"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 34475-66 EWT(m)/T IJP(c)

ACC NR: AP6016812 (N) SOURCE CODE: UR/0367/66/003/001/0112/0115

AUTHOR: Azimov, S. A.; Rasulkulov, M. S.; Chudakov, V. M.

ORG: Institute of Nuclear Physics, Academy of Sciences, Uzbek SSR (Institut yadernoy fiziki Akademii nauk Uzbekskoy SSR)

TITLE: Azimuthal angular distribution of shower particles and gray tracks produced by cosmic ray particles in emulsion

SOURCE: Yadernaya fizika, v. 3, no. 1, 1966, 112-115

TOPIC TAGS: cosmic shower, cosmic ray particle, angular distribution, cosmic ray anisotropy, ~~correlation statistics~~, PARTICLE TRACK

ABSTRACT: This is a continuation of earlier work by the authors group (ZhETF v. 45, 407, 1963) where a procedure was developed for observing different correlations in the azimuthal angular distribution. The present article is devoted to the azimuthal angular distribution of gray tracks of shower particles in stars produced in emulsion by singly charged particles, and satisfying the selection rules $n_h + n_g > 15$, $n_s \geq 10$ ($n_h + n_g$ - number of strongly ionized particles, n_s - number of shower particles). A gray track is defined as one with a grain density larger than $1.4g_0$ (g_0 - grain density of fast-electron track) and a range larger than 2.5 mm, corresponding to a proton kinetic energy not lower than 25 Mev. The investigation covered 33 showers of ~50 Gev energy. The procedure involves introduction of specially defined random quantities, the mean values of which are determined separately for the shower

Card 1/2

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ACC NR: AP6016812

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particles and for the gray tracks. From the distribution of the showers relative to these random quantities, it is concluded that the shower particles as well as the gray tracks exhibit azimuthal asymmetry. Furthermore, there is a tendency for these two groups of particles to be emitted in opposite directions. The observed effects are qualitatively explained by using the concept of development of an intranuclear cascade. The authors thank I. M. Gramenitskiy for a discussion of the work, and Sh. Abduzhamilov, L. P. Chernova, and G. M. Chernov for measuring the shower-particle emission angles. Orig. art. has: 3 figures, 4 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 04May65/ ORIG REF: 003

Card 2/2 g.o.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 4470-66 EWT(1)/EWP(e)/EWT(m)/EWP(i)/FCC/T/EWP(b)/EWA(h)/EWA(m)-2 WW/GW/WH

ACC NR: AP5024627 SOURCE CODE: UR/0048/65/029/009/1664/1666

32
B

AUTHOR: Azimov, S.A.; Abdullayev, R.S.; Polyak, Yu.V.

ORG: none

19

TITLE: Investigation of the inelasticity in interactions of particles with carbon nuclei /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1664-1666

TOPIC TAGS: primary cosmic ray, secondary cosmic ray, nucleon interaction, high energy particle, inelastic interaction, particle production

ABSTRACT: The authors have measured the average inelasticity of interactions of nuclear active cosmic ray particles with carbon nuclei by means of an ionization calorimeter of which the main body consisted of 7 slabs of graphite and associated ionization chambers. The total thickness of graphite amounted to about 5 nuclear interaction mean free paths. Cosmic ray particles unaccompanied by electron-photon showers and interacting in the first graphite slab were selected by three appropriately located counter trays. The data for 70 nuclear-active particles with energies above 100 BeV were averaged and are presented as a plot of relative energy evolved versus depth in the ionization calorimeter. Theoretical curves calculated for different assumed

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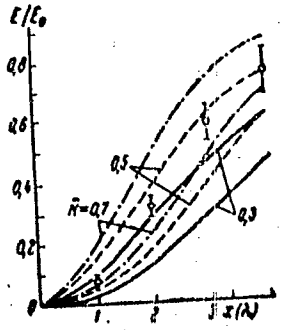
values of the inelasticity are given on the same plot. The experimental points lie between the theoretical curves for inelasticities 0.5 and 0.7. Orig. art. has: 3 figures.



Calculated inelasticities

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 45314-66 EWT(m)/T

ACC NR: AP6023083 (AN) SOURCE CODE: UR/0367/66/003/004/0657/0662

AUTHOR: Abduzhamilov, Sh.; Azimov, S. A.; Chernova, L. P.; Chernov, G. M.; Chudakov, V. M.

ORG: Institute of Nuclear Physics, Academy of Sciences, Uzbek SSR (Institut yadernoy fiziki akademii nauk uzbekskoy SSR)

TITLE: Coherent interaction of high-energy protons with complex nuclei

SOURCE: Yadernaya fizika, v. 3, no. 4, 1966, 657-662

TOPIC TAGS: proton, high energy protin, photoemulsion, nucleon, particle interaction, proton interaction, inelastic interaction

ABSTRACT: The authors use a method proposed in a previous work [Sh. Abduzhamilov, S. A. Azimov, L. P. Chernova, G. M. Chernov, V. M. Chudakov ZhETF, 47, 24, 1964] to find and analyze in detail the differences between the angular distributions of secondary particles in showers formed by high-energy protons and satisfying the necessary selection criteria for pp and pn collisions in

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 06499-67 EWT(m) JXT(CZ)

ACC NR: AP7000463 SOURCE CODE: UR/0367/66/004/001/0169/0177

AZIMOV, S. A.; NIKISHIN, B. K.; RECHITSKIY, I. V.; CHUDAKOV, V. M.

"Inelastic π^-p- Interactions with Slow Recoil Protons at 17 GeV" 14 27 13

Moscow, Yadernaya Fizika; July, 1966; pp 169-177

ABSTRACT: π^-p- interactions with free and quasifree photoemulsion protons, in which 4 and 6 secondary charged particles are emitted, have been investigated. A method of analyzing the angular correlations and the distribution of residual effective masses is described which can prove useful in investigating multipion resonances. Experimental data indicate the possible existence of a resonance with the mass 3.2 GeV. The authors thank V. O. Lok for his kind assistance in the acquisition of photographic plates irradiated on the TsYeRN accelerator; M. I. Podgoretskiy for discussion of the work and valuable advice; and T. V. Zagudaylo, A. G. Imanbayev, and Ye. A. Til', who participated in the review of the calculations. Orig. art. has: 6 figures, 16 formulas, and 1 table. [Based on authors' Eng. abst.] [JPRS: 37,330]

ORG: Institute of Nuclear Physics, AN UzSSSR (Institut yadernoy fiziki AN UzSSSR)

TOPIC TAGS: inelastic interaction, proton

SUB CODE: 20 / SUBM DATE: 09Aug65 / ORIG REF: 003 / OTH REF: 001

Card 1/1 MLE

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 8855-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWA(h)/EWA(c) JD/HW

ACC NR: AP5026482 SOURCE CODE: UR/0286/65/000/019/0009/0009

INVENTOR: Zhukevich-Stosha, Ye. A.; Solov'yev, O. P.; Rizman, R. I.; Shaver, A. B.; Azimov, S. K.; Brovman, M. Ya.; Iskel', L. G.; Kurbatov, I. V.

ORG: none

TITLE: Planetary rolling mill. Class 7, No. 175025

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 9

TOPIC TAGS: tube, tube rolling, rolling mill, metal rolling

ABSTRACT: This Author Certificate introduces a planetary rolling mill (based on Author Certificate No. 124398). For rolling tubes with variable cross section, the mill is equipped with a gear which meshes with the gears of the planetary rolls. The gear is turned by an auxiliary drive and a device which moves the mandrel during rolling, both of which are controlled by a copying attachment. Orig. art. has: 1 figure. [AZ]

SUB CODE: 13/ SUBM DATE: 29Jan64/ ATD PRESS: 4152

UDC: 621.771.064

Card 1/1

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIMOV, S.M.

Some results of studies of subgiant stars in close double systems conducted at the Shemakha astrophysical observatory in the Azerbaijan. Izv. AN Azerb.SSR.Ser.fiz.-tekh. i mat. nauk no.4:109-113 '64. (MIRA 18:3)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

S/233/62/000/003/009/010
I023/I223

AUTHOR: Azimov, S.M.

