OGANESYAN, S.S.; DZHANIBEKOVA, V.G.

Amperometric determination of nonprotein thiol compounds in muscle by means of mercury. Dokl.AN Arm.SSR 27 no.4:227-233 '58.
(MIRA 12:1)

1. Institut fiziologii AN Armyanskoy SSR. Predstavleno G.Kh. Buniatyanom.

(Muscle) (Mercapto compounds)

OGANESYAN, S.S.

Effect of insulin on the carbonic anhydrase of blood. Izv.AN Arm.SSR.Biol. i sel'khoz.nauki. 11 no.12:105-115 D '58.
(MIRA 12:2)

1. Institut fiziologii AN ArmSSR.
(INSULIN) (CARBONIC ANHYDRASE)

OGANESYAN, S.S.

Comparative characteristics of the activity of blood catalase in different animals. Izv. AN Arm.SSR. Biol. i sel'khoz. nauki. 9 no.9:9-14 S '56. (MLRA 9:11)

1. Institut fiziologii Akademii nauk Armyanskoy SSR.
(BLOOD--ANALYSIS AND CHEMISTRY) (CATALASE)

GAMBARYAN, L.S.; GRIGORYAN, G.Ye.; OGANESYAN, S.S.

Some data on cortical switching in man. Izv.AN Arm.SSR.Biol.i sel'khoz.nauki 8 no.2:77-86 F '55. (MLRA 9:8)

1. Institut ortopedii i vosstanovitel'noy khirurgii Ministerstva zdravookhraneniya Arm. SSR.

(CONDITIONED RESPONSE)

OGANESYAN, S.S.

A relation of bioelectric phenomena with glycolysis in muscle. S. S. Oganesyan. *Doklady Akad. Nauk Armyan. S.S.R.* 19, No. 5, 151-5(1954); *Referat. Zhur., Khim.* 1954, No. 33209.—A relation of the process of glycolysis with bioelec. properties of living healthy muscles has been studied by treating a muscle section with monoiodoacetate (I) soln. 1:1000-1:5000. After 15-50 min. a bioelec. potential was established between the treated and untreated sections of the muscle, with the neg. sign with respect to the untreated section. Long washing of the surface of the treated muscle section with Ringer soln. prevented a further increase of the potential but could not destroy it. When the I-treated muscle section was washed with 0.05 M Na pyruvate soln. the bioelec. potential returned to normal and the potential difference between the sections disappeared. Treating the muscle with I at 2-4° caused no potential difference; by chilling the I-treated muscle the potential difference smoothed out. It has been concluded that I changes the bioelec. potential by blocking the process of glycolysis, in particular the oxidation-reduction reactions of the aerobic phase of the process. C 11

B. Wiersbicki

OGANESYAN, S.S.

USSR

Origin of electrical currents in the resting muscle during structural changes of muscle proteins and metabolism. Kh. S. Koshtoyants and S. S. Oganesyan. *Doklady Akad. Nauk Armyan. S.S.R.* [illegible] (1953); *Referat. Zhur., Khim.* 1954, No. 20106.—The magnitude of the resting current was measured on leg muscle of the frog. Application of the thiol poisons ($CdCl_2$ 0.1-0.3%, $HgCl_2$ 0.05-0.3%) caused the poisoned section of the muscle to acquire a neg. bioelec. potential up to 40-60 mv. (with respect to the normal section of the muscle). The potential does not decrease on washing. It can be destroyed by the addn. of cysteine (0.01-0.1%) within 1-2 hrs., or urea (1%) within 2-3 hrs. By blocking SH groups the ability to originate the current in the damaged resting muscle decreases. This ability is restored after the treatment of the muscle with cysteine. Direct excitability of the muscle decreases in the presence of the thiol poisons; it vanishes totally when the neg. potential approaches 10-15 mv. Treatment of the muscle with cysteine or urea restores its excitability.

E. Wierzbicki

Inst. Physiol., AS Arm SSR

OGANESYAN, S.S.

Physiology of the vater-pacinian corpuscles. Nauch.trudy Inst. fiziol. AN Arm.SSR. 3:111-121 '50. (MLRA 9:8)
(RECEPTORS (NEUROLOGY) (MESENTERY)
(BLOOD--CIRCULATION)

MAKAROVA, Ye.N.; OGANESYAN, S.P.

Effect of vitamins of the B group on the reproduction of yeast.
Izv. AN Arm. SSR. Biol. nauki 16 no.3:45-53 Mr '63. (MIRA 17:10)

1. Nauchno-issledovatel'skiy institut zhivotnovodstva i veterinarii Ministerstva proizvodstva i zagotovok sel'skokhozyaystvennykh produktov ArmSSR i Institut mikrobiologii AN ArmSSR.

OGANESYAN, S.G.

Susceptibility of simple and complex wheat hybrids to loose smut.
Izv. AN Arm. SSR. Biol. nauki 18 no.1:41-46 Ja '65.
(MIRA 18:5)

1. Armyanskiy institut zemledeliya.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001237800023-6

GULKANYAN, V.O.; OGANESYAN, S.G.

Significance of the technology of plant growing in the biological improvement of wheat seeds. Izv. AN Arm. SSR. Biol. nauki 17 no.8: 3-14 Ag '64. (MIRA 17:10)

1. Armyanskiy institut zemledeliya.

OGANESYAN, S.G.

Seed setting in wheat pollinated by a mixture of pollen of close and distant parental forms. Izv. AN Arm. SSR. Biol. nauki 16 no.3: 71-76 Mr '63. (MIRA 17:10)

1. Armyanskiy nauchno-issledovatel'skiy institut zemledeliya, g. Echmiadzin.

OGANESYAN, S.G.

Disturbing the inheritance of dominant characters in wheat by crossing ears of various ages. Izv. AN Arm. SSR. Biol. nauki 14 no.7:25-42 Jl '61. (MIRA 14:9)

1. Institut zemledeliya Ministerstva sel'skogo khozyaystva Armyanskoy SSR.

(WHEAT BREEDING)

OGANESYAN, S.G.

Disturbing the inheritance of dominant characters in wheat by crossing ears of different age. Report No.1. Izv. AN Arm. SSR. Biol. nauki 14 no.6:15-28 '61. (MIRA 14:10)

1. Nauchno-issledovatel'skiy institut zemledeliya Ministerstva sel'skogo khozyaystva Armyanskoy SSR.
(WHEAT BREEDING)

OGANESYAN, S.G.

Biology of flowering and pollination in corn. Izv. AN Arm. SSR. Biol. nauki 13 no.4:45-50 Ap '60. (MIRA 13:8)

1. Institut zemledeliya Ministerstva sel'skogo khozyaystva ArmSSR.

(CORN BREEDING)

OGANESYAN, S.G.

Diversity of F_1 and F_2 wheat hybrids following supplementary heterologous pollination in the presence of different amounts of own pollen. Izv.An Arm.SSR. Biol.nauki 12 no.11:71-76 N '59.
(MIRA 13:5)

1. Institut zemledeliya Ministerstva sel'skogo khozyaystva ArmSSR.
(WHEAT BREEDING)

OGANESYAN, S. G.

Category : USSR / Plant Diseases. Diseases of Cultivated Plants N-3

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22944

Author : Gulkanyan, V.O., Oganesyan, S.G., Oganesyan, A.A.
Title : Effect of Nutrients of Fungal Diseases Affecting Wheat.

Orig Pub : Izv. AN ArmSSR, biol. i s.-kh. n., 1956, 9, No 6, 59-76

Abstract : In studying the effects of nutrition by NPK, NPK + manure on diseases caused by forms of tust, firebrand and parasitic fungi on wheat varieties Artashati 42, Grekum 24, Eritroleukon 1, Yevgardi 4, Eritrospermum 4 and Eritroleukon 2, it was established that the index of resistance against fungal diseases is very constant. Independently of the time nutrients were administered, the plant vigor was increased, the vegetative period lengthened and the diseases of the varieties from rust and parasitic fungi were somewhat increased.

