3(7)   SOV/33-35-4-11/25
AUTHORS: Tatarskiy,V.I., Gurvich,A.S.,Kallistratova, M.A., Terent'-
             yeva,L.V.

TITLE: The Influence of Meteorological Conditions on the Intensity
             of Light Scintillation Near the Surface of the Earth (O vli-
             yanii meteorologicheskikh usloviy na intensivnost' mertsaniya
             sveta v prizemnom sloye atmosfery)

PERIODICAL: Astronomicheskiy zhurnal,1958, Vol 35, Nr 4, pp 623-626(USSR)

ABSTRACT: The authors report on the experimental investigation of the
             dependence of scintillation of a source on the earth on the
             meteorological conditions. The observations have been carried
             out in autumn 1956 by an astrophysical expedition of the In-
             stitute for Atmospheric Physics, Academy of Science USSR. It
             was stated that the intensity of scintillation and the ver-
             tical gradient of the mean temperature strongly correlate
             (correlation coefficient 0.92) which shows a good coincidence
             with the theoretical results of the authors. The investi-
             gations have a provisional character and are to be continued.

Card 1/2

The Influence of Meteorological Conditions on the   SOV/33-35-4-11/25
Intensity of Light Scintillation Near the Surface of the Earth

There are 1 figure, and 14 references, 6 of which are Soviet, 5 American, and 3 English.

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

SUBMITTED: May 25, 1957

Card 2/2

KALLISTRATOVA, M. A.

MEL'NIKOV, O.A., prof., otv.red.; OBUKHOV, A.M., red.; KOLCHANSKIY,
I.G., kand.fiz.-mat.nauk,red.; KUCHEROV, N.I., kand.fiz.-mat.
nauk, red.; BYSTROVA, N.V., kand.fiz.-mat.nauk, red.;
KALLISTRATOVA, M.A., red.; ZHUKOVA, L.N., red.; ZENDEL', M.Ye.,
tekhn.red.

[Transactions of the Conference on the Study of the Scintillation
of Stars] Trudy Soveshchaniia po issledovaniiu mertsaniia zvezd.
Moscow, Izd-vo Akad.nauk SSSR, 1959. 263 p.   (MIRA 13:1)

1. Soveshchaniye po issledovaniyu mertsaniya zvezd. Moscow,
1958. 2. Chlen-korrespondent AN SSSR (for Obukhov).
        (Stars--Scintillation--Congresses)

KALLISTRATOVA, M.A.

Method of studying the scattering of sound in the atmosphere.
Akust.zhur. 5 no.4:496-498 '59.   (MIRA 14:6)

1. Institut fiziki atmosfery AN SSSR, Moskva.
                (Atmospheric acoustics)

12 (3)
AUTHOR: Kallistratova, M. A.   SOV/20-125-1-17/67

TITLE: An Experimental Investigation of Sound Scattering in a
              Turbulent Atmosphere (Eksperimental'noye issledovaniye
              rasseyaniya zvuka v turbulentnoy atmosfere)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 1, pp 69-72 (USSR)

ABSTRACT: Pertinent earlier investigations are first mentioned in short.
              In order to verify the theory of wave scattering at a
              turbulence in real atmosphere it is of interest to carry out
              a direct experimental investigation of sound scattering in the
              earth-near atmospheric layer. In this earth-near layer the
              characteristics of turbulence may be evaluated on the basis of
              meteorological measurements (altitude distribution of wind
              and temperature). The experiments on sound scattering were made
              in September 1958 at the Tsimlyansk stantsiya Instituta fiziki
              atmosfery AN SSSR (Tsimlyansk Station of the Institute for
              Physics of the Atmosphere of the AS USSR). Figure 1 shows a
              scheme of the experiment and a block diagram of the measuring
              device. The sound source is an efficient planar condenser-
              transducer (0.8 . 0.9 m large) with a narrow directivity
Card 1/3   diagram. A converter of this type also served as microphone.

An Experimental Investigation of Sound Scattering in a Turbulent Atmosphere

Sound source and microphone were parted by a distance of 2 R = 40 m. The direct and the scattered signal were observed visually with a cathode-ray oscilloscope. Figure 2 shows a series of photographs of the oscilloscope screen. With increasing scattering angle the retardation of the scattered pulse increases with respect to the direct pulse, but its amplitude decreases at the same time. A formula for the intensity of the radiation scattered from the volume V (with any form of spectral density of the refractive index $\phi_n(\vec{K})$) is then derived. This formula is also in good agreement with the experimental data of the magnitude of intensity of the scattered signal for the scattering angles 25° and 30°. The theory based on the hypothesis of the local homogeneous turbulence offers a correct description of the observed dependence of the scattering intensity on the intensity of pulsations. There are 4 figures and 8 references, 6 of which are Soviet.

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

Card 2/3

An' Experimental Investigation of Sound Scattering   SCV/20-125-1-17/67
in a Turbulent Atmosphere

PRESENTED: November 27, 1958, by M. A. Leontovich, Academiciun

SUBMITTED: November 24, 1958

Card 3/3

KALLISTRATOVA, M. A.   Cand Phys-Math. Sci -- "Experimental study of the diffusion of sound waves ■ in the atmosphere." Mos, 1960. (Acad Sci USSR. Inst of Phys of the Atmosphere. Acoustics Inst) (KL, 1-61, 179)

-16-

86366

S/046/60/006/004/016/022

B019/B056

6.8000 (3201,1099,1162)

AUTHORS: Kallistratova, M. A., Tatarskiy, V. I.

TITLE: The Consideration of the Vorticity of the Wind Field in
             Calculating Sound Scattering in the Atmosphere

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 4, pp. 503 - 505

TEXT: Tatarskiy and other Russian scientists, in calculating the sound
scattering by turbulent pulsations of the wind velocities and the
temperature in the atmosphere proceeded from the differential equation

$$\Delta\varphi - \frac{1}{c^2}\frac{\partial^2\varphi}{\partial t^2} = \frac{2\vec{v}'}{c^2}\nabla\frac{\partial\varphi}{\partial t} \qquad (1)$$

and from the acoustic theory of non-uniformly moving media. Here φ is the
potential of the acoustic velocity, c - the velocity of sound, and $\vec{v}'$ the
pulsation rate of the wind. In the present paper reference is made to
experimental results obtained at the Tsimlyanskaya nauchnaya stantsiya
Instituta fiziki atmosfery AN SSSR (Tsimlyansk Scientific Station of the
Institute of the Physics of the Atmosphere of the AS USSR), and it is

Card 1/2

86366

The Consideration of the Vorticity of the   S/046/60/006/004/016/022
Wind Field in Calculating Sound Scattering in   B019/B056
the Atmosphere

shown that the assumptions made by the scientists mentioned are not
justified. Already the American Kraichnan (Ref. 4) solved the problem with-
out using the sound potential and the essential restriction curl = 0. The
authors show in this case that, especially in the case of large scattering
angles, the vorticity of the wind field must not be neglected when
investigating the scattering of sound waves. There are 1 figure and
5 references: 4 Soviet and 1 US.