TITLE: Spectrophotometric investigation of RY Persei

PERIODICAL: Akademiya nauk Azerbaydzhanskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh i tekhnicheskikh nauk, no.3, 1962, 119-131

TEXT: The present work deals with the physical properties (surface temperature, electron density and pressure, density of ionized and neutral calcium atoms, heights of the atmospheres of the main and secondary stars etc.) of RY Persei as measured by the spectrophotometric method. A very brief summary of the known properties of the double star RY Persei The data presented were collected mainly during the autumn of the years 1959 and 1960, and partially during winter of 1961, using the 70 cm reflector of the Abastuman Astrophysical Observatory. The dispersion was 166 Å /mm around H . Kodak OaO and Agfa Astro plates were used. A metol-hydroquinone

Card 1/3

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Spectrophotometric investigation...

developer was used for 8 min at 18°C. Details of calibration and evaluation of the spectrograms are given. The energy distribution of the continuous spectrum in the region 3790-4600A° is strongly dependent on phase of the eclipse. The decrease in the intensity of the continuous spectrum can be explained by a gas stream circulating around the system (its source is the star RY Per B). The spectrophotometric temperature and the discontinuity at the limit of the Balmer series was calculated. The number of hydrogen absorbing atoms was determined. Electron densities and pressures of the main and secondary stars are obtained. The results confirm the fact that the atmosphere of the main star of the RY Per system has a normal structure. The results of the satellite are contradictory. The values of the spectrophotometric gradient and the Balmer discontinuity indicate that the satellite is a giant, but the electron density and the number of hydrogen atoms are very large, indicating a star of the spectral class B8 of the main sequence. This contradiction can be eliminated by assuming that the

Card 2/3

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AZIMOV, S.M.

Satellite stars in systems of eclipsed binary stars. Izv. AN Azerb.SSR. Ser. fiz.-mat. i tekh. nauk no.4:71-79 '62. (MIRA 16:2)

(Stars, Double--Spectra)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIMOV, S.M.

Physical characteristics of subgiant stars in eclipsing binaries. (MIRA 16:12)
Izv.GAO 23 no.2:76-106 '63.

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L 10694-63 EWT(1)/FCC(w)/BDS/ES(v)--AFFTC/ESD-3--Pe-4--GW
ACCESSION NR: AP3001513 S/0233/63/000/001/0089/0094 63
59

AUTHOR: Azimov, S. M.

TITLE: Determination of surface temperature of stars of spectral types B and A in observable twin systems by the spectrophotometric method

SOURCE: AN AzerbSSR. Izv. Seriya fiziko-matematicheskikh i tekhnicheskikh nauk, no. 1, 1963, 89-94

TOPIC TAGS: spectrophotometric method, surface temperature of stars, hot star

ABSTRACT: Surface temperature of stars can be determined by observing its radiation emanating from different parts of the stellar photosphere. In this relation, eclipsing stars are significant since during the presence of relatively cold satellites such observations can be made. Thus, observing a hot star at the moment of almost total eclipse the surface temperature can be determined. For this purpose three eclipsing binary systems RY Per, U Cep and U Sge were selected. In these systems the principal components are stars belonging to the spectral class B 8 V, and the satellites are of the class F 81 V (for RY Per) and G 5 (for U Cep and U Sge). RY Per, U Cep and U Sge were photographed on a 700 mm meniscus tele-

Card 1/2

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scopt AC-32. The spectrophotometric gradient obtained by the spectrogram method was determined in the region of continuous spectrum Lambda Lambda 4600-3790 degrees A. The spectrometric gradient characterizes the surface temperature. "In conclusion, I wish to express my deep gratitude to V. A. Krat for valuable suggestions in the course of this work. I also wish to express my debt to Ie. Kharadze and his colleagues V. F. Dzhapiashvili and I. F. Alaniya for the permission to use the observation equipment in the Abastuman astrophysical observatory." Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: 00 NO REF SOV: 004 OTHER: 001

Card 2/2

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 41708-65 EWG(j)/EWP(e)/EWT(m)/EPF(c)/EWP(i)/EPR/T/EWP(b)/EWA(m)-2 Pr-4/
ACCESSION NR: AP5008411 Ps-4 WW/WH UR/0053/65/000/001/V027/V027

SOURCE: Ref. zh. Fizika, Abs. 1V192

AUTHORS: Azimov, S. S.; Abdullayev, A. M.; Lugovskoy, V. B.; Nyalkovskoy, V. M.; Tokarskiy, V. B.; Yiddashbayev, T. S.

TITLE: Study of the inelasticity of the interaction of particles with heavy nuclei at energies 70 - 700 BeV

CITED SOURCE: Dokl. AN UzSSR, no. 4, 1964, 18-21

TOPIC TAGS: inelastic scattering, particle interaction, inelasticity coefficient, heavy nucleus interaction, cosmic particle

TRANSLATION: The authors investigated the dependence of the inelasticity coefficient ($\bar{K}$) on the primary energy in the primary-energy interval 70 - 700 BeV. The measurements were made with the aid of a calorimeter consisting of Cerenkov and scintillation counters, with layers of iron and lead absorbers placed between the counters. Showers were selected with energies larger than 60 BeV. The showers

Card 1/2

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were broken down into a series of energy intervals, in each of which the average was obtained of the coefficient of inelasticity for the formation of π^0 mesons ($\bar{K}_{\pi 0}$). Taking into account the experimental corrections, the average value of the inelasticity of the interaction between the particles and iron nuclei, in the energy region $E_0 \geq 3 \times 10^{11}$, was found to be $\bar{K}_{\pi 0}^{Fe} = 0.22 \pm 0.2$, consequently $\bar{K}^{Fe} = 3\bar{K}_{\pi 0}^{Fe} = 0.66 \pm 0.06$. The coefficient of inelasticity for the interaction with carbon nuclei was measured by introducing graphite filters into the calorimeter, and was found to be $K^C = 0.48 \pm 0.06$. The average value of the inelasticity coefficient for the interaction between cosmic particles and iron nuclei, $\bar{K}^{Fe}$, depends little on the energy of the incident particles in the interval 70 - 700 BeV. The data obtained agree with the concept of successive collisions of the primary particles with the individual nucleons of complex nuclei in the energy region $E_0 \geq 10^{11}$ eV. Yu. M.

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B125/B102

24.6600

AUTHOR: Azimov, Ya. I.

TITLE: Pion production in weak interactions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41, no. 6(12), 1961, 1879-1884

TEXT: The process of interaction of a neutrino or antineutrino with a nucleon $\nu + p \to l^- + p + \pi^+$, $\nu + n \to l^- + n + \pi^+$, $\nu + n \to l^- + p + \pi^0$ (1) and $\bar{\nu} + n \to l^+ + n + \pi^-$, $\bar{\nu} + p \to l^+ + p + \pi^-$, $\bar{\nu} + p \to l^+ + n + \pi^0$ (2), which have already been studied by T. D. Lee and C. N. Yang (Phys. Rev. Lett. 4, 307, 1960), lead to pion production. Here $l^{\pm}$ indicates the charged lepton (electron or muon). In addition, these reactions are numbered by indicating the target and sign of the meson, such as p+, n+, n0, etc. From the elements of the T matrix obtained in first approximation for weak interaction, for process (1) the following relation is derived for the differential cross sections

$$d\sigma = \frac{1}{(4\pi)^4}\frac{G^2}{2}\frac{|\mathfrak{p}_2|}{s_{10}m}\frac{|\mathfrak{q}|}{W}\Phi ds_{10}\, d\Omega d\cos\theta, \quad (5) \text{ with}$$

Card 1/6

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Pion production in weak ...

$$d\sigma^{\varepsilon} = \frac{1}{(4\pi)^6}\frac{e^4}{4(k^2)^2}\frac{|s_2|}{|s_1|m}\frac{|q|}{W}\Phi^{\varepsilon}\,ds_{20}\,d\Omega\,d\cos\vartheta, \qquad (13),$$

$$\Phi^{\varepsilon} = [S^{\mu}S^{\nu} - k^{\mu}k^{\nu} + k^2 g^{\mu\nu}]\,\mathrm{Sp}\,(\hat{p}_2 + m)\,H^{\varepsilon}_{\mu}(\hat{p}_1 + m)\,\bar{H}^{\varepsilon}_{\mu}. \qquad (14).$$

With the aid of the hypothesis of R. P. Feynman and M. Gell-Mann (Phys. Rev., 109, 193, 1958), the processes (1) and (2) with the electric generation reactions $l^{\pm} + p \to l^{\pm} + p + \pi^0$,

$l^{\pm} + n \to l^{\pm} + n + \pi^0$, $l^{\pm} + p \to l^{\pm} + n + \pi^+$, $l^{\pm} + n \to l^{\pm} + p + \pi^-$ (11).