Card : 1/1

GULKANYAN, V.O.; [redacted]

Observations on the crossing of branched rivet wheat with unbranched wheats. Izv.AN Arm.SSR.Biol.i sel'khoz.nauki 6 no.1:3-15 '53.
(MLRA 9:8)

1. Institut genetiki i selektsii rasteniy AN Arm.SSR.
(Wheat)

GULKANYAN, V.O.; OGANESYAN, S.G.

Selectivity of fertilization in wheat with mature and overmature pistils. Izv.AN Arm.SSR.Biol.i sel'khoz.nauki. 5 no.9:33-44 '52. (MLRA 9:8)

1. Institut genetiki i selektsii rasteniy AN Armyanskoy SSR.
(Wheat breeding)

OGANESYAN, S.G.; APINYAN, M.A.

Size of pollen grains in various parts of the ear, their viability and percentage of seed set when pollinated. Izv.AN Arm.SSR. Biol. i sel'-khoz. nauki 2 no.6:545-550 '49. (MLRA 9:8)

1. Institut genetiki i selektsii Akademii nauk Armyanskoy SSR.
(POLLEN) (WHEAT)

OGANESYAN, S.G.

Effect of a reduced number of stamens in the wheat flower and additional pollination on the setting of seeds. Izv. AN Arm.SSR. Biol. i sel'khoz. nauki 2 no.3:269-273 '49. (MLRA 9:8)

1. Institut genetiki i selektsii rasteniy Akademii nauk Armyanskoy SSR.
(WHEAT BREEDING)

GULKANYAN, V.O.; OGANESYAN, S.G.

Nature of the splitting of wheat hybrids obtained by zonal pollination. Dokl.AN Arm. SSR 9 no.5:225-230 '48.

(MLRA 9:10)

1. Deystvitel'nyy chlen Akademii nauk Armyanskoy SSR (for Gulkanyan)
2. Institut Genetiki rastëniy Akademii nauk Armyanskoy SSR, Yerevan.
(Wheat) (Hybridization, Vegetable)

OGANESYAN, S.G.

Effect of artificial reduction of the number os stamens in the wheat flower on the development of plants of the first generation [in Armenian with summary in Russian] Izv. AN Arm. SSR, Biol. i sel'khoz. nauki 1 no.2:145-152 '48. (MLRA 9:8)

(WHEAT BREEDING)

OGANESYAN, S.G.

Segregation of wheat hybrids obtained by free and controlled pollination. Izv.AN Arm.SSR.Est.nauki no.7:59-68 '47. (MLRA 9:8)

1. Institut genetiki rasteniy AN Armyanskoy SSR.
(Wheat)(Hybridization, Vegetable)

OGANESYAN, S. O. and GULKANYAN, V. G.

"Crossing of Tr. Timopheevus with Soft Wheats in Free and Forced Pollination," Annals of the Armenian Branch of the Acad. Sci. USSR, No.8, 1941

OGANESYAN, [illegible].A.

X-ray diagnosis of primary cancer of the trachea. Vest. rent. i rad. 40 no.3:51-52 My-Je '65. (MIRA 18:7)

1. Nauchno-issledovatel'skiy institut rentgenologii i onkologii AMN SSSR, Yerevan.

OGANESYAN, S.A.; SEDGARYAN, M.A.

Differential diagnosis of some forms of pulmonary cancer. Zhur. eksp. i klin. med. 5 no.1:50-59 '65. (MIRA 18:10)

OGANESYAN, S.A.

Observations on perverted respiratory mobility of the bronchi.
Vop. rent. i onk. 7:39-43 '63 (MIRA 17:7)

FANARDZHYAN, V.A., prof.; MOVSESYAN, Z.G., prof.; OGANESYAN, S.A., doktor med.nauk; MAZMANYAN, S.A., mladshiy nauchnyy sotrudnik

X-ray diagnosis of mediastinum tumors. Vop.rent.i onk. 6:7-15 '61. (MIRA 16:2)

(MEDIASTINUM—TUMORS) (DIAGNOSIS, RADIOSCOPIC)

FANARDZHYAN, V.A.; OGANESYAN, S.A.

Differential X-ray diagnostics of cancer of the middle lobe.
Izv.AN Arm.SSR.Biol. i sel'khoz.nauki. 11 no.12:13-19 D '58.
(MIRA 12:2)

1. Institut rentgenologii i onkologii Ministerstva zdravookhraneniya ArmSSR.
(LUNGS--CANCER) (DIAGNOSIS, RADIOSCOPIC)

[illegible]ATESYAN, S.A., Doc Med Sci--(diss) "Motor function of the tracheo-bronchial tree in norm, in primary cancer and in purulent processes in the lungs. (X-ray-bronchographic observations)." Yerevan, 195[illegible]. [illegible] pp (Min of Health Arm SSR. Sci Res Inst of Roentgenology and Oncology), 200 copies (KL,31-58, 106)

OGANESYAN, S.A., starshiy nauchnyy sotrudnik (Yerevan).

Significance of functional bronchography in pulmonary cancer in clinical practice. Klin.med. 31 no.12:51-55 D '53.
(MLRA 7:1)

1. Iz Nauchno-issledovatel'skogo instituta rentgenologii i onkologii (direktor - zasluzhennyy deyatel' nauki professor V.A.Fanardzhyan) Ministerstva zdravookhraneniya Armyanskoy SSR.
(Lungs--Cancer) (Bronchi--Radiography)

OGANESYAN, S.A.; FANARDZHYAN, V.A., professor, zasluzhennyy deyatel' nauki, direktor.

Method for the production of anesthesia prior to bronchography; from practices of bronchographic examination. Sov.med. 17 no.9:29-30 S '53. (MLRA 6:9)

1. Nauchno-issledovatel'skiy institut rentgenologii i onkologii Ministerstva zdravookhraneniya Armyanskoy SSR.
(Bronchi--Radiography) (Anesthesia)

OGANESYAN, S.A., starshiy nauchnyy sotrudnik; FANARDZHYAN, V.A., professor, zasluzhennyy deyatel' nauki, direktor.

Problem of anesthesia in bronchography and brnochoscopy. Vest.rent.i rad. no.3:71-74 My-Je '53. (MLRA 6:8)

1. Nauchno-issledovatel'skiy institut rentgenologii i onkologii Ministerstva zdravookhraneniya Armyanskoy SSR.
(Bronchoscope and bronchoscopy) (Diagnosis, Radiographic) (Anesthesia)

OGANESYAN, S.A.

Gastric bezoars. Khirurgiia, Moskva no. 2:83-84 Feb 1953 (CIML 24:2)

1. Candidate Medical Sciences. 2. Of the Roentgenological Division of Yerevan First Clinical Hospital imeni V. I. Lenin.

OGANESYAN, S.A.

Some problems in bronchographic diagnosis in cancer of the lungs. Izv.AN Arm.SSR,Biol.i sel'khoz.nauki. 5 no.11:93-100 '52. (MLRA 9:8)

1. Institut rentgenologii i onkologii Ministerstva zdravookhraneniya Arm. SSR.

(DIAGNOSIS, RADIOSCOPIC) (LUNGS--CANCER)

OGANESYAN, S. A.

Oganesyan, S. A. "The influence of the mineral waters of the Dzhermuk spa on diuresis", in the collection: Bal'neoklimatich. kurort Dzhermuk, Issue 1, Yerevan, 1946, p. 157-66.

SO: U-2888, 12 Feb. 53, (Letopis' Zhurnal 'nykh Statey, NO. 2, 1949).

OGENESYAN, S.A.

Cases of armored heart. Izv.AN Arm.SSR.Est.nauki no.10:103-109 '47.
(MLRA 9:8)

1. Institut rentgenologii i onkologii Ministerstva zdravookhraneniya Armyanskoy SSR.

(HEART--DISEASES)

OGANESYAN, S.A.

Cystlike formations in bones of traumatic etiology. Izv.AN Arm. SSR.Est.nauki no.10:85-101 '47. (MLRA 9:8)

1. Nauchno-issledovatel'skiy institut rentgenologii i onkologii Ministerstva zdravookhraneniya Armyanskoy SSr.
(BONES--DISEASES)

OGANESYAN, S., kand.ekonom. nauk

Indifes of the professes of equalization and diversity of economic levels. Prom.Arm. 6 no.10:13-15 O '63. (MIRA 17:1)

OGANESYAN, R.S.

