"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

24(7) SOV/48-22-11-33/33

AUTHORS: Zhevandrov, N. D., Galanin, M. D., Sevchenko, A. N.

TITLE: Discussion of the Lectures Held by A. M. Sarzhevskiy, A. N. Sevchenko, and P. P. Nepochatykh (Prenija po dokladam A. M. Sarzhevskogo i A. N. Sevchenko; P. P. Nepochatykh)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1958, Vol 22, Nr 11, pp 1420-1420 (USSR)

ABSTRACT: N. D. Zhevandrov comments on the lecture by A. M. Sarzhevskiy and A. N. Sevchenko: The divergence between the molecular volumes determined experimentally can easy be explained, as the data presented in the respective papers were obtained after an interruption of three years and with different lots of glycerin. As regards the interpretation of the results with respect to the solvate shells or with respect to the macro- and micro-viscosity, this seems to be only hair-splitting, because the physical nature of the phenomenon is essentially that of the interaction of the fields of the dissolved molecules and of the solvent molecules.

M. D. Galanin advances remarks concerning the above mentioned lectures: He criticises the application of Perren's formula to

Card 1/2

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SOV/48-22-11-33/33

Discussion of the Lectures Held by A. M. Sarzhevskiy, A. N. Sevchenko, and P. F. Nepochatykh

the determination of the molecular volume and in particular to a decision on the problem of the solvate shells. An agreement between the values of molecular volumes determined and the actual volumes of the molecules can only be expected to keep within the range of orders of magnitude. In this connection the results must be taken for an indication of the fact that micro- and macro-viscosity are about equal.

A. N. Sevchenko answers: The information provided gives rise to the assertion that the shape of the molecules in the solvent is approximately sphorical. The fact that the solvate shell volumes found by independent methods (Perren, Marinesco, agree with each other may serve as direct proof of the accuracy of the respective methods. Hence the remarks by M. D. Galanin are not convincing.

Card 2/2

USCOMM-DC-60,863

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

SOV/51-6-3-12/28

AUTHORS: Nikitina, A.N., Galanin, M.D., Ter-Sarkisyan, G.S. and Mikhaylov, B.M.

TITLE: The Absorption and Luminescence Spectra of Solutions of Substituted Polyenes (Spektry pogloshcheniya i lyuminestsentsiya rastvorov nekotorykh zameshchennykh poliyenov)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 3, pp 354-365, (USSR)

ABSTRACT: The authors investigated the electronic absorption spectra of eighteen substituted butadienes and hexatrienes dissolved in heptane as well as luminescence of solutions of these substances in heptane and benzene. All the substances studied were purified chromatographically using aluminium oxide. The absorption spectra of solutions were measured using a spectrophotometer SF-4. The luminescence spectra in the visible region were measured by means of a spectrometer consisting of a monochromator UM-2 and a photomultiplier FEU-19. The results obtained are shown in Table 1. This table includes calculated values of the oscillator strengths of long-wavelength electronic transitions and the

Card 1/2

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SOV/51-6-3-12/28

The Absorption and Luminescence Spectra of Solutions of Substituted Polyenes

quantum yields of luminescence. The absorption spectra of solutions of the substituted butadienes and hexatrienes are shown in Figs.1-8. It was found that the absorption intensities and band positions depend on the degree of departure from coplanarity of conjugated double bonds. It was found also that the quantum yield of luminescence of some substances is higher in benzene solutions and in others it is higher in heptane solutions. Measurements of the excited-state lifetime showed that decrease of the quantum yield of 1,1,4,4-tetraphenyl-butadiene-1,3 in a benzene solution is due primarily to quenching of the second type, while changes of the excited-state lifetime of 1,6-diphenyl-hexatriene-1,3,5 cannot be explained by quenching (Table 2). There are 8 figures, 2 tables and 11 references, of which 2 are Soviet, 8 English and 1 German.

SUBMITTED: January 16, 1958

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

85767

9.4160 (3201,1137)
24.3500 (1035,1138)

S/048/59/023/011/001/012
B019/B060

AUTHORS: Galanin, M. D., Rayevskiy, A. V.

TITLE: The Temperature-extinction of Luminescence of the Crystal Phosphor ZnS-Ag With Excitation by Light or α-Particles

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol. 23, No. 11, pp. 1280-1282

TEXT: The luminescence of crystal phosphors upon excitation by charged particles differs from photoluminescence; this is simply explained by the difference in the excitation density. In excitation by high-energy particles the mean excitation density can be considerably lower than the local density. A scintillation method is applied here to investigate the temperature-extinction of luminescence of the crystal phosphor Zn-10^{-4}Ag(NaCl), and it is stated in the beginning that this temperature-extinction differs from the processes of "external extinction". The temperature-extinction is assumed to be a radiation-free recombination of localized electrons with free holes. A diagram (Fig. 1) illustrates the temperature-extinction of the abovementioned crystal phosphor upon excitation by α-particles from Po^{210} and by light (λ = 365 mμ) at various excitation intensities. The

Card 1/3

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85767

The Temperature-extinction of Luminescence of the Crystal Phosphor ZnS-Ag With Excitation by Light or α-Particles

S/048/59/023/011/001/012
B019/B060

dependence of the luminescence intensity I_o (I_o in the absence of extinction) on the excitation intensity E may be approximated with good linearity. Fig. 2 shows the energy scheme of the crystal phosphor, in which connection the absorption of the exciting light is assumed to occur in the band of the activator with extinction being of the first order. This means that the probability of a recombination of localized electrons is greater than that of the capture of holes on the activator. Formula (1) is given for the relative luminescence yield under steady conditions and on the assumption of the number of free electrons and holes being low. The dependence computed according to this formula is graphically illustrated in Fig. 3. Proceeding from a known curve of temperature-extinction at a determined excitation intensity, the above dependence makes it possible to calculate the curves of temperature-extinction at other excitation intensities. The dotted lines in Fig. 1 represent curves calculated in this manner; the comparison with experimental curves yields fairly good results. It is further stated that upon excitation by α-particles, if the capture of a hole on the activator is highly probable, the difference in the absorption mechanism is unimportant. Under these conditions, a comparison is made between the photo- and the α-excitation according to the respective

Card 2/3

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85767

The Temperature-extinction of Luminescence of the Crystal Phosphor ZnS-Ag With Excitation by Light or α-Particles

S/048/59/023/011/001/012
B019/B060

extinction curves. Thus, the following was found for the mean excitation density: 12500 $wcm^{-3} \sim 4 \cdot 10^{16}$ $Mev \cdot cm^{-3} \cdot sec^{-1}$. Proceeding from these results, the path length l is then evaluated at roughly 10^{-3}cm, the radius r at roughly 10^{-6}cm, and the scintillation period t at roughly 10^{-6} seconds; $\eta \sim 0.25$ is obtained for the excitation efficiency. The authors thank A. A. Cherepnev and M. V. Danilova for the preparation of phosphor, and M. V. Fok for advice given. There are 3 figures and 6 references: 5 Soviet.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Institute of Physics imeni P. N. Lebedev of the Academy of Sciences, USSR)

Card 3/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

STARTSEV, V.I., otv. red.; ALEKSANDROV, B.S., red.; BELYAYEV, L.M., red.; BRUDZ', V.G., red.; VOYTOVETSKIY, V.K., red.; GALANIN, M.D., red.; DISTANOV, B.G., red.; KLIMOV, A.P., red.; SEMENENKO, M.G., red.; SHAMOVSKIY, L.M., red.

[Scintillators and scintillation materials] Stsintilliatory i stsintilliatsionnye materialy. Moskva, Gos. komitet Soveta Ministrov SSSR po khimii, 1960. 319 p. (MIRA 15:4)

1. Koordinatsionnoye soveshchaniye po stsintilliatoram. 2nd, 1957. (Scintillation counters)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

24 (0) S/030/60/000/01/054/067
B015/B011

AUTHOR: Galanin, M. D.

TITLE: Molecular Luminescence and Analysis of Luminescence

PERIODICAL: Vestnik Akademii nauk SSSR, 1960, Nr 1, pp 102 - 103 (USSR)

ABSTRACT: The author describes the course of a conference held at Minsk from October 19 to 24, 1959 devoted to problems of the analysis of luminescence. The Conference had been convened by the Nauchnyy sovet po lyuminestsentsii Otdeleniya fiziko-matematicheskikh nauk Akademii nauk SSSR (Scientific Council for Luminescence of the Department of Physical and Mathematical Sciences of the Academy of Sciences of the USSR) with participation of the Institut fiziki Akademii nauk Belorusskoy SSR (Institute of Physics of the Academy of Sciences of the Belorusskaya SSR) and the Belorussian University. Special mention is made of the following problems dealt with by the Conference: explanation of the essence and of the theoretical interpretation of continuous spectra of complex molecules; exitons in molecular crystals and their role in luminescence; investigations of line spectra of polycyclic compound solutions in normal saturated hydrocarbons at low temperatures, discovered by E. V. Shpol'skiy a few years

Card 1/2

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Molecular Luminescence and Analysis of Luminescence S/030/60/000/01/054/067
B015/B011

ago. The participants in the Conference suggested to call this phenomenon "Shpol'skiy Spectral Effect". The Conference stressed the successful development of investigations on luminescence. At the same time, however, deficiencies were found in the investigation and utilization of luminescence. The coordination in this field should be improved.