The relationship of the vector amplitudes

$$H_{p+} = \sqrt{2}(H^+ - H^-), \quad H_{n+} = \sqrt{2}(H^+ + H^-), \quad H_{n0} = 2H^-; \qquad (8) \text{ and}$$

$$\tilde{H}_{n-} = \sqrt{2}(H^+ - H^-), \quad \tilde{H}_{p-} = \sqrt{2}(H^+ + H^-), \quad \tilde{H}_{p0} = -2H^-. \qquad (9)$$

of (1) and (2) with the amplitudes of (11) is given by

Card 3/6

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$$H_{p+V} = \widetilde{H}_{n-V} = (H^{e}_{p0} + H^{e}_{n0})/\sqrt{2} - \tfrac{1}{2}(H^{e}_{p+} - H^{e}_{n-}),$$
$$H_{n+V} = \widetilde{H}_{p-V} = (H^{e}_{p0} + H^{e}_{n0})/\sqrt{2} + \tfrac{1}{2}(H^{e}_{p+} - H^{e}_{n-}), \qquad (17).$$
$$H_{n0V} = -\widetilde{H}_{p0V} = (H^{e}_{p+} - H^{e}_{n-})/\sqrt{2}.$$

The cross sections are interrelated by

$$\tfrac{1}{2}(d\sigma_{n0} + d\widetilde{\sigma}_{p0}) > \tfrac{1}{2}(Gk^2/2\pi\alpha)^2 (d\sigma^{e}_{p+} + d\sigma^{e}_{n-}), \qquad (18),$$

$$\tfrac{1}{2}(d\sigma_{p+} + d\sigma_{n+} + d\widetilde{\sigma}_{p-} + d\widetilde{\sigma}_{n-}) > (Gk^2/2\pi\alpha)^2 [(d\sigma^{e}_{p0} + d\sigma^{e}_{n0}) + \tfrac{1}{2}(d\sigma^{e}_{p+} + d\sigma^{e}_{n-})], \qquad (19),$$

$$\tfrac{1}{2}(d\sigma_{p+} + d\sigma_{n+} + d\widetilde{\sigma}_{p-} + d\widetilde{\sigma}_{n-}) - \tfrac{1}{2}(d\sigma_{n0} + d\widetilde{\sigma}_{p0}) > (Gk^2/2\pi\alpha)^2 (d\sigma^{e}_{p0} + d\sigma^{e}_{n0}). \qquad (20),$$

which are also valid for reactions with Σ particle production. For the reactions

$$\nu + n \to e^- + \Lambda + K^+, \quad \bar{\nu} + p \to e^+ + \Lambda + K^0; \qquad (23)$$

$$e^\pm + p \to e^\pm + \Lambda + K^+, \quad e^\pm + n \to e^\pm + \Lambda + K^0 \qquad (24)$$

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one finds

$$\frac{1}{2}(d\sigma_+ + d\tilde{\sigma}_0) > \frac{1}{2}(Gk^2/2\pi\alpha)^2 (d\sigma_+^e + d\sigma_0^e), \qquad (25),$$

where the subscripts indicate the charge of the produced K meson. For $|k^2| \ll 4m_\pi^2$, the cross sections of electric generation on the right sides of (18)-(20) are related to the photoproduction cross sections through

$$\lim_{k^2\to 0} \frac{\partial^2\sigma^e}{\partial s_{23}\,\partial\Omega} = \frac{\alpha}{(2\pi)^2}\frac{1}{s_{16}(1-\cos\theta)}\sigma^p, \qquad (21),$$

where σ^p is the photoproduction cross section. For great $|k^2|$, the ratio of the cross sections $d\sigma$ and $d\tilde{\sigma}$ to the electroproduction cross sections grows as $(k^2)^2$. V. M. Shekhter (ZhETF, 41, 6, p. 1953) is mentioned. He and I. M. Shmushkevich are thanked for discussions. There are 6 references: 1 Soviet and 5 non-Soviet. The four most recent references to English-language publications read as follows: T. D. Lee, C. N. Yang. Phys. Rev. Lett., 4, 307, 1960. R. P. Feynman, M. Gell-Mann. Phys. Rev., 109, 193, 1958; G. G. Ohlsen. Phys. Rev., 120, 584, 1960; S. Fubini et al. Phys. Rev. 111, 329, 1958.

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Pion production in weak ...

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B125/B102

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut Akademii nauk SSSR (Leningrad Physicotechnical Institute of the Academy of Sciences USSR)

SUBMITTED: June 30, 1961

Card 6/6

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

S/056/62/043/006/067/067
B125/B102

AUTHOR: Azimov, Ya. I.

TITLE: Spin influence on the position of the Regge poles

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 6(12), 1962, 2321-2324

TEXT: The influence of the particle spin on the position of the pole accumulations arising in the n-particle production threshold at $l = -(3n-5)/2$, and in the field theory with arbitrary energy in the negative integral points, is discussed. In the present paper this influence is investigated for the scattering of two neutral pions. This accumulation of poles with respect to the orbital angular momentum j of the pions in the point $j=-1/2 + 2\sigma$ if $p \rightarrow 0$ becomes noticeable in the scattering amplitude of spinless particles and in all other amplitudes connected with it by a unitary condition. p, l and σ designate the momentum, orbital angular momentum and spin of the particles produced; $l_{min} = j - 25$. In the same way the production threshold of n particles of equal spin leads to a pole accumulation in the point $j = -(3n-5)/2 + n\sigma$. Even with finite nuclear

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spin the accumulation can be displaced any distance to the right. Pole accumulations connected with the threshold of systems of identical particles cannot, however, be displaced infinitely to the right if $n \to \infty$, according to a private information by I. Ya. Pomeranchuk. No such prohibition applies to bosons. For these reasons the scattering amplitude has a substantial singularity if $t \to \infty$, $s \to \infty$ and the Mandelstam representation is incorrect. However, the most essential results following from it remain valid. Subsequently, pole accumulation with arbitrary energy is investigated by the example of the $\pi\pi \to N\bar{N}$ reaction. The pole in the discontinuity on the left section of the partial amplitude conditions a pole accumulation of the partial amplitude in the l-plane. An accumulation of poles occurs also for $\pi+\pi \to N + \bar{N}$, if $j = 0$. Experimental data are not yet sufficient for deciding uniquely between the presence and absence of pole accumulations in the zero point. Considering the nuclear structure the additional conditions, whose number increases rapidly with increasing spin, might become superfluous. There is 1 figure.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute imeni A. F. Ioffe of the Academy of Sciences USSR)

SUBMITTED: October 24, 1962

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

S/056/63/044/001/060/067
B102/B186

AUTHORS: Azimov, Ya. I., Ansel'm, A. A., Shekhter, V. M.

TITLE: Weak-coupling motion of Regge poles

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 1, 1963, 361 - 370

TEXT: The Regge pole trajectories are determined for the case of scattering from a Yukawa potential or a superposition of such potentials. This is done on the basis of perturbation theory applied to the exact radial wave function

$$\psi_l(r)=j_l(kr)+\frac{1}{k\cos\pi l}\int_0^r [j_l(kr)\,j_{-l-1}(kr')-j_{-l-1}(kr)\,j_l(kr')]\,U(r')\,\psi_l(r')\,dr', \tag{1}$$

$$j_l(x)=\sqrt{\pi x/2}\,J_{l+1/2}(x), \qquad U(r)=2mV(r)=2ma r^{-1}e^{-\mu r},$$

Within the framework of this theory (1) can be integrated so that in lowest-order approximation the pole trajectory equation is obtained as

Card 1/5

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$$\frac{\alpha m}{k} Q_l\left(1+\frac{\mu^2}{2k^2}\right) = ie^{i\pi l}\frac{\alpha m}{k} R_l\left(1+\frac{\mu^2}{2k^2}\right) + ie^{i\pi l}\cos\pi l; \qquad (4)$$

$$Q_l\left(1+\frac{\mu^2}{2k^2}\right) = 2\int_0^\infty j_l^2(kr)\frac{e^{-\mu r}}{r}\,dr,$$

$$R_l\left(1+\frac{\mu^2}{2k^2}\right) = 2\int_0^\infty j_l(kr)\, j_{-l-1}(kr)\frac{e^{-\mu r}}{r}\,dr. \qquad (5)$$

$Q_l(z)$ is a second-order Legendre function. In the complex plane l, the function Q_l has poles at integral negative points so that R_l are integral functions. Near such negative points $l = -n-1$ where the second-order Legendre function has simple poles with residua equal to the Legendre polynomials P_n, (4) assumes the form

$$\frac{\alpha m}{k}\frac{P_n(1+\mu^2/2k^2)}{l+n+1} = i, \qquad (6)$$

and the trajectories are given by

$$l_n = -n-1+\frac{\alpha m}{ik}P_n\left(1+\frac{\mu^2}{2k^2}\right), \qquad k = i\varkappa, \quad \varkappa > 0. \qquad (7).$$

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(7) is valid if $l_n \approx -n-1$, and of course also if the distances between the poles are small; it loses validity if k^2 is very small. Far from the Q_l poles (4) assumes the form

$$\frac{am}{k}\left(-\frac{ie^{-i\pi l}}{\sin \pi l}\right)\frac{\sqrt{\pi}\,\Gamma(-l-1/2)}{\Gamma(-l)}\left(\frac{k^2}{\mu^2}\right)^{l+1} = 1. \qquad (8)$$

which is not applicable near halfintegral negative points. For $|k^2/\mu^2| \ll 1$ and the pole being far enough away from the real axis, $i\pi(l+1/2) - (l+1/2)\tau + \ln 2\,\xi_l = -2\pi i p$, where p is a positive integer and $\tau = \ln(\mu^2/\varkappa^2)$; $k^2 = -\varkappa^2 < 0$

$$\xi_l = -\frac{am}{\mu}\frac{\sqrt{\pi}\,\Gamma(-l-1/2)}{\Gamma(-l)} \qquad (9).$$

