

ACC.NR: AP4609935

sented graphically as functions of the phase at the input to the matching cavity. The numerical integration was performed for 80 keV incident electrons, a wavelength of 10.71 cm, and the values  $D_1 = D = 2.27$  cm,  $t = 0.47$  cm for the dimensions of the cavity (see Fig.1 of the Enclosure). From these results and calculations previously performed for the buncher without the matching cavity (Ye.K.Ostrovskiy, A.I.Zy\*kov, S.G.Kononenko, L.A.Makhnenko, G.K.Dem'yanenko, Yu.N.Manovets and K.S.Rubtsov, ZhTF, 33, No.6, 1963), curves were constructed showing the accelerated electron energy as a function of the initial phase for various values of the phase velocity (frequency) in the buncher. The acceptance angle is very considerably decreased by the presence of the matching cavity, especially at high phase velocities. This behavior was previously known from experiment (A.I.Zy\*kov, Ye.K.Ostrovskiy and L.A.Makhnenko, ZhTF, 33, No.9, 1963). Results of the present calculations are now, however, compared with data from the earlier experiments and quantitative agreement is found. It is concluded from this that the present method of calculation can be employed with confidence for design purposes. Orig.art.has: 12 formulas and 6 figures.

ASSOCIATION: none

SUBMITTED: 01Nov62

DATE ACQ: 10Feb64

ENCL: 01

SUB CODEs: PH,SD

NR REF SOV: 003

OTHER: 003

Card 2/3

OSTROVSKIY, Ye. P.

CA

PROCESSED AND REPRODUCED FROM  
 PREVIOUS EDITIONS BY NSA

Preparation of an emulsion by means of ultrasonic waves. S. N. Rubovkin and E. P. Ostrovskiy. *J. Phys. Chem. (U. S. S. R.)* 6, 73-74 (1952) (in Russian); *Ann. Physikchem. (U. S. S. R.)* 1, 741-4 (1954) (in German).  
 Ultrasonic waves of frequency  $4.0 \times 10^6$ , giving a pressure up to 1 atm and generated by means of piezo quartz plates immersed in oil, were used to prep fine emulsions of Hg, trichloroethyl, paraffin oil, butter, benzene, paraffin, sulfur, Sn, Bi, Cu and Ag in water in about 2 min. The Hg emulsion was dark violet, particles size 0.5  $\mu$ , and gradually settled. A 5-min Hg emulsion (0.005 g Hg per l, had an elec. cond. of  $0.21 \times 10^{-4}$  ohm<sup>-1</sup> cm<sup>-1</sup>, after 3 hrs  $0.31 \times 10^{-4}$  and after 1 day  $0.26 \times 10^{-4}$ . A 5-min emulsion gave  $0.01 \times 10^{-4}$ . The emulsions are very stable and show Brownian movements. They show no fluorescence. Emulsions of S, Sn, Bi and Pb are blue in strong light with a dispersity of  $10^{-4}$  cm. E. H. Rathmann

OSTROVSKIY, Ye P

**Effect of ultrasonic vibrations on plant development**

• (1) Istomina and Ye Ostrovskii. *Compt. rend. acad. sci. U. R. S. S. R.*, 155 (1936). *Physiol. Abstracts* 21, 501.

Exposure to ultrasonic vibrations increases the yield from tubers. Sonication under increased pressure does not increase the yield, the probable explanation of this is that the effects of sonication are brought about by cavitation, which is decreased when pressure is raised. Chem. analyses suggest that ultrasonic vibrations influence the fermentative system, especially peroxidase, which shows increased activity, while catalase is depressed. Observations on peas showed that emulsification greatly increased the yield.

h: Bame

ADD SLIP METALLURGICAL LITERATURE CLASSIFICATION

OSTROVSKIY, Ye. P.

PROCESSES AND PROPERTIES OF METALS

Generation of powerful sound vibrations by magnetostriction. Ye. P. Ostrovskii (*Compt rend acad sci U. R. S. S. 10, 491-4 (1937)*) (in English). Powerful mag netostriction vibrations which can be transmitted into a liquid can be generated by means of a 24-cm electrostatic tube of sheet anode Ni, having a diam of 10 mm and a wall thickness of 0.1-0.2 mm. The generating part of the tube excitation app is mounted according to the 1-point scheme on a F-K-2000 lamp. The potential of the gen erating circuit is as high as 6000 v. The circuit consists of a self-inductance coil, of fixed and adjustable conden sers for tuning in with a particular wave length, and a sheet multivium cylindrical coil. The latter sets up an alternat ing magnetic field of such frequency as is needed for the excitation of the bar. With strong vibrations, jets of 6 to cm are easily obtained. These vibrations produce a very considerable emulsifying effect, stable emulsions of trans former oil, C<sub>12</sub>H<sub>22</sub>, and Hg in H<sub>2</sub>O being easily obtained. They also have the effect of strongly dispersing Pb in H<sub>2</sub>O. Dispersion has also been observed with Al, Cu, Ni and alloys of Pb and Sn. W. J. Peterson

ADD-568 METALLURGICAL LITERATURE CLASSIFICATION

OSTROVSKIY, S. I. and NEKHTVILLO, R. Kh.

"Observation of Ultrasonic Air Oscillations Through the Measurement of Visual Thresholds", Doklady Akademii Nauk SSSR, Vol. 91, No. 6, 1961.

LYSENKO, M.D., insh.; OSTROVSKIY, Ye.P., insh.

Reasons for formation of cracks in welded connections of steampipes.  
Elek. sta. 29 no.10:5-9 0 '58. (MIRA 11:11)  
(Steampipes)

OSTROVSKIY, Ye.P., insh.

Results of the checking of welded joints in high pressure piping  
at the Mironovskaya State Regional Electric Power Plant. Energ.  
stroil. no.1:107-111 '59. (MIRA 13:2)

1.Trest "Teploenergomontazh".  
(Pipe, Steel--Welding)

S/137/61/000/012/106/140  
A006/A101

AUTHOR: Ostrovskiy, Ye. F.

TITLE: Results of weld joint quality-control of high-pressure steam-pipes  
at the Mironovo GRESPERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 12, 1961, 65, abstract  
12E406 (V sb. "Energiya str-vo" (1.), Moscow-Leningrad, 1959, 187-111)

TEXT: The GRES is equipped with TИ-230 (TP-230) boilers and BK-100-2 (VK-100-2) turbines; high-pressure steam pipes operate at 150 atm and 510°C. The pipes have external diameters of 108 - 325 mm, the walls are 12 - 32 mm thick; the pipe material is 15XН (15XНМ) steel. Butts were welded with the aid of cone backing rings, ЦЛ-14 (TsL-14) electrodes, on a- with preheating of the butts to 250 - 300°C. After three years of operation, cracks were revealed on 3 butts ~~cut-out~~ of control areas. This required a checking of all the butts. On the basis of results obtained by gamma and ultrasonic flaw-detection 204 butts out of 212 were cut-out on one of the units, put out of service. Comparison investigations of specimens were made with the aid of gamma and ultrasonic flaw detection; the results obtained were compared with metallographic data. It

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Results of weld joint quality-control

S/137/4/000/012/100/140  
A006 A.01

was concluded that gamma detection was not adequate to reveal the presence of cracks. The ultrasonic method makes it possible to reveal small defects with greater accuracy, in particular cracks about 1 mm deep and 10 mm long. All the cracks were revealed only in the built-up metal. An analysis of the nature of cracks has shown that 68% were cold cracks, formed due to the failure of straps. The author analyzes conditions of crack elimination during welding, in particular, assembly and preheating conditions. Experiences of rewelding the butts are discussed. One butt was welded by 2 operators simultaneously. Of 50 rewelded butts, no one was rejected.

18. Output

[Abstracter's note: Complete translation]

Card 2/2

OSTROVSKIY, Ye.V.

Receiving and storage of sugar beets in the factories of the  
Chernovtsy Sugar Trust. Sakn.prom. 36 no.9:46-47 3 '62.  
(MIRA 10:11)

1. Chernovitskiy summaryy trust.

YEPINAT'YEVA, A.M.; KUZNETSOV, V.V., OSTROVSKIY, Yu.A.; KHUDZINSKIY, L.L.

Some experimental data on the form of impulses emitted in  
explosions in holes. Izv. AN SSSR. Ser. geofiz. no.6:861-875  
Je '63. (MIRA 1b:7)

1. Institut fiziki Zemli AN SSSR.  
(Seismic waves) (Blasting)

L 10711-63 RDS/ENT(1)-APYTC/ZSD-3-T' S/0049/63/000/006/0861/0875  
ACCESSION NR: AP3002027

AUTHOR: Yepinat'yeva, A. M. ; Kuznetsov, V. V. ; Ostrovskiy, Yu. A. ;  
Khudzinskiy, L. L. 57  
56

TITLE: Some experimental data on the shape of pulses excited by explosions <sup>12</sup>  
in boreholes

SOURCE: AN SSSR, Izv. Ser. geofizicheskaya, no. 6, 1963, 861-875

TOPIC TAGS: borehole explosions, seismic-pulse shapes, seismic-pulse propagation

ABSTRACT: Experimental data have been obtained on the shape of seismic pulses excited by explosions in boreholes. Only the region of elastic deformation was investigated. Near the source, pulse shape changes sharply with distance; at a distance close to 0.75 of the apparent wavelength, the pulse shape becomes established, and there is little change during subsequent pulse propagation. The pulse is brief and its apparent half-periods increase from

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L 10741-63

ACCESSION NR: AP3002027

the beginning of the pulse to the end. For distances up to 5 km the lengthening of the pulse is minor and is expressed in an increase in the apparent pulse half-periods. With an increase in the size of the charge the pulse assumes a lower frequency. Changes in the pulse frequency spectrum are sharper for small charges than for large ones. Orig. art. has: 14 figures and 4 tables.

ASSOCIATION: Institut fiziki Zemli AN SSSR (Institute of Physics of the Earth AN SSSR)

SUBMITTED: 30Jul62      DATE ACQ: 16Jul63      ENCL: 00

SUB CODE: 00      NO REF SOV: 007      OTHER: 009

Card

*rem/14*  
2/2

MONAYENKOV, A.M.; OSTROVSKIY, Yu.B.

Effect of immunization on the lysozyme content of saliva in animals.  
Dokl.AN SSSR 138 no.5:1238-1240 Je '61. (MIRA 14:6)

1. Predstavleno akademikom V.N.Chernigovskim.  
(LYSOZYME) (SALIVA) (VACCINATION)

PLETSITYY, L.F.; MONAYENKOV, A.M.; OSTROVSKIY, Yu.B.; BOYNIK, F.T.

Immunogenesis and nonspecific factors of natural resistance.  
Report No.1: Effect of active immunization on the amount of  
lysozyme in animal saliva. Zhur.mikrobiol., epid.i immun. 33  
no.8:112-117 Apr '62. (MIPA 15:10)

1. Iz Instituta normal'noy i patologicheskoy fiziologii AN SSSR.  
(VACCINATION) (LYSOZYME) (SALIVA)

PLETSITY, D.F.; MONAYENKOV, A.M.; OSTROVSKIY, Yu.B.

