"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

24(8),3(7) SOV/20-125-6-18/61

AUTHORS: Bovsheverov, V. M., Gurvich, A. S., Tovang, L. R.

TITLE: Direct Measurements of a Turbulent Flow of Heat in the Lowest Layer of the Atmosphere (Pryamyye izmereniya turbulentnogo potoka tepla v prizemnom sloye atmosfery)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 6, pp 1242-1245 (USSR)

ABSTRACT: The authors first refer to several earlier papers dealing with this subject. The acoustic laboratory of the Institut fiziki atmosfery AN SSSR (Institute for the Atmospheric Physics of the AS, USSR) developed a new method for the direct measurement of the turbulent heat flow. The general measurement scheme is shown by a schematical drawing. The pulsations of the vertical component of the wind velocity W' were measured by means of an acoustic microanemometer, which is described in detail. The acoustic scheme prevents measurements of wind velocity from being influenced by temperature pulsations. Temperature fluctuations were measured by means of a resistance thermometer, the primary element of which consisted of a 20-micron platinum wire of 20 mm length. This wire was connected to a bridge

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circuit. The time constant of such a primary element is of the order of magnitude 0.01 sec. The maximum sensitivity of the thermometer is 0.15°C and the amplitude characteristic (for the pulsations) is within ± 2° linear. The voltages U_1 and U_2 at the output of the microanemometer and the resistance thermometer respectively are proportional to the momentary values of the vertical component of the wind velocity $U_1 = k_1 W'$ and to the temperature pulsations $U_2 = k_2 T'$. These voltages are then applied to two input contacts of a correlometer. The amperage I at the output of this electronic device is then proportional to the product $I = k_3 \overline{U_1 U_2}$, averaged with respect to time, of the two voltages applied. This amperage is then measured by means of an indicator device, the scale of which can be calibrated for the values of the turbulent heat flow. The heat flow was measured alternatingly in heights of 1 and 4 m (360 measurements in 1m height and 80 in a height of 4 m). Averaging extending over a period of 100 seconds is insufficient, for it is necessary to average over a period of 10 minutes. By comparing

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Direct Measurements of a Turbulent Flow of Heat in the Lowest Layer of the Atmosphere SOV/20-125-6-18/61

the correlation coefficients with the corresponding Richardson numbers it may be seen that with increasing instability ($Ri \rightarrow -\infty$) also the correlation $W'T'$ increases. There are 4 figures and 5 references, 4 of which are Soviet.

ASSOCIATION: Institut fiziki atmosfery Akademii nauk SSSR (Institute for the Physics of the Atmosphere of the Academy of Sciences, USSR)

PRESENTED: January 20, 1959, by A. A. Dorodnitsyn, Academician

SUBMITTED: January 19, 1959

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APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.

Frequency spectra and functions of the distribution of probabilities of the vertical wind velocity component. Izv.AN SSSR.Ser.geofiz. no.7:1042-1055 Jl '60. (MIRA 13:7)

1. Akademiya nauk SSSR, Institut fiziki atmosfery. (Winds)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.; TSVANG, L.R.

Spectral composition of a turbulent heat flow. Izv.AN SSSR.Ser. geofiz. no.10:1547-1548 O '60. (MIRA 13:9)

1. Akademiya nauk SSSR, Institut fiziki atmosfery.
(Atmospheric temperature)
(Atmospheric turbulence)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.

Experimental study of the frequency spectra of the vertical component of wind velocity in the bottom layer of the atmosphere. Dokl.AN SSSR 132 no.4:806-809 Je '60. (MIRA 13:5)

1. Institut fiziki atmosfery Akademii nauk SSSR. Predstavleno akademikom A.N.Kolmogorovym.
(Winds--Spectra)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

S/046/60/006/02/05/019
B014/B014

AUTHORS: Golitsyn, G. S., Gurvich, A. S., Tatarskiy, V. I.

TITLE: Study of Frequency Spectra of Amplitude- and Phase Difference Fluctuations of Sound Waves in a Turbulent Atmosphere

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 2, pp. 187-197

TEXT: In the introduction, the authors discuss various publications on this subject by V. M. Bovsheverov and V. A. Krasil'nikov (Refs. 1 and 2), B. A. Suchkov (Ref. 6), A. M. Obukhov (Ref. 10), and V. I. Tatarskiy (Ref. 11). Next, the authors study the shape of frequency spectra of fluctuations and verify a theory developed in Ref. 11. The measurements described were made in the area of Tsimlyanskiy (Nauchnaya stantsiya instituta fizika atmosfery AN SSSR (Scientific Station of the Institute of Physics of the Atmosphere of the AS USSR)) late in 1958. The experimental arrangement is schematically represented in Fig. 1. The frequency spectra graphically shown in Figs. 2 and 3 exhibit a considerable spread. Before the authors pass on to a detailed description of the results obtained here, they discuss some theoretical problems of sound

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

Study of Frequency Spectra of Amplitude- and Phase Difference Fluctuations of Sound Waves in a Turbulent Atmosphere

S/046/60/006/02/05/019
B014/B014

propagation and derive formulas for the calculation of amplitude- and phase fluctuations. The results of measurement are analyzed by means of these formulas, and the fluctuation spectra are calculated from the above-mentioned formulas and graphically represented. Finally, it is noted that the spectra obtained here are in good agreement with those calculated on the basis of the hypotheses of "frozen turbulence" and the 2/3 - law for fluctuations. There are 9 figures and 14 references: 12 Soviet and 2 British.

ASSOCIATION: Institut fiziki atmosfery AN SSSR Moskva (Institute of Physics of the Atmosphere of the AS USSR, Moscow)

SUBMITTED: August 28, 1959

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

85955

S/020/60/134/005/031/035/XX
B019/B070

3,5000

AUTHOR: Gurvich, A. S.

TITLE: Measurement of the Asymmetry Coefficients of the Velocity Difference Distribution in the Ground Layers of the Atmosphere

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 5, pp. 1073 - 1075

TEXT: The structure functions of the second kind $D_{ik} = \overline{(u_{i1}-u_{i2})(u_{k1}-u_{k2})}$ and the third kind $D_{ikl} = \overline{(u_{i1} - u_{i2})(u_{k1} - u_{k2})(u_{l1} - u_{l2})}$ play a big role in the theory of local isotropic turbulence developed by A. N. Kolmogorov (Refs. 1, 2). u_{i1} and u_{i2} are the i-th velocity components at the point M_1 and M_2, respectively. The structure functions of the second and third kinds are related by the dynamical equation $D_{111}(r) - 6\nu\frac{\partial D_{11}(r)}{\partial r} = -\frac{4}{5}\varepsilon r$. The structure function of the second kind

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

85955

Measurement of the Asymmetry Coefficients of the Velocity Difference Distribution in the Ground Layers of the Atmosphere

S/020/60/134/005/031/C35/XX
B019/B070

has been measured many times and checked with the 2/3 law of Kolmogorov and A. M. Obukhov. Few publications exist regarding the structure function of the third kind. A measurement of the asymmetry coefficients of the distribution of the velocity-differences was made by the author of the present paper in September, 1959. The wind velocities were measured by two acoustic microanemometers (z = 1.8 m high). An electrodynamic amplifier was used for measuring the average cubes and the dispersion of the velocity differences. The values obtained were $S_l = \overline{\Delta u_l^3}/(\overline{\Delta u_l^2})^{3/2}$ and $S_n = \overline{\Delta u_n^3}/(\overline{\Delta u_n^2})^{3/2}$. The results obtained in this way for the Richardson number, the Reynolds number, S_n and S_l are given in Table 1, and the values $S_{l\ mean} = -0.45 \pm 0.05$ and $S_{n\ mean} = 0.03 \pm 0.02$ are obtained therefrom for r = 25 cm. There are 1 table and 8 references: 6 Soviet and 2 British.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

85955

Measurement of the Asymmetry Coefficients of the Velocity Difference Distribution in the Ground Layers of the Atmosphere

S/020/60/134/005/031/035/XX
B019/B070

ASSOCIATION: Institut fiziki atmosfery Akademii nauk SSSR (Institute of Atmospheric Physics of the Academy of Sciences, USSR)

PRESENTED: June 7, 1960, by A. N. Kolmogorov, Academician

SUBMITTED: February 10, 1960

Таблица 1

r, см	30	30	50	50	25	25	25	50	50	50	50	50	50	50
τ, мин.	5	10	20	12	9	20	10	24	20	20	11	9	20	9
$R_I \cdot 10$	−2,4	−3,4	—	—	−3,8	−2,8	−3,0	−2,5	−3,6	−5,6	−3,2	−10,8	−8,2	−6,5
$R_e \cdot 10^4$	6,4	5,8	—	—	2,2	2,4	2,0	2,5	1,9	1,9	2,2	1,6	1,9	1,8
$S_n \cdot 10$	+0,7	+0,6	+0,4	−0,3	—	—	—	—	—	—	—	—	—	—
					−4,0	−5,5	−4,1	−6,2	−5,4	−3,8	−1,9	−2,2	−3,3	−5,0
$S_l \cdot 10$	—	—	—	—	±0,6	±0,7	±0,9	±0,9	±1,5	±0,8	±0,6	±0,9	±0,6	±0,12

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A. S.