In this case the pole trajectory is almost circular:

$$(\mathrm{Re}\, l + p + 1/2)^2 + (\mathrm{Im}\, l - (2\pi)^{-1}\ln 2\xi_l)^2 = p^2 + (2\pi)^{-2}\ln^2 2\xi_l. \qquad (11)$$

Card 3/5

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which holds for the case of attraction. In the case of repulsion $p \to p+1/2$ and $\xi_l \to -\xi_l$. On the approximate assumption ξ_l=const the trajectories are straight lines if $k^2 > 0$: $2\pi p(\mathrm{Re}\, l + 1/2) = \ln 2\xi_l \cdot \mathrm{Im}\, l$ (attraction). In the case of $k^2/\mu^2 \gg 1$

$$\ln(-\alpha m\sqrt{2\pi/\mu}) + {}^1/_2 \ln(\mu/k) - {}^1/_2 \ln(-l) - (l + {}^1/_2)\,\mu/k = -2\pi i p. \quad (15),$$

so that for the pole trajectories

$$\mathrm{Im}\, l = 2\pi p \frac{k}{\mu}, \qquad \mathrm{Re}\, l = \frac{k}{\mu} \ln\left|\frac{\alpha m}{\mu}\sqrt{\frac{2\pi}{l}\frac{k}{\mu}}\right|. \quad (16)$$

is asymptotically valid. (15)(16) hold for attraction, for repulsion $p \to p+1/2$ and $\alpha \to -\alpha$. Thus the pole motion is characterized by an oscillation of the poles about integral negative points at energies corresponding to the left cut of the partial amplitude (cf. Fig. 1), by collision and exit of the poles into the complex plane even at negative energies, and by condensation of the poles near $l = -1/2$ at threshold energies and open trajectories. There are 2 figures.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

Weak-coupling motion of Regge poles

S/056/63/044/001/060/067
B102/B186

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute imeni A. F. Ioffe of the Academy of Sciences USSR)

SUBMITTED: August 24, 1962

Fig. 1. Pole trajectories for $k^2 < 0$ and attraction.

Fig. 2. Pole trajectories for $k^2 > 0$; arrow; motion from $k^2 = 0$ to ∞. solid lines: attraction, dashed lines: repulsion.

Fig. 1

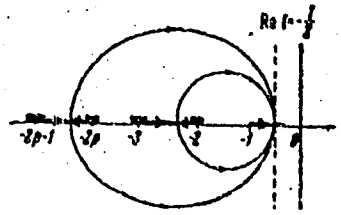
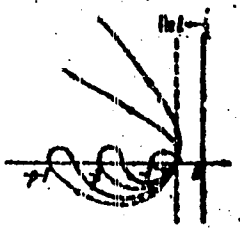


Fig. 2



Card 5/5

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

S/056/63/044/002/043/065
B108/B186

AUTHORS: Azimov, Ya. I., Ansel'm, A. A.

TITLE: Regge poles and asymptotic behavior of amplitudes in perturbation theory

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 2, 1963, 686-694

TEXT: For the scattering of particles on a Yukawa potential, a relationship is established between the asymptotic behavior of the amplitude and the position of the Regge poles. In the lower approximations of perturbation theory the asymptotic behavior is found to be associated with the motion of the poles. Higher approximations (beginning with the third) can prove the consistency of perturbation theory with the existence of only simple moving poles. The motion of the poles in relativistic field theory is studied by considering pion-pion interaction. A simple scheme of Regge poles, similar to the potential scattering, does not agree with perturbation theory. It is, however, possible that poles accumulate near negative integral points (V.N. Gribov, I. Ya. Pomeranchuk. Report presented

Card 1/2

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

Regge poles and asymptotic behavior ... S/056/63/044/002/043/065
B108/B186

at the International Conference on High-energy Physics, CERN, Geneva, July 1962; ZhETF, 43, 1556, 1962) or also near zero owing to the existence of many channels in field theory.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A.F. Ioffe Akademii nauk SSSR (Physicotechnical Institute imeni A.F. Ioffe of the Academy of Sciences USSR)

SUBMITTED: August 24, 1962

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIMOV, Ya.I.

Effect of spin on the position of Regge poles. Zhur.eksp.i teor. fiz. 43 no.6:2321-2324 D '62. (MIRA 16:1)

1. Fiziko-tekhnicheskiy institut imeni A.F.Ioffe AN SSSR.
(Nuclear spin)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIMOV, Ya.I.; ANSEL'M, A.A.; SHEKHTER, V.M.

Motion of Regge poles in the case of weak coupling. Zhur. eksp. i teor. fiz. 44 no.1:361-370 Ja '63. (MIRA 16:5)

1. Fiziko-tekhnicheskiy institut imeni A.F.Ioffe AN SSSR.
(Wave mechanics)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIMOV, Ya. I.; ANSEL'M, A. A.

Regge poles and the asymptotic behavior of amplitudes in perturbation theory. Zhur. eksp. i teor. fiz. 44 no.2: 686-694 F '63. (MIRA 16:7)

1. Fiziko-technicheskiy institut imeni A.F. Ioffe AN SSSR.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 17621-63 EWT(1)/FCC(w)/BDS AFFTC/ASD/IJP(C)

S/056/63/044/003/041/053

56

55

AUTHOR: Azimov, Ya. I., Ansel'm, A. A., and Shekhter, V. M.

TITLE: Analytic properties of Regge pole trajectories

PERIODICAL: Zhurnal eksperimental'noy i tekhnicheskoy fiziki, v. 44, no. 3, 1963, 1078-1092

TEXT: In a previous paper (Ref. 1: ZhETF (in print). Preprint ITEF No. 102) the authors investigated the Regge pole behavior during scattering on a Yukawa potential $V(r) = (\alpha e^{-\lambda r})/r$ for small α and studied the trajectory of poles $l = l_i(k^2)$ for changes in energies k^2 along the real axis from $-\infty$ to $+\infty$. The present paper studies the Regge pole motions for complex energies. It is found that the trajectories have complex (and real) branch points due to collisions of pole pairs. A particular choice of leaves allows one to write a dispersion relation for an arbitrary trajectory with a certain finite number of auxiliary cuts which do not appear as cuts of the amplitude. For the case of weak coupling the positions of these points have been determined explicitly while for stronger coupling the arrangement of the branch points is described qualitatively. With

Card 1/2

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L 17621-63

S/056/63/044/003/041/053

Analytic properties of Regge pole trajectories

the increase of the coupling constant they leave the physical sheet, and, consequently, the trajectory can lead to the appearance of bound states.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physico-Technical Institute im. A. F. Ioffe of the AS USSR)

SUBMITTED: October 24, 1962

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

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[illegible], [illegible]; [illegible], [illegible]; [illegible]

Model of the three-particle [illegible] condition [illegible] complex momenta. [Ad. fiz. [illegible] no.6: [illegible]-[illegible] [illegible].

[illegible]

1. Leningradskiy fiziko-[illegible] institut [illegible].

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIMOV, Ya.I.; ANISOVICH, V.V.; ANSEL'M, A.A.; DANILOV, G.S.; DYATLOV, I.T.

On certain mass formulae in a quartet model. IAd. fiz. 2 no.3:583-584 S '65. (MIRA 18:9)

1. Fiziko-tekhnicheskiy institut im. A.F. Ioffe AN SSSR.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 5349-66 EWT(m)/T/EWA(m)-2

ACCESSION NR: AP5021120 UR/0056/65/049/002/0549/0571

AUTHOR: Azimov, Ya. I.; Ansel'm, A. A.; Gribov, V. N.; Danilov, G. S.; Dyatlov, I. T.

TITLE: Three-particle partial amplitudes and the unitarity conditions for complex values of the angular momentum

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 2, 1965, 549-571

TOPIC TAGS: particle interaction, scattering amplitude, moving pole method, analyticity 29 B

ABSTRACT: This is a continuation of an earlier paper (ZhETF v. 48, 1776, 1965) dealing with the mechanism of the occurrence of Mandelstam branch points on the basis of many-particle unitarity conditions for complex angular momentum (j). The present article considers the possibility of continuing the partial amplitudes for the transformation of two particles into the domain of complex j, and investigates their properties for the simplest types of Feynman diagrams. A general method is described first for analytic continuation of the amplitudes in j when the helicity (m) assumes integer values. It is shown that the concrete character of the asymp-

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 5349-66

ACCESSION NR: AP5021120

totic behavior of the amplitudes depends on the values of the pair energies of the produced particles. The unitarity conditions for the amplitudes are then investigated with respect to the pair energies. The exact form of the three-particle contribution to the unitarity conditions is finally obtained for complex j and for several simple Feynman diagrams, and it is shown that the construction of the unitarity conditions is equivalent to the calculation of the Mandelstam spectral functions of the corresponding diagrams. Orig. art. has: 19 figures and 48 formulas.