Correlation between the intensity of fundamental nervous processes in the cerebral cortex and the production of specific antibodies. Dokl.AN SSSR 144 no.1:242-244 My '62. (MIRA 15:5)

1. Institut normal'noy i patologicheskoy fiziologii Akademii meditsinskikh nauk SSSR. Predstavleno akademikom V.N.Chernigovskim.  
(CEREBRAL CORTEX) (ANTIGENS AND ANTIBODIES)



OSTROVSKIY, Yu. I.

Relative values of the forces of oscillators in the spectrum of titanium and manganese. Yu. I. Ostrovskii, G. F. Parshovskii, and N. P. Penkin (State Univ., Leningrad). *Optika i Spektroskopiya* 1, 821-82 (1956). The relative probability of transitions in the at. spectrum of Ti (53 lines in the region from 3200 to 5200 Å.) and Mn (10 lines in the 2900-5400 Å. region) had been detd. at  $>3000^{\circ}\text{K}$ . by an interferometric study according to the method of Rozhdestvenskii and Penkin (*Anomalous Dispersion in Vapors of Metals*, Acad. Sci., U.S.S.R., Moscow, 1951). The relative forces ( $f$ ) of oscillators for 10 multiplets of Ti from the  $s^2P$  (0-6.00 e.v.),  $s^2F$  (0.81-0.84 e.v.), and  $s^2D$  (0.90 e.v.) levels were tabulated. These values were on the av. below those obtained by different methods (cf. King and King, *C.A.* 33, 2427; van Stekelenburg and Smit, *C.A.* 47, 8030). The  $f$  values for Mn for transitions from  $s^2S$  to the following states are: to  $s^2P_{1/2}$ , 07.4 (5432.548);  $s^2P_{1/2}$

100 (5394.674);  $s^2P_{3/2}$ , 47.9 (4034.400);  $s^2P_{3/2}$ , 71.1 (4033.673);  $s^2P_{3/2}$ , 100 (4030.755);  $s^2P_{3/2}$ , 100 (3224.781);  $s^2P_{3/2}$ , 53 (3216.048);  $s^2P_{3/2}$ , 50.7 (2801.084);  $s^2P_{3/2}$ , 74.2 (2798.271); and  $s^2P_{3/2}$ , 100 (2704.817). The triplet  $s^2S_{1/2} - s^2D_{3/2}$ ,  $1/2, 1/2$ , differing from the data of Moore (*C.A.* 47, 905d), was less intense than the triplet  $s^2S_{1/2} - s^2P_{1/2}$ ,  $1/2, 1/2$ .  
A. P. Kollubiy

Physics Inst., Leningrad State Univ.

AUTHOR: Ostrovskiy, Yu.I.

51-5-22/26

TITLE: The Relative f Numbers of Head Terms in the Diffuse and Sharp Series of Al I. (Otnositel'nyye chisla f golovnykh chlenov diffuznoy i rezkoy seriy Al I)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol.2, Nr 5, p.673 (USSR)

ABSTRACT: ~~This is a~~ complete translation. The ratios of the oscillator strengths were measured for 4 strong lines of Al I by the "hooks" method of D.S.Rozhdestvenskiy on an instrument described in (1). The usual formulae of the "hooks" method (?) were applied in the treatment of spectrums. The ratio of the populations of the levels  $3^2P_{1/2}$  and  $3^2P_{3/2}$  calculated from the Boltzmann formula, are equal in this case to 0.549 (the furnace temperature was  $1430^{\circ}\text{C}$ ). The figure shows photographs of the "hooks" for the lines studied. The results are collected in the table below, in which the f number for the line  $3961.53 \text{ \AA}$  was taken to be 100. The inter-doublet ratios of the f numbers were found with an error not greater than 1%. The relation of the f numbers for the two doublets is in error by no more than 3%. It is interesting to note that, within the limits of errors, the results can be card 1/3 represented in the form of a series consisting of whole

51-5-22/26

The Relative f Numbers of Head Terms in the Diffuse and Sharp Series of Al I.

numbers: 2 : 2 : 3 : 3. The results for  $f_{3944}/f_{3961}$  are in good agreement with the results quoted in (3) and (4). For the 3082-3092  $\lambda$  doublet there are no reported results. Quantum-mechanical calculations of Biermann (5) which are quoted in (6), yield a value of 0.18 for the ratio  $(f_{3944} + f_{3961}) / (f_{3082} + f_{3092})$  compared to the value obtained in this paper of 0.66. The author thanks student E.G. Koltunova for experimental work.

$\lambda$	Series	f
3944.03	$3^2P_{1/2} - 4^2S_{1/2}$	99
3961.53	$3^2P_{3/2} - 4^2S_{1/2}$	100
3082.15	$3^2P_{1/2} - 3^2D_{3/2}$	149
3092.75	$3^2P_{3/2} - 3^2D_{5/2}, 3/2$	152

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51-5-22/26

The Relative f Numbers of Head Terms in the Diffuse and Sharp  
Series of Al I.

There is 1 figure and 1 table, also 6 references, 4 of which  
are Slavic.

ASSOCIATION: Institute of Physics, Leningrad State University.  
(Fizicheskiy Institut, pri Leningradskom Gosudarstvennom  
Universitete)

SUBMITTED: January 2, 1957.

AVAILABLE: Library of Congress.

Card 3/3

*2-11-1957*

AUTHORS: Ostrovskiy, Yu. I., and Penkin, N. P. *1957/14*

TITLE: Absolute Values of Oscillator Strengths for the Lines of Chromium, Manganese and Copper. (Absolyutnyye znacheniya sil ostsillyatorov dlya liniy khroma, margantsa i medi.)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol.III, Nr.3, pp.193-201. (USSR)

ABSTRACT: Measurements of the oscillator strengths were carried out using D. S. Rozhdestvenskiy's method of "hooks". Earlier results (Refs.1-3) are shown to be unreliable. Fig.1 shows the apparatus used. It consists of a source of continuous spectrum S, & lenses L<sub>1</sub>, L<sub>2</sub> and L<sub>3</sub>. The latter lense focusses interference bands on a vertical slit of a spectrograph Sp. A column of vapours of the metal studied was contained in evacuated sealed quartz vessels (12-17 cm long) with plane-parallel windows. To obtain easily measurable "hooks" for copper it had to be heated above its melting point. Liquid copper interacts chemically with quartz and had to be placed

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Absolute Values of Oscillator Strengths for the Lines of Chromium,  
Manganese and Copper.

in a tantalum boat. The vessel containing metal vapours was placed in a long quartz tube with windows cooled by water. The pressure in this tube was less than 0.01 mm Hg. The quartz tube with the vessel in it was placed in an electrical furnace. The path difference introduced in the interferometer by the tube and vessel is compensated by an evacuated tube (AB' in Fig.1) which has four plane-parallel quartz windows. This second tube was placed together with a fluorite plate K in the second beam of the interferometer. Spectrograms were obtained at several temperatures, and at each temperature 3-6 photographs were taken. For chromium "hooks" were recorded for absorption lines of triplets -

$a^7S_3-y^7P_{4,3,2}^0$  ( $\lambda\lambda$  3578.7, 3593.5 and 3605.3 Å) and

$a^7S_3-z^7P_{4,3,2}^0$  ( $\lambda\lambda$  4254.3, 4274.6 and 4289.7 Å) at

temperatures of 1459, 1469 and 1492°K. Fig.2 shows a photograph of "hooks" for the ultraviolet triplet at 1459°K. Table 2 gives the absolute values of the

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51-4-1/14

**Absolute Values of Oscillator Strengths for the Lines of Chromium,  
Manganese and Copper.**

oscillator strengths  $f$  of the resonance lines of chromium. The results are given for the 6 lines mentioned above. Col.4 in Table 2 gives the present authors' results, Col.5 gives results of Huldt and Lagerqvist (Ref.2) and Col.6 repeats the results of Estabrook (Ref.1). Estabrook's results are 1.8 times smaller than those of the present authors, and those of Huldt and Lagerqvist are 2.5 times smaller. These large discrepancies are due to incorrect values for concentrations of atoms of chromium in flames obtained by these authors. Combining the results of Col.4 Table 2 with those of N. P. Penkin (Ref.4), who gives relative values of the  $f$  numbers, the absolute  $f$  numbers for Cr were found (Table 3). For manganese the hooks were photographed for the absorption lines of the violet triplet  $a^6S_{5/2} - z^6P^0_{1/2, 3/2, 5/2}$  ( $\lambda\lambda$  4030.75, 4033.07 and

Card 3/5 4034.49 Å). The vessel temperature was varied from

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Absolute Values of Oscillator Strengths for the Lines of Chromium,  
Manganese and Copper.

1204 to 1377°K. Fig.4 shows a photograph of the "hooks" taken at 1377°K. Since the above triplet was narrow and anomalous dispersion was strong, it was necessary to take dispersion effects into account. Table 5 gives the absolute values of the  $f$  numbers of manganese lines. This table includes results of Ref.6 and of Ref.2 (Col.5 in Table 5). The present authors' results for manganese were found to agree with those of Huldt and Lagerqvist (Ref.2). For copper, "hooks" were photographed for the resonance lines  $\lambda$  3247.55 Å ( $2S_{1/2} - 2P_{3/2}$ ) and  $\lambda$  3273.96 Å ( $2S_{1/2} - 2P_{1/2}$ ) at temperatures from 1375 to 1469°K. Fig.5 shows a photograph of the "hooks" taken at 1460°K. The mean value of  $f$  for  $\lambda$  3247.55 Å line was found to be 0.74. For the  $\lambda$  3273.96 Å line  $f$  was found to be 0.38. These values are less than 20% different from King and Stockbarger's results (Ref.3). The  $f$  value for the  $\lambda$  5105.58 Å line was also determined and found to be 0.011.

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51-3-1/14

**Absolute Values of Oscillator Strengths for the Lines of Chromium,  
Manganese and Copper.**

In the experiments reported in this paper saturation vapour pressures of chromium were varied by a factor of 2, for manganese by a factor of 22 and for copper by a factor of 5. For all these pressures the absolute values of the  $f$  numbers were found to be constant within the experimental error. The authors thank Professor S. E. Frish for his interest in their work. There are 5 figures, 6 tables and 20 references, 8 of wh'ch are Slavic.

**ASSOCIATION:** Institute of Physics of the Leningrad State University.  
(Fizicheskii institut Leningradskogo gosudarstvennogo universiteta.)

**SUBMITTED:** January 23, 1957.

**AVAILABLE:** Library of Congress

Card 5/5

*Optika i Spektroskopiya*  
AUTHORS: Ostrovskiy, Yu. I. and Penkin, N. P.

TITLE: The Relative f-Numbers of Spectral Lines of Scandium.  
(Otnositel'nyye chisla f-spektral'nykh liniy skandiya).