Cand Phys-Math Sci - (diss) "Experimental study of spectra of pulsations by the vertical component of wind velocity." Moscow, 1961. 8 pp; (Academy of Sciences USSR, Inst of Atmospheric Physics, Inst of Applied Geophysics); 150 copies; price not given; (KL, 6-61 sup, 192)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.

Measurement of frictional stresses in the lower atmosphere. Izv. AN SSR. Ser. geofiz. no.3:458-466 Mr '61. (MIRA 14:2)

1. Institut fiziki atmosfery AN SSSR.
(Winds) (Friction)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.

Spectral composition of a turbulent motion quantity stream. Izv. AN SSSR. Ser. geofiz. no.10:1578-1579 O '61. (MIRA 14:9)

1. AN SSSR, Institut fiziki atmosfery.
(Atmospheric turbulence)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

33205
S/141/61/004/005/007/021
E032/E514

24.3200 (1057, 1109, 1158)

AUTHORS: Bovsheverov, V.M., Gurvich, A.S. and Kallistratova M.A.

TITLE: An experimental study of the vibration of an artificial source of light

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika v.4, no.5, 1961, 886-891

TEXT: The static vibration characteristics, the dispersion, and the frequency spectrum were investigated with the aid of the apparatus shown in Fig.1. The light source ИС was placed behind a slit whose width was such that the angular dimensions of the source were of the order of 2". The source was placed at a distance L from a telescope. The mirror of a single-loop galvanometer Г was placed between the objective O of the telescope and its focal point at a distance of about 1 cm from the latter. Light reflected from the mirror was focused by a second objective (not shown in the figure) onto a 50 μ slit. The width of this slit was smaller by a factor of approximately 2 than the image of the source produced by the second objective. The photomultiplier ФЭУ was placed behind the slit. When the position of

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

the source is changed the system may be re-focused by displacing the objective of the telescope. The vibration was measured with the aid of a tracking system operating on a carrier frequency of 5 kc/s. The carrier frequency signal derived from an audio-frequency oscillator was fed into the loop through an adding circuit Σ (balanced bridge). The amplitude of the oscillation of the image was of the order of 35 to 40 μ. The photomultiplier output was fed into the amplifier $\mathcal{Y}$ (band-width 4800-5200 cps). If the average position of the image (per period) is at the mid-point of the slit, then the photomultiplier signal contains frequency components 2f, 4f etc. but the component with frequency f (period = 1/f) is absent. The amplitude of the latter component is proportional to the displacement of the average position of the image from the mid-point of the slit and the phase is the same as the phase of the oscillations of the loop or differs from it by 180° depending on whether the image is displaced to the left or to the right. The amplifier will transmit only those frequencies which are approximately equal to f. The amplifier is followed by the synchronous detector $C\Delta$ whose output is fed to the galvanometer loop through the adding circuit Σ. The variance of

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

the vibration was measured with the aid of an electrodynamic multiplier with negative feedback which was similar to that described by G. Korn and T. Korn (Ref.6: Electronic analogue computers, 1952 (Russian translation IL, M, 1955). The scale of the multiplier was graduated in units of the variance of the angle of incidence $\sigma_\varphi^2 = (\varphi - \bar{\varphi})^2$. The variance σ_φ^2 was measured as a function of L and of the meteorological conditions. It was found that, on the average, the plot of σ_φ^2 vs. L is a straight line. This is in agreement with the theoretical formula reported by V. I. Tatarskiy (Ref.1: Theory of fluctuations in the propagation of waves in a turbulent atmosphere, Izd.AN SSSR, M., 1959). The experimental data obtained for the intensity of fluctuation in the angle of incidence are also in good agreement with calculations based on meteorological measurements of temperature gradients and wind speed. The spectrum of fluctuations in the angle of incidence is in good agreement with the theoretical calculations based on the Kolmogorov-Obukhov theory of turbulence. There are 5 figures and 7 Soviet references.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

33205

An experimental study of the ... S/141/61/004/005/007/021
E032/E514

ASSOCIATION: Institut fiziki atmosfery AN SSSR
(Institute of Physics of the Atmosphere AS USSR)

SUBMITTED: March 2, 1961

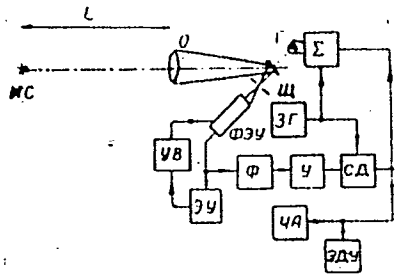

Fig.1. Legend. Block diagram of the apparatus.
ИС - light source, O - objective,
Г - loop galvanometer, Щ - slit,
ФЭУ - photomultiplier,
Ф - 5 kc/s filter, У - amplifier,
СД - synchronous detector,
Σ - adding bridge, ЭУ - electrometric amplifier, УВ - high-voltage rectifier,
ЗГ - audio-frequency oscillator,
ЧА - frequency analyser,
ЭДУ - electrodynamic multiplier.

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APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.

Turbulent momentum flow in case of unstable stratification of the lower atmosphere. Izv. AN SSSR. Ser. geofiz. no.11:1706-1707 N '61. (MIRA 14:11)

1. Akademiya nauk SSSR, Institut fiziki atmosfery.
(Atmospheric turbulence)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

3.5100

S/506/62/000/004/002/005
E032/E314

AUTHORS: Bovsheverov, V.M., Gurvich, A.S., Mordukhovich, M.I. and Tsvang, L.R.

TITLE: Instruments for the determination of temperature and wind-velocity pulsations and for the statistical analysis of experimental data

SOURCE: Akademiya nauk SSSR. Institut fiziki atmosfery. Trudy. no. 4. 1962. Atmosfernaya turbulentnost'. 21 - 29

TEXT: This is a review of instruments developed at the Institut fiziki atmosfery AN SSSR (Institute of Physics of the Atmosphere of the AS USSR). They include acoustic anemometers for the determination of pulsations of wind-velocity components (V.M. Bovsheverov - Izvestiya Akademii nauk SSSR, Seriya, geofiz., no. 6, 1960; A.S. Gurvich - Akust. zh., no. 5, 1958), acoustic converters developed to eliminate errors associated with the formation of a zone of reduced velocity in the wind shadow of acoustic converters (V.M. Bovsheverov - Vestn. AN SSSR, no. 9, 56-60, 1961), acoustic thermometers based on the known relationship between the velocity of sound and temperature (M.I. Mordukhovich -

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

Instruments for ....

S/506/62/000/004/002/005
E032/E314

Izv. AN SSSR, seriya geofiz., no. 3, 1959) and a pulsation micro-thermometer incorporating a 20 μ platinum or tungsten wire thermometer and ensuring automatic measurement of the mean temperature of air (L.P. Tsvang - Izv. AN SSSR, seriya geofiz., no. 8, 1960). The second set of instruments, which are concerned with the analysis of these measurements, includes a low-frequency analyser for the measurement of frequency spectra and a "correlometer" which is used to determine correlation functions of two random quantities and the variance of a random quantity from the mean. There are 9 figures.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.

Turbulent flow of the quantity of motion in unsteady stratification and under conditions approaching neutral equilibrium.
Trudy Inst.fiz.atm. no.4:81-100 '62. (MIRA 15:12)
(Atmospheric turbulence)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.

Spectra of fluctuations of the vertical wind velocity component and their relation with micrometeorological conditions. Trudy Inst.fiz.atm. no.4:101-136 '62. (MIRA 15:12)
(Micrometeorology) (Winds)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.; KRAVCHENKO, T.K.

Frequency spectrum of small-scale temperature fluctuations. Trudy Inst.fiz.atm. no.4:144-146 '62. (MIRA 15:12)
(Atmospheric temperature)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.; ZUBKOVSKIY, S.L.

Experimental estimation of the fluctuations in the dissipation of turbulent energy. Izv. AN SSSR. Ser. geofiz. no.12: 1856-1858 D '63. (MIRA 17:1)

1. Institut fiziki atmosfery AN SSSR.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 15184-65 EWT(1)/EWG(v)/FCC/EEC(t) Pe-5/Pi-4 AEDC(a) GW
ACCESSION NR: AP4048273 S/0141/64/007/004/0790/0792

AUTHORS: Gurvich, A. S.; Kon, A. I.