ASSOCIATION: none

SUBMITTED: 04Feb65 ENCL: 00 SUB CODE: GP, NP

NR REF SOV: 005 OTHER: 003

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 64748-65 EWT(m) DIAAP

ACCESSION NR: AP5016572 UR/0056/65/048/006/1776/1786

AUTHORS: Azimov, Ya.I.; Ansel'm, A.A.; Gribov, V.N.; Danilov, G.S.; Dyatlov, I.T.

TITLE: Three-particle unitarity conditions for complex angular momenta and the Mandelstam branch points

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 6, 1965, 1776-1786

TOPIC TAGS: moving pole method, quantum electrodynamics, elementary particle, particle interaction

ABSTRACT: A study is made of the contribution of three-particle states to the unitarity condition for the partial elastic amplitude. The unitarity condition is continued to include complex values of the angular momentum j in such a way that no singularities of the amplitudes take place for large Re j. Special attention is paid to

Card 1/3

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L 64748-65

ACCESSION NR: AP5016572

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determining the unitarity condition for the three-particle amplitude in terms of the energy of the pair of the produced particles when j is complex. It turns out that the three-particle contribution should contain a sum not only over integer values of the projection m of the angular momentum, but also over complex values. This leads to the appearance of Mandelstam branch points in the j plane. The connection between the form of the unitarity condition proposed in the present article, with the form used in an earlier paper by V.N. Gribov et al. (Preprint, ITEP, 1964) is then discussed. The possibility of writing down the three-particle unitarity condition in the form of a contour integral with respect to m is considered. It is proposed to show in a future article (ZhETF v. 49, no. 8, 1965) that the three-particle amplitudes introduced in the present article can also be continued to complex j and have the required properties. "The authors thank I. Ya. Pomeranchuk and K. A. Ter-Martirosyan for useful discussions." Orig. art. has: 28 formulas and 10 figures.

Card 2/3

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 64748-65

ACCESSION NR: AP5016572

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A.F. Ioffe Akademii nauk SSSR (Physicotechnical Institute, Academy of Sciences, SSSR)

SUBMITTED: 20Jan65 ENCL: 00 SUB CODE: NP, GP

NR REF SOV: 004 OTHER: 002

Card 3/3

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 65255-65 EWT(m)/T/EWA(m)-2

ACCESSION NR: AP5014203 UR/0386/65/001/002/0050/0054

AUTHOR: Azimov, Ya. I.; Anisovich, V. V.; Anselm, A. A.; Danilov, G. S.; Dyatlov, I. T.

TITLE: Electromagnetic meson decays in the quark model

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 1, no. 2, 1965, 50-54

TOPIC TAGS: meson, strange particle, quark model

ABSTRACT: The hypothesis of SU(6) symmetry in strong interactions leads to a large number of relationships between the various matrix elements. In this paper it is pointed out that the use of SU(6) symmetry and the quark model in studying electromagnetic meson decays leads to predictions which may be experimentally verified in the near future. It is suggested that the magnetic moment of a quark may be independent of the type of interaction which binds quarks in particles, as should be the case in the non-relativistic model with weakly bound quarks. "The authors are grateful to V. M. Shekhter for useful consultation." Orig. art. has: 1 table, 2 formulas.

Card 1/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 65255-65

ACCESSION NR: AP5014203

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe (Physico echnical Institute

SUBMITTED: 19Mar65 ENCL: [illegible] SUB CODE: NP

NO REF SOV: [illegible] OTHER: [illegible]

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIMOV, Ya.I.; ANISOVICH, V.V.; ANSEL'M, A.A.; DANILOV, G.S.; DYATLOV, I.T.

Possible classification of elementary particles in the quartet model. Pis'. v red. Zhur. eksper. i teoret.fiz. 2 no.3:109-113 Ag '65. (MIRA 18:12)

1. Fiziko-tekhnicheskiy institut imeni Ioffe AN SSSR. Submitted June 3, 1965.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 23016-66 EWT(m)/T

ACC NR: AP6014827 SOURCE CODE: UR/0367/65/001/006/1121/1126

AUTHOR: Azimov, Ya. I.--Azimov, J. I.; Gribov, V. N.; Danilov, G. S.; Dyatlov, I. T.

ORG: Leningrad Physicotechnical Institute im. A. F. Ioffe (Leningradskiy fiziko-tekhnicheskiy institut)

TITLE: Model of the three-particle unitary state for complex moments

SOURCE: Yadernaya fizika, v. 1, no. 6, 1965, 1121-1126

TOPIC TAGS: particle physics, nuclear model

ABSTRACT: An extension of three-particle amplitudes to complex moments is constructed on the basis of the non-relativistic Skornyakov - Ter-Martirosyan equation describing the contact pair-interaction of three identical particles (ZhETF, 31, 775, 1956). The exact three-particle unitary state is written for such a model. For arbitrary j this state contains additional terms in which the integration is performed with respect to non-physical values of the pairing energies. The authors thank A. A. Ansel'mo for useful discussions. Orig. art. has: 6 figures and 12 formulas. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 20 / SUBM DATE: 20Jan65 / ORIG REF: 004

Card 1/1

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

[illegible], [illegible]; [illegible], S.P.; KONOTKOV, L.A.

Anionic polymerization of tert-butyl methacrylate and the study of the structure of the polymers obtained. Vysokom. soed. 7 no.5: 843-846 My '65. (MIRA 18:9)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

38281
S/190/62/004/006/007/026
B110/B138

15.8070

AUTHORS: Azimov, A. A., Mitsengendler, S. P., Korotkov, A. A.

TITLE: Synthesis and investigation of the structure of catalytic poly-n-butyl methacrylate. I. Synthesis of poly-n-butyl methacrylate of stereoregular structure

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 6, 1962, 835-838

TEXT: Stereoisomeric poly-n-butyl methacrylates (PBMA) were synthetized. n-butyl methacrylate was purified by alkali, rinsed with water, dried with $MgSO_4$ and KH, distilled and polymerized in toluene, hexane, diethyl ether, liquid ammonia or tetrahydrofuran by means of butyl lithium. Investigated were: (1) optical anisotropy of the solutions and the photoelastic effect, (2) dielectric losses, dipole moments and densities, (3) nuclear magnetic resonance and the IR spectra. Polymerization in toluene at -50°C with butyl lithium (concentration: 1.0 and 0.004-0.005 mole/liter) produced a molecular weight of $6 \cdot 10^6$ at 90% depth of polymerization. The molecular

Card 1/3

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

weights increase with depth of polymerization. Since the ratio of the rate constants, k_2/k_1, is ten times higher for butyl methacrylate than for methyl methacrylate, higher molecular weights were obtained. The polymer formed in hexane is partly separated as a fine precipitate. The polymers obtained in toluene, hexane and diethyl ether have identical structure and differ from the polymers obtained by means of Li metal and α-sodium naphthalene, and liquid ammonia and tetrahydrofuran. The nuclear magnetic resonance spectra showed isotactic structure for the first polymers, and syndiotactic for the second polymers. For the first group, between 1900-600 cm^{-1}, fewer absorption bands exist in the IR spectra. The vitrification temperature of the first group was -15 to -14°C, that of the second one 30-33°C. For the first group, the optical anisotropy was $\alpha = -2$, for the second $\alpha = -14$. Densities differed only slightly (1.06-1.07). The mechanism of isotactic and syndiotactic PBMA formation appears to be similar to that of polymethyl methacrylate. There is 1 table.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR
(Institute of High Molecular Compounds AS USSR)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

Synthesis and investigation of the ... S/190/62/003/006/007/026
B110/B138

SUB ITTED: April 6, 1961

Card 3/3

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

KOROTKOV, A.A.; AZIMOV, Z.A.; MITSENGENDLER, S.P.

Butyllithium-catalyzed polymerization of phenyl methacrylate. Vysokom. soed. 7 no.8:1326-1331 Ag '65. (MIRA 18:9)

1. Institut vrysokomolekulyarnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIMOV, Z.A.; KOROTKOV, A.A.; MITSENGENDLER, S.P.

Kinetics and mechanism of n-butyl methacrylate polymerization under conditions of siotactic polymer formation. Vysokom.soed. 5 no.8:1144-1151 Ag '63. (MIRA 16:9)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Methacrylic acid) (Polymerization)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIMOV, Z.A.; KOROTKOV, A.A.; MITSENGENDLER, S.P.

Kinetics and the mechanism of polymerization of tert-butyl methacrylate with n-butyllithium. Izv.AN SSSR. Ser.khim. no.1: 55-61 Ja '64. (MIRA 17:4)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

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L 63018-65 EPF(c)/EWP(j)/EWT(m)/T Pc-4/Pr-4 RPL JAJ/RM

ACCESSION NR: AP5013058 UR/0190/65/007/005/0843/0846
66.095.264+678.01:53+678.744

AUTHORS: Azimov, Z. A.; Mitsengendler, S. P.; Korotkov, A. A.

