

USSR/Weeds and Weed Control.

N

Abs Jour : Ref Zhur Biol., No 22, 1958, 100543

Author : Sukortseva, K.D., Dikiy, S.P., Klinkin, N.V.

Inst : All-Union Scientific Research Institute of the Canning and Vegetable Drying Industries

Title : Application of Herbicides in the Sowings of Vegetable Crops.

Orig Pub : Referaty nauchn. rabot, Vses.n.-i. in-t konservn, i ovoshchesush. prom-sti, 1957, vyp. 4, 88-93

Abstract : Work was conducted in 1956 at Assinovskiy and Cherkasskiy base points of the All-Union Scientific Research Institute of the Canning and Vegetable-Drying Industries. In carrot sowings, Ciloro (I) proved to be effective when applied at the rate of 40 kilograms/ha of the 40% preparation to 1000 liters of water at the 2-3 leaflet

Card 1/2

KLIMAKIN, IV. V.

USSR/Weeds and their Control

N

Abs Jour : Ref Zhur-Biol., No 2, 1958, 6406

Author : Klimakin N.V. Oksenenko P. F.

Inst : Not given

Title : Application of Herbicides in Weed Control of Vegetable Cultures

Orig Pub : Konservn. i ovoshchesush. prom-st, 1957, <sup>12</sup>No 3, 37-38

Abstract : In Cherkaskiy rayon in 1956 tests were made on plantings of carrots, onions, non-seedling tomatoes, peas, and corn with herbicides DNOK (I), IFK (II), TSA (III), PKhF (IV) and ChlorIFK (V). Pre-sprouting treatment of plantings with 0.2% and 0.5%, and post-sprouting with 0.2% solutions of I did not give positive results. Post-sprouting treatment with 0.5% solution of I caused

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*Cherkasskiy opornyj punkt Vsesoyuznogo nauchno-issledovatel'skogo inst. konservnoj i ovoshchevuditel'noj promyshlennosti*

KLIMAKIN, N.V.

~~KLIMAKIN, N.V.~~

Measures for regular delivery of tomatoes to the Cherkassy  
Canning Combine. Kons.i ov.pron. 12 no.5:34-36 Ny '57.

(MLRA 10:8)

1. Cherkasskiy opornyy punkt Vsesoyuznogo nauchno-issledovatel'-  
skogo instituta konservnoy i ovoshchesushil'noy promyshlennosti.  
(Tomatoes)

KLIMAKIN, N.V.

Growing of sweet peppers by the method of seed sowing in the soil.  
Kons.1 ov.prom. 17 no.6;28-29 Je '62. (MIRA 15:5)

1. Cherkasskiy opornyy punkt.  
(Peppers)

BEZEL', L.I.; KLIMAKOV, V.V.

Problem of the utilization of plywood pipes for the drinking  
water supply system. Oig. i san. 25 no. 5:94-95 My '60.

(MIRA 13:10)

1. Iz Sverdlovskogo nauchno-issledovatel'skogo instituta gigiyeny  
truda i professional'nykh zabolevaniy.  
(WATER PIPES)

KRISTER, A.A. [deceased]; KLIMAKOVA, A.I.; CHEPKIY, L.P.

Metabolic disorders in brain tumors. Vopr. neirokhir. 21 no.2:33-35  
Mr-Apr '57 (MLRA 10:5)

1. Institut neyrokhirugii Ministerstva zdravookhraneniya USSR.  
(BRAIN NEOPLASMS, compl. metab.  
metab. disord.)  
(METABOLISM, in various dis.  
disord. in brain tumor)

KLIPAKOVA, A.I., Cand Med Sci --(diss) "Blood gases, alkaline reserve,  
and certain indicators of carbohydrate metabolism in <sup>breast</sup> ~~tumors~~,"  
~~book~~ Kiev, 1958. 14 pp (Crimey State Med Inst G. I. V. Stalin),  
(M, 46-58, 142)

-62-

KLIMAN, A.I.; SBYKH, B.N.; SONOL'SKAYA, I.L.

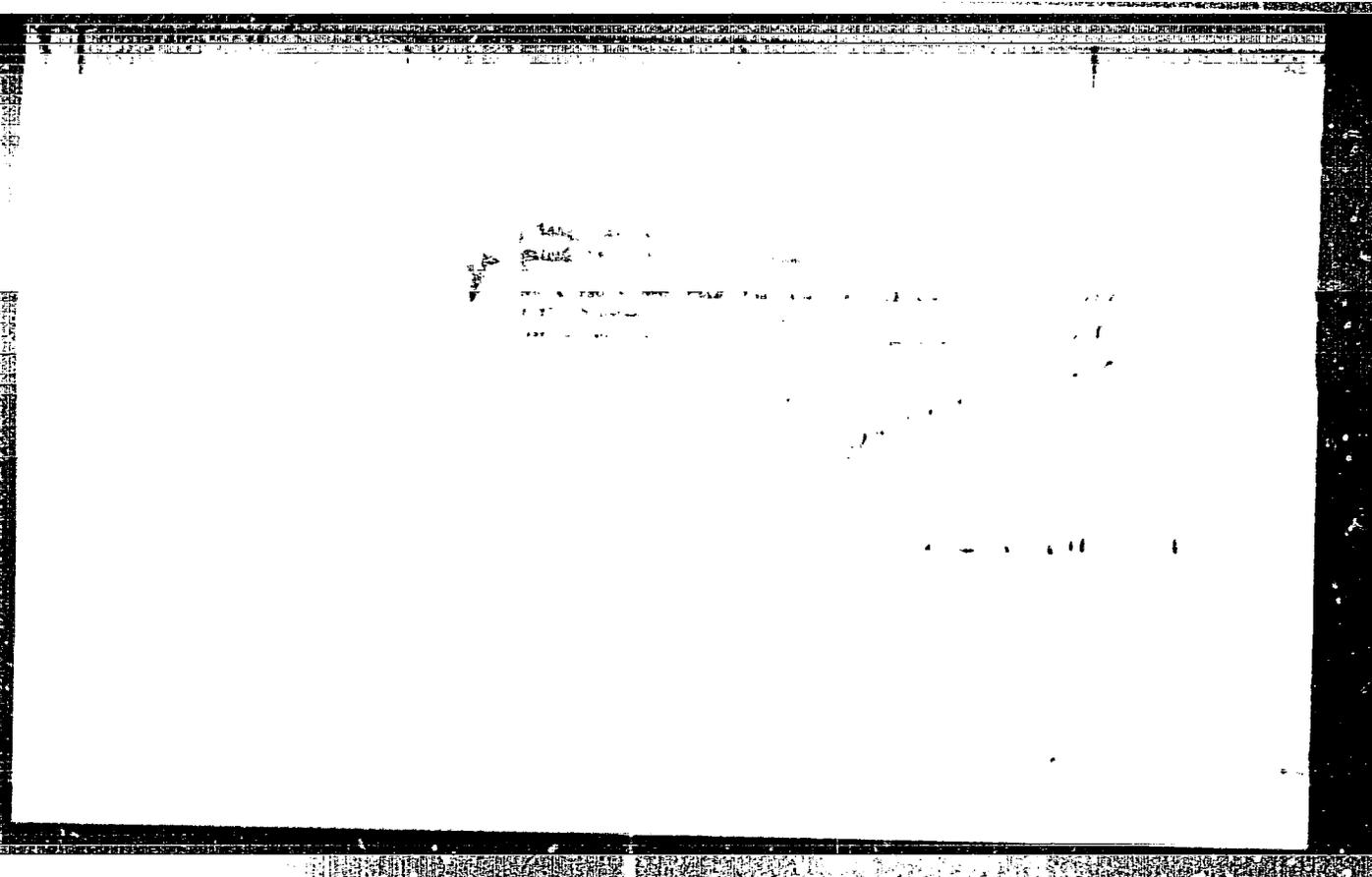
Some regularities in field emission from semiconductors. Fiz. tvar.  
tela 2 no.8:1851-1856 Ag '60. (MIRA 13:8)

1. Leningradskiy gosudarstvennyy universitet, Fizicheskiy fakul'tet.  
(Field emission) (Semiconductors)

KLIMAN, N.

