ANDREYEV, P. V.
Min Higher Education USSR. Leningrad Agricultural Inst. Chair of "Machine Repair."

ANDREYEV, P. V. - "Repairing the bearings of the crankshaft of automobile and tractor engines by using reticular bushings." Min Higher Education USSR. Leningrad Agricultural Inst. Chair of "Machine Repair." Leningrad, 1956.
(Dissertation for the Degree of Candidate in Technical Sciences.)

SO: Knizhnaya Letopis' No. 13, 1956.

ANDREYEV, P.V.

The MSO-50 bearing metal. Stan. i instr. 28 no.5:27-28 My '57.
(Bearing metals) (MLRA 10:6)

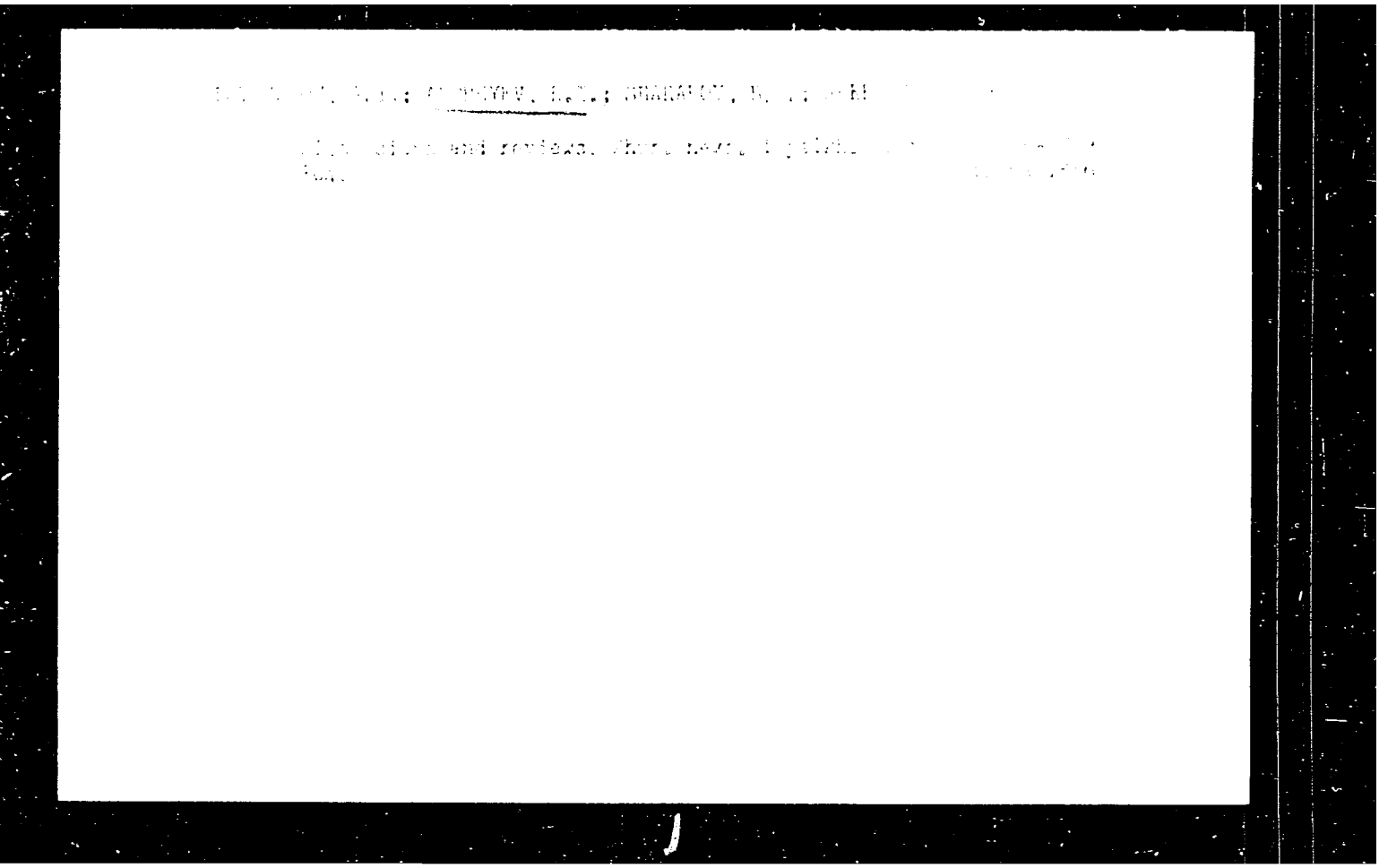
PRONIN, V.M.; ANDREYEV, P.V. (Simferopol')

Il'ya Ivanovich Synoyev, 1892-1963. Obituary. Sovet. zdravookhr. 5:92 '63 (MIRA 17:2)

ANDREYEV, P.V., assistent (Simferopol')

From the unpublished letters of F.F.Erisman to N.P.Suslova.
Sov.zdrav. 22 no.4:64-67 '63. (MIRA 16:4)

1. Iz kafedry organizatsii zdravookhraneniya i istorii meditsiny (zav. - prof. Sysoyev, I.I. [deceased]) Krymskogo meditsinskogo instituta (dir. - dotsent S.I.Georgiyevskiy).
(ERISMAN, FEDOR FEDOROVICH, 1842-1915)
(SUSLOVA, NADEZHDA PROKOF'EVNA, 1843-1918)



ANDREYEV, K. K. and Tolstiy, V.S.

"City Geodetic Service in the USSR", Zemleustroistvo, V.1 3, No 11, pp 149-72, 1953.

Full translation - M-37, 29 Dec 54

ANDREYEV, Rodion Petrovich; POPOV, A.S., redaktor; KIRSANOVA, tekhnicheskiy redaktor.

[Let's raise our labor productivity] Za povyshenie proizvoditel'nosti truda. Moskva. Izd-vo VTsSPS profizdat, 1955. 29 p. (MLRA 9:5)

1.Profgrupporg elektrotsekha Izmail'skogo suderemontnogo zavoda.
(Labor productivity)

ANDREYEV, S.

Soviet trade unions are for unity. Vsem. prof. dvizh. no.10: 28-29 O '63. (MIRA 16:11)

ANDREYEV, S.

Approaching the Third World Congress of Trade Unions. Sov. profsoiuzy 1 no.1:21-25 S '53. (MLRA 6:12)
(Trade unions--Congresses)

ANDREYEV, S.

Sound expenditure of wage funds in the construction industry.
Sots.trud 4 no.2:62-66 F '59. (MIRA 12:4)
(Construction industry)
(Wages)

ANDREYEV, S.

Persons engaged in production must have close connections with fire prevention workers. Pozh. delo 4 no.5:17 My '58. (MIRA 11:5)

1. Direktor Prilutskogo zavoda protivopozharnogo oborudovaniya.
(Fire prevention)

ANDREYEV, S., inzh.

Handcart with removable containers. Stroitel' no.3:12 Mr. '59.
(MIRA 12:6)

(Carriages and carts)

ANDREYEV, S.

A great campaign continues; Sov.profsoiuzy 17 no.11:27-29 Je '61.
(MIRA 14:5)

1. Predsedatel' TSelinnogo krayevogo soveta profsoyuzov.
(Virgin Territory—Agriculture) (Trade unions)
(Socialist competition)

ANDREYEV, S.

Program for the rapid improvement of the people's welfare. Vsem. prof.dvizh. no.10:29-33 O '61. (MIRA 14:10)
(Cost and standard of living)

ANDREYEV, S.A.

Post-war concept of the etiology and pathogenesis of endarteritis obliterans in the light of I.P. Pavlov's theory; clinical and experimental investigation. Khirurgiia no.3:52-61 Mr '53. (MLRA 6:6)
(Arteries--Diseases)

ANDREYEV, S.A.

Double invagination of the ileum into the caecum in cancer. Khirurgiia no.4:79 Ap '55. (MLRA 8:9)

1. Voronezhskiy oblastnoy gospital' dlya invalidov Otechestvennoy voyny.
(INTESTINES--INTUSSUSCEPTION)

ANDREYEV, S.A.

Another way of training surgeons. Vest.khir. 77 no.12:146-150 D '56.
(MLRA 10:2)

1. Glavnyy khirurg Kaluzhskogo oblastnogo otdela zdravookhraneniya. Kaluga, pl. Lenina, d.4, Kaluzhskiy oblastnoy otdel zdravookhraneniya
(SURGERY, educ.
in Russia)

ANDREYEV, S.A.

A giant occipital meningocele. Vop. neirokhir. 21 no.6:41-42 N-D '57. (MIRA 11:2)

1. Kaluzhskiy gorodskoy rodil'nyy dom
(ENCEPHALOCELE, case reports
congen, meningocele, surg.)

ANDREYEV, S.A.

Position and role of specialists in public health practice. Zdrav. Ros.Feder. 2 no.2:29-31 F '58. (MIRA 11:3)

1. Glavnyy khirurg Pskovskogo oblastnogo otdela zdravookhraneniya.
(MEDICINE--SPECIALITIES AND SPECIALISTS)
(PUBLIC HEALTH)

ANDREYEV, S.A.

Promoting technical books in plants. Opyt rab. po tekh. inform. i prop. no.1:40-41 '63. (MIRA 16:12)

1. Starshiy inzh. otdela tekhnicheskoy informatsii Taganrogskogo gosudarstvennogo metallurgicheskogo zavoda.

ANDREYEV, S.A.

Magnetic rollers for conveying skelp and pipe. Metallurg 9 no.1:32-33 Ja '64 (MIRA 18:1)

1. Taganrogskiy metallurgicheskiy zavod.

ANDREYEV, S.D.

New books. Der.i lesokhim.prom. 2 no.9:32 S '53. (MLRA 6:8)
(Woodworking industries--Bibliography) (Bibliography--
Woodworking industries)

ANDREYEV, S.D., inzhener; NIKOLAYEV, L.N., inzhener.

