proved which is a generalization of the known Picard theorem. The

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Trajectories of double collision ... S/124/62/000/003/002/052
D237/D301

method developed here is used in constructing the trajectory of double collision in the Copenhagen variant of the restricted circular three-body problem. [Abstractor's note: Complete translation].

Card 2/2

3.2200

S/035/61/000/012/037/043
A001/A101

AUTHOR: Brumberg, V. A.

TITLE: On the problem of determining energetically optimum orbits

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 12, 1961, 93, abstract 12A771 ("Byul. In-ta teor. astron. AN SSSR", 1961, v. 8, no. 1, 1 - 10, Engl. summary)

TEXT: The problem of determining an energetically optimum orbit for the two-impulse transition of a rocket from one given point of the phase space of coordinates and velocities into another given point is reduced to finding the minimum of some function of two variables, being the instants of applying impulses. In the case of Kepler motion, the knowledge of the general solution of equations in variations makes it possible to find necessary derivatives of coordinates and velocities from boundary values in analytical form. As an illustration, the example of determining the Earth-Mars trajectory is presented. There are 10 references.

V. Brumberg

[Abstracter's note: Complete translation]

Card 1/1

89329

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S/033/61/038/001/012/019
E032/E314

AUTHORS: Brumberg, V.A., Kirpichnikov, S.N. and Chebotarev, G.A.

TITLE: On the Motion of Artificial Moon Satellites

PERIODICAL: Astronomicheskiy zhurnal, 1961, Vol. 38, No. 1, pp. 131 - 144

TEXT: The launching of artificial Moon satellites is a problem for the immediate future. It is known that a number of attempts have been made in the United States to put a satellite into orbit round the Moon, although all of them are said to have been entirely unsuccessful. The theory of motion of artificial Moon satellites has been widely discussed in Western literature (Buchheim - Ref. 1, Kooy - Ref. 2, Kooy and Berghuis - Ref. 3, Gröbner and Cap - Ref. 4 and Thüring - Ref. 5); in Soviet literature the theory of motion of these satellites was considered by Yegorov (Ref. 6) and Aksenov and Demin (Ref. 7). Prolonged observations of artificial Moon satellites may be of great interest from the point of view of celestial mechanics, since they can be used

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On the Motion of Artificial Moon Satellites

to improve the present data on the figure and mass of the Moon. The aim of the present paper is to investigate the motion of Moon satellites by considering a number of special cases, the solutions being obtained by numerical integrations. From the mathematical point of view the problem is reduced to the integration of equations of motion of a mass point having a negligible mass, moving in the gravitational field of the Moon and subject to perturbations due to the non-spherical Moon and the gravitational attraction of the Earth and the Sun. The motion of the artificial Moon satellite is described in terms of the mean anomaly $M$, the area vector $\bar{c}$ and the Laplace vector $\bar{f}$ which are defined by:

$$\bar{c} = \bar{r} \times \dot{\bar{r}} \qquad (5)$$

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On the Motion of Artificial Moon Satellites

and:

$$\bar{f} = \bar{r}\dot{\bar{r}}^2 - \dot{\bar{r}}(\bar{r}\dot{\bar{r}}) - \frac{m_o \bar{r}}{\dot{r}} \qquad (6),$$

where $\bar{r}$ is the lunocentric radius vector of the satellite. The Moon is assumed to have the form of a uniformly rotating homogeneous triaxial ellipsoid and the perturbation is represented in the form:

$$\bar{F} = \sum_{i=1}^{2} \frac{m_i}{r_i^3} [\bar{r}_i \varphi_i - \bar{r}(1 + \varphi_i)] + \operatorname{grad} V, \qquad (22)$$

The principal set of coordinates xyz is chosen to be the lunocentric system oriented along the principal axes of the ellipsoid of inertia of the Moon for the epoch 1960.0. In

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the derivation of the transformation formulae for this system of coordinates it is assumed that the Moon moves in accordance with the Cassini laws. The physical libration of the Moon is neglected. The initial instant of time is chosen to be $t_0$ = 1960, October 24.0. At this instant the Moon is in the neighbourhood of the perigee and is in the first quarter, which may facilitate the observation of the satellite from the Earth. The unit of time is one day and the unit of length is 10 mean radii of the Moon. The other initial data assumed are:

$$\left.\begin{aligned} \frac{m_2}{(m_0+m_1)} &= 329\,390, \\ \left(\frac{m_1}{m_0}\right) &= 81.375, \\ N &= \frac{2\pi}{(27^d.321\,6609)} \\ p &= 0.272\,274\,\rho_\delta, \\ \rho_\delta &= 6378.270 \text{ km}, \end{aligned}\right\} \qquad (38)$$

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On the Motion of Artificial Moon Satellites

where $r_e$ is the mean equatorial radius of the Earth,

$r_m$ is the radius of the Moon,

$m_0$, $m_1$ and $m_2$ are the masses of the Moon, the Earth and the Sun, respectively (multiplied by the gravitational constant) and

$N$ is the average angular velocity of the Moon around its axis.