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, M.D.

Resonance transfer of excitation energy in luminescent solutions.
Trudy Fiz.inst. 12:3-53 '60. (MIRA 13:8)
(Luminescence)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

FABRIKANT, Valentin Aleksandrovich, prof., doktor fiziko-matem. nauk; CHERENKOV, Pavel Alekseyevich, prof., doktor fiziko-matem. nauk, laureat Nobelevskoy premii; GALANIN, Mikhail Dmitriyevich, prof., doktor fiziko-matem. nauk; KUZNETSOV, Ivan Vasil'yevich; TOLSTOY, Nikitia Alekseyevich, prof., doktor fiziko-matem. nauk; VINTER, Aleksandr Vasil'yevich, akademik [deceased]; BARDIN, Ivan Pavlovich, akademik [deceased]; BAZHENOV, A.I., FAINBOYM, I.B., red.; RAKITIN, I.T., tekhn. red.

Sergei Ivanovich Vavilov; sbornik. Moskva, Izd-vo "Znanie," 1961. 43 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.9, Fizika i khimiia, no.10) (MIRA 14:7)

(Vavilov, Sergei Ivanovich, 1891-1951)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, M.D.; CHIZHIKOVA, Z.A.

Duration of the photoluminescence and radioluminescence of anthracene and naphthalene crystals Opt. i spektr. 11 no.2:271-273 Ag '61. (MIRA 14:8)

(Luminescence)
(Naphthalene crystals)
(Anthracene crystals)

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20832

9,4160 (3201, 2804 ONLY)
9,6150
24,3500 (1137, 1138, 1395)

S/048/61/025/003/020/047
B104/B214

AUTHORS: Belikova, T. P. and Galanin, M. D.

TITLE: Kinetics of the luminescence of ZnS-Cu on excitation with alpha particles and short light pulses

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 3, 1961, 364-366

TEXT: This paper was read at the Ninth Conference on Luminescence (Crystal Phosphors) held in Kiyev from June 20 to June 25, 1960. The object of the paper is a comparison between the kinetics of alpha scintillations and that of photoluminescence. The duration of the light pulses was 0.5 microsecond, and they were repeated 10 times in a second. A filter for the range between 300 and 400 mμ in the spectrum was used in the case of excitation of the phosphors. The energy amounted to 3 ergs approximately on an area of 0.025 cm^2. Only the green luminescence band is considered. It is first established that in the case of alpha scintillations the damping curve in the range between -150°C and +200°C depends only slightly on temperature. Further, the observed short

Card 1/2

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20832

Kinetics of the luminescence... S/048/61/025/003/020/047
B104/B214

scintillation exists only at the beginning of damping. With increasing energy density of the exciting light pulses, a short damping process begins whose amplitude increases nonlinearly with an increase in the intensity of excitation. In the case of alpha scintillations, the curve at the commencement of damping depends only slightly on temperature. It is concluded that the difference in the kinetics of scintillation cannot be understood on the basis of the density of excitation. It is suggested that the initial change of electron concentration in the conduction band is determined by a diffusion of the electrons to the ionized centers. This is accompanied by a brief stay of the electrons at shallow traps. In this case, the kinetics of scintillation and photoluminescence can depend on the electric field produced along the path of the alpha particle when the ejections of electrons and holes are different. There are 3 figures and 6 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

43410

S/051/62/013/005/016/017
E039/E420

AUTHORS: Belikova, T.P., Galanin, M.D., Sviridenkov, E.A.

TITLE: Kinetic photoconductivity and luminescence of ZnS-Cu crystal phosphor with pulsed excitation

PERIODICAL: Optika i spektroskopiya, v.13, no.5, 1962, 752-753

TEXT: It is known that a well defined connection exists between kinetic photoconductivity and kinetic luminescence. This work is extended to cover the case of pulsed excitation from a spark. A single crystal of ZnS-Cu, Cl, was grown from the gaseous phase (dimensions $\sim 2 \times 0.3 \times 0.01$ mm) fixed onto a mica sheet and metallized aluminium electrodes applied. The interelectrode region was chosen to be free from cracks and with a width of 0.3 mm. The dark resistance between the electrodes was $> 10^8 \Omega$ and the applied voltage could be varied from 0 to 250 V. On one beam of a ДЭСО-1 (DESO-1) oscillograph was shown the photocurrent and on the other the output from a photomultiplier measuring the luminescence of the crystal. These curves have a very similar form with a fast initial decay tailing off after about 50 μ sec. With the aid of the following expression derived in a previous

Card 1/3

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S/051/62/013/005/016/017
E039/E420

Kinetic photoconductivity ...

paper

$$I = -\frac{dn}{dt} = \beta n N$$

where n and N are the concentration of ionisation centres and electrons in the conduction band, β is the probability of recombination and I is intensity of luminescence; neglecting the effect of the hole processes it is shown that the conductivity $\sigma(t)$ must be proportional to N(t). In addition the change in concentration of the ionisation centres can be obtained by integrating the luminescence decay curves (neglecting quenching) : $n(t) + c = \int I dt$.

Hence it follows that there must be a linear dependence between I/σ and $\int I dt$. This is verified experimentally. The photoconductivity during pulsed excitation is nearly 5 orders higher than the dark conductivity and does not depend on the field strength (up to 7500 V/cm). In contrast the average conductivity under the action of pulsed excitation and also the dark conductivity increases exponentially with voltage beginning at

Card 2/3

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Kinetic photoconductivity ... S/051/62/013/005/016/017
E039/E420

2500 to 3000 V/cm. This is due to an increase in the number of carriers. The dark conductivity up to this voltage remains constant and is equal to $1.3 \times 10^{-7} \Omega^{-1} cm^{-1}$. There are 2 figures.

[Abstractor's note. Abridged translation.]

SUBMITTED: February 24, 1962

Card 3/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, M.D., KORBKIN, V.V., LEONTOVICH, A.M., SMORYCHKOV, V.M. AND CHIZHIKOVA, L.A.

"Coherence, spectra time scanning and pulsations of the ruby laser emission."

Report submitted to the Third Intl. Symp. on Quantum Electronics. Paris, France 11-15 Feb 1963

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

FRISH, S.E., otv. red.; BOBOVICH, Ya.S., kand. fiz.-matem. nauk, red.; VOL'KENSHTEYN, M.V., doktor fiz.-matem. nauk, red.: GALANIN, M.D., doktor fiz.-matem. nauk, red.; DRUKAREV, G.F., doktor fiz.-matem. nauk, red.; YEL'YASHEVICH, M.A., akademik, red.; KALITEYEVSKIY, N.I., doktor fiz.-matem. nauk, red.; KUSAKOV, M.M., doktor khim. nauk, red.; LIPIS, L.V., doktor tekhn.nauk, red.; PEKAR, S.I., doktor fiz.-matem. nauk, red.; PROKOF'YEV, V.K., doktor fiz.-matem. nauk, red.; SOKOLOV, N.D., doktor fiz.-matem. nauk, red.; FEOFILOV, P.P., doktor fiz.-matem. nauk, red.; CHULANOVSKIY, V.M., doktor fiz.-matem. nauk, red.; SHPOL'SKIY, E.V., doktor fiz.-matem. nauk, red.; YAROSLAVSKIY, N.G., kand. fiz.-matem. nauk, red.; LEKSINA, I.Ye., red. izd-va; PENKINA, N.V., red. izd-va; NOVICHKOVA, N.D., tekhn. red.; KASHINA, P.S., tekhn. red.

[Physical problems in spectroscopy]Fizicheskie problemy spektroskopii; materialy. Moskva, Izd-vo Akad. nauk SSSR. Vol.1. 1962. 474 p. (MIRA 16:2)

1. Soveshchaniye po spektroskopii. 13th, Leningrad, 1960. 2. Chlen-korrespondent Akademii nauk SSSR (for Frish). 3. Akademiya nauk Belurusskoy SSR (for Yel'yashevich).
(Spectrum analysis)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, M.D.; KONOBEYEV, Yu.V.; CHIZHIKOVA, Z.A.

Effect of reabsorption on the law of damping of the luminescence of anthracene crystals. Opt. i spektr. 13 no.3:386-389 S '62. (MIRA 15:9)
(Anthracene crystals) (Luminescence)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

BELIKOVA, T.P.; GALANIN, M.D.; SVIRIDENKOV, E.A.