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

SUBMITTED: April 23, 1960

Card 2/2

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 ИC 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 Γ 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 30 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 photo-
multiplier ФЭУ was placed behind the slit. When the position of

Card 1/4

An experimental study of the ...
33205
S/141/61/004/005/007/021
E032/E514

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 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 $C\Pi$ whose output is fed to the
galvanometer loop through the adding circuit Σ. The variance of

Card 2/4

33205

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.

Card 3/4

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

33205

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.

VIC - light source, O - objective,
Γ - loop galvanometer, Ш - slit,
ΦЭУ - photomultiplier,
Φ - 5 kc/s filter, $У$ - amplifier,
$CД$ - synchronous detector,
Σ - adding bridge, $ЭУ$ - electrometric amplifier, $УВ$ - high-voltage rectifier,
$ЗГ$ - audio-frequency oscillator,
$ЧА$ - frequency analyser,
$ЭДУ$ - electrodynamic multiplier.
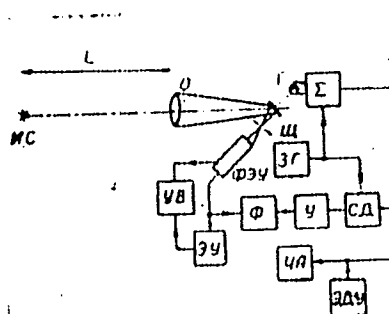
Card 4/4

43177
S/506/62/000/004/004/005
R032/E314

24,1200

AUTHOR: Kallistratova, M.A.

TITLE: Experimental studies of the scattering of sound waves
in the atmosphere

SOURCE: Akademiya nauk SSSR. Institut fiziki atmosfery. Trudy.
no. 4. 1962. Atmosfernaya turbulentnost'. 203 - 256

TEXT: This paper reviews experimental studies of the scattering
of sound in the atmosphere, which were carried out at the
Tsimlyanskaya nauchnaya stantsiya Instituta fiziki atmosfery AN
SSSR (Tsimlyanskiy Scientific Station of the Institute of Physics
of the Atmosphere of the AS USSR), and the associated theoretical
background. The experiments were carried out on an open steppe in
1958 and 1959. The vertical profiles of the average wind velocity
and average temperature were measured at the same time. The aim
was to verify a theoretical formula for the intensity of scattered
sound waves as a function of the meteorological conditions,
frequency and angle of scattering. Both the sound-wave generator
and the detector were highly directional, so that the scattering
could be looked upon as being due to a localized region in the

Card 1/6

4

Experimental studies ....

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

atmosphere. Preliminary data were obtained in 1958 using electro-
static converters, type МКИ-I (MKI-I). The sound-generator and
the microphone were arranged as shown in Fig. 14. They were at a
fixed distance of 40 m from each other. The transmitter produced
1.5 μs pulses at a repetition frequency of 30 c.p.s. and a carrier
frequency of 11 kc/s. The intensity was measured at scattering
angles between 16 and 180°. The sensitivity of the apparatus was
such that scattered signals equal to 10^{-14} of the intensity of the
transmitted signal could be detected. The apparatus thus provided
a means of direct experimental determination of the scattering
of sound by turbulent pulsations in wind velocity and temperature.
The general variation in the scattering intensity as a function of
the scattering angle was found to be in agreement with theoretical
predictions, e.g. there are minima in the scattering function at
θ = 90 and 180°. A formula for the effective scattering cross-
section derived on the assumption that curl $\underline{v}$ ≠ 0 was found to
leads to a discrepancy as compared with experimental data for large
scattering angles θ at which a $\cos^2 \theta$ factor was found to have
a strong effect. The three-dimensional spectral-energy density of
turbulent pulsations calculated from the dependence of the

· Card 2/θ

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

Experimental studies ....

scattered intensity on θ in the range $\theta = 16 - 70°$, which corresponded to irregularities with linear dimensions between 3 and 12 cm, was of the form $\sim (\sin\theta/2)^{-11/3}$, which was in good agreement with the theories of A.N. Kolmogorov (Dokl. AN SSSR, 30, 299, 1941) and A.M. Obukhov (Izv. AN SSSR, seriya geogr. i geofiz., no. 4-5, 453, 1941; v.13, no. 1, 1949; no. 3, 1951). At small angles ($\theta \approx 16 - 30°$) the effective scattering cross-section was of the form $\sigma_\theta \sim (\sin\theta/2)^{-11/3}$. The absolute value of the scattered signal at $16° < \theta < 70°$ was also in good agreement with theoretical predictions. The effective scattering cross-section per unit volume at $\theta = 30°$ was found to be of the order of 0.8×10^{-6} cm^{-1}. This value was found to reduce to 3.4×10^{-12} at $180°$, which was lower by two orders of magnitude as compared with the theory. A study of the dependence of the scattered intensity of meteorological conditions showed that: 1) there was good agreement between the theoretically predicted effective scattering cross-section as a function of the meteorological conditions and 2) up to $\theta = 80°$ the principal contribution to the scattered intensity was due to wind-velocity pulsations whereas at greater angles temperature pulsations had to be taken into account. Scattering at $\theta = 180°$ depended on

Card 3/6
4

S/506/62/000/004/004/0C5
E032/E314

Experimental studies ....

temperature pulsations only, in agreement with theoretical predictions. In comparing the scattering intensity with the structural constants C_V and C_T for the wind-velocity and temperature profiles it was necessary to take into account the dependence of the numerical parameters a and b, entering into the formula for C_V and C_T, on the Richardson number Ri . There are 29 figures.

Card 4/4 4

KALLISTRATOVA, M. A.

"Problems of scintillations and turbulence in the atmosphere."

report presented at 12th Gen Assembly, Intl Astronomical Union, Hamburg, 25 Aug-
3 Sep 64.

BOVSHEVEROV, V.M.; KALLISTRATOVA, M.A.