The polymerization of trifluoromethylacrylate  
by the action of the  $\text{BF}_3 \cdot \text{OEt}_2$  complex of  
boron trifluoride and diethyl ether as a catalyst  
in the presence of a chain transfer agent  
is studied. The dependence of the polymerization  
rate and molecular weight on the concentration  
of the monomer, the catalyst, and the chain transfer  
agent is investigated. It is shown that the  
rate of polymerization is proportional to the  
square root of the concentration of the catalyst.  
The lower viscosity of the polymers and the dependence of  
the polymerization rate and molecular weight on the

3



KLIMAN, N.

"Polytrifluorochloroethylene protective coatings."

p. 217 (Chemie, Vol. 10, no. 3, Mar. 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (KEAI) LC, Vol. 7, no. 9,  
September 1958

COUNTRY : Czechoslovakia I  
 CATEGORY :  
 ABS. JOUR. : RZhKhim., No. 21 1959, No. 7724  
 : Lazar, M. and Kliman, N.  
 : Not given  
 TITLE : The Polymerization of Trifluorochloroethylene,  
 Initiated by Gamma Rays. II. Effect of Penta-  
 chloroethane on the Rate and Degree of Polymeri-  
 ORIG. PUB. : Chem zvesti, 12, No 10, 627-631 (1958)  
 ABSTRACT : The polymerization (P) of trifluorochloroethylene  
 in bulk and in solution at temperatures of 23 and  
 52° has been investigated. The P of trifluoro-  
 chloroethylene in pentachloroethane proceeds more  
 rapidly than in bulk. In the bulk P, the rate  
 decreases when the temperature is raised, an  
 indication that chain propagation goes through  
 the monomer. An increase in the temperature in  
 the solution P leads to an increase in the P  
 rate. For Communication I see RZhKhim, 1957,  
 No 13, 4472.  
 From authors' summary

CARD: 1/1 \* zation. *Vyskumny ustav kabeLOV a izolantov, Bratislava*

KLIMAN, N.

Distr: 4E3b/4E2a(j)  
 Copolymerization of trichloroethylene with vinyl chloride and vinylidene chloride. (N. Kliman and Milan Laskar [Vysk. Pr. Kladno, Brno, Brat. Slov. Rep.], *Chem. Průmysl* 9, 608-70(1968).) Trichloroethylene (I) was copolymerized with vinyl chloride (II) or vinylidene chloride (III) at 60° with BaO, as initiator; the compn. of the copolymer formed being calcd. from the Cl content. From the data obtained, the copolymerization parameters were calcd. for I + II ( $r_1 = 0.01$ ,  $r_2 = 2.53$ ), and for I + III ( $r_1 = 0.03$ ,  $r_2 = 17.14$ ); with respect to the unfavorable values for I + II the tech. application is very complicated, and for I + III almost impossible. The course of the change of the copolymer compn. was calcd. with different initial ratios of I:II and with changing compn., and the result is presented in the form of a diagram. Values were calcd. for  $Q = 0.013$  (0.021), and  $e = 1.9$  (1.8) for I with II and III, resp. (The const.  $Q$  describes the "general monomer reactivity" and the const.  $e$  takes account of polar factors influencing copolymerization.)  
 J. Sebenda

6  
1-79 (WA)  
2

8/11  
DR

38296

8/190/62/004/006/026/026

B110/B138

15. 2620

AUTHORS: Lazar, M., Kliman, N.

TITLE: Polymerization of trifluoro-chloro-ethylene, initiated by  $\gamma$ -radiation

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 6, 1962, 948-952

TEXT: Radiation polymerization of trifluoro-chloro-ethylene was investigated (Co<sup>60</sup>). It was found that the polymerization rate decreased with rising temperature. Polymerization was autocatalytic, since the yield of free radicals is higher during polymer than during monomer irradiation. Polymerization was carried out in the presence of hydroquinone, in order to establish the radical mechanism. Complete inhibition occurred. The apparently negative activation energy could, therefore, not be explained by ion mechanism. A polymerization already in course is retarded by the temperature rise and takes the same course as one which starts at increased temperature. Once again an induction period appears, which is five to

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Polymerization of trifluoro ...

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

eight times higher at 50°C. This confirms that the monomer radicals formed on chain transfer participate in chain rupture. The activation energy of the monomer transfer is reckoned as 4-7 kcal/mole higher than that of growth. In the presence of pentachloro-ethane, the activation energy is positive, as sufficiently reactive radicals develop during transfer for reinitiation, and monomer radicals are removed from the system by transfer. For the logarithmic dependence of the polymerization rate on radiation dose, the degree  $n$  ( $v \sim kI^n$ ) is higher at higher temperatures. This is due to variation in the participation of the individual partial reactions (destructive transfer on the monomer). Increase of the index from 0.5 to 1 during radical polymerization is explained by: (1) destructive transfer on the monomer or (2) by reaction of primary radicals with the macro-radicals of growth. (1) holds with temperature rise. Since with a certain minimum dose "normal" ratios are obtained between polymerization rate and heat of reaction, the activation energy of polymerization must depend closely on the dose rate. There are 5 figures. ✓

Card 2/3

S/081/62/000/019/038/053  
B101/B180

**AUTHOR:** Kliman, Norbert

**TITLE:** Use of polytetrafluoro ethylene as a conductor insulating-material

**PERIODICAL:** Referativnyy zhurnal. Khimiya, no. 19, 1962, 517, abstract 19P125 (Elektrotechnik, v. 17, no. 3, 1962, 6) - 72 [Slovak, summaries in Rus. and Ger.]

**TEXT:** The article discusses the electrical, mechanical and thermal properties of polytetrafluoro ethylene for use as insulating material are described. [Abstracter's note: Complete translation.]

Card 1/1

MLEJNEK, Otakar, inz. CSc.; KLIMAN, Norbert, inz.

Comparison of some carriers used in gas-liquid chromatography.  
Chem zvesti 18 no.2:99-108 '64.

1. Research Institute of Cables and Insulators, Bratislava,  
Tovarenska 12.

L 3515-66

EPA(s)-2/ENT(m)/EPF(c)/EPA(w)-2/ENP(j)/ENP(t)/ENP(b)/ENA(c) IJP(s)/RPL  
JD/WJ/JW/JWD/RM

AK5018508

BOOK EXPLOITATION

UR/ 621.315.616.9

Lazar, Milan; Rado, Rudolf; Klivan, Norbert

Fluorocarbon plastics (Ftoroplasty). Moscow, Izd-vo "Energiya," 1965.  
303 p. illus., biblio. 3300 copies printed. Translation of  
Fluoruhlikova plasticke latky. Bratislava, SVTL, 1960.

TOPIC TAGS: copolymer, fluorocarbon plastic, fluorocarbon polymer,  
polyfluoroethylene resin, polymerization technology, polymer prop-  
erty, polytetrafluoroethylene, polytrifluoroethylene

PURPOSE AND COVERAGE: This book is intended for personnel in indus-  
tries producing plastics and electrical insulation. The authors  
present the physical and chemical background of various fluoro-  
carbon plastics, discuss raw materials, polymerization technology,  
polymer properties, and describe the use of manufacturing equipment  
and efficient production methods in this field. They thank engi-  
neers V. Reinhold and F. Tomis. Many references, mainly Western,  
accompany most of the chapters.