PERIODICAL: Optika i Spektroskopiya, 1957, Vol.III, No.4,  
pp.391-395. (USSR)

ABSTRACT: Beginning with scandium ( $Z = 21$ ) filling of the 3d-shell occurs. The ground level of the scandium atom  $2D$  is split into two sublevels  $2D_{3/2}$  and  $2D_{5/2}$ , separated by 0.02 eV from one another. D. S. Rozhdestvenskiy's method of "hooks" was used in the present paper to find relative values of the f-numbers of spectral lines of Sc I. For this purpose an interferometric apparatus (Refs.1, 2) was used together with a high-temperature vacuum furnace of King. Scandium oxide ( $Sc_2O_3$ ) was placed in a graphite tube. Such a tube ensures a better distribution of temperature in the furnace, and therefore it decreases experimental errors (Ref.2). The "hooks" were recorded at temperatures from 2500 to 3000°K

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51-4-10 20

## The Relative f-Numbers of Spectral Lines of Scandium.

(Abstractor: This is probably a mistake for 3000°K) in the second order spectrum using a diffraction spectrograph with 4 Å/mm dispersion. In the spectral region of 3000-6400 Å 33 absorption lines of scandium were suitable for measurement of "hooks". 22 such lines belong to 9 multiplets beginning from the ground level  $a^2D$ ; the remaining 11 lines belong to 4 multiplets with lower levels  $a^4F$  (1.47 eV) and  $a^2F$  (1.85 eV). Fig.1 shows "hooks" for lines from  $a^2D$  level. The photograph shows also "hooks" around resonance lines of manganese which was present in the furnace as an impurity. Fig.2 shows a photograph of "hooks" for lines from  $a^4F$  level which is separated by 1.47 eV from the ground level. In calculation of the result the effect of dispersion in neighbouring lines was taken into account. The table on p.392 shows the results of measurements. The first four columns contain data taken from ref.3. These four columns give, respectively, multiplet number, wavelength, transition and j-numbers of the lower and upper levels. The 5th column gives the f-numbers found by the present authors. These numbers are given as relative quantities referred to

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01-4-1978

The Relative f-Numbers of Spectral Lines of Scandium.

the f-number for 4082.396 Å taken as 1000. The errors in f-numbers are 3-8% for the lines from a<sup>2</sup>D level and 10-15% for the lines from the a<sup>4</sup>F and a<sup>2</sup>F levels. The 6th column of the table gives the values, calculated by the present authors, of relative intensities for the lines of each multiplet. The 7th column contains the same intensities calculated theoretically from formulas given in Ref.4. A good agreement is observed between the values of the 6th and 7th columns. This fact indicates that L-S binding occurs in scandium. The last (6th) column of the table shows the number of photographs used in obtaining the results of previous columns. There are 2 figures, 1 table and 4 references, 2 of which are Slavic.

SUBMITTED: March 21, 1957.

AVAILABLE: Library of Congress.

Card 3/3

О. Т. ...

24(7) PAGES: BOOK EXPLOITATION 959/1700

Ubov, Universitet

Materialy i Vestornogo sveshchaniya po spektroskopii, 1956  
S. M. Al'manov spektroskopiya (Materialy of the 10th All-Union  
Conference on Spectroscopy, 1956, Vol. 2: Atomic Spectroscopy)  
Moskva, Izdatel'stvo L'vovskogo univ., 1958, 568 p. (Series: Itel'  
Natsional'nogo shkol'nika, vyp. 1(9)). 3,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR, Komitaya po  
spektroskopii.

Editorial Board: G.S. Landsberg, Akademik, (Resp. Ed.);  
B.S. Eppent, Doctor of Physical and Mathematical Sciences;  
L.L. Fabelinskiy, Doctor of Physical and Mathematical Sciences;  
V.A. Fabrikant, Doctor of Physical and Mathematical Sciences;  
V.S. Koritskiy, Candidate of Technical Sciences; S.M. Kayasly,  
Candidate of Physical and Technical Sciences; L.V. S. Kuznetsov,  
Candidate of Physical and Mathematical Sciences; L.V. Kuznetsov,  
(Deceased), Doctor of Physical and Mathematical Sciences; A.Ye.  
Glaserman, Doctor of Physical and Mathematical Sciences;  
M.I. S.L. Gasser; Tech. Ed.: T.V. Serebryak.

Purpose: This book is intended for scientists and researchers in  
the field of spectroscopy, as well as for technical personnel  
using spectrum analysis in various industries.

Contents: This volume contains 177 scientific and technical studies  
of atomic spectroscopy presented at the 10th All-Union Confer-  
ence on Spectroscopy in 1956. The studies were carried out by  
members of scientific and technical institutes and include  
extensive bibliographies of Soviet and other sources. The  
studies cover many phases of spectroscopy: spectra of rare earths,  
electromagnetic radiation, physicochemical methods for controlling  
crystal production, physics and technology of gas discharge,  
optics and spectroscopy, abnormal dispersion in metal vapors,  
and atomic spectroscopy theory, spectrum analysis of ores  
and mineral substances, methods for quantitative spectrum  
analysis of metals and alloys, detection of isotopes, the  
hydrogen content of metals by means of isotopic analysis, and  
analysis of spectral lines, spark spectrometry, and  
statistical study of variation in the parameters of calibration  
curves, determination of traces of metals, spectrum analysis in  
metallurgy, thermochemistry in metallurgy, and principles and  
practice of spectrochemical analysis.

Card 2/31

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Ostrovskiy, Yu. Ye. G.P. Fominskiy, and B.P. Fomina, Relative Magnitudes of Oscillator Energies in Titanium and Manganese Atomic Spectra	310

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SOV/51-4-0-3/24

AUTHORS: Ostrovskiy, Yu. I. and Penkin, N.P.

TITLE: Measurement of Absolute Values of the Oscillator Strengths of Spectral Lines of Ga I and In I (Izmereniye absolyutnykh znachenyi sil ostsillyatorov spektral'nykh linii Ga I i In I)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 6, pp 719-724 (USSR)

ABSTRACT: The values of the oscillator strengths  $f$  of spectral lines of Ga I and In I have not yet been measured experimentally. The present authors using "the hooks" method of Rozhdestvenskiy (Fig 1 shows "hooks" for Ga lines), found experimentally the absolute values of  $f$  of five Ga I and five In I absorption lines. These lines begin from the  $2p_{3/2}$  and  $2p_{1/2}$  levels. The measurements were made on the apparatus described in detail in Ref 1. A column of saturated vapour of the metal studied was produced in a quartz cuvette which was placed in an electric furnace. The absorption line "hooks" were measured simultaneously with the cuvette temperature. The "hooks" method gives the value  $Nf$ , where the  $N$  is the concentration of atoms in a given quantum state and  $f$  is the oscillator strength. The value of  $N$  was calculated from the saturated vapour pressure of the metal studied

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SOV/51-4-6-3/24

Measurement of Absolute Values of the Oscillator Strengths of Spectral Lines  
of Ga I and In I

To calculate the absolute values of  $f$  for Ga the author used the experimental values given by Speiser and Johnston (Ref 2). Table 2 gives the wavelengths (first column), transitions (second and third columns) and the absolute  $f$  values obtained for Ga, the latter with an accuracy of 1-5%. To calculate the absolute values of  $f$  for In the authors used Anderson's (Ref 3) results, who measured saturated vapour pressure of helium at 1000-1348°K. Table 4 gives the wavelengths (first column), transitions (second and third columns), and the absolute  $f$  values for In, the latter with precision of 10-15%. Table 5 gives the results of all known experimental and theoretical values of  $f$  for the short-wavelength component of the main doublet of the sharp series of group III elements. For Ga I the results of L.A. Vaynshteyn (private communication) agree satisfactorily with the results of the measurements made by the present authors. For In I, however, the calculated and measured

Car. 2/3

SOV/51-4-0-3/24  
Measurement of Absolute Values of the Oscillator Strengths of Spectral Lines  
of Ga I and In I

values of  $f$  differ by a factor of 2. This difference is due to errors in the quantum-mechanical calculations. Fig 5 gives the dependence of the oscillator strengths of the group III elements on atomic number. There are 5 figures, 6 tables and 12 references, 7 of which are Soviet, 2 American, 1 English and 2 German.

ASSOCIATION: Leningradskiy Gosudarstvennyy Universitet, Fizicheskiy Institut  
(Leningrad State University, Physics Institute)

SUBMITTED: July 16, 1957.

Card 3/3



AUTHOR: Ostrovskiy, Yu.I. and Peikin N.P. 30, 51-4-1-21

TITLE: The Relative Values of the f-Numbers of Vanadium and Cobalt Spectral Lines (Otnositel'nyye znacheniya chisel f spektral'nykh liniy vanadiya i kobsal'ta)

PERIODICAL: Optika i Spektroskopiya, 1968, Vol 5, Nr 4, pp 345-353 (USSR)

ABSTRACT: The relative values of the oscillator strengths  $f$  of V I lines were measured by King (Ref 1) by the total absorption method. Using the same method King (Ref 2) found the relative values of the  $f$  numbers of 256 Co I lines. The results obtained by the absorption method are highly scattered, even when obtained by one author (Refs 3,4). The "hook" method of D.S. Rozhdestvenskiy is more reliable and precise in studies of strong absorption lines, which begin from a ground level or from levels close to it. The "hook" method is less sensitive than the absorption method. The present authors could not measure the  $f$  values for lines from levels further than 1.5 eV from a ground level. If the wavelength difference was smaller than 0.5 Å, the results obtained by the "hook" method are not sufficiently accurate. For these reasons the oscillator strengths of V I and Co I were obtained on a smaller

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COV/51 5 4 1 00

The Relative Values of the f-Numbers of Vanadium and Cobalt Spectral Lines

number of lines than in ref 1, 2. The apparatus was similar to that described in Refs 5, 6. The metal studied was in the form of a wire in a vacuum furnace which was introduced into an interferometric system. The nodes were photographed for V lines in the 3000-4000 Å region (Fig 1) at temperatures from 2600 to 2750°K and for Co lines in the 3900-4900 Å region (Fig 2) at temperatures from 2200 to 2800°K. The results were given in Tables 1 and 2 for V and Co, respectively. The first four columns of both tables give the data on series of lines taken from Moore's tables (Ref 6). The fifth and sixth columns of the tables give the f-values obtained by King et al. (Ref 1) and the present authors, respectively. The seventh column gives the number of spectrograms used to determine the particular f-value. The last three columns give, respectively, the theoretical (from ref 6), present authors' and King's values of the line intensities. Figs 1 and 2 compare the f-values reported by King et al. (shown as ordinates) and the f-values obtained by the present authors (shown as abscissae). Fig 2 deals with vanadium; the agreement between the majority of the f-values is within 15%. Fig 3 deals with cobalt; the large differences between the two groups of the f-values are attributed to errors in the absorption method employed by King et al. The present work was carried out

Oct 2 1961

SOV/51-5-1 1957

The Relative Values of the f-Numbers of Vanadium and Cobalt Spectral Lines

series of papers on the f-values of atoms in which the 3d-shell is being filled. These values were measured by the hook method for Sc, Ti, V, Cr, Mn, Fe, Co, and Ni (Refs 5,6,10,11 and the present work). Similar results for these atoms, obtained by the total absorption method, were reported in Refs 1-4, 12, 13. The present authors conclude that the hook method yields f-values with 5% error for strong lines from ground levels and with 25% error for lines from excited levels. For all atoms studied (except Cr) the f-values of the strongest lines from excited levels were found to be several times larger than the f-values of lines from ground levels. It was also found that in Fe, Co and Ni large departures occur from the L-S coupling. The authors thank T.N. Moserich for help in calculations. There are 4 figures, 2 tables and 13 references, 7 of which are American. 5 Soviet and 1 translation.

universitet

ASSOCIATION: Leningradskiy gosudarstvennyy, Fizicheskii Institut (Leningrad State University Institute of Physics)

Card 3/3

SUBMITTED: December 20, 1957

1. Vanadium--Spectra      2. Cobalt--Spectra      3. Atomic Spectra  
 --Analysis

AUTHORS

Stroshak, Yu. I., Zhukov, V. G., ...