Method and preliminary measurements of the fluctuation
of the solar limb image. Astron. zhur. 41 no.3:550-554
My-Je '64.   (MIRA 17:6)

1. Institut fiziki atmosfery AN SSSR.

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, tempera-
ture gradient, free atmosphere

ABSTRACT: Apparatus used for measuring fluctuation of wave fronts was described
previously by the authors (Izv. vyssh. 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

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

L 29206-66   EEC(k)-2/EWT(d)/EWT(1)/FCC   GW/WS-2

ACC NR: AP6007629   SOURCE CODE: UR/0141/66/009/001/0050/0056

AUTHOR: Kallistratova, M. A.

ORG: Institute of the Physics of Atmosphere, AN SSSR (Institut fiziki atmosfery AN SSSR)

TITLE: Fluctuation of the direction of propagation of light waves in a heterogeneous turbulent medium

SOURCE: IVUZ. Radiofizika, v. 9, no. 1, 1966, 50-56

TOPIC TAGS: light propagation, atmospheric turbulence

ABSTRACT: The measurements are reported of the dispersion and frequency spectrum of fluctuation in the direction of light emanating from the edge of the Sun disk. A Sun telescope was installed in a flat steppe area, near Tsimlyansk. The Sun's rays passed through the entire thickness of the Earth's atmosphere. The measurements were made in August, 1963, with little or no clouds present. Turbulence characteristics near the telescope were measured in all experiments. It was found that: (1) Reduced to the zenith, the mean-square fluctuation of the light-wave direction ($\sigma_y = 1-1.5$ ang. sec.) exceeds by several times the values

Card 1/2   UDC: 535.3:551.51

L 29206-66
ACC NR: AP6007629

observable in the night from star twinkling; (2) Formulas are available for
evaluating the direction-fluctuation dispersion; a knowledge of the mean values
and vertical gradients of air temperature and wind velocity in the ground layer of
the atmosphere is required; (3) The experimental frequency spectrum is in
satisfactory agreement with the theoretical estimated for a homogeneous path and
with the mean wind velocity determined in a ground layer of a few dozen meters
thick.   "In conclusion, the author wishes to thank A. S. Gurvich and V. I.
Tatarskiy for their constant attention and hints, and Mechanic M. A. Vorob'yev
for aligning the servosystems and measurement work." Orig. art. has: 5 figures
and 7 formulas.

SUB CODE: 04 / SUBM DATE: 29Jul65 / ORIG REF: 008

Card 2/2   CU

ACC NR: AP7001211   SOURCE CODE: UR/0141/66/009/006/1100/1107

AUTHOR: Kallistratova, M. A.; Kon, A. I.

ORG: Institute of Physics of the Atmosphere, AN SSSR (Institut fiziki atmosfery AN SSSR)

TITLE: Fluctuations in the angle of arrival of light waves from an extended source in a turbulent atmosphere

SOURCE: IVUZ. Radiofizika, v. 9, no. 6, 1966, 1100-1107

TOPIC TAGS: light source, light wave, wave propagation, atmospheric turbulence, plane wave, correlation function, spectrum, ATMOSPHERIC REFRACTION, SOLAR DISC

ABSTRACT: The article deals with a study of fluctuations in the direction of wave propagation from an extended light source in an atmosphere with turbulent pulsations of the refraction index. A luminous filament, sufficiently distant from the refracting atmosphere, is used as the extended source, which makes it possible to limit the investigation to plane waves. The correlation function is calculated for the fluctuations in phase difference from the different points of the extended source in the case when the atmosphere is a uniform isotropic layer adjacent to the receiving

Card 1/2   UDC: 535.3:551.51

MELLO, A.

"On the pathoanatomical symptoms of the afocal cerebrovisceral connections." p. 217.
(ACTA MORPHOLOGICA ACADEMIAE SCIENTIARUM HUNGARICAE, Vol. 3, no. 2, 1953, Budapest.)

SO: Monthly List of East European Accessions, Library of Congress, Vol 2, no 10,
Oct. 1953, Uncl.

KALLO, ANTAL

11H

PROCESSES AND PROPERTIES INDEX

Structural changes in the kidneys due to gold compounds. ANTAL KALLO. Magyar Orvosi Arch. 33, 211-18.—Structural changes in the kidneys of 60 rabbits, cats and rats were observed after the administration of Au compds. AuCl, Krysolgan, Trypal, Sanocrysine, KAu(CN)₂, Aurophos, Solganal and Solganal B were used. Properly increased doses of these Au compds. produce effects similar to those of heavy metal salts. The changes according to the dose were: hyperemia with smaller diapedesis, degeneration of the contorted tubules and interstitial infiltrations. Doses causing death after more than 3 hrs. always produce a necrotic nephrosis. Insufficiency of the kidneys is the cause of death. Therapeutic doses as used in practice may cause a degeneration of lesser importance accompanied with albuminuria. Chrysotherapy is much in vogue lately, but it is shown that due care should be maintained in such therapy. H. Fauntz

METALLURGICAL LITERATURE CLASSIFICATION

KALLO, ANTAL   (1)

SURNAME, Given Names

Country: Hungary

Academic Degrees: Dr.

Affiliation: Ophthalmology Department and Pathological-Anatomy Department of John's
                    Hospital, Budapest (budapest Janos-korhaz szemosztalya es prosecturaja)
                    Hospital Director: Dr Jozsef TOKO.

Source: Budapest, Orvoskepzes, Vol 36, No 4, Aug 61, pp 317-320

Data: "Sympathetic Ophtalmia."

                    Authors:

                    CSAPODY, Istvan

                    KALLO, Antal

                    EROSS, Sandor.

KALLO, A., dr.; FARKAS, Gy., dr.; MIKLOS, Gy., dr.; HODI, L., dr.;
SZIJARTO, L., dr.

Relapsing nodular panniculitis with co-existing aortic arch syndrome.
Orv.hetil. 102 no.33:1550-1554 13 Ag '61.