The initial positions and velocities of the Earth and the Sun in the principal system of coordinates $xyz$ have the following values:

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$$\left.\begin{aligned} x_1 &= +0.128\,077\,44\cdot10^{2}, \\ y_1 &= -0.167\,612\,08\cdot10^{2}, \\ z_1 &= -0.245\,209\,82\cdot10^{1}, \\ x_2 &= \ \ 0.128\,601\,29\cdot10^{4}, \\ y_2 &= \ \ 0.844\,314\,33\cdot10^{4}, \\ z_2 &= \ \ 0.118\,582\,14\cdot10^{3}, \\ \dot{x}_1 &= \ \ 0.418\,764\,47\cdot10^{1}, \\ \dot{y}_1 &= \ \ 0.325\,042\,31\cdot10^{1}, \\ \dot{z}_1 &= -0.839\,719\,12\cdot10^{-2}, \\ \dot{x}_2 &= -0.143\,319\,51\cdot10^{3}, \\ \dot{y}_2 &= \ \ 0.229\,757\,57\cdot10^{2}, \\ \dot{z}_2 &= \ \ 0.334\,423\,30\cdot10^{1}. \end{aligned}\right\} \quad (41).$$

The initial distribution of the Moon, the Earth and the Sun at the initial instant of time is as shown in Fig. 2.
The following four orbits of the satellite are then computed:
1) polar orbit with small eccentricity (Cp) ;
2) equatorial orbit with small eccentricity (Ce) ;

Card 6/1[illegible]

On the Motion of Artificial Moon Satellites

3) polar orbit with large eccentricity (Ep);
4) equatorial orbit with large eccentricity (Ee).

For polar orbits (Cp, Ep) at $t_o$ it was assumed that:

$$i = 90^\circ, \quad \omega = 0^\circ, \quad \Omega = 171^\circ 340 \qquad (42).$$

The quantity $\Omega$ was found from the condition that the line of nodes for the satellite orbit is perpendicular to the direction of the Sun. For the equatorial orbits (Ce, Ee) it was assumed that:

$$i = 0^\circ, \quad \Omega + \omega = 171^\circ 340 \qquad (43).$$

Table 1 gives the summary of the initial data (key to Table 1:- 1 - element; 2 - type of orbit.)

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On the Motion of Artificial Moon Satellites

Table 1:

Сводка начальных данных Таблица 1

| Элемент Element | Тип орбиты Type of orbit | | | |
|---|---|---|---|---|
| | Cp | Ce | Ep | Es |
| $c_x$ | $0.13528276 \cdot 10^0$ | 0 | $0.18506427 \cdot 10_0$ | 0 |
| $c_y$ | $0.10194879 \cdot 10^1$ | 0 | $0.12150144 \cdot 10^1$ | 0 |
| $c_z$ | 0 | $0.10312460 \cdot 10^1$ | 0 | $0.12290275 \cdot 10^1$ |
| $f_x$ | $-0.12610546 \cdot 10^1$ | $-0.12610546 \cdot 10^1$ | $-0.46925243 \cdot 10^1$ | $-0.46925243 \cdot 10^1$ |
| $f_y$ | $0.19207686 \cdot 10^0$ | $0.19207686 \cdot 10^0$ | $0.71473935 \cdot 10^0$ | $0.71473935 \cdot 10^0$ |
| $f_z$ | 0 | 0 | 0 | 0 |
| $M$ | 0 | 0 | 0 | 0 |

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On the Motion of Artificial Moon Satellites

In the above table, M is the mean anomaly of the satellite. The initial values of the elements were found for orbits with low eccentricity from the condition:

$$h_p = 500 \text{ km}, \quad h_a = 1\,500 \text{ km} \tag{44}$$

so that:

$$a = 0.157\,582\,56, \quad e = 0.182\,705\,98 \tag{45}.$$

For orbits with large eccentricity the corresponding values were:

$$h_p = 500 \text{ km}, \quad h_a = 10\,000 \text{ km} \tag{46}$$

and:

$$a = 0.402\,30841, \quad e = 0.679\,869\,28 \tag{47}.$$

The quantities $h_p$ and $h_a$ denote the height of the pericentre

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and the apocentre at the initial instant of time. Finally, the mean anomaly M was chosen to be zero, i.e. at $t_o$ the satellite was at the pericentre of its orbit. The integration of the equations of motion was carried out by the Runge-Kutta method. 19 equations of the first order and one time equation were integrated. Table 3 gives the initial and final elements of the orbits (key to Table 3: Title - Change in Orbit Elements of the Satellite; 1 - type of orbit; 2 - number of revolutions; 3 - a (in lunar radii); 4 - T (in days); 5 - Cp; 6 - Ce; 7 - Ep; 8 - Ee.)
Fig. 3 gives the variation of the eccentricity with number of complete revolutions. Fig. 4 gives a similar plot for the quantity cos i and Fig. 5 gives the variation in the distance of the pericentre (in lunar radii).
Complete numerical data on the basis of which these graphs were plotted are reproduced. The authors intend to continue their work in this field.

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On the Motion of Artificial Moon Satellites

There are 5 figures, 7 tables and 8 references: 3 Soviet and 5 non-Soviet.

ASSOCIATION: Institut teoreticheskoy astronomii Akademii nauk SSSR (Institute of Theoretical Astronomy of the Academy of Sciences, USSR)

SUBMITTED: October 22, 1960

Card 11/14

S/033/61/038/004/009/010
E032/E514

AUTHOR: Brumberg, V. A.