TITLE: Dependence of flicker on the dimensions of the light source

SOURCE: IVUZ. Radiofizika, v. 7, no. 4, 1964, 790-792

TOPIC TAGS: star flicker, size effect, planet flicker

ABSTRACT: To check on the hypothesis that the smaller flicker observed for planets than for stars is due to the fact that the latter subtend a smaller area, measurements were made with artificial light sources in August 1963, in the region of Tsimlyanskiy, in an open steppe. The source was a mercury lamp in the focus of an objective with focal distance 200 mm. The lamp was fed with a 2500 cps voltage to produce a 5000 cps modulation of the light and to permit the source light to be separated from the scattered daylight background. The light receiver was an FEU-17 photomultiplier 250 m away from the

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 15184-65
ACCESSION NR: AP4048273

source. The light beam traveled 2 meters above the ground. The tests were made in daylight, when the underlying ground temperature was high and the resultant turbulent fluctuation producing the flicker exceeded all other noise. The method used to separate the flicker from all other light is described. The results showed that the flicker does decrease with decreasing source size in a manner that agrees with the theoretical deductions of A. I. Kon and V. I. Tatarskiy (Izv. vy*ssh. uch zav. -- Radiofizika v. 7, 306, 1964). Orig. art. has: 1 figure.

ASSOCIATION: Institut fiziki atmosfery* AN SSSR (Institute of Atmospheric Physics, AN SSSR)

SUBMITTED: 12Feb64 ENCL: 00

SUB CODE: AA, OP NR REF SOV: 002 OTHER: 000

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APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 34960-65 EWT(1)/FCC GW

ACCESSION NR: AP5007597 S/0362/65/001/001/0055/0065 13

AUTHOR: Gurvich, A. S.

TITLE: Vertical temperature and wind velocity profiles in the atmospheric surface layer

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 1, 1965, 55-65

TOPIC TAGS: temperature profile, wind velocity profile, vertical heat flux, turbulent heat flux, atmospheric physics, atmospheric surface layer, turbulent heat exchange

ABSTRACT: As a result of treating measurements of vertical temperature and wind velocity profiles taken simultaneously with pulse measurements of vertical turbulent heat flux and momentum, universal functions are derived for these profiles. A satisfactory agreement between experimental data and results obtained by similarity theory is noted. "In conclusion, the author expresses profound thanks to A. S. Monin and A. M. Yaglom, without whose support the work could not have been completed, to L. P. Tsvang, who took part in the measurements and discussion of the results, and to M. L. Mordukhovich who participated in the measurements

Card 1/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 34960-65
ACCESSION NR: AP5007597

in 1963. Orig. art. has: 8 figures and 11 formulas.

ASSOCIATION: Institut fiziki atmosfery, Akademiya nauk SSSR (Atmospheric physics institute, Academy of sciences, SSSR)

SUBMITTED: 17Jul64 ENCL: 00 SUB CODE: ES

NO REF SOV: 014 OTHER: 002

Card 2/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 64961-65 EWT(1)/FCC GW

ACCESSION NR: AP5021866 UR/0362/65/001/008/0797/0802
532.517.4

AUTHOR: Gurvich, A. S.; Zubkovskiy, S. L.

TITLE: Measurement of the fourth and sixth correlational moments of velocity gradient

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 8, 1965, 797-802

TOPIC TAGS: gas dynamics, atmospheric turbulence, wind velocity, acoustic anemometer

ABSTRACT: Measurements were made of the spectra of the square and cube of the horizontal gradient of the vertical component of wind velocity to amplify presently held concepts of turbulent flow and to provide data with which to check theoretical constructions. The theory developed treats atmospheric turbulence as a random process characterized by pronounced intermittent phases. Field tests involved measurements made at a height of 4 m above a flat area of an open steppe, using an acoustical anemometer. The equipment and methods used are described, and the theoretical con-

Card 1/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 64963-65

ACCESSION NR: AP5021866

3

siderations involved are analyzed. The results obtained are investigated in detail and are found to agree with the proposed theory. Orig. art. has: 4 figures and 1 table. [SP]

ASSOCIATION: Institut fiziki atmosfery, Akademiya nauk SSSR (Institute of Physics of the Atmosphere, Academy of Sciences, SSSR)

SUBMITTED: 26Mar65 ENCL: 00 SUB CODE: ES

NO REF SOV: 010 OTHER: 000 ATD PRESS: 4083

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 3986-66 EWT(1)/FCC GW

ACCESSION NR: AP5022795 UR/0141/65/008/004/0717/0724
535.3:551.51

AUTHOR: Gracheva, M. Ye.; Gurvich, A. S.
44,55 44,55

TITLE: Strong intensity fluctuations of light propagating through the surface layer of the atmosphere

SOURCE: IVUZ. Radiofizika, v. 8, no. 4, 1965, 717-724

TOPIC TAGS: atmospheric turbulence, atmospheric optics, light radiation.
12,44,55

ABSTRACT: The authors investigated the flickering of a land-based light source near the earth's surface under daytime conditions. The fluctuations of the light intensity were studied as functions of the meteorological conditions and of the distance covered by the light in the turbulent atmosphere. The measurements were made in the summer of 1963 at the Tsimlyansk Scientific Station of Institut fiziki atmosfery (Institute of Physics of the Atmosphere) AN SSSR. The light source was a 250 watt mercury lamp fed from a 2500 cps source and placed in the focus of an objective, the output of which was a weakly -divergent beam modulated at 5000 cps. Modulated light was used to eliminate the effect of the unmodulated scattered

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L 3986-66

ACCESSION NR: AP5022795

sunlight and to simplify the receiving apparatus. A photomultiplier operating in conjuction with a narrow-band amplifier and an integrating voltmeter served as the receiver. The measurements were made over a section of steppe with level ground. The receiver was located 125, 250, 500, 1000, and 1750 meters from the source. The allowance for the meteorological conditions was made by plotting periodic temperature and wind-velocity profiles of the atmosphere and introducing appropriate corrections in the values used for the refractive index. The measured flicker intensity was compared with the theoretical deductions of V. I. Tatarskiy (Teoriya fluktuatsionnykh yavleniy pri rasprostranenii voln v turbulentnoy atmosfere [Theory of Fluctuation Phenomena in the Propagation of Waves in the Turbulent Atmosphere], AN SSSR, 1959) by plotting the measured rms fluctuation against the theoretical value obtained in the first approximation of smooth perturbations. In the case of weak flicker, the rms fluctuation is proportional to $L^{11/6}$, in agreement with Tatarskiy's theory. In the case of strong flicker, the dependence on the distance and on the meteorological conditions is weaker than for weak fluctuations, and the actual rms fluctuations never exceed an approximate value 1.6. "The authors thank V. I. Tatarsiy for valuable advice, and V. M. [illegible] for help with the measurements [illegible]androv, M. A. Vorob'yev, [illegible] data reduction." [illegible]

Card 2/3

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 3986-66

ACCESSION NR: AP5022795

44 55 44 55 44 55 12

Aleksandrov, M. A. Vorob'yev, and Ye. I. Ivanova for help with the measurements and data reduction." Orig. art. has; 7 figures and 3 formulas. [02]

ASSOCIATION: Institut fiziki atmosfery AN SSSR (Institute of Physics of the Atmosphere, AN SSSR) 44,55

SUBMITTED: 20Nov64 ENCL: 00 SUB CODE: ES, OP

NO REF SOV: 009 OTHER: 003 ATD PRESS: 4120

Card 3/3

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 15300-66 EWT(1) GS/GW

ACC NR: AT6003707 SOURCE CODE: UR/0000/65/000/000/0032/0039

AUTHORS: Bovsheverov, V. M.; Gurvich, A. S.; Kallistratova, M. A.