1. Budapesti Janos Korhaz, Korbonctani es Korszovettani Osztaly es
IV. Belosztaly.

       (PANNICULITIS compl)   (AORTA abnorm)

HUNGARY

LAKATOS, Iren, Dr, KALLO, Antal, Dr, SZIJARTO, Lehel, Dr; Janos Hospital of Budapest, Departments of Pathology and Pathohistology and Infant and Children's Ward (Budapesti Janos Korhaz Korbonctani es Korszovet- tani Osztaly es Csecsemo- es Gyermekosztaly).
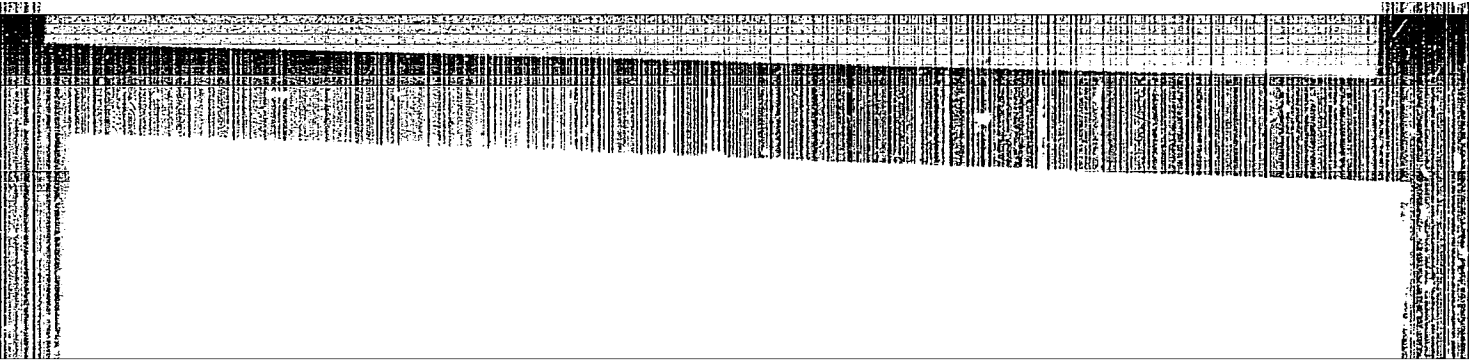
"Leprechaunism. Donohue Syndrome."

Budapest, Orvosi Hetilap, Vol 103, No 23, 9 June 63, pages 1075-1080.

Abstract: [Authors' Hungarian summary modified] Two cases are reported among sisters with symptoms identical with those reported by Donohue. The characteristic changes are mainly due to early ripening of the ovarian follicle, (probably during the 6-7 intrauterine months), ac- companied by an overproduction of estrogens. It resulted in hyperplasia of the nipple and external sex organs, hypertrichosis, increased 17- ketosteroid excretion, hyperfunction of the Langerhans isles and para- thyroids as well as a decrease of the growth hormone of the pituitary. The syndrome is similar to the Stein-Leventhal syndrome of adults and may be its intrauterine analogue. Available data give no suggestions for the cause of this early ripening of the follicles. 1 Hungarian, 5 Western references.
1/1

KALLO, D.

Distr: 4E2c(j)/4E3d

Preparation of low molecular weight hydrocarbons for adsorption purposes. Pál Fejes, Dénes Kalló, and József Engelhardt (Hung. Acad. Sci., Budapest). *Magyar Kém. Folyóirat* 65, 132-8(1959).—Lower paraffins and olefins (sufficiently pure for adsorption and catalytic purposes) were prepd. from alcs. and were completely free of contamination. The alcs. were dehydrated on active Al_2O_3 (EtOH at 350°, iso-PrOH at 320°, BuOH at 300°, iso-BuOH at 350°, and tert-BuOH at 310°). The olefins formed were then hydrogenated at 65°, using Cu catalysts contg. 0.5% Ni and 4.3% Cr_2O_3, and Pt catalysts (0.5 to 2%) on Al_2O_3.

Rose Mittelmann

KALLO, Denes

Catalytic hydrogenation of butylenes under atmospheric pressure.
Veszprem vegyip egy kozl 4 no.4:335-337 '60

1. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete,
Budapest.

KALLO, Denes

Interpretation of the surface structure of catalysts on the basis of
the theory of active centers. Kem tud kozl MTA 13 no.2:201-216 '60.

(Surface chemistry)   (Catalysts)   (EEAI 9:8)

NAGY, Ferenc; HORANYI, Gyorgy; KALLO, Denes

Calculation for the velocity constants of triangle reaction of the
first order leading to equilibrium by means of hydrointegrater. Magy
kem folyoir 67 no.12:522-527 D '61.

1. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete,
Budapest.

KALLO, Denes; ENGELHARDT, Jozsef; PRESZLER, Imre

Isomerization of n-butenes on aluminum silicate catalyst. I.
a separation of polymerization and isomerization; determination of
thermodynamical equilibriums. Magy kem folyoir 68 no.8:359-366
Ag '62.

1. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete, Bu-
dapest.

KALLO, Denes; SCHAY, Geza; NAGY, Ferenc; HORANYI, Gyorgy

Isomerization of n-butenes on aluminosilicate catalyzer.II.
Magy kem folyoir 68 no.9:381-389 S '62.

1. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete,
Budapest. 2. "Magyar Kemiai Folyoirat" szerkeszto bizottsagi
tagja (for Schay).

BODOR, Geza, dr.; KALLO, Denesne, dr.

Examination of the irregularities in the products of synthetic fibrous materials by means of the diffraction method. Magy textil 15 no.11:503-505 '63.

1. Muanyagipari Kutato Intezet, Budapest.

HUHN, Peter, kandidatus; KALLO, Denes, kandidatus

An accont of the work of the Working Committee on Catalysis
in 1963. Kem tud kozl MTA 22 no.1:103-104 '64.

FEJES, Pal; KALLO, Denes

    Role of the pore diffusion inhibition in first-order
    triangular reactions reversible in all directions. Pt.
    1. Magy kem folyoir 70 no. 1: 7-16 Ja '64.

    1. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato
    Intezete, Budapest.

L 47255-66   EWP(j)/T   RM
ACC NR: AP6034695

SOURCE CODE: HU/0005/66/000/003/0140/0141

KOLLAR, Laszlo, SCHWARCZ, Gabor, and KALLO, Denesne,   Plastic Industries
Research Institute (Muanyagipari Kutato Intezet), Budapest.

"Investigations of Ziegler-Natta Catalyst Systems (Preliminary Communication)"

Budapest, Magyar Kemiai Folyoirat, Vol 72, No 3, Mar 66; pp 140-141.

Abstract [Authors' English abstract]: Study of the α-TiCl$_3$/AlEt$_3$ catalyst
system has shown that the crystalline structure of α-TiCl$_3$ varies according
to its preparatory conditions. This factor has a substantial effect on the
rate of polymerization. In our final paper the study of two types of α-TiCl$_3$/
AlEt$_3$ catalyst systems will be described and their effect on the molecular
weight distribution as well as the effect of the crystal size of α-TiCl$_3$
on the polymerization rate will be discussed. Orig. art. has: 5 figures.
[JPRS: 36,002]

TOPIC TAGS: polymerization rate, polymerization catalyst

SUB CODE: 07 / SUBM DATE: 14 Sep 65 / ORIG REF: 001 / OTH REF: 004

Card 1/1

KALLOGLYAN, A.T.