Particular case of the equilibrium of a rotating cylindrical configuration in the presence of a magnetic field. Astrofizika 1 no.2:193-196 Je '65. (MIRA 18:10)

1. Yerevanskiy gosudarstvennyy universitet.

ACCESSION NR: AP3004332 S/0033/63/040/004/0751/0753

AUTHOR: Vardanyan, V. A.; Oganesyan, R. S.

TITLE: The theory of magnetogravitational instability of a sphere with variable density

SOURCE: Astronomicheskiy zhurnal, v. 40, no. 4, 1963, 751-753

TOPIC TAGS: magnetogravitational instability, sphere of variable density, variable density, magnetic field, noncompressible liquid sphere, gravitating noncompressible liquid sphere

ABSTRACT: The instability of a gravitating noncompressible liquid sphere with exponentially decreasing density in the presence of a magnetic field is considered. It is found that such a configuration is unstable relative to deformations of the form $Y_l^m(\theta,\phi)$ and should, as a rule, break up into l equal parts, if the magnetic field exceeds some critical value, which depends on l. Orig. art. has: 1 figure and 11 formulas.

YEREVAN STATE UNIVERSITY

Card 1/2

On the theory of stability ...

and U (without) the system are solved by means of Fourier and Laplace integrals, the solutions being periodic in type. From these, the equation giving the total energy change is obtained. It is found that the equilibrium of the system can be stable or unstable, but the presence of the magnetic field has a stabilizing influence and the intensity of a magnetic field which completely cancels the unstable harmonics is calculated. The maximum unstable harmonic is found by using the Lagrange function in the equation of motion. The authors thank A. Vlasov for discussion of the results obtained. There are 3 figures and 4 Soviet-bloc references.

ASSOCIATION: Yerevanskiy gosudarstvyennyy universitet (Yerevan State University)

SUBMITTED: October 24, 1961

Card 2/2

32695

S/040/62/026/001/012/023
D237/D304

26.1410

AUTHORS: Vardanyan, V.A. and Oganesyan, R.S. (Yerevan)

TITLE: On the theory of stability of a plane layer of heavy fluid in its own gravity field with exponentially diminishing density in the presence of a magnetic field

PERIODICAL: Akademiya nauk SSSR. Otdeleniye tekhnicheskikh nauk. Prikladnaya matematika i mekhanika, v. 26, no. 1, 1962, 104-109

TEXT: The authors consider a layer of fluid of thickness 2 h and density Eq.(1) $\rho = \rho_0 \exp\{-\beta y\}$ $(\beta > 0)$ symmetrical in xz-plane, in equilibrium in its own gravity field, in the presence of an inner homogeneous magnetic field in the x-direction. Equation of the disturbed surface of the layer is Eq.(2) $y = h + \delta y = h + \alpha \cos kx$ and the problem of the stability of the system with regard to perturbations of the type (2) is investigated by energy considerations. Boundary conditions are given and the equations representing the change of potential V (within)

Card 1/2

On the magneto-capillary ... S/022/61/014/004/008/010
D299/D302

1 table and 14 references: 7 Soviet-bloc and 7 non-Soviet-bloc (all in translation).

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

SUBMITTED: October 12, 1960

Card 9/10

magneto-capillary ...

is maximal for a certain value y_m. The position of the maximum depends on the field strength. The wavelength of the maximum unstable harmonic $\lambda_m = 2\pi R/y_m$ has drop dimension. The order of magnitude of volume and mass of the drops can be estimated by means of the formulas

$$V = \pi R^2 \lambda_m, \quad M = \pi R^2 \lambda_m \rho$$

It is noted that the drops are elongated in the direction of the magnetic field; though the elongation is observed even in the absence of the magnetic field, yet it greatly increases as a result of the magnetic field. The change in magnetic energy is always positive, hence the decomposition of the stream is due to the peculiarities of capillary forces. The above results are illustrated by the example of a mercury column (1 cm in diameter); from the formulas thus obtained it follows that, in the absence of surface tension, only Alfvén waves propagate in the medium. There are 3 figures

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drops. In the region of instability ($y<y_0$, $H<H_\sigma/\sqrt{2}$) a harmonic exists, for which the instability is maximal. In order to find the wavelength of this harmonic, the equation of motion is derived by means of Lagrange's function, assuming time-dependence of amplitude. The equation of motion is

$$\frac{d^2a}{dt^2} + \frac{\sigma}{\rho R^3}\frac{yI_1(y)}{I_0(y)}F_\alpha(y)a = 0 \qquad (38)$$

whence

$$a = \text{const}\{\pm P_\alpha(y)t\} \qquad (39)$$

where

$$P_\alpha^2(y) = -\frac{\sigma}{\rho R^3}\frac{yI_1(y)}{I_0(y)}F_\alpha(y) \qquad (40)$$

Card 7/10 4

On the magneto-capillary ...

$$\left(\frac{H}{H_\sigma}\right)^2 > D_\alpha(y) \text{ or } H^2 > H_\sigma^2 D_\alpha(y) \qquad (30)$$

(where D is given by an expression). For

$$H_0^2 < H_\sigma^2 D_\alpha(y) \qquad (32)$$

instability occurs. The following particular cases are considered: a) A longitudinal magnetic field ($\alpha = 0$) is applied. In this case, instability occurs with small y, i.e. in the long-wave range, provided condition $H_0 < H_\sigma/\sqrt{2}$ holds. With $H_0 \to H_\sigma/\sqrt{2}$, no unstable harmonics can appear. b) Transverse magnetic field ($\alpha = 90^0$). In this case, stability can be ensured in the long-wave range (in contradistinction to casea) with relatively small field strengths. If condition (32) is satisfied, the stream decomposes into separate

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On the magneto-capillary ...

$$F_\alpha(y) = y^2 + \left\{ \frac{yI_0(y)}{I_1(y)} + \frac{yK_0(y)}{k_1(y)} \cos^2\alpha + \left[\frac{yK_0(y)I_1^2(y)}{K_1(y)I_1^2(y)} + \right.\right.$$

$$\left.\left. + \left(\frac{yI_0(y)}{2I_1^2(y)} - \frac{1}{2I_1(y)} \right) B_1 - \frac{y}{2I_1^2(y)} (B_0 + B_2) \right] \sin^2\alpha \right\} \eta^2 - 1 \qquad (29)$$

where B_0 and B_2 are constants which have already been determined. Assigning actual values to α and η, a family of curves $F_\alpha(y)$ is obtained which represents δE as a function of y in the interval $(0,\infty)$. In the case of stability, $F>0$, and with instability, $F<0$. The magnetic field strength H_0 which ensures stability, depends on kR and α, being determined by the condition

Card 5/15 9

On the magneto-capillary ...

where

$$F_\alpha(y) = y^2 - \left\{ \frac{yI_0(y)}{I_1(y)} + \frac{yK_0(y)}{K_1(y)} \cos^2\alpha + \left[\frac{yK_0(y)I_1'^2(y)}{K_1(y)I_1^2(y)} + \frac{1 - I_0^2(y)}{I_1^2(y)} + \right.\right.$$

$$\left.\left. \frac{y}{2I_1^2(y)} \left[I_1(y) \left(\frac{\partial I'_n}{\partial n} \right)_{n-1} - I_1'(y) \left(\frac{\partial I_n}{\partial n} \right)_{n-1} \right] \right] \sin^2\alpha \right\} \eta^2 - 1 \qquad (26)$$

and

$$\eta = \frac{H_0}{H_\sigma}, \quad H_\sigma = \sqrt{\frac{8\pi\sigma}{R}} \qquad (27)$$