TITLE

The Measurement of Oscillator Structure ...

ABSTRACT

... in 6, ...

ABSTRACT

By means of the "zero" method ... method of total absorption the absolute values of the number  $f$  were determined for various ...

Transition	20.1		20.7	
	$\lambda$	$f$	$\lambda$	$f$
$2^0 2^0 \rightarrow 2^0 2^0$	4110	0.115	4111	0.018
$2^0 2^0 \rightarrow 2^0 2^0$	4012	0.114	4112	0.111
$2^0 2^0 \rightarrow 2^0 2^0$	244	0.133	256	0.129

The Measurement of ... in terms of ...

Measurement	...		
	A	B	C
...	...	...	...
...	...	...	079
Element	...	...	...
Ma	...	...	...
...	...	...	...
...	...	...	...
...	...	...	...

Card 007

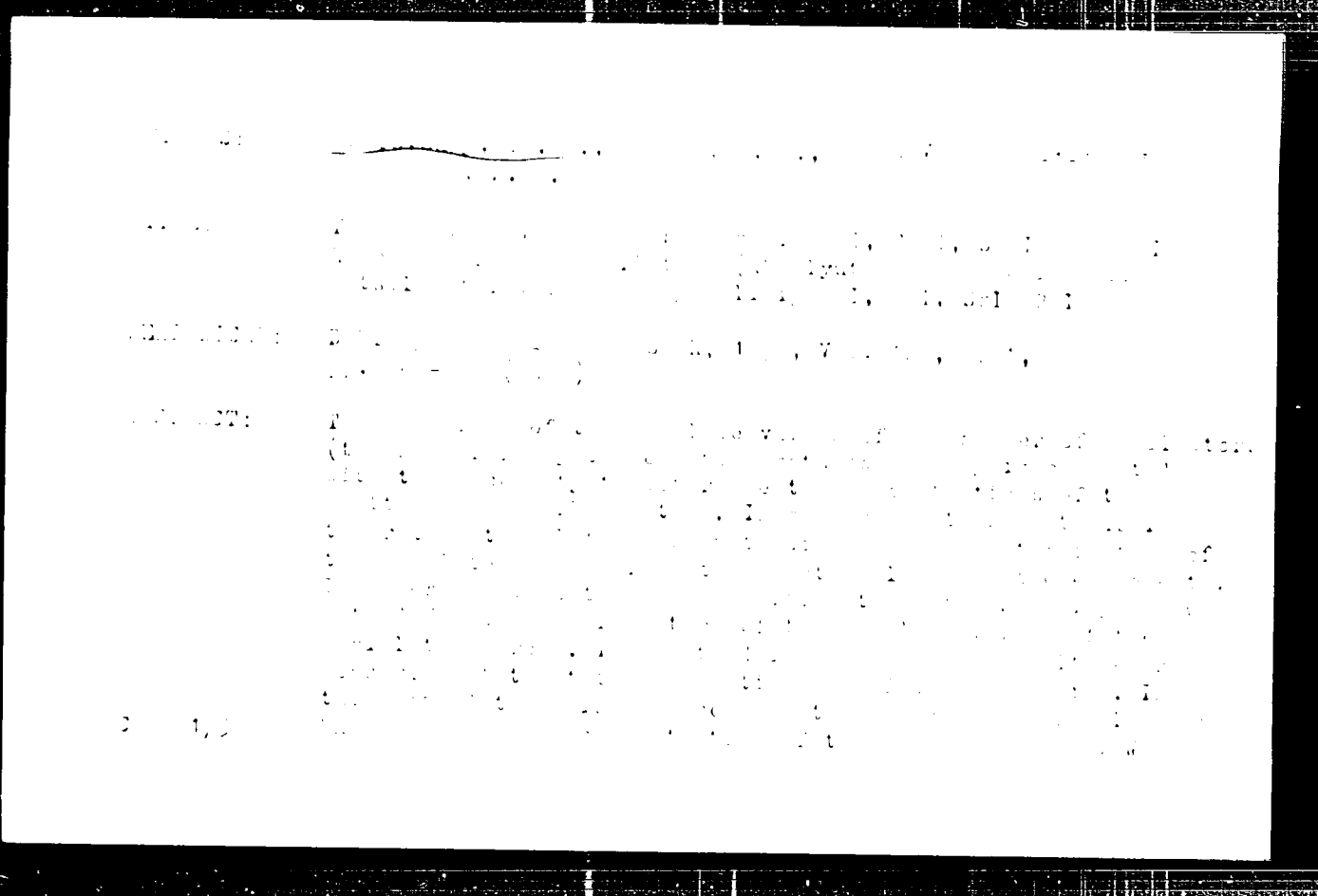
The Measurement of Oscillator Strengths in Atomic Spectra

The above data are partly compared with experimental and theoretical predictions, and it is seen that the results are in general satisfactory agreement. The  $f$ -values of Mg, Zn, Sr, and Ba are plotted against the atomic number, it will be found that the values increase linearly with  $Z$ . There are 2 figures, 10 references, 17 of which are Soviet.

U. S. S. R. Academy of Sciences, Institute for Atomic Spectroscopy, Leningrad, U. S. S. R.  
A. A. Zhdanova  
(Physics Institute of Leningrad State University, Leningrad, U. S. S. R.)  
A. A. Zhdanov)

1. Atomic spectra
2. Perturbation theory

and 1/3







The Absolute Values of Potentials of H I, Ca I, Sr I, Ba I Resonance Lines Oscillators

linearly with increasing  $Z$ . The results are compared with 11 references, 5 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.S. Pushkina  
(Leningrad State University imeni A.S. Pushkina)

PRESENTED: February 6, 1956, by A.N. Terent'ev, Candidate of Sciences, USSR

SUBMITTED: July 25, 1956

1. Iodides--Spectra
2. Plasma oscillations--Measurement
3. Resonance potential--Determination
4. Mathematics--Application

Card 3/3

OSTROVSKIY, Yu. I. Cand Phys-Math Sci -- (diss) "~~The~~<sup>Measurement</sup> of the force  
of oscillators in spectra of certain atoms." Len, 1958. 14 pp (Len Order  
of Lenin State Univ im A. A. Zhdanov), 100 copies (RL, 11-58, 112)

OSTROVSKIY, Yu.I.; PENKIN, N.P.

Measurement of the  $f$  numbers of the spectral lines of barium.  
Opt. i spektr. 9 no. 6:703-706 D '60. (MIRA 14:1)  
(Barium--Spectra)

S/051/61/010/001/002/017  
E201/E491

AUTHORS: Ostrovskiy, Yu.I. and Penkin, N.P.

TITLE: Measurement of the Absolute Oscillator Strengths  
of the Resonance Lines of Calcium, Strontium and  
Barium Ions

PERIODICAL: Optika i spektroskopiya, 1961, Vol.10, No.1, pp.8-14

TEXT: Rozhdestvenskiy's "hooks" method was used to measure the absolute oscillator strengths of the resonance doublets of Ca II, Sr II and Ba II. The apparatus is described in detail in earlier work (Ref.1,6,7). The metals were placed in the graphite tube of a King's furnace. The furnace was filled with argon at 100 to 200 mm Hg pressure and heated slowly until the melting point of a given metal was reached. Next, the furnace temperature was raised rapidly to the maximum that could be produced in this apparatus and then the furnace was allowed to cool and argon was evacuated. This was done to avoid deposition of metals on the furnace windows. Finally, the furnace was heated rapidly to a temperature at which "hooks" appeared, which

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S/051/61/010/001/002/017  
E201/E491

Measurement of the Absolute Oscillator Strengths of the  
Resonance Lines of Calcium, Strontium and Barium Ions

were photographed (photographs of strontium line "hooks" are shown in Fig.1 and 5). In order to reduce the effect of random errors, the number of photographs taken for each line was at least 80 and sometimes 180. The temperature dependences of the oscillator strengths are shown in Fig.2 to 4; the scatter of the experimental points in Fig.2 to 4 gives some idea of the precision of these measurements (the mean values are indicated by dashed lines). The mean oscillator strengths ( $f$ ) are listed in col.4 of Table 1. They were (the wavelengths in Å are given in brackets):  $f = 0.78$  (3933.67) and  $0.40$  (3968.47) for Ca II;  $f = 0.75$  (4077.71) and  $0.38$  (4215.52) for Sr II;  $f = 0.70$  (4554.04) and  $0.35$  (4934.09) for Ba II. The results were confirmed by measurements of the  $f_{3933}/f_{4554}$  (Fig.6) and  $f_{4078}/f_{4554}$  (Fig.7) ratios in mixtures of vapours. (Note: the ordinates of Fig.6 and 7 have a misprint:  $f_{4254}$  should be  $f_{4554}$ .) The results confirmed Saha's ion concentration formula to within

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S/051/61/010/001/002/017  
E073/E435

Measurement of the Absolute Oscillator Strengths of the Resonance  
Lines of Calcium, Strontium and Barium Ions

20% (Table 2). There are 7 figures, 2 tables and 15 references:  
12 Soviet and 3 non-Soviet.

SUBMITTED: March 30, 1960

Card 3/3

OSTROVSKIY, Yu. I.; PENKIN, N.P.

Oscillator strengths of the spectral lines of calcium. Opt. i  
spektr. 10 no.4:429-435 Apr '61. (MIRA 14:3)  
(Calcium-- Spectra)

OSTROVSKIY, Yu.I.; PENKIN, N.P.

Measurement of the absolute values of oscillator forces in atomic  
spectra. Part 1. Sodium. Opt. i spektr. 11 no.1:3-11 JI '61.  
(MIRA 14:10)

(Spectrum, Atomic)

(Sodium)



OSTROVSKIY, Yn.I.; PENKIN, N.P.

Measurement of the absolute values of oscillator strengths for the  
resonance lines of calcium, strontium, and barium ions. Opt. 1  
spektr. 10 no. 1:8 Ja '61. (MIRA 14:1)  
(Calcium--Spectra) (Strontium--Spectra)  
(Barium--Spectra)

COSYVSHLY, Yu.I.; PLUM, ...

Measuring the absolute values of the oscillator forces in  
atomic spectra. Part I: Resonance lines of atoms of group  
II. Opt i spektr. Zh. 5:565-570 N '61. (MIRA 14:16)  
(Spectrum, Atomic)

S/051/61/011/005/001/018  
E202/E192

AUTHORS: Ostrovskiy, Yu I., and Penkin, N.P.