Colorimetry of barred galaxies. Report No.1. Dokl. AN Arm. SSR
26 no.4:217-222 '58.

(MIRA 11:5)

1.Byurakanskaya astrofizicheskaya observatoriya Akademii nauk
Armyanskoy SSR. Predstavleno V.A. Ambartsumyanom.
(Nebulae)

KALLOGLYAN, A.T.

Colorimetry of barred galaxies. Report no.2. Soob.Biur.obser.
no.25:35-44 '58.
                    (Galaxies)   (MIRA 11:12)

KALLOGLYAN, A.T., Cand Phys-Math Sci -- (diss) "On the Colorimetry of nebulae and multiple galaxies." Yerevan, 1959. 10 pp (Yura-kan Astrophysical Observatory of the Acad of Sci of the Armenian SSR. Yerevan State U). 150 copies (KL,38-59, 114)

6

84593

3.2400 (1041, 1057, 1080, 2801, 3201)

S/169/60/000/008/004/007
A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1960, No. 8, p. 201, # 9911

AUTHORS: Khachikyan, E. Ye., Kalloglyan, A. T., Kazaryan, M. A.

TITLE: Observations of an Artificial Comet at Byurakan - I. With the "Kometa A" Unit

PERIODICAL: Astron. tsirkulyar, 1959, 15 Okt., No. 205, pp. 2-3

TEXT: On September 12, 1959, beginning in $21^h 35^m 0^s$ Moscow time, the continuous photographing were carried out of the sodium cloud artificially originated by the second Soviet cosmic rocket; the unit "Kometa A" was used. Six pictures were obtained. The greatest density of blackening was observed in the direction near the rocket motion direction. The coordinates of the cloud center were roughly estimated. A table is added of the computed values of the cloud diameters for its different evolution stages. The average rate of expanding was of the order of 1.3 km/sec. According to the last photograph the cloud diameter amounted to about 1,500 km. The instant of flash is in the interval from $21^h 49^m 20^s$ to $21^h 49^m 35^s$. The sodium cloud was photographed also by the 21 - 21" Shmidt-telescope; two photographs were taken. From the first, the equatorial coordinates

Card 1/2

84593

S/169/60/000/008/004/007
A005/A001

Observations of an Artificial Comet at Byurakan - I. With the "Kometa A" Unit

of the artificial comet were determined, from the second the average value of the
cloud expansion rate (1 km/sec) was estimated. Moreover, a weak monochromatic
picture of the sodium cloud was obtained by the 8" Shmidt-chamber through the
objective prisma.

D. A. M.

Translator's note: This is the full translation of the original Russian abstract.

Byurakan astrophysical observatory

Card 2/2

KALLOCLYAN, A.T.

Colorimetry of barred galaxies. Report No.3. Dokl. AN Arm. SSR
33 no.5:205-212 '61.   (MIRA 15:2)

1. Byurakanskaya astrofizicheskaya observatoriya AN Armyanskoy SSR.
Predstavleno akademikom V.A.Ambartsumyanom.
                              (Nebulae)

KALLOGLYAN, A. T.

Absolute two-color photometry of NGC 7331. Soob. Biur. obser.
no.30:21-33 '62. (MIRA 15:10)

(Galaxies)

S/252/62/034/001/001/001
I023/I223

AUTHOR: Kalloglyan, A. T.

TITLE: On the dynamical instability of certain groups of galaxies.

PERIODICAL   Akademiya Nauk Armeyanskoy SSR Doklady, v. 34, no. 1, 1962, 19-23

TEXT: Four groups of galaxies are analysed, having a total positive energy. The four groups are: 1) NGC 68, 69, 71, 72 and an anonymous galaxy; 2) NGC 80, 83; 3) The double galaxy 7385, 7386; 4) A chain of galaxies at $\alpha_{1950} = 1^h 4.^m6$; $\delta_{1950} = + 32° 8'$. When applying the virial theorem, the mass-luminosity ratios obtained in very high: 260-685. The masses of the galaxies so calculated are by an order of magnitude greater than the masses calculated assuming a more reasonable mass-luminosity ratio of 60. The results obtained indicate that some galaxies and groups of galaxies are unstable. If the above galaxies and groups of galaxies are assumed stable, the mass-luminosity ratio becomes very high, a fact not supported by any other evidence.

ASSOCIATION: Byurakanskaya astrofizicheskaya observatoriya Akademii nauk Armyanskoy SSR (Byurakan Astrophysical Observatory, Academy of Sciences, Armyanskaya SSR).

PRESENTED: September 15, 1961, by V. A. Ambaptsumyan, Academician

Card 1/1

TOVMASYAN, G.M.; KALLOGLYAN, A.T.

Some identifications of cosmic radio sources. Soob. Biur.
obser. no.31:31-38 '62.

Nature of double radio galaxies.   39-51   (MIRA 16:9)

1. Institut radiofiziki i elektroniki AN Armyanskoy SSR i
Byurakanskaya astrofizicheskaya observatoriya AN Armyanskoy
SSR.

KALLOGLYAN, A.T.

Surface brightness of the bars of spiral galaxies. Soob.
Blur. obser. no.33:19-28 '63.   (MIRA 17:5)

KALLOGLYAN, A.T.

Peculiar galaxy NGC 3656. Soob. Biur. obser. no.34:31-35 '63.
(MIRA 17:5)

Card 2/2

L 42309-66   EWT(1)   GW

ACC NR: AT6013094   SOURCE CODE: UR/2620/64/000/036/0031/0043

AUTHORS: Kalloglyan, A. T.; Tovmasyan, G. M.

ORG: none

TITLE: The nuclei of barred galaxies

SOURCE: Byurakan. Observatoriya. Soobshcheniya, no. 36, 1964, 31-43

TOPIC TAGS: galaxy, astronomy, radio astronomy, photometry, calorimetry, astronomic observatory

ABSTRACT: The results of photometric and calorimetric investigations of 50 barred galaxies are presented. The 50 galaxies included in the study are taken from all four sub-types from SBO to SBC with known radial velocities and apparent magnitudes greater than 13^m. The observations were made on a 21--21" telescope of the Schmidt system of the Byurakan Observatory. "Agfa Astro Platten" film for the blue rays and "Kodak Oa-F" film for orange rays and an OG-1 filter were used. The light system was determined by the equation $CI_{int} = 0.8$ CI, where CI is the light constant in the system used. A table is presented showing the observation data on the fifty galaxies studied. The results lead to the hypothesis that in SBO galaxies there is a strong central "bunching" in which, in all likelihood, there is a star-like center. In SBa and defined against the background of the central agglomeration. On the other hand, the

Card 1/2

L 42309-66

ACC NR: AT6013094

centering tendency is absent in the SBc sub-type, and the centers are quite weak. The large dispersion of center radiance in the boundaries of the SBa and SBb sub-types indicates that the development of the center occurs to a large degree independently of the morphological structure of the galaxy. The authors thank V. A. Ambartsumyan for his comments and interest in the work and B. Ye. Markaryan for his consultations in the process of developing the material. Orig. art. has: 1 table and 3 figures.