ORG: none

53
51
B+1

TITLE: Flickering of the image of an artificial light source in the surface layer of the atmosphere

SOURCE: AN SSSR. Astronomicheskiy sovet. Opticheskaya nestabil'nost' zemnoy atmosfery (Optical instability of the earth's atmosphere). Moscow, Izd-vo Nauka, 1965, 32-39

TOPIC TAGS: atmospheric turbulence, atmospheric refraction, wind velocity, temperature gradient, free atmosphere

ABSTRACT: Apparatus used for measuring fluctuation of wave fronts was described previously by the authors (Izv. vysh. uch. zav., Radiofizika, 4, No. 5, 1961). Measurements were made at night in August of 1960 at the Tsimlyanskaya nauchnaya stantsiya Instituta fiziki atmosfera (Tsimlyanskiy Scientific Station of the Institute of Atmospheric Physics). Directed light sources (projectors) were set up at distances of 125, 250, 500, 1000, and 2000 m. The angle of light was about 2". Average values for 10 minutes were used. Flickering was measured, and vertical profiles of wind velocity and temperature were determined to a height of 12 m. The dependence of flicker dispersion on height was determined. Measured and computed values of this

Card 1/2

2

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L 15308-66

ACC NR: AT6003707

2

dispersion were compared and found to be in good agreement. The authors show that the vertical distribution of average wind velocities and of temperature in the surface layer of the atmosphere may be used to compute reliably the amount of flicker by means of the theory advanced by V. I. Tatarskiy (Teoriya flyuktuatsionnykh yavleniy pri rasprostranenii voln v turbulentnoy atmosfere. Izv. AN SSSR, M., 1959). To make comparable computations when the ray passes through the entire atmosphere, it is necessary to know the relationship of C_n (the structural constant of the refractive index n) to dT/dz and du/dz (T is the Kelvin temperature, u the wind velocity, and z the height) in the free atmosphere, in addition to the vertical profiles of wind velocity and temperature. These relationships are now being investigated by L. R. Tsvang (Izv. AN SSSR, ser. geofiz., 10, 1963). Measurements confirm the view that the mean square fluctuation of the angle of light-wave incidence is proportional to the distance of turbulent medium through which the light passes. The fluctuation spectrum of the incident angle agrees satisfactorily with theoretical computations on the basis of the Kolmogorov-Obukhov turbulence theory, and it supports the validity of the "frozen turbulence" hypothesis. The dimensionless spectra of incident-angle fluctuation of light and sound waves are rather similar. Orig. art. has: 4 figures and 8 formulas.

SUB CODE: 04/ SUBM DATE: 15May65/ ORIG REF: 008

Astronomy 12,55

Card 2/2 mc

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 40846-66 EWT(1) GW

ACC NR: AP6011372 (N) SOURCE CODE: UR/0362/66/002/003/0305/0307

35
B

AUTHOR: Gurvich, A. S.; Yegorov, S. T.

ORG: Institute of Atmospheric Physics (Institut fiziki atmosfery)

TITLE: Determination of the temperature of the ocean surface by its thermal radio emission

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 3, 1966, 305-307

TOPIC TAGS: ocean property, radio emission, temperature measurement

ABSTRACT: The results of an experimental check of the possibility of determining the temperature distribution of the ocean surface from an aircraft on the basis of its radio emission are given. Formulas are given for the antenna temperature of the radio emission receiver, brightness temperature of the radiating surface, and depth of penetration of centimeter waves into the oceanic water. The greatest divergence between the values of measuring the water temperature directly from ships and those determined from an aircraft did not exceed 1.5—2.5C at a temperature contrast of about 10—12C. The results of the experiment confirm the possibility of aircraft determination of temperature distribution and the detection of ice on the surface from its radio emission. The author thanks N. V. Roslov and D. T. Matveev who participated in the measurements. Orig. art. has: 2 figures and 4 formulas. UDC: 551.521.2

MLP

Card 1/1 SUB CODE: 08, 09/ SUBM DATE: 23Oct65/ ORIG REF: 005/ OTH REF: 001

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 05420-67 EWT(1) GW

ACC NR: AP6019517 SOURCE CODE: UR/0362/66/002/002/0202/0204

25

AUTHOR: Gurvich, A. S.; Zubkovskiy, S. L.

ORG: Institute of Physics of the Atmosphere, Academy of Sciences SSSR (Akademiya nauk SSSR, Institut fiziki atmosfery)

TITLE: Estimation of the structural characteristics of atmospheric temperature pulsations

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 2, 1966, 202-204

TOPIC TAGS: atmospheric temperature, lower atmosphere, atmospheric stratification

ABSTRACT: The article gives preliminary results of the calculation of the atmospheric structural constant C_T^2 by two methods: from equation (1),

$$C_T^2 = a^2(\mathrm{Ri})\varphi_T(\zeta)[\varphi_v(\zeta) - \zeta]^{1/2}. \quad (1)$$

where $\phi_V(\zeta)$ and $\phi_T(\zeta)$ are universal functions of the dimensionless argument ζ characterizing stratification conditions, and $a^2\mathrm{Ri}$ is a universal function calculated by L. R. Tsvang (Trudy

Card 1/2 UDC: 551.524.4:532.517.4

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L 05420-67

ACC NR: AP6019517

IFA AN SSSR, No. 4, 1962) from the atmospheric temperature pulsation spectra, and from equation (2),

$$F = -\frac{4}{3C_T^2}\left(-\frac{5}{4}s\right)^{1/2}, \qquad (2)$$

where F is a dimensionless function of structural functions, $D_{TT}(\rho)$, $D_{1TT}(\rho)$, of the atmospheric temperature field. The values of C_T^2 obtained by Eqs. 1 and 2 were ≈2.7 and ≈3.5, respectively. Temperature pulsation recordings synchronized with wind-velocity horizontal component recordings were used to determine F, with observation pickups closely spaced at a height of 2 m. Both formulas are considered usable in conditions of these measurements. Because of the insufficient number of observations, the results obtained with Eq. 2 appear to be less accurate, even though this formula is fundamentally more accurate than Eq. 1. These results compare with those given by C. H. Gibson and W. H. Schwarz (J. Fluid Mech., 16, No. 3, 1963) and K. Takeuchi (J. Meteor. Soc. Japan. ser. II, 40, No. 3, 1962). The authors express their deep gratitude to A. M. Yaglom for valuable advice and comments made in the course of this work. Orig. art. has: 10 formulas, 1 table, and 1 figure.

SUB CODE: 04/ SUBM DATE: 03Jul65/ ORIG REF: 010/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

USSR/Medicine-Nervous System, Physiology Nov/Dec 48
Medicine-Nerves, Sensory

"Heterogenous Innervation of the Mandibular Salivary Glands," A. S. Gurvich, Lab of Neurohistol imeni B. I. Lavrent'yev, Inst of Normal and Path Morph Acad Med Sci USSR, 11½ pp

"Iz Ak Nauk SSSR, Ser Biol" No 6 p 641

Describes experiments on dogs and rabbits. Motor (sublingual) and sensitive (lingual) nerves were sutured directly to tissue of normal mandibular salivary gland. Fibers, both afferent and efferent, grew into the gland and formed endings in the glandular cells. Discusses results. Submitted 31 Jan 48.

49/49T69

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.

"Dislocation Syndromes Due to Tumors in the Occipital Lobes," Vop. Neyrokhirurgii, 12, No. 1, 1948, Neurol. Sec Inst. of Neurosurg. Acad. Med. Sci. USSR,.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A. S.

USSR/Medicine - Neurohistology
Medicine - Dysentery, Toxin

Jan/Feb 49

"Changes in Some of the Nodes of the Peripheral Nervous System Caused by the Toxic Action of the Shiga-Kruse Bacillus," A. S. Gurvich, Lab of Neurohistol, Inst of Normal and Path Morph, Acad Med Sci USSR, 5 pp

"Arkhiv Patologii" Vol XI, No 1

Describes experiments on dogs. Various doses of dysentery toxin were injected into the blood, causing changes in the sympathetic ganglia (upper cervical and stellate ganglia) and also in the gl. nodusum n. vagi. When large doses of toxin are

42/49T58

USSR/Medicine - Neurohistology (Contd) Jan/Feb 49

administered, a sharp difference can be seen in the reaction of sympathetic ganglia and gl. nodosum cells. Discusses phenomena and states conclusions, with two photographs.

Translation M-679, 1 aug 55

42/49T58

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GAVRILOVA, K.I. [deceased], ROMANOVA, L.S., GURVICH, A.S.

Protein synthesis and muscle function in a defect filled with minced muscle tissue. Eksper.khir. 3 no.4:14-20 Jl-Ag '58 (MIRA 11:9)

1. Iz Instituta khirurgii imeni A.V. Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR i laboratorii neyrogistologii imeni V.I. Lavrent'yeva Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.

(MUSCLE, transpl.
implant of minced musc. tissue in defect, postop. musc. funct. & protein synthesis in rabbits (Rus))
(PROTEINS, metab.
synthesis after implants of minced musc. tissue in musc. defects in rabbits (Rus))

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S

20-3-49/59

AUTHOR: Gurvich, A. S.