TITLE: Measurement of absolute values of oscillator strengths in atomic spectra.  
II. Resonance lines of atoms of group II

PERIODICAL: Optika i spektroskopiya, v.11, no.5, 1961, 565-570

TEXT: Absolute values of oscillator strengths of resonance lines

( $^1S_0 - ^1P_1^o$ ) of calcium ( $f_{227} = 1.49 \pm 0.04$ ), strontium ( $f_{4607} = 1.54 \pm 0.05$ ) and barium ( $f_{5535} = 1.40 \pm 0.05$ ) were measured and found to be in good agreement with the theoretical values and some of the values measured by other authors. The present work was a repetition of an earlier attempt by the present authors and L.N. Shabanova (Ref.1; DAN SSSR, v.120 66 1958) in which a photographic-photometric method was employed leading to the evaluation of the total absorption. However, the results of that method were of very low accuracy and for that

Card 1/3

Measurement of absolute values ... S/051/61/011/005/001/018  
E202/E192

reason in the present work a photoelectric method was used, the details of which were previously described by the present authors (Ref. 2: Opt. i spektr. v.11, 1, 1961). The authors used the method of hooks and worked in conditions in which the effect of argon on the broadening of the lines was negligible. Basically the method measured simultaneously the hooks and the total absorption with an accuracy better than 5%. Using the new values for the Ca I, Sr I and Ba I, the absolute values of f- numbers of the Ca II, Sr II, and Ba II were also found and these results are given in Table 4. There are 4 figures, 4 tables and 15 references: 10 Soviet-bloc and 5 non-Soviet-bloc. The English language reference reads as follows:

Ref. 12: H.M. Russel C E Moor  
J. Res. Nat. Bur. Standards v.55 299 1955

SUBMITTED: December 28 1960

Card 2/3

Measurement of absolute values ...

S/051/61/011/005/001/018  
E202/E192

Table 4

Ion	$\lambda$ (in Å)	f
Ca II	3933.67	0.84
	3968.47	0.43
Sr II	4077.71	0.76
	4215.52	0.39
Ba II	4554.04	0.66
	4934.09	0.33

Card 3/3



OSTROVSKIY, Yu.I.; PENKIN, N.P.

Measurement of the absolute values of oscillator forces in atomic  
spectra. Part 3: Potassium. Opt. i spektr. 12 no.6:669-670  
Je '62. (MIRA 15:5)  
(Spectrum, Atomic) (Potassium)

S/051/62/012/006/001/020  
E012/E514

Author:                     , Yu.I. and Penkin, N.P.

Subject: Measurement of the absolute values of the oscillator strengths in atomic spectra.  
1. Potassium

Reference: Optika i spektroskopiya, v. 12, no. 6, 1962, pp. 1061-1071.

Abstract: The absolute oscillator strength of the resonance KI doublet ( $4^2S_{1/2} - 4^2P^{\circ}_{1/2,3/2} = 27664.907$  and  $7698.079 \text{ \AA}$ ) has been measured using a somewhat modified form of the apparatus described in previous papers (Ref. 1 - Optika i spektroskopiya, 11, 101, 4; Ref. 2 - do- 565) by the authors. In order to prevent deposition of potassium on the windows of the absorption tube the tube with cold windows, which was used before, was replaced by a quartz container whose windows lay inside the heated region. The equivalent width of the absorption line was measured in the second order of a diffraction grating

Card 1/1

S/C 1/62/CIL/006/4 1/00

EOM 1/E514

Article reference: ...

(12000 lines/cm), using an  $1\text{D}_2$ -E<sub>2</sub> (FEU-22) photomultiplier. The large linear dispersion (0.6 Å/mm) which was available meant that wide monochromator exit slits could be employed (0.6 - 1.2 mm). In order to reduce scattered light and prevent the overlap of different diffraction orders, light filters  $1\text{D}_2$ -17 (MS-17) and  $1\text{D}_2$ -4 (SS-4) were placed in front of the monochromator slit. Analysis of the photographs obtained shows that the absolute oscillator strength for the doublet as a whole is  $1.05 \pm 0.05$ , which is in good agreement with the results of G. Stephenson (Ref. 5 - Proc, Phys. Soc., A64, 458, 1951).

There are 1 figure and 1 table.

SUBMITTED: April 22, 1961

0-20-1/2



OSTROVSKIY, Yu.I.

Comments on A. M. Shukhtin's article "A method for superposing  
spectrum-scanned interference patterns in regions near the  
absorption line." Opt. i spektr. 15 no.1:140 J1 '63.  
(MIRA 16:8)

(Interference (Light))

45081

24 2 70

S/051/63/014/001/026/031  
E039/E120

AUTHORS: Ostrovskaya, G.V., and Ostrovskiy, Yu.I.

TITLE: Determination of the oscillator strengths of absorption bands of gadolinium ions

PERIODICAL: Optika i spektroskopiya, v.14, no.1, 1963, 161-163

TEXT: Oscillator strengths of the  $Gd^{+++}$  ion absorption bands are determined in an aqueous solution of  $GdCl_3$  and in phosphate glass with  $Gd_2O_3$  impurity. The oscillator strength is determined from the formula

$$f = \frac{1}{N} \frac{c m}{\pi e^2} \int k_{\nu} d\nu \quad (1)$$

where:  $N$  - number of  $Gd^{+++}$  ions in one  $cm^3$ ;  $k_{\nu}$  - coefficient of absorption;  $c$  - velocity of light;  $m$  and  $e$  - mass and charge of the electron. A ДФС-8 (DFS-8) spectrograph was used with a ДКСШ-100 (DKSSH-100) lamp as a light source. The absorption band in the region 2720 - 2760 Å for the solution has a distinct structure and the bands at 2757 and 2729 Å consist of 4 and the band at 2739 Å of 2 components with half widths of ~2 Å.

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Determination of the oscillator ...

S/051/63/014/001/026/031  
E039/E120

In the glass the bands are significantly broadened and structure is absent. The half width of the above bands in the glass is  $\sim 10 \text{ \AA}$ . In order to eliminate scattering effects a monochromator is used together with a liquid filter. The concentration of  $\text{GdCl}_3$  was 0.55 to 0.5 mole/litre with a cell thickness 10 to 72 mm, and the concentration of  $\text{Gd}^{+++}$  in the glass was 0.4 to 1.3 mole/litre with sample thicknesses of 6 to 88 mm. Strong lines were measured to an accuracy of  $\sim 10\%$  and weak lines to  $\sim 20\%$ . For the majority of bands the ratio of the oscillator strengths of glass/sol. varies from 0.64 to 1.8 except for the 2524, 2459 and 2438  $\text{ \AA}$  bands, for which this ratio is about one order higher. The continuous absorption in the region 2400 to 3000  $\text{ \AA}$  is also investigated and gives oscillator strengths in the solution  $\sim 4 \times 10^{-4}$  which is about two orders higher than for the sharp bands. The oscillator strengths of the  $\text{Gd}^{+++}$  absorption bands in aqueous solution and in glass are given in the table. There are 1 figure and 1 table.

SUBMITTED: June 29, 1962

Card 2/3

Determination of the oscillator ... S/051/63/014/001/026/031  
E059/E120

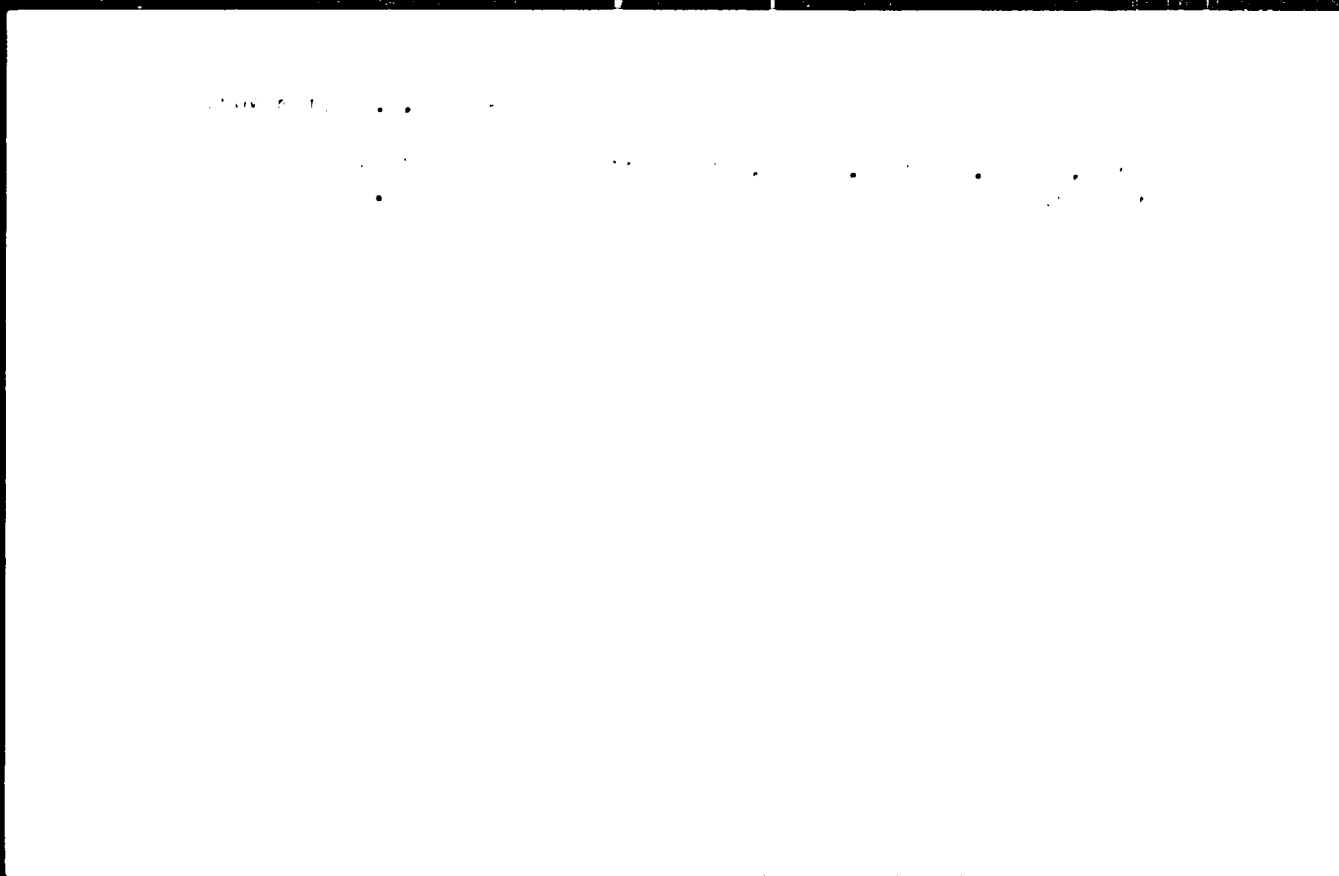
Table

Solution		Glass		f glass
$\lambda, \text{\AA}$	$f \cdot 10^6$	$\lambda, \text{\AA}$	$f \cdot 10^6$	f solution
3112	0.063	3116	0.113	1.8
3055	0.036	3060	0.050	1.4
2788	0.105	2790	0.070	0.67
2757	0.95	2760	0.61	0.64
2739	0.44	2740	1.36	0.67
2729	1.60	2730		
2524	0.023	2525	0.26	11
2459	0.019	2466	0.17	9
2438	0.005	2447	0.11	22

Card 3/3

OSTROVSKAYA, G.V.; OSTROVSKIY, Yu.I.

Determining the oscillator forces of absorption bands of gadolinium  
ions. Opt. i spektr. 14 no.1:161-163 Ja '63. (IIRA 16:5)  
(Gadolinium—Absorption spectra) (Ions)



ZAYDEL', Aleksandr Natanovich; VILKO, I.G., red., OSTROVSKIY,  
Yu.I., red.

[Fundamentals of spectrum analysis. Osnovy spektral'nogo  
analiza. Moskva, Nauka, 1965. 320 p. (MIRA 1814)

L 45821-66  
ACC NR: A6031500  
SOURCE CODE: UY0300/00/000/000/0111/012

AUTHOR: Ostrovskaya, G. V.; Ostrovskiy, Yu. I.