Kinetics of the photoconductivity and luminescence of the crystal phosphor ZnS-Cu under pulse excitation. Opt.i spektr. 13 no.5:752-753 N '62. (MIRA 15:12)
(Luminescent substances) (Photoconductivity)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, M.D.; LEONTOVICH, A.M.; CHIZHIKOVA, Z.A.

Coherence and directionality of the emission of a ruby optical maser. Zhur. eksp. i teor. fiz. 43 no.1:347-349 Jl '62. (MIRA 15:9)

(Masers)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, M.D.; LEONTOVICH, A.M.; SVIRIDENKOV, Z.A.; SMORCHKOV, V.N.; CHIZHIKOVA, Z.A.

Pulsations in the radiation from an optical ruby maser. Opt. i spektr. 14 no.1:165-166 Ja '63. (MIRA 16:5)
(Masers) (Quantum electronics)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

L 12922-66 EWT(m) IJP(c)

ACC NR: AP6000952 SOURCE CODE: UR/0286/65/000/022/0039/0039

44,55 44,55 44,55 44,55

AUTHORS: Galanin, M. D.; Gorbunkov, V. M.; Delone, N. B.; Korobkin, V. V.; Leontovich, A. M.; Saitov, I. S.

44,55 44,55

ORG: none

71

B

19,55,44

TITLE: A method for illuminating particle tracks in chambers for the visual observation of tracks. Class 21, No. 176332

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 39

TOPIC TAGS: laser, particle track, coherent light

ABSTRACT: This Author Certificate presents a method for illuminating the particle tracks in chambers for visual observation of tracks by pulsed light radiation. To increase the accuracy of the physical experiment, an optical quantum generator (laser) with confocal resonators is used for illuminating.

SUB CODE: 14/ SUBM DATE: 18Jun64

Card 1/1 HW UDC: 621.375.8:539.1.073.8

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

L 10662-65 EWG(j)/EWA(k)/EWT(d)/FBD/EWT(1)/EWP(e)/EWT(m)/EEC(k)-2/T/EEC-4/EEC(t)/EEC(b)-2/EWP(k)/EWA(m)-2/EWA(h) Pn-4/Po-4/Pq-4/Pf-4/Pg-4/Peb/Pi-4/Pk-4/Pl-4 IJP(c)/SSD/AFETR/RAEM(a)/ESD(t)/ASD(a)-5/ESD(gs)/AFWL/ASD(d)/BSD

ACCESSION NR: AP4044851 WG/WH S/0051/64/017/003/0402/0405

AUTHOR: Galanin, M. D.; Chizhikova, Z. A.

TITLE: Ruby luminescence at elevated excitation energies and in the oscillating mode

SOURCE: Optika i spektroskopiya, v. 17, no. 3, 1964, 402-405

TOPIC TAGS: ruby laser, ruby luminescence, laser, laser luminescence measurement, laser luminescence

ABSTRACT: The intensity of a directed laser beam is proportional to the density of the radiation energy in the resonator. However, at any instant of time, the state of the laser system is also determined by the concentration of excited atoms. The latter can be judged by the intensity of luminescence. The experimental measurement of luminescence during oscillation is, however, difficult due to scattering of the laser beam in the crystal and its superposition upon the luminescence. In order to observe only that luminescence emitted by the oscillating portion of the crystal, the author pro-

Card 1/3

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ACCESSION NR: AP4044851

posed an optical system by which he had observed the R_2 line in the ruby spectrum. Equilibrium among the excited $\bar{E}$ and $\overline{2A}$ levels of Cr^{3+} in the Al_2O_3 lattice, which correspond to the R_1 and R_2 lines, is rapidly achieved, so that the population of the $\bar{E}$ level (R_1 line) can be observed in terms of the luminescence of the R_2 line. A graph which shows the shape of the pumping and luminescence pulses at lower and higher energies and a discussion thereof are presented for both the experimental and computed results. The results obtained in the oscillating state indicate that when both mirrors of the resonator are open, a sharp saturation of luminescence occurs when oscillation commences. The observed drop in luminescence after the threshold is associated with a decrease in the pumping energy with time. Inasmuch as the luminescence becomes saturated rapidly as the pumping pulse energy increases, the oscillation energy continues to grow approximately in proportion to the pumping energy. This confirms the theory that oscillation does not occur due to the energy which, in the absence of oscillation, would be stored in the crystal but is due to an increase in the absorption of the oscillating crystal. The authors express their thanks to A. M. Leontovich

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

L 10662-65

ACCESSION NR: AP4044851

for his evaluation of their work." Orig. art. has: 2 formulas and 3 figures.

ASSOCIATION: none

SUBMITTED: 10Nov63 ATD PRESS: 3115 ENCL: 00

SUB CODE: EC NO REF SOV: 002 OTHER: 004

Card 3/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

VVEDENSKIY, B.A., glav. red.; VUL, B.M., glav. red.; SHTEYNMAN, R.Ya., zam. glav. red.; BALDIN, A.M., red.; VONSOVSKIY, S.V., red.; GALANIN, M.D., red.; ZEMLOV, D.V., red.; ISHLINSKIY, A.Yu., red.; KAPITSA, P.L., red.; KAPTSOV, N.A., red.; KOZODAYEV, M.S., red.; LEVICH, V.G., red.; LOYTSYANSKIY, L.G., red.; LUK'YANOV, S.Yu., red.; MALYSHEV, V.I., red.; MIGULIN, V.V., red.; REBINDER, P.A., red.; SYRKIN, Ya.K., red.; TARG, S.M., red.; TYABLIKOV, S.V., red.; FEYNBERG, Ye.L., red.; KHAYKIN, S.E., red.; SHUBNIKOV, A.V., red.

[Encyclopedic physics dictionary] Fizicheskii entsiklopedicheskii slovar'. Moskva, Sovetskaia Entsiklopediia. Vol.4. 1965. 592 p. (MIRA 18:1)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

L 60877-65 EWA(k)/FBD/EWG(r)/EWT(1)/EWP(e)/EWT(m)/EEC(k)-2/EWP(1)/T/
EEC(b)-2/EWP(k)/EWA(h)/EWA(m)-2 SCTB/IJP(c) WG/WH

ACCESSION NR: AP5019769 UR/0051/65/019/002/0296/0298
535.34+535.37:553.824

AUTHOR: Galanin, M. D.; Smorchkov, V. N.; Chizhikova, Z. A.

TITLE: Luminescence and absorption of excited ruby

SOURCE: Optika i spektroskopiya, v. 19, no. 2, 1965, 296-298

TOPIC TAGS: ruby, ruby crystal, optical pumping, population inversion, laser, solid state laser, ruby laser

ABSTRACT: An investigation was made of the absorption and luminescence of optically excited ruby crystals in order to determine whether absorption from the metastable ^2E levels decreases the lifetime of excited chromium ions and the effect of absorption on the degree of population inversion that can be achieved. The experiments were conducted under conditions which made it possible to neglect stimulated emission. Within the limit of the experimental error (~10%) it was established that excitation from the ^2E level is followed by a quick nonradiative transition to the same level and that the probability of transition to the ground state is small. Therefore, the effects responsible for a decrease in the inverted population are most likely limited to spontaneous and stimulated emission. Orig. art. has: 3 formulas and 2 figures. [CS]

Card 1/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

L 60877-65

ACCESSION NR: AP5019769

0

ASSOCIATION: none

SUBMITTED: 05Jan65 ENCL: 00 SUB CODE: SS

NO REF SOV: 002 OTHER: 002 ATD PRESS: 4063

jlk

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

L 35887-66 EWT(1)/EWT(m)/EWP(j) IJP(c) JW/RM

ACC NR: AP6024509 SOURCE CODE: UR/0386/66/004/002/0041/0043

64
63
B

AUTHOR: Galanin, M. D.; Chizhikova, Z. A.

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

TITLE: Effective cross sections of two-photon absorption in organic molecules

SOURCE: Zh eksper i teor fiz. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 2, 1966, 41-43

TOPIC TAGS: light absorption, organic crystal, luminescence, laser application, complex molecule, absorption coefficient

ABSTRACT: The authors have determined the effective cross sections of two-photon absorption for organic molecules of different symmetries (anthracene, acridine, and 3-aminophthalimide) and compared the absorption of anthracene in solution and in crystal form. The purpose of the investigation was to compare two-photon absorption for a molecule with symmetry center (anthracene) and molecules of lower symmetry. The two-photon absorption was determined from the intensity of the luminescence induced by a ruby laser. Since the two-photon and single-photon excitation intensities were compared directly, the procedure obviated the need for corrections for photomultiplier sensitivity, luminescence light gathering, and luminescence quantum yield. A Q-switched laser (rotating prism) of low power (up to 10 MW/cm^2) was used to avoid various extraneous effects. The use of an unfocused laser beam ensured constant

Card 1/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

L 35887-66

ACC NR: AP6024509

energy density along the laser beam in the investigated substance. The single-photon excitation was by means of a flash lamp with filters to separate a narrow region near 347 nm (corresponding to double the laser frequency). The results have shown that the effective cross sections for two-photon absorption are very close for the three investigated molecules, thus demonstrating that the symmetry of a complex molecule does not influence the two-photon absorption probability. The absorption coefficient was several times larger for the anthracene crystal than for the solution. A control experiment demonstrated that the state of the crystal surface is not the cause of this difference. The authors thank B. P. Kirsanov for a discussion of the work. Orig. art. has: 1 formula and 1 table. [02]

SUB CODE: 20/ SUBM DATE: 05May66/ OTH REF: 002/ ATD PRESS: 5037

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N.