TITLE: Compensatory Modifications Observed in Nerve Elements of the Uterus During Pregnancy (Kompensatornyye izmeneniya nervnykh elementov matki pri beremennosti)

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 3, pp. 588 - 591 (USSR)

ABSTRACT: In the course of his studies for several years of the sensible innervation of the female genitals the author met with contradicting opinions of researchers on the reaction of the afore-said nerve elements on the transformation of the uterus during pregnancy. Part of the authors maintain, that the nerve tissues in the pregnant uterus not only grow and ramify, but that they also increase in thickness (references 6, 13, 15). Other authors only announce a more abundant supply with nerves of the musculature (reference 8). A short review of publications is given (references 2, 5). For the purpose of obtaining the position of the tissue structures of the uterus as true to living conditions as possible, the author extracted the latter together with the vagina and fixed them.

Card 1/5

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

20-3-49/59

Compensatory Modifications Observed in Nerve Elements of the Uterus During Pregnancy

The material was supplied by cats: In the early, medium and late stages of pregnancy and on the first day after birth. Efferent and afferent nerve tissues could be found both in non-pregnant animals, and in animals in various stages of pregnancy. This applies to the linking points of the placenta and to intermediary points. According to the observations of the author the state of the nerve elements of the uterus is not the same within different periods of pregnancy. In the early stages small and delicate varicose thickenings are noticeable in the course of the thin narrowless fibers situated in thin nerve bundles. The thickenings are placed at about equal distances from one another (figure 1). They are not a specific feature of this state, but appear also in the vagina and even elsewhere in very young animals. Towards the second half of pregnancy these fibers disappear gradually. They differ from the thickenings of the nerve fibers, which appear because of pathological processes or because of stimulations. Contrary to expectations less sensible fibers with stimulation phenomena were found in the pregnant uterus, than in animals which were not pregnant. Therefore these phenomena.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

20-3-49/59

Compensatory Modifications Observed in Nerve Elements of the Uterus During Pregnancy

are not directly connected with pregnancy. The receptors take considerably more space in the pregnant uterus because of their ramifications, than in the not pregnant one. They are, so to say, expanded in the hypertrophated basic substance. A compact frutex (kustiki) was never observed in the pregnant uterus, as it were found in a not pregnant one. The following remarkable modifications occur mainly at the sensible fibers at later the periods of pregnancy: A peculiar meandering of single sections, alternating with straight parts (figures 2, 3). The author disproves the three current opinions that this is the reserve for expansion, or the result of a pathological stimulation, of a contraction of the organ. According to his opinion this meandering is a result of the intensive growth of the fiber in certain sections (figure 3). Besides, collateral growth was observed in a few animals, that is to say, thin ramifications departing from the main stem. The thin ramifications carry so-called growth cones at their ends (konusy rosta) (figure 4). Part of the numerous ramifications, being superfluous, is supposed to perish. The above-mentioned

Card 3/5

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

20-3-49/59

Compensatory Modifications Observed in Nerve Elements of the Uterus During Pregnancy

transformation of the innervation structures is not accompanied by modifications of their calibre. Fibers of any possible thickness exist in a pregnant or non-pregnant uterus. From this can be concluded that the afferent as well as the efferent fibers grow in length parallel to the increase in size of the organ. The sensitiveness of the pregnant uterus increases with progressing pregnancy (references 1, 3). It may be assumed, therefore, that the meandering of the fibers of the pregnant uterus is an expression of the adaption to a new state, and is connected with an increase of the sensitiveness of receptors. According to physiological data (references 14, 17) the nerve endings must possess a sufficiently great surface, which is able to accumulate the amount of energy necessary for the impulse formation. The meandering sections of the receptors increase the surface and contribute to the lowering of the sensitive threshold of the receptor. There are 4 figures, and 17 references, 7 of which are Slavic.

Card 4/5

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

20-3-49/59

Compensatory Modifications Observed in Nerve Elements of the Uterus During Pregnancy

ASSOCIATION: Institute for Normal and Pathological Physiology of the Academy of Medical Sciences USSR (Institut normal'noy i patologicheskoy fiziologii Akademii meditsinskikh nauk SSSR)

PRESENTED: August 15, 1957, by I. I. Shmal'gauzen, Academician

SUBMITTED: Agust 13, 1957

AVAILABLE: Library of Congress

Card 5/5

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.

Histochemical study of cholinesterase in the intramural nervous apparatus of the mammalian stomach, duodenum and uterus. Trudy Inst. norm. i pat. fizial. AMN SSSR 6:91-93 '62 (MIRA 17:1)

1. Laboratoriya neyrogistologii imeni B.I.Lavrent'yeva(zav.-prof. Ye.K. Plechkova) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S.

Spectra of vertical turbulent streams in the ground layer of the atmosphere. Izv. AN SSSR. Fiz. atm. i okean. 1 no 7: 764-766 Jl '65. (MIRA 18:8)

1. Institut fiziki atmosfery AN SSSR.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

Be

A - 4

Chemistry of [illegible] radiation of blood. A. [illegible] Physiol., 1962, 28, 495—[illegible] blood [illegible] (I) of [illegible] ated [illegible] associ- with dismutation of [illegible] acid, and [illegible] R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3rd and 4th orders

Bc

Polymerisation processes induced by mitogenetic radiation. A. Gurwitsch and L. Gurwitsch (Acta Physicochim. U.R.S.S., 1939, 10, 711—718).—When a freshly prepared 10% peptone (I) solution is irradiated with mitogenetic radiation a substance is produced which reacts with gastric juice, whilst the original (I) does not. If the peptone solution is shaken with kaolin, the latter separated, and the solution is then irradiated, the same effect is obtained, but if the shaking with kaolin is carried out after the irradiation, there is no effect. The absorption of irradiated (I) in the range 2000—2400 A. is considerably > that of the original substance. These phenomena point to the formation of a polymeride under the influence of the radiation. The concn. of the polymeride, within certain limits, ∝ that of the original peptone solution. The polymerisation of a dipeptide (glycylglycine) by mitogenetic radiation was also investigated. After irradiation the product had no effect on gastric juice, but a positive effect was obtained after the addition of a small amount of serum-albumin.

A. J. M.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

BC

Explanation of mitogenetic radiation as "sensitised fluorescence." A. GURWITSCH and L. GURVITSCH (Acta Physicochim. U.R.S.S., 1939, 10, 719—724).—Frankenburger's theory, that energy made available in org., and particularly fermentation, reactions taking place by intermediate formation of atoms and radicals, can be used to excite mols. of other substances present giving rise to mitogenetic radiation, has been confirmed experimentally. When glycine, previously irradiated, was mixed with glucose undergoing fermentation, the characteristic glucose bands at 1900—1905 and 1915—1920 A. were excited. No fermentation product could act as the receptor in this case. Na^{+} and Cl^{-} can act as receptors. The bearing of these results on mitogenetic spectral analysis is discussed.

A. J. M.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

PROCESSES AND PROPERTIES INDEX

BC

A1

Mitogenetic emission spectra of radicals. A. Gurvitsch and L. Gurvitsch (*Acta Physicochim. U.R.S.S.*, 1940, 13, 677—682).—OH radicals produced photochemically from H_2O_2 can be excited by mitogenetic radiation in systems containing yeast or $CO(NH_2)_2$ + urease, giving an emission band at λ 3080—3100 A., corresponding with the strongest obtainable by thermal treatment. An emission band at 2030—2040 A., obtained from $COMe_2$ in similar systems, is attributed to the ·CO· radical. F. L. U.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

BC

Quenching and inhibition of mitogenetic radiation. A. Gurvitsch and L. Gurvitsch (*Acta Physicochim. U.R.S.S.*, 1940, 12, 683—689).—All sol. substances which absorb in the ultra-violet can act as quenchers of every kind of mitogenetic radiation. They include not only As, I, quinine, etc., but also substances of undetermined nature that are produced by the external radiation; these latter are responsible for the rapid "fatigue" exhibited by yeast cultures, as shown by the fact that a fresh yeast culture to which a small proportion of a "fatigued" culture has been added is thereby rendered useless. Inhibitors differ from quenchers in affecting only the radiation induced by exothermic chemical reactions, including decomp. by enzymes. They are used up in the process of inhibition, and in no way disturb the course of the accompanying fermentative change. The no. of mols. of inhibitor taking an active part in inhibition is very small compared with that of the enzyme or substrate mols. taking part in the enzyme reaction. F. L. U.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3C

A-1

Polymerization processes induced by mitogenetic radiation. II. Influence on amino-acids and production of a "deaminase" by irradiation. A. Gurvitsch and L. Gurvitsch (*Acta Physiochim. U.R.S.S.*, 1940, [illegible], 690—696; cf. A., 1939, I, [illegible]).—The term "deaminase" is used to indicate the mode of action rather than the chemical nature of a substance (I) of high mol. wt. that is formed during the irradiation of aq. glycine. The probable sequence of reactions leading to the formation of (I) is discussed. This formation follows, but is not dependent on, the primary dissociation of the glycine mol., which is confined to the fission of OH. The presence of O_2, though essential to the production of NH_3 by the action of (I) on glycine, is not needed for the formation of (I). The energy of polymerization of the active monomerides that constitute the mole of (I) amounts to 71—76 kg.-cal., and may be available for the activation of the deamination process. P. L. U.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

BC

A 7

Mitogenetic spectrum analysis by the selective scattering method. A. Gurvitsch and L. Gurvitsch (*Acta Physicochim. U.R.S.S.*, 1945, 20, 635—644).—In addition to selective absorption and fluorescence, the spectral composition of scattered light is determined by "chemi-fluorescence," *i.e.*, a fluorescence related to photochemical processes occurring in the substance irradiated. The existence of chemi-fluorescence has been demonstrated by mitogenetic analysis of the scattering spectrum of cholesterol, a culture of yeast on agar being used as a biological detector. The val. of the method, due to its high sensitivity, in detecting the presence of org. groups in complex mols. is illustrated (cf. A., 1946, III, 587). C. R. H.