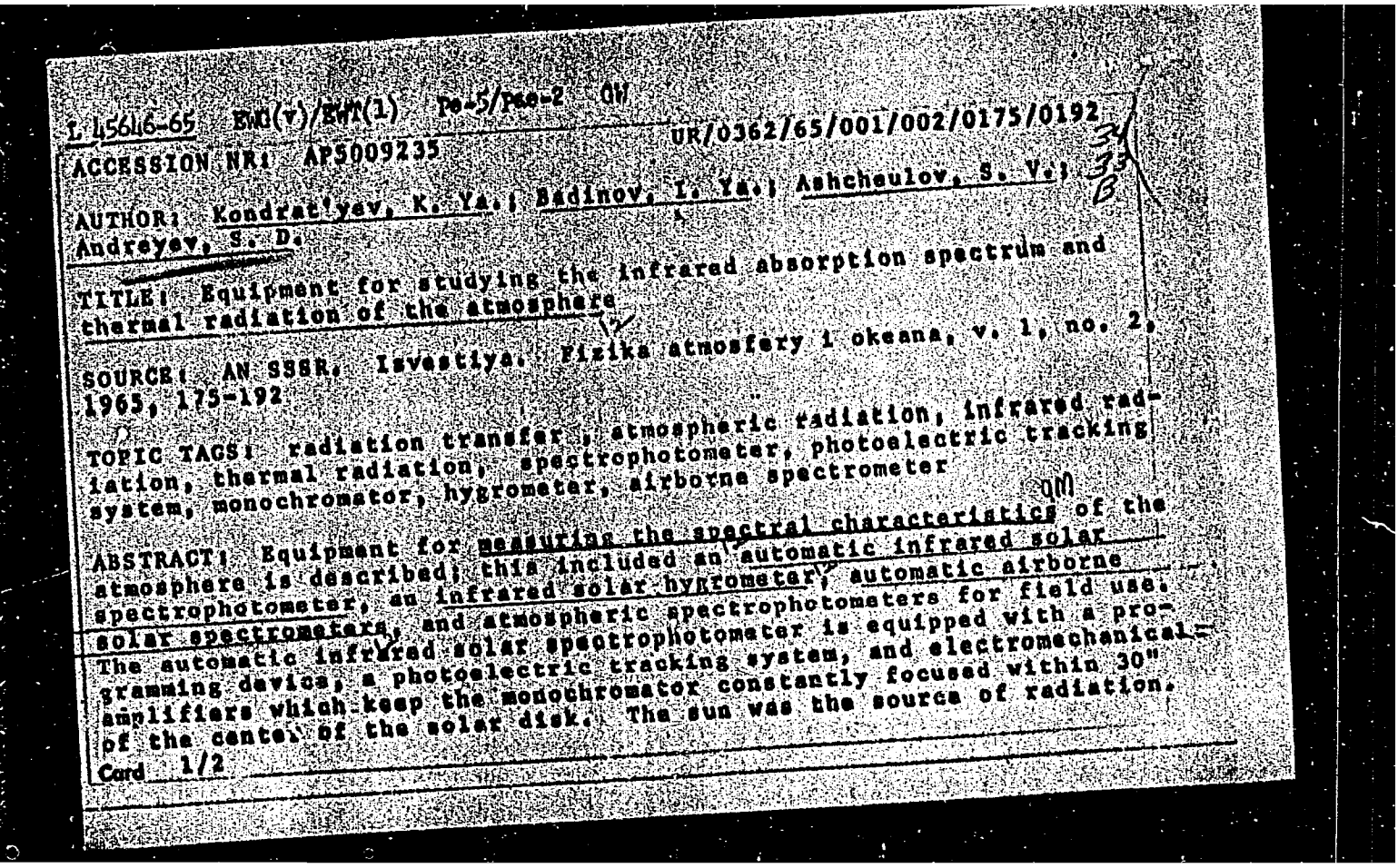
Production line for making barrels. Der.prom.5 no.6:25 Je '56.
(MIRA 9:9)

1.TSentral'naya nauchno-issledovatel'skaya laboratoriya rybnoy tary.
(Astrakhan--Barrels) (Assembly-line methods)

BADINOV, I. Ya.; ANDREYEV, S. D.; DAYEVA, L. V.

"Spectral measurements of the radiation transparency by the atmosphere."

report presented at the Atmospheric Radiation Symp, Leningrad, 5-12 Aug 64.



L 45646-65 EWT(m)/EWP(1) Pe-5/Pae-2 GW

ACCESSION NR: AP5009235 UR/0362/65/001/002/0175/0192

AUTHOR: Kondrat'yev, K. Ya.; Badinov, I. Ya.; Ashcheulov, S. V.; Andreyev, S. D.

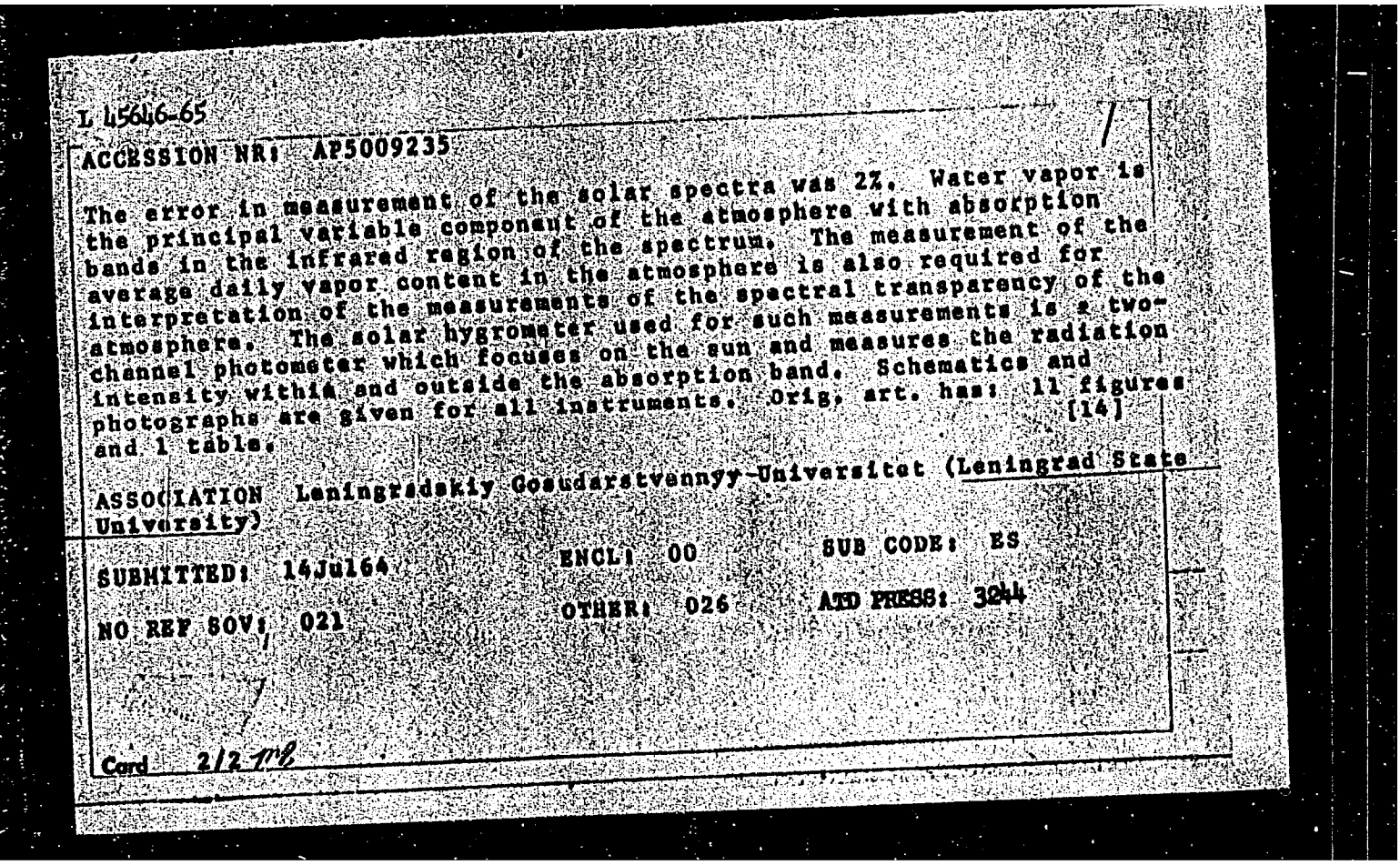
TITLE: Equipment for studying the infrared absorption spectrum and thermal radiation of the atmosphere

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 2, 1965, 175-192

TOPIC TAGS: radiation transfer, atmospheric radiation, infrared radiation, thermal radiation, spectrophotometer, photoelectric tracking system, monochromator, hygrometer, airborne spectrometer

ABSTRACT: Equipment for measuring the spectral characteristics of the atmosphere is described; this included an automatic infrared solar spectrophotometer, an infrared solar hygrometer, automatic infrared solar spectrometers, and atmospheric spectrophotometers for field use. The automatic infrared solar spectrophotometer is equipped with a programming device, a photoelectric tracking system, and electromechanical amplifiers which keep the monochromator constantly focused within 30" of the center of the solar disk. The sun was the source of radiation.

Card 1/2



L 45646-65

ACCESSION NR: AP5009235

The error in measurement of the solar spectra was 2%. Water vapor is the principal variable componaut of the atmosphere with absorption bands in the infrared region of the spectrum. The measurement of the average daily vapor content in the atmosphere is also required for interpretation of the measurements of the spectral transparency of the atmosphere. The solar hygrometer used for such measurements is a two-channel photometer which focuses on the sun and measures the radiation intensity within and outside the absorption band. Schematics and photographs are given for all instruments. Orig. art. has: 11 figures and 1 table. [14]

ASSOCIATION Leningradskiy Gosudarstvennyy Universitet (Leningrad State University)

SUBMITTED: 14Jul64 ENCL: 00 SUB CODE: ES

NO REF SOV: 021 OTHER: 026 ATD PRESS: 3244

Card 2/2

L 52749-65 EWT(1)/EWG(v) Pe-5/Pae-2 GW

ACCESSION NR: AP5013174 UR/0362/65/001/004/0363/0376

AUTHOR: Kondrat'yev, K. Ya.; Badinov, I. Ya.; Ashcheulov, S. V.; Andreyev, S. D.

TITLE: Some results of surface measurements of atmospheric infrared absorption and thermal radiation spectra

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 4, 1965, 363-376

TOPIC TAGS: atmospheric infrared absorption, atmospheric infrared emission, atmospheric optical thickness, water vapor absorption, aerosol attenuation, solar infrared radiation, surface radiation measurement, thermal radiation spectrum

ABSTRACT: Using 12 Soviet and 28 Western references, beginning with the paper by W. M. Elsasaer (Note on atmospheric absorption caused by the rotational water band, Phys. Rev., 53, no. 9, 1938), the authors collected and analyzed the data from surface measurements of the infrared transparency and heat radiation of the entire thickness of the atmosphere within its 8-12 μ "transparency window" and in the regions adjacent to this band of wavelengths. They determined the magnitude of the atmospheric optical thickness for various wavelengths and divided it into components, determining the influence of various factors attenuating long-wave radiations (water vapor, aerosol attenuation). Data characterizing the geographical changes in the infrared transparency of the entire

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L 52749-65

ACCESSION NR: AP5013174

atmosphere are also correlated. The paper also reports on determinations of the absolute spectra of the solar radiation above the atmosphere from the measured values of the incident radiation and atmospheric absorption at the surface of the earth, and compares them with the previously known data. A study of the energy distribution within the spectrum of the atmospheric infrared radiation is followed by a discussion of the basic regularities of the variations in the spectral composition of atmospheric radiation and a general comparison of all the experimental results with theoretical predictions. Although one observes a generally fair agreement, the field is still in need of further studies. First among the future tasks is the construction of terrestrial devices with higher resolving power for the study of the fine structure of the absorption and emission spectra. Next, the terrestrial results should be complemented by data similar to those discussed in the present article, measured in the free atmosphere. Orig. art. has: 1 formula, 10 figures, and 3 tables. [08]

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: 14Jul64 ENCL: 00 SUB CODE: ES, AA

NO REF SOV: 012 OTHER: 028 ATD PRESS: 4013

Card 2/2

L 21533-66 EWT(1) GW

ACC NR: AT6007619 SOURCE CODE: UR/2960/65/000/003/0160/0173

AUTHOR: Badinov, I. Ya.; Andreyev, S. D.