ORG: Physicotechnical Institute Im. A. F. Ioffe, Academy of Sciences USSR (Fiziko-  
tehnicheskiy institut Akademii nauk SSSR)

TITLE: Holographic investigation of a laser spark

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu.  
Prilozheniye, v. 4, no. 4, 1966, 121-124

TOPIC TAGS: holography, laser application, Schlieren photography, electron density

ABSTRACT: The authors have used holography<sup>15</sup> to investigate the spark plasma produced by focusing radiation from a ruby laser operating in the giant pulse mode ( $\Delta t \approx 40$  nsec,  $E \approx 0.5$  J, lens focus 2.5 cm). The holograms were obtained by using the unabsorbed part of the laser beam that produced the spark, and photographed by a Schlieren technique. Apparatus with an optical delay line made it possible to obtain during one flash of the spark three holograms, corresponding to different phases of the process (40, 80, and 120 nsec after the instant of spark occurrence). The spark images were reconstructed in the parallel beam of an He-Ne laser ( $\lambda = 6328 \text{ \AA}$ ) (Fig. 1). Formulas are derived for the focal distance and refractive index of the equivalent optical systems, and are used to calculate the electron density in the spark plasma. The measurements gave for Ne a value  $(2-3) \times 10^{19} \text{ cm}^{-3}$  for all the investigated phases of spark development, this being in agreement with the previously determined electron

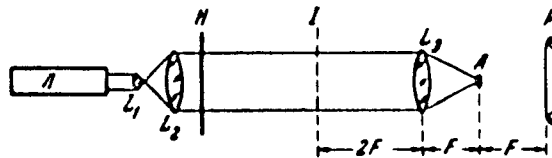
Card 1/2



L 45821-66

ACC NR: AP6031580

Fig. 1. Scheme for obtaining holographic Schlieren photographs. L - laser,  $L_1$ ,  $L_2$  - telescopic system to broaden the beam, H - hologram, I - plane of real image,  $L_3$  - lens with focal distance F, A - point screen, P - photographic film.



concentration  $((3-5) \times 10^{19} \text{ cm}^{-3})$ . The authors thank A. N. Zaydel' for valuable advice and a discussion of the results and T. Ya. Chelidze for participating in the experiments. Orig. art. has: 2 figures and 2 formulas. [02]

SUB CODE: 20/ SUBM DATE: 30May66/ ORIG REF: 002/ OTH REF: 003/ ATD PRESS: 5083

Card 2/2 JS

ACC NR: AP7001321

SOURCE CODE: UR/0057/66/036/012/2208/2210

AUTHOR: Zaydel', A. N.; Ostrovskaya, G. V.; Ostrovskiy, Yu. I.; Chelidze, T. Ya.

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

TITLE: Holography of a laser spark with a temporal resolution

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 12, 1966, 2208-2210

TOPIC TAGS: holography, laser photography, plasma photography, Schlieren photography

ABSTRACT: Shadowgraphs of laser-induced air breakdown were taken by means of the 3-beam setup shown in Fig. 1, using a method of spatial-temporal separation of light pulses employing a system of semitransparent mirrors patented by one of the authors in 1963. Shadowgraphs can be made of various stages in the development of a single discharge. The shadowgraphs can be considered Gabor holograms of a laser spark. Image reconstruction was carried out by means of the system shown in Fig. 2. This system is actually a Schlieren setup in which the image is formed by rays deflected by the phase inhomogeneities of the object. The electron concentration  $N_e$  in a plasma was determined experimentally for different stages in the development of a plasma during two discharges. The average  $N_e$  for the first 120 nanosec (accuracy 30-50%) was  $2.4 \times 10^{19} \text{ cm}^{-3}$ , which agrees favorably with results obtained from 1) displacement of the interference bands (A. Alcock, E. Panarell, S. Ramsden, 7th Intern. Conf.

Card 1/3

UDC: 531.9.07

ACC NR: AP7001321

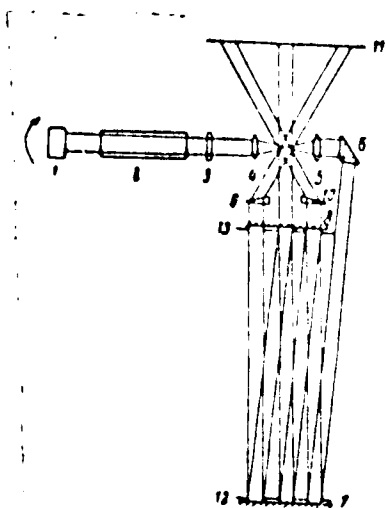


Fig. 1 Setup for obtaining shadowgraphs

- 1 - Rotating prism Q-switch; 2 - ruby crystal; 3 - glass plate; 4,5 - lenses; 6 - prism; 7 - mirror (99% reflective at 6943 Å); 8 - mirror (50% reflective); 9, 10 - optical glass wedges; 11 - film; 12, 13 - diaphragms.

ACC NR: AP7001321

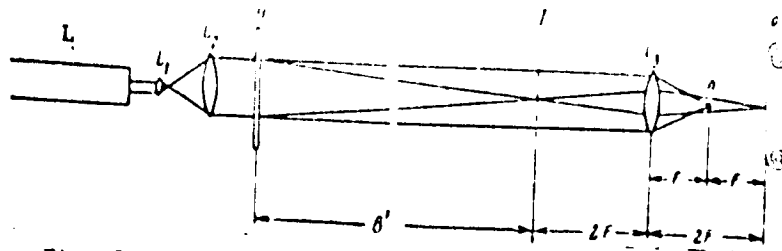


Fig. 2. Schematic for hologram reconstruction  
 H - hologram; L<sub>1</sub>, L<sub>2</sub> - diverging lenses; L - He-Ne laser (6328 Å); I - image (real); L<sub>3</sub> - converging lens; P - film.

on Phenomena in Ionized Gases, 1965) and 2) a scattered laser beam (S. Ramsden, W. Davies, Phys. Rev. Letts., 13, 227, 1964). Orig. art. has: 2 formulas and 4 figures.

[YK]

SUB CODE: 20/ SUBM DATE: 18May66/ ORIG REF: 003/ OTH REF: 006/ ATD PRESS: 5110

Card 3/3

ACC NR: AP7000033

time  $\Delta t \sim (2d \cos \alpha)/c$ ,  $c$  = speed of light) and for measurement of luminescence and other optical time constants (taumetry) are described. Orig. art. has: 2 figures and 2 formulas. [02]

SUB CODE: 20 14 SUBM DATE: 14 Jul 65/ ORIG REF: 002 / ATD PRESS: 5109

Card 2/2

ACC NR: AP7004564

SOURCE CODE: UR/0077/66/011/005/0381/0382

AUTHOR: Zaydol', A. N.; Konstantinov, V. D.; Ostrovskiy, Yu. I.

ORG: Physico-technical Institute im. A. F. Ioffe, AN SSSR (Fiziko-tokhnicheskoy institut AN SSSR)

TITLE: Laser resolution measurement

SOURCE: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 11, no. 5, 1966, 381-382

TOPIC TAGS: gas laser, photographic film, photographic emulsion, laser application/  
Mikrat-600 photographic film

ABSTRACT: A brief description is given of an experimental use of a 6,328-angstrom neon laser as a source of light to measure the resolving power of Mikrat-600 film by the interference method. The "resolvograms" were studied by two methods, examination under the microscope and examination as transparent diffraction gratings, the second method being preferred because of simplicity, greater sensitivity and the ability to determine the frequency-contrast characteristics of emulsions, where by the ratio of brightness of the zero and the first diffraction maxima can be used as a measure of the contrast of the image, and can be measured directly. The authors thank T. H. Lovonborg for consultations. Orig. art. has: 2 figures. [JPRS: 38,961]

SUB CODE: 14, 20 / SUBM DATE: 29Apr66 / ORIG REF: 002 / OTH REF: 001

Cord 1/1

UDC: 535.824.8 : 621.375.9

0926 1400

GAZYAN, G.S., kandidat tekhnicheskikh nauk; BOKIN, M.G.; KORSHUNOV, I.S.;  
GOLITSKIY, Yu.I.; POMOROVA, Ye.I.

Modernization of bit feeders. (MIRA 1974) (MIRA 1974)  
(Oil well drilling--Equipment and supplies)

257700A

Subject : USSR/Engineering AID P - 1126  
Card 1/1 Pub. 78 - 4/25  
Authors : Gazyan, G. S., Korzhunov, Ye. S., Ostrovskiy, Yu. I.,  
Romanova, Ye. I. and Eskin, M. G.  
Title : The MPD-1 drill feed mechanism  
Periodical : Neft. khoz., v. 32, #11, 15-19, N 1954  
Abstract : The mechanism for automatic and semi-automatic feed of  
the drill is described. Drilling pressure and speed of  
the turbo-drill are pneumatically controlled and elimi-  
nate the physical strain on the driller and provide  
stability of drilling. One diagram.  
Institution : TsIMT (Central Scientific Research Institute for Mechani-  
zation and Labor Organization in the Petroleum Industry)  
Submitted : No date



07141173

AID P - 2685

**Subject** : USSR/Mining

**Card 1/2** Pub. 78 - 3/21

**Author** : Ostrovskiy, Yu. I.

**Title** : ~~XXXXXXXXXXXXXXXXXXXX~~  
The problem of the influence of the internal hydrostatic pressure on the axial stability of the drill column

**Periodical** : Neft. khoz., 33, 5, 16-20, My 1955

**Abstract** : This article is one in a series of articles by various authors in a theoretical discussion concerning the following problem: does the internal hydrostatic pressure of a tube filled with liquid influence the magnitude of the compressing axial critical buckling force necessary to break the deflecting stability (or resistance) of such a tube? The author comes to a negative conclusion. This theoretical problem is specifically associated with the stability of an oil well drill column.

OSTROVSKIY, Yu.I.

✓ 2372\* (Russian) "Extremum" Controller for Turbine Drilling of Oil Drill-Holes. Extremum Regulator dlia turbinnoy durenii nefiannykh skvazhin. in: I. Ostrovskii and M. G. Eskin. *Avtomatika i Telemekhanika*, v. 17, no. 9, Sept. 1956, p. 775-783 + 2 plates.

Analysis of corrective circuits for automatic optimum control of maximum mechanical speed.

2

10 L. R. ONSKIY, Y. A. I.

28(11) PRAISE I BOOK EXPLOITATION 507/2002

Shchedyns nauk SSSR. Institut avtomatiki i telemekhaniki. Seminar po pnevmaticheskoy avtomatike. 197. Moscow, 1949. Sposoby upravleniya i elementy pnevmaticheskoy avtomatiki. (Pneumatic and Hydraulic Control Devices and Elements of Pneumatic Automation). Collection of Papers, Moscow, State AV SSSR, 1959. 21 p. Errata slip inserted. 2,700 copies printed.

Resp. Ed. N. A. Ayzerman, Doctor of Technical Sciences, Professor, Ed. of Publishing House A. A. Kalin Tech. Ed. S. P. Polyzov

PURPOSE: This collection of papers is intended for scientific research workers and engineers in the field of design and production of pneumatic and hydraulic equipment and appliances for automation.