The function F can be expressed more conveniently as

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surface energy of the capillary forces, due to the disturbance, is expressed by Rayleigh's formula:

$$\delta E_n = \frac{1}{2}\pi\sigma\,(k^2R^2 - 1)\,\frac{a^2}{R} \qquad (4)$$

where σ is the capillary constant. With $\lambda > 2\pi R$, instability occurs ($\delta E_n < 0$), and the stream decomposes into drops. The magnetostatic potential ψ is found to be

$$\psi(r,z) = -\,a\,\frac{I_0(kr)}{kI_1(kR)}\,\cos kz \qquad (8)$$

After computations, one obtains formulas for the overall change in capillary and magnetic energy, viz.

$$\delta E = \frac{1}{2}\pi\sigma\,\frac{a^2}{R}\,F_\sigma(y) \qquad (25)$$

X

On the magneto-capillary ...

is represented by an infinite cylinder of radius R_0 (see Fig. 1). In cylindrical coordinates, the components of the homogeneous magnetic field are

$$H_{0z} = H_0 \cos\alpha$$

$$H_{0r} = H_0 \sin\alpha \cos\varphi$$

$$H_{0\varphi} = - H_0 \sin\alpha \sin\varphi \qquad (2)$$

The free surface of the fluid is subjected to the symmetrical disturbance

$$r = R + a\cos kz \qquad (3)$$

where a is the amplitude (considered as small), $k = 2\pi/\lambda$ - the wave number, R - a mean radius of the calinder. The change in

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30394
S/022/61/014/004/008/010
D299/D302

24.2120

AUTHOR: Oganesyan, R. S.

TITLE: On the magneto-capillary instability of a stream of conducting fluid

PERIODICAL: Akademiya nauk Armyanskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, v. 14, no. 4, 1961, 131-141

TEXT: The instability with respect to symmetrical disturbances is considered of a stream of an ideal conducting fluid, under the action of capillary forces and in the presence of a magnetic field. The investigation proceeds from the energy principle, within the framework of linear theory. It is established that the stream does not decompose into drops if the strength of the magnetic field exceeds a certain critical value. Otherwise, the stream decomposes, for a certain range of frequencies of the disturbance. Within the region of instability, the relaxation time required for the decomposition of the stream, and the size of the drops, are largely dependent on the strength of the magnetic field. The stream element

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S/033/60/037/004/005/012
E032/E314

On the Predominant Orientation of Fragments Formed as a Result of the Stratification of a Homogeneous Gravitating Medium in the Presence of a Magnetic Field

linear dimensions are in the direction of the magnetic field. These results may be of interest in astrophysics. For example, it has recently been established (Refs. 9, 10) that there exist a number of nebulae consisting of oriented filaments or fragments forming long chains. These are considered in an approximate numerical example. Acknowledgment is made to Professor A.A. Vlasov for valuable suggestions.
There are 1 figure, 1 table and 10 Soviet references.

ASSOCIATION: Yerevanskiy gos. universitet Fizicheskiy fakul'tet (Physics Department of Yerevan State University)

SUBMITTED: September 30, 1959

Card 2/2

S/033/60/037/04/005/012
E032/E314

AUTHOR: Oganesyan, R.S.

TITLE: On the Predominant Orientation of Fragments Formed as a Result of the Stratification of a Homogeneous Gravitating Medium in the Presence of a Magnetic Field

PERIODICAL: Astronomicheskiy zhurnal, 1960, Vol. 37, No. 4, pp. 665 - 670

TEXT: The disintegration of a layer in the absence of a magnetic field was considered by the present author in a previous paper (Ref. 1). If only gravitational fields are included the fragments do not become oriented in any particular way. However, the situation is quite different if a magnetic field is present. The problem is solved in the present paper using the energy principle (Refs. 2-4), assuming that the electrical conductivity of the gravitating medium is infinite. It is shown that (in the notation of the previous paper) the maximum instability is obtained if Eq (26) is satisfied, i.e. the stratification of the uniform medium takes place along the lines of force of the magnetic field. There is a definite tendency towards the formation of fragments whose maximum

Card 1/2

Gravitational Instability of a Layer with Respect to Two-dimensional Transverse Perturbations

solutions given by Eqs (23) and (24). For stable combinations of the harmonics there is a periodic change in the amplitude with time, while for unstable harmonics the amplitude increases exponentially with time, which leads to the disintegration of the layer. Among the unstable combinations of the harmonics ($0 < \sqrt{g_1^2 + g_2^2} < 0.64$) there is a combination for which the instability is a maximum. This combination is obtained by maximising the function given by Eq (24), the result being given by Eqs (25) and (26), where λ is the thickness of the layer. The lengths λ_{1m} and λ_{2m} which simultaneously satisfy Eq (26) represent the dimensions of the parts into which the layer divides in view of its maximum instability. There are 8 Soviet references.

ASSOCIATION: Fizicheskiy fakul'tet Yerevanskogo gos. Universiteta (Physics Department of Yerevan State University)

Card5/5
SUBMITTED: February 20, 1959

V/C

Gravitational Instability of a Layer With Respect to Two-dimensional Transverse Perturbations

Eqs (5), (6) and (8) into Eq (11) and neglecting terms of second-order in the amplitude, it is found that the change in the potential energy δW is given by Eqs (12) and (13). It is shown that if in the Fourier expansion for $f(x, y)$ there exists at least one component of the form given by Eq (2), in which λ_1 and λ_2 simultaneously satisfy the condition given by Eq (17), then the layer becomes an unstable configuration. In the opposite case, the layer is stable. Eq (16) can be used as the stability criterion. The kinetic energy is given by Eq (18), where φ is the velocity potential which satisfies the Laplace equation since it is assumed that the substance is incompressible and non-viscous. The solution for φ which describes the absence of vertical particle velocities at $y = -h$ is sought in the form of Eq (19), where the constant B is given by Eq (20). Using Eqs (18)-(20) the change in the kinetic energy is shown to be approximately by Eq (21). The Lagrange function is then of the form given by Eq (22) and the equation of motion has the

VC

Gravitational Instability of a Layer With Respect to Two-dimensional Transverse Perturbations

where V_o and U_o are the equilibrium solutions and are given by Eq (5). The quantities δV and δU are then found to be a method put forward by Vlasov (Ref 5). These additional potentials are ascribed to the appearance of the so-called "perturbed mass" located on the surface of the deformed layer and having a surface density σ given by Eq (6), where $\sigma = 0$ in the absence of perturbation ($a = 0$). In this formulation, δV and δU must satisfy the Laplace equation and the boundary conditions given by Eq (7). The solutions for δV and δU are sought in the form given by Eqs (8) and (9). The constants can be determined with the aid of the boundary condition given by Eq (7) and can be shown to be given by Eq (10). The change in the potential energy of a prism having a height h and a base of unit area can be calculated from Eq (11), where $\{V\}_{z(x,y)}$ is the gravitational potential on the free surface and σ is the surface density of the perturbed mass. Substituting

VC

Gravitational Instability of a Layer With Respect to Two-dimensional Transverse Perturbations

frequencies of the oscillatory system with special reference to perturbations which may lead to a reduction in the potential energy as measured from the equilibrium level. Next, using the Lagrange function the equation of motion is set up and a search is made for the perturbation corresponding to maximum instability. Since the problem is considered in the linear approximation the discussion is confined to the stability of the layer subjected to perturbations of type:

$$z = a \cos k_1 x \cos k_2 y \qquad (2)$$

in which a is the amplitude and k_1 and k_2 are the wave numbers which can assume any values between zero and infinity. The internal and external gravitational potentials V and U are given by Eq (3) where ρ is the macroscopic density and is assumed to be constant. Solutions of Eq (3) are then sought in the form of Eq (4)

C

S/033/60/037/03/006/027
E032/E314

AUTHOR: Oganesyan, R.S.

TITLE: Gravitational Instability of a Layer With Respect to Two-dimensional Transverse Perturbations

PERIODICAL: Astronomicheskiy zhurnal, 1960, Vol 37, No 3, pp 458 - 463 (USSR)

ABSTRACT: This is a continuation of previous work by the present author in Refs 1 and 2. A rectangular set of coordinates is chosen so that the xy plane coincides with the undisturbed upper surface of the layer and the z axis is along the outward normal. The layer is assumed to be infinite in the x and y directions. It is assumed that the layer is subjected to a perturbation and the equation of the perturbed surface is written in the form:

$$z = f(x, y) \qquad (1)$$

where $f(x, y)$ is a small but arbitrary perturbation. The study of the gravitational stability of the layer with respect to two-dimensional transverse perturbations of the type described in Ref 1 is carried out in accordance with the energy principle. A calculation is made of the

Card1/5

10(2), 10(4)

AUTHOR: Oganesyan, R.S.