ORG: none

TITLE: Earth's atmosphere transmission and segregation of the optical thickness into components in the 8—13-micron IR spectral region

SOURCE: Leningrad. Universitet. Problemy fiziki atmosfery, no. 3, 1965, 160-173

TOPIC TAGS: terrestrial atmosphere, optic thickness, IR absorption

ABSTRACT: The results of measurements of IR atmospheric transmission obtained by a number of Western investigators (in 1951-63) were found to be discrepant and inconclusive. Hence, a new investigation was organized using this method: By recording solar spectra at different altitudes of the Sun, the atmosphere optic thickness can be estimated from: $\tau_\lambda = \frac{\ln I_{\lambda 1} - \ln I_{\lambda 2}}{m_2 - m_1}$, which also permits computing $I_{0\lambda}$ and using the "short" Buge method: $\tau_\lambda = \frac{\ln I_{\lambda_0} - \ln I_\lambda}{m}$. The atmosphere optical thickness can be represented by this sum: $\tau_\lambda = \tau_{\lambda w} w_1 + \tau_{\lambda a}$ where $\tau_{\lambda w}$ is the optical

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thickness of water vapor, w_1 is the vapor content, and τ_{1a} is the residual optical thickness due to the absorption in weak lines and fringes of water-independent atmosphere components and also due to the effect of little-selective aerosol absorption. A specially designed automatic IR spectrophotometer permitted aiming at the center of the solar disk with an angular error of 30". The total content of water vapor in the atmosphere was measured by a special instrument which determined the ratio of the solar-radiation intensities within narrow spectral bands inside and out of the 0.935-micron vapor-absorption spectral line. The spectral transmission of the atmosphere and the vapor content were measured at these three points: the Terskol Peak (near Elbrus, altitude 3100 m), May-Sept 1962; Mineral'nyye Vody (town in the N. Caucasus, altitude 310 m), Oct 1962; and in Leningrad, May 1963. Tables and curves represent numerical measured data. "In conclusion, the authors wish to thank D. V. Andreyev, B. A. Pavlov, and L. N. Sen'ko for their part in the measurements, and also V. B. Lipatov for his help in data processing." Orig. art. has: 5 figures, 4 formulas, and 2 tables. [03]

SUB CODE: 04 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 012/
ATD PRESS: 4219

L 22957-66 EWT(1) GW

ACC NR: AT6007620 SOURCE CODE: UR/2960/65/000/003/0174/0188

46
43
B+1

AUTHORS: Badinov, I. Ya.; Andreyev, S. D.

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: An aerostat complex of automatic solar spectrophotometers for optical sounding of the free atmosphere in the region of the spectrum from 0.4 to 14 microns

SOURCE: Leningrad. Universitet. Problemy fiziki atmosfery, no. 3, 1965, 174-188

TOPIC TAGS: spectrometer, spectrometry, spectrum analyzer, solar spectrum, atmospheric infrared absorption, atmospheric optics

ABSTRACT: The authors describe a system for making studies of the infrared solar spectrum. The description of the components and functioning of the system is preceded by a brief review of recent research in the field of infrared solar spectroscopy. Contributions from fourteen Soviet and foreign papers are cited. The system used by the authors employs three spectrometers which cover the band of wavelengths from 0.4 to 14 microns. The spectrometers work in parallel. Input slits of the monochromators are illuminated by means of a servosystem mirror as described by I. Ya. Badinov (Trekhstupenchataya fotoelektricheskaya sledyashchaya sistema na tranzistorakh. ISZ, vyp. 13, 1963). This system is self-aimed at the sun and is powered by a variable potential. The construction of the mirror mechanism is such that the input slit may be illuminated by both solar radiation and other types of incident radiation. Auxiliary

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L 22957-66

ACC NR: AT6007620

3

systems include devices for modulating monochromatic light, an amplifier-transducer internal mechanism, oscillograph output recorder, and a programmed control mechanism. The functioning of the total system is detailed with the support of a block diagram and section diagrams showing the manner of suspending the device, the spectrophotometric optical system, and the control system. The authors thank A. Ye. Kovalev for calculating and laying out the electrical part of the apparatus, B. A. Pavlov for erecting the mechanical part, and S. E. Gendel's for aid in preparing the apparatus. Orig. art. has: 5 figures.

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 013

Card 2/2

L 22956-66 EWT(1)/FCC GW

ACC NR: AT6007621 SOURCE CODE: UR/2960/65/000/003/0189/0202

50
44
B+1

AUTHORS: Badinov, I. Ya.; Andreyev, S. D.; Poberovskiy, A. V.

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: Absolute spectral measurements of solar radiation in the infrared region of the spectrum from 3 to 13 microns

SOURCE: Leningrad. Universitet. Problemy fiziki atmosfery, no. 3, 1965, 189-202

TOPIC TAGS: spectrometer, spectrometry, spectrum analyzer, solar spectrum, atmospheric infrared absorption, atmospheric optics

ABSTRACT: A study of solar infrared radiation is conducted for the purpose of determining: 1) absolute values of solar energy beyond the atmosphere in the interval from 3 to 13 microns by using data from relative measurements of spectral transparency of the atmosphere; 2) temperature intensities of the center of the solar disk in the given interval; 3) the total energies of the sun included in the same given interval; and 4) energies absorbed by the earth atmosphere in various conditions. The following criteria were established for the construction of a model of an absolutely black emitter: 1) the required aperture in the emitting cavity must have a diameter of 28 mm; 2) the working temperature must be 700--850K; 3) the emissivity of the model must be not less than $\varepsilon = 0.99$, for which, a) the relative opening of the cavity must be small, b) gradients of temperature along the working cavity of the black body must be

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6

reduced to a minimum, and c) the temperature of the illuminator must be maintained with high accuracy. The emissivity of an absolutely black body of the cylindrical type with a conical base is given approximately by the formula

$$\varepsilon = 1 - \frac{\rho}{1-\rho} \cdot \frac{d^2}{4l^2} \sin \varphi,$$

where ρ is the reflectivity of the cavity walls, d is the diameter of the aperture in the emitter cavity, l is the length of the cavity, ϕ is the angle of exposure of the cone. The black body emitter is detailed by means of a section diagram and a diagram showing the optical system related to the emitter. Details of the calibration of the emitter and the results of calibration tests are given. The results of measurements of temperature in the center of the solar disk are shown in Fig. 1. Solar wave energy distribution curves are also plotted and compared with measurements obtained in prior research. The authors thank K. Ya. Kondrat'ev, S. L. Gendel'e, and L. B. Lambin for their preparatory assistance, and D. V. Andreyev, B. A. Pavlov, and L. N. Sen'ko for their participation in the measurements.

L 22956-66
ACC NR: AT6007621

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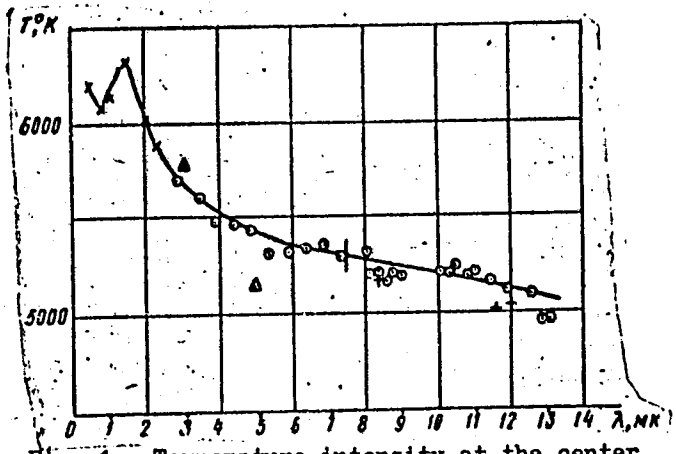

Fig. 1. Temperature intensity at the center of the solar disk.

Orig. art. has: 6 figures and 8 equations.

SUB CODE: 04, 03/ SUBM DATE: none/ ORIG REF: 008/ OTH REF: 018

Card 3/3

L 32711-66
ACC NR: AT6015111 SOURCE CODE: UR/3199/66/000/012/0066/0079

AUTHOR: Badinov, I. Ya.; Andreyev, S. D.; Lipatov, V. B.

ORG: none

TITLE: Humidity measurements in the upper atmosphere

SOURCE: AN SSSR. Mezhduvedomstvennyy geofizicheskiy komitet. Meteorologicheskiye issledovaniya, no. 12, 1966, 66-79

TOPIC TAGS: atmospheric humidity, ~~water vapor~~, upper atmosphere, stratosphere, solar spectrum, meteorologic balloon, spectrophotometer, ATMOSPHERIC WATER VAPOR

ABSTRACT: A critical summary of measurements of upper atmospheric humidity (by airborne investigations using a condensation hydrometer, spectral investigations over England, and measurements in the USSR) is given. Detailed descriptions of the atmospheric humidity measurements carried out by automatic balloon solar spectrophotometers are given. The solar spectrophotometers were designed by the Department of Atmospheric Physics of Leningrad University. The instruments recorded the solar spectrum within the region of 0.4-13 microns. A spectrum up to 25—28 km was recorded. The integral content of water vapor above various levels was defined by the bands 0.94, 1.13, 1.39, 1.87, and 6.3 microns. On 23 October, about 1 micron of water vapor was found above the 28-km level. A small content of water vapor (on

Card 1/2

YARYGIN, N.Ye., ANDREYEV, S.F., PSHENISNOVA, T.F. (Yaroslavl')

Unusual forms of lymphogranulomatosis. Klin.med.36 no.7:112-118 Jl '58 (MIRA 11:11)

1. Iz kafedry patologicheskoy anatomii (zav. prof. N.Ye. Yarygin) Yaroslavskogo meditsinskogo instituta.
(HODGKIN'S DISEASE, case reports
unusual form (Rus))

BUZENKOV, G.M.; GORDIKOV, N.V.; ANDREYEV, S.G.; KOREYSHO, Ye.G., red.; GOR'KOVA, Z.D., tekhn. red.

[Corn in new regions; advanced cultivation practices] Kukuruza v novykh raionakh; peredovoi opyt vozdelyvaniia. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1960. 136 p. (MIRA 14:6)
(Corn (Maize))

ANDREYEV, S.G.; GORDIKOV, N.V.; RUMYANTSEV, A.T., red.; KOREYSHO, Ye.G., red.; DEYEVA, V.M., tekhn.red.

[Local fertilizers; advanced practices in their acquisition and usage] Mestnye udobreniia; peredovoi opyt nakopleniia i primeneniia. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 206 p. (MIRA 14:2)

(Fertilizers and manures)

ANDREYEV, S.G.; BERSHADSKIY, G.Yu.

Mechanized method for pressing rubber rings into SKO lids.
Kons. i ov. prom. 13 no.8:17-20 Ag '58. (MIRA 11:9)

1. Spetsial'noye konstruktorskoye byuro Ukrainskogo nauchno-issledovatel'skogo instituta konservnoy promyshlennosti.
(Canning industry--Equipment and supplies)

SOV/72-59-2-12/21

15(6)

AUTHORS: Afanas'yev, A. N., Pototskaya, G. V., Andreyev, S. I., Surovtsev, V. P.