TITLE: Random initial conditions and random parameters in celestial mechanics

PERIODICAL: Astronomicheskiy zhurnal, v.38, no.4, 1961, 738-753

TEXT: In the theory of motion of real celestial bodies, the initial conditions and parameters (e.g. masses) are derived from observations and are not, therefore, known exactly; they are random quantities which obey known probability distributions. The solution of the corresponding differential equations of motion is then a random process and the aim of the theory is to establish the associated probability distributions. The present paper is concerned with this type of problem and is divided into three sections. The first section is concerned with the determination of the time interval within which one can predict elliptical motion. The point is that in most problems in classical mechanics a slight indeterminacy in the initial conditions grows with time and the prediction of the motion becomes less and less reliable. M. Born (Ref.6: Dan.Mat.Fis.Medd., 30, No.2, 1955;

Random initial conditions ...

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E032/E514

Ref.7: Z.Phys., 153:372, 1958) has established a "principle of uncertainty" for classical mechanics: the more accurate the action variables the less accurate the angular variables. The present author applies the Born approach to the elliptic motion. The second section is concerned with random initial conditions and random parameters in the problem of two bodies and the third section treats the case of n bodies (inaccuracies in initial conditions and masses). It is assumed throughout that the initial distributions obey the normal law. In actual practice the distribution of the initial conditions must be determined from the observations themselves, as described by M. F. Subbotin (Ref.9: Mat.Sbornik, 31, 296, 1923; Ref.10: Astron. Nachr., 218, 5, 1923). The paper is entirely mathematical and no specific numerical calculations are given. There are 10 references: 6 Soviet and 4 non-Soviet.

ASSOCIATION: Institut teoreticheskoy astronomii Akademii nauk SSSR (Institute of Theoretical Astronomy, Academy of Sciences USSR)

SUBMITTED: September 17, 1960

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APGC/SSD Pd-4/Pe-4/Pq-4/Po-4/Pq-4 GW
ACCESSION NR: AR3002639 S/0124/63/000/005/A011/A011

SOURCE: RZh. Mekhanika, Abs. 5A57

86

AUTHOR: Brumberg, V. A.

TITLE: Numerical solution of a boundary value problem in celestial mechanics by the method of steepest descents.

CITED SOURCE: Byul. In-ta teor. astron. AN SSSR, v. 8, no. 4, 1962, 269-282

TOPIC TAGS: integral equation, celestial mechanics, boundary value problem, steepest descent method, action integral, trajectory

TRANSLATION: In § 1 are established various forms of the integral equations of the boundary problems of celestial mechanics. In § 2 it is proved that in the two body problem the action integral has a minimum for the arc of the actual trajectory less than 180°. In § 3 formulas are introduced for the solution of the boundary problem by the method of steepest descents, where the action integral is used as the function being minimized. In § 4 a numerical example of the determination of an unperturbed interplanetary trajectory by the method of steepest descent is given. Resume.

DATE ACQ: 14 Jun 63 SUB CODE: AS ENCL: 00

Card 1/1

BRUMBERG, V.A.

Total perturbations of the elements of artificial moon satellites.
Biul. Inst. teor. astron. 8 no.10:705-732 '62. (MIRA 17:8)

BRUMBERG, V.A.

Series of polynomials in the problem of three bodies. Biul. Inst. teor.astron. 9 no.4:234-256 '63. (MIRA 17:3)

BRUMBERG, V. A.

"Theory of the motion of artificial lunar satellites."

report submitted for 15th Intl Astronautical Cong, Warsaw, 7-12 Sep 64.

Leningrad Inst for Theoretical Astronomy, AS USSR

SHUDEL', M.S.; CHERNOGRAYDSKAYA, N.A.; BRUMBERG, V.A.; ROZANOV, Yu.M.; BRUMBERG, Ye.M.

Effect of some metabolic poisons of the respiratory chain on the ultraviolet fluorescence of cells. Dokl. AN SSSR 157 no. 2:447-450 Jl '64. (MIRA 17:7)

1. Institut tsitologii AN SSSR. Predstavleno akademikom A.I. Oparinym.

ACC NR: AR6035280 SOURCE CODE: UR/0269/66/000/009/0009/0009

AUTHOR: Brumberg, V. A.

TITLE: Representation of planet coordinates by trigonometric series

SOURCE: Ref. zh. Astronomiya, Abs. 9.51.87

REF SOURCE: Tr. In-ta teor. astron. AN SSSR, vyp. 11, 1966, 3-88

TOPIC TAGS: planetary orbit, ~~coordinate~~, three body problem, planet coordinate, trigonometric series, planet, ~~problem, intermediate orbit~~ astronomic geodesics

ABSTRACT: The author developes a generalized theory of the large planets of the solar system, i. e., by a representation of planet coordinates in the form of purely trigonometric expansions without secular terms. Two methods are suggested for the practical development of such a theory by means of modern computers. Both methods utilize rectangular coordinates, while the majority of the known methods make use of osculating elements. The essence of the first method lies in the application of the Hill-Browne lunar method to the planet problem. The intermediate orbit is a periodic solution of the first order in the restricted three-body