SOV/22-12-3-4/9

TITLE: On the Gravitational Stability of a Layer With an Inner Magnetic Field Directed Along the Layer

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR. Seriya fiziko - matematicheskikh nauk, 1959, Vol. 12, Nr 3, pp 41-48 (USSR)

ABSTRACT: The author considers a plane layer of a conducting incompressible fluid exposed to the own gravitational field and an inner magnetic field parallel to the bounding planes. The solution is given in a linear approximation (small disturbances of the free surface). The instability is possible for every finite H. With an increasing H/H_s, where $H_s = 4\pi\rho h\sqrt{G}$ (G - gravitation constant, 2h - thickness of the layer, ρ - density), the wave lengths of the maximally instable harmonic of the appearing disturbance become greater. The author thanks Professor A.A.Vlasov for valuable hints. There are 2 tables, and 5 references, 4 of which are Soviet, and 1 English.

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

SUBMITTED: September 22, 1958

Card 1/1

On the Gravitation Instability of a Plane Parallel Layer of a Conducting Liquid in a Magnetic Field SOV/22-11-4-6/11

There are 3 figures, 2 tables, and 11 references, 7 of which are Soviet, 2 English, and 2 American.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova; Leninakanskiy pedagogicheskiy institut imeni M.M. Nalbandyana (Moscow State University imeni M.V.Lomonosov; Leninakan Pedagogical Institute imeni M.M. Nalbandyan)

Card 2/2

AUTHOR: Oganesyan, R.S.

SOV/22-11-4-6/11

TITLE: On the Gravitation Instability of a Plane Parallel Layer of a Conducting Liquid in a Magnetic Field (O gravitatsionnoy neustoychivosti ploskoparallel'nogo sloya provodyashchey zhidkosti pri nalichii magnitnogo polya)

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR, Seriya fiziko-matematicheskikh nauk, 1958,

Vol 11, Nr 4, pp 39 - 52 (USSR)

ABSTRACT: The author considers the gravitational instability of an infinite plane parallel liquid layer with regard to the transverse oscillations. The layer is influenced by the own gravitational field and by a magnetic field vertical to the layer. Infinite conductivity of the medium is supposed. The solution of the problem is carried out according to the linear theory by the somewhat varied method of Chandrasekhar and Fermi [Ref 1]. It is stated that, if the tension of the magnetic field exceeds a certain critical value, the layer is stable with regard to transverse oscillations of arbitrary length. Otherwise the layer becomes unstable and decomposes for sufficiently long oscillations.

Card 1/2

OGANESYAN, R.S.

Gravitational stability of cylindrical configuarion [with summary in English]. Astron. zhur.33 no.6:928-935 N-D '56. (MLRA 10:1)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.

(Gravitation)

OGANESYAN, R. S.

OGANESYAN, R. S. -- "On the Theory of Gravitational Stability." Moscow State U imeni M. V. Lomonosov. Physics Faculty. Moscow, 1955. (Dissertation for the Degree of Candidate in Physicomathematical Sciences)

SO: Knizhnaya Letopis', No 1, 1956, pp 102-122, 124

OGANESYAN, R. S.

OMIRENSKIY, S.M.; KADILOV, Ye.V.; VOSKANYAN, V.B.; ARUTYUNYAN, P.I.; CHITYAN, S.M.; OGANESYAN, R.S.; KHOYETSYAN, R.N.

Materials on the slaughter and anatomical and histological study of the constitution of young local cattle and their crosses with Schwyz cattle. Izv. AN Arm. SSR. Biol. i sel'khoz. nauki 10 no.3: 23-34 Mr '57. (MLRA 10:5)

1. Yerevanskiy zooveterinarnyy institut.
(Armenia--Cattle--Anatomy)

ISAGULIANTS, V.I. (Leningrad); TISHKOVA, V.N. (Leningrad); FAVORSKAIA, N.A. (Leningrad); OGANESIAN, R.O. (Leningrad)

Substituted shaded phenols and their use as antioxidant additives of mineral oil products. Tr. from the Russian. Kem.tud.kozl.MTA 12 no.4:363-381 '59. (KRAI 9:4)

1. Leningradi Tudomanyegyetem.

(Phenols) (Mineral oils)

ISAGULYANTS, V.I.; TISHKOVA, V.N.; FAVORSKAYA, N.A.; OGANESYAN, R.O.

Substituted hindered phenols and their use as antioxidants for petroleum products. Trudy MNI no.23:42-61 '58. (MIRA 12:1)
(Phenols) (Alkylation) (Petroleum products--Additives)

L 43767-66 EWT(m)/EWP(j)/T WW/JW/JWD/RM

ACC NR: AP6029920 SOURCE CODE: UR/0413/66/000/015/0088/0088

INVENTOR: Korshak, V. V.; Zamyatina, V. A.; Oganesyan, E. M.

ORG: none

TITLE: Preparative method for an organoboron polymer / Class 39, No. 184444

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 88

TOPIC TAGS: boron compound, organoboron polymer

ABSTRACT: An Author Certificate has been issued for a preparative method for an organoboron polymer based on borazine. To impart valuable properties [unspecified] to the polymer, N,N',N"-triphenylborazine and dihydroxymethyldecaborinene [sic] are heated together.

[SM]

SUB CODE: 11/ SUBM DATE: 16Jun61/ ATD PRESS: 5068

Card 1/1

UDC: 678.86.27

ACCESSION NR: AP4019014

4391.3. "The authors express their gratitude to L.I. Zakharkin and A.I. Kovredov for placing at their disposal the bis-β, β'-amino-diethyl ester of trimethylenediboric acid." Orig. art. has: 2 formulas

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Organometallic Compounds, Academy of Sciences, SSSR)

SUBMITTED: 08Jul63 SUB CODE: OC ENCL: 00

DATE ACQ: 27Mar64 NR REF SOV: 003 OTHER: 001

Card 2/2

ACCESSION NR: AP4019014 S/0062/64/000/002/0362/0363

AUTHORS: Korshak, V.V.; Oganesyan, R.M.; Zamyatina, V.A.

TITLE: Polycondensation of N-substituted borazols with bis-β,β'-aminodiethyl ester of trimethylenediboric acid

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 2, 1964, 362-363

TOPIC TAGS: triphenylborazol, methylntriphenylborazol, borazol, diboric acid bisbetabeta aminodiethyl, trimethylene diboric acid

ABSTRACT: The relation of the hydride character of the B-H bond in borazol which appears in the reactions of N-triphenylborazol with diols and polyols, was investigated particularly the relationship of this bond to the aminogroup. N-triphenylborazol and of B-methyl-N-triphenylborazol with bis-β,β'-aminodiethyl ester of trimethylene diboric acid was reacted for this purpose. Since this ester is at the same time a disecondary amine, it is sufficiently stable both hydrolytically and thermally sufficiently stable. Polymers were obtained whose structure is described and discussed. They are of linear or latticed structures and have molecular weights from 4250 to

Card 1/2

KORSHAK, V.V.; ZAMYATINA, V.A.; BEKASOVA, N.I.; OGANESYAN, R.M.; SOLOMATINA, A.I.

Polyesters of boric acid. Izv.AN SSSR.Ser.khim. no.8:1496-1502 Ag '63. (MIRA 16:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Boric acid) (Esters)

KORSHAK, V.V.; ZAMYATINA, V.A.; OGANESYAN, R.M.

Polycondensation of N-triphenylborazole with polyols. Izv. AN SSSR. Otd.khim.nauk no.10:1850-1852 O '62. (MIRA 15:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Borazine) (Alchols) (Polymerization)

KORSHAK, V.V.; ZAMYATINA, V.A.; OGANESYAN, R.M.