TITLE: Tank Furnaces for the Melting of Glass Poor in Alkali (Vannaya pech' dlya varki maloshchelochnogo stekla)

PERIODICAL: Steklo i keramika, 1959, Nr 2, pp 37-39 (USSR)

ABSTRACT: Low alkali content glass of the trade-mark 13v was melted in the years from 1956 to 1958 in the test glass works. The furnace with passage and horseshoe-shaped flame is depicted in figure 1. Experiments carried out by the laboratoriya ogneuporov Instituta stekla (Glass Institute Laboratory of Refractories) showed that quartz beams are to be regarded as the most stable refractory for the 13v glass. To test their performance under factory working conditions the melting section of the furnace basin as well as the furnace passage were lined with quartz beams of the dimensions 900x250x90÷100 mm. The furnace bottom and the basin walls of the furnace processing section were lined with fireclay beams. The furnace front wall was experimentally built of dinas slabs SD-7. The longitudinal walls of the basin melting section were equipped with water coolers (Fig 2) and the front

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Tank Furnaces for the Melting of Glass Poor in Alkali

wall with air-cooling under the burners. The furnace melting section temperature amounted to 1470-1490° and 1280-1320° in the processing section. The furnace was shut down after a campaign of 20 months. The quartz beams were in good conditions (Fig 3) and so was the furnace passage (Fig 4). The wear of the dinas slabs in the furnace front wall was negligible (Fig 5). The furnace floor with the SSh-1 beams was considerably damaged by 2 campaigns (Fig 6). Conclusions: quartz products are regarded as the best refractories for the melting of this glass. Dinas in the form of large blocks is suitable for the basin walling. It would be useful to experimentally build the furnace bottom of dinas, so as to eliminate fire-clay entirely. There are 6 figures.

ASSOCIATION: Opytnyy zavod Instituta stekla (Glass Institute Experimental Factory)

AFANAS'YEV, A.N.; ANDREYEV, S.I.

Using heat-resistant steels for molding forms. Stek. i ker. 18 no.7:39-40 Jl '61. (MIRA 14:7)
(Steel) (Glass manufacture)

L 25280-65 EEO-2/EWA(k)/EWT(d)/EWT(l)/EEC(k)-2/EEC-4/EEC(t)/T/EEC(b)-2/EWP(k)/EED-2/EWA(m)-2 Pf-4/Pi-4/Pl-4/Pm-4/Po-4/Paq-4/Pab IJP(c) JHB/WC

ACCESSION NR: AP5003034 S/0051/65/018/001/0135/0136

AUTHOR: Andreyev, S. I.; Ochelenkov, V. M.; Khabirzyalova, R. G. 66 60 0

TITLE: Resolution of optical shutter with Kerr cell

SOURCE: Optika i spektroskopiya, v. 18, no. 1, 1965, 135-136

TOPIC TAGS: optical shutter, Kerr cell, time resolution, light modulation

ABSTRACT: The authors have succeeded in using the fourth branch of the operating characteristic (voltage dependence of the ratio of the light intensities with crossed and parallel polaroids), corresponding to an operating voltage of approximately 5 kv, for a Kerr cell with highly polished plates having no sharp corners. When operating on this branch, the modulated light is monochromatic to within 100 Å, and the resolution is improved fourfold compared with operation on the first branch. An even greater slope of the modulation characteristic could be obtained by passing through the cell a weakly diverging light beam, using the concomitant interference conoscopic picture. A particularly effective interference could be obtained by using a small angle of inclination between the

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L 25280-65

ACCESSION NR: AP5003034

plates in a plane perpendicular to the optical axis of the beam. This made it possible to reduce the voltage pulse corresponding to a depth of modulation of about 80% by a factor 5—8 times and to increase the time resolution by approximately 50 times compared with the first branch. "The authors thank M. P. Vanyukov for interest and support." Orig. art. has: 2 figures and 2 formulas. [02]

ASSOCIATION: none

SUBMITTED: 18Nov63 ENCL: 00 SUB CODE: OP

NO REF SOV: 002 OTHER: 004 ATD PRESS: 3181

Card 2/2

ANDREYEV, S.I.; VANYUKOV, M.P.

Equipment for producing light flashes of a 10^{-7} - 10^{-8} second duration. Prib. i tekh.eksp. 6 no.4:76-79 Jl-Ag '61.(MIRA 14:9)

1. Gosudarstvennyy opticheskiy institut.
(Electric discharges)

ANDREYEV, S.I.

Shunts for recording millimicrosecond current pulses. Prib. i tekh.eksp. 6 no.4:87-89 Jl-Ag '61. (MIRA 14:9)

1. Gosudarstvennyy opticheskiy institut.
(Pulse techniques (Electronics))

ANDREYEV, S.I.; VANYUKOV, M.P.

Using a spark discharge for producing intensive scintillations of a duration of 10^{-7} to 10^{-8} sec. Part 1. Investigation of electric processes in a spark discharge of nanosecond duration. Zhur.tekh. fiz. 31 no.8:961-974 Ag '61. (MIRA 14:8)
(Electric discharges) (Scintillation (Physics))
(Oscillography)

S/120/62/000/002/029/047
E192/E382

AUTHORS: Andreyev, S.I., Vanyukov, M.P. and Daniel', Ye.V.

TITLE: Increase in the intensity and reduction of the duration of a light burst radiated by a spark discharge

PERIODICAL: Pribory i tekhnika eksperimenta, no. 2, 1962, 127 - 129

TEXT: The discharge system which was investigated experimentally is shown in Fig. a. The tube contains 5 metal plates 1 , which are in the form of steel discs, 0.2 mm thick and 12 mm in diameter. The centres of the discs are provided with brass inserts 2 , whose heads are hemispherical and have a curvature of 0.2 mm. The plates are furnished with sector-shaped apertures as outlets for the light. The discs are kept in position by means of the dielectric cylinder 3 , which is also provided with an aperture. The spacing between the discs is determined by the thickness of the dielectric washers 4 , the dielectric being perspex. The system is mounted between two massive brass electrodes 5 . The overall

Card 1/3

Increase in the intensity ....

length of the air gaps is 4.3 mm. The discharge is initiated under the following conditions (Ref. 3 - the authors - Zh. tekhn. fiz., 1961, 31, 961): capacitance of the condenser C = 0.015 μF, voltage U = 15 kV and inductance of the circuit L = 11 nH. The constructional details of the circuit were described in Ref. 4 (paper read by the authors at the Second Conference on High-speed Photography and Cinematography). The experiments were carried out with single discharges in air and the electrical and light characteristics of the discharge were compared with those of the similar characterics of a normal air gap, 4.9 mm long. It was found that the discharge was oscillatory and that the presence of a number of metal plates in the gap resulted in an increase in the gap resistance. The measurements also showed that the additional metal plates led to a 30% reduction in the duration of the light bursts and a 1.8-fold increase in the intensity of the light emitted per unit length of the gap (when compared with the performance of a normal gap). This increase in intensity and reduction in duration of the discharge was observed over the whole investigated spectrum

S/120/62/000/003/020/048
E039/E135

9.3280 (also 2301, 2901)

AUTHORS: Andreyev, S.I., Vanyukov, M.P., and Serebryakov, V.A.

TITLE: The use of ferrites for the generation of powerful high voltage pulses of nanosecond duration

PERIODICAL: Pribory i tekhnika eksperimenta, no.3, 1962, 89-92

TEXT: The characteristic sharp change in the value of the magnetic permeability μ of ferrites with increasing magnetic field causes the generation of a high voltage pulse U_p when a ferrite element is included in a spark discharge circuit

$$U_p = L_o \mu(t) \frac{di}{dt}$$

where: L_o is the inductance of the ferrite element at $\mu = 1$; di/dt is the rate of change of current in the circuit. The ferrites (Ni,Zn) Ф-600 (F-600), Ф-1000 (F-1000), Ф-2000 (F-2000), (MgZn) МТ-2000 (MT-2000) and ferrites with rectangular loops are investigated. There appears to be little difference between the voltage pulses obtained using Ni,Zn group and the ferrites with rectangular loops. Amplitude and duration characteristics of the

Card 1/2

31948
S/057/62/032/001/008/018
B146/B112

9,4120

AUTHORS: Andreyev, S. I., Vanyukov, M. P., Komolov, A. B., (Deceased)

TITLE: Development of the spark discharge channel with very steep current increase in the discharge circuit

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 1, 1962, 57-62

TEXT: The authors experimentally study the validity of the hydrodynamic theories on the development of a spark discharge channel by S. I. Drabkina (Ref. 1: ZhETF, 21, 473, 1951) and S. I. Braginskiy (Ref. 2: ZhETF, 34, 1548, 1958) for a very steep current increase in discharges up to 1 joule in air. Data on the widening of the spark channel were recorded by an electron-optical converter type ПИМ-3 (PIM-3) with oxygen-cesium and antimony-cesium photocathodes. The authors operated with 500-7500 pF capacitors, a voltage of 3-23 kv, and an inductivity of the discharge gap of 10-80 nHy. It was shown that the hydrodynamic theory by Drabkina agreed with the experiment in the first quarter of the oscillation period only. For later periods, the theoretical values of both the channel width and the widening velocity are too high. The values of the

Card 1/2

S/057/62/032/006/015/022
B108/B102

AUTHORS: Andreyev, S. I., and Vanyukov, M. P.

TITLE: The use of a spark discharge to produce intense light flashes lasting 10^{-7} - 10^{-8} sec. II. Optimum relationship between spark energy in air and duration of the light flash

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 6, 1962, 738 - 745

TEXT: The effect of the discharge parameters on the speed and duration of energy delivery in a spark channel was studied in order to arrive at the optimum relation between discharge energy and length and intensity of the resulting light flash. On the basis of earlier work (ZhTF, 31, 961, 1961) it was established that under stiff discharge conditions 85 - 95% of the total energy stored in a capacitor is delivered in the first semiperiod of the current oscillation. This fraction is determined only by the degree of the discharge $\psi = U_o/L(di/dt)_{max}$. An increase in discharge energy through raising the operating voltage entails a decrease in the overall duration of the electrical process. However, the duration of

Card 1/2

ANDREYEV, S.I.

Using a spark discharge to obtain intensive light flashes of 10^{-7} to 10^{-8} sec. duration. Part 3: Study of a capillary surface spark discharge in the air, damped by an additional resistor. Zhur.tekh.fiz. 32 no.8:967-974 Ag '62. (MIRA 15:8)
(Electric discharges)

34023
S/056/62/042/001/048/048
B142/B112

9,3150 (1049, 1482, 1395)

AUTHORS: Andreyev, S. I., Vanyukov, M. P.

TITLE: "Channel propagation of strong miniature sparks" Remarks to the article by B. A. Demidov, Yu. F. Skachkov, and S. D. Fanchenko

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 1, 1962, 309

TEXT: The conclusion drawn by Demidov, Skachkov, and Fanchenko as the result of their studies on spark discharges of capacitors of low capacity, that the spark channel expansion at a rate of 60-80 km/sec is doubted. It is supposed that the substantiating picture does not represent the very spark channel, but the stage of streamer discharge preceding the channel propagation proper (analogous to the picture taken by Saxe and Chippendale). Final studies on the propagation rate of the channel are still necessary. The lines of investigation persued by Saxe and Chippendale should be followed. Also the rate at which the amperage is supposed to increase at the beginning of the discharge is considered too high for the investiga-

Card 1/2

ANDREYEV, Semen Ivanovich, kand. geol.-miner. nauk; YEFREYKIN, A.K., prof., doktor biol. nauk, red.; FIL'CHENKO, R.D., red.; DEOMIDOV, N.D., tekhn. red.

[Soil erosion control; manual for agricultural workers in the Chuvash A.S.S.R.] Bor'ba s eroziei pochv; rukovodstvo dlia rabotnikov sel'skogo khoziaistva Chuvashskoi ASSR. Cheboksary, Chuvashskoe knizhnoe izd-vo, 1962. 91 p. (MIRA 15:12)
(Chuvashia--Soil conservation)

ANDREYEV, S.I.; VANYUKOV, M.P.; SEREBRYAKOV, V.A.