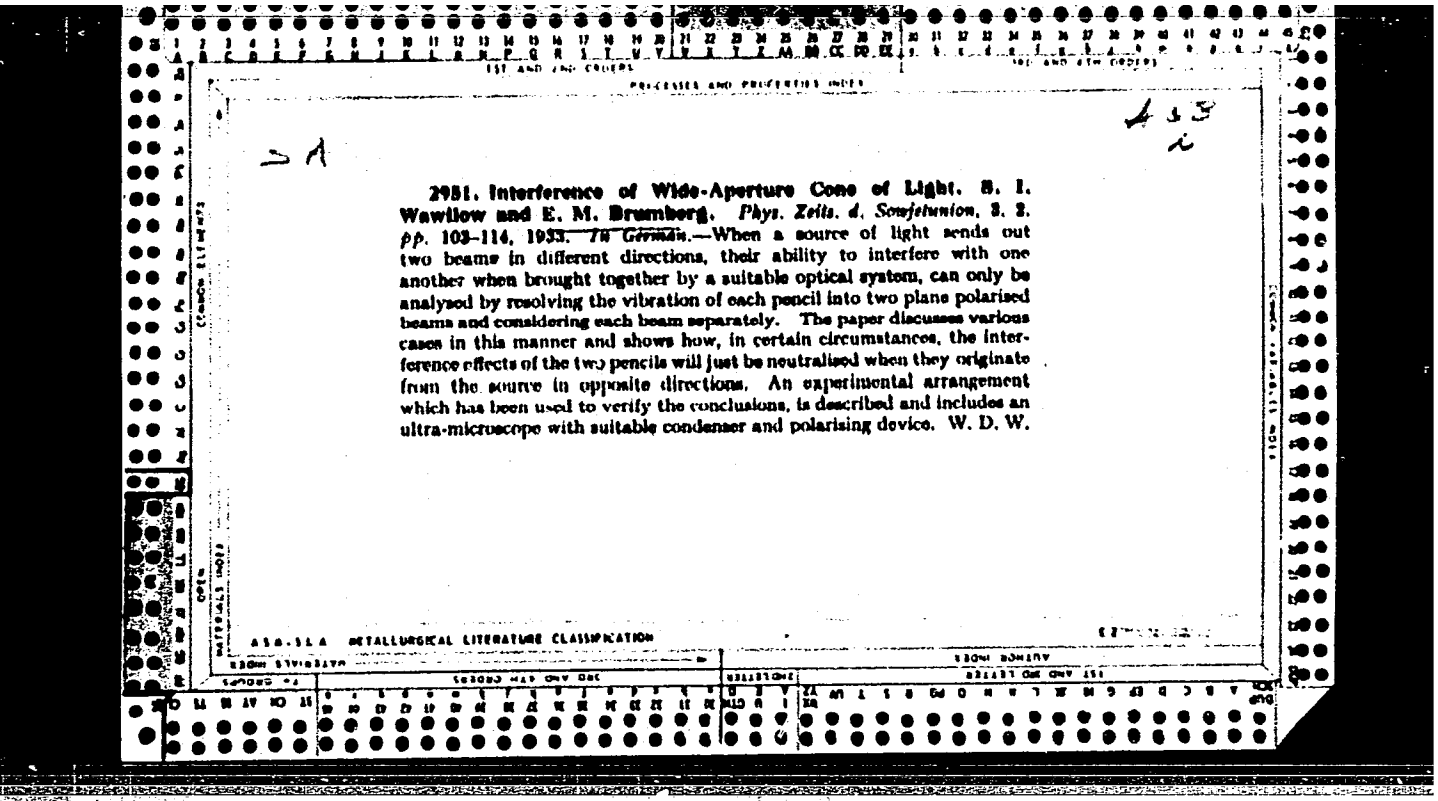
Card 1/2 UDC: 521.4

ACC NR: AR6035280

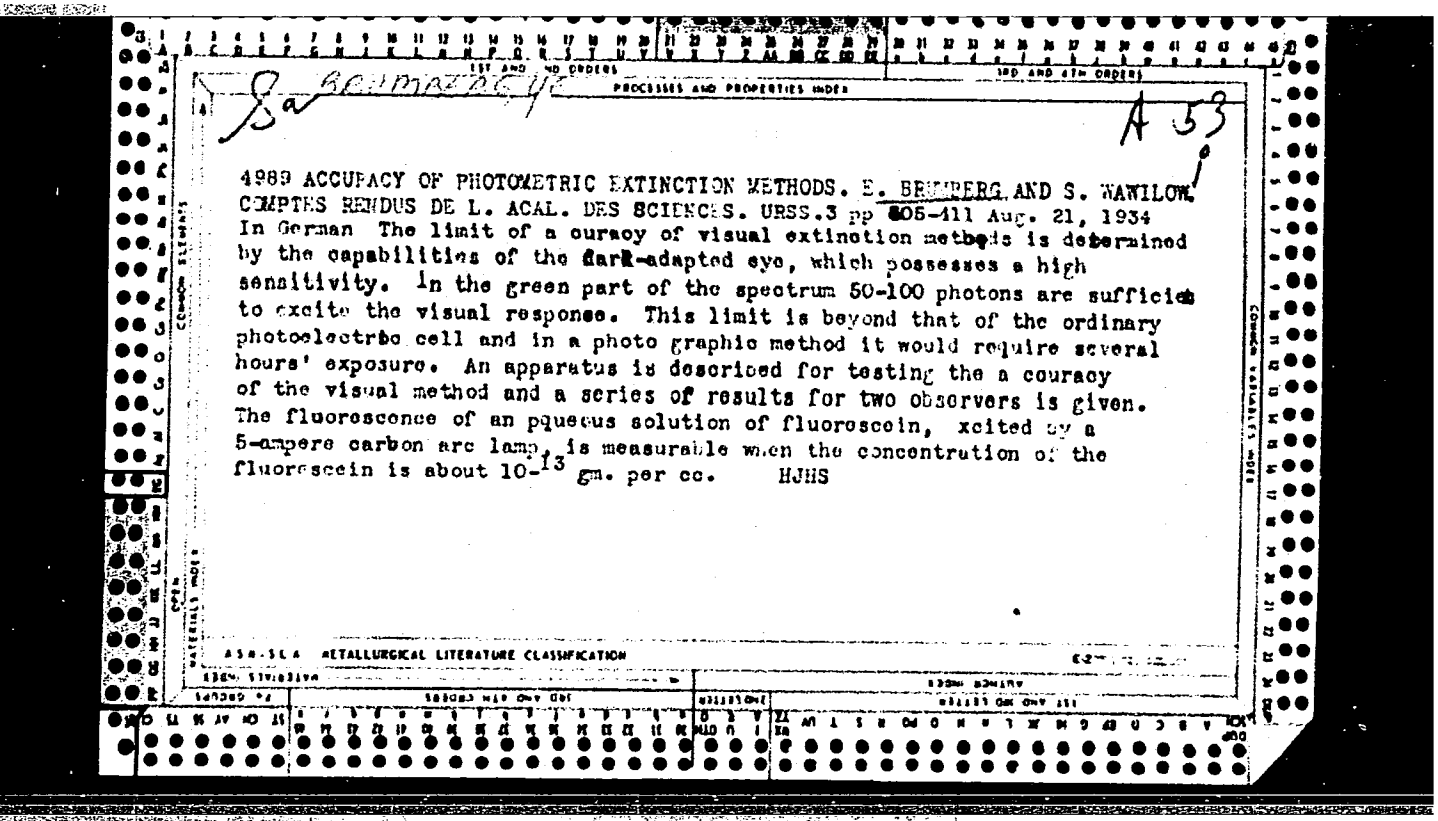
problem and a formal quasiperiodic solution of the planet problem. In both cases the intermediate orbit yields all the inequalities which do not depend on planet eccentricities and inclinations. The derived formulas make it possible to calculate the intermediate orbit up to and including third-order terms in relation to perturbing masses. The second method consists in substituting trigonometric series expressing rectangular coordinates in the planet-motion equation, in equating the coefficients of the right and left sides with equal trigonometric indexes, and in solving the nonlinear infinite algebraic system thus obtained for coefficients and frequencies. This method is the more expedient for the development of a generalized planet theory. The bibliography contains 43 titles. N. Yakhontova. [Translation of abstract] [DW]