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L 3515-66

AMS018508

Available: Library of Congress (TP1180.P7L317)

SUB CODE: MT, OC      SUBMITTED: 19Jan65      NO REF SOV: 026

OTHER: 507

PC  
Card 3/3

KLIMANEK

Distr: 4E2p(j)

5  
3 may  
1

Autoradiographic investigation of sulfur distribution in rubber mixtures J. M. Mottek and L. Klimánek (Research Inst. Rubber and Plastic Technol., Gottwaldov, Czech.) Plaste u. Kautschuk 10, 371-3 (1963).—The distribution of S in a rubber mixt. as a function of the time of mixing on a mill is studied by an autoradiographic technique with S<sup>32</sup>. Under the conditions used on a lab. mill, an essentially homogeneous distribution was attained in 3 or 3 min. Many facets of the technique are discussed in considerable detail including safety precautions, choice of materials, exposure time, and quant. evaluation of results. Herbel Markovits

62  
41

OK

G/OA 61/008/002/002/007  
B007 058

**AUTHORS:** Krejčík, M., Engineer, Mořisák, M., Graduate Chemist,  
Klimánek, L., and Zeman, J.

**TITLE:** Changes in mechanical properties of cord through the effect  
of ionizing radiation

**PERIODICAL:** Plaste und Kautschuk, v. 8, no. 2, 1961, 66 - 69.

**TEXT:** Plastics and textiles suffer a change through radioactive radiation. Since automobile tires can now also be vulcanized by means of ionizing radiation, the authors studied resulting deteriorations of mechanical properties of tire cord (strength, elasticity). The following cord types were irradiated in air (from 2 -  $2.5 \cdot 10^5$  rep/h) with various doses of  $\gamma$ -radiation (from  $^{60}\text{Co}$ ) in the range of from  $10^4$  to  $10^8$  rep: terylene cord (from Great Britain), dederon cord (Eastern Germany), caprone cord, silon cord, nylon cord (Switzerland), Rudnik viscose cord (Czechoslovakia), Cordenka super viscose cord (Netherlands), and cotton cord from Egyptian cotton. Diagrams show the measured results: the following losses

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Changes in mechanical ...

G/004/61/008/002/002/007  
B007/B058

in strength occur at a dose of  $3 \cdot 10^7$  rep: polyamide cords 70%, cotton cords 44%, viscose cords 30%, terylene 6%. Cotton- and viscose cords were almost entirely destroyed at doses above  $10^8$  rep, and a loss in strength of 60% occurred in terylene cord. The decrease in mechanical properties with an increase in the radiation dose proceeded for the individual tire cords as follows: cotton cord: continuous decrease; viscose cord: Rudnik: a similar course, the elasticity decrease amounts to 45% at  $3 \cdot 10^7$  rep; Cordenka: after an initially low decrease, the strength- and elasticity drop increases, at  $3 \cdot 10^7$  rep, the elasticity drop amounts to 47%; polyamide cords: silon, dederon, caprone, nylon; strength does not change in the range of small doses up to  $4 \cdot 10^5$  rep; a steep drop takes place then, but from  $2 \cdot 10^7$  rep, the drop becomes small again; terylene cord: strength hardly changes up to a dose of  $10^7$  rep, and then decreases slowly. A 50% decrease in strength occurs at the following doses: terylene  $1.5 \cdot 10^8$  rep, Rudnik  $4.7 \cdot 10^7$  rep, Cordenka  $3.6 \cdot 10^7$  rep, cotton  $2.6 \cdot 10^7$  rep, dederon  $1.4 \cdot 10^7$  rep, nylon  $1.1 \cdot 10^7$  rep, silon

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Changes in mechanical ...

0/004/61/008/002/002/007  
B007/B058

$10^7$  rep, caprone  $10^7$  rep. A yellow to brown coloring of samples sets in through irradiation. Cords impregnated with rubber solution gave almost the same results. With the aid of published data a report is given on the present state of study of radiation sensitivity of plastics and textiles, and on vulcanization through radioactive radiation, requiring doses of from 1 to  $5 \cdot 10^7$  rep. The Czechoslovakian original paper was translated into German by K. Weber, Zentrale Forschungsstelle der Reifenindustrie, Fürstenwalde (Central Research Center of the Tire Industry, Fürstenwalde). There are 8 figures and 23 references: 4 Soviet-bloc and 12 non-Soviet-bloc.

ASSOCIATION: Research Institute of Rubber and Plastics Technology,  
Gottwaldov, Czechoslovakia) ✓

Card 3/3

S/081/62/000/004/083/087  
B101/B110

AUTHORS: Klimánek, Leo; Možíšek, Max

TITLE: Effect of ingredients on the absorption of  $\beta$ -radiation of the  $Tl^{204}$  isotope in rubber mixtures

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1962, 615, abstract 4P402 (Kaučuk a plast. hmoty, no. 9, 1960, 321 - 323)

TEXT: To study the effect of ingredients on the absorption of  $Tl^{204}$   $\beta$ -radiation the weakening of the electron flux was measured on its passage through a 1 mm thick film of rubber mixtures containing various amounts of different ingredients. The amount of absorption is directly related to the mean atomic number of the ingredients. The data obtained have to be considered in measurements of the thickness of rubber-impregnated cord and the determination of the homogeneity of rubber mixtures by the method of  $\beta$ -radiation absorption. [Abstracter's note: Complete translation.]

Card 1/1

MOZISEK, Max; KLIMANEK, Leo

Modification of polyvinyl chloride by triallylcyanurate seeding.  
Jaderna energie 10 no.12:444-445 D '66.

1. Research Institute of Rubber and Plastic Technology, Gottwaldov.

MOZISEK, Max; KLIMANEK, Leo

Modification of plastics by means of radiation grafting. Chem listy  
58 no.12:1396-1429 D '64.

J. Research Institute of Rubber and Plastic Technology, Gottwaldov.

KASHATIRIV, R.O.; KLIMANIV, P.M.

Revolving belt conveyor. Rats. i izobr. predl. v stroi. no.117:  
25-26 '55. (Conveying machinery) (MIRA 9:7)

**KLIMANOV, A.**

Nitriding spindle surfaces of the 2614 and 2A614 horizontal boring machines. *Prm.Arm. 6 no.9:55-57* 8 '63. (MIRA 16:12)

1. Glavnyy tekhnolog Iusavanskogo zavoda rastrochnykh stankov.

KLIMANOV, A. D. --

"An Investigation of the Causes of Dust Formations and Measures for Combating Them at the Coal-Beneficiation Plants of the Don Basin." Cand Tech Sci, Moscow Mining Inst imeni I. V. Stalin, 28 Oct 54. (VM, 14 Oct 54)

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

SO: Sum. No. 481, 5 May 55

*KLIMANOV, A. D.*

**KHRYFITS, S.Ya., dotsent; KLIMANOV, A.D., kandidat tekhnicheskikh nauk.**

Dust formation in coal preparation plants and characteristics of  
dust control methods. Nauch. trudy MOI no.16:89-99 '55 [cover '56].  
(Coal preparation) (Dust--Removal) (MIRA 10:4)

SOV/124-58-1-378

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 46 (USSR)

AUTHOR: ~~Klimanov, A. D.~~

TITLE: Determination of the Speed of Motion of Air Required to Dislodge and Carry off Dust Particles Settled in a Duct (Opredeleniye skorosti dvizheniya vozdukha, neobkhodimoy dlya vynosa osevshikh v truboprovode pylevykh chastits)

PERIODICAL: Nauchn. tr. po vopr. gorn. dela. Mosk. gorn. in-t, 1956, Nr 16, pp 101-113

ABSTRACT: The author adduces the results of experimental investigations of the factors that affect the airspeed required to dislodge dust particles that have settled in a duct through which air flows. It is shown that the actual dislodging speed for dust particles of the same volumetric weight and disperseness is independent of the diameter of the duct. The author offers an analysis of existing formulas for the determination of the carry-off velocity for dust in a duct and shows that for very small particles, for which the forces of adhesion prevail, these formulas are invalid. He proposes a new formula based on the condition that the lifting force exerted on a particle lying within the

Card 1/2

SOV/124-58-1-378

Determination of the Speed of Motion of Air Required (cont.)