Use of ferrates in generating high-voltage nanosecond power pulses. Prib. i tekh. eksp. 7 no.3:89-92 My-Je '62. (MIRA 16:7)

1. Gosudarstvennyy opticheskiy institut.
(Oscillators, Electron-tube) (Pulse techniques (Electronics))

ANDREYEV, S. I.; VANYUKOV, M. P.; DANIEL', Ye. V.

Method for recording the radiation spectra of a pulse discharge with a time resolution of 10^{-8} sec. Opt. i spektr. 13 no.6: 863-865 D '62. (MIRA 16:1)

(Oscillography) (Electric discharges)

ANDREYEV, S.I.; VANYUKOV, M.P.; STAROVOYTOV, A.T.

Effect of an external magnetic field on the light characteristics of a pulsed discharge in helium. Zhur. eksp. i teor. fiz. 43 no.3:804-807 '62. (MIRA 15:10)

1. Gosudarstvennyy opticheskiy institut.
(Magnetic fields) (Electric discharges through gases) (Helium)

ANDREYEV, S.I.; VANYUKOV, M.P.; STAROVOYTOV, A.T.

Effect of an external magnetic field on the development of a pulsed discharge in argon. Zhur. eksp. i teor. fiz. 43 no.5:1616-1618 N '62. (MIRA 15:12)

1. Gosudarstvennyy opticheskiy institut imeni S.I. Vavilova.

(Electric discharges through gases)

ANDREYEV, Sergey Vasil'yevich; MARTENS, Boris Konstantinovich; TRUSHINSKIY, Aleksandr Nikolayevich; KAMPE-NEMM, A.A., red.; TELYASHOV, R.Kh., red. izd-va; GVIRTS, V.L., tekhn. red.

[Three-positional distance-type transistor temperature regulator] Trekhpozitsionnyi distantsionnyi poluprovodnikovyi termoreguliator. Leningrad, 1963. 20 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Pribory i elementy avtomatiki, no.2) (MIRA 16:10)

(Temperature regulators)

L 18854-63 EPF(c)/EWT(l)/EWP(q)/EWT(m)/BDS/EED(b)-3 AFFTC/ASD/
AFMTC/RADC/APGC/IJP(C)/SSD Pr-4 JD

ACCESSION NR: AP3003958 S/0057/63/033/007/0859/0863

AUTHOR: Andreyev, S.I.; Vanyukov, M.P.

TITLE: Investigation of the influence of afterglow on the duration of ultrashort light flashes produced by spark discharges

SOURCE: Zhurnal tekhnicheskoy fiziki, v.33, no.7, 1963, 859-863

TOPIC TAGS: light flash, spark discharge, high-speed photography, nanosec light source , He, Ar, N, helium, argon, nitrogen

ABSTRACT: In recent years a number of investigators have reported obtaining nanosecond light flashes from spark discharges in air, hydrogen and nitrogen. Spark discharges in inert gases, which have a high light yield, are not used for obtaining brief flashes owing to the persistent afterglow of such gases. But actually the reports of different experimenters on the total duration of light flashes in inert gases are conflicting. Hence it was deemed of interest to undertake a systematic investigation of the role of afterglow as regards the duration of light flashes appearing as a result of high-power nanosecond discharges in different inert gases. The gases tested were A, He and N_2. The discharges were realized in a

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L 18854-63

ACCESSION NR: AP3003958

3

circuit with a C = 900 pF capacitor at voltages V from 4 to 25 kV. The entire circuit was mounted in a sealed chamber which was filled with the investigated gas at different pressures to 25 atm. The discharge current was recorded with a time resolution of 10^{-9} sec; the discharge radiation with a resolution of 3×10^{-9} sec. The afterglow time t_{ag} was determined as the difference between the flash time t_f, measured at 1/3 the peak intensity, and the total duration t_c of the discharge current. Oscillograms show that the electric processes in the gap depend on the nature of the gas: discharges in A and He are aperiodic; those in N_2 are oscillatory. t_c for A and He is shorter than for N_2. Curves for t_{ag} versus the rate of energy release in the gap are presented. At low discharge energies (under 0.01 joule) none of the tested gases exhibit afterglow. Increase of t_{ag} with discharge power (and rate of energy liberation) is greatest in A, and very weak in N_2. With increasing pressure t_{ag} increases in A, but not in He and N_2. With increase of the gap width t_{ag} decreases in A, but remains virtually constant in He and N_2. Thus, for discharges in argon one can reduce the afterglow time and total emission time by reducing C and increasing V and the gap width. Consequently, flashes of the same short duration as in N_2 can be realized in He and A, but only at great sacrifice in intensity. Orig. Art. has: 4 figures and 1 table.

Card 2/2

ANDREYEV, S.I.; VANYUKOV, M.P.

Effect of the afterglow on the duration of the ultrashort light flashes occurring in a spark discharge. Zhur. tekh. fiz. 33 no.7: 859-863 Jl '63. (MIRA 16:9)
(Electric discharges through gases)

ANDREYEV, S.I.; LEBED', B.M. ; SOKOLOV, B.M.

Generation of nanosecond pulses of suporhigh-frequency oscillations. Prib. i tiekh. eksp. 8 no.5:123-124 S-O '63.
(MIRA 16:12)

ANDREYEV, S.I.; LEBED', B.M.; SOKOLOV, B.M.

Magnetic reversal in rapidly alternating high-amplitude fields.
Fiz. tver. tela 6 no.3:915-921 Mr '64. (MIRA 17:4)

ACCESSION NR: AP4019860 S/0181/64/006/003/0915/0921

AUTHORS: Andreyev, S. I.; Lebed', B. M.; Sokolov, B. M.

TITLE: Investigation reversals of magnetism in rapidly alternating fields of large amplitude

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 915-921

TOPIC TAGS: magnetic reversal, ferromagnetic, ferrite, magnetic moment, magnetic damping

ABSTRACT: The authors' purpose has been to investigate the dynamics of magnetization reversal in ferrites in magnetic fields reaching 10^3 oersteds during alternations of polarity at the rate of about 10^{11} oersteds per second and to determine the damping parameters. It was discovered that the rate of change of the magnetic moment and the time of magnetization reversal decrease with amplitude of the field only up to a certain limit, determined by the composition of the ferrite and by the rate of change in the magnetic field. It was found that at reversal rates of 10^{10} oersteds per second or greater in the field, the time of

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ACCESSION NR: AP4019860

reversal and the rate of change of the magnetic moment in the ferrite no longer depend on the amplitude of the magnetizing (reversal) field at maximum fields of 300 oersteds or greater. At the maximum rate of field reversal used in the experiment, about 10^{11} oersteds per second, magnetization reversal took place in 10^{-8} seconds, and the energy of the process reached about $4 \cdot 10^{-2}$ joules/cm^3. The nature of the magnetization reversal is satisfactorily explained by phenomenological equations for precession of the magnetic moment of a saturated ferromagnetic. The damping parameters determined by ferromagnetic resonance agree in order of magnitude with the value determined by rapid reversal of magnetization. Orig. art. has: 4 figures and 7 formulas.

ASSOCIATION: none

SUBMITTED: 13Aug63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: EM, EC NO REF SOV: 008 OTHER: 002

Card 2/2

L 10803-65 EWT(1)/EPA(s)-2/EWT(m)/EPF(n)-2/EWG(v)/EPR/EWP(b) Pe-5/Pa-4/
Pt-10/Pu-4 ESD(gs)/APWL/SSD/ESD(t) JD/WW/JG

ACCESSION NR: AP4046350 S/0057/64/034/010/1871/1872

AUTHOR: Andreyev, S. I.; Vanyukov, M. P.

TITLE: The use of electrically exploded wires to obtain ultrashort sparks

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 34, no. 10, 1964, 1871-1872

TOPIC TAGS: exploding wire, electric wire explosion, electric explosion, ultrashort flash, nanosecond flash

ABSTRACT: The intensity of flashes of light in an air discharge gap having an exploding wire in series with it was experimentally investigated. A low-inductance circuit yielding a maximum current rise rate of 4×10^{11} amp/sec was used. The exploding copper wires of about 10 mm in length and 0.02 mm in diameter were chosen to achieve interruption of the discharge current at the time of maximum flash intensity, which occurred about 10 nsec after the beginning of the discharge. The experiments revealed that the presence of the wire in the discharge gap effected a reduction in the duration of the flash without impairing its intensity. Tungsten wires failed to yield cur-

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L 10803-65
ACCESSION NR: AP4046350

rent interruption of the same sharpness as copper. The current densities were 6×10^8 amp/cm^2 for copper and 3×10^8 amp/cm^2 for tungsten at a current rate to 4×10^{11} amp/sec in both cases. The wire sizes proved to be rather critical in effecting a complete and sharp current interruption. A copper wire 6.8 mm in length and 0.02 mm in diameter, for instance, caused only a temporary interruption of current with a subsequent new upsurge which, however, did not result in an appreciable intensification of the flash. A table presenting data obtained for various conditions of the experiment shows that maximum intensity of the flash is best obtained by including a thin copper wire in the discharge gap. Maximum light intensity per unit length of the gap stems from discharge along the vapors of the exploding wire. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 27Jan64 ATD PRESS: 3117 ENCL: 00

SUB CODE: EC, EM NO REF SOV: 003 OTHER: 001

Card 2/2

L 63533-65 EPA(s)-2/EPA(w)-2/EWT(1)/EWA(m)-2

ACCESSION NR: AP5018311 UR/0057/65/035/007/1295/1297

537.523.4

13
B

AUTHOR: Andreyev, S.I.; Sokolov, B. M.

TITLE: Spark channel formation in air

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 7, 1965, 1295-1297

TOPIC TAGS: spark discharge, air streamer, spark channel expansion

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ABSTRACT: Early stages of spark development in an 8-mm gap in air at atmospheric pressure were photographed with a Kerr cell shutter, and the current and voltage in the gap were recorded with an oscilloscope having a resolving time of 10^{-9} sec. The investigation was undertaken mainly to determine the radius of the first spark channel and the current in it at the instant of its formation, when a streamer first bridges the gap. These data are significant because they constitute the initial conditions for the theory of the further development of the channel. The potential on the gap was held at a value slightly below the spontaneous breakdown potential and the discharge was initiated by a treigger electrode in an opening in the cathode. This is believed to produce conditions similar to those obtaining when the discharge is initiated by intense ultraviolet illumination of the cathode. The Kerr cell was