SUB CODE: 03/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 002

Card 2/2

S/620/62/000/030/001/002
E032/E114

AUTHORS: Khachikyan, E.Ye., and Kalloglyan, N.L.

TITLE: On the polarisation of the cometary nebula NGC 2261

SOURCE: Byurakan. Observatoriya. Soobshcheniya, no.30, 1962.
45-50

TEXT: A polarimetric study of the NGC 2261 nebula, which has
variable characteristics, is reported. The observations were
carried out on the Schmidt telescope of the Byurakan Observatory.
Nine 45-minute exposures were recorded on Kodak Oa-O plates with
the polaroid at 0, 60 and 120°. The method employed in the
observations and in the measurements on the negatives was described
in an earlier paper (E.Ye. Khachikyan, Voprosy kosmogonii, VII,
1961, 333). The polarisation was calculated as described by
D.A. Rozhkovskiy (Astronomicheskiy tsirkulyar, no.166, 1956, 13).
Two sets of polarisation measurements were obtained, one for
December 24-25 1960, and the other for January 13, 1961. The
general pattern of the polarisation is the same as that reported
earlier by E.Ye. Khachikyan (Soobshcheniya Byurakanskoy
observatorii, v.25, 1958, 67) except that the mean degree of

Card 1/2

On the polarisation of the cometary...   S/620/62/000/030/001/002
                                          E032/E114)

polarisation for the first of the above sets of measurements was
18%, and for the second, 16%. As before, a very high degree of
polarisation is observed at the edges of the nebula, particularly
on its eastern boundary. A new bright filament was found with
the plane of preferred vibrations almost exactly at right angles
to the line connecting the filament to the centre of the nebula.
There are 2 figures and 1 table.

Card 2/2

KALLOS, JOZSEF

CA

11 B

Diagnosis of uric acid diathesis by analysis of mucus.
József Kallós. *Orvos Hetilap* 82, (1938). The
normal uric acid content of stomach mucus varies from
2.5 to 4.0 mg. %. It is const. for the individual if the
diet and the time of sampling are similar. Subjects having
low uric acid contents mostly had rheumatic conditions.
To det. the uric acid measure 1 cc. mucus into a test tube,
add 1 cc. 20% Na_2CO_3 soln. and 3 drops of the uric acid
reagent (prepd. by dissolving 25 g. Na tungstate in 100 cc.
water, adding 20 g. 80% H_3PO_4 and boiling for 1-2 hrs.),
then 3 drops of 20% NaOH soln. Titrate with 0.01 N
$K_3Fe(CN)_6$ until the bluish color disappears. Multiply
the no. of cc. by 100, and divide by eleven to get the
content of uric acid in mg. %. A detn. requires 3-4 min.

S. S. de Findly

ASM-SLA   METALLURGICAL LITERATURE CLASSIFICATION

KALLOS, I.

Kallos, I.
"Freezing over of rivers and the weather"   p. 50.
(Idojaras. Vol. 57, no. 1, Jan./Feb. 1953, Budapest.)

SO: Monthly List of East European Accessions, Vol. 2, No. 9, Library of Congress, September
1953, Uncl.

KALLOS, I.

"Formation of Frost in May and Its Forecast", P. 8, (IDOJARAS, Vol. 58, No. 1, Jan./Feb. 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

HUNG A.

6.7-2

Kallós, Imre. A tizgazdálkodási vonatkozású állomások hydrometrilálása. [Listing of hydrologic stations.] (Idöjárás Budapest, 58(4):233-237, July/Aug. 1954. fig., tables. Russian and French summaries p. 233. SUK-BEI—Suggests improvements in the assignment of station numbers to hydrologic stations, including precipitation stations. The numbers issued to stations determine their order of listing in hydrologic reports. Gyula Hedásg.
1. Hydrologic stations.—G.T.

KALLOS, I.

Evaluation of ombrograms. p. 293.   HIDROLOGIAI KOZLONY.   HYDROLOGICAL
JOURNAL. (Magyar Hidrologial Tarsasag) Budapest. Vol. 35, no. 7/8
July/Aug. 1955.

SOURCE: East European Accessions List (EEAL), Vol. 5, No. 2,
February 1956

KALLOS, IMRENE

{S1.S1S.S(430.1)

6.8-217

Kallós, Imréné, Viztölcsér a Balaton felett. [Waterspout over Lake Balaton.] *Idöjárás,*
Budapest, 58(3):255-256, July/Aug. 1954. MH-BH—Waterspouts are a rare phenomenon
in Hungary's lat'' des. On July 8, 1954 such a phenomenon was observed over Lake Balaton.
This note reporting the event includes a general description of the synoptic situation over
Europe and a detailed account from an eye witness who observed the spout for 5 or 6 minutes.
Subject Headings: 1. Waterspouts 2. Lake Balaton, Hungary.—G.T.

N ALLES IMRENE FT

S.6-144

Kallós, Imréné, A hőmérséklet napi ingadozása különböző nagyságú felhőzet esetén. [Intradiurnal temperature variations connected with different amounts of cloud cover.] *Idojaras*, 57(3):134-136, May/June 1953. fig., table. Russian and French summaries p. 134. DLC—Maximum daily nonadvective temperature variations at Budapest are tabulated and graphically represented for each month of the year and for four different amounts of cloudiness (0-2/10; 2-5/10; 5-9/10 and 9-10/10). The computation is based on data covering the period 1941-1950. The lowest values of daily temperature variation appear with a cloudy sky during the months Oct.-Feb. (4°C) while the highest values are found with a clear sky during May-Aug. (14°C). *Subject Headings:* 1. Intradiurnal temperature variations 2. Cloud effects 3. Budapest, Hungary.--G.T.

KALLOS, I.

