"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

L 27727-66 EWT(m)/EWP(j) RM/WH

ACC NR: AP6015435 SOURCE CODE: UR/0051/66/020/005/0903/0905

AUTHOR: Dovger, L. S.; Yermakov, B. A.; Lukin, A. V.; Shklover, L. P.

47
45
B

ORG: none

TITLE: Effect of stimulated emission on the transmission coefficient of some organic dye/solution

SOURCE: Optika i spektroskopiya, v. 20, no. 5, 1966, 903-905

TOPIC TAGS: ruby laser, stimulated emission, optic transmission, dye chemical, organic cyanate compound

ABSTRACT: Experiments are conducted to determine how much emission power density is required in the resonator of a ruby laser for transillumination of various organic solutions. A block diagram and brief description of the experimental equipment are given. Curves are also given showing the transmission coefficient as a function of incident radiation power for solutions of vanadyl phthalocyanine in dimethyl formamide, kryptocyanine in methanol, vanadyl phthalocyanine in nitrobenzene and zirconium phthalocyanine in α-bromonaphthalene. These curves show that transmission of the specimens approaches 100% at a power density of the order of several Mw/cm^2 which corresponds to energy densities of 10^{17} quanta/cm^2 in a period of 10^{-8} sec. This indicates that transillumination of specimens in this class is basically due to transi-

UDC: 621.375.9 : 535.004.14

2

Card 1/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

L 27727-66

ACC NR: AP6015435

2

tions from ground energy levels to singlet states with lifetimes of the order of $(2-8)\cdot10^{-9}$ sec. A reduction in solution concentration (increase in initial transmission) shifts the curve toward lower power densities without changing its shape. In conclusion the authors thank A. N. Terenin and O. D. Dmitriyevskiy for interest in the work. Orig. art. has: 3 figures. [14]

SUB CODE: 20/ SUBM DATE: 25Jun65/ ORIG REF: 001/ OTH REF: 003/

ATD PRESS: 5002

Card 2/2 BLG

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

L 20612-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6010752 SOURCE CODE: UR/0076/66/040/003/0741/0743

AUTHOR: Nasirdinov, S. B.; Shugam, Ye. A.; Berger, L. I.; Plyushchev, V. Ye.; Shklover, L. P.

ORG: All-Union Scientific Research Institute of Chemical Reagents and High Purity Chemicals (Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov i osobo chistyhh khimicheskikh veshchestv)

TITLE: Electrical conductivity of phthalocyanines of certain metals

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 3, 1966, 741-743

TOPIC TAGS: organic semiconductor, phthalocyanine, electric conductivity

ABSTRACT: The effect of the metal atom on the thermal activation energy for conduction of certain metal-containing phthalocyanines has been studied and the activation energy was correlated with the position of the peak in the long wavelength (320 to 1100 mμ) region of the absorption spectrum. To this end, the temperature dependence of conductivity was measured and absorption spectra were recorded for phthalocyanines of transition metals of groups IV (titanium, zirconium, and hafnium) and VIII (nickel, palladium, and platinum) of the periodic table. Chloro derivatives of the phthalocyanines were used in all cases except that of nickel. Electrical measurements were carried out for pellet samples in vacuum (10^{-3} mm Hg) at 25 to 230C. It was found that the temperature dependence of conductivity obeyed an exponential law in all

Card 1/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

L 20612-66

ACC NR: AP6010752

cases. Electrical conductivities varied from 5×10^{-13} to 2×10^{-10} mho/cm and activation energies from 1.35 to 1.60 ev. The activation energy and the energy required for transition of the chlorophthalocyanines changed symbatically and rose with increasing atomic number of the metal. It is suggested that this rise is associated with an increase in the donor-acceptor interaction between the metal atom and nitrogen atoms in the phthalocyanines. The energy of electrons in the conducting state was lower than the energy of the lowest excited state. [SM]

SUB CODE: 20, 11/ SUBM DATE: 23Jul65/ ORIG REF: 006/ OTH REF: 007/ ATD PRESS: 4124

Card 2/2 BK

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

L 07832-67 EWT(l)/EWP(e)/EWT(m)/EEC(k)-2/EWP(j)/EWP(k) IJP(c) WG/RM/WH

ACC NR: AP6033817 SOURCE CODE: UR/0188/66/000/004/0103/0105

AUTHOR: Nizhegorodova, I. V.; Fadeyev, V. V.; Shvom, Ye. M.; Shklover, L. P.

ORG: Department of Wave Processes, Moscow State University (Kafedra volnovykh protsessov, Moskovskiy gosudarstvennyy universitet)

TITLE: Q-switching of ruby laser with help of bleachable filters made of phthalocyanine solutions

SOURCE: Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, no. 4, 1966, 103-105

TOPIC TAGS: ruby laser, laser modulation, passive Q switch, liquid Q switch, metal phthalocyanine

ABSTRACT: The dynamics of development of giant pulses and optimization of parameters of a ruby laser with a bleachable liquid filter, the Q-switching efficiency of the filter as a function of its absorption characteristics, have been studied experimentally. The experimental setup consisted of a 120 mm ruby rod 12 mm in diameter and a cell with a phthalocyanine solution which was placed in the cavity of the laser. The cavity was formed by a mirror with 99% reflection and a plane-parallel glass plate as the exit mirror. The bleaching process was initiated under the effect of fluorescence, then developed under the effect of an ordinary laser pulse which grew into a giant pulse by an avalanche-type mechanism. The coefficient of initial transmission (T) of the filter should satisfy the equation $R_1T^2 \simeq$ Reff, where R_1 is the

UDC: 621.378.325

Card 1/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

reflection coefficient of one of the mirrors (99% in the experiment) and Reff is the reflection coefficient of the exit mirror. The width of the absorption band of the bleachable solution should be less than 300 Å and the shift of its absorption peak in relation to the pulse emitting wave length should be less than 50 Å for a good Q-switching filter. These conditions were met to an optimum degree in solutions of vanadyl phthalocyanine in nitrobenzene, zirconium phthalocyanine in nitrobenzene and in benzyl alcohol. Giant pulses of 70, 70, and 55 Mw, respectively, were obtained with the above solutions, at 12 kJ pumping energy and T = 12%. The output power of the giant pulses was one or two orders of magnitude lower with the solutions of aluminum phthalocyanine chloride in nitrobenzene or ethyl alcohol and of zirconium phthalocyanine in toluene or ethyl alcohol. The authors thank S. A. Akhmanova and R. V. Khokhlova for valuable discussion. Orig. art. has: 3 figures and 1 table.

SUB CODE: 07, 20/ SUBM DATE: 22Sep65/ ORIG REF: 003/ OTH REF: 003/ ATD PRESS: 5101

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

L 07320-67 EWT(m)/EWP(j) IJP(c) RM

ACC NR: AP6034154 SOURCE CODE: UR/0076/66/040/010/2614/2616

AUTHOR: Nasirdinov, S. D.; Shugam, Ye. A.; Berger, L. I.; Shklover, L. P.; Gurevich, M. Z.

ORG: All-Union Institute of Chemical Reagents (Vsesoyuznyy institut khimicheskikh reaktivov)

TITLE: Electrical conductivity of polymeric phthalocyanines of certain transition metals

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 10, 1966, 2614-2616

TOPIC TAGS: organic semiconductor, semiconducting polymer, polyphthalocyanine

ABSTRACT: Polymeric phthalocyanines of scandium, cobalt, and zirconium have been prepared and their electrical properties have been studied. It is noted that previously electrical properties had been studied only for the polymeric phthalocyanine of copper. The polymers were dark powders insoluble in dimethylformamide and α-bromonaphthalene, and readily soluble only in concentrated H_2SO_4. The temperature dependence of conductivity was measured at 20—250C for pressed pellet samples in a stream of dry argon, and the thermal activation energy for conduction was determined and correlated with the most intense long-wave

Card 1/2 UDC: 631.315.592

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

ACC NR: AP6034154

absorption band in the visible region. It was found that the temperature dependence of conductivity obeys an exponential law. Measurement of the temperature dependence of thermoelectric power showed that the conduction was n-type in the entire temperature range. The conductivity at 293K for the polymers was in the range 10^{-7} to 10^{-9} mho/cm. The activation energy varied from 0.53 to 0.62 ev, values much lower that for the monomers. The activation energy varied symbatically with optical excitation energy. Orig. art. has: 2 tables.

SUB CODE: 11, 20/ SUBM DATE: 17Dec65/ ORIG REF: 004/ OTH REF: 005
ATD PRESS: 5101

Card 2/2 lc

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

[redacted], V. A., Engr. Cand. Tech. Sci.

Dissertation: "Optimum Conditions for the Formation of Lines in Corrosion-Casting Machines." Moscow Polygraphic Inst, Ministry of Higher Education USSR, 3 Mar 47.

SO: Vecherniaya Moskva, Mar, 1947 (Project #17836)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVER, Ye.S.

New design of coal classification screens. Ugol' Ukr. 5 no.7:36-38 Jl '61. (MIRA 15:1)

1. Ukrainskiy gosudarstvennyy proyektno-konstruktorskiy i nauchno-issledovatel'skiy institut po obogashcheniyu i briketirovaniyu ugley.
(Donets Basin--Coal preparation plants--Equipment and supplies)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKAYA, A.I.

ARIFOV, R. A., KOPILOVA, D. K. LYUBIMOV, V.B.Y., NIKITIN, A. V., PODGORETSKIY, M.I., PORTNOVA, S. I., RISAYEV, H., STRELTSOV, V. N., TRKA, S., and SHKLOVSKAYA, A. I.
RISAYEV G.

"Inelastic Interactions of π^- Mesons with Nucleons at 7 Gev"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Joint Institute for Nuclear Research,
Laboratory of High Energy, Dubna, 1962

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

KURBA [illegible], L.I.; [illegible], L.I.; [illegible], G.M.; [illegible], I.V.; [illegible], [illegible].