COVERAGE: This collection contains papers read at the Seminar in Pneumatic and Hydraulic Devices for Automation. The collection is divided into the following three parts: newly developed pneumatic and hydraulic elements, pneumatic and hydraulic devices, including regulating units, transmitters and transducers, actuating mechanisms, special control devices and auxiliary equipment and elements of pneumatic and hydraulic devices for automation, such as instruments and measuring devices, valves, etc. The generalities are mentioned in the first three papers of the papers.

Bereznytskiy, V. S., Zhelezov, V. Pneumatic Ratio Controllers Without Mechanical Dividers. Type RS-1 and RS-2 ratio controllers are described. The change of ratio in relation to the throttle opening and the primary pressure is discussed. 122

Zakharov, A. I., and A. I. Spivakovskiy. Description of the Linear Transformation in Pneumatic Systems by Means of a Relay. The type elements are described. The paper discusses the first stage of an investigation made at the Institute of Automatics and Cybernetics, State AV SSSR. The characteristics of a pneumatic relay consisting of a nozzle and pilot tube are described. The functioning and possible uses of this device are dealt with. Schematic diagrams of the relay and photographs of the experimental installation are shown. 124

Berends, V. L., and A. A. Kalin. Possibility of Constructing a Pneumatic Regulator with Automatic Response to Load Changes. 126

Ushakov, I. I., Kozlov, V. Extremal Pneumatic Regulation. The basic principles of an extremal regulator for maintaining certain maximum or minimum values in an automatic system are discussed. A schematic diagram is presented, and the construction is described. Results of laboratory testing are given. 128

Prasolov, L. S., Kozlov, V. Automatic Installation for Regulating Air Supply. A description is given of an installation with which a simple construction for regulating a variable flow of two-stage compressed air for ensuring a continuous and clean and dry compressed air. Auxiliary Equipment. 130

25-7-13/51

**AUTHOR:** Ostrovskiy, Yu.I., Aspirant of the Institute of Automation and  
Telemechanics

**TITLE:** All Our Plans Are Connected with Peaceful Work (Vse nashi plany  
svyazany s mirnym trudom)

**PERIODICAL:** Nauka i Zhizn', 1957, # 7, p 6 (USSR)

**ABSTRACT:** The author, who specializes in the installation of automatic  
equipment in industry, says that scientists and engineers through  
their work, wish to render life easier and happier for every-  
body. When the Youth Festival begins, the author is looking  
forward to meeting young people from abroad who are interested  
in technical sciences and who, like him, have extensive plans  
for the future which can be accomplished only by peaceful work.  
The article contains one photo.

**AVAILABLE:** Library of Congress

Card 1/1

8(0), 11(4)

SOV/112-59-2-3264

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 2, p 149 (USSR)

AUTHOR: Ovsyannikov, B. A., Ostrovskiy, Yu. I., Peskin, G. L., and Eskin, M. G.

TITLE: Instrument for Measuring and Recording the Rpm's of a Giproneftemash-Make Turbodrill (Pribor dlya izmereniya i registratsii skorosti vrashcheniya turbobura konstruksii Giproneftemasha)

PERIODICAL: Novosti nef. tekhn. Neftepromysl. delo, 1957, Nr 8, pp 3-9

ABSTRACT: A teletachometer with a wire connecting link between the primary element and the oscillograph is described. A type DOT-3 AC tachometer generator is installed in the turbodrill adapter. The tachometer-generator rotor is coupled to the turbodrill shaft. The tachometer-generator frequency is converted into DC voltage which is subsequently amplified by two amplifiers. One amplifier feeds two series-connected oscillograph loops that record drilling conditions and dynamic process. The second amplifier feeds an

Card 1/2

SOV/112-59-2-3264

Instrument for Measuring and Recording the Rpm's of a Giprotestemash-Make  
electron potentiometer that indicates the rpm. A low-frequency generator is  
used for calibrating the system.

V N Ch.

Card 2/2

05/10/89 7 107

AUTHOR Ostrowskiy, Yu.I. (Moscow) 103-9-8/9  
TITLE Extremum Regulation.  
(Ekstremal'noye regulirovaniye.-Russian)  
PERIODICAL Avtomatika i Telemekhanika, 1957, Vol 10, Nr 9, pp 852-858 (U.S.S.R.)  
ABSTRACT The basic extremum-regulation-systems are here classified and described in short. In systems with extremum regulation the extremum value of the quantity to be regulated is not given and is therefore at first not known. The problem to be solved consists in finding the extremum of the quantity to be regulated and to maintain it with the necessary accuracy, this quantity being modified with respect to time according to a previously unknown rule. In order to be able to carry out extremum regulation, it is not necessary to know all functional relations determining the amount and the position of the extremum. What is necessary is only that the extremum actually exists. According to the manner in which the extremum is found, extremum regulators can be subdivided into four types: 1) Regulators which react to the sign of a leak-off of the output coordinate of the object according to the input coordinate or according to time. 2) Regulators with an extremum-"memory". 3) Extremum regulators with a phase-discriminator, and 4) Extremum regulators with a step-like modification of the input coordinate. Schemes of several regulating devices described in publications are mentioned and described. There are 1 table and 9 figures and 9 Slavic references.

Card 1/2

AUTHOR: Ostrovskiy, Yu. I., (Moscow) 103-11-9,10

TITLE: Pneumatic Optimizing Controller (Pnevmaticheskiy ekstremum-regulyator).

PERIODICAL: Avtomatika i Telemekhanika, 1967. Vol. 18, Nr 11, pp. 1641-1651 (USSR)

ABSTRACT: A control device developed in the Institute for Automation and Remote Control AN USSR is described. The results obtained by a laboratory investigation are given. On the strength of these results the following may be said:

- 1) The system makes it possible to "remember" the maximum distinctly. The pressure decrease in the memory chamber at an initial pressure of  $P_z = 0,5 \text{ atm}$  and  $P_y = 0 \text{ atm}$  amounts to about 1 mm torr p.h. This can be attained if the memory chamber must be tight.
- 2) Exact operation of the system of optimum control was attained at  $\lambda = 0,015 \text{ kg/cm}^2$ .  $\lambda$  is the gradient:  $\lambda = P_{y \text{ max}} - P_y$ .  $P_y$  - is the air pressure which proportional to the boundary coordinate of the object Y. Operation pressure domain  $P_y = 1 \text{ kg/cm}^2$
- 3) The optimum control device observes the maximum in the course of its slow displacement and finds the new value of the

Card 1/2



Pneumatic Optimizing Controller.

103-11-9, 10

maximum in the case of a considerable displacement in the horizontal and vertical directions. The system described is at present being subjected to a thorough investigation. There are 8 figures.

SUBMITTED: January 14, 1957

AVAILABLE: Library of Congress

Card 2,2

OSTROVSKIY, Y. I. (DIP ~~SECRET~~ USSR)

"Extremum Pressurized Air Regulators.

report presented at the Scientific Seminar on Pneum-hydraulic Automation,  
2<sup>o</sup>-24 May 1957, at the Inst. for Automation and Remote Control (IAT), Acad. Sci. USSR

Avtomatika i Telemekhanika, 1957, Vol. 1, No. 12, pp. 114-115, (author -  
SEMENOVA, A. I.)

OSTROVSKIY, Yur. I. Cand Tech Sci -- (dss) "Extreme pneumatic regulator  
with maximum stability." Mos, 1959. 14 pp (Acad Sci USSR. Inst of Automation  
and Telemechanics), 150 copies (KL, 52-59, 122)



PLATE I ROCKET REPLICATION 607/6671

Abstracts and Summary. Soviet rocketing in the USSR. Seminar on  
 space-rocketing. 24 and 25 sessions.

1969 paper: I. G. Gromov. Problems in Pneumatic and Hydraulic Automatic  
 Control. 1969. 211 p. Soviet City Edition. 4,500 copies printed.

1969. E. A. Abramov. Doctor of Technical Sciences, Professor; Ed. of Publishing  
 House. A.A. 1961; Tom. 14; 8-6; 1961.

1969. This collection of articles is intended for scientific workers, industrial  
 designers and engineers interested in automation and telemechanics.

1969. The abstracts of 21 articles is a continuation of an earlier work of the  
 Academy of Sciences USSR, on pneumatic and hydraulic automatic systems. Pub-  
 lished in 1969. A wide range of problems connected with the design and operation  
 of pneumatic and hydraulic automatic systems is described. An addition to  
 problems based on experiments, the collection also contains discussions of new  
 trends in the field, such as the possibility of using very low pressure fluids  
 operation of pneumatic drives. Some articles of this collection were written in  
 the Soviet Union and in other countries and in characterizations and reflect a somewhat differ-  
 ent approach to automatic problems. In generalities are mentioned. References  
 necessary part of the article.

REGULATED AND AUTOMATIC DEVICES AND SYSTEMS OF AUTOMATIC REGULATION

Prokhorov, L.I. Pneumatic Computing Process and Regulation Trans-  
 mitters and the Transmission of Pressure 77

Anton, P.I., and L.O. Dmitriyev. Dynamic Characteristics of Air  
 Regulators with Inertial Systems. Differing Assembly Systems)  
 Regulators and Recommendations for Their Tuning 83

1969. V.I. Berezin and I. V. Kozlov. Automatic Regulation Systems  
 of Control of Air Pneumatic Instruments 79

Prokhorov, L.I. Small Scale Hydraulic Load Blank of Compensation Type  
 85

1969. V.I. Berezin. Method of Increasing the Accuracy of Industrial Hydraulic  
 Instruments 93

Prokhorov, L.I. Small Scale Pneumatic and Hydraulic Regulator 105

1969. P.I. Anton. (Nonlinear) small scale pneumatic - known load  
 automatic plant) Electronic and Pneumatic Regulator 111

1969. V.I. Berezin. Air Unified Pneumatic Assembly System - Base of a Complex  
 Regulation in the Petroleum Refining Industry 123

REGULATED CONVERTERS AND REGULATED DEVICES

1969. P.I. Anton and V.I. Berezin. Construction Problems of Pneumatic  
 Regulating Air-Driving Device 133

1969. V.I. Berezin. Small Scale Pneumatic Continuous Action Calculating Machine  
 and the Delay Blank 138

1969. L.A. and A.V. Gerasimov. Investigation of Characteristics of  
 Pneumatic Regulators with Inertial 140

1969. V.I. Berezin and L.A. Anton. Pneumatic Regulation Relay Drives  
 154

1969. V.I. Berezin. Device for the Application of Pneumatic Internal  
 Regulation Systems with Several Regulating Components 158

1969. V.I. Berezin and V.I. Chernov. DWR-17 Regulating  
 Converter with Pneumatic Drive 163

1969. V.I. Berezin. Experiments and Calculation. Application of an  
 Internal Regulator for Controlling and Regulating Internal Chemical  
 Processes According to the Thermal Effect of the Reaction

PNEUMATIC AND HYDRAULIC AUTOMATIC DEVICES

1969. V.I. Berezin. Small Scale Pneumatic and Hydraulic Regulators 177

1969. V.I. Berezin. Components of Automatic Regulators 180

1969. V.I. Berezin. Pneumatic Regulators of the Effluents Plant  
 193

1969. V.I. Berezin. Library of Congress (1970-1971)  
 193/193/193

OSTROVSKIY, YU. .

55

PHASE I BOOK EXPLOITATION      SOV/6012

Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.