Altitude of the level of leading currents.   p. 318

Vol. 59, no. 5, Sept./Oct. 1955
IDOJARAS
BUDAPEST

Source: Monthly list of East European Accessions, (EEAL), LC,
     Vol. 5, no. 3, March 1956

9.10-220   351.571:511.577.2

Kallós, Mrs. Imre. A csapadékmennyiség és a nedvességtartalom kapcsolata. [Relation between precipitation amount and humidity.] Időjárás, Budapest, 61(3):191-193, May/June 1957. 8 figs., table, 4 refs. English summary p. 191. DLC—Weather during the first half of July 1955 is analyzed from the point of view of water-vapor content of the alr. Precipitation of larger amount has been recorded during the observational period only when the numerical value of the water vapor content considerably surpassed the average value of July. In analyzing specific moisture it turned out that the largest advection of moisture took place on 850 and 700 mb levels. In connection with the large amount of precipitation of July 9, the author points out that in Transdanubia large amounts of precipitation are to be expected in case of a cyclone coming from the south and passing over the Carpathian basin with its warm sector in northern direction. After that, rainy weather is to be expected if an anticyclone is forming north and north-east, respectively, from the Carpathians and this hinders the cyclone in moving out of the Hungarian basin. *Subject Headings:* 1. Humidity-precipitation amount relationships 2. Cyclonic precipitation 3. Transdanubia, Hungary.—*Author's abstract.*

August 10, 1959

KALLOS, Imre, dr.

Changes in the ground water level expressed in the function of
ground water depth and meteorological elements. Hidrologiai
kozlony 41 no.2:149-156 Ap '61.

KALLOS, Imre

Flood waves and their delineation. Hidrologiai kozlony 36
no.5:360-364 0'56.

KALLOS, L.

Flood waves and their representation. p.360.
(Hidrologiai Kozlony, Vol. 36, No. 5, Oct. 1956, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

MARTON, Sandor, dr.,; KALLOS, Zsuzsa, dr.

Lobectomy in tuberculosis with diabetes mellitus. Orv. hetil.
96 no.19:523-526 8 May 55

1. Az Allami Koranyi Tudobeteggyogyintezet (igazgato: Dessauer Pal
dr. II. Osztalyanak (foorvos: Marton Sandor dr.) kozlemenye.
        (TUBERCULOSIS, PULMONARY, complications,
            diabetes mellitus, lobectomy in)
        (DIABETES MELLITUS, complications,
            tuberc., pulm., lobectomy in)

KALLOS, Zsuzsa; MARTON, Sandor; SZANTO, Endre

ACTH and cortisone in pulmonary tuberculosis. Tuberkulozis 10 no.5-6:
123-128 May-June 57.

1. Az Orszagos Koranyi TBC Intezet (tudomanyos vezeto: Sebok Lorant dr.)
II. belosztalyanak (foorros: Marton Sandor dr.) es I. V. belosztalyanak
(foorros: Szanto Endre dr.) kozlemenye.
          (TUBERCULOSIS, PULMONARY, ther.
                ACTH & cortisone combined with antituberculotic drugs,
                indic. & clin. evaluation (Hun))
          (ACTH, ther. use
                tuberc., pulm., combined with antituberculotic drugs, indic.
                & clin. evaluation (Hun))

KALLOS, Zsuzsa, dr.; SZANTO, Endre, dr.; PALFFY, Gyula, dr.

Results of drug therapy in the form of aerosols in the treat-
ment of lung diseases. Tuberkulozis 16 no.4/5:124-129 Ap-My '63.

1. Az Orszagos Koranyi Tbc Inteset (igazgato foorvos:
Boszormenyi Miklos dr. kandidatus, tudomanyos igazgato:
Foldes Istvan dr. kandidatus) kozlemenye.
          (TUBERCULOSIS, PULMONARY)   (LUNG DISEASES)
          (AEROSOLS)   (PYRAZINAMIDE)   (NEOMYCIN)

KALLOS, Zsuzsa, dr.; LACZKO, Ede, dr.

Pyrazinamide aerosol in the treatment of tuberculosis. Tuberkulozis
14 no.10:313-318 O '61.

1. Az Orszagos Koranyi Tbc Intezet (igazgato-foorvos: Boszormenyi
Miklos dr. kandidatus, tudomanyos igazgato: Foldes Istvan dr. kandi-
datus) kozlemenye.

(PYRAZINAMIDE ther)   (AEROSOLS ther)

KALLOS, Zsuzsa, dr.; LAKATOS, Maria, dr.; LEVENDEL, Laszlo, dr.

Data to the institutional treatment of "incurable" and "cured"
patients. Tuberkulozis 16 no.12:378-381 D '63.

1. Orszagos Koranyi Tbc Intezet (Igazgato: Bosnormunyi Miklos dr.
kandidatus, tudomanyos vezeto: Foldes Istvan dr. kandidatus) kozle-
menye.

MARTON, Sandor, dr.; KALLOS, Zsuzsa, dr.

Use of thiosemicarbazone (Conteben) aerosols in pulmonary tuber-
culosis. Tuberkulozis 17 no.2:47-50 F '64.

1. Az Orszagos Koranyi TBC Intezet (igazgato foorvos: Boszormenyi
Miklos dr. kandidatus, tudomanyos igazgato: Foldes Istvan dr. kan-
didatus) IX osztaly (foorvos: Marton Sandor dr. kandidatus) kozle-
menye.

KALLOS, L.

Correlation between the amount of precipitation and moisture content.

p. 191. (IDOJARAS) Vol. 61, no. 3, May/June 1957
Budapest, Hungary

SO: Monthly Index of East European Acce: sions (EEAI) LC, Vol. 7, No. 3,
March 1958

L 13128-66   EWT(1)   IJP(c)   GG

ACC NR: AP6000222   SOURCE CODE: UR/0056/65/049/005/1611/1623

AUTHOR: Kallosh, R. E.; Faynberg, V. Ya.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Quantum field theory equations in the axiomatic approach

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 5, 1965, 1611-1623

TOPIC TAGS: quantum field theory, S matrix, matrix function, difference equation

ABSTRACT: The purpose of the investigation was to determine the invariant proper-ties of the S-matrix elements previously derived by one of the authors (Faynberg, ZhETF v. 47, 2285, 1965 and earlier) for an axiomatic formulation of quantum field theory, and to obtain in explicit form equations for n-point diagrams in differ-ence or integral form, with the quasilocal term eliminated. It is shown within the framework of this formulation that the undetermined quasilocal terms can be expressed in terms of R-functions when the values of some of the invariants are fixed. An analysis is made of the invariants on which the v-functions on the mass shell depend, the range of variation of these invariants in the equation, and

Card 1/2

L 13128-66

ACC NR: AP6000222

the best choice of independent variants in the case of an arbitrary n-point dia-
gram. The invariant properties of the retarded matrix elements of v-functions
are used. It is shown that on the mass shell the v-functions depend in the
physical region only on invariant scalar products of 4-vectors. Equations in dif-
ference form are derived first for 3-, 4-, and 5-point diagrams, and the special
nature of the boundary conditions at the threshold and at infinity is explained.
The method is then generalized to a 6-point diagram. The equations derived and
the prospects for solving them beyond the scope of perturbation theory are briefly
discussed. Orig. art. has: 25 formulas.