Determining the electron energy in the range of 20 to 250 Mev. in a xenon bubble chamber. Prib. i tekh.eksp. 10 no.5:61-63 S-O '65. (MIRA 19:1)

1. Obyedinennyy institut yadernykh issledovaniy, Dubna. Submitted July [illegible], [illegible].

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SOKOLOVSKIY, A.L.

SOKOLOVSKIY, A.L., professor; SMOLYANITSKIY, M.Ye., nauchnyy sotrudnik; AUNINA, O.V., nauchnyy sotrudnik; SHKLOVSKAYA, A.Ye., nauchnyy sotrudnik; GREYSER, R.Ya., nauchnyy sotrudnik.

Continuous mechanized production of caramel. Trudy VKNII no.9:3-48 '54. (MLRA 7:8)

(Confectionery) (Pastry)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

YERMAKOVA, T.P.; SHKLOVSKAYA, A.Ye.

Experimental mass production line for the processing of chocolate candy. Ref. nauch. rab. VKNII no.1:96-98 '57. (MIRA 11:3)
(Chocolate)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

YERMAKOVA, T.P.; SHKLOVSKAYA, A.Ye.; KOKASHINSKIY, G.R.

Mechanized production line for confectionery chocolate. Khleb. i kond. prom. 1 no.5:22-23 My '57. (MLRA 10:6)
(Chocolate)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

YERMAKOVA, T.P.; SHKLOVSKAYA, A.Ye.; KOKASHINSKIY, G.R.

Automatic continuous method for the production of bulk chocolate. Khleb. i kond. prom. 1 no.9:12-16 S '57. (MIRA 10:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut konditerskoy promyshlennosti (for Yermakova i Shklovskaya). 2. Moskovskaya konditerskaya fabrika "Krasnyy Oktyabr'" (for Kokashinskiy).
(Chocolate)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

AVDEYEVA, A.V., doktor tekhn.nauk; ALEKHIN, S.F., inzh.; ALTUNDZHI, K.S., inzh.; BRONSHTEYN, I.I., kand.khim.nauk; BRUSHTEYN, M.S.; GRIGOR'YEV, F.B., inzh.; ZHELEZNOVA, V.V., inzh.; ISTOMINA, M.M., kand.tekhn.nauk; KOZLOV, S.A., inzh.; KOLESNIKOVA, V.K., inzh.; KOCHETKOV, I.A., inzh.; LUNIN, O.G., kand.tekhn.nauk; MANNINA, T.A., inzh.; SEREBRYAKOV, M.N., inzh.; SMOLYANITSKIY, M.Ye., inzh.; TYURIN, A.I., kand.tekhn.nauk; TSYBUL'SKIY, A.A., inzh.; CHERNOIVANNIK, A.Ya., inzh.; SHKLOVSKAYA, A.Ye., inzh.; BEN', G.M., inzh., retsenzent; MARSHALKIN, G.A., kand.tekhn.nauk, retsenzent; GUSAKOV, A.I., red.; MARTYNOV, M.I., kand.tekhn.nauk, red.; KRUGLOVA, G.I., red.; KISINA, Ye.I., tekhn.red.

[Confectioner's manual] Spravochnik konditera. Pod obshchei red. M.I. Martynova. Moskva, Pishchepromizdat. Pt.2.[Technological equipment of the confectionery industry] Tekhnologicheskoe oborudovanie konditerskogo proizvodstva. 1960. 630 p. (MIRA 14:3)

(Confectionery--Equipment and supplies)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

MARTYNOV, M.I.; SHKLOVSKAYA, A.Ye.

Determining the coefficient of heat transmission in coil vacuum apparatuses. Trudy VKNII no.16:17-21 '62. (MIRA 16:5)
(Heat—Transmission) (Vacuum apparatus)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

ANTOKOL'SKAYA, Mir'yam Yakovlevna; BRONSHTEYN, Isaak Iosifovich; MARTYNOV, Mikhail Ivanovich; SMIRNOV, Anatoliy Fedorovich; SHKLOVSKAYA, Anna Yevgen'yevna; ZHURAVLEVA, Ye.I., retsenzent; SOLOMONOV, P.I., retsenzent; YERMOKHINA, N.V., red.;

[Manual on raw materials, intermediate products and finished products in confectionery; manufacture; physicochemical characteristics] Spravochnik po syr'iu, polufabrikatam i gotovym izdeliiam konditerskogo proizvodstva; fiziko-khimicheskie kharakteristiki. Moskva, Izd-vo "Pishchevaia promyshlennost'," 1964. 229 p. (MIRA 17:5)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKOLOVSKAIA, D.Yu.; CHERNENKO, N.I.

Average hematological indexes of donors in the city of Karkov as related to the time of the year. Vop.perel.krovi 4:249-255 '55.
(KHARKOV--BLOOD DONORS) (MIRA 9:12)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

[illegible]

Cams

Analytic and graphic method of shaping a cam with a flat pusher. Trudy Mosk. inst. khim. mash., No. 2, 1950.

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

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SOV/123-59-16-64904

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 16, p 175 (USSR)

AUTHORS: Gessen, B.A., Shklovskaya, F.A.

TITLE: Device for the Continuous Measurement of Pressure and Vacuum

PERIODICAL: Tr. Mosk. in-ta khim. mashinostr., 1958, 17, 173 - 178

ABSTRACT: A device for the measurement of pressure and vacuum in processes, proceeding quickly and slowly, was designed and tested by the Moscow Institute of Chemical Machine Construction. The sensitive part of the device is an elastic ring, rigidly fastened to a rod with a diaphragm taking up the pressure. The application of wire pick-ups permits, in addition to the measurement of the process, its continuous recording with the aid of self-recorders or oscillographs. By this the pick-ups are switched into the circuit of the bridges. The feed of the pick-ups is effected by an amplifying generator with a frequency of 6,000 cycles. The device is distinguished by an extensive measuring range, its simple design and adjustment. The design excludes the effects of temperature on the indications of the device. 4 circuits.

R.I.S.

Card 1/1

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKAYA, F.A.

Design of rotary air blowers. Trudy MIKHM 24:22-39 '62.
(MIRA 18:3)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKAYA, G.

Large selection of good quality furniture. Sov.torg. 35 no.2:35-38 F '62. (MIRA 15:1)
(Moscow--Furniture--Exhibitions)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

GINZBURG, Ye.A.; ZHUKOVA, M.P.; SHKLOVSKAYA, I.G.

Antibacterial therapy under dispensary conditions. Probl. tub. 38 no.2:32-36 '60. (MIRA 13:11)

1. Iz Nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. V.F.Chernyshev, zamestitel' direktora po nauchnoy chasti - prof. D.D.Aseyev) i protivotuberkuleznogo dispansera No. 16 Moskvy (glavnyy vrach N.N. Yevdokimov).
(TUBERCULOSIS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

ZHUKOVA, M.F., kand.med.nauk; FINKEL', R.N.; SHKLOVSKAYA, I.G.; ASEYEVA, N.P.; CHEREZHNIKOVA, S.F.

Errors in the determination of the activity of minor forms of pulmonary tuberculosis. Probl. tub. 42 no.12:33-36 '64. (MIRA 18:8)

1. Moskovskiy nauchno-issledovatel'skiy institut tuberkuleza (direktor - kand.med.nauk T.P.Mochalova; zamestitel' direktora po nauchnoy chasti - prof. D.D.Aseyev) Ministerstva zdravookhraneniya RSFSR i protivotuberkuleznyy dispanser Nr. 16 (glavnyy vrach P.A. Zal'manin), Moskva.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

GINZBURG, Ye.A.; SHKLOVSKAYA, I.G.

Determination of phthivazide and other compounds of isonicotinic acid in the urine. Lab. delo 7 no.10:17-20 O '61. (MIRA 14:10)

1. Moskovskiy nauchno-issledovatel'skiy institut tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - V.F.Chernyshev) i protivotuberkuleznyy dispanser No.16 (glavnyy vrach N.N.Yevdokimov), Moskva.
(ISONICOTINIC ACID) (URINE--ANALYSIS AND PATHOLOGY)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

GINZBURG, Ye.A.; SHKLOVSKAYA, I.G.

Laboratory control for the regulation of the use of paramino-salicylic acid and phtivazid for patients with tuberculosis under ambulatory conditions. Lab. delo 10 no.5:274-275 '64.
(MIRA 17:5)

1. Moskovskiy nauchno-issledovatel'skiy institut tuberkuleza (direktor T.P.Mochalova, zamestitel' direktora po nauchnoy chasti - prof.D.D.Aseyev) Ministerstva zdravookhraneniya RSFSR i protivotuberkuleznyy dispanser No.16 (glavnyy vrach - P.A. Zal'munin), Moskva.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKAYA, I.V.; GORNAK, X.A.

Metastasis of malignant tumors of the penis; so called tumorous priapism. Urologiia no.3:46-50 Jl-S '55. (MLRA 8:10)

1. Iz urologicheskogo (nauchnyy rukovoditel'-prof. A.Ya.Pytel') i patologoanatomicheskogo otdeleniy Moskovskoy 1-y Gorodskoy bol'nitsy imeni N.I.Pirogova (glavnyy vrach L.D.Chernyshev)

(PENIS, neoplasms
metastatic, causing priapism, diag.)
(PRIAPISM, etiol. and pathogen.
cancer of penis, metastatic, diag.)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

VOL, Abram Yevgen'yevich; AGEYEV, N.V., red.; ABRIKOSOV, N.Kh., doktor tekhn.nauk, red.; KORNILOV, I.I., red.; SAVITSKIY, Ye.M., red.; OSIPOV, K.A., doktor tekhn.nauk, red.; GUSEVA, L.N., kand.khim. nauk, red.; MIRGALOVSKAYA, M.S., kand.khim.nauk, red.; SHKLOVSKAYA, I.Yu., red.; MURASHOVA, N.Ya., tekhn.red.