TITLE: Catalytic polymerization of tert. butyl methacrylate and the structure of the resultant polymers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 5, 1965, 843-846

TOPIC TAGS: polymerization, resin, methacrylate, polymeric structure

ABSTRACT: The purpose of the investigation was to determine the effect of chain-branching of the alkyl radical of the ester group in the alkylmethacrylates during catalytic polymerization on the structure of the resulting polymer. Polymerization of tert. butylmethacrylate (A) was carried out under two conditions leading to the formation of isotactic and syndiotactic polymers respectively. The experimental procedure was that of Z. A. Azimov, A. A. Korotkov, and S. P. Mitsengendler (Izv. AN SSSR, seriya khimich., 1964, 55). The polymers obtained were characterized in terms of: optical anisotropy of solutions, photoelastic effect in films, dielectric loss, dipole moments, and density. Polymerization of A at -50C in toluene in the presence of butyllithium yields an isotactic polymer, whereas

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ACCESSION NR: AP5013058

polymerization in tetrahydrofuran in the presence of sodium naphthalinate or in liquid ammonia in the presence of metallic lithium yields a syndiotactic polymer. X-ray analysis showed that the polymers were amorphous. It is concluded that the structure of the alkyl radicals of the ester groups in the alkylmethacrylates has no effect on the direction of polymerization. The experimental results for the formation of the isotactic polymer confirm the hypothesis of C.E.H. Bawn and A. Ledwith, (Quart. Revs, 16, 361, 1962). It is suggested that the α-methyl group is responsible for the formation of the isotactic polymer. Orig. art. has: 1 table, 1 graph, and 1 illustration.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute for High Molecular Compounds, AN SSSR)

SUBMITTED: 13Jul64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 010 OTHER: 004

KC

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

ALIYEV, V.S.; AZIMOVA, D.A.; KASIMOVA, N.P.; KYAZIMOV, Sh.K.

Obtaining low-molecular organic acids by direct oxidation of propylene in the fluidized bed of vanadium-molybdenum catalyst. Azerb. neft. khoz. 41 no.12:33-35 D '62. (MIRA 16:7)

(Acids, Organic) (Propene) (Oxidation)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIMOVA, G.; YABLOKOV, S. (g.Ivanovo); MAGIDOV, Ya.

Letters to the editor. Obshchestv. pit. no.9:49 S '61.
(MIRA 14:11)

1. Nachal'nik otdela obshchestvennogo pitaniya Upravleniya torgovli Kaluzhskogo oblispolkoma (for Azimova).
(Restaur[redacted]unchrooms, etc.)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

LARINA, V.A.; STRUGOV, A.S.; GALAGANOVA, A.S.; KASHTANOVA, A.Z.; AZIMOVA, G.A.

Coals of the Kempendyay deposit, their composition and properties. Izv. Fiz.-khim. nauch.-issl. inst. Irk. un. 5 no.1:6-12 '61. (MIRA 16:8)

(Vilyuy Basin--Coal--Analysis)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

8(0) SOV/112-58-3-3591

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1958, Nr 3, p 7 (USSR)

AUTHOR: Azimova, K. F.

TITLE: Computation of the Magnetic-Field Strength Produced by an Air-Gap Electromagnet (Raschet napryazhennosti magnitnogo polya, sozdavayemogo elektromagnitom s razomknutym serdechnikom)

PERIODICAL: Tr. Leningr. voyen.-mekhan. in-ta, 1956, Nr 5, pp 59-67

ABSTRACT: A well-known method is described for mapping a magnetic-field pattern, assuming the core surface equipotential (a weak saturation of the core). Malinovskiy's approximate formula is used for computing tubes of reluctance. Formulae are derived for the components of the magnetic intensity of a magnetic dipole that is referred to as a "schematic magnet."

V.A.G.

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APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

BLAZHKIN, A.T., doktor tekhn. nauk. prof.; BESEKERSKIY, V.A., doktor tekhn. nauk, prof.; AZIMOVA, K.F., kand. tekhn. nauk, dots.; LANSKOV, V.D., kand. tekhn. nauk, dots.; FABRIKANT, Ye.A., kand. tekhn. nauk, dots.; GUL'DIN, Yu.V., inzh. MEYERSON, I.G., dots.. kand. tekhn. nauk, dots., retsenzent. FROLOV, B.K., red.

[General electrical engineering] Obshchaia elektrotekhnika. Moskva, Energiia, 1964. 655 p. (MIRA 17:12)

1. Prepodavatel' Leningradskogo mekhanicheskogo instituta (for Blazhkin, Besekerskiy, Azimova, Lanskov, Fabrikant, Gul'din).

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

USSR/Cultivated Plants - Grains. M-2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29718

Author : Petrov, A.P., Azimova, N.G.

Inst : Kazan Pedagogical Institute.

Title : The Effect of Soil Temperature on Seed Germination and the Appearance of Shoots in Corn.

Orig Pub : Tr. Kazansk. fil AN SSSR, Ser. biol. n., 1956 (1957), vyp. 4, 103-107.

Abstract : The experiments were made under laboratory conditions at the Biological Station of Kazan Pedagogical Institute. Corn seeds of the Kazanskaya 108 variety were germinated with a twenty-four temperature variation ranging from 10 to 14° for 7 days, from 8 to 11.5° for 11 days and from 7 to 10° for 14 days around the clock. Full germination of the seeds of this variety required a sum of mean daily

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIN, L. A.

"Storage of Seed Grain and Improvement in Its Quality in Sverdlovskaya Oblast." Cand Tech Sci, Moscow Technological Inst of the Food Industry, Moscow, 1953. (RZhBiol, No 4, Oct 54)

Survey on Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

So: Sum. No. 481, 5 May 55

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

USSR / Cultivated Plants. Grains. M-2

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24946

Author : Azin, L. A.
Inst : Not given
Title : The Drying Method of Improving Seed Grain in Sverdlovskaya Oblast'

Orig Pub: V sb.: Biokhimiya zerna. 3. M., AN SSSR, 1956, 97-107

Abstract: Tests were made in 1949-1951 at the "Istok" kolkhoz in Aramil'skiy Rayon of Sverdlovskaya Oblast' with variety grain of summer wheat, winter rye, oats and barley in the presence of natural original moisture. The variation having two-stage drying with the temperature of the heat conducting body at 60-65 and 65-70° proved best. When summer wheat seeds were dried which had an initial moisture of 28.7%,

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIN, L.A., kand. tekhn. nauk; KOPYT'KO, F.Ye.; DOBRYNIN, L.Ye.

Harvesting grain by separate stages in Sverdlovsk Province. Zemledelie 6 no.6:5-10 Je '58. (MIRA 11:6)
(Sverdlovsk Province--Grain--Harvesting)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIN, L.A., kand. tekhn. nauk

Mechanical ventilation of seeds. Zemledelie 25 no.8:70-73 Ag '63. (MIRA 16:10)

1. Ural'skiy nauchno-issledovatel'skiy institut sel'skogo khozyaystva.

(Sverdlovsk Province—Grain—Storage)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIN, L.A., kand.tekhn.nauk

Mechanical ventilation of seed before sowing. Zemledelie 27 no.4:43-45 Ap '65. (MIRA 18:4)

1. Ural'skiy nauchno-issledovatel'skiy institut sel'skogo khozyaystva.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

L 42940-66 EWT(1)/EWP(e)/EWT(m)/EEC(k)-2/T/EWP(k) IJP(c) WG/WH

ACC NR: AP6030175 SOURCE CODE: UR/0237/66/000/008/0001/0004

AUTHOR: Azin, V. A.; Vanyukov, M. P.; Isayenko, V. I.; Serebryakov, V. A.; Shorokhov, O. A.