GALANIN, N.; AGEYEV, P.; IOFFE, M.; KYUPAR, A.; RAMM, I.; SHAFIR, A.

Using sewage for field irrigation. Gig. i san. 22 no.9:73-74 S '57. (MIRA 10:12)

1. Predsedatel' pravleniya Leningradskogo otdeleniya Vserossiyskogo obshchestva gigiyenistov (for Galanin). 2. Chleny pravleniya Leningradskogo otdeleniya Vserossiyskogo obshchestva gigiyenistov (for Ageyev, Ioffe, Kyupar, Ramm, Shafir)

(SEWAGE
utilization for irrigation of fields)
(IRRIGATION
utilization of sewage)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N. F., PROF

USSR/Medicine - Hygiene and Sanitation Jun 48
Medicine - Ultraviolet Rays

"Prof N. F. Galanin's 'Hygienic Evaluation of Ultraviolet Radiation in a Large City' -- Pro and Con" 2½ pp

"Gig i San" No 6

S. Chubinskiy, Sochi Inst imeni Stalin, points out discrepancies in Galinin's article. States it is necessary to understand intensity of ultraviolet radiation in various parts of country before making definite conclusion regarding best bio-doses. Galinin, Corr Mem, Acad Med Sci. defends his arti-

[redacted] 14/49T49

USSR/Medicine - Hygiene and Sanitation Jun 48
(Contd)

cle. Controversial article was published in "Gigiyena i Sanitariya" No 7, 1947.

[redacted] 14/49T49

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N. F.

"Reply to S.M.Chubinskiy's Criticism on My Article 'Evaluating the Hygienic Action of U traviolet Radiation in Large Cities' Which Appearedd in Gigiyena i Sanitariya No. 7, 1947," Gig. i San., No.6, 1948.

Corr. Mbr., AMS, USSR

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N. F.

37512. Galanin, N. F. Gigiyenicheskaya otsenka ul'trafioletovoy radiatsii. V SB: XII vsesoyuz. S"yezd gigiyenistov, epidemiologov, mikrobiologov, i infektsionistov. T. I. M., 1949, S. 189-91

SO: Letopis' Zhurnal'nykh Statey Vol. 37, 1949

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N. F.

"Hyg enic Basis for the Standardd zation of Ultraviolet Radiation from Sources of Artificial Light," Gig. i San., No.8, 1952.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N.F.

NATADZE, G.M., professor [author]; GALANIN, N.F.; MARKARYAN, M.G.; OSIPOV, Yu.A. [reviewers].

"Principles of hygiene" G.M.Natadze. Reviewed by N.F.Galanin, M.G.Markarian, IU.A.Osipov. Gig.i san. no.8:57-61 Ag '53. (MLRA 6:9)
(Hygiene) (Natadze, G.M.)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

Excerpta Medica 1/1 sec 17 Jan 55 Pub. Health, Social Medicine & etc

370. GALANIN N.F. and TYUKOFF D.M. *Reaction of integuments to ~~ultraviolet~~ rays (Russian text) GIGIENA 1954, 2 (3-9) Graphs 3 Tables 4

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N. [F.]

17493* (Use of Ultra-Violet Rays in Food Industry.) Primenenie ul'trafioletovykh lucheĭ v pishchevoĭ promyshlennosti. N. Galanin and N. Golovkin. *Kholodil'naia Tekhnika*, 1954, no. 2, Apr.-June, p. 57-59.

Disinfecting air of refrigeration compartments. Exposing cheeses and citrus fruits to ultra-violet rays.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

AID P - 2194

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 14/19

Author : Galanin, N. F., Prof., Corresp. Memb. of the Academy of Medical Sciences, USSR

Title : Apropos of S. A. Raykher's note

Periodical : Gig. i san., 5, 52-53, My 1955

Abstract : A sharp criticism of S. A. Raykher's review of Yu. A. Osipov's articles (see: AID P - 2193).

Institution : None

Submitted : Mr 8, 1955

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

AID P - 2195

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 15/19

Author : Galanin, N. F., Prof., Corresp. Memb. of the Academy of Medical Sciences, USSR

Title : Problem of the compensation of the natural ultraviolet insufficiency in the North. (Results of the Scientific Conference in Arkhangel'sk on the Use of Artificial Ultraviolet Radiation).

Periodical : Gig. i san., 5, 54-56, My 1955

Abstract : Describes the work of the above Conference in Arkhangel'sk, Nov. 22-26, 1954, convoked by the Institute of Biophysics, Academy of Sciences, USSR, the Institute of General and Municipal Hygiene, Academy of Medical Sciences, USSR, and the Academic Board of the Ministry of Health, USSR. Problems of the use of ultraviolet radiation in the care of public health and in agriculture (cattle-breeding) were discussed by representatives of institutes and laboratories.

Institution : None

Submitted : No date

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N. F.

AID P - 2487

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 16/19

Authors : Goromosov, M. S., Bobrov, L. S., Galanin, N. F., Shnitnikova, Z. Z., Ivachev, V. V.

Title : Activities of the All-Union Scientific Society of Hygienists

Periodical : Gig. i san., 7, 56-58, Jl 1955

Abstract : An account of the Conference of the Board of the above society on February 16, 1955, and of the activities of the Moscow, Leningrad and Kazan branches in 1954-1955.

Institution: None

Submitted : No date

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N.F.

AID P - 3651

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 15/18

Author : Galanin, N. F.

Title : 30 years of the Leningrad Branch of the All-Union Society of Hygienists (From the report at the Society's meeting, March 22, 1955)

Periodical : Gig. i. san., 10, 54-56, O 1955

Abstract : An outline of the activities of the above Society, founded in 1925, and of various reports presented at its conferences during 30 years.

Institution : None

Submitted : No date

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N. F. Prof.

"The Problem of Radiation in Hygienic Science," paper presented at the Scientific Conference of the Leningrad Sanitation Institute, 8-10 May 1956.

U-3054017

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N.F., polkovnik meditsinskoy sluzhby, professor; POLYAK, B.L., polkovnik meditsinskoy sluzhby, professor; VOLKOV, V.V., kandidat meditsinskikh nauk; KRICHAGIN, V.I., kandidat meditsinskikh nauk; MEDVEDEV, V.I., kandidat meditsinskikh nauk

Working conditions of radar operators and possible means of preventing general and visual fatigue. Voen.-med.zhur. no.9:28-32 S '56. (MLRA 10:3)

1. Chlen-korrespondent AMN SSSR (for Galanin)
(ELECTRICITY--PHYSIOLOGICAL EFFECT)
(RADAR--HYGIENIC ASPECTS)
(EYE--CARE AND HYGIENE)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N.F.; GOLOVKIN, N.A., professor.

Use of ultraviolet rays in the food industry. Trudy LTIKHP 10:45-52 '56. (MLRA 10:6)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (fro Galanin).
2. Voyenno-meditsinskaya akademiya imeni S.M. Kirova (for Galanin).
3. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti (for Golovkin).

(Ultraviolet rays) (Food--Bacteriology)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N.F., professor

Scientific conference of the Leningrad Institute of Sanitation and Hygiene. Gig. i san. 21 no.10:54-57 O '56. (MLRA 9:10)
(ULTRAVIOLET RAYS—PHYSIOLOGICAL EFFECT)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N. F.

137-58-1-2162

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 294 (USSR)

AUTHOR: Galanin, N. F.

TITLE: The Problem of Radiant Energy in Labor Hygiene (Problema luchistoy energii v gigiyene truda)

PERIODICAL: Tr. Yubileyn. nauchn. sessii, posvyashch. 30-letney deyat-sti Gos. n.-i. in-ta gigiyeny truda i profzabolevaniy. Leningrad, 1957, pp 30-36

ABSTRACT: An examination is made of the intensity of irradiation in various departments of the iron and steel industry, the mechanism of thermoregulation, and the biological processes and diseases due to overheating. Note is taken of the high protective qualities of clothing and eyeglasses due to reflection. The covering of textile fabrics by foil, Al platelets, or tin plate increases the protective effect, in some cases reducing heat loss to zero, while covering eyeglasses with Al cuts their absorption by from 70-80 to 5-6 percent, depending upon the metal working process involved. When other metals are used, such as Ag, it is possible to reduce absorption to 2 percent and cut heating by almost two-thirds. The color and depth of tint of protective eyeglasses

Card 1/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

137-58-1-2162

The Problem of Radiant Energy in Labor Hygiene

is to be determined in accordance with the season of the year, the working conditions, and visual requirements.