[Structure and properties of binary metal systems] Stroenie i svoistva dvoinykh metallicheskikh sistem. Pod rukovodstvom N.V.Ageeva. Moskva, Gos.izd-vo fiziko-matem.lit-ry. Vol.1. [Physicochemical properties of elements; nitrogen, actinium, aluminum, americium, barium, beryllium, and boron systems] Fiziko-khimicheskie svoistva elementov; Sistemy azota, aktiniia, aliuminiia, ameritsiia, bariia, berilliia, bora. 1959. 755 p. (MIRA 13:3)

1. Chlen-korrespondent AN SSSR (for Ageyev).
(Metals) (Phase rule and equilibrium)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

VOL, Abram Yevgen'yevich; AGEYEV, N.V., red.; ABRIKOSOV, N.Kh., doktor khim.nauk, red.; KORNILOV, I.I., doktor khim.nauk, red.; SAVITSKIY, Ye.M., doktor khim.nauk, red.; OSIPOV, K.A., doktor tekhn.nauk, red.; GUSEVA, L.N., kand.khim.nauk, red.; MIRGALOVSKAYA, M.S., kand.khim.nauk, red.; SHKLOVSKAYA, I.Yu., red.; MURASHOVA, N.Ya., tekhn.red.

[Structure and properties of binary metallic systems] Stroenie i svoistva dvoinykh metallicheskikh sistem. Pod rukovodstvom N.V. Ageeva. Moskva, Fizmatgiz. Vol.2. [Systems of vanadium, bismuth, hydrogen, tungsten, gadolinium, gallium, hafnium, germanium, holmium, dysprosium, europium, iron] Sistemy vanadiia, vismuta, vodoroda, vol'frama, gadoliniia, galliia, gafniia, germaniia, gol'miia, disprozilia, evropiia, zheleza. 1962. 982 p. (MIRA 15:5)

1. Chlen-korrespondent AN SSSR (for Ageyev).
(Alloys) (Systems (Chemistry)) (Phase rule and equilibrium)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKAYA, R.M.; SUKHANOVA, I.M.

Preparation of analytically pure lithium and cesium salts. Prom.khim. reak. i osobo chist.veshch. no.2:61-66 '63. (MIRA 17:2)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

LITVAK, R.I.; SHKLOVSKAYA, R.Sh.

Use of vitamin P from tea leaves in capillary toxicosis of children. Vit. res. i ikh. isp. no.4:240-244 '59. (MIRA 14:12)

1. 25-ya Gorodskaya bol'nitsa, Moskva.
(VITAMINS--P) (HEMORRHAGIC DISEASES)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

GORIZONTOV, P.D., prof., red.; SHKLOVSKAYA, S.S., red.; LYUDKOVSKAYA, N.I., tekhn. red.

[Pathological physiology of acute radiation sickness; experimental data on the biological effect of external ionizing radiations]Patologicheskaia fiziologiia ostroi luchevoi bolezni; eksperimental'nye materialy po biologicheskomu deistviiu vneshnikh ioniziruiushchikh izluchenii. Moskva, Medgiz, 1958. 374 p. (MIRA 16:2)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Gorizontov).

(RADIATION SICKNESS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

MOROZOV, A.L., red.; KHODZHASH, A.V., red.; SHKLOVSKAYA, S.S., red.; KUZ'-MINA, N.S., tekhn. red.

[Physiological peculiarities, clinical aspects of the diseases, and problems in the industrial hygiene of employed adolescents] Fiziologicheskie osobennosti, klinika zabolevanii i voprosy gigieny truda rabochikh-podrostkov. Izd.2., ispr. i dop. Moskva, Gos. izd-vo med. lit-ry Medgiz. Vol.2. [Clinical peculiarities in the course of some diseases of adolescence] Klinicheskie osobennosti techeniia nekotorykh zabolevanii v podrostkovom vozraste. 1961. 191 p. (MIRA 14:8)
(CHILDREN—DISEASES)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

MUKHAMEDZYANOVA, Galina Sergeyevna; SHKLOVSKAYA, S.S., red.; POGOSKINA, M.V., tekhn. red.

[Clinical aspects and treatment of leukemia in children] Klinika i lechenie leikozov u detei. Moskva, Medgiz, 1961. 194 p. (MIRA 15:7)

(LEUKEMIA)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

GAVALOV, Sergey Mikhaylovich; SHKLOVSKAYA, S.S., red.; MIRONOVA, A.M., tekhn. red.

[Chronic nonspecific pneumonias in children and their treatment by stages] Khronicheskie nespetsificheskie pnevmonii u detei i ikh etapnoe lechenie. Moskva, Medgiz, 1961. 203 p. (MIRA 15:7)
(PNEUMONIA)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKAYA, T.

Salesman as a main character in a play. Sov. torg. 34 no.4:47-48 Ap '61. (MIRA 14:4)

(Clerks (Retail trade) in literature and art)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

[illegible] N

SHULUTKO, I.B., professor; TOLMACH, D.V., [illegible]; SHKLOVSKAYA, Ya.N.

Discipline for treating peptic ulcers. Vrach.delo no. 2:[illegible] (MIRA [illegible])

1. Kafedra fakultetskoy terapii [illegible] I.B. Shulutko) Stalinskogo meditsinskogo instituta
(PEPTIC ULCER) (NERVOUS SYSTEM, SYMPATHETIC)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHULUTKO, I.B.; TOLMACH, D.V.; SHKLOVSKAYA, Ye.N.

Treatment of peptic ulcer of the stomach and duodenum with dioquine. Khim. i med. no.15:102-106 '60. (MIRA 15:1)

1. Iz kafedry fakul'tetskoy terapii (zav. kafedroy - prof. I.B. Shulutko) Stalinskogo meditsinskogo instituta imeni A.M.Gor'kogo.
(PEPTIC ULCER) (DIOQUINE--THERAPEUTIC USE)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKAYA-KORDI, V.V.

J-4

USSR / Acoustics. Ultrasonics.

Abs Jour : Ref Zhur - Fizika No 3, 1957, No 7467

Author : Zarembo, L.K., Krasil'nikov, V.A., Shklovskaya-Kordi, V.V.
Inst : Laboratory of Anisotropic Structures, Academy of Sciences USSR, Moscow

Title : Distortion of Ultrasonic Waves of Finite Amplitude in Liquids.

Orig Pub : Dokl. AN SSSR, 1956, 109, No 3, 485-488

Abstract : An investigation was made of the behavior of harmonics in a wave of finite amplitude, propagating in a liquid. The quartz radiator operated at a frequency of 1.5 Mc. The receivers were quartz plateswith resonant frequencies 1.5, 3, 4.5 Mc. The dependence of the amplitude of the acoustic pressure of the second and third harmonic on the distance to the radiator was obtained graphically for various voltages on the quartz in the following liquid media: tap water, transformer oil, and glycerin. The distortion in the shape of the sound wave and the associated appearance of harmonics in the liquid is made possible by the non-

- 75 -

Card : 1/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR / Acoustics. Ultrasonics.

J-4

Abs Jour : Ref Zhur - Fizika No 3, 1957, No 7467

Abstracts : linearity of the equation of motion and of the ratio between the pressure p and the density ρ in the adiabatic process.

Card : 2/2

- 76 -

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR / Acoustics. Ultrasound J-4

Abs Jour : Ref Zhur - Fizika, No 5, 1957, No 12708

: The laws that are fulfilled are: (1) The relative increase in absorption $\Delta\alpha/\alpha_0$ is linearly dependent on the sound pressure. (2) For liquids for small values of $2\omega\tau$, the ratio α/λ^2 is greater than for liquids with large $2\omega\tau$. At the same time, there is enough of a quantitative deviation from this theory, and this is explained by losses in the formation of the acoustic flow, and also by possible increase in the relaxation losses in a wave of finite amplitude. Bibliography, 8 titles.

Card : 3/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

AUTHOR: Zarembo, L.K., Krasilnikov, V.A. and Shklovskaya-Kordi, V.V.

TITLE: Propagation of ultra-sonic waves of finite amplitude in liquids. (O rasprostranenii ultrazvukovykh voln konechnoy amplitudy v zhidkostyakh.)

46-1-4/20

PERIODICAL: "Akusticheskiy Zhurnal" (Journal of Acoustics), 1957, Vol. III, No. 1, pp. 29 - 36 (U.S.S.R.)

ABSTRACT: Non-linear properties of liquids have been directly proved by Mikhaylov 1) from the "mixing" effect of two ultra-sonic waves, by Gorelik, A.G. and Zverev, 2), who achieved amplitude and phase modulation of ultra-sonics by sound, by Loeber and Hidemann, 3), who observed by optical method the distortion of standing waves in liquids and by the authors of the present article in one of their earlier works, 4), in which they observed harmonics of a wave with finite amplitude propagated in a liquid. These non-linear properties of liquids govern the wave propagation in liquids. It can be said that the greater the amplitude the greater would be the coefficient of absorption; the fact observed by Rykhenvald, A.A. 5), during experiments to confirm the investigations by Neklepayev, N. of ultra-sound absorption in air. In the present article, results of experimental determination of the absorption coefficient, of a wave with finite amplitude in various liquids, as a function of the sound intensity (with a fundamental of 1.5 Mc/s)

Card 1/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

Propagation of ultra-sonic waves of finite amplitude in liquids. (Cont.) 46-1-4/20

ASSOCIATION: Laboratory of Anisotropic Structures, Academy of Sciences, U.S.S.R. (Laboratoriya anizotropnykh struktur AN SSSR, Moskva.)

SUBMITTED: April 21, 1956.

AVAILABLE:

Card 3/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKAYA-KORDI, V.V. 46-4-14/17

AUTHORS: Zarembo, L.K. and Shklovskaya-Kordi, V.V.

TITLE: A Method of Visualisation of Acoustic Flow on the Interface between Two Immiscible Liquids (Metod vizualizatsii akusticheskogo techeniya na granitse dvukh nesmeshivayushchikhsya zhidkostey)

PERIODICAL: Akusticheskiy Zhurnal, 1957, Vol.III, Nr 4, pp.373-374 (USSR)

ABSTRACT: A simple method of visualisation of lines of flow is described. A plexiglass vessel (20 x 20 x 20 cm) was covered with a silencer at one end and half-filled with glycerine and then filled up with vaseline oil. The interface between the two liquids was on the axis of a quartz radiator working on a frequency of 5 Mc/s. A coloured water drop is let into the vaseline oil and falls through it until it reaches the interface and spreads out to form a thin coloured film. The film moves along the flow lines, and a flow line pattern can be clearly seen and photographed. A figure showing the pattern as a function of time is shown on p.373. N. A. Udarov and L. I. Odintsov are thanked for their assistance. There is 1 figure.