Laminar sublayer must exceed the adhesive force. The latter is determined according to the well-known formula of Deryagin (ref. Zh. fiz. khim., 1935, Vol 6, Nr 10). For practical calculation the author offers an empirical formula for the dislodging speed

$$v = \frac{75 (\gamma D)^{1/6}}{\sqrt{b}}$$

where  $\gamma$  is the volumetric weight of the dust particles in  $\text{g/cm}^3$  [numerically the same as their specific gravity; Transl. Note],  $D$  is the diameter of the duct in m, and  $b$  is the size of the dust particles in microns.

I. Ye. Idel'chik

Card 2/2

LAKIZA, Aleksandr Yakovlevich; KLIMANOV, A.D., otvetstvennyy red.; RYKOV, N.A., red.isd-va; NADNINSKAYA, A.A., tekhn.red.; IL'INSKAYA, G.M., tekhn.red.

[Safety engineering and fire prevention in coal concentration and briquetting plants] Tekhnika besopasnosti i protivopozharnaya tekhnika na ugleobogatitel'nykh i briketnykh fabrikakh. Moskva, Ugletekhizdat, 1957. 145 p. (MIRA 11:5)  
(Coal preparation--Safety measures)  
(Fire prevention)

KLIMANOV, A.D., dotsent, kand. tekhn. nauk

Study of the parameters of ventilation jets, from the point-of-view of the dust factor, in ventilating development workings.  
Nauch. trudy Tul. gor. inst. no.4:17-26 '61. (MIRA 16:8)

(Mine dusts--Removal)

BYKOV, L.N., doktor tekhn. nauk, prof.; KSENOFONTOVA, A.I., prof.;  
KLIMANOV, A.D., kand. tekhn. nauk; KRICHEVSKIY, R.M., kand.  
tekhn. nauk; PREDERAZHENSKAYA, Ye.I., inzh.; RASKIN, I.A.,  
kand. tekhn. nauk; USHAKOV, K.Z., kand. tekhn. nauk; KHAREV,  
A.A., kand. tekhn. nauk; KHEYFITS, S.Ya., kand. tekhn. nauk;  
ZAKHAROV, M.I., red. izd-va; OIL'MAN, S.E., red. izd-va;  
MAKSIMOVA, V.V., tekhn. red.; SHKLYAR, S.Ya., tekhn. red.

[Handbook on mine ventilation] Spravochnik po rudnichnoi ventilia-  
tsii. Pod red. A.I.Ksenofontovoi. Moskva, Gosgortekhzdat,  
1962. 691 p. (MIRA 15:6)  
(Mine ventilation--Handbooks, manuals, etc.)

BYKOV, I.N., prof.; KIRMANOV, A.D., dotsent; ASTASHOV, Ye.M., inzh.

Comment on M.A. Krainikov's article: "Calculating air in accordance with gas content and controlling the ventilation of workings." Bezop.truda v prom. 5 no.11:31 N '61.

(MIRA 14:11)

1. Tsel'skiy gornyy institut.  
(mine vent'lation)  
(Krainikov) M. A.)

KLIMANOV, Aleksey Dmitriyevich, kand. tekhn. nauk, dots.; RUJENKO,  
Konstantin Gerasimovich, kand. tekhn. nauk, dots.; KARPUKHIN,  
V.D., dots., retsenzent; OGLOBLIN, N.D., inzh., retsenzent;  
DREMAYLO, P.G., inzh., retsenzent; KUNIK, V.P., otv. red.;  
BOLINREVA, Z.A., tekhn. red.

[Safety techniques and fire prevention in ore dressing and  
briquetting plants] Tekhnika bezopasnosti i protivopozharnaya  
tekhnika na obogatitel'nykh i briketnykh fabrikakh. Moskva,  
Gosgortekhnizdat, 1962. 362 p. (MIRA 15:10)  
(Coal preparation plants—Fire and fire prevention)  
(Ore dressing—Safety measures)

BYKOV, L.N., prof., doktor tekhn. nauk; KLIMANOV, A.D., dotsent, kand.  
tekhn. nauk

Dust content of the air and ways of reducing it in Moscow Basin  
Mines. Nauch. trudy Tul. gor. inst. no.4:3-16 '61.

(MIRA 16:8)

(Moscow Basin--Mine dusts)

BYKOV, L.N., prof.; KLIMANOV, A.D., dotsent; SOKOLOV, E.M., inzh.;  
SULIA, M.B., inzh.

Liberation of gas and calculation of the amount of air needed  
for sections with powered, movable supports and complexes. izv.  
vys. ucheb. zav.; gor. zhur. 7 no.10:56-60 '64.

(MIRA 18:1)

1. Tul'skiy politekhnicheskiy institut. Rekomendovana kafedroy  
promyshlennoy aerologii i tekhniki bezopasnosti.

KLIMANOV, A. M.

KLIMANOV, A. M. -- "Environmental Conditions of the Mineralization of Coal in the Moscow Basin and Its Influence on Some of the Technological Characteristics of the Coal." Min Higher Education USSR, Moscow Geological Prospecting Institute imeni S. Ordzhonikidze, Chair of Mineral Fuel, Moscow, 1956. (Dissertation for the Degree of Candidate of Geologicomineral Sciences)

SO: Knizhnaya Letopis' No 43, October 1956, Moscow

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,  
p 143 (USSR) 15-57-3-3460

AUTHOR: Klimanov, A. M.

TITLE: Petrographic Methods of Determining Yield of Assorted  
Coals in the Moscow Basin (Petrograficheskiye metody  
opredeleniya vykhoda sortovykh ugley v Podmoskovnom  
basseyne)

PERIODICAL: Tr. Labor. uglya AN SSSR, 1956, Nr 6, pp 268-267

ABSTRACT: The author has made a comparison of the petrographic  
composition of ordinary and special coals in a layer of  
coal. He has constructed curves of the yield of  
assorted types according to petrographic variations.  
The cause of the distinctive granular nature of the  
different petrographic variations has been examined.  
An empirical formula is given for determining the yields  
of assorted coals, according to the petrographic com-  
position of the coal layer, this formula has been veri-

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15-57-3-3460

Petrographic Methods of Determining Yield (Cont.)

fied by experimental data. It has been found possible to use the results obtained during designing of bunkers to direct the work of grading and to plan the yield of the sorted types.

Card 2/2

A. M. Sh.

KLIMANOV, A.M.

Distribution of clay in various types of coals in the Moscow Basin.  
Izv. vys. ucheb. zav.: geol. i rass. 2 no.6:43-46 Je '59 (MIRA 13:3)

1. Tul'skiy gornyy institut.  
(Moscow Basin--Coal--Analysis)  
(X rays--Industrial applications)

ACC NR: AP7002205

SOURCE CODE: UR/0203/66/006/006/1120/1122

AUTHOR: Kashin, A. A.; ~~Klimanov, F. P.~~; Kushnerevskiy, Yu. V.; Mirkotan, S. P.;  
Nerovnya, L. K.

ORG: Moscow State University, Physics Department (Moskovskiy gosudarstvennyy universitet, Fizicheskiy fakul'tet); Institute of Terrestrial Magnetism, Ionosphere, and Radio Wave Propagation, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: Drift of small-scale inhomogeneities at Mirnyy (Antarctica)

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 6, 1966, 1120-1122

TOPIC TAGS: ionosphere, ionospheric drift, ionospheric inhomogeneity, ionospheric radio wave

ABSTRACT: Observations of ionospheric drifts were organized at Mirnyy during the Eighth Antarctic Expedition. Measurements of the motion of small-scale inhomogeneities were made using the short-range reception method. "Delta"-type antennas with an active load of 600 ohm served as the receiving antennas. To reduce the effects of polarization and radi noise on the measurements, the receiving antennas were placed in parallel. Signals from the receiving antennas were fed to an antenna switch through a matching balancing transformer in a single-wire hf cable. A wide-band

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UDC: 550.388.2

ACC NR.