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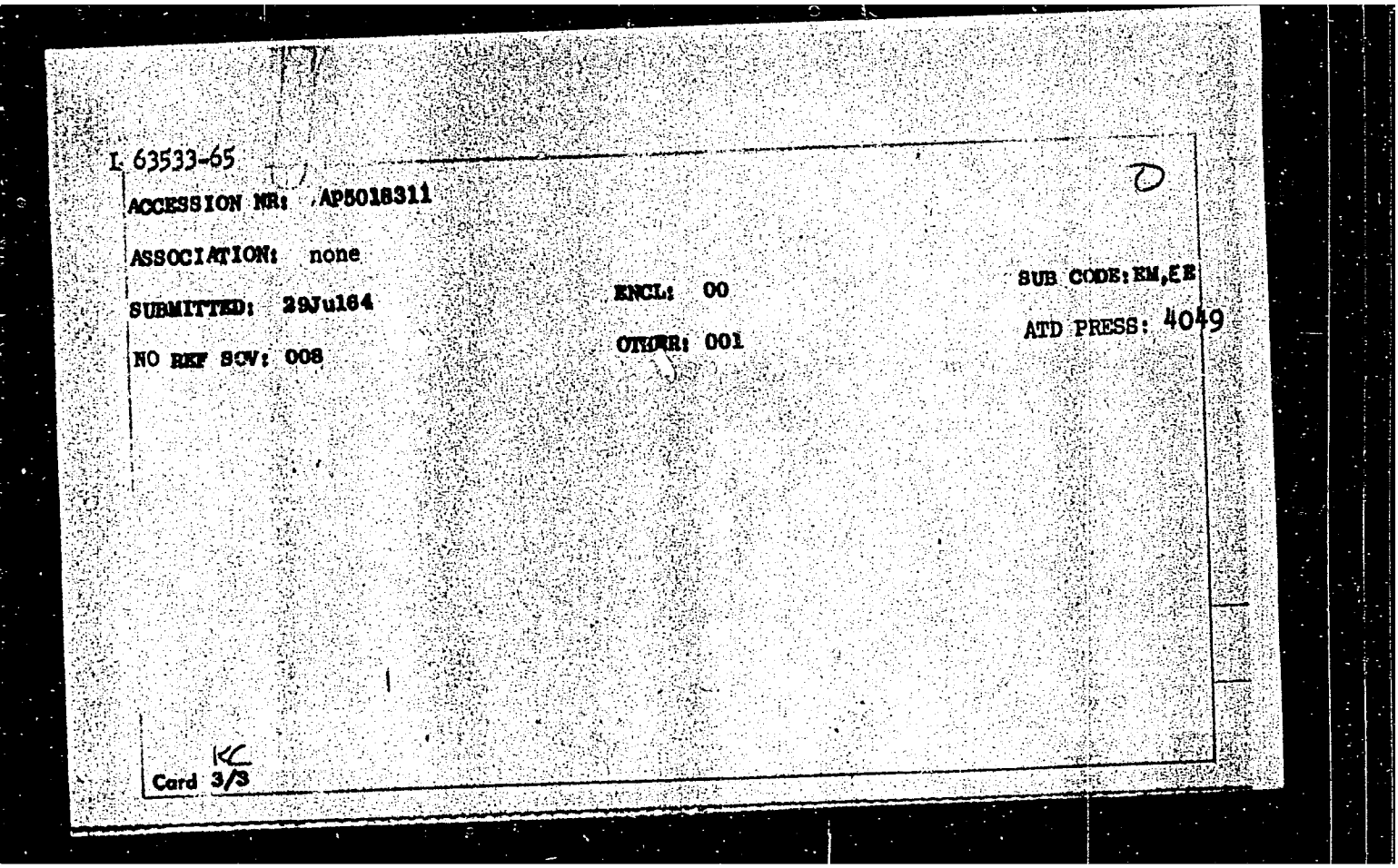
ACCESSION NR: AP5018311

controlled by a ferrite device proposed and described by S.I.Andreyev, M.P.Vanyukov, and V.A.Serebryakov (PTE No.3, 89, 1952). Several photographs and drawings of oscilloscope traces are given, but the experimental data themselves are not presented. From the undisclosed experimental data the following conclusions are drawn: 1) The streamer bridges the gap 10^{-8} sec after the first perceptible current rise (the current sensitivity was 20 A), and the current at this instant is from 500 to 800 A. 2) The average velocity of the streamer is approximately 10^8 cm/sec, and the charge involved in its motion is 4×10^{-6} C/cm. 3) The visible diameter of the first channel at the moment of its formation is from 100 to 120 μ. 4) The channel expands at an average velocity of 4 km/sec while the current increases from 600 to 1200 A. This expansion velocity is in good agreement with the hydrodynamic theory of S.I.Andreyev et al (ZhTF, 32, 57, 1962). 5) The current density reaches its maximum value of 10^7 A/cm^2 at a time close to that at which the channel is formed; the expansion of the channel leads to a decrease of the current density. 6) A step was observed in the oscillogram of the gap potential when the current reached 500 to 800 A; this step signals the formation of the spark channel and does not precede streamer formation, as was previously assumed (I.S.Marshak, UFN, 71, 631, 1960; 77, 229, 1962). Orig. art. has: 3 figures. [15]

Card 2/3



L 63533-65

ACCESSION NR: AP5018311

D

ASSOCIATION: none

SUBMITTED: 29Jul64 ENCL: 00 SUB CODE: EM,EE

NO REF SOV: 008 OTHER: 001 ATD PRESS: 4049

Card 3/3 KC

ANDREYEV, S.I.; OCHELENKOV, V.M.; [illegible], S.I.

Time resolution of an optical shutter with a Kerr cell. Opt. i spektr. 18 no.1:135-136 Ja '65. (MIRA 18:4)

L 26612-65 EWT(1)/EPA(w)-2/EEC(t)/EWA(m)-2 Pab-10

ACCESSION NR: AP5005053 S/0051/65/018/002/0333/0334

23
AUTHOR: Andreyev, S. I.; Vanyukov, M. P.; Daniel', Ye. V. 21
B

TITLE: Brightness of a spark discharge channel of nanosecond duration

SOURCE: Optika i spektroskopiya, v. 18, no. 2, 1965, 333-334

TOPIC TAGS: spark discharge, ultrashort discharge, ultrashort spark discharge, discharge channel, discharge channel brightness

ABSTRACT: The relationship between the brightness of the channel of ultrashort discharges and the electrical parameters of the discharge circuit was determined. For ultrashort light flashes the ratio U_0/L (U_0 is the discharge voltage and L the induction of discharge circuit) does not unambiguously determine the brightness of the channel. Thus, for example, in the case of ultrashort discharges obtained by decreasir the capcity C, the brightness of the channel descreases even if the value of the ratio U_0/L is high. Brightness decreases because at hard discharges the release of energy in the channel proportional to di/dt_M is not equal to the ratio U_0/L. The visual brightness B_V can be expressed by the relation

$$B_V = K \frac{E_0}{a + b\frac{l}{c} + \frac{L}{l}},$$

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L 26612-65

ACCESSION NR: AP5005053

where a and b are constants characterizing the gas in which the discharge occurs, K is a proportionality factor, ℓ is the length of the discharge gap, and $E_o = U_o/\ell$. For a discharge in air ($a = 7 \times 10^{-8}$ and $b = 5 \times 10^{-17}$), when ℓ is expressed in cm, L in henrys, C in farads, E_o in v/cm, and B_v in stilbs, then at $K = 4 \times 10^{-5}$ the experimental data satisfy the equation for B_v values less than the limiting value and for those close to the limiting value. From this relation it follows that B_v decreases when C is decreased and when the length of the discharge gap is increased. This fact was proved experimentally. By decreasing ℓ from 1 to 0.1 cm, the value of B_v increased from 5—6 to 10—12 Msb, which is in agreement with the above formula. Orig. art. has: 2 formulas and 1 table. [JA]

ASSOCIATION: none

SUBMITTED: 03Mar64 ENCL: 00 SUB CODE: EM, EC

NO REF SOV: 006 OTHER: 001 ATD PRESS: 3188

Card 2/2

L 26958-65 EWT(l)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EWA(m)-2 Pz-6/Po-4/Pab-10/Pi-4
ACCESSION NR: AP5003242 IJP(c) AT S/0057/65/035/001/0101/0107

63
39
B

AUTHOR: Andreyev, S.I./ Sokolov, B.M.

TITLE: Ultrahigh frequency investigation of plasma deionization at atmospheric pressure

SOURCE: Zhurnal tekhnicheskoy fiziki, v.35, no.1, 1965, 101-107

TOPIC TAGS: plasma diagnostics, spark discharge, electron concentration, electron temperature, recombination coefficient, resonator Q factor, ultrahigh frequency

ABSTRACT: An ultrahigh frequency method is described by which the time variation of the electron density and temperature of a plasma can be determined and some information can be obtained concerning the distribution of these quantities along the plasma column. This method was employed to investigate the deionization following a spark discharge in air at atmospheric pressure, and the results are presented and discussed. A 76 ohm coaxial resonator was employed. This was loaded with an adjustable internal capacitance so that its resonant frequency could be varied slightly from the 750 Mc/sec exciting frequency. The spark discharge took place within the resonator and the characteristics of the resulting plasma were determined from

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ACCESSION NR: AP5003242

the shift in resonant frequency and the change in the Q of the cavity. The theory of these effects is discussed and it is shown that an average value of the electron concentration and temperature can be determined and some information can be obtained concerning the deviation from uniform electron density distribution. It was found that the electron density following a spark discharge in air is very unevenly distributed over the length of the gap. The volume recombination coefficient at electron concentrations between 10^8 and 10^{10} cm^{-3} was found to vary from 2×10^{-6} to 1.5×10^{-5} cm^3/sec, depending on the length of the gap and the energy of the discharge. "In conclusion, the authors thank M.P.Vanyukov for his interest and support of the work, and V.Ye.Golant for a discussion and valuable remarks." Orig. art.has: 20 formulas, 5 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 27Jan64 ENCL: 00 SUB CODE: ME,NP

NR REF SOV: 009 OTHER: 004

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000101520008-4"

L 1636-66 EWT(1)/EWA(h)

ACCESSION NR: AP5016400 UR/0120/65/000/003/0222/0224
621.3.032.26

AUTHOR: Andreyev, S. I.; Sokolov, B. M.

TITLE: Simple vertical-sweep generator for an image-converter tube

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1965, 222-224

TOPIC TAGS: image converter, sweep generator

ABSTRACT: A ferrite-type tubeless circuit is described which is intended for producing high-voltage nanosecond pulses; the pulses build a step-type voltage for the vertical sweep in an image-converter tube. A capacitor is charged by a few kv voltage and then discharged via an LC ferrite-coil circuit producing high voltage-peak oscillations in the secondary. These peaks are rectified by a full-wave circuit and applied to the image-converter-tube plates. Frames of 0.2 sec duration repeated at a rate of 5 Mc are mentioned.

ASSOCIATION: Gosudarstvennyy opticheskiy institute, Leningrad (State Optical Institute, Leningrad)

SUBMITTED: 30Mar64 ENCL: 00 SUB CODE: EC

NO REF SOV: 007 OTHER: 000

Card 1/1

ANDREYEV, S.I.; VANYUKOV, M.P., kand. fiz.-mat. nauk

Obtaining intensive $10^{-7} \div 10^{-8}$ second flashes by means of a spark discharge. Usp.nauch.fot. 9:153-158 '64.
(MIRA 18:11)

L 00934-66 EWT(l)/EPA(s)-2/EPA(w)-2/EWA(m)-2

ACCESSION NR: AP5020728 UR/0057/65/035/008/1411/1418

537.524.4

AUTHOR: Andreyev, S. I.; Orlov, B. I.

21
20
B

TITLE: On the theory of the development of a spark discharge. I.