Card 1/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

46-4-14/17

A [illegible] of Variation of Acoustic Flow on the Interface between Two Immiscible Liquids.

AUTHOR: [illegible] Laboratory for Aerospace Structures, Academy of [illegible] of the USSR (Laboratoriya aviatsionnykh konstruktsiy Akademii [illegible] SSSR)

PUBLISHED: May 25, 1957.

AVAILABLE: Library of Congress.

Card 2/2 1. Acoustic flow-Determination

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKAYA-KORDY, V. V.
BUROV, V. A., ZAREMBO, L. K., KRASIL'NIKOV, V. A. and SHKLOVSKAYA-KORDY, V. V.

"Some Problems on the Propagation of Waves of Finite Amplitude in Liquids."

Paper presented at the 5th All-Union Conf. on Acoustics, Moscow, 26 May - 2 Jun 58.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

81372
S/046/60/006/01/07/033
B008/B011

24.1800

AUTHORS: Zarembo, L. K., Shklovskaya-Kordi, V. V.

TITLE: On the Problem of the Propagation Rate of Ultrasonic Waves of Finite Amplitude in a Liquid

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 1, pp. 47 - 51

TEXT: The authors investigated the propagation rate of the zeros of a wave of finite amplitude in aqueous methyl alcohol solution with a temperature coefficient of velocity amounting to $\sim 10^{-5}$ grad^{-1}, as well as in water by the phase method. Such points of the sound wave were designated as zeros in the work under review (Fig. 1), whose amplitude is equal to zero, viz. whose state does not differ from the one in the undisturbed medium (the distance between the zeros being equal to λ). The scheme of the experimental setup is illustrated in Fig. 2. The change in velocity was determined with a maximum accuracy of 0.003%. On a change of the voltage at the quartz from 100 v to 1.5 kv, a considerable rise (of the order of 100 m/sec) was observed in the propagation rate. In this case, the phase change with time occurred discontinuously (Fig. 3).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

81372

On the Problem of the Propagation Rate of Ultrasonic Waves of Finite Amplitude in a Liquid

S/046/60/006/01/07/033
B008/B011

This rise in velocity arises at a certain section and is probably basically related to secondary cavitation effects. Measurements in a tube under constant overpressure ($\sim$1 atmosphere) showed with an accuracy of $\sim 7 \cdot 10^{-3}$% that the propagation rate of the zeros of a wave of finite amplitude of vibration with Reynolds numbers $\sim$10 and Mach numbers $\sim 4 \cdot 10^{-4}$ remains constant. The authors thank V. A. Krasil'nikov, M. A. Isakovich for their useful advice, and Engineer K. L. Gurdin for their assembling and adjusting of the phasometer. There are 3 figures and 10 references: 8 Soviet and 2 American.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva
(Institute of Acoustics, AS USSR, Moscow)

SUBMITTED: July 28, 1959

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKAYA-KORDI, V.V.

Acoustic method for measuring the internal pressure in aqueous solutions of sodium chloride. Zhur.fiz.khim. 36 no.5:1114 My '62. (MIRA 15:8)

(Sodium chloride) (Solution (Chemistry))

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

S/046/63/009/001/018/026
B104/3186

AUTHOR: Shklovskaya-Kordi, V. V.

TITLE: An acoustical method for determining internal pressure in liquids

PERIODICAL: Akusticheskiy zhurnal, v. 9, no. 1, 1963, 107 - 111

TEXT: The internal pressure $P = \varrho_0 c_0^2/n$ of a liquid is determined by measuring the parameter $n = \frac{c_p}{c_v}\varkappa_1$, which characterizes the non-linearity of the equation $p = A\left\{\left(\frac{\varrho}{\varrho_0}\right)^n - 1\right\}$, with an arrangement shown in Fig. 1. The method is based on the fact that distortion of finite amplitude waves depend on n: $p_2 = \frac{n+1}{4}\left(p_1^2 \frac{\varkappa\omega}{\varrho_0 c_0^3}\right)$, where p_1 and p_2 are the pressure amplitudes of the first and second harmonic. n may be determined from measurements of the absolute pressures p_1 and p_2. In the work described in the present paper, measurements were carried out in distilled water; in other liquids

Card 1/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

An acoustical method for...

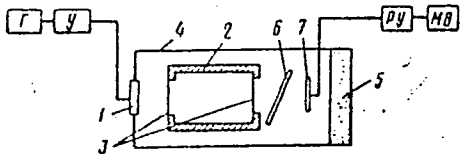
and in aqueous solutions of NaCl, n was determined with respect to distilled water. n of distilled water is 7.1 and the intermolecular distance r is $4.6 \cdot 10^{-8}$ cm. n and r of other 16 liquids are given in a table. There are 4 figures and 1 table.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Acoustics Institute AS USSR, Moscow)

SUBMITTED: May 11, 1962

Fig. 1. Experimental arrangement.

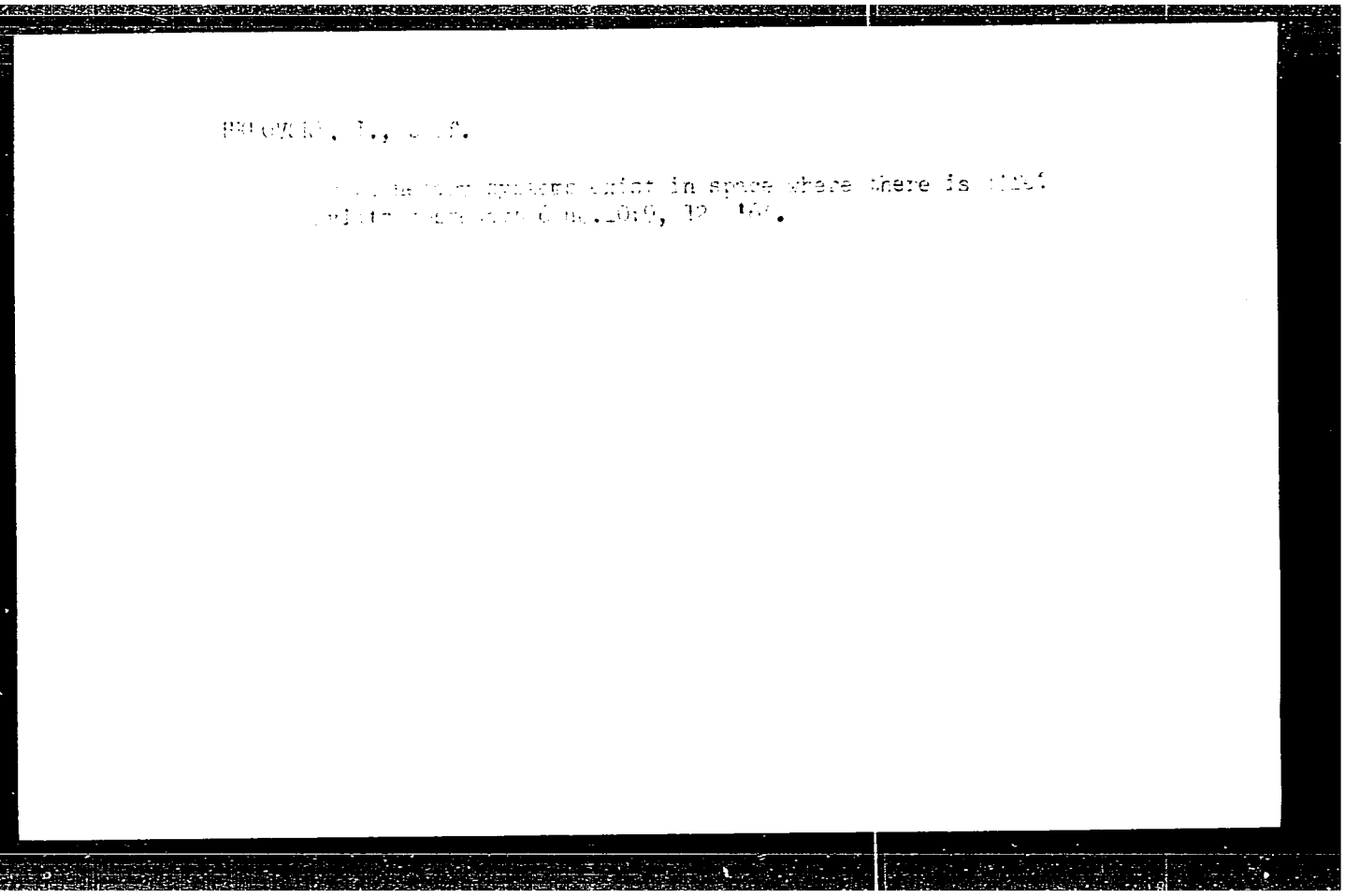
Legend: (1) quartz emitter; (2) sample cell; (6) filter for separation of the second harmonic; (7) quartz pick-up.



Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7



APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, Ariel' Mendelevich

Materials for study of aging changes of humerous bones

Dissertation for candidate of a Medical Science degree, Chair of Normal Anatomy (head, Prof. V.I. Bik), Saratov Medical Institute, 1942

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, B., inzh.