AP7002205

rhombic antenna served as the transmitting antenna. The drift-measuring system was an ordinary ionospheric station operating at fixed frequencies. The transmitter, a pulsed wide-band power amplifier, had the following characteristics: pulse width, 200  $\mu$ sec; repetition frequency, 50 cps; pulse power 1—1.5 kw; and frequency range, 1.5—18.0 Mc. Operation of the entire system was controlled by a synchronizer. The receiver, a superheterodyne unit, had the following characteristics: frequency range, 1.5—18.0 Mc; transmission band, 15 kc; and sensitivity for a 2:1 S/N ratio, 2  $\mu$ v. At the input of the receiver an electronic switch successively coupled antennas to it. Received and amplified signals were fed to an oscillograph and subsequently photographed at a rate of 13 cm/sec from its screen.

The drift of small-scale inhomogeneities in the E and F2 layers was observed from March to December 1963. It was found that drift velocity in the two layers varied from 40 to 400 m/sec, with average values of 180 and 214 m/sec, respectively. Drift was primarily to the northwest and southeast.

The results of a harmonic analysis of annual data on ionospheric drift indicated that for each of the two layers there was a constant component of the drift velocity which had large amplitude and was directed toward the equator (i.e., was almost perpendicular to the auroral zone). The vectors of diurnal and semidiurnal drift components were found to rotate counter clockwise in the E layer and clockwise in the F2 layer; both velocity vectors were larger in the F2 layer than in the E layer. The semidiurnal component of the drift velocity prevailed in the E layer, while the diurnal component in the F2 layer.

Card 2/3

ACC NR: AP7002205

Concerning the relationship between drift velocity and magnetic activity it was revealed that this relationship was almost absent in the E layer, while it manifested itself clearly in the F2 layer: the drift velocity increased sharply with an increase in the K index. Orig. art. has: 5 figures. [WA-3]

SUB CODE: 20/ SUBM DATE: 18Nov65/ ORIG REF: 002/ OTH REF: 003/ ATD PRESS: 5113

Card 3/3

BONDAREV, G.Ye., kand.tekhn.nauk; KLIMANOV, G.V., inzh.

Lessening the wear of fuel pump pistons in diesel tractor engines.  
Trakt. i sel'khozmasb. no.12:9-11 D '58. (MIRA 11:12)  
(Fuel pumps)

BRISKMAN, A.A.; LYKOV, N.A.; KLIMANOV, I.T.

Investigating the operation of an automatically controlled  
flow beam. Trudy VNII no.41:108-134 '64.

(MIRA 17:11)

GAYENKO, A., inzhener-podpolkovnik; LEVKIN, V., mayor; KLIMANOV, M., inzhener-  
major

Greater attention to practice. Tekh. i vooruzh. no.2:(0-4)  
F '64. (MIRA 17:9)

*KLIMANOV*

SUKHOV, P.Z.; KLIMANOV, P.V.

Electric soldering iron with internal heating. Suggestion by  
P.Z. Sukhov, P.V. Klimanov. Prom.energ. 11 no.11:18 N '56.

(MLRA 9:12)

(Solder and soldering)

**KLIMANOV, V.**

Moldavian S.S.R. Avt.transp. 35 no.10:24 0 '57. (MIRA 10:10)

1.Ministr avtomobil'nogo transporta i shosseynykh dorog Moldavskoy SSR.

(Moldavia--Transportation, Automotive)

L 23774-65 EWT(m) DIAAP

ACCESSION NR: AT5003283

S/2892/64/000/003/0055/0064

AUTHOR: Kimel', L. R.; Klimanov, V. A.; Borisov, O. I.

B+1

TITLE: <sup>19</sup> Measurement of the spectral distribution of gamma radiation from a 0.662 Mev point unidirectional source scattered in water

SOURCE: Moscow, Inzhenerno-fizicheskiy institut. Voprosy dozimetrii i zashchity ot izlucheniya, no. 3, 1964, 55-64

TOPIC TAGS: gamma radiation, gamma ray scattering, water scattering, spectral distribution, gamma ray dosimetry, organic scintillation counter, anthracene

ABSTRACT: The study of the radiation field of a thin  $\gamma$ -ray beam has usually dealt in the past with its integral characteristics. In an earlier paper (L. R. Kimel', A. M. Panchenko, V. P. Terent'yev, *Atomnaya energiya*, vol. 15, no. 4, 1963, p. 328), one of the authors evaluated the spectral-angular characteristics of the scattering in Fe of a 0.662 Mev thin  $\gamma$ -ray beam, using the Monte Carlo method. The present paper reports experimental studies of the scattering in water of the same thin beam. To avoid large scale perturbations due to the atomic numbers and densities of inorganic scintillators, the authors used anthracene, whose atomic number and density are close to those of water. A very detailed description of the construction and

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L 23794-65

ACCESSION NR: AT5003283

operation of the experimental setup is followed by a theoretical discussion of various necessary corrections. The procedures for the measurement of soft spectral components of scattered  $\gamma$ -rays were tested by measuring the radiation from a point  $^{228}\text{Ac}$  source at a distance of 4 mean free paths from the source. The results agreed within 25% with the theoretically calculated values of Goldstein and Wilkins (Calculation of the penetration of gamma rays. Final report, NND-1075, 1954). The experimental energy spectra of 0.662 Mev  $\gamma$ -quanta scattered in water are shown in Fig. 1 of the Enclosure. A characteristic feature of the diagrams is the appearance of peaks due to single and multiple scattering. Orig. att. has: 9 formulas, 8 figures, and 3 tables.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 02

SUB CODE: NP

NO REF SOV: 004

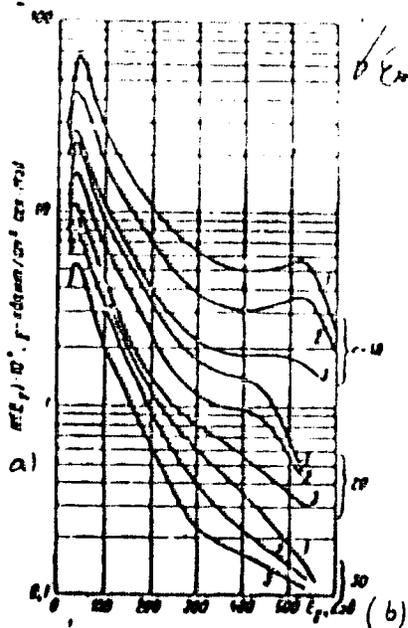
OTHER: 004

Card 2/4

ACCESSION NR: AT5003283

ENCLOSURE: 01

0



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L 23794-65

ACCESSION NR: AT5003283

ENCLOSURE: 02

0

Figure 1. Differential energy spectrum of  $\gamma$ -radiation from a 0.662 Mev point unidirectional source scattered in water. Spectra are normalized to a 1  $\gamma$ -quantum/sec. intensity of the source: 1 - h = 19.1 cm; 2 - h = 29.1 cm; 3 - h = 39.1 cm. (a) ...  $\gamma$ - quanta/cm<sup>2</sup>·sec·Mev; (b) kev.

Card 4/4

L 22526-66 EWT(m) DIAAP

ACC NR: AP6007946

SOURCE CODE: UR/0089/66/020/002/0127/0132

AUTHORS: Mashkovich, V. P.; Klimanov, V. A.

30  
21  
0

ORG: none

TITLE: Distribution of gamma radiation<sup>19</sup> intensity in a hollow straight cylindrical channel

SOURCE: Atomnaya energiya, v. 20, no. 2, 1966, 127-132

TOPIC TAGS: gamma radiation, nuclear reactor shield, gamma flux

ABSTRACT: The authors point out in the introduction that there are no published data on the distribution of gamma radiation from unidirectional radiation sources in a channel, on the calculation and estimate of the contribution of the albedo component of radiation to the total intensity, or on experimental estimates of the intensity of gamma radiation inside and outside of a shield near a channel. To answer these questions, the authors investigated the distribution of intensity of gamma radiation from disc-type isotropic and unidirectional sources with energy 0.412--2.75 Mev along the axis of hollow

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UDC: 539.122:539.121.72

2

L 22526-66

ACC NR: AP6007946

3

straight cylindrical channels passing through a shield. The shielding materials were water, concrete, and iron. An experimental procedure was used in which the total intensity could be subdivided into its direct radiation component, the component due to leakage through the shield, the component due to reflection of the directional component, and the component due to the reflection of the leakage component. Each component was calculated theoretically and measured experimentally. The results of the experiments and calculations agreed within approximately 15%. In the case of disc isotropic sources, the authors also measured the distribution of the intensity of gamma radiation inside and outside a water shield through which a straight cylindrical channel passes. The experimental data agree with the calculations based on the 'ray analysis method' with accuracy of about 20%. The authors thank O. I. Leypunskiy for interest in the work, Y. I. Naliyayev, and P. I. Kotikov for help with the the measurements, and A. V. Prolova for the opportunity of making the x-ray measurements. ORIG. ART. has: 5 figures and 8 formulas.