SUB CODE: 12/   SUBM DATE: 12Jun65/   ORIG REF: 006/   OTH REF: 005

Card 2/2 HW

KALLOSNE SUGAR, Margit; OTTANE BENKO, Erzsebet

Hurricane-like windstorm in Szeged. Idojaras 66 no.5:292-294 S-O '62.

KALLOSNE SUGAR, Margit

Drops of cold air over the Carpathian Basin in the early summer,
from June 5-8, 1962. Orsz meteor int besz tud kut 26:126-138
'62(publ.'63).

KALLUS,K.; BUZEK,Z.

Intensification of the melting down period in the arc furnace
by charge preheating outside the furnace or inside the furnace;
an economic comparison. Sbor VSB Ostrava 9 no.1:67-71 '63.

KALLOSNE SUGAR, Margit

"Specific cases of obserbing precipitations by radar" by L.
Klauser, G.Malkowski. Reviewed by Mrs.Margit Kallos nee Sugar.
Idojaras 68 no.6:376-377 N-D '64.

CAHA, A., Dr.; PROKES, V., Dr.; KALUSCH, K.

    Gammagraph for medical use; preliminary report. Cesk. rentg. 11 no.3:
197-200 Aug 57.

    1. Onkologicky ustav v Brne, red doc. Dr. J. Sprindrich. Fysikalni ustav
prirodovedecke fakulty MU v Brne Prvni Brnenske strojirny, Z, KG.
        (GAMMA RAYS,
            gamma radiography, appar. (Cz))

SEMENOV, Aleksandr Nikolayevich; KALLYUS, V.Ya., dotsent, kand.tekhn.
nauk, retsenzent; SOROKA, M.S., red.

[Grain drills] Zernovye seialki. Moskva, Gos.nauchno-tekhn.izd-vo
mashinostroit.lit-ry, 1959. 312 p.   (MIRA 13:2)
          (Drill (Agricultural implement))

KALLYUS, Vyacheslav Yaroslavovich; KONDRATYUK, P.I., kand. tekhn. nauk,
dots., retsenzent; UFAT, Ye.A., inzh.. retsenzent; PILIFENKO,
Y.P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Hay-harvesting machines; design, calculations, and the principles
of utilization] Senouborochnye mashiny; konstruktsiia, raschet i os-
novy ekspluatatsii. Moskva, Mashgiz, 1961. 274 p.   (MIRA 14:12)
       (Hay--Harvesting)   (Agricultural machinery)

KALM, A.

The problem of seasons in calving.   p. 115.

SOTSIALISTLIK POLLUMAJANDUS.   (Pollumajanduse Ministeerium) Tallinn,
Estonia.   Vol. 13, no. 3, March 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11,
November 1959.

Uncl.

KALM, A.

Prices of hogs, sheep, rabbits, and fur animals. p. 580

SOTSIALISTLIK POLLUMAJANDUS. Tallinn, Estonia. Vol. 14, no. 12, June 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959
Uncl.

KAL'M, A.A.

GARPINCHENKO, A.M.; GOLUBEV, S.G.; DANILOV, M.V.; KAL'M, A.A.; KALYAYEV,
    S.V.; MIKHAYLOV, V.I.; GOLUBEV, S.G.; redaktor; FILATOV, I.G.,
    redaktor; VINOKUROVA, Ye.B., redaktor; KONYASHINA, A., tekhniche-
    skiy redaktor

[Fire extinction tactics] Pozharnaia taktika. Pod red. S.G.Golubeva.
Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1955.
379 p.   (MIRA 8:6)
        (Fire extinction)

ASATUR, K.G.; KUROCHKIN, N.N.; KAL'M, A.A.

Capacity of the fan drives of heating units. Zap. LGI 47 no.1:
92-95 '62.   (MIRA 16:5)
(Mine ventilation--Cold weather operations) Fans, Electric)

KAL'M, P   A

KAL'M, P   A
    PYATILETNIY PLAN KOLKHOZA "ISKRA" NA 1951-1955 GODY (THE FIVE-YEAR PLAN OF THE
KOLKHOZ "ISKRA" FOR 1951 to 1955, BY) P. A. KAL'M, V. F. BAZENKOV, V. K. IVANKIN (DR.)
MOSKVA, SEL'KHOZGIZ, 1952. 221 P. ILLUS., DIAGRS., TABLES.

                                                    N/5
                                                    783.3
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KAL'M,P.A.; VLASOV,A.V., redaktor; GLADKIY,N.P.,redaktor; LEVONEVSKAYA, L.G., tekhnicheskiy redaktor

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S.A., dots., kand. ekon. nauk; SAPIL'NIKOV, N.G., doktor ekon.
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9. Moskovskiy ekonomiko-statisticheskiy institut (for Libkind).
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14(9)   SOV/112-59-2-2721

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 2,
    pp 62-63 (USSR)

AUTHOR: Kalmakhelidze, S. S.

TITLE: Physical and Technical Properties of Kolkhida Gleyed Soils and Their
    Variation Under Influence of Electric Current (Fiziko-tekhnicheskiye svoystva
    kolkhidskikh ogleyennykh gruntov i ikh izmeneniye pod deystviyem
    elektricheskogo toka)

PERIODICAL: Tr. Gruz. n.-i. in-ta gidrotekhn. i melior., 1957, Nr 18-19,
    pp 471-484

ABSTRACT: Gleyed soils belong with the marsh-type highly-compressible soils
    that have a low water permeability. To improve their inferior construction
    properties, it is recommended that electrization and electric osmosis be used;
    these measures considerably improve their water resistance, reduce their
    swelling and shrinkage, augment their permissible vertical load 2.5-3.5 times,

Card 1/2

SOV/112-59-2-2721

Physical and Technical Properties of Kolkhida Gleyed Soils and Their Variation . . . .

and reduce their compressibility factor 4-5 times. Electric current density of 2.5-20 amp/m^2 is used to strengthen the gleyed soils. Electric-energy consumption is 60-70 kwh/m^3 of soil. Compression curves for gleyed and non-gleyed soils are presented.

V.A.P.

Card 2/2

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current." Tbilisi, 1958. 20 pp with graphs (Min of Higher Education USSR.
Order of Labor Red Banner Georgian Polytech Inst im S.M. Kirov), 100 co-
pies (KL,26-58, 110)

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