Our payment practice for construction work. Fin. SSSR 22 no.3: 80-81 Mr '61. (MIRA 14:7)

1. Klaypedskoye otdeleniye Stroybanka Litovskoy SSR.
(Klaypedskiy District--Construction industry--Finance)
(Klaypedskiy District--Banks and banking)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

ACC NR: AR6033569 SOURCE CODE: UR/0181/66/008/010/3050/3050

AUTHOR: Gurevich, L. E.; Shklovskiy, B. I.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Contribution to the theory of second sound in semiconductors

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 3050-3055

TOPIC TAGS: semiconductor theory, semiconductor carrier, carrier density, crystal defect, phonon scattering, sound wave, semiconductor research, phonon

ABSTRACT: The authors consider second sound produced in semiconductors not by all the phonons, as in earlier investigations, and not in the presence of an external electric field, but by longitudinal phonons only in the absence of an electric field. It is shown that for second sound to be produced under these conditions it is necessary that the temperature be much lower than the Debye temperature (less than one-tenth of the latter), that the carriers not interact with optical phonons, that the semiconductor be sufficiently pure to minimize scattering of the phonons by defects, and that the electron and hole concentrations must be sufficiently large and close to each other. The frequencies at which second sound is realizable range from 10^6 to 10^8 cps. At the

Card 1/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

ACC NR: AP6033569

indicated low temperatures, a high carrier density can be produced by illumination. The dissipation in the phonon-carrier interaction is estimated and it is shown that at high carrier density the second sound is weakly damped. An experiment capable of disclosing the presence of second sound in semiconductors is suggested. Orig. art. has: 1 figure and 9 formulas.

SUB CODE: 20/ SUBM DATE: 25Feb66/ ORIG REF: 002/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

MEYSTEL', A.M., inzh.; RASHKOVICH, M.P., inzh.; SHKLOVSKIY, B.I., inzh.

Causes of the vibration of asynchronous motors with simultaneous d.c. and a.c. feed. Elektrotekhnika 35 no.7:32-36 '64. (MIRA 17:11)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, G.S.

Torsional cyst of the omentum simulating strangulated hernia.
Vest.khir. 89 no.11:143 N '62. (MIRA 16:2)

1. Iz khirurgicheskogo otdeleniya (zav. - G.S. Shklovskiy) Kusinskoy rayonnoy bol'nitsy Chelyabinskoy oblasti. Adres avtora: Chelyabinskaya oblast', Kusa, Gorodskaya bol'nitsa.
(OMENTUM--TUMORS) (AERNIA) (CYSTS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

KADYROV, F.A.; CHEROVSKIY, G.P.

Eosinophilic granuloma of the stomach. Khirurgiia 40 no.3: 110-112 Mr '64. (MIRA 17:9)

1. Lipetskiy oblastnoy onkologicheskiy dispanser (glavnyy vrach F.A. Kadyrov).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, G.S.; KADYROV, F.A.

Hemangioma of the large intestine with invagination. Vest. khir. 93 no.9:114 S '64. (MIRA 18:4)

1. Iz Lipetskogo oblastnogo onkologicheskogo dispansera (glavnyy vrach - F.A. Kadyrov).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, G.V.

Using the gluing method without lasting in manufacturing infants' bootees. Kozh.-obuv.prom. 2 no.2:24 F '60. (MIRA 13:5)

1. Glavnyy inzhener Chirchikskoy obuvnoy fabriki.
(Chirchik--Shoe manufacture)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

May 1946

USSR/Corona, Solar
Solar Phenomena

"Some of the Results Obtained at the Sternberg State Astronomical Institute in Studying Solar Corona and Chromosphere," S. I. Bugoslavskaya, V. M. Pariyskiy, I. S. Shklovskiy, 23 pp

"Izv Ak Nauk Ser Fiz" Vol X, No 5/6

Table showing the concentration of ionic Fe and Ni in the corona. Table showing the wave-lengths and spectral terms of iron ions. Schema of the solar corona of 21 Sep 1941. Graph showing the deviation from the normal of the coronal radiation with position on the solar surface. Many sketches of the chromosphere for various years. Two diagrams showing various isographs around the sun for intensity of radiation for various elements (Fe, Ni, etc.).

PA 12T76

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

Jun 1946

USSR/Radio Waves
Magnetism, Terrestrial

"The Radiation of Radio Waves by the Galaxy and the Upper Layers of the Solar Atmosphere," 14 pp.

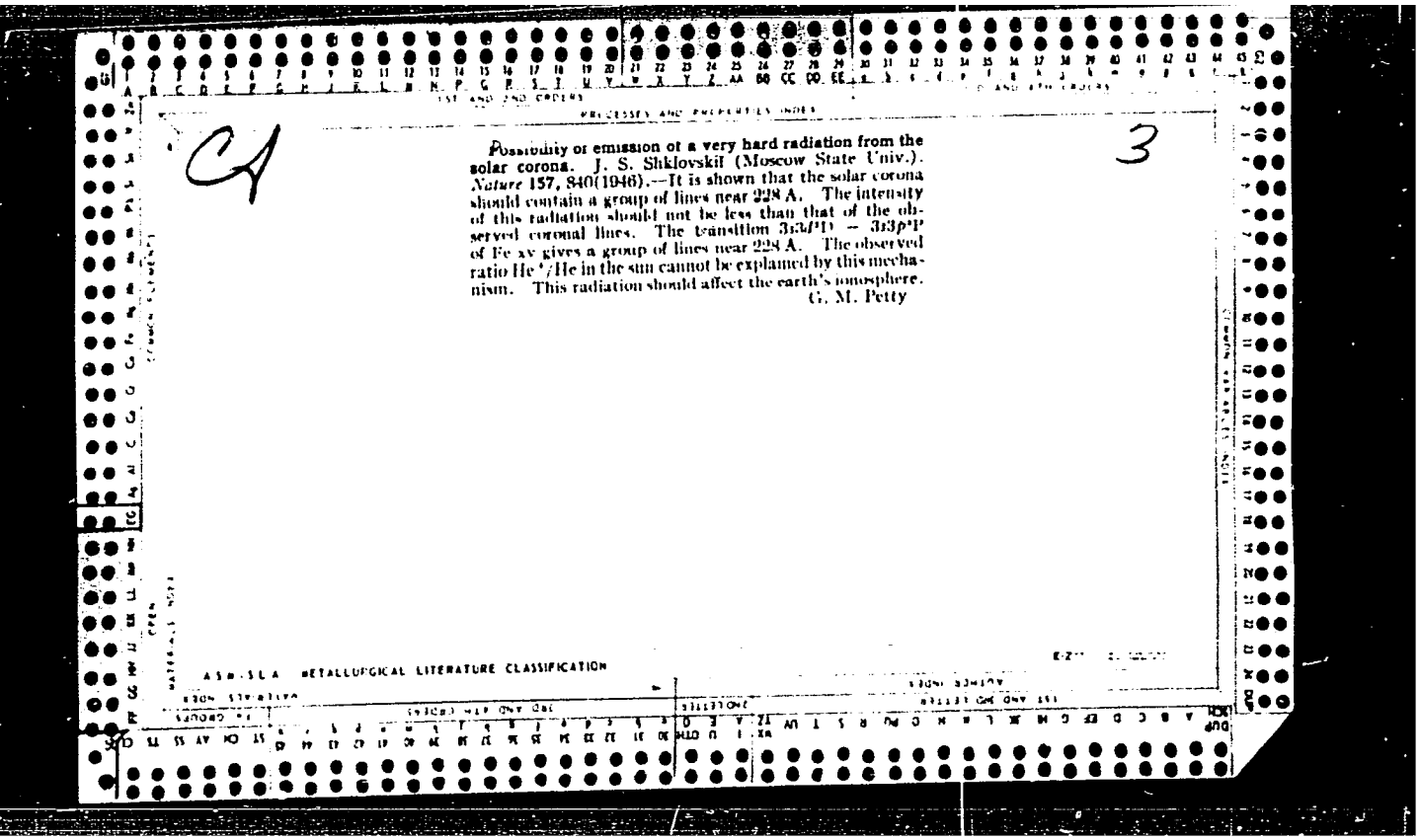
Astron. Zhur., Vol. 23, No. 4 6, 1946

A theoretical interpretation of the investigations made by Reber, Southworth and Appleton. The author points to the possibility of existence of correlation between the sporadic radio emission of the sun and the magnetic storms on the earth and makes some predictions on the spectral composition of this radiation.

13?76

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7



C1

3

Possibility of emission of a very hard radiation from the solar corona. J. S. Shklovskiĭ (Moscow State Univ.). *Nature* 157, 840(1946).—It is shown that the solar corona should contain a group of lines near 228 A. The intensity of this radiation should not be less than that of the observed coronal lines. The transition $3s3p^3D - 3s3p^3P$ of Fe XV gives a group of lines near 228 A. The observed ratio He^4/He in the sun cannot be explained by this mechanism. This radiation should affect the earth's ionosphere.
G. M. Petty

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR/Physics Jul 48
Radio Waves - Propagation
Solar Phenomena

"Radio Emission of the Galaxy and Sun," I. S. Shklovskiy, Gand Physicomath Sci, 8 pp

"Nauka i Zhizn'" No 7

Discusses radio emission in the universe, in the galaxy, and from the sun, and problems in radio emission by celestial bodies. Shows Reber's apparatus for observing radio emission and his isophotographs of the firmament. Shows a time record of intensity changes in radio emission of

33/49T102

USSR/Physics (Contd) Jul 48

parts of the Milky Way adjoining the sun as a function of the latter's yearly movement.

33/49T102

SHKLOWSKIY, I. S.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

PA76T100

USSR/Physics May/Jun 1948
Astronomy
Corona, Solar

"The Ionization of the Solar Corona," I. S. Shklovskiy, 11 pp

"Astron Zhur" Vol XXV, No 3

Demonstrates unsoundness of Sach's theory. Main factor is ionization by electronic bombardment, as T_e of the corona is very high. Equating number of bombardment ionizations to number of recombinations gives formula very different from Sach's. Calculates iron ionization and gives equilibrium conditions as

USSR/Physics (Contd) May/Jun 1948

system of linear equations and solves for various values of T_e. Results show that $T_e = 350,000^\circ$ is too low for observed ionization. At $700,000^\circ$ Fe X and Fe XI will predominate; this corresponds to Wal'd mayer's "red areas." At $1,400,000^\circ$ Fe XIII and Fe XIV will predominate, which may correspond with the "green areas."