SUB CODE: 20/ SUBM DATE: 29Jul65/ ORIG REF: 001/ OTH REF: 004

Card

2/2

ALG

KLIMANOV, V.I.; TYULNEVA, L.M., red.isd-va; BOROVMY, N.K., tekhn.red.

[Instructions on safety techniques for work with use of anti-corrosive materials] Pamiatka po tekhnike besopasnosti po antikorrosiinym robotam. Moskva, Gos.isd-vo lit-ry po stroit., arkhitekt. i stroit.materialam, 1959. 13 p. (MIRA 12:8)  
(Corrosion and anticorrosives)

I 45716-66 EWT(m)/ENP(i)/ENP(t)/ELI IJP(c) JD/WN/IG/RO/JK/RM  
ACC NR: AP6025400 SOURCE CODE: UR/0062/66/000/007/1267/1269

AUTHOR: Vol'nov, I. I.; Tokareva, S. A.; Klimanov, V. I.; Pilipenko, G. P. L/L/B

ORG: Institute of General and Inorganic Chemistry im. N. S. Kurnakov, Academy of Sciences, SSR (Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR)

TITLE: Synthesis of potassium ozonide via potassium superoxide suspended in Freon-12

SOURCE: AN SSSR. Izv. Ser khim, no. 7, 1966, 1267-1269

TOPIC TAGS: ozonide, superoxide, potassium compound

ABSTRACT: The reaction of  $KO_2$  with ozone was carried out in Freon-12, a liquid inert toward ozone. Potassium superoxide had the following composition:  $KO_2$ , 90.22%;  $K_2O_2$ , 3.85%;  $KOH$ , 2.75%;  $K_2CO_3$ , 1.85%;  $H_2O$ , 1.33% (by difference). Its particle size was 0.05 mm or less. The ozone content of the ozone-oxygen mixture was 9 wt. %. The step of extraction with liquid ammonia was omitted. Analysis of the ozonized product gave  $KO_3$ , 77.2;  $KO_2$ , 6.4;  $KOH$ , 10.6;  $K_2CO_3$ , 5.6 wt. %. The increase in the amount of  $KOH$  and  $K_2CO_3$  impurities in the end product as compared to their content in the original potassium superoxide is due to the reaction of  $KO_3$  with atmospheric moisture and  $CO_2$  during the withdrawal of the samples for analysis, despite all the precautions taken. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 07/ SUBM DATE: 18Dec65/ ORIG REF: 003/ OTH REF: 003

Card 1/1 ULR

UDC: 542.91+542.943,5+621,384,5+546,32

KLIMANOV, V.I., inzh. (Sverdlovsk)

Designing arches with a superstructure. Issl. po 'sor. soorush.  
no.10:208-221 '61. (MIRA 14:8)

(Arches)

KLIMANOV, V.I. (Sverdlovsk)

Stability of double-hinged arches with superstructure. Stroi.  
mekh. i rasch. soor. 4 no.2:24-30 '62. (MIRA 15:5)  
(Arches)

KLIMANOV, V.I., aspirant (Sverdlovsk)

Stability of hingeless arches with superstructure. Issl.po  
teor.soorush. no.11:163-175 '62. (MIRA 15:8)  
(Arches)

KLIMANOV, V.I.

Stabilising arches with continuous superstructure. Trudy  
Ural. politekh. inst. no.102:28-42 '61. (MIRA 16:11)

KLIMANOV, V.I.

Stable strength of hingeless arches with superstructure. Trudy  
Ural. politekh. inst. no.132:49-61 '62. (MIRA 16:6)

(Bridges, Arched)

**KLIMANOV, V.I.**

~~Stability of two-sided columns. Trudy Ural. politekh. inst.~~  
no.132:62-68 '62. (MIRA 16:6)

(Columns)

KIJMANOV, V.I.

Stability of trusses. Trudy Ural. politekh. inst. no.102:  
43-55 '61. (MIRA 16:11)

USTINOV, V.R., starshiy elektromek'nik; KLIMANOV, V.P., elektromekhanik

Use of coupling line sets on the 33-series automatic telephone exchanges. Avtom., telem. i svyaz' 5 no.5:36-37 My '61.

(MIRA 14:6)

1. Isil'-Kul'skaya distantsiya signalizatsii i svyazi Omskoy derogi (for Ustinov).

(Railroads—Communication systems)  
(Telephones, Automatic)

KOTMANOV, V.P.

Wool reclaiming from rags in Czechoslovakia. Tekst. prom. 25  
no.3:18-27. M. '65. (MIRA 18:5)

1. Glavny inzh. Glavnogo upravleniya po zagotovkam, pererabotke  
i sbytu shivotnovodolzhnykh produktov, syr'ya i pishchny  
Tsentral'nogo soyuza potrebitel'nykh obshchestv SSSR.

KLIMANOVA, K., kand.tekhn.nauk; GUZHAVINA, K. [Guzhavina, K.], inzh.;  
YAMPOL'SKAYA, F. [Iampol's'ka, F.], inzh.

Change in the structure of liquid glass in the process of hard-  
ening. *Dud.mat.i konstr.* no.5:51-53 8-0 '62. (MIRA 15:11)  
(Glass--Testing)

V. N. ; DAYON, M. I.; DEVIS, H. I.; DOLOGOSHEYN, B.A.; KLIMANOVA, L. F.  
E. I.; SHMELEVA, A. P.

New Discharge Track-Detector Chamber Investigation of Characteristics of some  
Spark Chambers.

Report submitted for the Intl. Conf. on Cosmic Rays (IUPAP), Jaipur India,  
1-11 Dec 1963.

ACCESSION NR: AP4009140

8/0056/63/045/006/2078/2080

AUTHORS: Dayon, M. I.; Klimanova, L.. F.

TITLE: On "air" spark chambers for the registration of particle showers

SOURCE: Zhurnal eksper. i teoret. fiziki, v. 45, no. 6, 1963, 2078-2080

TOPIC TAGS: cosmic rays, spark chamber, multigap spark chamber, air spark chamber, air argon spark chamber, dielectric coated electrode, trajectory localization, registration efficiency, chamber for several particles

ABSTRACT: The authors were able to construct an air-argon chamber capable of registering several particles. Difficulties which arose in earlier developments are described, and the disadvantages and advantages of air and air-argon chambers are discussed. To permit

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ACCESSION NR: AP4009140

registration of several particles, a multigap construction is used, with one of the electrodes of each gap isolated from the working gas by a layer of dielectric. The test results show that such chambers have a large "memory," good accuracy of trajectory localization, and a high particle registration efficiency. It is also pointed out that the registration of one particle in the described six-gap chamber is equivalent to simultaneous registration of six particles (separated from one another by 5--15 cm) in a single discharge gap having six times the area. The construction of the chamber and its operation were originally reported at the Nor-Amberd School of Physicists (Trudy, Nor-Amberd shkoly\* fizikov, Izv. AN ArmSSR, 1963). This was stimulated by a report by Y. Matsukawa (J. Appl. Phys. Japan, v. 2, 239, 1963) who claimed inability to construct air chambers for particle showers by introducing a dielectric layer between the electrode in the working gas. The difficulties reported by Matsukawa were overcome by increasing the interelectrode gap, increasing the working voltage, and shortening

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ACCESSION NR: AP4009140

the high voltage pulse. "The authors are grateful to A. I. Alikhanov for interest in the work and for cooperation, and also to S. S. Kulikov and V. A. Mishchenkov for help with the work." Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR  
(Physics Institute, AN SSSR)

SUBMITTED: 258ep63

DATE ACQ: 02Feb64

ENCL: 01

SUB CODE: PH

NO REF SOV: 004

OTHER: 001

ord 3/3

ACCESSION NR: AP4033107

S/0120/64/000/002/0057/0061

AUTHOR: Bolotov, V. N.; Dayon, M. I.; Devishev, M. I.; Klimanova, L. F.;  
Luchkov, B. I.; Shmeleva, A. P.