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 8, 1965, 1411-1418

TOPIC TAGS: spark discharge, plasma conductivity, spark plasma

ABSTRACT: This paper is concerned with the time variation of the current during the first half-cycle of the discharge in a circuit containing capacity, inductance, and a spark gap. The principal uncertainty in a theoretical treatment is the time dependence of the resistance of the gap. This was derived in the present treatment from the energy balance equation with the assumption that all the power released in the gap is expended in widening the spark channel, and not in heating the spark plasma, the resistivity of which was thus assumed to remain constant. This assumption is in a sense opposite to that employed by W.Weizal and R.Rompe (Zs. Phys., 122, 636, 1944; Ann. Phys., 1, 285, 1947), who neglected the power expended in widening the spark channel but took into account the increase in the temperature of the plasma. It was also assumed that the rate of expansion of the spark channel is

Card 1/2

L 00934-66

ACCESSION NR: AP5020728

related to the pressure within it in accordance with the findings of S.I.Braginskiy (ZhETF, 34, 1545, 1958), and that the radius of the channel at the instant it is formed is that given by the diffusion theory of streamer development (H.Raether, Zs. Phys., 107, 91, 1937). The time dependences of the discharge current and the spark channel radius were calculated numerically for a number of cases with discharge potentials ranging from 3 to 50 kv, circuit capacities from 0.0005 to 1.0 microfarad, and inductances up to 0.1 microhenry, and some of the results were compared with experimental data of S.I.Andreyev, M.P.Vanyukov, and A.B.Komolov (ZhTF, 32, 57, 1962; 31, 961, 1961). The agreement between the experimental and theoretical values was better than 9% for the current amplitude and 15% for the spark channel radius. For all cases of spark discharge in air in which the ratio of the circuit inductance to the gap length was less than 0.1 microhenry/cm, the best agreement was obtained with the value 300 mho/cm for the spark plasma conductivity. "In conclusion, the authors express their gratitude to S.I.Braginskiy for a number of valuable remarks concerning this work." Orig. art. has: 32 formulas and 2 figures. [15]

ASSOCIATION: none

SUBMITTED: 30Oct64 ENCL: 00 SUB CODE: AM, EM

NO REF SOV: 010 OTHER: 006 ATD PRESS: 4077

Card 2/2 DP

L 11072-66 EWT(1)/EWP(e)/EWT(m)/EWP(b)/EWA(m)-2 WH

ACC NR: AT6001398 SOURCE CODE: UR/3180/64/009/000/0147/0150

AUTHOR: Andreyev, S. I.; Vanyukov, M. P. (Candidate of physico-mathematical sciences); Daniel', Ye. V.

ORG: none

TITLE: Methods of shortening the duration of light flashes emitted by a spark discharge

SOURCE: AN SSSR. Komissiya po nauchnoy fotografii i kinematografii. Uspekhi nauchnoy fotofrafii, v. 9, 1964. Vysokoskorostnaya fotografiya i kinematografiya (High-speed photography and cinematography), 147-150 and insert facing page 113

TOPIC TAGS: flash lamp, spark gap, argon, ceramic dielectric, electric discharge, optic brightness

ABSTRACT: The article deals with a study of the spark discharge on the surface of a ceramic material and when a system of metal plates are introduced into the spark gap in the case where the discharge takes place in argon. The metal plates were found to shorten the length of the discharge current pulse and to eliminate the afterglow without changing the brightness amplitude of the flash. The number of plates must be increased as the energy of the discharge and the argon pressure are raised. When a ceramic material with a dielectric constant $\varepsilon = 150$ was used, a marked damping of the

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ACC NR: AT6001398

discharge and a severalfold increase in the amplitude of the luminous intensity (as compared to the discharge in the absence of this material) were observed. Orig. art. has: 5 figures.

SUB CODE: 13,20 SUBM DATE: 00/ ORIG REF: 007/ OTH REF: 002

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L 15282-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b) IJP(c) JD

ACC NR: AT6001400 SOURCE CODE: UR/3180/64/009/000/0153/0158

AUTHOR: Andreyev, S.I.; Vanyukov, M.P. (Candidate of physico-mathematical sciences)

ORG: none

TITLE: Production of intense 10^{-7}—10^{-8} sec light flares by means of spark discharges

SOURCE: AN SSSR. Komissiya po nauchnoy fotografii i kinematografii. Uspekhi nauchnoy fotografii, v. 9, 1964. Vysokoskorostnaya fotografiya i kinematografiya (High-speed photography and cinematography), 153-158 and insert facing page 168

TOPIC TAGS: light source, electric discharge, gas discharge, argon, nitrogen, helium

ABSTRACT: Several researchers discussed recently the production of light flares shorter than 10^{-7} sec by means of spark discharges. However, the question concerning the maximum intensity of such flares was left open. The present paper reports on the studies of physical conditions which determine the relationship between the energy fed into the discharge gap and the duration and luminous intensity of the resulting flare. The authors discuss in a semi-empirical manner the process of liberation of electrical energy within the spark discharge channel, present diagrams showing the changes in time of electrical characteristics of spark discharges in air (in particular of the changes of the specific and total spark resistance within the channel), survey the methods for the shortening of the duration of the light flare and present experimental results (summarized in Fig. 1) for the cases of spark discharges in argon, nitrogen, and helium.

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ACC NR: AT6001400

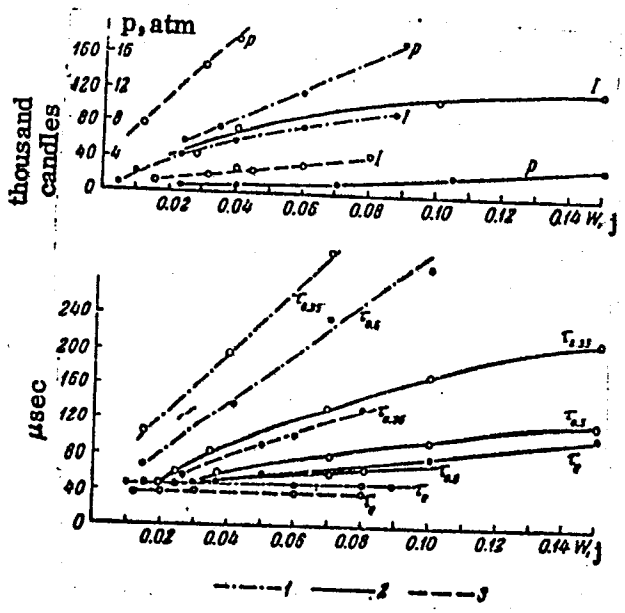

Fig. 1 Electric pulse duration, light intensity amplitude, and light flare duration as a function of energy liberated in spark discharges generated in different gases.

τ_e - duration of the electric pulse at the 0.35 level of the maximum; $\tau_{0.35}$ and $\tau_{0.5}$ - duration of light pulses recorded respectively at the 0.35 and 0.5 level of the maximum; I - amplitude value of light intensity; P - gas pressure at which the discharge of energy W occurs. Discharge parameters: C = 900 pF, L = 7 nH, l = 1.5 mm.
1 - argon; 2 - nitrogen; 3 - helium.

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 003

Card 2/2 mjs

L 23491-66 EWT(1)

ACC NR: AP6007086 UR/0057/66/036/002/0349/0352

AUTHOR: Andreyev, S.I.; Sokolov, B.M.

ORG: None

TITLE: Investigation of the breakdown mechanism of a short air gap. 2.

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 2, 1966, 349-352

TOPIC TAGS: spark discharge, spark gap, air, brass, steel, nanosecond pulse, electric discharge radiation, electric conductivity

ABSTRACT: The authors have investigated the breakdown of an 0.6 mm gap in air at atmospheric pressure between 1 mm radius hemispherical electrodes of brass (cathode) and steel (anode by 4.6 kV pulses of 20 nanosec duration. The pulses were produced by demagnetization of ferrite rings, using a technique previously proposed by S.I.Andreyev, M.P.Vanyukov, and V.A.Serebryakov (PTE, No. 3, 89, 1962). The pulse height was so chosen that discharge did not occur every time the pulse was applied. The voltage across the gap and the current through it were recorded with an oscilloscope, and the spark was photographed with its own light. No radiation from the gap was observed when the discharge current was less than 1.5 A. A weak diffuse luminosity was apparent when the discharge current was about 2 A, and as the current increased from 2 to 4 A there appeared an approximately 65 micron diameter cathode spot and the luminous column increased in diameter toward the anode, where its diameter was sometimes as large as 150 mic-

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ACC NR: AP6007086 O

rons. When the diffuse luminosity was present the discharge current increased at the rate of approximately 10^9 A/sec and the conductivity of the column was about 1 mho/cm. A temporary decrease in the rate of decay of the voltage across the gap was observed when the diffuse radiation appeared. An energy of about 6×10^{-6} J was required to break down the gap, and a power of 2 kW was expended in the gap at the moment when the diffuse radiation appeared. Orig. art. has: 1 formula and 3 figures.

SUB CODE: 20/ SUBM DATE: 10May65/ ORIG REF: 006/ OTH REF: 002

Card 2/2 FW

ACC NR: AP7003147 SOURCE CODE: UR/0368/66/005/006/0712/0717

AUTHOR: Andreyev, S. I.; Vanyukov, M. P.; Daniel', Ye. V.

ORG: none

TITLE: Surface discharge as a source of intensive light flashes

SOURCE: Zhurnal prikladnoy spektroskopii, v. 5, no. 6, 1966, 712-717

TOPIC TAGS: surface discharge, spark discharge, light flash, light emission, emission spectrum

ABSTRACT: Luminous characteristics of the discharge channel over a titanium dioxide ceramic surface have been investigated in argon and xenon atmospheres. It was shown that the luminous emission intensity of the surface spark is 10 times greater than that of a free spark in air. The spectral distribution of the emission was measured. At extremely rigid conditions, the surface discharge is shown to emit as a blackbody with a temperature of 63,000K in argon and 40,000K in xenon.

Card 1/2 UDC: 537.523.4

ANDREEV, S.K.

Universal'nye rolikovye nozhnitsy URN-6 Vestn. Mash., 1950, no.11, p. 44-45
MUltipurpose roller shears URN-6.

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

ANDREYEV, S.M.; KHALDIN, V.G.

Preparation of solid narrow-banded light filters for colorimetry in the spectral region of 3100 - 3600 Å. Trudy Kom.anal.khim.7:201-204 '56. (MLRA 9:9)

1.Leningradskiy gosudarstvennyy universitet, Khimicheskiy fakul'tet. (Light filters) (Colorimetry)

ANDREYEV, S.M.

SOV/6-59-7-4/25

3(2), 3(4)

AUTHOR: Sokolova, O. I.