76T100

SHKLOVSKIY, I. S.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

PA 11/49T104

Jul/Aug 48

USSR/Physics
Stellar Systems
Stellar Measurements

"Radio Emissions of the Galaxy," I. S. Shklovskiy, 8 3/4 pp

"Astron Zhur" Vol XXV, No 4

Maximum intensities of radio emissions of Galaxy coincide with groups of Class O hot stars. This is explained by existence of extensive ionized hydrogen zones around these groups. In these zones electronic concentration is several times higher than in other regions of Galaxy. Estimates that

14/49T104

Jul/Aug 48

USSR/Physics (Contd)

optical thickness (for radio emission) of ionized hydrogen zone in Cygnus fully explains observed radio emission intensity. Suggests close connection between zones of emission of the interstellar line H α and distribution of radio emission intensity. Explains phenomena of fluctuation of radio emission intensity in Cygnus of anomalously high long-wave intensity by "splashes" of radio emission on separate stars. Discusses Wolf-Rayet stars in detail. Suggests radio emission of Galaxy consists of gaseous and stellar components.

14/49T104

SHKLOVSKIY, I. S.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

PA 61/49T85

SHKLOVSKIY, I. S.

Nov 48

USSR/Physics
Spectrum
Ions

"Problem of Identifying the Corona Line Lambda 5,694.42 Angstroms," I. S. Shklovskiy, First State Astr Inst imeni Shternberg, Moscow State U, 3¼ pp

"Dok Ak Nauk SSSR" Vol LXIII, No 1

Observations and calculations for the ion FeXII corroborate the conclusion that the line lambda 5,694.42 Angstroms has been incorrectly identified. Decisive experiment in choosing between hypotheses as to "hot" or "cold" regions of brightness of the

61/49T85

61/49T85

USSR/Physics (Contd) Nov 48

yellow line is measuring its semiwidth, which can be done outside an eclipse. Submitted by Acad G. A. Shayn 1 Sep 48.

61/49T85

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHTOKMAN, L. S.

"Certain Problems of the Physics of the Upper Layers of the Sun's Atmosphere." Thesis for degree of Dr. Physicomathematical Sci. Sub 13 Nov 48, Moscow Order of Lenin State U imeni M. V. Lomonosov.

Summary 10, 11 Dec 52, Dissertations presented for Degrees in Science and Engineering in Moscow in 1948. From Vechernyaya Moskva, Jan-Dec 1948.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

I. S. Shklovskii

The Ultra-Violet Radiation Of The Crown and The Chromosphere and The Ionization of The Terrestrial Atmosphere

Academy of Sci of the USSR, Izd Moscow
Vol. 4, 1949, pp. 80-114

From: Monthly List of Russian Accessions
December 1951, Vol. 4, No. 9, p. 25

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

Jan/Feb 49

USSR/Physics
Astronomy
Radio Waves - Propagation

"Monochromatic Radio-Emanation of the Galaxy and the Possibility of Observing It," I. S. Shklovskiy, State Astr Inst imeni P. K. Shternberg, 5 pp

"Astron Zhur" Vol XXVI, No 1

A monochromatic radio-emanation of frequency 1,421.3 megacycles ($\lambda = 21$ cm) occurs in the transitions between components of superfine structure of basic state of interstellar hydrogen atoms. Calculates probability of transition to be 0.72×10^{-15} sec^{-1}. Determines half-width of this emanation line by Doppler effect. $\Delta\nu_D = 4 \times 10^{-4}$ sec^{-1}. Optical thickness of interstellar hydrogen for this monochromatic radio-emanation is small. Intensity of the line $\lambda = 21$ cm is tens of times greater than intensity of the continuous radiospectrum band of the Galaxy and its width is $2\Delta\nu_D$. Investigates possibilities of detecting this emanation experimentally. Shows that, with radio apparatus of present-day sensitivity, this emanation will be detected if the "gain" of the antenna is over 65, which is attainable. Shows that monochromatic radio-emanation is not to be expected from other interstellar atoms. The molecules CH, CH+, OH can give monochromatic emanation (for OH, $\lambda = 9.54$ cm) occurring in transitions between components of the Λ-duplicate of the basic rotary state. This emanation can be detected. Studying distribution of monochromatic radio-emanation intensity in the sky gives extremely important data on physical state of interstellar gas.

30/49T89

SHKLOVSKIY, I. S.

30/49T89

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR/Physics Jan 49
Astronomy
Solar Phenomena

"The New Theory of Solar Eruptions and Sudden Disturbances of the Ionosphere in the D Layer Dependent Upon Them," I. S. Shklovskiy, State Astr Inst imeni P. K. Shternberg, 3 pp

"Dok Ak Nauk SSSR" Vol LXIV, No 1

Gives a short resume of various theories on connection between sudden disturbances of the D field of the ionosphere (so-called Dillinger effect) and the appearance of visible erruptions (ejection of masses of gas from deeper [redacted]

PA 26/49T84

26/49T84

USSR/Physics (Contd) Jan 49

fields of the solar atmosphere) on the sun. Submitted 23 Aug 48.

[redacted] S

SHKLOVSKIY, I.

26/49T84

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR/Astronomy - Chromosphere 11 Oct 49
Hydrogen, Distribution

"Anomalous Distribution of Densities in the Chromosphere," I. S. Shklovskiy, Crimean Astrophys Obs, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXVIII, No 5

Discusses Menzel and Wildt's formulas for concentration of hydrogen in the chromosphere. Shklovskiy concludes that natural assumption of complete confusion of elements in the chromosphere based on spectral studies of the supersphere incumbent corona must clarify observed

151T1

USSR/Astronomy - Chromosphere (Contd) 11 Oct 49

distribution of densities in the chromosphere, as opposed to the theoretical one. It must necessarily follow that ionization of hydrogen and helium must rapidly increase with height. Kinetic temperature of the lower chromosphere proves quite moderate, around 5,000°, which follows from the value of the gradient beta (of order 10^{-8}/cm) of hydrogen. Notes that higher kinetic temperatures in the lower chromosphere cannot be expected because of absence in the spectrum of flashes of yellow line of the polar radiation 5,577 A. Submitted by Acad G. A. Shayn 1 Aug 49.

151T1

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR/Astronomy - Chromosphere 21 Oct 49
Ionization

"Ionization of the Chromosphere and Protuberances," I. S. Shklovskiy, Crimean Astrophys Obs

"Dok Ak Nauk SSSR" Vol LXVIII, No 6, pp 1009-1011

There has been disagreement upon deg of hydrogen ionization in chromosphere; Wildt considers it almost all neutral, while Menzel and Unzold consider it all ionized. Author introduces calcn to show at 15,000-km alt, hydrogen is almost completely ionized, and helium ionization is increased about 50 times. Attempts to explain progressive increase in deg of hydrogen and helium ionization with alt [redacted] inversion of kinetic temp in chromosphere. 172T1

1A 172T1

USSR/Astronomy - Chromosphere 21 Oct 49
Ionization (Contd)

in deg of hydrogen and helium ionization with alt by inversion of kinetic temp in chromosphere. Does not attempt to explain empirically discovered anomalously high deg of hydrogen ionization at base of chromosphere. Submitted by Acad G. A. Shayn 1 Aug 49.

[redacted]

172T1

SHKLOVSKIY I. S.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

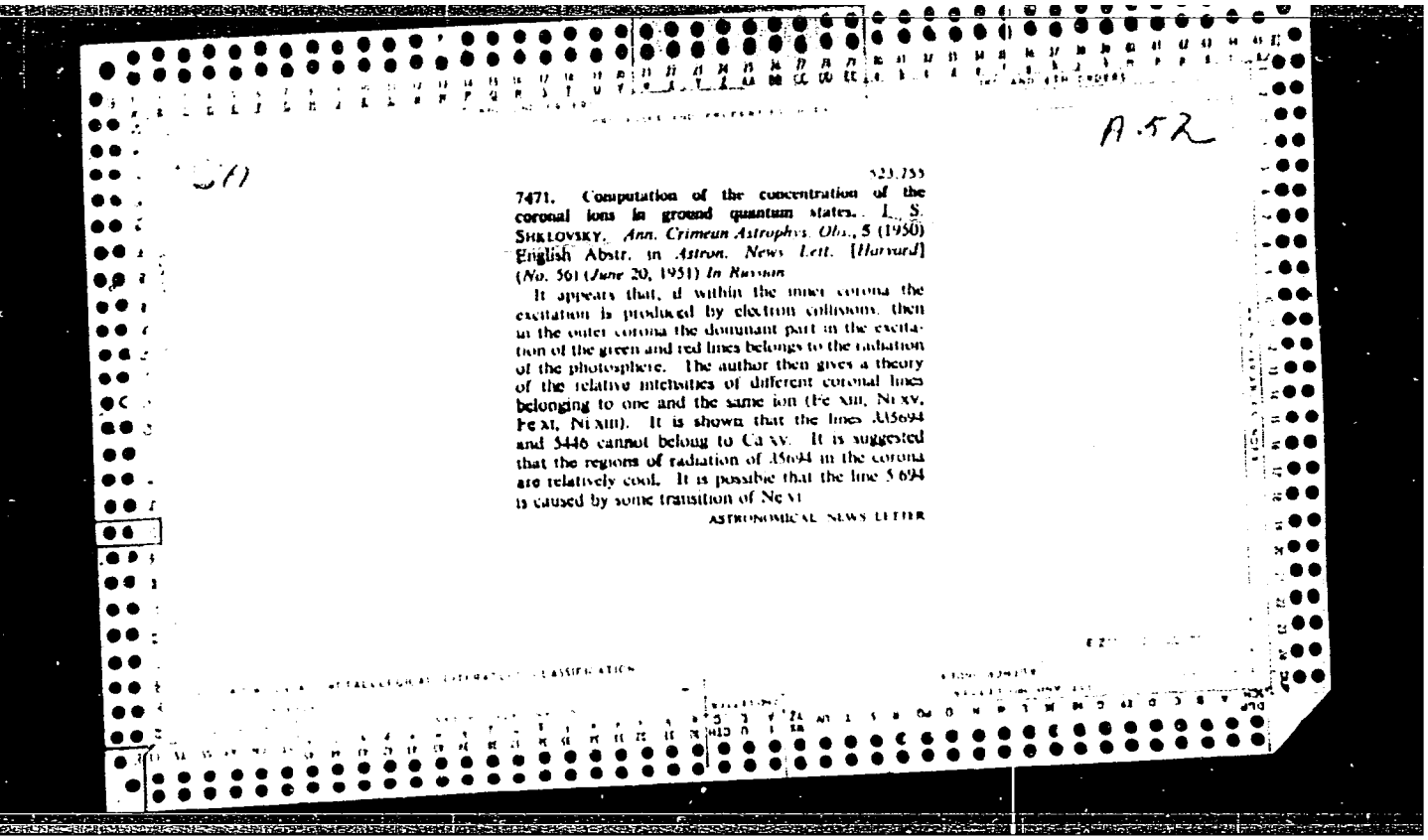
The first Symposium on Astrospectroscopy, attended by 60 delegates, took place on August 16-19, 1950, in the Astrophysical Observatory in Crimea. The Sessions were opened by G. A. Shayn, director of the Observatory. Twenty-three papers were presented by the delegates. Some of the significant papers are:

"Study of monochromatic radiations emitted by the galaxy," by I. S. SHKLOVSKIY

"Ultraviolet radiations of the solar corona," by I. S. SHKLOVSKIY

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7



523.755

7471. **Computation of the concentration of the coronal ions in ground quantum states.** I. S. SHKLOVSKY. *Ann. Crimean Astrophys. Obs.*, 5 (1950) English Abstr. in *Astron. News Lett.* [*Harvard*] (*No.* 561 (*June* 20, 1951) *In Russian*

It appears that, if within the inner corona the excitation is produced by electron collisions, then in the outer corona the dominant part in the excitation of the green and red lines belongs to the radiation of the photosphere. The author then gives a theory of the relative intensities of different coronal lines belonging to one and the same ion (Fe XIII, Ni XV, Fe XI, Ni XIII). It is shown that the lines λ5694 and 5446 cannot belong to Ca XV. It is suggested that the regions of radiation of λ5694 in the corona are relatively cool. It is possible that the line 5.694 is caused by some transition of Ne VI.

ASTRONOMICAL NEWS LETTER

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

"Radioastromy", Fizika v Shkole, Vol. 10, N_o. 2, pp 22-31, 1950.

Doctor of Physicomathematical Sciences,

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

"Ionization of the Chromosphere and Prominences and the Density-Distribution within the Chromosphere"
from B. N. Gimel'farb, "All-Union Conference on Solar Research",
Astronomicheskiy Zhurnal, Vol. 27, No. 3, May-June 1950, pp. 189-192

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

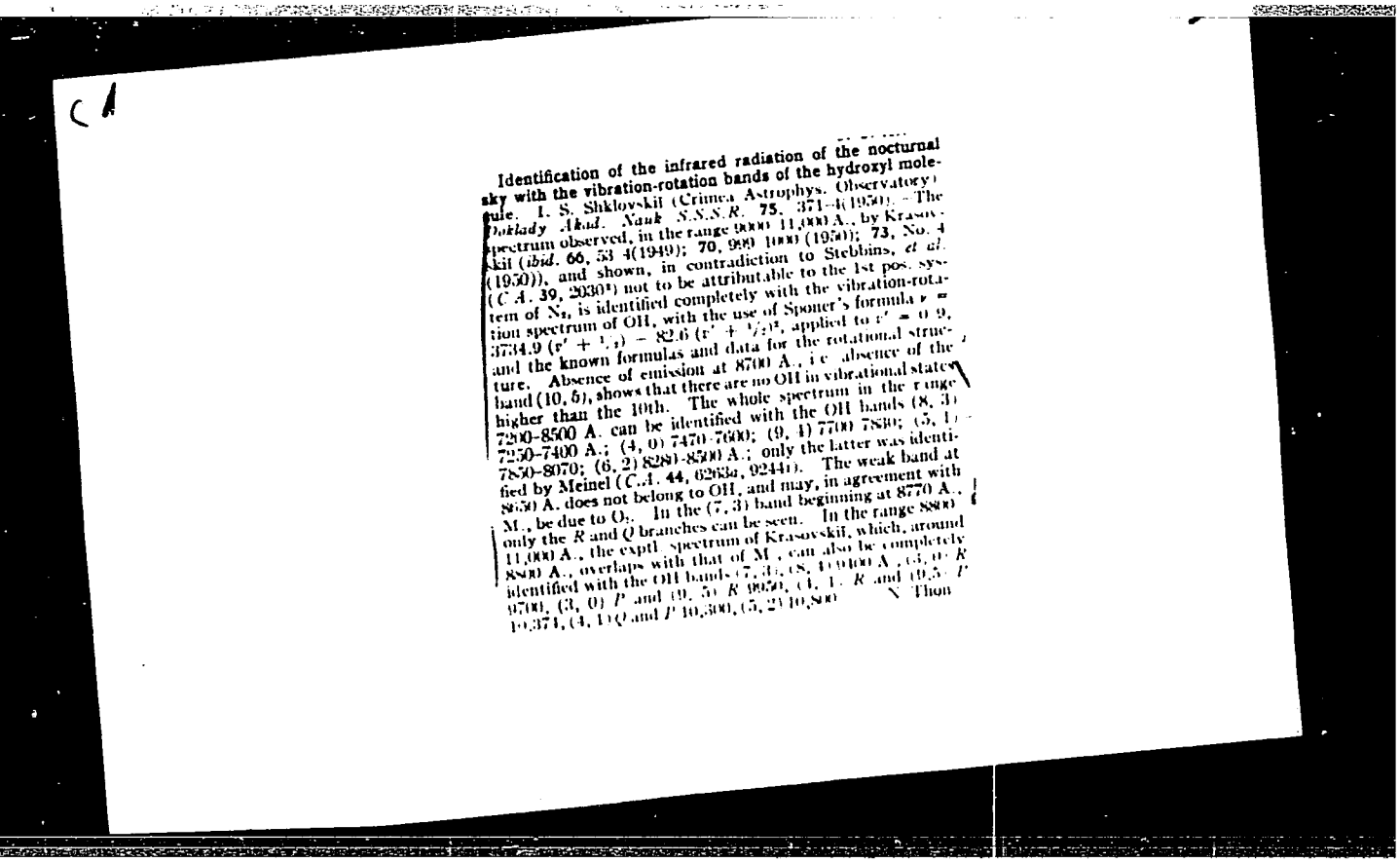
"Possibility of Determinig Distances to Point Sources of Radio Waves in the Galaxy," Dok Ak Nauk SSSR, Vol 73, No 3, pp 479-81, 1950.

Crimean Physics Observatory, Acad Sci USSR.

W-15082, 20 Nov 50 - a digest

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7



C A

Identification of the infrared radiation of the nocturnal sky with the vibration-rotation bands of the hydroxyl molecule. I. S. Shklovskii (Crimea Astrophys. Observatory) *Doklady Akad. Nauk S.S.S.R.* **75**, 371–4(1950). – The spectrum observed, in the range 8000–11,000 A., by Krasovskii (*ibid.* **66**, 53–4(1949); **70**, 999–1000 (1950); **73**, No. 4 (1950)), and shown, in contradiction to Stebbins, *et al.* (*C.A.* **39**, 2030[8]) not to be attributable to the 1st pos. system of N_2, is identified completely with the vibration-rotation spectrum of OH, with the use of Sponer's formula $\nu = 3734.9 (r' + \frac{1}{2}) - 82.6 (r' + \frac{1}{2})^2$, applied to $r' = 0$–9, and the known formulas and data for the rotational structure. Absence of emission at 8700 A., i.e. absence of the band (10, 5), shows that there are no OH in vibrational states higher than the 10th. The whole spectrum in the range 7200–8500 A. can be identified with the OH bands (8, 3) 7250–7400 A.; (4, 0) 7470–7600; (9, 4) 7700–7850; (5, 1) 7850–8070; (6, 2) 8280–8500 A.; only the latter was identified by Meinel (*C.A.* **44**, 6263*a*, 9244*i*). The weak band at 8650 A. does not belong to OH, and may, in agreement with M., be due to O_2. In the (7, 3) band beginning at 8770 A., only the *R* and *Q* branches can be seen. In the range 8800–11,000 A., the exptl. spectrum of Krasovskii, which, around 8800 A., overlaps with that of M., can also be completely identified with the OH bands (7, 3), (8, 4) 9100 A., (5, 0) *R* 9700, (3, 0) *P* and (9, 5) *R* 9850, (4, 1) *R* and 10,5) *P* 10,374, (4, 1) *Q* and *P* 10,300, (5, 2) 10,800. N. Thon

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

Kolichestvennyy analiz intensivnosti gidroksil'nogo izlucheniya nochnogo neba (Quantitative Analysis of the Intensity of Hydroxyl Radiation of the Night Sky). Akademiya Nauk SSSR. Doklady, 1950, v. 75, no. 6, p. 789-792, tables, 7 refs.

AS262.S3663 v. 75

The absence of an emission of $\lambda = 6270$ Å. indicates that the hydroxyls of the earth's atmosphere are excited only the the 9th vibration level and that the formation of the excited hydroxyls occurs according to the equation $H + O_3 = OH + O_2$. With the aid of a formula developed by Schola, the intensity of the OH vibration-rotation spectra was calcd. The results agreed well, especially with the strong intensity of the OH emission of the nocturnal sky in the far infrared.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKII, I. S.

Science

Solar corona Moskva, Ges. izd-vo tekhniko-teoret. lit-ry, 1951

Monthly List of Russian Accessions, Library of Congress, August 1952.
Unclassified.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I.S.