Avtomaticheskoye regulirovaniye i upravleniye (Automatic Regulation and Control) Moscow, Izd-vo AN SSSR, 1962. 526 p. Errata slip inserted. 9000 copies printed.

Resp. Ed.: Ya. Z. Tsypkin, Professor, Doctor of Technical Sciences;  
Ed. of Publishing House: Ye. N. Grigor'yev; Tech. Ed.: I. N. Dorokhina.

**PURPOSE:** This book is intended for scientific research workers and engineers concerned with automation.

**COVERAGE:** The book is a collection of articles consisting of papers delivered at the 7th Conference of Junior Scientists of the Institute of Automation and Telemekhanics, Academy of Sciences USSR, held in March 1960. A wide range of scientific and technical questions relating to automatic regulation and control is covered.

Card 1/12

Automatic Regulation (Cont.)

SOV/6012

The articles are organized in seven sections, including automatic control systems, automatic process control, computing and decision-making devices, automation components and devices, statistical methods in automation, theory of relay circuits and finite automatic systems, and automated electric drives. No personalities are mentioned. References are given at the end of each article.

TABLE OF CONTENTS:

PART I. AUTOMATIC CONTROL SYSTEMS

Andreychikov, B. I. The effect of dry friction and slippage [play] on error during reverse gear operation of servo-feed systems	3
Andreychikov, B. I. Dynamic accuracy of machine tools with programmed control	14

Card 2/12

Automatic Regulation (Cont.)

SOV/6012

2

- Babunashvili, T. G. On dissipation in-the-large in three-dimensional nonautonomous and nonlinear autoregulation system 22
- Buyanov, B. B. Investigation of optimal control system for a section-mill flying shear 28
- Bocharov, I. M. Analyzer for distribution curves of random processes in the infralow frequency region 36
- Butkovskiy, A. G. On the optimal control of processes 43
- Volik, B. G. Automatic optimizer for chemical production process control 52
- Gradetskiy, B. G., and Yu. I. Ostrovskiy. Design calculation of an extremal control system featuring storage of maximum in the presence of noise interference 63

Card 3/12



S/271/63/000/001/014/047  
D413/0308

**AUTHORS:** Gradetskiy, V.G. and Ostrovskiy, Yu.I.

**TITLE:** Calculation of extremal control systems with memory of the maximum in the presence of noise

**PERIODICAL:** Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 1, 1963, 41, abstract 1A227 (In collection: Avtomat. regulirovaniye i upr., M., AN SSSR, 1962, 63-77)

**TEXT:** The authors consider the noise-rejection problem for extremal control systems with memory of the maximum, propose a noise filter, and give a semi-empirical method of calculation which ensures the least possible loss during search. This method is recommended for practical calculations of extremal systems in the presence of noise. It is in good agreement with experiment.  
[ Abstracter's note: Complete translation ]

Card 1/1

ACCESSION NR: AP4033360

S/0103/64/025/003/0382/0393

AUTHOR: Ostrovskiy, Yu. I. (Moscow)

TITLE: Coding the flow-table rows

SOURCE: Avtomatika i telemekhanika, v. 25, no. 3, 1964, 382-393

TOPIC TAGS: automatic control, relay automatic control, multicycle relay  
automatic control, automaton, finite automaton

ABSTRACT: Based on the work of S. Coldwell (Logical Synthesis of Relay Systems) and D. A. Huffman (J. Frankl. Inst., v. 257, no. 3, 1954), an approach to synthesizing a multicycle system (a finite automaton) from a specified flow table is presented. The rows of the flow table are coded in binary numbers. A coding algorithm is developed for minimizing the number of flow-table rows that permit contest between relays. The method substantially cuts the amount of scanning necessary for finding the optimum coding. This advantage is gained by

Card 1/2

OSTROVSKIY, Yu.I. (Moskva)

Algorithm for the synthesis of sequential switching circuits  
which preclude critical races of relays. Avtom. i telemekh. 26  
no.5:844-860 My '65. (MIRA 1965)

1. Submitted January 23, 1963.

OSTROVSKIY, Yu. M. Cand Tech Sci -- (diss) "Application of the method of material balance in certain problems of the analysis of the working of petroleum deposits." Baku, 1957. 14 pp (Acad Sci Azerbaijan SSR. Inst of Petroleum, 100 copies (KL, 4-58, 83)

OSTROVSKIY, Yu.M.; ZHMAKINA, V.A.

Quantitative determination of  $\alpha$ -keto acids in the blood by the method of paper chromatography. Lab.delo 8 no.8:10-14 Ag '62.

(MIRA 15:9)

1. Kafedra biokhimi Grodnenskogo meditsinskogo instituta i biokhimicheskaya laboratoriya Grodnenskoj oblastnoy bol'nitsy.

(ACIDS) (PAPER CHROMATOGRAPHY)

(BLOOD--ANALYSIS AND CHEMISTRY)

OSTROVSKIY, Yu.M.

~~OSTROVSKIY, Yu.M.~~  
New simple method for the quantitative and qualitative determination  
of small quantities of paraaminosalicylic acid. Apt. delo. 4 no.6:  
10-13 N-D '55. (MIRA 9:1)

1. Is laboratorii Polotskoy gorodskoy bol'nitsy.  
(PARAAMINOSALICYLIC ACID, determination,  
technic)

USSR/Russia: *[Faint text]*

Abstr. J. Chem. Soc. B, 1965, 1645

*[Faint text]* Yu.M.

Abst.:

Title: *[Faint text]* Hydrazides  
*[Faint text]* Metalloids  
*[Faint text]* Perfluorinated

Crystall. *[Faint text]* 1965, 1645

Abstr. *[Faint text]* 1965, 1645

Card 1/1

OSTROVSKIY, Yu.M.

Urinary thiamine excretion in patients treated with p-aminosalicylic acid [with summary in English]. Vop.med.khim. 3 no.2:109-114  
Mr-Apr '57. (MLRA 10:7)

1. Polotskaya Gorodskaya bol'nitsa.  
(PARA-AMINOSALICYLIC ACID, eff.  
on urinary excretion of vitamin B1 (Rus))  
(VITAMIN B1, in urine  
eff. of PAS on excretion (Rus))



Ostrovskiy, Yu M.

USSR/Pharmacology. Toxicology. Chemotherapeutic Preparations  
A) Antibiotics

V

Abs Jour : Ref Zhur - Biol., No II, 1958, No 52103

Author : Ostrovskiy Y.M.

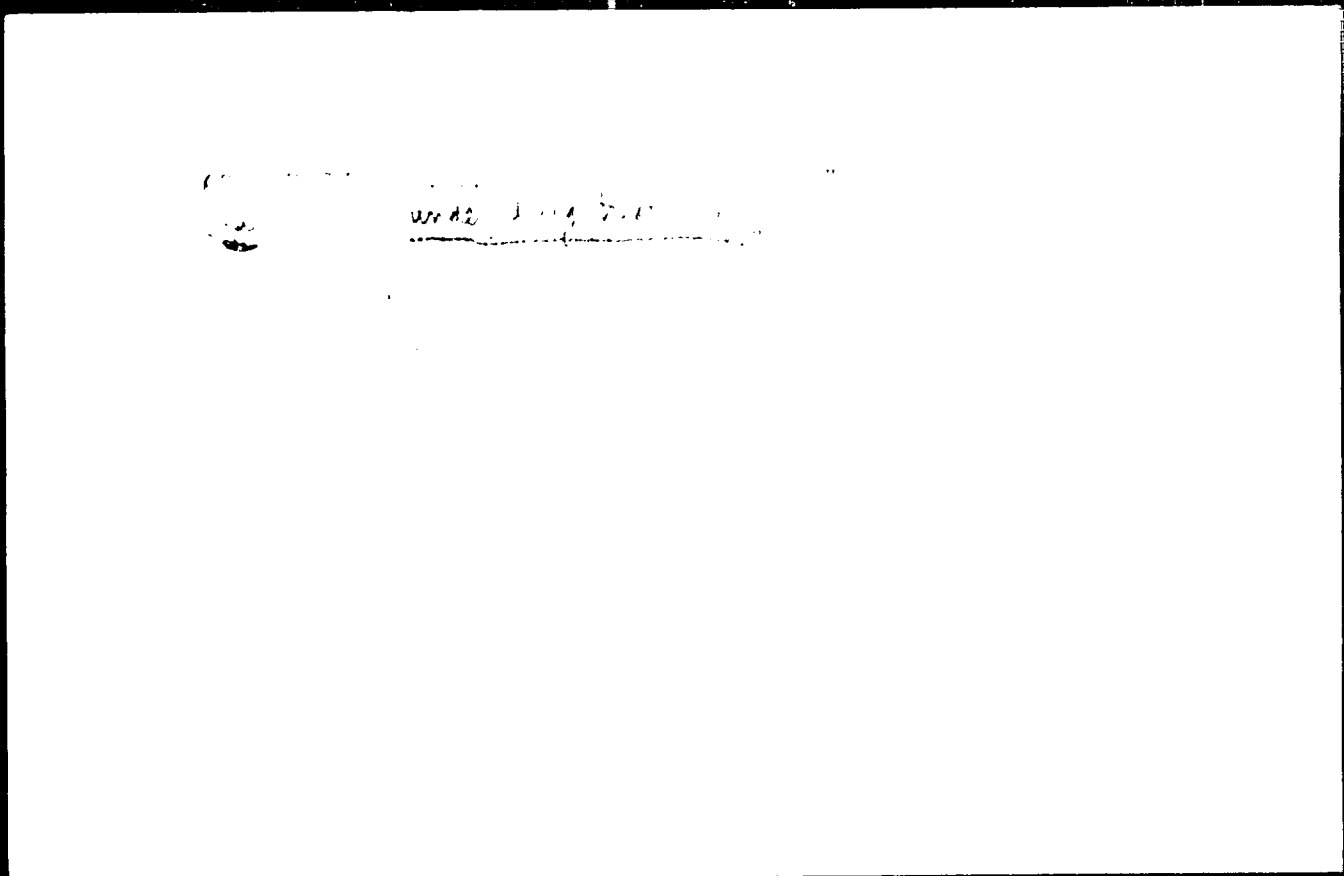
Inst :

Title : The Effect of Pas on the Endocrine System, Enzymes and  
Metabolism of Vitamins. (From materials of the international  
literature).

Orig Pub : Sovr. probl. tuberkuloza. Sb. perev., obz. i ret. in period.  
lit., 1957, No 6, 11-15

Abstract : No abstract

Card : 1/1



OSTROVSKIY, Yu.M.

Studies on thiamine metabolism in pulmonary tuberculosis [with summary in English]. Vop.med.khim. 4 no.1:3-7 Ja-P'58 (MIRA 11:5)

1. Polostkaya gorodskaya bol'nitsa.  
(TUBERCULOSIS, PULMONARY, metabolism in  
vitamin B<sub>1</sub> metab. (Rus))  
(VITAMIN B<sub>1</sub>, metabolism  
in pulm.tuberc. patients (Rus))

OSTROVSKIY, Yu.M. [Ostrovskiy, I.U.M.]

Effect of streptomycin on thiamine metabolism. Ukr. biokhim.  
zhur. 30 no. 5: 742-746 '58 (MIRA 11:12)

1. Polotskaya gorodskaya bol'nitsa im. Lenina.  
(STREPTOMYCIN)  
(THIAMINE)