Copolymerization of nitrogen-substituted borazoles with hexamethylene diisocyanate. Izv.AN SSSR.Otd.khim.nauk no.9:1669-1670 S '62.
(MIRA 15:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Borazine) (Cyclohexane) (Polymerization)

Polycondensation and copolymerization...

cresol with a brittle point of 105°C: $C_{33}H_{33}B_3N_3$. [Abstracter's note: Essentially complete translation.]

SUBMITTED: October 14, 1961

Card 2/2

S/190/62/004/004/019/019
B117/B138

AUTHORS: Korshak, V. V., Zamyatina, V. A., Oganesyan, R. M.

TITLE: Polycondensation and copolymerization of N-substituted boroazole with bifunctional compounds

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 4, 1962, 615-616

TEXT: This letter to the editor contains the information that N-substituted borazole is suitable for polycondensation and copolymerization. Heat-resistant polymers are formed thereby, which, in individual cases, are highly elastic over a wide temperature range (up to 350°C). Hydrogen was separated during the reaction of N-phenyl boroazole with eicosane-diol, and a polymer, rubberlike at room temperature, was found. Migrational copolymerization of N-triphenylboroazole with hexamethylene diisocyanate produced a polymer with a relative viscosity of the solution in cresol of 0.13 and a brittle point of 145°C: $C_{30}H_{36}B_3N_6O_3$. A similar polymer with a relative viscosity of 0.54 was obtained from trimethylboroazole. Copolymerization of N-phenyl boroazole with divinyl benzene produced a polymer insoluble in

33375
S/190/62/004/002/004/021
B110/B101

Polyesters and polymeric salts...

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR
(Institute of Elemental Organic Compounds AS USSR)

SUBMITTED: February 2, 1961

X

Card 3/3

Polyesters and polymeric salts...

polyester, boric acid was condensed with pentaerythrite equimolecularly for 10 hr at 150 - 180°C in N_2 flow. The polymeric salts of III had linear structure. The molecular weight of unsoluble polymers hydrolyzing in aqueous alkali could not be determined. The Zn salt of III contains more organic and fewer mineral fractions than had been calculated. Polycondensation of I with II yielded a polyester of calculated composition which was, however, not linear and unsoluble. Anhydride was formed during the synthesis of polymeric salt of I from metal acetates, and some tributyl borate was separated out during that of Zn salt. Polyesters and salts resemble each other in mechanical and thermomechanical respect, and in outer appearance. The brittle white polyesters melt at >300°C. The polyester of I does not hydrolyze in the cold, that of boric acid does. The yellow brittle Sn-organic salts hydrolyze in the cold, and have low softening temperatures. The white Zn salts are friable, hydrolyze well, and melt at >500°C. There are 1 figure, 2 tables, and 2 references: 1 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: W. H. Bamford, S. Fordham. High Temperature Resistance and Thermal Degradation of Polymers, Symposium, Sept. 1960, London, p. 127.

Card 2/3

33375

S/190/62/004/002/004/02
B110/B101

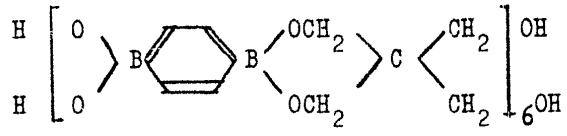
15.8150

AUTHORS: Korshak, V. V., Zamyatina, V. A., Ma Jui-jan, Oganesyan, R.M.

TITLE: Polyesters and polymeric salts of boric and 1,4-phenylene diboric acids

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 2, 1962, 188-19

TEXT: V. A. Zamyatina and N. I. Bekasova (Usp. khimii, 30, 48, 1961) described the synthesis of highly thermostable polyesters of boric and substituted boric acids. In the present study, the polyesters of boric acid and 1,4-phenylene diboric acid (I) with pentaerythrite (II), the Zn- and Sn-organic salts of pentaerythrite hydroxydiboric acid (III) and I were synthesized, and their properties compared. Polypentaerythrite phenylene-1,4-diborate,



is unmeltable and resistant to heat and hydrolysis. For producing a linear

Card 1/3

Oganesyan, R.M.

YESAYAN, G.T.; MARDZHANYAN, G.M.; OGANESYAN, R.M.; USTYAN, A.K.

Investigating esters of sulfoacids. Report No.1: Synthesis and acaricide properties of certain esters of γ-chlorocrotylsulfo acid. Izv. AN Arm SSR Ser. khim. nauk 10 no.4:277-282 '57.
(MIRA 10:12)

1. Khimicheskiy institut AN ArmSSR i Institut zemledeliya Ministerstva sel'skogo khozyaystva ArmSSR.
(Sulfonic acids)

MP 91-92°. Analogously were prepared the other II (listing the R, duration of boiling in C_6H_6 in hours, yield of II in %, MP in °C): 4-$CH_3C_6H_4$, 10, 42, 80-82; 2-$CH_3OC_6H_4$, 10, 42.2, 80-85 (from aqueous alcohol); beta-naphthyl, 6, 14.6, 119-121; alpha-naphthyl, 6 hours at 20°, boiled 10 hours, 32.4, 101-103 (from aqueous alcohol). Mixture of 20 g hydrochloride of III and 40 ml concentrated H_2SO_4 heated for 25 hours at 50-60° and diluted with water, 16 g of IV separate. With 40- and 60% H_2SO_4 (heating for 25 hours) the hydrochloride of III yields the sulfate of III, MP 169-172° (from water).

Cf. RZhKhim, 1955, 26113.

USSR/Organic Chemistry - Synthetic Organic Chemistry E-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4283

As a result of the reaction of the hydrochloride of S-(gamma-chlorocrotyl)-iso-thiourea (III, base) with H_2SO_4 in lieu of the expected keto-sulfamide there is formed, apparently, the product of its further cyclization and sulfonation $HSO_3CH_2C{:}CHCH_2SC(NH)NH$ (IV).

From the products of cleavage of IV with alkali and H_2SO_4, thiourea has been isolated. On oxidation with HNO_3 IV gives $(COOH)_2$. I was prepared by the previously described method (RZhKhim, 1954, 48016). 120 ml aqueous NH_3 and 12 g I are mixed for several minutes, after 24 hours (~ 20°) the mixture is evaporated, yield of II (R = H) 74.1%, 75-76°. To a solution of 12 g aniline in 120 ml ether are added 12 g I, after 30 minutes (~ 20°) the mixture is boiled for 20 minutes, the crystals that separate are reprecipitated from an alkaline solution with H_2SO_4, yield of II (R = C_6H_5) 48.1%,

Card 2/3

33375

S/190/62/004/002/004/02
B110/B101

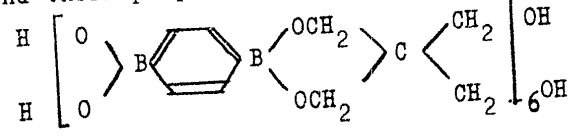
15 8150

AUTHORS: Korshak, V. V., Zamyatina, V. A., Ma Jui-jan, Oganesyan, R.M.

TITLE: Polyesters and polymeric salts of boric and 1,4-phenylene diboric acids

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 2, 1962, 188-19

TEXT: V. A. Zamyatina and N. I. Bekasova (Usp. khimii, 30, 48, 1961) described the synthesis of highly thermostable polyesters of boric and substituted boric acids. In the present study, the polyesters of boric acid and 1,4-phenylene diboric acid (I) with pentaerythrite (II), the Zn- and Sn-organic salts of pentaerythrite hydroxydiboric acid (III) and I were synthesized, and their properties compared. Polypentaerythrite phenylene-1,4-diborate,



is unmeltable and resistant to heat and hydrolysis. For producing a linear

Card 1/3

Oganesyan, R. M.

YESAYAN, G.T.; MARDZHANYAN, G.M.; OGANESYAN, R.M.; USTYAN, A.K.