U.S.S.R. METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A. Ye. and POLEZHAYEV, L. V.

"The Influence of Colchicine on the Regeneration of Organs in Tailless Amphibia," Dokl. AN SSSR, 59, NO.5, pp 1013-1016, 1948

Inst. Cyt. Hist. & Embryol.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

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117

GURVICH, A-Ye

CA

Changes in the content of adenosinetriphosphoric acid, phosphocreatine, and mineral phosphorus in the cerebral cortex of the dog after stopping and restoring blood circulation in the brain. A. E. Gurvich, M. I. Levyant, and G. A. Erzina (Inst. Biol. Med. Chem., Acad. Med. Sci., Moscow). *Biokhimiya* 15, 541-7(1950); cf. Kerr and Seraidarian, *C.A.* 37, 921[9].—The main change in the adenosinetriphosphate (ATP) content of dog brain cortex occurs 5 min. after death, when the drop is 51-78%. Only about 10% of the initial ATP remains 25-30 min. after death. When the blood circulation of the central nervous system is restored, the brain partially regains its function, and the ATP and phosphocreatine are resynthesized in the brain cortex to the normal level. This even occurs 30 min. after the clinical death of the dog. The phosphocreatine content of dog brain cortex decreases during agony to 65% of the normal value, but gradually rises after death, until, 30 min. later, the phosphocreatine reaches 94% of normal. P metabolism in the brain differs from that of muscle tissues. Phosphocreatine participates in the brain enzymic activity by some path other than through ATP. H. P.

Hygiene Lib

(BA- A III Ja '53: 74)

1951

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A. Ye.

The restorative effect of adenosinetriphosphoric acid on the activity of the heart under anaerobic conditions. F. B. Babskii, A. E. Gurvich, and G. A. Erzina. *Doklady Akad. Nauk S.S.S.R.* 76, 231-4(1950).—Isolated frog heart was used. A detailed description and a schematic drawing are presented of the chamber used for keeping the frog heart and maintaining anaerobic conditions during various exptl. steps. The Ringer soln. and chamber were satd. with N_2. In part of the expts. the Straub method for the study of isolated frog heart was used. Results were recorded kymographically. Twenty-three expts. were performed. Under anaerobic conditions the activity of the heart gradually weakened and the contraction amplitude was lowered after 8-20 min. In two expts. the heart activity completely ceased in 35 min. Occasionally fresh Ringer soln. (satd. with N_2) restablished the automatic heart contractions. When heart contractions finally stopped, the Ringer soln. was replaced by 10^{-5} - 10^{-4} soln. of adenosinetriphosphoric acid (ATP). This caused a resumption of heart activity, the contraction amplitude being of a magnitude greater than that of the original control. Unless the ATP soln. was refreshed heart activity gradually grew fainter and stopped after 8-15 min. Renewal of or perfusion by ATP soln. again reawakened the heart activity, but not to the same height. Such renewed heart activity lasted for 3.5 hrs. In speculating on the possible mechanism of action of ATP two theoretical possibilities are offered.

B. S. Levine

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A. YE.

USSR/Medicine - Blood Substitutes Nov/Dec 53

"Utilization by the Organism of a Protein Preparation, Nonanaphylactic Serum 24(I), on its Intravenous Administration," N.A. Fedorov, A.Ye. Gurvich, V.M. Rodionov, B.I. Khodorov, Lab of Norm and Pathol Physiol, Inst Biol and Med Chem, Acad Med Sci USSR, Moscow

Vop Pit, Vol 12, No 6, pp 16-21

I is a heterogenous serum which has been treated chemically in order to remove its anaphylactogenic properties. This serum is to be used for parenteral nutrition. It can also be used as a

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protein blood substitute. Testing on dogs showed that I is harmless and furnishes good protein nutrition. Rapid administration of excessive doses leads to disturbances in the functioning of the liver and kidneys, however.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A. E.

Chem Abs
V. 48 25 Jan 54

Biological Chem

(4)

Activation of heat-denatured serum albumin. K. I. Strachitskii, K. E. Firfarova, and A. B. Gurvich (Lab. Albumin Chem., Acad. Med. Sci. U.S.S.R., Moscow). *Biokhimiya* 18, 306-10(1953).—Changes in the structure of heat-denatured serum albumin are unstable and are easily reversed. It is, however, easy to stabilize (fix) them, owing to the consequent aggregation of serum albumin mols., which in their denatured state possess a heightened inter-reactivity leading to the formation of comparatively stable bonds. Horse serum albumin heated at pH 3.0 becomes denatured. Upon cooling it is reconverted to the original native albumin. Similarly, heated and denatured serum albumin will coagulate upon slight alkalinization, while it is still warm. Upon further addn. of alk. soln. such denatured and coagulated serum albumin becomes reconverted to its original state as a result of disaggregation (depolymerization) of the coagulum. B. S. Levine

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.(Moscow).

Fate on intravenously injected protein. Usp.sovr.biol.37 no.1: 94-113 Ja-F '54. (MLRA 7:2)
(Protein metabolism) (Injections, Intravenous)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.

Studying serum proteins by filter paper electrophoresis. Lab.delo no.3:3-9 My-Je '55. (MLRA 8:8)

1. Iz laboratorii fiziologicheskoy khimii (zav.-prof. S.Ya.Kaplanskiy) Instituta biologicheskoy i meditsinskoy khimii (dir.-deystvitel'nyy chlen AMN SSSR V.N. Orekhovich) AMN SSSR.

(BLOOD PROTEINS, determination
electrophoresis)
(ELECTROPHORESIS
of blood proteins)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

Gurvich, A.E.

The identification of protein antigens by the method of paper chromatography. A. E. Gurvich (Inst. Biol. and Med. Chem., Acad. Med. Sci. U.S.S.R., Moscow). *Biokhimiya* 20, 550-3(1955).—A paper chromatographic method is described which enables the recognition in a mixed soln. of a specific protein and the identification of protein spots on paper chromatograms or paper electrograms. The method is based on the principle of antigen-antibody immunospecificity. Accordingly a ppt. is formed when successively a protein under study and its homologous antiserum are deposited on the same spot of the filter paper. Upon the application of appropriate solvent or solvents according to known chromatographic procedures all constituents of the ingredients deposited on the paper spot, except the pptd. antigen-antibody complex, wash away. The chromatographic chamber of the usual type can be employed. A special micropipet for the deposition of 0.007-0.030 ml. is described. Five or more such pipets are required per expt., and the paper must be appropriately selected. As the solvent, a buffer soln. was used consisting of Na veronal and HCl or of KH_2PO_4 and borax of pH 9.2. A buffer soln. of a high pH in an alk. medium tends to reduce the non-specific adsorption of the proteins by the filter paper. The chromatograms were developed by the following mixt.: Bromophenol blue (indicator quality) 0.05 g.; $HgCl_2$ 1.0 g.; glacial AcOH 2.0 ml.; distd. H_2O 95.0 ml. Excess of the dye is washed away by 2% AcOH, after which the chromatogram is air dried. One half to 1.0 γ of the antigen or 10-20 γ of the antibody can produce well defined spots. Procedures are described so that this chromatographic method can be adopted to the quant. protein det. Results obtained coordinated well with those obtained in parallel electrophoretic tests.

B. S. Levine

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A. Ye.

Relation between the formation of specific and non-specific serum γ-globulins. A. E. Gourvitch (Acad. Med. Sci., Moscow). *Clin. Chim. Acta* 1, 101–14(1956)(in English).—The specific (I) and nonspecific (II) γ-globulin content in rabbits is altered following injection of horse serum with no inhibition of II formation even at the point of highest I production. No I discharge occurs during secondary immunization, although there is intense neo-formation. The formation of I is not linked with the transformation of II to I nor with a change of synthesis of II.