SUB CODE: 03/

Card 2/2



2951. **Interference of Wide-Aperture Cone of Light.** S. I. Wawilow and E. M. Brumberg. *Phys. Zeits. d. Sowjetunion*, 3. 2. pp. 103–114, 1933. *In German.*—When a source of light sends out two beams in different directions, their ability to interfere with one another when brought together by a suitable optical system, can only be analysed by resolving the vibration of each pencil into two plane polarised beams and considering each beam separately. The paper discusses various cases in this manner and shows how, in certain circumstances, the interference effects of the two pencils will just be neutralised when they originate from the source in opposite directions. An experimental arrangement which has been used to verify the conclusions, is described and includes an ultra-microscope with suitable condenser and polarising device. W. D. W.



Sa ABSTRACT

PROCESSES AND PROPERTIES INDEX

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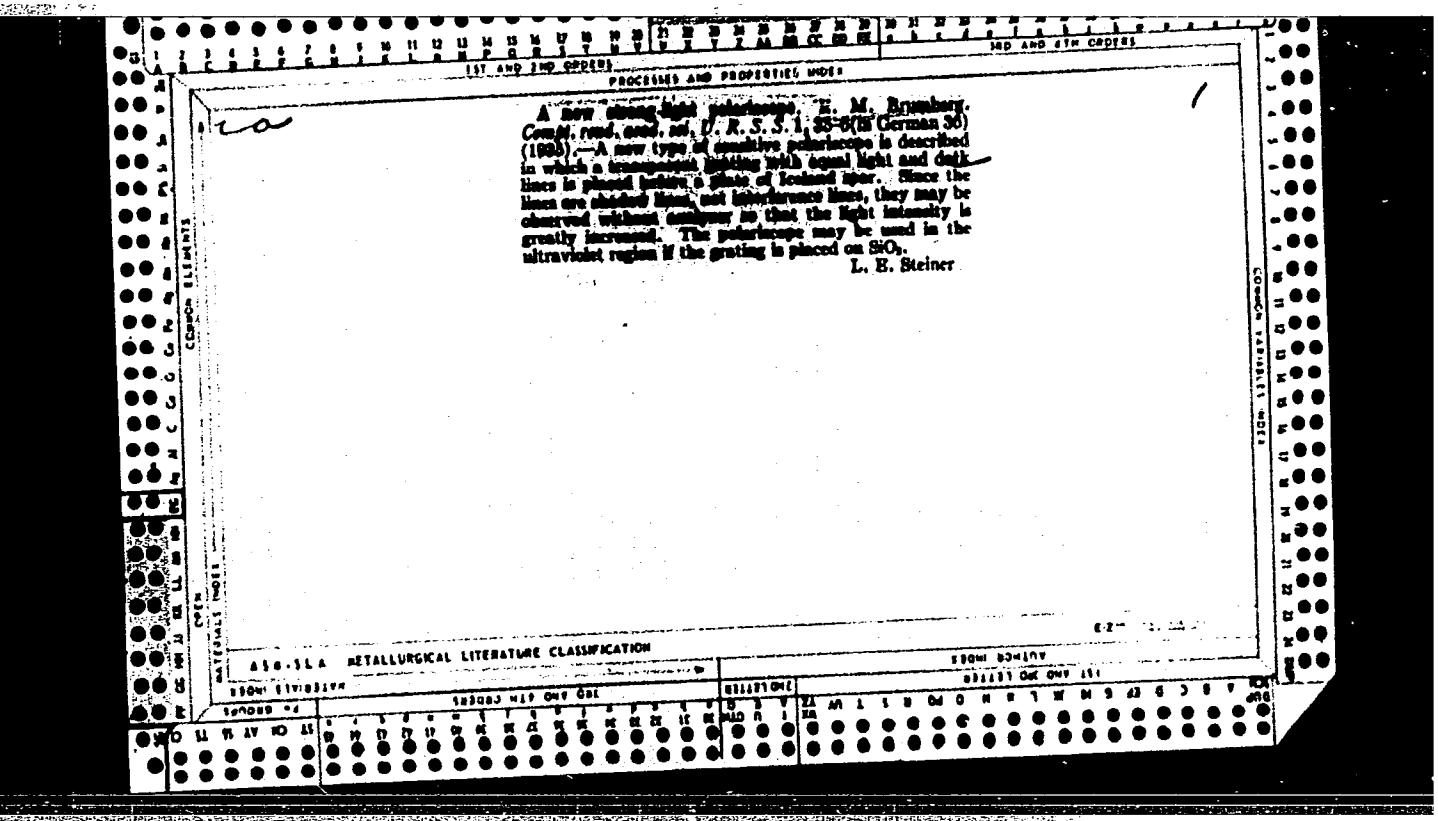
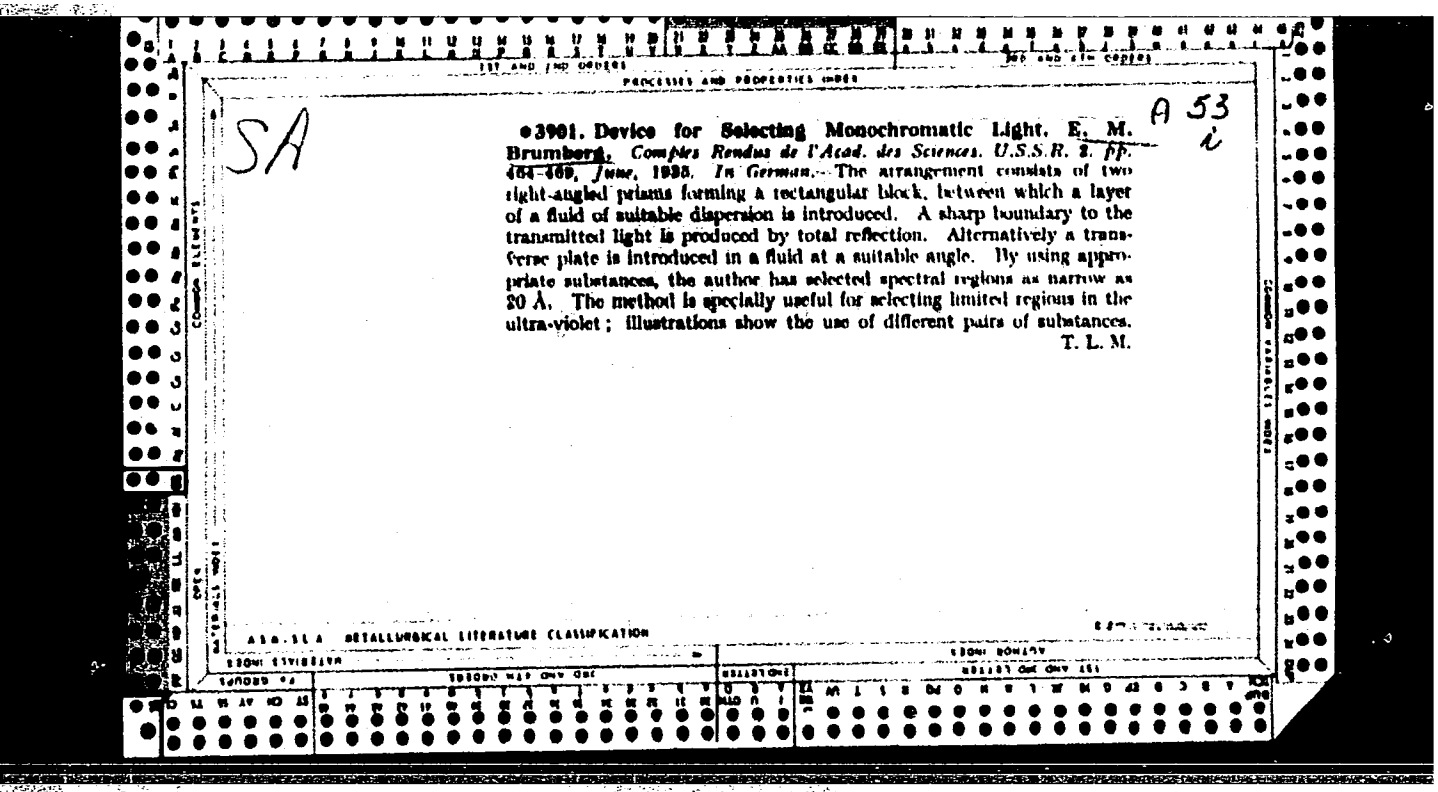
4989 ACCURACY OF PHOTOMETRIC EXTINCTION METHODS. E. BRUNBERG AND S. WANILOW. COMPTES RENDUS DE L. ACAL. DES SCIENCES. URSS.3 pp 405-411 Aug. 21, 1934 In German The limit of accuracy of visual extinction methods is determined by the capabilities of the dark-adapted eye, which possesses a high sensitivity. In the green part of the spectrum 50-100 photons are sufficient to excite the visual response. This limit is beyond that of the ordinary photoelectric cell and in a photographic method it would require several hours' exposure. An apparatus is described for testing the accuracy of the visual method and a series of results for two observers is given. The fluorescence of an aqueous solution of fluorescein, excited by a 5-ampere carbon arc lamp, is measurable when the concentration of the fluorescein is about $10^{-13}$ gm. per cc. HJHS