Investigating esters of sulfoacids. Report No.1: Synthesis and acaricide properties of certain esters of γ-chlorocrotylsulfo acid. Izv. AN Arm SSR Ser. khim. nauk 10 no.4:277-282 '57.
(MIRA 10:12)

1. Khimicheskiy institut AN ArmSSR i Institut zemledeliya Ministerstva sel'skogo khozyaystva ArmSSR.
(Sulfonic acids)

USSR/Organic Chemistry - Synthetic Organic Chemistry

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4283

E-2

As a result of the reaction of the hydrochloride of S-(gamma-chlorocrotyl)-iso-thiourea (III, base) with H_2SO_4 in lieu of the expected keto-sulfamide there is formed, apparently, the product of its further cyclization and sulfonation $HSO_3CH_2C{:}CHCH_2SC(NH)NH$ (IV).

From the products of cleavage of IV with alkali and H_2SO_4, thiourea has been isolated. On oxidation with HNO_3 IV gives $(COOH)_2$. I was prepared by the previously described method (RZhKhim, 1954, 48016). 120 ml aqueous NH_3 and 12 g I are mixed for several minutes, after 24 hours (~ 20°) the mixture is evaporated, yield of II (R = H) 74.1%, 75-76°. To a solution of 12 g aniline in 120 ml ether are added 12 g I, after 30 minutes (~ 20°) the mixture is boiled for 20 minutes, the crystals that separate are reprecipitated from an alkaline solution with H_2SO_4, yield of II (R = C_6H_5) 48.1%,

Card 2/3

- 36 -

Oganesyan, R. M.

USSR/Organic Chemistry - Synthetic Organic Chemistry E-2

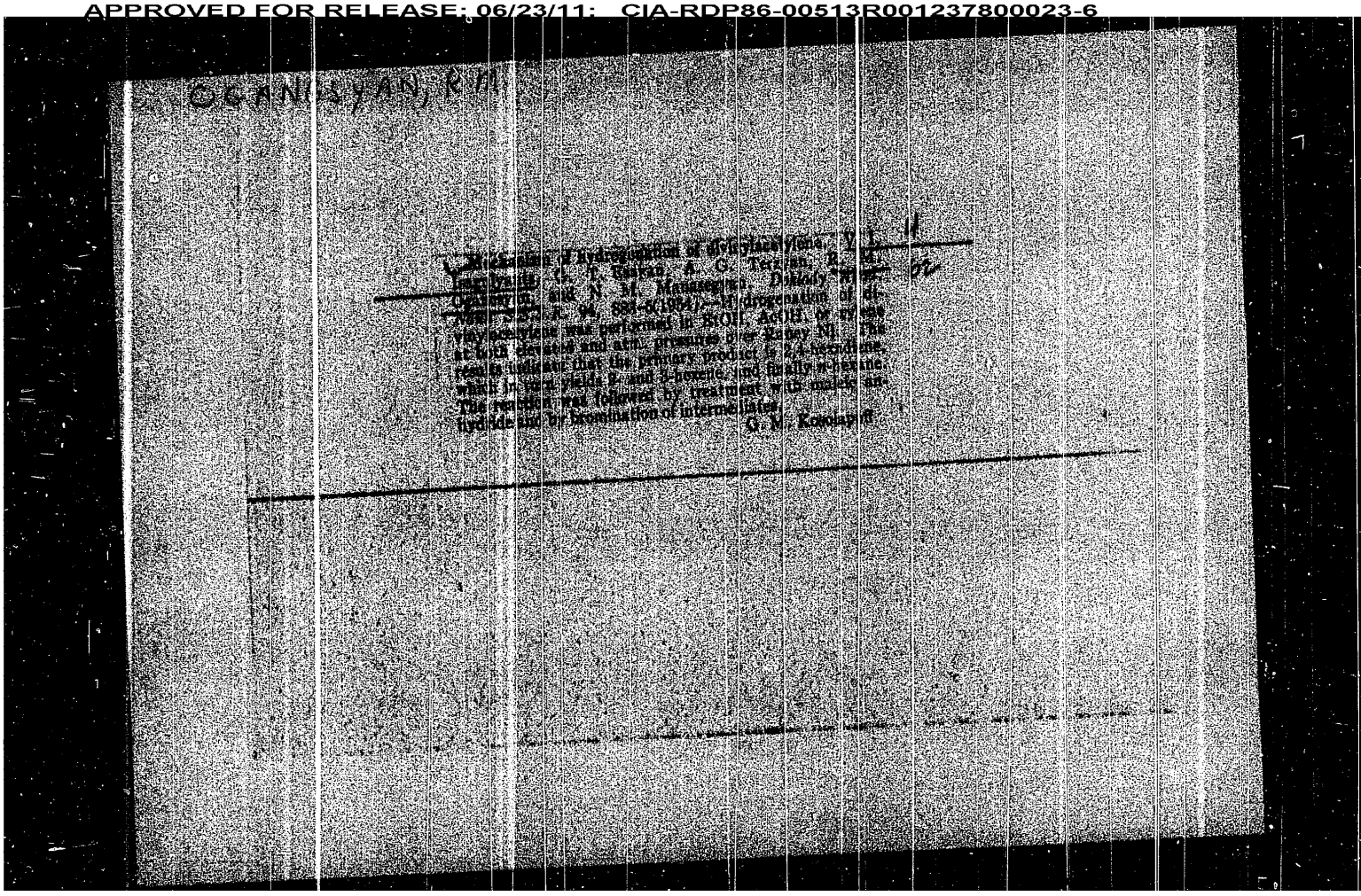
Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4283

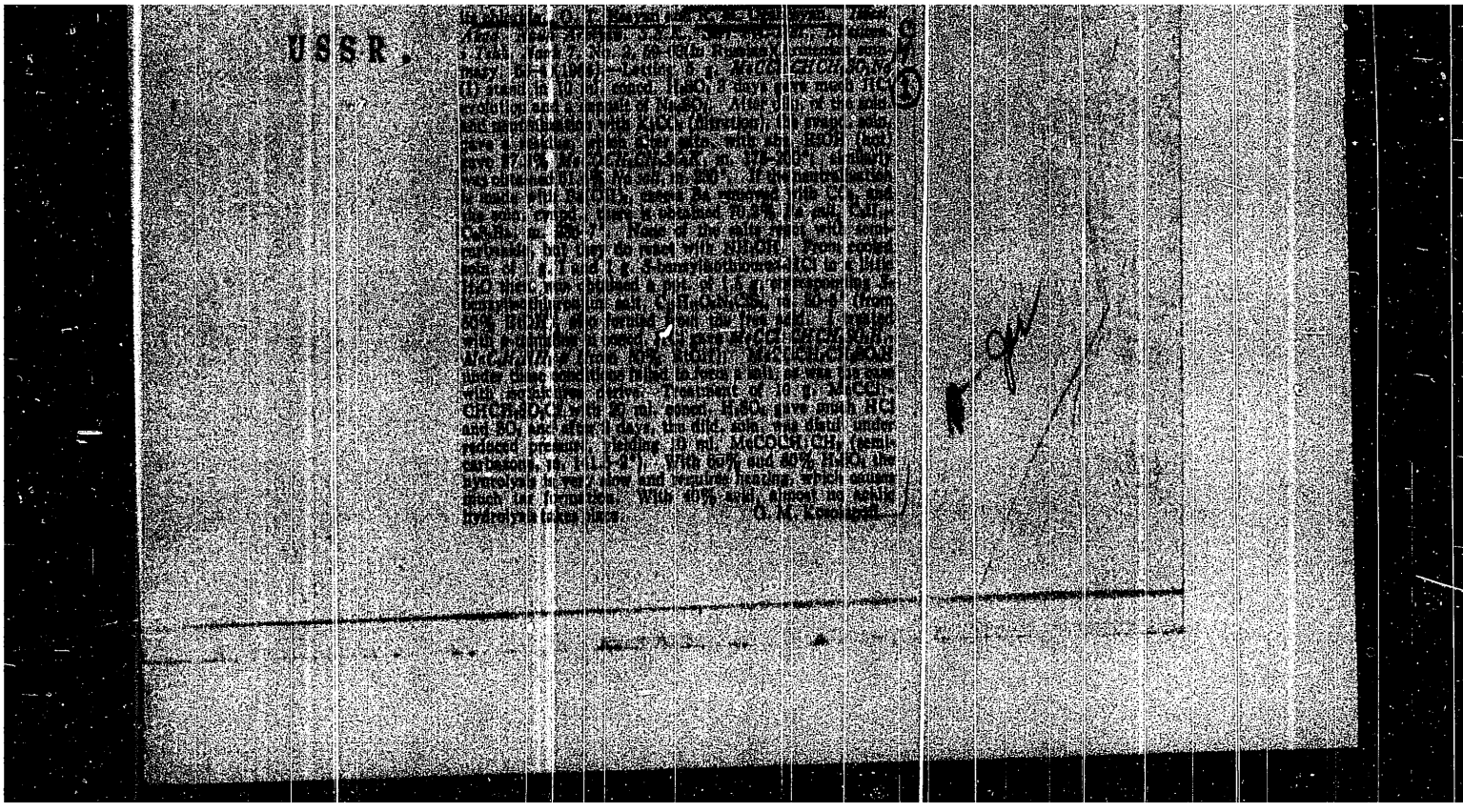
Author : Yesayan, G.T., Oganesyan, R.M.
Inst : Academy of Sciences Armenian SSR
Title : Sulfuric Acid Hydrolysis of Gamma-Chlorocrotylsulfamides and S-(Gamma-Chlorocrotyl)-Isothiourea