TITLE: Accuracy of tracing the particle trajectory by a spark in a spark  
chamber

SOURCE: Pribury\* i tekhnika eksperimenta, <sup>9</sup>no. 2, 1964, 57-61

TOPIC TAGS: spark chamber, large gap spark chamber, cosmic ray study,  
particle trajectory

ABSTRACT: A qualitative investigation of the shift (translation) and angle  
between the spark and particle paths in a 20-cm gap spark chamber is reported.  
Two Ne-filled at 650 torr test chambers had a common electrode with a  
50-micron-thick aluminum foil in the center. Min delay was 0.6 microsec.  
Tracks of mu-mesons of cosmic rays were photographed. Measurements were

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ACCESSION NR: AP4033107

performed with a parallel (130 kv) and series (65 kv) connection of the chambers with the supply surge generator. The spark thickness was 1-2 mm. It was proved that high-energy (500-600 Gev/s) particles can be measured by the "spark chamber, magnetic field" method at existing cosmic-ray stations. "The authors consider it their duty to express their gratitude to B. A. Dolgoshein for his useful comments, to P. N. Komolov, L. L. Sabsovich, and E. Chaykovskaya for their help in computer data processing, to V. A. Nikolayev, I. N. Solodnikov, and V. Lukin for their help in aligning and operating the spark chambers, and to N. V. Fedulova for her help in processing the results." Orig. art. has: 5 figures and 9 formulas.

ASSOCIATION: Fizicheskii institut im. P. N. Lebedeva AN SSSR (Institute of Physics, AN SSSR)

SUBMITTED: 24Apr63

DATE ACQ: 11May64

ENCL: 00

SUB CODE: PH

NO REF SOV: 004

OTHER: 004

Card 2/2

L 4489-66 ENT(m)/ECC/T IJP(c)

ACC NR: AFS024660

SOURCE CODE: UR/0048/88/029/009/1777/1780

AUTHOR: Bolotov, V.N.; Devishev, N.I.; Klimanova, L.F.; Luchkov, B.I.; Shmeleva, A.P.

ORG: none

TITLE: Some characteristics of wide gap spark chambers and applications of such chambers in cosmic ray physics /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, 1777,1780

TOPIC TAGS: spark chamber, particle detector, particle track, cosmic ray particle

ABSTRACT: Recent literature on the characteristics of wide gap spark chambers is briefly reviewed from the point of view of the applicability of such chambers to problems of cosmic ray physics. The "streamer chamber" of B.A.Dolgoshein, B.I.Luchkov, and B.U.Rodionov (Zh. eksperim. i teor. fiz., 46, 1963 (1964); Doklad na konferentsii po fizike vysokikh energii, Dubna, 1964) is also discussed briefly. The root-mean-square angle between the two tracks of the same particle successively traversing two chambers with 20 cm gaps in a direction making an angle of less than  $90^\circ$  with the electric field was found to be  $5 \times 10^{-4}$  radian. With this small angular dispersion it would be possible to measure momenta up to 550 BeV/c with the aid of a 150 cm long 10 kOe magnetic field. This angular dispersion can be decreased by improving the uniformity of the electric field and the purity of the gas, and by reducing the delay be-

Card 1/2

L 4439-66

ACC NR: AP5024860

tween passage of the particle and application of the field. The direction of the spark agrees with that of the track within  $1^\circ$  even when the angle between the track and the electric field is as large as  $40-50^\circ$ . The shower efficiency of a spark chamber with a 10 cm gap has been found to be 100 % for showers of up to 200 particles tracks making angles less than  $20^\circ$  with the electric field, and under certain conditions it is possible to distinguish tracks of heavily ionizing particles against a background of minimum ionizing particle tracks. It is possible to increase the delay between particle passage and field application up to 20 microseconds without reducing the recording efficiency for single particles below 100 %, but the quality of the track deteriorates when the delay exceeds 2 microseconds. In the streamer chamber the duration of the high voltage pulse is nicely controlled so that streamer development begins but the spark discharge stage is not reached. It is thus possible to record narrow tracks for particles moving in an arbitrary direction with respect to the electric field. The streamer chamber appears to be the best of all track chambers for accurate determinations of track directions and curvatures. Orig. art. has: 5 figures.

SUB CODE: NP/ SUBM DATE: 00/

ORIG REF: 006/ OTH REF: 007

OC  
Card 2/2

ACC NR: AP0013971

UR/0130/66/000/002/0045/0048

APPROVED FOR RELEASE: 09/18/2001  
AUTHOR: Dayon, M. I.; Kizmanova, I. P.; Knyazev, V. M. U.S.S.R.

ORG: Physical Institute, AN SSSR, Moscow (Pizicheskiy institut, AN SSSR)

TITLE: On spark chambers possessing a large memory

SOURCE: Pribory i tekhnika eksperimenta, no. 2, 1966, 45-48

TOPIC TAGS: cosmic ray, cosmic ray telescope, cosmic ray burst, cosmic ray chamber, cosmic ray spark chamber, cosmic ray chamber memory

ABSTRACT: The paper discusses air-argon cosmic ray telescope chambers activated by delayed spark discharges controlled by multiple Geiger counters via coincidence and delay circuitry. The chamber has been improved by the introduction of 2 - 3 dielectric layers (2 mm thick glass plates) and ethyl alcohol vapor (air 25%, Argon 70%, alcohol 5%). Aluminum foil electrodes were spaced 5 - 7 mm apart, and the chamber was initiated by 12 - 14 kv impulses with a controllable delay from 2 microseconds to 2 milliseconds. Bright sparks, situated near the particle trajectory depicted the passage. The dielectric layers uncoupled the individual passages of the chamber. The dependence of spark trajectory localization precision is discussed. A histogram of trajectory deviation from a straight line is given. Besides the air/argon chamber filling, the oxygen/argon/ethyl alcohol mixture was studied as to its effects on the precision of trajectory tracing and on chamber memory. It was found that memory and precision are determi-

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UDC: 539.1.073

ACC NR: AP6013491

ned by the oxygen content, that is the memory and precision remain essentially the same at a given oxygen content in the working mixture. A theory of chamber effectiveness in the registration of single particles, with particular regard to the influence of high voltage impulse delay was developed & discussed in conjunction with experimental results. It is concluded that the negative ions which initiate the spark discharge are located in a small region adjacent to the negative electrode. Effectiveness in the spark registration of multiple particle trajectories decreased with the increase of delay time. The introduction of dielectric layers markedly increased the effectiveness of the chamber in shower registration. The authors thank A.I. Alikhanyan for his attention to this work and S.S. Kulikova and V.A. Mishchenkov for a substantial assistance in this effort. Orig. art. has: 5 figures, 3 formulas and 1 table.

SUB CODE: 17,18 /      SUBM DATE: 25Feb65 /      ORIG REP: 004 /      OTH REF: 002

Card 2/2

S/796/62/000/003/003/019

**AUTHORS:** Larichev, A. V., Klimanova, L. F.**TITLE:** Angular and energy distributions of  $\text{Co}^{60}$   $\gamma$ -rays scattered in a heterogeneous Al+Pb medium.**SOURCE:** "Moscow. Inzhenerno-fizicheskiy institut. Pribory i metody analiza izlucheniya, no. 3, 1962, 37-46.