Ye. L.

1. Heat--Safety measures 2. Radiation--Safety measures 3. Industry--Employee relations-USSR

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

FRANK, G.M., prof., otv.red.; VARSHAVER, G.S., dotsent, zamestitel' otv. red. (Moskva); GALANIN, N.F., prof., red. (Leningrad); DANTSIG, N.M., prof., red. (Moskva); LAZAREV, D.N., kand.tekhn.nauk, red. (Leningrad); SOKOLOV, M.V., prof., red. (Moskva); SKOBELEV, V.M., kand.tekhn.nauk, red. (Moskva); LANDAU-TYLKINA, S.P., red.; KHANOVA, T.M., red.; LYUDKOVSKAYA, N.I., tekhn.red.

[Ultraviolet radiation; sources, measurement, hygienic and therapeutic use] Ul'trafioletovoe izluchenie; istochniki, izmerenie, gigienicheskoe i lechebno-profilakticheskoe primenenie. Moskva, Gos.izd-vo med.lit-ry, 1958. 298 p. (MIRA 13:3)

1. Chlen-korrespondent AMN SSSR (for Frank, Galanin).
(ULTRAVIOLET RAYS)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N.F., prof.

All-Union Methodoligical Conference on Determining Small Amounts of Radioactive Substances in the Environment. Gig. i san. 23 no.10:87-88 O '58 (MIRA 11:11)

1. Chlen-korrespondent AMN SSSR.
(RADIOACTIVITY)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N. F.

"The Problem of Radiation in Hygienic Science."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N. F.

PHASE I BOOK EXPLOITATION SOV/4107

Leningrad. Institut radiatsionnoy gigiyeny

Ul'trafioletovaya radiatsiya i yeye gigiyenicheskoye znacheniye; sbornik trudov (Ultraviolet Radiation and Its Sanitary Importance; Collection of Transactions) Leningrad, 1959. 198 p. Errata slip inserted. 700 copies printed.

Additional Sponsoring Agency: RSFSR. Ministerstvo zdravookhraneniya.

Ed. (Title page): N. F. Galanin, Director of the Institute of Radiation Hygiene, Corresponding Member, Academy of Medical Sciences USSR, Professor; Ed. (Inside book): D. M. Tyukov.

PURPOSE: This collection of articles is intended for researchers and personnel working in public health and medicine who are interested in the hygienic and therapeutic effects of ultraviolet radiation.

Card 1/6

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

Ultraviolet Radiation (Cont.) SOV/4107

COVERAGE: The purpose of the present collection is to supply material for future publications on important problems in the field. The collection includes studies on ultraviolet radiation made at the Institut radiatsionnoy gigiyeny (Institute of Radiation Hygiene) under the direction of Professor N. F. Galanin, Corresponding Member, AMN SSSR (Academy of Medical Sciences USSR). Throughout the text frequent reference is made to the works of Soviet contributors to the field. There is a bibliography of Soviet and non-Soviet sources at the end of every article except the tenth.

TABLE OF CONTENTS:

Galanin, N. F., Prof., Corresponding Member, AMN SSSR. Hygienic Characteristics of Natural Ultraviolet Radiation in Leningrad. 7

Generalov, A. A. Evaluation of Hygienic Value of Ultraviolet Radiation in the Northwest Sector of the Transpolar Regions 17

Card 2/6

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

Galanin, N. F. "Ultraviolet Twilights". 26

Tyukov, D. M., Candidate of Medical Sciences. Spectral Composition of Natural Ultraviolet Radiation in Leningrad. 29

Tyukov, D. M. Erythemic Effectiveness of Natural Ultraviolet Radiation in Leningrad. 37

Tyukov, D. M. Bactericidal Irradiation by Natural Ultraviolet Radiation Under Conditions of Atmospheric Contamination. 48

Tyukov, D. M. Attenuation of Solar Radiation in Leningrad. 56

Zaytseva, A. D., Staff Member. Effect of Contamination of Atmospheric Air on Attenuation of Natural Ultraviolet Radiation. 62

Zaytseva, A. D. Conversion of Oxalic Acid Method Readings to Energy Units. 66

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N.F.

Conference on Radiation Hygiene, Leningrad, April 6-10, 1959.
Med.rad. 4 no.7:91-92 Jl '59. (MIRA 12:9)
(RADIOBIOLOGY)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

UTEKHIN, Yevgeniy Vasil'yevich; GALANIN, N.F., prof., red.

[Tables for the determination of the absorbed volumetric dose of gamma radiation from Co^{60}; manual for physicians] Tablitsy dlia opredeleniia pogloshchennoi ob"emnoi dozy gamma-izlucheniia Co^{60}; posobie dlia vrachei. Pod red. N.F.Galanina. Leningrad, Institut radiatsionnoi gigieny, 1959. 31 p. (MIRA 14:3)

1. Chlen-korrespondent AMN SSSR (for Galanin).
(RADIATION--DOSAGE)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, N.F., prof., red.; TURZHETSKIY, K.I., red.

[Ultraviolet solar radiation and its use as a prophylactic and curative; transactions of the Conference on the Biological Effect of Ultraviolet Radiation] Ul'trafioletovoe izluchenie solntsa i ego ispol'zovanie dlia profilakticheskikh i lechebnykh tselei; trudy Konferentsii po biologicheskomu deystviyu ul'trafioletovogo izlucheniya, 1958 g. Sbornik chetvertyi pod red. N.F.Galanina. Leningrad, 1960. 99 p. (MIRA 14:7)

1. Konferentsiya po biologicheskomu deystviyu ul'trafioletovogo izlucheniya, 1958. 2. Chlen-korrespondent AMN SSSR, Institut radiatsionnoy gigiyeny Ministerstva zdravookhraneniya RSFSR (for Galanin)
(ULTRAVIOLET RAYS—PHYSIOLOGICAL EFFECT)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

BERYUSHEV, K.G., dotsent; GALANIN, N.F., prof.; GURVICH, L.S., doktor med. nauk; NOVIKOV, Yu.V., kand. med. nauk; RYAZANOV, V.A., prof.; CHERKINSKIY, S.N., prof.; KROTKOV, F.G., prof., otv. red.; GOROMOSOV, M.S., doktor med. nauk, red.; BUSHTUYEVA, K.A., red.; ZUYEVA, N.K., tekhn. red.

[Manual on communal hygiene] Rukovodstvo po kommunal'noi gigiene. Otv.red.F.G.Krotkov. Moskva, Medgiz. Vol.1. [Communal hygiene] Kommunal'naia gigiena. Red.V.A.Riazanov. 1961. 707 p. (MIRA 15:1)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Galanin, Cherkinskiy). 2. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Krotkov).

(CLIMATOLOGY, MEDICAL) (AIR—POLLUTION)
(CITY PLANNING—HYGIENIC ASPECTS)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

YAKOVLEV, S.V.; GALANIN, P.I.

Determining the load level for aeration filters. Vod.i san.tekh. no.9:20-22 D '55. (MLRA 9:3)

(Water--Aeration)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, P.I.

YAKOVLEV, S.V.; GALANIN, P.I.; DUBOVA, A.N.

Study of the operation of maximum load air filters. Gor.khoz.Mosk. 29 no.1:29-33 J '55. (MIRA 8:3)
(Air filters)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, P. I.

YAKOVLEV, S.V.; GALANIN, P.I.

Calculating high-capacity air filters. Vod.i san.tekh. no.6:4-9 Je '57. (MIRA 10:7)

(Air filters)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

YAKOVLEV, S.V., dots., kand. tekhn. nauk; GALANIN, P.I., inzh.

Investigating operations of biocoagulators using sludge from biofilters. Nauch. dokl. vys. shkoly; stroi. no.2:287-296 '58. (MIRA 12:1)

(Sewage--Purification)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

YAKOVLEV, S.V.; GALANIN, P.I.

Investigating the work of biocoagulators using sludge from biofilters. (MIRA 13:3)
Vod. i san. tekh. no.12:11-13 D '59.
(Sewage--Purification)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, P.I.; TOKAREV, D.Kh.

The Liuberets Aeration Station. Gor.khoz.Mosk. 36 no.8:13-17 Ag '62. (MIRA 16:1)

1. Glavnyy inzh. Upravleniya vodoprovodno-kanalizatsionnogo khozyaystva (for Galanin). 2. Direktor stroyashcheysya Lyuberetskoy stantsii aeratsii (for Tokarev).
(Moscow--Water--Aeration)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANIN, Ye.N.; KARABUL'KIN, A.P.