TITLE: Results of the Competition for the Best Improving Suggestion (Itogi konkursa na luchsheye ratsionalizatorskoye predlozheniye)

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 7, pp 17-21 (USSR)

ABSTRACT: In May 1959, the ordinary competition for the best improv-
ing suggestion in the field of topographic-geodetic and
cartographic production was concluded at the Glavnoye uprav-
leniye geodezii i kartografii MVD SSSR (Main Administration
of Geodesy and Cartography of the Ministry of Internal Affairs
of the USSR). 7 aerogeodetic services, 8 cartographic institutes
and NRKCh took part. A total of 30 topographic-geodetic, and
31 cartographic, suggestions were submitted. The 1st prize
of 1,000 rubles was awarded to V. A. Morosov and Y. V. Trusov
(Minskaya kartograficheskaya fabrika (Minsk Cartographic
Plant) for the "Seamless Fastening of Atlas Blocks".
The 2nd prizes of 750 rubles were awarded to: 1) Ya. L.
Bratslavskiy, V. M. Varzugin, Yu. N. Galitskiy, O. F. Shetler
and V. P. Stepanov (NRKCh) for "Technology of the Use of Standard
Bases (tipovaya osnova)". 2) I. V. Gurevich, V. M. Varzugin,

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E. O. Radovil'skaya, O. D. Shetker, L. A. Zhaykova for
Technology of the Manufacture of Combined Diapositives"
(NRKCh). 3) D. A. Larin (Moskovskoye AGP (Moscow AGP)) for
"Reduction of Work in Evaluating the Accuracy of Symmetric
Geodetic Nets Formed by Figures of Regular Shape". 4) N. Ya.
Shreyber (Novosibirskoye AGP (Novosibirsk AGP)) for "Light
Collapsible Ladder of Dural for Prospecting". - The 3rd prizes
of 500 rubles each were awarded to : 1) I. F. Sheraldin
(Yakutskoye AGP (Yakutsk AGP)) for "Establishment of Fixed
Points by the Method of Thawing by Means of Vapor". 2) I. D.
Ol'shanskiy (Yakutskoye AGP (Yakutsk AGP)) for "Construction
of an Overhead Trolley for Timber Transport". 3) I. A. Kyzin
(Moskovskoye AGP (Moscow AGP)) for "Variation in the attachment
of Photographs on the STD-2". 4) V. F. Zarubin (Moskovskoye
AGP (Moscow AGP)) for "Raising of Geodetic Signs by 5-7
Meters". 5) D. I. Smirnov, I. V. Gurevich, Z. I. Aleksandrova,
V. M. Varzugin, L. K. Kirillov and L. Ya. Kislyakov (NRKCh)
for "Technology of the Completion and Edition of Topographic
Maps by the Photorelief Method". 6) M. F. Glushanin (Minskaya
kartograficheskaya fabrika (Minsk Cartographic Institute))
for "Vertical Piling Machine for Brochures". 7) A. A. Tsukov

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(Tashkentskaya kartograficheskaya fabrika (Tashkent Carto-
graphic Institute)) for "Mechanism for the Loading of Trucks
With Paper Rolls". 8) A. N. Tkachenko (Ukrainskoye AGP
(Ukrainian AGP)) for "Replacement of the Arc Lamp for the Helio-
graphic-printing Machine KP-1 by an Illuminating Device With
Luminescent Lamps DS-40". 9) G. M. Grigor'yev (Sverdlovskoye
AGP (Sverdlovsk AGP)) for "Ruler for Drawing in the Prepara-
tion of Map Compilations and Final Compilations". 10) L. G.
Israilev (Severo-Zapadnoye AGP (North-west AGP)) for "Im-
provement of the Contact Mechanism in the Micrometer by
Vodar". 11) S. M. Andreyev (Moskovskoye AGP (Moscow AGP))
for "Formulas and Form for a More Rational Computation of
Superelevations From the Trigonometric Leveling". 12) D. G.
Vil'ner (Sverdlovskoye AGP (Sverdlovsk AGP)) for "New Number-
ing and Painting of Leveling Staffs". 13) G. M. Grinberg
(Moskovskoye AGP (Moscow AGP)) for "Formulas and Table for
Extreme Divergences Between the Free Terms of Polar and
Base Conditions Computed on a Plane and on a Ball". - Besides,
the following suggestions were approved by the jury: 1) V. T.
Trykov (Sverdlovskoye AGP (Sverdlovsk AGP)), "Underframe for
Observations From the Telescopic Tower". 2) B. V. Ceinskiy

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Results of the Competition for the Best Improving Suggestion

(Severo-Zapadnoye AGP (North-west AGP)) "Device for Determining the Corrections of Centering and Reducing With an Auxiliary Scale for Determining the Corrections of the Curvature of the Image of the Geodetic Line and of the Spheric Excess". 3) V. I. Mayorik (Moskovskoye AGP (Moscow AGP)), "Variation of the Construction of the Heliotrope". 4) G. ... Shlendorf (Moskovskoye AGP (Moscow AGP)), "Zero Thermostat for the Gradienters of the GAK-2k-type". 5) P. I. Fokin (Moskovskoye AGP (Moscow AGP)), "Device for Cutting Aluminum". 6) A. I. Fokina and G. M. Grinberg (Moskovskoye AGP (Moscow AGP)) "Projecting Map". 7) Ya. I. Segerstedt, N. A. Pashkevich and E. F. Shubkina (Minskaya kartograficheskaya fabrika (Minsk Cartographic Institute)), " A Workbench Device for Fixing Offset Colors". 8) L. L. Gintberg (Tashkentskaya kartograficheskaya fabrika (Tashkent Cartographic Institute)), "Device for Grinding the Edges of Plate Glass". 9) A. A. Tsukker (Tashkentskaya kartograficheskaya fabrika (Tashkent Cartographic Institute)), a) "Mechanism for Lifting the Trough With the Balls". 10) I. L. Turchenko and S. A. Lenshtern (Tashkentskaya kartograficheskaya fabrika (Tashkent Cartographic Institute)), "Automatic Switch-off of Arc Lamps". 11) K. V. Vasil'yeva (Tashkentskaya kartograficheskaya fabrika (Tashkent Cartographic Plant)), "Increase in the Durability of Light-sensitive Rubber Solution (Albatros)". 12) K. M. Sher (Klyevskaya kartograficheskaya fabrika (Kiyev Cartographic Plant)), "Correspondence of the Stroke-elements on Topographic Maps With the Letters on the Machine Printing Forms". 13) V. V. Bozilov, S. F. Yakunin (Rizhskaya kartograficheskaya fabrika (Riga Cartographic Plant)), "On the Improvement in the Construction of Mechanisms for Pressing on the Inking Rollers and Friction Drums on the Offset Machines 'Planeta-Super-Print'". 14) A. Ya. Blagorskiy (Rizhskaya kartograficheskaya fabrika (Riga Cartographic Plant)), "A National Method of Making Positive of Printing Forms of Relief Printing on Tracing Paper for Printing Maps on Offset Machines". 15) M. Zakharskiy (Rizhskaya kartograficheskaya fabrika (Riga Cartographic Plant)), "Synchronization and Automatization of the Switching on and off of Arc Lamps and of the Suction Fan in the Copying Department". 16) V. F. Alekseyev (Rizhskaya kartograficheskaya fabrika (Riga Cartographic Plant)), "Variation in the Technology of Making Sets of Outline Maps of the Fifth Class". 17) V. F. Ilyushin (Rizhskaya kartograficheskaya fabrika (Riga Cartographic Plant)), "Preparation of Collecting- and Corresponding Positives by the Method of the Washed-out Relief on 'vinipros'". 18) V. V. Putyshkin (Tbilisskaya kartograficheskaya fabrika (Tbilisi Cartographic Plant)), "Switching off the Motor of the Compressor on the Copying Press by Means of the Change Lever for Lifting the Glass and by Means of the Vacuum". 19) D. K. Kakhiya (Tbilisskaya kartograficheskaya fabrika (Tbilisi Cartographic Plant)), "Device for Laying on the Negatives in Copying". 20) M. M. Sozkin (Tbilisskaya kartograficheskaya fabrika (Tbilisi Cartographic Plant)), "Device for Drying Paper on Offset Machines". 21) E. M. Konstantinova (Tbilisskaya kartograficheskaya fabrika (Tbilisi Cartographic Plant)), "Progressive Method and Procedure for the Preparatory Work in Calculating and Plotting the Geographic Network on Maps to Be Compiled". 22) K. I. Mironov (NIICh) "A Workbench for Repairing the Guides of the Offset Machine". 23) Yu. F. Yerasov (NIICh) "Device for Regulating the "Rule" of the Offset Machine". 24) Ye. K. Klychantseva and S. V. Kaptsevich (NIICh) "Improving the Method of Precipitating the Silver Nitrate in Used Solutions".

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ANDREYEV, S.N. (Leningrad).

Sphere in the lessons of drawing. Mat.v shkole no.6:11-20 N-D '53.
(MLRA 6:12)

(Sphere) (Geometrical drawing)

ANDREYEV, S.N. (Leningrad)

On A.A.Abrikosov's books "Mechanical drawing." Reviewed by S.N.Andreev. Mat.v shkole no.5:78-80 S-O '56. (MLRA 9:10)
(Mechanical drawing--Study and teaching)

ANDREYEV, S.N. (Leningrad)

Strengthen the geometrical basis of mechanical drawing. (MIRA 12:10)
Politekh. obuch. no.8:71-75 Ag '59.
(Mechanical drawing--Study and teaching)

Andreyev, S.N.

SOV/142-2-1-20/22

28(1)

AUTHOR: p.2 Vologdin, V.V.

TITLE: A Conference on Electrical Food Processing Methods (Konferentsiya po elektricheskim metodam obrabotki pishchevykh produktov)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - radiotekhnika, 1959, Vol 2, Nr 1, pp [illegible] (USSR)

ABSTRACT: A conference on electrical food processing methods was held in Kiyev from 7 to 13 October 1958. The conference was organized by the Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlennosti USSR (Kiyev Institute of Technology of the Food Industry UkrSSR). The conference comprised a wide range of problems and the novelty of the subjects caused great interest of workers from scientific institutions and industrial installations. The 350 delegates came from 60 towns of the USSR; 119 participants were sent to the conference from vuzes and scientific research institutes. At the conference, more than 50 reports were delivered and discussed,

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A Conference on Electrical Food Processing Methods

Sterilizer for the Sterilization of Fruit Conserves on a Conveyer" by N.D. Chernyayev (Moscow); "The Defrosting of Spiced Sprats by High Frequency Currents" by V.N. Podsevalov (Astrakhan); "The High Frequency Boiling of Electrically Smoked Fish" by A.I. and M.I. Kalitina and I.S. Pavlov (Kiyev); "The Technological Peculiarities of Processing Sausage Products by High Frequency Currents" by N. N. Shishkina (Moscow). At the conference, the following reports were heard with great interest and were discussed in detail: "The Application of Infrared Heating for Drying of Confectionery Products" by N.B. Belostotskiy (RIGA); "The Technological Principles of the Hot Electrical Fish Smoking Process" by A.I. and M.I. Kalitina and Ye.P. Naumov (Kiyev); "A New Fish Processing Technology and the Processing of Sardines and Sprats With the Application of Infrared Light and Smoking Liquid" by I.I. Lapshin (Moscow); "The VNIIKOP Experimental Equipment for Ionization Processing of Food Products"

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A Conference on Electrical Food Processing Methods

by N.D. Chernyayev (Moscow); and "An Investigation of the Possible Application of Radioactive Radiation for Preserving the Albuminous Residue of Integumentary Whale Fat" by S.I. Tsypkin (Leningrad). The creative work conducted in the field of processing food by electrical methods was demonstrated by a large number of the reports delivered at the conference. In the majority of cases, this work was conducted at a high theoretical level by individuals and by teams of scientific and industrial workers. However, a number of reports were of doubtful theoretical and practical value and did not present any new information (for example those dealing with drying in a high frequency current field). Problems of work hygiene, shielding of devices and buildings and the elimination of radio interferences, were not considered at the conference. Especially the elimination of radio interferences may create the idea of an unreal simplicity of introducing some of the processing methods. After the discussion

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and the exchange of opinions on the reports, the conference participants worked out a number of resolutions, directed at the future development of electrical food processing methods. The most important resolution dealt with the coordination of the future work in the field of applying electrical processing technologies, the introduction of the latter, and the creation of typified projects and equipment. The propaganda for applying electrical processing methods in the food industry must be intensified by conducting regularly conferences and meetings on this subject. Further, scientific, technological, periodical and reference literature must be published.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut imeni V.I. Ul'yanova (Lenina) (Leningrad Institute of Electrical Engineering imeni V.I. Ul'yanov (Lenin))

SUBMITTED: November 3, 1958