**TEXT:** An experiment pertinent to reactor shielding is described. In  $\gamma$ -rays having energies of 0.5 to 10 mev the most probable interaction with matter are the photoeffect, scattering, and pair formation. In low-atomic-number matter scattering predominates, i. e., the energy and direction of motion of the  $\gamma$ -rays is altered; hence, it is necessary to know the angular and energy distribution of  $\gamma$ -rays. The characteristic quantity used is the  $\gamma$ -ray quantum flux density  $N$ , which is the number of  $\gamma$ -quanta within a given energy interval which move in the direction of a prescribed vector within a prescribed solid-angle element and which intersect a unit area located at a given point in space normal to said vector in a unit time. This quantity is employed in the angular energy distribution (cf. Goldstein, H., et al., U.S.AEC Report no. 3075, 1954 //Abstracter's Note: probably NYO-3075, 1954 //). The same quantity multiplied by the energy provides the so-called angular radiation-intensity distribution. From an integration of each of these quantities one may arrive at the radiation-accumulation (storage) factors by dividing by the integration of the non-scattered radiation. The present experiment investigates the

Card 1/2

KLIMANOVA, M.I.

Use of pancreatin in the preparation of single-layer cell cultures  
from chick embryo tissues. Vop. virus. 7 no. 1:114-115 Ja-F '61.  
(MIRA 14:4)

(TISSUE CULTURE) (ENZYMES)  
(PANCREAS SECRETIONS)

KLIMANOVA, M.I.; MILYUTIN, V.N. (Moskva)

Use of motion-picture photomicrography for the study of  
primarily pencreatized tissue cultures from the heart of  
a chicken embryo. Biul. eksp. biol. i med. 55 no.1:108-110  
Ja'63. (MIRA 15:7)

1. Predstavlena deystvitel'nym chlenom AMN SSSR A.V.Lebedinskia.  
(TISSUE CULTURE) (PANCREATIN)  
(PHOTOMICROGRAPHY)  
(EMBRYO)

VOLKOVA, T.N.; SHEVLYAGINA, Ye.V.; YANKOVSKAYA, S.A.; SHAPIRO, Ye.S.;  
KLIMANOVA, N.A.

Study of the process of esterification in the production of  
"pentol." Trudy VNIISNDV no.6:167-169 '63. (MIRA 17:4)

S/844/62/000/000/085/129  
D423/D307

AUTHORS: Klimanova, R. S., Serenkov, V. I. and Tikhomirova, N. S.

TITLE: Grafting of styrene to polyethylene with the object of producing materials for ion-exchange membranes

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 501-506

TEXT: The present work was carried out in view of the lack of data and of the inconclusive results obtained by other workers regarding the conditions of formation of grafted polymers under the action of  $\gamma$  radiation and their application to ion-exchange techniques. Films of polyethylene, both stabilized and unstabilized, were irradiated with styrene by  $\gamma$  radiation from a  $\text{Co}^{60}$  source with a 598 g equiv. of radium, in vacuo. The extent of grafting depended on radiation intensity, time of irradiation, temperature and thickness of the polymeric film. Grafting increased with increas-

Card 1/3

Grafting of styrene ...

S/844/62/000/000/085/129  
D423/D307

ing time of irradiation (for constant dosage and at room temperature) but increasing if radiation intensity first decreased and then increased the amount of grafting. 80% grafting was observed for 50 and 230 r/sec, but with 230 r/sec more homopolymer tended to be formed. Investigations of the temperature dependence were conducted at room temperature (or close to it) and the results indicated that 50% grafting occurred. In order to investigate the effect of film thickness, experiments were conducted at a dose of 3 Mrad and an intensity of 100 r/sec, with and without film stabilizers (diphenylamine). It was found that the optimum thickness was 0.6 mm but the presence of a stabilizer considerably reduced the amount of grafting. The mechanical characteristics of grafted copolymers were investigated and the results showed that the materials were suitable for use as cationic membranes, especially those having a styrene content of about 35 - 37%. Optimum conditions for obtaining suitable products were found to be: room temperature, dosage 0.06 - 0.1 megarad, intensity 4 - 15 r/sec and film thickness 0.2 mm. Under these conditions, homopolymerization proceeds at a slow rate and hence the yield of monomer is kept down. There are 3 fi-

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Grafting of styrene ...

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D423/D307

gures and 3 tables.

ASSOCIATION: Nauchno-isslyedovatel'skiy institut plastmass (Scientific Research Institute of Plastics)

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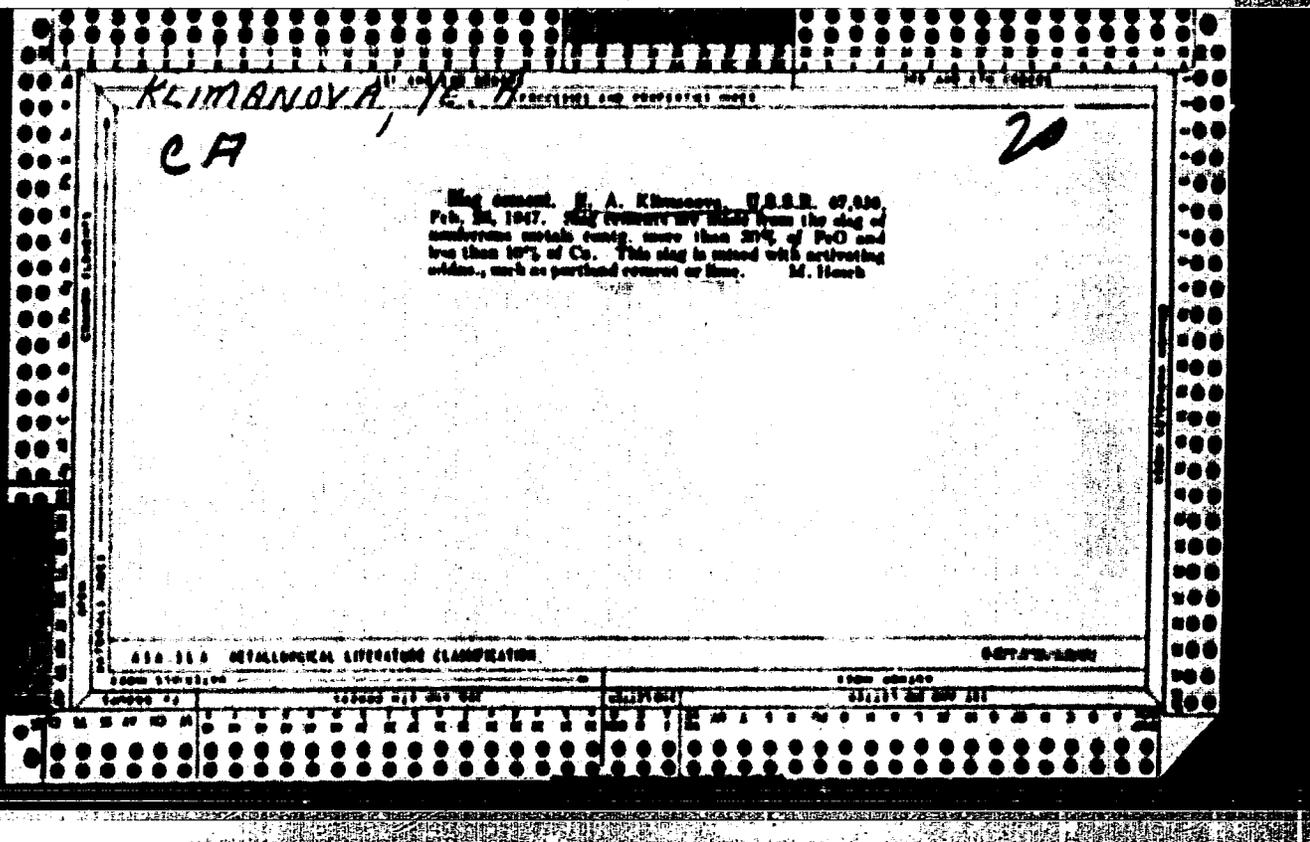
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