Structural and lithological factors governing the mineralization of the Ivanovskoye complex ore deposit in eastern Transbaikalia. Izv.vys.ucheb.zav.; geol. i razv. 1 no.6:122-123 Je '58. (MIRA 13:2)

(Transbaikalia--Ore deposits)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANINA, G.

CA

Aspergillus niger in the production of citric acid by the biological method. G. Galanina. *Hig. i Sanit.* (U. S. S. R.) **1940**, No. 10, 41.—The production of citric acid by the biol. method consists of two stages: (1) the citric fermentation of *Aspergillus niger* and (2) the purification and recrystn. of the obtained citric acid. For the detn. of the spore content of the fungus in the air, bacterial meth-ods are used. The amt. of the spores in the air fluctuated sharply in different industrial stages. In some cases 1000 to 1000 spores in 1 cc. air were detected. The largest amt. of spores was detected in the fermentation chamber. The spore content in the air can be diminished (1) by using a strain which forms a smaller no. of spores. This could be done without any harm to the technological process and (2) by ventilation from the vats in the moment of removing the fungus.

S. Machelson

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

AGATOV, P.A.; FEDOROVA, I.M.; GALANINA, L.A.

Dynamics of substances containing phosphorus in the mycelium of Actinomyces violaceus as related to its capacity for forming an antibiotic substance. Trudy Inst. mikrobiol. no. 6:245-250 '59. (MIRA 13:10)

1. Institut mikrobiologii AN SSSR.
(ACTINOMYCES VIOLACEUS) (PHOSPHORUS METABOLISM)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

17(2,12) SOV/20-127-2-61/70

AUTHORS: Galanina, L. A., Agatov, P. A.

TITLE: The Effect of Some Chemical Compounds on the Formation of Streptomycin by the Strain LS-1 of Actinomyces streptomycini

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 2, pp 450-452 (USSR)

ABSTRACT: Complex culture media widely used in the industrial production of streptomycin like soybean flour are not suitable for the thorough investigation of the metabolism of the producer or the mechanism of antibiotic formation, because they contain complicated organic substances. On the other hand it was shown by the rechecking of the allegedly good synthetic culture media (Ref 3) that the strain mentioned in the title does not grow well on them and produces only little streptomycin. The authors repeated the experiments of V. A. Severin (Ref 1) and I. H. Ferguson (Ref 5). The culture media of these two research workers contain soybean flour. The Ferguson method turned out to be the best. The authors believe, however, that the transfer of the seed bred on the complex culture medium to the synthetic medium to be investigated is not quite right. They used therefore

Card 1/3

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

SOV/20-127-2-61/70

The Effect of Some Chemical Compounds on the Formation of Streptomycin by the Strain LS-1 of Actinomyces streptomycini

in both cases the same medium. Amino acids were added to the Ferguson culture medium (calculated with respect to C.03% nitrogen content in the culture medium) (Table 1). This shows that the streptomycin formation is only inconsiderable without amino acids. The addition of amino acids does not only increase the growth of the mycelium, but also the formation of the antibiotic. The last process is differently stimulated by the monoamino acid (alanine on the one, and by basic amino acids (arginine, histidine, lysine) on the other hand, inspite of a rather equal growth promotion. Ammonium nitrate was replaced by ammonium sulphate since it was proved that it is rather probable that the oxidized form of the nitrogen does not influence at all the two mentioned processes. Since inosite (the nucleus of the streptidine part of the antibiotic) influences in general considerably the development of organisms (Ref 2) it was also added to the medium beside the amino acids. Table 1 shows that inosite (10 mg per 100 ml medium) does not change the mycelium growth but increases the streptomycin yield by 40-45%. Thus a culture medium was found equal to that with soybean flour. On the strength of considerations concerning the

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

methyl groups of the streptobios amine part of the streptomycin molecule, and the experiments with respect to it the authors conclude that the methylation process is one of the limiting factors of the streptomycin formation in the mycelium. The methylation process is probably stimulated by an addition of vitamin B_{12}. Methionine increases this effect since the source of the methyl groups in the mycelium is apparently limited. There are 1 table and 5 references, 3 of which are Soviet.

ASSOCIATION: Institut mikrobiologii Akademii nauk SSSR (Institute of Microbiology of the Academy of Sciences, USSR)

PRESENTED: April 2, 1959, by V. N. Shaposhnikov, Academician

SUBMITTED: March 30, 1959

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANINA, L. A., POLTAVA, I. G., AGATOV. P. A., KAZASKAYA, T. B. (USSR)

"Participation of Certain Chemical Compounds in Streptomycin Biosynthesis."

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

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

AGATOV, P.A.; NIZOVA, I.M.; GALANINA, L.A.

Distribution of nitrogenous substances in the mycelia of Act. violaceus during various intensities of antibiotic synthesis. Mikrobiologiia 30 no.5:877-880 S-O '61. (MIRA 14:12)

1. Institut mikrobiologii AN SSSR.
(ACTINOMYCES VIOLACEUS) (NITROGEN)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

AGATOV, P.A.; CALANINA, L.A.; NIZOVA, I.M.

Dynamics of the phosphorus-containing substances of the mycelium of Act. streptomycini Kras. strain LS-1 at various intensity of the synthesis of streptomycin by them. Mikrobiologiia 33 no.1: 23-25 Ja-F '64. (MIRA 17:9)

1. Institut mikrobiologii AN SSSR.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

AGATOV, P.A.; GALANINA, L.A.; NIKOVA, I.M.

Dynamics of the nitrogen compounds of the mycelium of Act. streptomycini Kras., strain LC-1, in relation to its varying rate of streptomycin synthesis. Mikrobiologiia 33 no.2: 321-324 Mr-Ap '64. (MIRA 17:12)

1. Institut mikrobiologii AN SSSR.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANINA, L.A.; AGATOV, P.A.

Effect of conditions helping the process of methylation on the biosynthesis of streptomycin by the LS-1 strain of Actinomyces streptomycini. Dokl. AN SSSR 166 no.1:215-218 Ja '66. (MIRA 19:1)

1. Institut mikrobiologii AN SSSR. Submitted March 5, 1965.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

GALANINA, N.I.

CA

2

Properties of metallic solutions. IV. Surface tension of tin and tin-sodium alloys. N. L. Pokrovskiĭ and N. D. Galanina. *Zhur. Fiz. Khim.* 23, 324-31(1949); cf. *C.A.* 31, 1278[8]; 42, 5311a. The surface tension σ of Sn is 537 − 0.078 (t − 232) dynes/cm. between t = 250° and 450° in a vacuum of 10^{-5} mm. Hg. The k in Eötvös's equation is const. but very small (0.206), and the parachor increases with temp. For c wt.% soln. of Na in Sn at 250° σ = 512 − 38 ln (24 c + 1) + 14 c between 0.008% and 1.89% Na. Between 0.01 and 0.48% Na the alloys seem to form solid solns. whose dispersity increases with c. For *metallographic analysis* Na-Sn alloys were allowed to solidify on glass plates; the surfaces in contact with glass could be examd. without any polishing or etching.

J. J. Bikerman

Moscow State U. Lab. Physics of Solutions, Sci. Res. Inst. Physics

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

NIKITIN, S.Ya.; GALANINA, N.D.; IGNAT'YEV, K.G.; OKOROKOV, V.V.; SUKHORUCHKIN, S.I.

[Measuring total neutron cross sections of isotopes in uranium-233, uranium-235, plutonium-239 by the flickering beam method] Izmerenie polnykh neitronnykh sechenii izotopov urana-233, urana-235, plutoniia-239 metodom migaiushchego puchka; doklady, predstavlennye SSSR na Mezhdunarodnuiu konferentsiiu po mirnomu ispol'zovaniiu atomnoi energii. Moskva, 1955. 10 p. [Microfilm] (MIRA 9:3)

(Nuclear physics) (Uranium) (Plutonium)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

Galanina, N.D.

4075 AEC-tr-2435((Pt. 1) (p.81-94))
DEPENDENCE OF THE EFFECTIVE NUMBER OF SECONDARY NEUTRONS ON THE ENERGY OF CAPTURED NEUTRONS. PART I. S. Ya. Nikitin, S. I. Sukhoruchkin, K. G. Ignatyev [Ignat'ov], and N. D. Galanina. PART II. S. Ya. Nikitin, P. A. Krupchitsky [Krupchitskii], and V. F. Belkin. p.81-94 of CONFERENCE OF THE ACADEMY OF SCIENCES ON THE USSR ON THE PEACEFUL USES OF ATOMIC ENERGY, JULY 1-5, 1955. SESSION OF THE DIVISION OF PHYSICAL AND MATHEMATICAL SCIENCES (Translation). 14p.

This paper was originally abstracted from the Russian and appeared in Nuclear Science Abstracts as NSA 9-7891.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

GALANINA, N.P.