John F. Lhotka

1

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

SOKOLOV, A.A.; VLASENKO, V.I.; GURVICH, A.Ye.; STAROSEL'TSEVA, L.K.

Photoelectric densitometer and its use in evaluating the results of paper electrophoresis. Vop.med. khim. 2, no.3:222-228 My-Je '56. (MLRA 9:10)

1. Inzhenerno-fizicheskiy institut i Laboratoriya fiziologicheskoy khimii Instituta biologicheskoy i meditsinskoy khimii AMN SSSR, Moskva.

(ELECTROPHORESIS, apparatus and instruments, densitometer, photelectric (Rus))

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH A.E.

nitrogen balance and the regeneration of serum pro

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.E.

A study of the serum proteins in ontogenesis by the combined electrophoresis-precipitation method. A. E. Gurvich and N. G. Karmevskaya (Inst. Biol. and Med. Chem., Acad. Sci. U.S.S.R., Moscow). *Biokhimiya* 21, 746-54 (1956). — The serum of rat embryos contained some proteins which were identical with the proteins of adults as regards their electrophoretic mobilities. The rat embryo serum also contained specific embryonic proteins with different electrophoretic mobilities, such as prealbumin and β-globulin. [illegible] of the proteins of the rat embryo which were electr[illegible] identical with the proteins of adults differ[illegible] [illegible] [illegible]. In the course of the [illegible] these proteins were gradually replaced [illegible] of the adult type of electrophoretic and immuno[illegible] [illegible]. The proteins of the embryo which were [illegible] the proteins of adult rats appeared in the following [illegible] globulins came first (in embryos weighing 0.30 [illegible] these were followed by the appearance of the β-glob[illegible] in embryos weighing 1.8 g; then came the [illegible] on the eve of their birth); and finally the α-glob[illegible] the newborn rats.

R. S. Levine

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye. (Moskva)

Problem of the assimilation of the hydrolysate of protein-76.
Arkh. pat. 19 no.1:58-59 '57 (MLRA 10:4)

1. Iz laboratorii normal'noy i patologicheskoy fiziologii (zav.-prof. N.A. Fedorov) Instituta biologicheskoy i meditsinskoy khimii AMN SSSR

(PLASMA SUBSTITUTES, effects,
protein hydrolysates, eff. on dogs)
(PROTEINS,
hydrolysates as plasma substitute, eff. on dogs)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.; SMIRNOVA, N.P.

Changes in the aontent of antibodies and the intensity of the incorporation of glycine labeled with radioactive carbon into antibodies following immunization of animals with two antigens [with summary in English]. Biokhimiia 22 no.4:626-635 Jl-Ag '57. (MIRA 10:11)

1. Laboratoriya fiziologicheskoy khimii Instituta biologicheskoy i meditsinskoy khimii Akademii meditsinskikh nauk SSSR, Moskva.

(ANTIGEN AND ANTIBODY REACTION,
antibody level & inclusion of radiocarbocarbon labeled glycine after immun. with 2 antigens (Rus))
(GLYCINE, metabolism,
radiocarbon labeled, inclusion into antibodies after immun. of animals with 2 antigens (Rus))

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

EXCERPTA MEDICA Sec 4 Vol 12/4 Med. Micro. Apr 59

1125. QUANTITATIVE DETERMINATION OF THE ANTIBODY CONTENT BY MEANS OF PAPER-FIXED PROTEIN ANTIGENS (Russian text) - Gourvich A. E. Lab. of Physiol. Chem., Inst. of Biol. and Med. Chem., Acad. of Med. Scis of USSR, Moscow - BIOKHIMIYA 1957, 22/6 (1028-1034) Graphs 4 Tables 3 Illus. 1

A method of chemical fixation of protein antigens on filter paper is presented. To assay quantitatively the antibody content, immune serum was placed on paper with fixed antigen and a current of veronal buffer passed through the paper to wash out all proteins except the fixed antigen and the antibody combined with it. The amount of antibody in the serum on the paper was estimated from the protein increment n the paper at the site of application of the serum. In distinction to the antigen-antibody reaction in solution, the reaction between antibody and paper-fixed antigen involves no dissolution of the 'precipitate' by excess of antigen. This method is suitable for a quantitative assay of both precipitating antibodies and of those non-precipitating in solution. Thus, the content of Wassermann antibodies can be quantitatively determined.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.; KAPNER, R.B.

Quantitative determination of antibody content by the precipitation on paper. Lab.delo 4 no.2:23-26 Mr-Ap '58. (MIRA 11:4)

1. Iz laboratorii fiziologicheskoy khimii Instituta biologicheskoy i meditsinskoy khimii AMN SSSR.
(ANTIGENS AND ANTIBODIES)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

KAPLANSKIY, S.Ya.; GURVICH, A.Ya.; STAROSEL'TSEVA, L.K.

Comparative investigation of the electrophoretic and immunological properties of organ and serum proteins [with summary in English]. Biokhimiia 23 no.1:114-118 Ja-F '58. (MIRA 11:3)

1. Laboratoriya fiziologicheskoy khimii Instituta biologicheskoy i meditsinskoy khimii AMN SSSR, Moskva.
(PROTEINS,
electrophoretic & immunol. properties, comparison with serum proteins (Rus)
(BLOOD PROTEINS,
electrophoretic & immunol. properties comparison with proteins of various organs (Rus)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye., ISPOLATOVSKAYA, M.V.

Quantitative studies on antibodies in immune horse serum against Clostridium oedematiens with the aid of paper precipitation or antigen fixed on paper [with summary in English]. Biul.eksp.biol. i med. 45 no.5:79-83 My '58 (MIRA 11:6)

1. Iz laboratorii fiziologicheskoy khimii (zav. prof. S.Ya. Kaplanskiy) Instituta biologicheskoy i meditsinskoy khimii (dir. - deystvitel'nyy chlen AMN SSSR V.N. Orekhovich) AMN SSSR i otdela biokhimii (zav. - kand.med.nauk. V.A. Blagoveshchenskiy) Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei (dir. - prof. S.N. Muromtsev) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.N. Orekhovichem.

(CLOSTRIDIUM,
oedematiens, immune serum, determ. of antibodies (Rus))

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.; KAPNER, R.B.; NEZLIN, R.S.

Isolation of pure antibodies by the of antigens fixed on cellulose and the study of their properties [with summary in English]. Biokhimiia 24 no.1:144-156 Ja-F '59. (MIRA 12:4)

1. Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.
(ANTIGEN ANTIBODY REACTION
isolation of pure antibodies with antigens fixed on cellulose (Rus))

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.; OLOVNIKOV, A.M.

Comparison of antigenic properties of pure antibiotics and nonspecific gamma globulins. Biokhimiia 25 no.4:646-652 Jl-Ag '60. (MIRA 13:11)

1. Laboratory of Physiological Chemistry, Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.

(ANTIGENS AND ANTIBODIES)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, [illegible].YE., [illegible], [illegible] M., [illegible], K. N. (USSR)

"Differences between Antibodies and Non-Specific γ-Globulins."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.YE., [illegible], M. M., [illegible], M. V., [illegible], R. S. (USSR)

"The Isolation of Purified Antibodies and Study of their Properties."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.; ISPOLATOVSKAYA, M.V.; MYASOYEDOVA, K.N.

Determination and isolation of antidiphtherial antibodies with the aid of antigens fixed on cellulose. Vop. med. khim. 7 no. 1:55-61 '61. (MIRA 14:4)

1. Laboratoriya patologii obmena belkov i immunokhimii Instituta biologicheskoy i meditsinskoy khimii AMN SSSR i otdel biokhimii Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei, Moskva.

(DIPHTHERIA) (ANTIGENS AND ANTIBODIES)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.; GUVERNIYEVA, L.M.; MYASOYEDOVA, K.N.

Comparing the enzymatic hydrolysates of nonspecific gamma globulins and antibodies of rabbits. Biokhimiia 26 no.3:463-476 My-Je '61. (MIRA 14:6)

1. Laboratory of Pathology, of Protein Metabolism and of Immunochemistry, Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.
(GAMMA GLOBULIN) (ANTIGENS AND ANTIBODIES)
(PEPTIDES)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURAVICH, A.Ye.; KUZOVLEVA, O.B.; TUMANOVA, A.Ye.

Production of protein-cellulose complexes (immunosorbents) in suspensions with the capacity for binding large amounts of antibodies. Biokhimiia 26 no.5:934-942 S-O '61. (MIRA 14:12)

1. Laboratory of Pathology of Protein Metabolism and Immunochemistry, Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.
(SORBENTS) (ANTIGENS AND ANTIBODIES)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.; KUZOVLEVA, O.B.; TUMANOVA, A.Ye.