Electrode potentials of metals in hydrogen sulfide solutions. Trudy Inst. Fiz. Khim., Akad. Nauk S.S.S.R. 2, Issledovaniya po Korrozii Metal. No.1, 276-89 '51. (MLRA 4:10)
(CA 47 no.13:6278 '53)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR/Astronomy - Night Sky, Infrared 1951

"Nature of Infrared Radiation of Night Sky," I. S. Shklovskiy

"Iz Krymskoy Astrofiz Observ" Vol 7, pp 34-58

Powerful infrared radiation of night sky within the range of 9,000-11,000 Å is identified with the rotational-oscillatory spectrum of hydroxyl mol. Mol consts by H. Sponer ("Molekulspektren und ihre Anwendung auf chemische Probleme," 1935) are applied for identification. Probabilities of transition lines of OH are computed using quantum mechanics formulas by K. Scholz (Zs f. Phys. 78, 751, 1932). Spectrum is extrapolated to unobservable 44,500 Å and the intensity of this line is found to exceed by 2,000 times that of the familiar green line. Altitude of glowing is assumed to be below 100 km.

228T101

SHKLOVSKII, I. S.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I.S.

Ionization of the chromosphere and protuberances and the problem of density distribution in the chromosphere. Trudy GAISH 20:5-25 '51. (MLRA 6:12)
(Sun)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S. PA 187T4

USSR/Astronomy - Atmosphere, Dissipation of Jul/Aug 51

"Possibility of Explaining Differences in Chemical Composition of Earth and Sun by Thermal Dissipation of Light Gases," I. S. Shklovskiy, State Astr Inst imeni Shternberg

"Astron Zhur" Vol XXVIII, No 4, pp 234-243

Explains small amt of light gases on Earth as compared to Sun by dissipation of light gases from terrestrial atm. Computes conditions and time of this dissipation using formulas by Jeans (cf. Jeans "The Dynamical Theory of Gases," 1925).

LC

187T4

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I.S.

USSR/Astronomy - Astrophysics, 11 Jan 51
Plantary Atmospheres

"Question of Dissipation of Planetary Atmospheres," I. S. Shklovskiy, State Astr Inst imeni Shternberg

"Dok Ak Nauk SSSR" Vol LXXVI, No 2, pp 193-196

Theory of dissipation by Jeans and followers cannot explain by thermal dissipation scarcity of light elements. Rather, gravitational condensation formed heavy elements while the light ones could escape.

175T6

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

Ob izluchenii vodorodnykh liniy v spektrakh polyarnykh siyaniy (Emission of Hydrogen Lines in the Spectra of Aurorae Boreales). Akademiya Nauk SSSR. Doklady, 1951, v. 81, no. 3, p. 367-370, 7 refs.

AS262.S3663 v. 81

Protons of solar origin yield neutral H atoms which are excited by collisions with atoms and molecules of the terrestrial atmosphere. The peculiarities of the elastic and non-elastic collisions of H atoms endowed with a velocity of c. 1000 km/sec can account for the penetration of these atoms to the height of 115-120 km (the usual level of polar lights.). Contours of the H_α line observed in the spectrum of polar lights can be explained by assuming that corpuscles penetrating into the atmosphere have a broad velocity spectrum. The concentration of H atoms of solar origin is estimated at (H) = 0.6 cm^{-3} from the formula

$$I = \frac{h\nu}{4\pi}\int_{S_0}^{\infty}[H][N]\sigma dS = \frac{h\nu}{4\pi}[H]V\sigma\int_{S_0}^{\infty}[N]dS$$

where σ = the effective cross-section of excitation by collision with the atmospheric molecules, V- velocity of H atoms (1000 km/sec), I - intensity of H_α (3×10^{-4} erg/cm^2 sec steradian), S_0 lower limit of polar lights altitude (115 km), and (N) - the concentration of molecules in the atmosphere.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

USSR/Astronomy - Radio Stars (Hot Spots) 21 Jul 51

"Radio Stars," I. S. Shklovskiy, State Ast Inst imeni P. K. Shternberg

"Dok Ak Nauk SSSR" Vol LXXIX, No 3, pp 423-426

Maps the "optical" and radio stars near the sun in the northern hemisphere. Acknowledges the interest of Acad M. A. Leontovich and Prof P. P. Parengo in this work. Submitted by Acad M. A. Leontovich 19 May 51.

211T3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR/Astrophysics - Radio Stars Feb 52

"Radio Stars," I. S. Shklovskiy, Dr Physicomath Sci

"Priroda" No 2, pp 26-36

Surveys previous study of radio stars, mentioning English and Australian work. States that V. L. Ginzburg, on the basis of studies by I. Ya. Pomeranchuk and V. V. Vladimirskiy, disproved Bremsstrahlung of electrons with very high energies in magnetic fields (10^{-5}-10^{-6} gauss) between and around stars as the mechanism of galactic radio

21176

radiation. Hypothesizes that objects with smaller masses and lower temps than radio stars exist in our stellar system. Identifies his views with those of H. Shapley.

TRANSLATION AVAILABLE
DSI TR #9, Jan 52.

21176

I. S. Shklovskiy

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR/Astronomy - Aurora Polaris 1 Dec 51

"The Mechanism Governing the Excitation of the Light of Aurora Polaris," I. S. Shklovskiy, Crimean Astrophys Obs, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXXI, No 4, pp 525-528

Analysis of the relative intensities of the various lines and bands in the spectra of aurora polaris shows that levels with small excitation potentials are predominately excited. First considers the mechanism of N_2^+ excitation (cf. Petrie, J Geophy Res, 55, 143, 1950; Bates, Massey, Pearse, "Emission Spectra of Night Sky and

202T14

USSR/Astronomy - Aurora Polaris (Contd) 1 Dec 51

Aurorae," London, 1948; Swings, "Atmospheres of the Earth and Planets," Chicago, 1949; Vegard, "Terrestrial Magnetism and Electricity," New York, 1939; Mitra, "Nature," 157, 692, 1946; Gartlein, Phy Rev, 81, 463, 1951). Submitted by Acad G. A. Shaym 4 Oct 51

Trans. 3515 - T76R - Jan 53

202T14

SHKLOVSKIY, I. S.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

USSR/Astronomy - Atmosphere Mar/Apr 52

"Letters to the Editors: Concerning the Thermal Dissipation of the Atmosphere," I.S. Shklovskiy (submitted 27 Nov 51) and V.G. Fesenkov (submitted 21 Jan 52)

"Astron Zhur" Vol XXIX, No 2, pp 225-229

Both authors amplify their statements concerning the chem compn of the Earth's and Sun's atm, made in "Astron Zhur" No 4, 1951. The original articles were on the same subject but certain statements seemed to conflict in the authors' opinion.

216T71

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

O prirode svecheniya polyarnykh siayniy (Nature of Aurorae Boreales Luminescence). Akademiya Nauk SSSR. Krymskaya astrofizicheskaya observatoriya. Izvestiya, 1952, v. 8, p. 51-79, 31 refs.

QB1.A17642 v. 8

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

USSR/Astronomy - Radiospectroscopy, Mar/Apr 52
Galaxy

"Radiospectroscopy of the Galaxy," I.S. Shklovskiy, State Astr Inst imeni Shternberg

"Astron Zhur" Vol XXIX, No 2, pp 144-153

Expounds theory of monochromatic radio-wave radiation of the Galaxy taking into consideration the observed exceptionally low kinetic temp of interstellar gas in the HI zones. Total number of hydrogen atoms in a column of unit cross section through the entire Galaxy is about 10^{23}/sq cm, which suggests that the mass of interstellar gas is only a small percent of total mass of Galaxy. Suggests the exceptional possibility of investigating the isotopic compn of interstellar gas by absorption line of deuterium and hydrogen. Submitted 30 Nov 51.

216T62

216T62

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S.

235T64

USSR/Astronomy - Radio Stars 21 Jul 52

"Nature of Radiation From Radio Stars," I. S. Shklovskiy, Crimean Astrophys Obs

"Dok Ak Nauk SSSR" Vol 85, No 3, pp 509-512

Considers the so-called photon star, a star whose density of radiant energy at av temp $3 \cdot 10^{13}$ is greater than the assumed density drad $= 7 \cdot 10^{18}$ g/cu cm. Such stars cannot in any case be ordinary radio stars. Considers certain mechanisms governing radiations which possibly correspond to phenomena observed in radio stars. Submitted by Acad G. A. Shayn 26 May 52.

235T64

TRANSLATION AVAILABLE - DSIS T 94R, 30 Apr 53
(PA 56 no. 671: 7391 '53)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR/Astronomy - Radio Emission Jul/Aug 52

"Nature of Radio Emission From the Galaxy," I. S. Shklovskiy, State Astr Inst imeni Shternberg

"Astron Zhur" Vol 29, No 4, pp 418-449

Discredits Unsöld's theory (cf. A. Unsöld, Naturwiss. 33, 37, 1945; ibid. Zs. f. Ap. 26, 1949) on negligibly small effect of interstellar ionized gas on the observed radio emission of the Galaxy. States that the radio emission of the Galaxy has 2 components of different nature: "gaseous" and "radiostellar." The 1st predominates on short waves; the 2d, on long waves. Besides "usual" radio stars, the article notes, a group of unique objects with intens radio emission exist and are probably bound to some galactic cosmic bodies. Received 21 Apr 52.

226T43

SHKLOVSKIY, I. S.

226T43

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

USSR/Astronomy - Radio Stars 21 Aug 52

"Spatial Distribution of Sources of Galactic Radio-Emission," I. S. Shklovskiy, State Astron Inst imeni P. K. Shternberg

"DAN SSSR" Vol 85, No 6, pp 1231-1234

States that the intensity of radio-emission is a max around the center of the Galaxy, with very large intensity gradient with respect to Galactic latitude for wavelengths not too long (less than 300 cm). Concludes that the "ordinary" radio-stars represent an exceptionally numerous class of cosmic objects with insignificant masses, with small -- possibly zero -- dispersion of absolute radioluminosity. They are like a gigantic corona surrounding our Galaxy. Submitted by Acad O. Yu. Shmidt 24 Jun 52.

238T89

SHKLOVSKIY I. S.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S. - KHOLOPOV, P. N.

Nebulae

Indentification of nebula NGC 1316 with a radio star in the Fornax system
Astron. tsir. no. 131, 1952

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

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7

SHKLOVSKIY, I. S. ; PAVLOVICH, N. B.

Stars

Identification of the supernova of the year 369 with a powerful radio star in Cassiopeia, Astron. zair. No. 131, 1952.

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

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549620016-7"