The effective number of secondary electrons as a function of the energy of the captured primary electrons. I. S. Ya. Nikitin, S. I. Sukhoruchkin, K. G. Ignat'ev, and N. D. Galanina. *Sessiya Akad. Nauk S.S.S.R. po Mirnomu Ispol'zovaniyu Atomnoi Energii, Zasedaniya Otdel. Fiz.-Mat. Nauk* 1955, 87–98(English summary 106–7).—The results of measurements of the capture of slow neutrons by the transmission method and of the fission by counting the secondary neutrons were used to det. the energy function of secondary electrons ν_{eff}. $\nu_{eff} = \nu\,\sigma_f/\sigma_c$, where ν = the no. of secondary electrons in the act of fission, σ_f and σ_c are the fission cross section and the capture cross section, resp. A 128-channel neutron time-of-flight selector was used together with a cyclotron. σ_c, σ_f, and ν_{eff} were measured in the energy interval from 0.0084 to 11.33 e.v.; the neutrons were traced by aid of a ZnS screen with an Ag activator. Both σ_f and σ_c show a no. of resonances. For several levels the fission width Γ_f and the radiation width Γ_γ were detd.; the Γ_f showed wide variations. The method used to find ν_{eff} does not take into consideration any self-shielding of the sample, thus the value ν_{eff} could be obtained as the av. for several resonance levels. The ratio $\overline{\nu_{eff}}/\nu_{eff}$ for the thermal region varies for different groups of resonances for U^{233}, 0.85–1.08, for U^{235} 0.6–0.9, for Pu^{239} 0.85–1.15. II. S. Ya. Nikitin, B. A. Krupchitskii, and V. F. Belkin. *Ibid.* 99–106(English summary, 107).—The ratio of the ν_{eff} for neutrons of intermediate energies to that for the thermal energies was measured for U^{235}. The intermediate neutron spectrum contained neutrons from 0.5 to 1000 e.v. This spectrum was obtained by a neutron-energy transformer consisting of a D_2O tank and a B-slab lattice. A U block at the bottom of the tank served as source of neutrons. It was irradiated by thermal neutrons from the vertical exptl. channel of the D_2O research reactor. The tank also contained neutron detectors, i.e. fission chambers lined with U^{235} and a proportional counter lined with B. During the measurements the fission chamber was shielded by cylindrical B filters and the counter by U^{235} filters. The thermal neutron spectrum was obtained in the tank after removal of the B-lattice. The ratio $\nu_{eff\ measured}/\nu_{eff\ theory}$ was 1.02 ± 0.03. The excess of the fission cross section of U^{235} was 3.32 ± 0.02. W. J.

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83580

S/056/60/038/005/013/050
B006/B070

24.6520

AUTHORS: Galanina, N. D., Shvartsman, B. F., Diament, A. Ya.

TITLE: Determination of the Spin of the Pt^{196} Nuclear Level From Resonance Neutron Capture γ-Rays

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 5, pp. 1446-1450

TEXT: The method of determining nuclear spins from the spectra of γ-rays resulting from the capture of resonance neutrons is particularly good if a radiative transition from an excited to the ground level is possible only for a single spin value of the excited state. This method has been used (Refs. 1-4) for the determination of the spin of a number of levels of Hg^{199} and W^{183}. The nucleus of the platinum isotope investigated here is even-even, and has the spin 1/2. The experimental arrangement is shown in Fig. 1. A cyclotron supplied neutron pulses of 2-3 μsec. The energies of the neutrons were measured by time-of-flight measurements. The γ-rays resulting from the neutron capture were

Card 1/3

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

83580

Determination of the Spin of the Pt^{196} Nuclear Level From Resonance Neutron Capture γ-Rays

S/056/60/038/005/013/050
B006/B070

detected by two NaI(Tl) crystals and a photomultiplier of the type ФЭУ-24 (FEU-24). The gamma detectors were shielded by lead and boron carbide. The crystals were shielded from the neutrons scattered by the sample by a 2 cm thick sheet of boron carbide. The pulse height in the crystal was calibrated by measuring the energy of gamma rays from Co^{60}(1.17 and 1.33 Mev) and Po+Be (4.45 Mev) with a multi-channel pulse-height analyzer. These experiments show that the crystals did not have sufficient resolution. (Fig. 2 shows the calibration curves of the NaI(Tl) crystals). The results of measurements of the gamma intensities as functions of the neutron energies E_n are tabulated and shown in Fig. 3. The counting rate was so high that, after 2-3 hours, curves with a statistical accuracy of ~3% were obtained. The three diagrams of Fig. 3 show N_γ (E_n) for E > 2 Mev, > 6 Mev, and >7 Mev. (N_γ is the number of pulses). The known levels (11.9, 19.6, and 68.2 ev) were well resolved only in the E_γ range of 2-6 Mev. The 95-ev level belongs to the isotope $_{78}Pt^{198}$. There was no resolution at higher neutron energies. The

Card 2/3

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

83580

Determination of the Spin of the Pt^{196} Nuclear Level From Resonance Neutron Capture γ-Rays

S/056/60/038/005/013/050
B006/B070

interpretations of the spectra are discussed in detail. A total view of the spectrum is given in Fig. 4. It is found that the gamma intensity of both levels (11.9 and 19.6 ev) decreases rapidly at high energies. A comparison of both spectra (Fig. 5) confirms qualitatively the result earlier obtained, namely, that in the gamma-energy range 6.5-7 Mev, the intensity of the spectrum for the 19.6-ev resonance falls twice as strongly as the intensity for the 11.9-ev resonance. There are 5 figures, 1 table, and 7 references: 2 Soviet, 2 US, 1 Swiss, and 1 French.

SUBMITTED: December 18, 1959

Card 3/3

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

L 1962-66 EWT(m)/T/EWA(m)-2

ACCESSION NR: AT5024122 UR/3138/65/000/348/0001/0015

AUTHOR: Vishnevskiy, M. Ye.; Galanina, N. D.; Semenov, Yu. A.; Krupchitskiy, P. A.; Berezin, V. M.; Murysov, V. A.

TITLE: Measurement of the difference in the masses of K_2^0- and K_1^0- mesons

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 348, 1965. Izmereniye velichiny raznosti mass K_2^0- and K_1^0, 1-15

TOPIC TAGS: meson beam, K meson, pi meson

ABSTRACT: The value of the difference in the masses of K_2^0- and K_1^0-mesons was obtained by measuring the dependence of the intensity of coherent regeneration of K_1^0-mesons in a beam of K_2^0-mesons on the thickness of the regenerator (copper and aluminum). K_1^0-mesons were recorded on the basis of the decay $K_1^0 \to \pi^+ + \pi^-$ with the aid of a magnetic spectrometer with scintillation counters and spark chambers. The distributions of the events over the mass of the decaying particle and angle between its momentum and the direction of the primary beam are given. In all, 196 events of coherently regenerated K_1^0 mesons were recorded. The value $\Delta m = (0.82 \pm 0.14)\hbar/\tau_1 c^2$ was obtained. "The authors thank Academician A. I. Alikhanov and

Card 1/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

L 1962-66

ACCESSION NR: AT5024122

10

S. Ya. Nikitin for their interest in the work, L. B. Okun' and I. Yu. Kobzarev for their discussion, L. L. Gol'din and members of the technical staff for supervising the operation of the accelerator, and A. K. Dubasov, V. N. Markizov, N. P. Naumov, V. N. Kuz'menkov, and Yu. S. Oreshnikov for assistance in setting up the apparatus and for carrying out the measurements." Orig. art. has: 4 figures, 1 formula.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki, Gosudarstvennyy komitet po izpolzovaniyu atomnoy energii (Institute of Theoretical and Experimental Physics, State Committee for Application of Atomic Energy)

SUBMITTED: 16Apr65 ENCL: 00 SUB CODE: NP

NO REF SOV: 005 OTHER: 005

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

L 36378-66 EWT(m)/T

ACC NR: AP6017591 SOURCE CODE: UR/0367/66/003/002/0321/0326

AUTHOR: Vishnevskiy, M. Ye.; Galanina, N. D.; Semenov, Yu. A.; Kruptchitskiy, P. A.; Berezin, V. M.; Murysov, V. A.