Use of immunosorbents in the form of suspensions for determining the absolute antibody content. Biokhimiia 27 no.2:246-251 Mr-Ap '62. (MIRA 15:8)

1. Laboratory of Pathology of Protein Metabolism and Immunochemistry, Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.
(ANTIGENS AND ANTIBODIES) (IMMUNOCHEMISTRY)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A. Ye.; DRIZLIKH, G. I.

Effect of antibodies present in the medium on the biosynthesis of similar antibodies by spleen cells. Dokl. AN SSSR 155 no. 2: 482-485 Mr '64. (MIRA 17:5)

1. Institut epidemiologii i mikrobiologii im. N. F. Gamaleya AMN SSSR. Predstavleno akademikom V. A. Engel'gardtom.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.

"The significance of repressive factors in inductive phase."

Report to be submitted for the 2nd Symposium on the Molecular and Cellular Basis of Antibody Formation, Prague, Czechoslovakia, 1-5 Jun 64.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.

Obtaining pure antibodies and determining absolute quantities of antibodies in serums with the help of antigens fixed on cellulose. Sovr. metod. v biokhim. 1:73-87 '64.

Paper electrophoresis of serum. Ibid.:110-123

(MIRA 18:5)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GUSEVICH, A.Ye.; SIDOROVA, Ye.V.

Studies on inhibition of biosynthesis of antibodies. Biokhimiia 29 no.3:556-565 My-Je '64. (MIRA 18:4)

1. Laboratoriya khimii biosinteza antitel Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR, Moskva.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.; ENGEL'GARDT, V.A., akademik, glav. red.; DEBORIN, G.A., zam. glav. red.; ZIL'BER, L.A., prof., red.; BUZNIKOV, G.A., red.

[Virology and immunology; problems of general virology, structure and biosynthesis of antibodies] Virusologiia i immunologiia; problemy obshchei virusologii, struktura i biosintez antitel. Moskva, Nauka, 1964. 274 p. (MIRA 18:1)

1. Deystvitel'nyy chlen AMN SSSR (for Zil'ber).

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

DRIZLIKH, G.I.; GORVICH, A.Ye.

Use of antibodies, bound to an antigen fixed on an insoluble matrix, for the specific extraction of various proteins. Biokhimiia 29 no.6:1054-1062 N-D '64.

(MIRA 18:12)

1. Laboratoriya khimii biosinteza antitel Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva. Submitted March 4, 1964.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.; NEZLIN, R.S.

Nomenclature of immune globulins in man. Biokhimiia 30 no.2:443-446 Mr-Ap '65. (MIRA 18:7)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.Ye.; [illegible]

Influence of various subcellular granules and lipids isolated from them on the synthesis of antibodies and other proteins. Biokhimiia 30 no.5:1044-1050 S-O '65. (MIRA 18:10)

1. Laboratoriya khimii virusov Instituta obshchey immunologii i onkologii Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR, Moskva.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

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GURVICH, A.Ye.; SIDOROVA, Ye.V.; SYUY FEN' [Hsu Fen]; TUMANOVA, A.Ye.

Presence in mitochondria of a factor inhibiting synthesis of antibodies and other proteins of the cell. Biokhimiia 30 no.2:429-437 Mr-Ap '65.

1, Laboratoriya khimii biosinteza antitel otdela obshchey immunologii i onkologii Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR, Moskva.

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L 10[illegible]-67 EWT(1) IJP(c) SOURCE CODE: UR/0074/66/035/008/1430/1447

ACC NR: AP7003494

AUTHOR: Gurvich, A. M.

ORG: State Roentgenoradiological Scientific Research Institute, Moscow, (Gos. nauchno-issled. rentgeno-radiologicheskiy institut)

TITLE: Development of concepts of the chemical nature of the centers of luminescence of zinc sulfide luminophores

SOURCE: Uspekhi Khimii, v. 35, no. 8, 1966, 1430-1447

TOPIC TAGS: luminophore, luminescence

ABSTRACT: The chemistry of sulfide luminophores of the ZnS type is an important and interesting field of solid-state chemistry. The high energy yield of luminescence in various methods of excitation and the unusual variety of the properties of this class of crystallophosphors are the basis for broad technical applications. The article surveys the work of the basic schools and the basic trends in the study of zinc sulfide phosphors. The survey is limited primarily to the study of the centers in phosphors. These centers are the most specific for zinc sulfide luminophors. The survey deals with activators and coactivators including the activator centers of luminescence and the association of activators and coactivators; centers of luminescence of "self-activated" luminophores; centers of luminescence of luminophores activated by copper and silver; and "indi-

UDC: 535.37:546.47

0726 0020

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L 10404-67
ACC NR: AP7003494

rect" activation and the structure of the centers of luminescence. Orig. art. has: 3 figures and 7 formulas. [JPRS: 38,970]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 104 / OTH REF: 162

Card 2/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

L 07218-67 EWT(1) GW
ACC NR: AP6024424

SOURCE CODE: UR/0362/66/002/007/0688/0694

AUTHOR: Gurvich, A. S.; Meleshkin, B. N.

ORG: Institute of Atmospheric Physics, Academy of Sciences SSSR (Akademiya nauk SSSR, Institut fiziki atmosfery)

TITLE: Determination of the microscale of turbulence based on light intensity fluctuations

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 7, 1966, 688-694

TOPIC TAGS: atmospheric turbulence, heat flux, microwave, wave propagation

ABSTRACT: In this work the fluctuations in the intensity of light passing through a turbulent layer were investigated and the microscale of turbulence was determined from these fluctuations. Estimations of the value of the Kolmogorov microscale of turbulence in a convective jet are given on the basis of the measurements of light intensity fluctuations. An estimate of the constant in the structure function of temperature fluctuations in the inertial subrange is also presented. The values of the microscale calculated from experimental values of the structure constant and the variance of the fluctuations of the logarithm of the wave amplitude as a function of the rate of energy dissipation are presented. The experimental data for the micro-scale at large values of turbulent heat flux are within much narrower limits than the extreme values and agree better with the values calculated when the universal constant

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UDC: 532.517.4

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L 07218-67

ACC NR: AP6024424

is taken to be equal to 2.2—2.7, which permits the authors to give preference to these values. Orig. art. has: 10 formulas and 4 figures.

SUB CODE: 08/ SUBM DATE: 15Mar66/ ORIG REF: 005

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

ACC NR: AP6030080 SOURCE CODE: UR/0362/66/002/008/0814/0819

AUTHOR: Gurvich, A. S.; Time, N. S.

ORG: Institute of the Physics of the Atmosphere, Academy of Sciences, SSSR (Institut fiziki atmosfery Akademii nauk SSSR)

TITLE: On absorption and blackbody temperature variations of the atmosphere

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 8, 1966, 814-819

TOPIC TAGS: light absorption, optic blackbody, blackbody temperature, atmosphere, atmospheric humidity, ~~vapor~~ atmospheric water vapor

ABSTRACT: The paper presents the results of calculations of absorption and blackbody temperature variations of the atmosphere for zenith observations at the 1.35-cm wavelength. The calculations are made using the published statistical characteristics of the atmosphere, i.e., mean profiles and correlation matrixes of vertical temperature and humidity structures. Results of calculations for the mean temperature and humidity profiles are compared with the calculations which use the standard distributions of humidity and temperature. The accuracy of the determination of the total water vapor from the blackbody temperature is used as a criterion of comparison. Orig. art. has: 9 formulas, 1 table, and 1 figure. [CS]

SUB CODE: 08/20/ SUBM DATE: 005/ ORIG REF: 005/ OTH REF: 004

Card 1/1 UDC: 551.521.32

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, A.S. (Moskva, Kutuzovskiy pr., 24, kv.143)

Changes in the nerve elements of the uterus in the puerperal period. Arkh. anat. gist. i embr. 41 no.8:52-58 Ag '61. (MIRA 15:6)

1. Laboratoriya neyrogistologii imeni B.I. Lavrent'yeva (zav. - doktor biologicheskikh nauk Ye.K. Plechkova) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.
(UTERUS—INNERVATION)
(PUERPERIUM)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617510017-3

GURVICH, B.

GURVICH, B., kandidat tekhnicheskikh nauk.

Effect of working surfaces of milling machinery on the grinding of groats and grist. Muk.-elev.prom. 20 no.1:16-20 Ja '54.(MLRA 7:7)

1. Nauchno-issledovatel'skiy institut Glavnogo upravleniya gosudarstvennykh material'nykh rezervov pri Sovete Ministrov SSSR.
(Milling machinery)

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