Orig Pub : Izv. AN ArmSSR, Fiz.-matem., yestestv. i tekhn. n., 1956, 9, No 2, 31-37

Abstract : By interaction of $CH_3CCl{=}CHCH_2SO_2Cl$ (I) with NH_3 and RNH_2 (R = H, aryl) were obtained the amides of gamma-chlorocrotylsulfonic acid $CH_3CCl\ CHCH_2SO_2NHR$ (II) which on hydrolysis with concentrated H_2SC_4 are split into $CH_3COCH{:}CH_2$ (semicarbazide, MP 140-141°), SO_2 and RNH_2.

Card 1/3





Spectrophotometric measurements of hypothetical former nuclei of planetary nebulae. Soob. Biur. obser. no.35:43-58 '64.
(MIRA 18:8)

OGANESYAN, R.Kh.

Spectrophotometric measurements of AO Cassiopeiae. Soob.
Biur. obser. no.35:37-43 '64. (MIRA 18:5)

IVANOVA, N.L.; KAZARYAN, M.A.; OGANESYAN, R.Kh.

Observations of Nova Herculis (1963). Astron. tsir. no.239: 1-3 Ap '63. (MIRA 17:6)

1. Byurakanskaya astrofizicheskaya observatoriya AN Armyanskoy SSR.

OGANESYAN, R.Kh.

Spectrophotometric study of some Be-type stars. Soob. Biur. obser. no.32:25-40 '63. (MIRA 16:7)

(Stars—Observations)

IVANOVA, N.L.; KAZARYAN, M.A.; OGANESYAN, R.Kh.

Spectral observations of Nova Herculis 1960. Soob.Biur.obser. no.29:25-38 '61. (MIRA 15:1)

(Stars, New)

IVANOVA, N.: OGANESYAN, R. Kh.

Spectral observations of nova Herculis 1960, Astron.tsir. no.211:8-9 My '60. (MIRA 13:10)

1. Byurakanskaya astrofizicheskaya observatoriya.
(Stars, New)

ACC NR: AP7003541

to the surface of the film and the observation direction. The component polarized in the direction of observation also exhibits an anomalous behavior. The absolute value of the perpendicular component is on the average one order of magnitude higher than predicted by theory, and the component in the observation direction is about half the value predicted by the thoery. However, the angular dependence agrees with the theoretical distribution. It is proposed that the discrepancy is due to the special structure of the aluminum film, but the lack of a theory of transition radiation in the case of inclined incidence of the particle in the crystal makes it impossible to draw any final conclusions. This report was submitted by Corresponding member AN ArmSSR M. L. Ter-Mikayelyan 20 April 1966. Orig. art. has: 3 figures.

SUB CODE: 20,11 / SUBM DATE: 00/ ORIG REF: 005/ OTH REF: 002

Card 2/2

ACC NR: AP7005541 SOURCE CODE: UR/0252/66/043/002/0087/0090

AUTHOR: Ananova, L. A.; Arutyunyan, F. R.; Oganesyan, R. A.; Petrosyan, Zh. V.

ORG: Physics Institute, AN ArmSSR (Fizicheskiy institut); Joint Radiation Laboratory of the Academy of Sciences of the Armenian SSR and of the Yerevan State University (Ob"yedinennaya radiatsionnaya laboratoriya Akademii nauk Armyanskoy SSR i Yerevanskogo gosudarstvennogo universiteta)

TITLE: Transition radiation in oblique passage of electrons through aluminum films

SOURCE: AN ArmSSR. Doklady, v. 43, no. 2, 1966, 87-90

TOPIC TAGS: metal film, aluminum, electron bombardment, transition radiation, electric polarization, angular distribution

ABSTRACT: This is a continuation of earlier work (ZhETF Pis'ma v redaktsiyu v. 3, 193, 1966), dealing with normal incidence of electrons on films of different metals. In the earlier investigation no radiation component polarized in the perpendicular plane was observed in the case of aluminum. The present article contains the results of an investigation of the transition radiation produced when electrons with energy 60 kev pass obliquely through films of aluminum of thickness 124 - 329 Å. It is shown that in the case of oblique incidence, a perpendicular radiation component appears, the magnitude of which increases with the angle as the altter rises from 0° to 45°. The polarization of the radiation is then no longer linear and the plane in which the maximum intensity is observed does not coincide with the plane containing the normal

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intensity dependence on electron energy and film thickness were investigated for the case of photons, polarized in planes containing the normals to the film surfaces and the directions of observation (emission planes), as well as in perpendicular planes. The properties of light polarized in the emission plane were in complete concordance with the Ginzburg-Frank theory of transition radiation. Light polarized in the perpendicular plane was identified as bremsstrahlung. Polarization of radiation was also analyzed. Orig. art. has: 12 figures. [Based on authors' abstract]

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TITLE: Study of nonrelativistic electrons in thin metal films 14

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 3, 1966, 760-772

TOPIC TAGS: metal film, silver film, gold film, nonrelativistic electron, electron radiation, electron energy, polarized photon, optic radiation, bremsstrahlung, radiation polarization, transition radiation/Ginzburg-Frank theory

ABSTRACT: Optic radiation (λ, =3480 - 5500 Å) produced by 60 kev electrons traversing thin (d = 200 - 1340 Å) silver and gold films was investigated experimentally. The spectral and angular radiation distributions, and the radiation

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served radiation exceeded the theoretical value by a factor 1.65. This discrepancy is connected with the uncertainties of some of the quantities involved in the determination of the efficiency of the system. The spectral distribution agrees with the theory for wavelengths 3800--5500 Å, but there is a greater spectral dependence in the region from 3480 to 3800 Å. The experimental angular distribution is also in fair agreement with the theory. The intensity depended on the time of electron bombardment and on the thickness of the prepared film, and could increase up to 30% in the case of long exposures. Orig. art. has: 3 figures.

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TITLE: Transition radiation of nonrelativistic electrons in thin aluminum films

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 5, 1966, 193-197

TOPIC TAGS: metal film, aluminum, electron bombardment, transition radiation, angular distribution

ABSTRACT: The authors investigated the radiation produced when an electron beam (1--2 μa) with energy E up to 60 kev passes perpendicular to the surface through aluminum films (133--329 Å) at wavelengths from 3480 to 5500 Å and at angles θ from zero to 90° relative to the electron motion. The radiation was analyzed with polarization and interference filters and detected with a photomultiplier. The radiation turned out to be polarized in the radiation plane and its degree of polarization reached 98%. The experimental results showed a good linear dependence of the radiation intensity on $\sin^2\theta_0$ (θ_0 -- angle between the transmission plane of the polarization filter and the radiation plane). The polarization agrees with the value expected from the Ginzburg-Frank theory of transition radiation. The difference between the intensities in the radiation plane and in the plane perpendicular to it were compared with the transition-radiation theory and it was found that the absolute intensity of the ob-

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