52
41
B

ORG: none

TITLE: Measurement of the mass difference of K_2^0 and K_1^0 mesons 19

SOURCE: Yadernaya fizika, v. 3, no. 2, 1966, 321-326

TOPIC TAGS: K meson, mass spectrometry, pion, meson interaction

ABSTRACT: In view of the discrepancies between the experimentally measured mass differences of the K_2^0 and K_1^0 mesons, the authors have measured this mass difference by a coherent regeneration method, based on measurement of the dependence of the intensity of the coherent regeneration of K_1^0 mesons in a beam of K_2^0 mesons on the thickness of the regenerator (copper or aluminum). The experiment was carried out in the ITEF 7-Gev proton accelerator (Fig. 1). The method and the apparatus are briefly described. The K_1^0 mesons were registered by means of the $K_1^0 \rightarrow \pi^+ + \pi^-$ decay with the aid of a magnetic spectrometer with scintillation counters and spark chambers. The distributions of the interaction events with respect to the masses of the decaying particle and with respect to the angle between its momentum and primary-beam directions are given. A total of 196 coherently-regenerated K_1^0 mesons were found in 375 tracks. A mass difference of 0.82 ± 0.14 $(\hbar/\tau_1 c^2)$, where $\tau_1 = 0.92 \times 10^{-10}$ sec, was obtained. The distribution of the registered K_1^0 mesons had a maximum at 1.8 Gev/c and dropped to zero at 0.9 and 4 Gev/c. This result agrees well with those obtained by others

Card 1/2

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L 36378-66

ACC NR: AP6017591

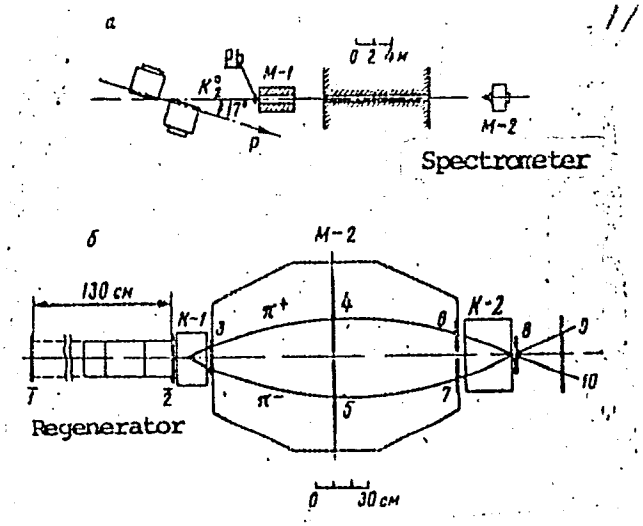

Fig. 1. Experimental setup. a - Beam diagram, b - magnetic spectrometer diagram (the numbers denote particle counters).

using similar methods. The authors thank A. I. Alikhanov and S. Ya. Nikitin for interest in the work, L. B. Okun' and I. Yu. Kobzarev for discussions, L. L. Gol'din and his crew for operating the accelerator, and A. K. Dubasov, V. N. Markizov, N. P. Naumov, V. F. Stolyarov, V. N. Kuz'menkov, and Yu. S. Oreshnikov for help with the apparatus and the measurements. Orig. art. has: 4 figures and 1 formula.

SUB CODE: 20/ SUBM DATE: 30Jun65/ ORIG REF: 003/ OTH REF: 006

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020013-4

SHCHUKOVSKAYA, L.L.; USHAKOV, S.N.; GALANINA, N.K.

Synthesis of halogenated acetal[redacted]ydrates. Izv.AN SSSR.Otd.khim. nauk.no.9:1692-1693 S '62. (MIRA 15:10)

1. Institut vysokomolekylyarnykh soyedineniy AN SSSR.
(Acetaldehyde)

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1. Institut neftekhimicheskogo sinteza AN SSSR.

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GALANINA, O. D

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283 P. Illus., Diagrs., Tables.

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[Machinery and technology of warp knitting] Mashiny i tekhnologiia osnovoviazal'nogo proizvodstva. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po legkoi promyshl., 1957. 366 p. (MIRA 11:5)
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LIPKOV, Iosif Abramovich; GALANINA, O.D., retsenzent; GABOVA, D.M., red.; VINOGRADOVA, G.A., tekhn. red.

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GALANINA, R. S.

(1)

Thermal chlorination of normal hexane. R. S. Galanina. *Doklady Akad. Nauk S.S.S.R.* 88, 983-6(1953).—Cl and *n*-hexane vapors were allowed to react in a heated spiral reactor tube under various conditions for selection of the optimum conditions. These were found to be as follows: The higher the ratio of hexane to Cl, the better the yield of mono-Cl derivs. and the better the utilization of Cl. At a molar ratio of 10:1 the yield of mono-Cl derivs. reaches 96%, with space velocity of reagents 0.72 at 235°. At temps. under 235° some free Cl is usually present. Higher temps. give lower yields of mono-Cl derivs. At 3:1 and 6:1 molar ratios of reagents, frequent local flashes occur in the reactor. Increased contact time gives more di-Cl derivs.; from 0% di-Cl derivs. at space velocity 0.72 (235°), these rise to 10% at space velocity 0.27. Distn. of the mono-Cl derivs. gave 35% *2-chloro-*, b. 122-5°, d_{20} 0.8720, n_D^{20} 1.4150, and 65% *1-chlorohexane*, b. 134-6°, d_{20} 0.8760, n_D^{20} 1.4230. At lower temps. the yield of 2-Cl deriv. rises; thus at 115° are formed 28.6% 1-chloro-, 33.4% 2-chlorohexane, and 6% di-Cl compds.; at 75° these are 3%, 52%, and 10%, resp., with a 10:1 molar ratio and space velocity 0.5. Chlorination of the mono-Cl fraction at 217-57° was examd. at 1:6 reagent ratio and 0.45 space velocity; at 217° the yield of dichlorides reached 33%, at 257° it was 8.97%; fractionation yielded 33% *1,2-*, b. 172-4°, d_{20} 1.080, n_D^{20} 1.4690; 50.3% *1,6-*, b. 203-5°, d_{20} 1.1086, n_D^{20} 1.4760; and 16.7% *1,5-dichlorohexane*, b_{19} 73-7°, d_{20} 1.066, n_D^{20} 1.4620. G. M. K.

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GALANINA, R. S.

Thermal chlorination of n-heptane. R. S. Galanina. *Doklady Akad. Nauk S.S.S.R.* 91, 8[illegible] Topchiev, *et al.*, *C.A.* 47, 4716*f*; 48, 9898*i*.—Continuous thermal chlorination of n-C_7H_{16} was studied in a continuous-flow app. (cf. first ref. above) with rapid removal of RCl from the reaction zone. With a ratio RH:Cl_2 of 10:1 at 0.73 space velocity 50% RCl with only a trace of dichlorides is formed at 180°. At higher temps. the yield of RCl rises and the dichloride disappears. At 260° is obtained the best yield, 96.5% RCl. At this temp. the yield of RCl rises steadily as the RH:Cl_2 ratio is increased although both 8:1 and 10:1 ratios give the same high yield of 96.5%. Fractionation of the RCl gave 2 fractions, b. 134–6° and b. 147–50°, corresponding, resp., to 2- and 1-chloroheptane, identified further by d. and n. No tertiary halides were found, showing there is no isomerization of RH. At the temp. employed, the rate of substitution of primary H is greater than that of the secondary H atoms, but at lower temps. the reverse is true. Chlorination of the crude RCl was run to obtain the dichlorides; with a 8:1 ratio of RCl:Cl_2 at 0.45 space velocity of Cl_2, the yield of dichlorides was 79.7% at 240°, 90% at 260°, and 99.2% at 280°. Fractionation gave *1,7-, 1,1-, and 1,2-dichloroheptanes.* Only at 220–40° does equil. exist in the rates of replacement of primary and secondary H atoms by Cl, while at 260° the highest rate of primary H replacement occurs (cf. Nekrasova, *C.A.* 48, 2560*d*, for chlorination in the liquid phase). The yields and properties of the isomeric dichlorides follow: *1,1*, 31.5%, b_{18} 82°, d_{20} 1.0083, n^{20}_D 1.4440; *1,2*, 15%, b_{18} 68–72°, d_{20} 1.0625, n^{20}_D 1.4480; *1,7*, 53.1%, b_{18} 120°, d_{20} 1.048, n^{20}_D 1.4500.

G. M. Kosolapoff

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GALANINA, R. S.

Organic Chemistry

Dissertation: "Thermal Chlorination of Petroleum Normal Alkanes." Cand Chem Sci, Petroleum Inst, Acad Sci USSR, 8 Apr 54. (Vechernyaya Moskva, Moscow, 29 Mar 54)

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GALANINA, R. S.

USSR/ Chemistry - Applied chemistry

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Authors : Galanina, R. S., and Nekrasov, A. S.

Title : Chlorination of n-hexane and n-heptane in vaporous phase

Periodical : Ukr. khim. zhur. 21/2, 222-226, 1955

Abstract : Study was made to establish the optimum reaction conditions prevailing during the chlorination of normal paraffinic hydrocarbons (n-heptane and n-hextane) warranting maximum yields of monochlorides. The importance of three major factors in the chlorination reaction: reaction temperature, ratio of reagents and volumetric rates of reacting substances, is explained. The results obtained at various chlorination temperatures are tabulated. Eight references: 5 USSR, 1 English and 2 German (1865-1951). Tables.

Institution : Acad. of Sc., Ukr. SSR, Crimean Branch

Submitted : September 6, 1954

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