ORG: none

TITLE: An Nd-glass laser with a smooth displacement of the spectral emission band

SOURCE: Optiko-mekhanicheskaya promyshlennost', no. 8, 1966, 1-4

TOPIC TAGS: solid state laser, neodymium laser, glass laser, laser output, laser efficiency

ABSTRACT: Piecewise continuous narrowing of the emission spectrum of a Q-switched Nd-glass laser at 0.2—0.3 nm was achieved experimentally without appreciable loss of efficiency by inserting the Fabry-Perot etalon inside the resonant cavity. The experimental setup is shown in Fig. 1. The KGSS-7 neodymium-glass rod used was 240 mm long and 15 mm in diameter. A rotating prism (30×10^3 rpm) Q-switch and a 1-m resonator produced a 3-j single pulse with a duration of ~40 nanosec. The spectral separation was achieved by means of an F-P etalon whose mirrors were 95% reflective. Another F-P etalon with 40% reflectivity and inclined at an angle ψ to the resonator axis was used as a spectral selector. The output mirror was either an F-P etalon with non-coated quartz plates (13% reflective) or a dielectric mirror. The variation of the spectral emission band and energy of a single-pulse laser as a function of ψ were

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L 42940-66

ACC NR: AP6030175

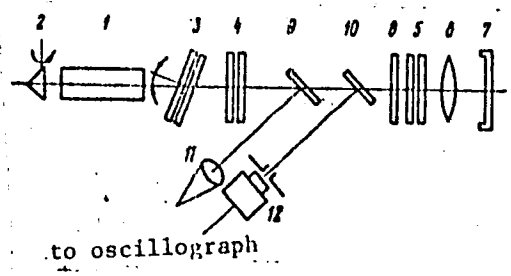

Fig. 1. Experimental setup

1 - Neodymium glass rod; 2 - prism; 3 - F-P etalon with reflection coefficient R = 40%; 4 - F-P etalon without reflective coating (in some experiments a dielectric mirror (R = 13%) was substituted); 5 - spectral separator F-P etalon with R = 95%; 6 - objective; 7 - camera; 8 - dull plate and neutral filters; 9, 10 - light separating plates; 11 - calorimeter; 12 - photocell.

shown graphically. Emission spectra of a single laser pulse for various ψ (120', 240', and 300') and the smooth displacement of the emission band in the free generation mode are shown. The experimental data indicate the following: 1) spectral narrowing to 0.2—0.3 nm occurred without a loss in the single pulse laser efficiency when an F-P etalon with uncoated plates was used as an output mirror; 2) simultaneous use of two etalons makes it possible to narrow the emission spectrum of a single pulse laser down to 0.01 nm; 3) use of an F-P etalon with coated plates inside the resonant cavity ensures smooth displacement of the spectral band within the 5—7 nm

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ACC NR: AP6030175

range for both free and Q-switched generation; 4) when the spectral band is displaced, the energy of a single pulse laser goes through several maxima which are spaced by a distance $\Delta\lambda$ equal to the resonator constant. Orig. art. has: 5 figures. [YK]

SUB CODE: 20/ SUBM DATE: 08Jan66/ ORIG REF: 001/ OTH REF: 004/ ATD PRESS: 5069

Card 3/3 MLF

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZINA, M. A.

Azina, M. A. "524 cases of perforating ulcers of the stomach and duodenum," Trudy Gospit. khirurg, kliniki (Sverdl. gos. med. un-t), Vol. IV, 1943, p. 117-38

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZINA, M. A.

Azina, M. A. "5316 cases of acute appendicitis," Trudy Gospit, khirurg. kliniki (Sverdl. gos. med. un-t), Vol. IV, 1948, p. 139-61

SO: U-3850, 16 June 53 (Letopis 'Zhurnal 'nylh Statey, No. 5, 1949)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZINA, M. A.

Azina, M. A. "1299 cases of acute intestinal impassability," Trudy Gospit. khirurg. kliniki (Sverdl. gos. med. um-t), VOL. IV, 1948, p. 170-86

SOL U-3850, 15 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZINA, M. A.

Azina, M. A. "Material on the evaluation of resection of the stomach in ulcerous disease." Sverdlovsk State Medical Inst. Sverdlovsk, 1956. (Dissertation for the Degree of Doctor in Medical Science)

So: Knizhnaya letopis', No. 27, 1956, Moscow. Pages 94-109; 111.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

ASIMA, N.A., Dec Med Sci -- (dis) " Data for [illegible] of gastric resection in [illegible] ulcers [illegible]." Sverdlovsk, 1 [illegible]. [illegible] (Sverdlovsk State Med Inst), 200 copies (KL, [illegible], 117)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZINA, M.A., dots.

Protein metabolism at remote periods after gastrectomy for peptic ulcer. Sov.med. 22 no.7:58-61 Jl '58 (MIRA 11:10)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. V.F. Kolosovskaya) Sverdlovskogo meditsinskogo instituta (dir. - prof. A.F. Zverev).
(GASTRECTOMY, in various dis.
peptic ulcer, remote postop. protein metab. determ. (Rus))
(PROTEINS, metab.
eff. of gastrectomy in pepetic ulcer, remote postop. determ. (Rus))

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZINA, M.A., dots.

Problem of work capacity in remote periods after gastrectomy in peptic ulcer. Sov.med. 22 no.11:15-20 N'58 (MIRA 11:11)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. V.F. Kolosovskaya Sverdlovskogo meditsinskogo instituta (dir. - prof. A.F. Zverev).

(GASTRECTOMY, in various dis.
peptic ulcer, remote postop. work capacity (Rus))
(WORK
capacity after gastrectomy in peptic ulcer (Rus))

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZINA, M.A., dotsent

Recurrence of ulcer following resection of the stomach. Khirurgiia 35 no.12:58-60 D '59. (MIRA 13:6)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. V.F. Kolosovskaya) Sverdlovskogo meditsinskogo instituta.
(GASTRECTOMY complications)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZINA, Mariya Aleksandrovna, for Doctor of Medical Sciences on the basis of the dissertation defended 26 Sept. 1958 in the Council of Sverdlovsk State Medical Institute, entitled: "Data on the Evaluation of the Re-section of the Stomach in an Ulcerating Disease". (BMVISSO USSR, 2-61, 19)

for Gastric Ulcers.

78

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APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZINA, M.A., doktor med.nauk

Late results of surgery for peptic ulcer in childhood and adolescence. Khirurgiia no.10:96-100 '61. (MIRA 14:10)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. V.F. Kolosovskaya) Sverdlovskogo meditsinskogo instituta.
(PEPTIC ULCER)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZINA, M.A., dotsent

Hypoglycemia in a complex of symptoms of peptic ulcer following gastrectomy. Sov. Med. 26 no.9:35-40 S '62. (MIRA 17:4)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. V.F. Kolosovaskaya) Sverdlovskogo meditsinskogo instituta (dir. prof. A.F. Zverev).

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CA

7

State of the carbon in slowly and rapidly cooled technical iron. B. O. Azintsev and M. P. Arbatov (Metal Phys. Lab., Acad. Sci. Ukr. S.S.R., Kiev). *Zhur. Tekh. Fiz.* 20, 27-31(1950).—Steel samples contg. 0.1, 0.058, 0.042, and 0.02% C were kept at 700° and then either cooled slowly to room temp. or rapidly by immersion in a 10% NaOH soln. The heat-treated samples were then dissolved anodically either in a *N* KCl soln. with 0.5% citric acid or in 0.5 *N* HCl soln., at a c.d. of not over 0.03 amp./sq. cm., for not over 8 hrs., at about 0°, and the undissolved carbide was scraped off the surface under water, allowed to settle, dried, and examd. in x-ray diffraction. The amt. of carbide collected decreases with the amt. of C in the steel. Rapidly cooled samples give less carbide than slowly cooled. No carbide was collected from steel with 0.02% C. Rapidly cooled 0.042% C steel, heated up again to 700° and kept at that temp. for 3 hrs., and then cooled slowly, gave the same amt. of carbide as an originally slowly cooled 0.042% C steel. X-ray patterns of slowly cooled 0.1% C steel gave typical sharp lines of Fe_3C; these lines were somewhat more diffused in the carbide collected from rapidly cooled steel of the same compn. Sharp lines of Fe_3C were obtained also with carbide from slowly cooled 0.058 and 0.042% C steels; these lines were faint and diffuse in rapidly cooled 0.042% C steel. The Fe_3C lines are accompanied by lines of Fe_2O_3 and Fe_3O_4. The carbide phase of slowly cooled steel with 0.1-0.042% C consists of relatively fine crystals with a small amt. of coarser grains. The presence of highly dispersed crystals in carbide from rapidly cooled steel indicates that they are formed during the cooling. The absence of sep. spots on the lines of rapidly cooled 0.042% C steel and their presence in slowly cooled samples indicates that at the moment of quenching all or almost all C is in soln. The fine crystallites, formed at higher temps., have time to grow during slow cooling. On rapid cooling, not all the C has time to sep., and part of it remains in supersatd. soln. From the fact that no carbide is collected from a 0.02% C steel, it is inferred that, roughly, 0.02% C can remain in soln.

N. Thon

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

CA AZINTSEV, YU. G.

9

State of the carbide formed in isothermal decomposition of austenite. E. G. Azintsev and M. P. Arbuzov (Metal Phys. Lab., Acad. Sci. Ukr. S.S.R., Kiev). *Zhur. Tekh. Fiz.* 20, 32-7(1950).—Steel samples with 1.2% C were kept 20 min. at 1180° and were then transferred for 2 hrs. to baths kept at 650, 600, 500, 450, 410, 370, 340, 310, and 270°, then cooled in air, etched, and attacked anodically in 0.5 *N* HCl; the carbide thus collected (cf. preceding abstr.) was examd. by x-ray diffraction. All samples, irrespective of the temp. of the decompn. of the austenite, showed the same lines of the orthorhombic lattice of cementite. The Fe_3C collected from austenite decompd. at 600° and higher consists of crystallites not smaller than 10^{-6} cm. Judging by the broadening of the interference lines of Fe_3C from samples kept at 500° and below, the crystallites are smaller than 10^{-6} cm., and the dispersity increases with decreasing temp. of the decompn. The dimensions of the Fe_3C crystals are smaller in the [001] than in the other directions. It can, therefore, be concluded that at lower decompn. temps. the Fe_3C crystals sep. in the form of plates parallel to the [001] face. Fe_3C crystallites from decompn. at 340° have an estd. size of a few at. layers in the [001] direction, and a few hundreds of at. layers in the [010] and [100] directions. Fe_3C from decompd. austenite have approx. the same size as Fe_3C from steel quenched from a 30-40° higher temp.