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



A new strong-light polariscope. E. M. Brumberg. *Compt. rend. acad. sci. U. R. S. S.* 1, 55-6(In German 56) (1935).—A new type of sensitive polariscope is described in which a transparent grating with equal light and dark lines is placed before a plate of Iceland spar. Since the lines are shaded lines, and interference lines, they may be observed without analyzer so that the light intensity is greatly increased. The polariscope may be used in the ultraviolet region if the grating is placed on $SiO_2$.

L. E. Steiner



SA

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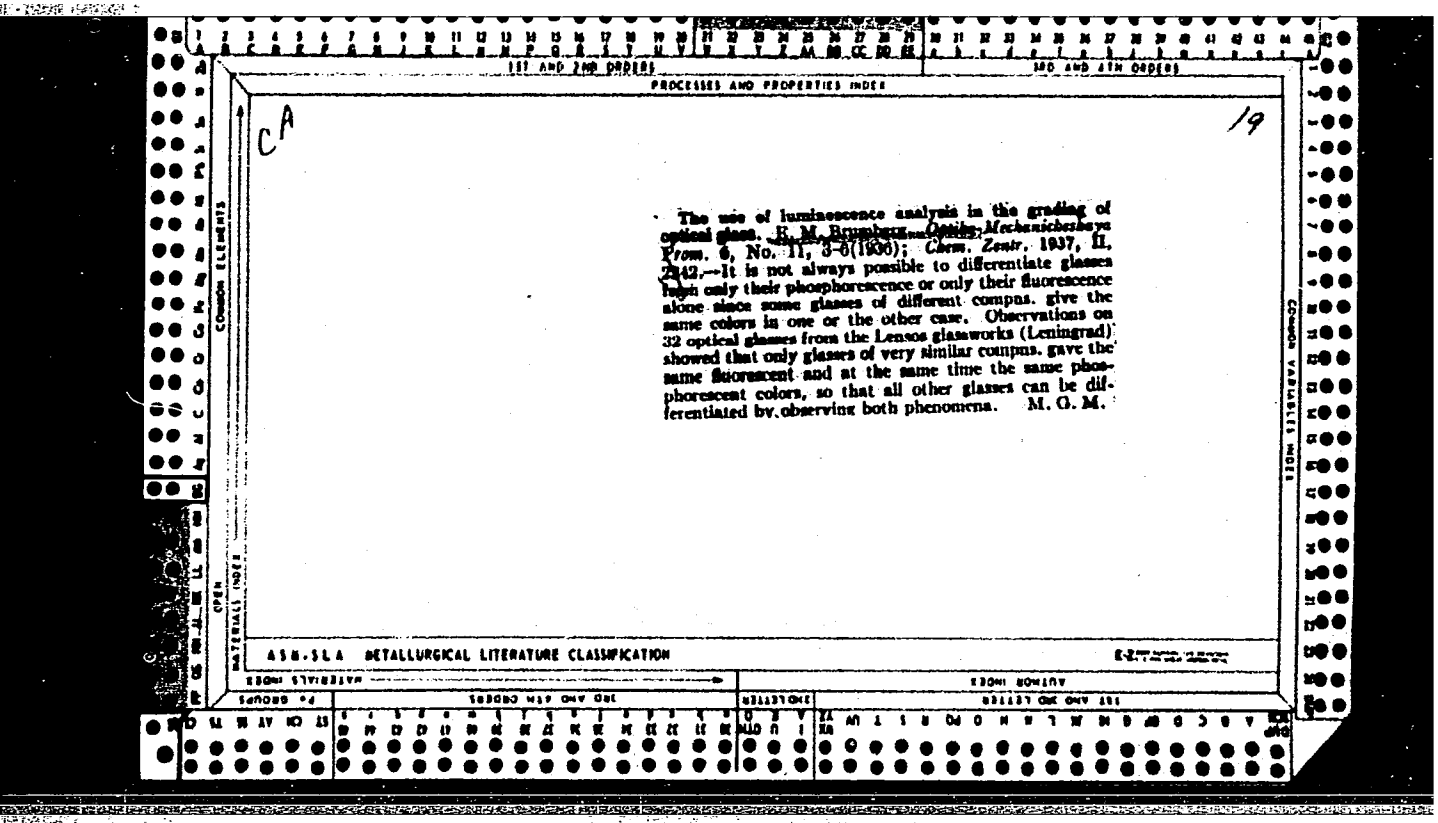
i

●3901. **Device for Selecting Monochromatic Light.** E. M. Brumberg. *Comptes Rendus de l'Acad. des Sciences. U.S.S.R.* 3. *pp.* 464–469, *June*, 1935. *In German.*—The arrangement consists of two right-angled prisms forming a rectangular block, between which a layer of a fluid of suitable dispersion is introduced. A sharp boundary to the transmitted light is produced by total reflection. Alternatively a transverse plate is introduced in a fluid at a suitable angle. By using appropriate substances, the author has selected spectral regions as narrow as 20 Å. The method is specially useful for selecting limited regions in the ultra-violet; illustrations show the use of different pairs of substances.
T. L. M.