N. Thon

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIYA, A.P. (Odessa).

Elements of practical application in lessons of mathematics. Mat.v shkole no.1:54-57 Ja-F '54. (MLRA 7:1)
(Mathematics--Study and teaching)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIYA, A.P.

Discussion of I.L. Kerzner and V.A. Pakhomova's article "Determining the percentage of filling content of candy." Khleb.i kond.prom. 6 no.6:46 Je '62. (MIRA 15:7)
(Confectionery)
(Kerzner, I.L.) (Pakhomova, V.A.)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIYA, A.P., kand.tekhn.nauk

Fat determination in "Iris" candy and other milk-containing products. Khar.prom. no.2:60-61 Ap-Je '62. (MIRA 15:9)
(Confectionery--Testing)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

RAKHMAN, N.[illegible]; [illegible]V, A.S.

Preparation of compounds based on butadiene-acrylonitrile (SKN) rubber in rubber [illegible]. Kauch. i rez. 23 no. 7:51-52 Jl '64. (MIRA 17:8)

1. Orenburgskiy zavod rezino-tekhnicheskikh izdeliy.

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VOL'FKOVICH, S.I., akademik; AZIYEV, R.G.

Thermal dissociation of calcium phosphate in a mixture with silica. Dokl. AN SSSR 162 no.6:1310-1313 Je '65. (MIRA 18:7)

1. Moskovskiy gosudarstvennyy universitet.

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CHERKASSKIY, Ye.S.; KOVTUNENKO, V.F.; BUDARINA, T.D.; Prinimali uchastiye: MELUA, N.K.; DOBROCHINSKAYA, I.B.; AZIYASHVILI, L.A.

Improved methodology of chromatographic determination of γ-hexachlorocyclohexane in activated creolin and oil. Biul. Glav. bot. sada no.54:94-101 '64. (MIRA 17:11)

1. Glavnyy botanicheskiy sad AN SSSR.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

TSITSIN, N.V., akademik; CHERKASSKIY, Ye.S.; BUSHCHIK, T.N.; SHMAL'KO, V.F.; LYUDOVA, G.L.; KILIMNIK, Ye.Ye.; BELYAYEVA, A.S.; Prinimali uchastiye: AZIYASHVILI, L.N.; ANTONOVA, I.I.; VOLKOVA, A.A.; DOBROCHINSKAYA, I.B.; MIROSHNICHENKO, O.N.; YUZHAKOVA, N.P.

New data on the control of cabbage flies (Chortophila brassicae Bouché and Chortophila floralis Fall.). Dokl.AN SSSR 144 no.2:457-460 My '62. (MIRA 15:5)

1. Glavnyy botanicheskiy sad AN SSSR, Opytno-pokazatel'nyy sovkhoz im. Mossoveta i Sovkhoz im. A.M.Gor'kogo.
(Cabbage—Diseases and pests)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

ACCESSION NR: AP4042342 S/0138/64/000/007/0051/0052

AUTHOR: Rakhman, M. Z., Aziyev, A. S.

TITLE: Preparation of NBR-based compounds in rubber mixers

SOURCE: Kauchuk i rezina, no. 7, 1964, 51-52

TOPIC TAGS: Synthetic rubber, acrylonitrile butadiene rubber, rubber compounding, mixing roll process, rubber mixer process, rubber mixer RS-45, rubber mixer RS-140, compounding process efficiency

ABSTRACT: The authors analyze the inefficiencies of the process presently used to compound NBR-based mixtures (Defo hardness 1600-3000 g) on 60" mixing rolls (hard mixture 28-39 kg, medium and soft mixture 50-60 kg, blending period 35-40 min.), and report experiments with various mixtures. They recommend the use of rubber mixtures RS-45 (100 kw, 32.5-28.7 rpm) and RS-140 (250 kw, 20.0-17.3 rpm) in tandem with 60" (75kw) and 84" (158kw) rolls, respectively, for blending rigid (RS-45) and medium or soft (RS-140) batches. The recommended process increases efficiency by 250 — 300%. Orig.

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ACCESSION NR: AP4042342

art. has: 3 tables.

ASSOCIATION: Orenburgskiy zavod rezino-tekhnicheskikh izdeliy (Orenburg Plant for Technical Rubber Parts)

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SUB CODE: MT

NO REF SOV: 002

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2/2
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PROKUDINA, F.V., kand.sel'skokhozyaystvennykh nauk; AZIYEV, K.G., kand.-sel'skokhozyaystvennykh nauk

Controlling wireworms in corn fields. Zashch. rast. ot vred. i bol. 7 no.3:28-29 Mr '62. (MIRA 15:11)

1. Sibirskiy nauchno-issledovatel'skiy institut sel'skogo khozyaystva.

(Omsk Province—Corn (Maize)—Diseases and pests)
(Omsk Province—Wireworms)

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

The principal petrological features of the north-eastern part of the minor Caucasus (Azurbaidzhan). P. A. Azizbekov. *Bull. acad. sci. U. R. S. S., Ser. géol.* 1944, No. 2, 74-9 (in English, 79).—The geology of 9 manifestations of volcanism is discussed, with chem. data on the av. compn. of Jurassic and Lower Turonian effusive materials and of granitoids and their derivs. The specific characters of the intrusives and effusives in the petrographic province under consideration are the predominance of Na_2O over K_2O and CaO over MgO. It is pointed out that contact phenomena resulted in the formation of hornfels, iron-ore deposits and skarns. Hydrothermal processes connected with post-mineralizing intrusions caused the formation of secondary quartzite, Cu, pyrite, polymetallic cobalt and hematite ores, alunite, pyrophyllite, barite and calcite veins. J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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AZIZBEKOV, R.Sh.

Petrochemical characteristics of dike formations in granite-syenite intrusions of the Megri-Ordubad batolith. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk no.1:35-39 '64.

(MIRA 18:6)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIZBEKOV, R.Sh.

Petrochemical characgeristics of dike formations of the adamellite intrusive of the Megri-Ordubad batolith. Izv. AN Azerb.SSR.Ser. geol.-geog.nauk. i nefti no.3:33-40 '63. (MIRA 16:11)

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CA Azizbekov, Sh. A.

8

The fundamental pattern of the geology and petrography of the Ordubadsk intrusive and the rock enclosing it. Sh. A. Azizbekov and R. N. Abdullaev. *Izvest. Akad. Nauk S.S.S.R., Ser. Geol.* 1947, No. 6, 59-67.—A description of the intrusive and the enclosing rock of the Ordubadsk intrusive, based on data obtained in 1945-1946 as a result of geologic-petrographic work done in the southwest part of the Konguro-Alangezsk range. The intrusive rocks described show 3 different phases of activity: the earlier—tonalitic, intermediate—monzonitic, and later—grano-syenitic. Three tables give chem. analyses of these different phases of rock. G. S. Macy

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIZBEKOV, [illegible]

Azizbekov, [illegible] "Basic features of the petrochemistry of the southwestern part of the Kongur-Alengez intrusives", Doklady (Akad. nauk Azerbaydzh. SSR), 1948, No. 12, p. 511-15, (Resume in Azerbaijani).

So: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIZBEKOV, Sh. A. (Co-author)

See: PASHALY, N. V.

Azizbekov, Sh. A. and Pashaly, N. V. - "Skarns of the south-western portion of the Kongur-Alangez intrusion", Doklady (Akad. nauk Azerbaydzh. SSR), 1949, No. 3, p. 108-11, (Resume in Azerbaijani).

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 23, 1949).

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[illegible]

[illegible] [illegible], [illegible]; [illegible], [illegible]

Pamprofirovyye porody Azerbaydzhana.
Doklady (Akad. nauk Azerbaydzh. SSR), 1949, No. 5, s. 210 - 14.
Rezyume na Azerbaydzh. Yaz.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102720018-0

AZIZBEKOV, Sh. A.

23970 AZIZBEKOV, Sh. A. Petrografiya Serpentinitov Kel'badzharskogo rayona Azerbaydzhanskoy SSR. Doklady (Akad. nauk Azerbaydzh. SSR), 1949, No. 6, S. 213-19. -- Rezyume na azerbaydzh. yaz. Bibliogr: 7 nazv.

SO: Letopis, No. 32, 1949.

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