1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

CA

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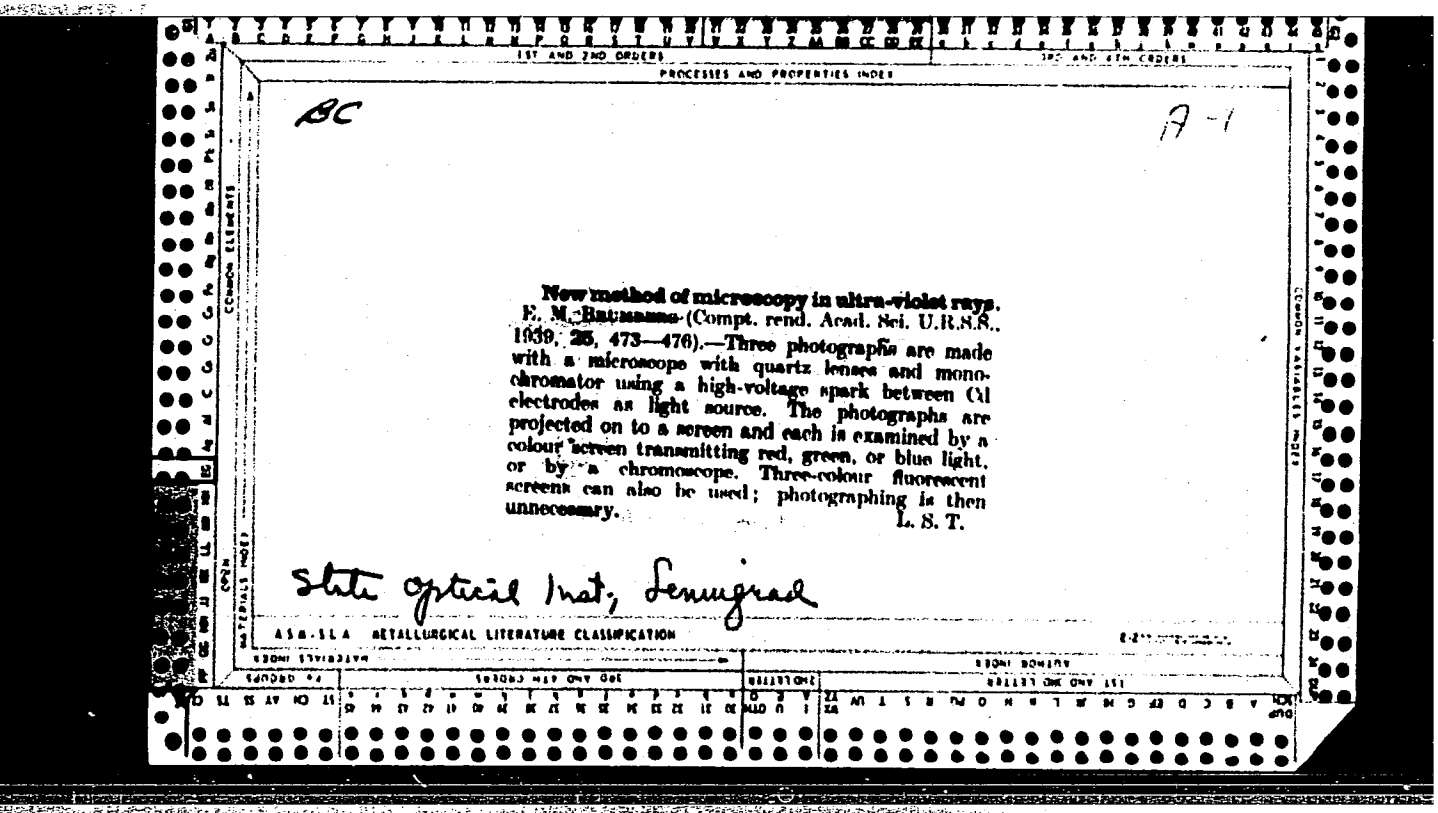
The use of luminescence analysis in the grading of optical glass. F. M. Brumberg. *Optiko-Mekhanicheskaya Prom.* 6, No. 11, 3-6(1939); *Chem. Zentr.* 1937, II, 2142.—It is not always possible to differentiate glasses both only their phosphorescence or only their fluorescence alone since some glasses of different compns. give the same colors in one or the other case. Observations on 32 optical glasses from the Lensos glassworks (Leningrad) showed that only glasses of very similar compns. gave the same fluorescent and at the same time the same phosphorescent colors, so that all other glasses can be differentiated by observing both phenomena. M. G. M.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

BC

A-1

**New method of microscopy in ultra-violet rays.** E. M. Batsanova. (Compt. rend. Acad. Sci. U.R.S.S., 1939, 25, 473—476).—Three photographs are made with a microscope with quartz lenses and monochromator using a high-voltage spark between Al electrodes as light source. The photographs are projected on to a screen and each is examined by a colour screen transmitting red, green, or blue light, or by a chromoscope. Three-colour fluorescent screens can also be used; photographing is then unnecessary.

L. S. T.

State optical Inst, Leningrad

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION