KORCHAGINA, M.I., starshaya meditsinskaya sestra

Treatment of surgical rubber gloves by the Mushkatin-IAkovleva
method. Med.sestra 21 no.12:51-52 D '62.   (MIRA 16:4)

1. Iz Otorinolaringologicheskogo otdeleniya Kolpinskoy
gorodskoy bol'nitsy No.1.
                        (GLOVES (SURGERY))

KORCHAGINA, N.A.

PLANT PROTECTION SECTION

Collection of complete papers presented at the 1959 Kazan Conference on Chemistry of
Organophosphorus Compounds.

KORCHAGINA, N.I.

Experimental cultivation of the ephemeral plants of Central Asia
in the Khibiny Mountains. Bot. zhur. 48 no.4:570-578 Ap '63.
                                                    (MIRA 16:5)

1. Polyarno-al'piyskiy botanicheskiy sad AN SSSR, Khibiny.
            (Khibiny Mountains—Plant introduction)

KORCHAGINA, N.I.

Biological and morphological changes in the Central Asiatic
ephemerous plants introduced into the Khibiny Mountains.
Bot., zhur. 49 no.7:1067-1069 Jl '64   (MIRA 17:8)

1. Polyarno-al'piyskiy botanicheskiy sad, Kirovsk.

KORCHAGINA, M.I.

Some anatomical changes of leaves in Central Asiatic ephemerals introduced in the Khibiny mountains. Bot. zhur. 50 no.5:666-673 My '65.   (MIRA 18:10)

1. Polyarno-al'piyskiy botanicheskiy sad, Kirovsk.

KORCHAGINA, O. A.

The effect of preplanting treatments of the seeds of kok-saghyz on the intensity of their physiological processes. O. A. Korchagina. Voprosy Biokhim. Arot. i Mineral. Pitan. Rastenii, Izdatel'stvo Akad. Nauk Ukr. S.S.R. (Kiev) 1953, 133–44; Referat Zhur. Khim., Biol. Khim. 1955, No. 6765.—Preplanting treatment of kok-saghyz seeds with K₂HPO₄ and MnSO₄ increases the percentages of sprouting, affects the processes of metabolism in the sprouting seeds and emerging plants, and favorably affects the plants' development.   B. S. Levine

KORCHAGINA, O.

"The Effect of the Presowing and Storage Conditions of Kok-
Saghyz Seeds on the Course of the Biological Processes and the Produc-
tivity of the Plants." Cand Biol Sci, Inst of Plant Physiology and
Agrochemistry, Acad Sci Ukr SSR. (RZhBiol, No 6, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR
Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

KORCHAGINA, O.A.

Effect of environmental conditions on the composition of the mono-
and oligosaccharide fraction in wheat leaves. Fiziol. rast. 7
no.,6:701-708 '60.   (MIRA 14:1)

1. K.A. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy
of Sciences, Moscow.
        (Kola Peninsula--Wheat)   (Saccharides)

KORCHAGINA, O. A.

Shift in the carbohydrate metabolism of wheat leaves during the
photoperiod of development. Dokl. AN SSSR 156 no. 1:209-211
My '64.   (MIRA 17:5)

1. Predstavleno akademikom A. L. Kursanovym.

KORCHAGINA, O.A.

Effect of climatic factors on the carbohydrate content of wheat
leaves in the Arctic. Trudy Lab. evol. i ekol. fiz. no.4:163-181
'62.   (MIRA 18:3)

KORCHAGINA, O.A.; MESHKOV, M.M.; MONAKHOV, F.I.

Frequency selection of oceanic storm microseisms. Izv. AN SSSR.
Ser. geofiz. no.6:771-775 Je '62.   (MIRA 15:6)

1. Akademiya nauk SSSR, Institut fiziki Zemli.
              (Microseisms)

ACCESSION NR: AR4020760   S/0169/64/000/001/G015/G015

SOURCE: RZh. Geofizika, Abs. 1G122

AUTHORS: Monakhov, F. I.; Korchagina, O. A.

TITLE: Conditions of formation and propagation of microseisms in the northwestern part of the Pacific Ocean

CITED SOURCE: Sb. Seysmol. issledovaniya. No. 5. M., AN SSSR, 1963, 39-51

TOPIC TAGS: Microseism formation, microseism propagation, cyclone energy, storm microseism

TRANSLATION: The apparatus and techniques employed in observations of micro-seisms in the northwestern part of the Pacific Ocean during the IGY are described. The observations were made at three special microseismic stations and several ordinary seismic stations. A study of the directions of incoming microseisms and a comparison of their energy with the energy of cyclones lead to the conclusion that storm microseisms recorded by seismic stations are formed in inshore zones. No reinforcement of microseisms is observed when

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ACCESSION NR: AR4020760

cyclones act on open areas of the ocean; this is due to the considerable
damping of the microseisms in the course of their propagation along the ocean
bottom.   In the region of Yuzhno-Sakhalinsk, the existence of anomalies was
revealed by the values of the phase velocities and directions of incoming
microseismic tremors.   ·   O. Korchagina

DATE ACQ: 03Mar64   SUB CODE: AS   ENCL: 00

Card   2/2

ACCESSION NR: AP4041180 S/0049/64/000/006/0847/0857

AUTHOR: Dolbilkina, N. A. ; Korchagina, O. A.

TITLE: Peculiarities of the formation and propagation of microseisms in the Barents Sea and Sea of Okhotsk

SOURCE: AN SSSR. Izv. Seriya geofizicheskaya, no. 6, 1964, 847-857

TOPIC TAGS: seismology, seismicity, microseism, earth tremor, ice edge

ABSTRACT: An attempt has been made to determine the origin and character of pro- pagation of microseisms occurring in the Barents Sea and Sea of Okhotsk. In the winter months, both these seas are largely covered by ice, which shields the shore and makes it possible to judge the conditions of formation of microseisms distant from the shore and their propagation along the sea floor. Certain cases of the effect of well-developed cyclones and associated microseismic storms are analyzed. The position of the edge of the ice was taken into account, since this made it possible to determine unambiguously the source of the microseismic storm. The microseismic background also was studied to clarify the character of the change in amplitude and period of the microseisms with increasing

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ACCESSION NR: AP4041180

distance between the ice edge and the point of observation (by microseismic background the authors mean microseisms caused by sea waves, not associated with the passage of cyclones or frontal zones over the sea). The study was based on data for the seismic stations at Kheys, Magadan, Petropavlovsk-Kamchatskiy, Kuril'sk, Okha, Murmansk and Barentsburg for the period 1957-1961. It was found that microseisms can be formed in either part of these two seas. In sectors with a continental structure on the floor of the Barents Sea and Sea of Okhotsk the attenuation of microseisms is of the same order of magnitude as on the continent itself. In the area of the continental slope of the Barents Sea there is a considerable scattering of microseismic energy. When microseisms travel through the Kurile basin they attenuate considerably more strongly than when they propagate along continental sectors complicated by mountainous relief. When microseisms propagate in a zone close to the source there is a change in the laws of attenuation (from strong attenuation at short distances to a lesser attenuation at quite great distances). "In conclusion the authors express sincere thanks to F. I. Monakhov for advice and comments during the course of the work and during discussion of the results." Orig. art. has: 4 formulas, 13 figures and 1 table.

ASSOCIATION: Institut fiziki Zemli, Akademiya nauk SSSR (Institute of Geophysics, SSSR Academy of Sciences)

Card 2/3

ACCESSION NR: AP4041180

SUBMITTED: 24Jun63   ENCL: 00

SUB CODE: ES   NO REF SOV: 005   OTHER: 002

Card 3/3

BODRIKOV, I.V.; SMOLYAN, Z.S.; KORCHAGINA, G.A.

Role of a solvent in the reactions of halogenation of olefins
with a quaternary carbon atom at a double bond. Zhur. ob. khim.
35 no.5:933 My '65.   (MIRA 18:6)

SOV/138-59-4-9/26

AUTHORS: Bryantseva, Yu.V., Korchagina, O.M., Zolotareva, Z.V.,
             Petrenko, L.P., Leonov, M.V.

TITLE: The Preparation of Lacquers (Coating Films) from Poly-
             styrene Residues Obtained During the Manufacture of
             Synthetic Rubber   (polucheniye lakov (zashchitnoy plenki)
             iz polistirol'nykh ostatkov proizvodstva sinteticheskogo
             kauchuka)

PERIODICAL: Kauchuk i Rezina, 1959, Nr 4, pp 32-35 (USSR)

ABSTRACT: The production of resins from polystyrene residues and
             their use in the manufacture of lacquers and coloured
             coatings was investigated. At present, styrene rubber is
             prepared by the dehydrogenation of ethyl benzene. After
             the distillation of styrene, polystyrene or vat residues
             are obtained as by-products; the composition of these vat
             residues has not been investigated in detail, but it was
             known that the crystalline part contained stilbene and
             diphenyl ethane. Investigations carried out in 1953 in
Card 1/3   the Department for Organic Chemistry of the Voronezh

SOV/138-59-4-9/26

The Preparation of Lacquers (Coating Films) from Polystyrene
Residues Obtained During The Manufacture of Synthetic Rubber

University (under the guidance of Professor S.V. Zav-
gorodniy) are reviewed. The vat residues contain poly-
styrene, which is used in the manufacture of organic
glass, resins, acid resistant vessels and lacquers. The
authors carried out experiments on their use for the prep-
aration of lacquers and coloured coating compositions
and tested the properties of the coatings. They found
that the coatings were light-stable, resistant to the
action of alkali, alcoholic media, industrial water,
concentrated sulphuric acid etc. The polystyrene coatings
can also be used in electrical and radio-technical
apparatus as they show good electrical insulating prop-
erties. The physical and chemical characteristics of
the resins are listed in Table 1 and the yield of resins
in Table 2. A plant for the separation of the resins
from the vat residue was constructed on pilot plant scale
(Figure 1). During these experiments, 75 kg of vat
residues were processed at a temperature of 20 to 30°C
and a pressure of 750 to 745 mm Hg. Distillation was
carried out up to 220 to 240°C (750 to 745 mm Hg); a 30
to 40% yield was obtained. Three different compositions

Card 2/3

SAVVATILEVA, Z.V.; KORCHAGINA, R.N.

Knit fabrics with knit-in foam polyurethane yarn. Nauch.
insl. trudy VNIITP no. 5:3-14 '64.   (MIRA 19:1)

SAVVATEYEVA, Z.V., kand.tekhn.nauk; KORCHAGINA, R.N., inzh.; SMIRNOVA, L.G.,
     inzh.; MALYARSKAYA, V.F., inzh.

Technology of the manufacture of the new type of glued glove fabrics.
Nauch.-issl.trudy VNIITP no.4:167-194 '63.   (MIRA 17:4)

USSR / Human and Animal Morphology (Normal and   S
    Pathological). Digestive System.

Abs Jour   : Ref Zhur - Biologiya, No 4, 1959, No. 16888

Author   : Korchagina, T. A.
Inst   : Not given
Title   : Diverticulum of the Stomach in a Patient
       with Situs Viscerum Inversus Totalis

Orig Pub : Khirurgiya, 1958, No 5, 112-114

Abstract : A description is given of a case of situs
      viscerum inversus totalis and true stomach
      diverticulum (SD) determined roentgenologi-
      cally and during laparotomy in a 38-year-
      old male. SD was located in the cardial
      part of the stomach along the small curva-
      ture, right below the esophagus, and had the
      shape of a protrusion of the stomach wall

Card 1/2   *Chitinok Oblast' Hospital*

      with dimensions of 2.5 x 2.5 cm. SD was
      formed by all the layers of the stomach
      wall; microscopically, the wall of fundus of
      SD was infiltrated. Diverticulitis of SD
      was diagnosed. The described combination
      of anomalies has not been found in the
      literature by the author.

Card 2/2

KORCHAGINA, T. A.

KORCHAGINA, V., biolog

     For you, fifth graders. IUn. nat. no.11:34-35 N '61.

                                      (MIRA 14:11)

  1. Shkola no.1, Moskva.

                 (Plant propagation)

KORCHAGINA, V.

[Young naturalists in summer.] IUnye naturalisty letom.
Moskva "Molodaia Gvardiia," 1951. 159 p.   (MIRA 8:7)
                    (Nature study)

KORCHAGINA, V.,

comp. IUnym naturalistam (For young naturalists). Moskva, Detgiz, 1953. 344 p.

SO: Monthly List of Russian Accessions, Vol 7, No 9, Dec 1954

KORCHAGINA, V.A.

"Young naturalists" pavilion. Est.v shkole no.6:70-74 N-D '54.
(Moscow--Agricultural exhibitions)   (MLRA 7:12)

KORCHAGINA, V.A.

USSR/General Division. Scientific Institutions.   A-3

Abs Jour: Ref. Zh.-Biol., No 17, 1957, 72411

Author : V.A. Korchagina
Inst   : ─────────────
Title : Michurin Garden in the VSKhV [All-Union Agricultural Exhibition].

Orig Pub: Estesvozn. v shkole, 1955, No 5, 82-84

Abstract: No abstract.

Card   : 1/1   -2-

KORCHAGINA, V., uchitel'nitsa biologii.

    From spring to snow. IUn.nat. no.1:8 Ap '56.   (MIRA 9:9)

    1.1-ya srednyaya shkola, Moskva.
                        (Flowers)

KORCHAGINA, V. A.:   Master Agric Sci (diss) -- "The effect of temperature on

the sprouting of seeds and the sowing times of corn in Leningrad Oblast". Lenin-

grad, 1958.   22 pp (Min Agric, Leningrad Agric Inst), 120 copies (KL, No 7, 1959,

127)

KORCHAGINA, V.

Flowers and berries in winter.   IUn. nat.   no.9:12   8 '58.
                (Forcing (Plants))   (MIRA 11:10)

PLAVIL'SHCHIKOV, N.; SHCHUKIN, S.; KORCHAGINA, V.; RODINA, V.; BATSYLEV,
     Ye.; NEKRASOV, V.; TRET'YAKOV, N.; TAIROV, N.; LEL'KOV, P.
     [deceased]; SUKHOVERKHOV, F.; KHOTILOVSKAYA, L., red.; VOLYNTSEVA,
     V., tekhn.red.

     [Calendar for the young naturalist] Kalendar' iunogo naturalista.
     Moskva, Izd-vo TsK VLKSM "Molodaia gvardiia," 1960.   358 p.
                                             (MIRA 13:7)
                    (Agriculture)

GORYACHEVA, N.S.; KORCHAGINA, V.A.

Quantitative determination of leukogen. Apt. delo 9 no.3:33-35
My-Je '60.   (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze.
           (THIAZOLIDINECARBOXYLIC ACID)

KORCHAGIN, V.A., inzh.

Steel dry gasholders with a rubber section. Prom. stroi. 40
no.3:54-56 '62.   (MIRA 15:3)
                          (Gasholders)

KAPTSINEL', Mikhail Abramovich; KOLESNIKOV, Ye.V.; KORCHAGINA, V.A.;
KORCHAGIN, V.N.; SMOYANIKOVA, N.K.; YEFIMOV, A.L., red.;
MAKHOVA, N.N., tekhn. red.

[Fruit culture] Plodovodstvo; uchebno-spravochnoe posobie dlia
IX-XI klassov sel'skoi srednei shkoly s proizvodstvennym obu-
cheniem. [By]M.A.Kaptsinel' i dr. Moskva, Uchpedgiz, 1963.
327 p.   (MIRA 16:5)
          (Fruit culture)

KORCHAGINA, V.I.; KARDASH, I.M.; SPEKTOR, Sh.Sh., red.; MIKHAYLOVA, N.V., tekhn.red.

[Losses of petroleum products in petroleum refineries and means of combating them] Poteri nefteproduktov na neftepererabatyvaiu-shchikh zavodakh i bor'ba s nimi. Baku, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, Azerbaidzhanskoe otd-nie, 1953. 62 p.   (MIRA 11:4)
        (Petroleum products)

KORCHAGINA, V. I. and KANDASH, I. M.

"Losses of Petroleum Products in Refineries and Measures Preventing Them,"
Aznefteizdat, 1953

Summary - D 497261

KORCHAGINA, U.I.

PHASE I BOOK EXPLOITATION

Akademiya nauk SSSR. Institut nefti

Trudy, t. 12 (Transactions of the Petroleum Institute, USSR. Academy of Sciences, Vol.12) Moscow, Izd-vo AN SSSR, 1958. 395 p. Errata slip inserted. 1,700 copies printed.

Ed.: S. R. Sergiyenko, Professor; Ed. of Publishing House: K. O. Mynaeov; Tech. Ed.: T. V. Golubeva.

PURPOSE: The book is intended for scientists, engineers, and technicians in the petroleum industry.

COVERAGE: This collection of articles describes the results of studies conducted in the Laboratory and technology of petroleum and gas conducted in the Laboratory of the Petroleum Institute, Academy of Sciences, USSR, in 1956 and 1957. A new section "Petrochemical Synthesis and Technology of Petroleum" has been included in the collection of articles. A list of investigations published by the associates of the Institute in 1956 and 1957 and a list of dissertations for the Doctor's and Candidate's degree presented in 1956 and 1957 at open session of the Academic Council of the Petroleum Institute, Academy of Sciences, USSR, are given.

B. D. Tikhonov, P. V. Kroyanskiy, I. A. Musoev, and V. I. Shchekin. Change in the Activity of Silica Gel in the Chromatographic Separation of Hydrocarbons.   35

Sabiyeva, G. D., M. M. Kunkov, Ye. S. Dobryanskaya, and M. A. Knizatov. Study of the Absorption Spectra of Some Cyclohexyl and Cyclopentyl Benzene Derivatives in the Near Ultraviolet Region   38

Sergiyenko, S. R., E. Ya. Savyenko, and A.I. Davydov. Investigation of the Composition and Properties of High-Molecular Weight Hydrocarbons and Tars of Ozymgren Petroleum Part 2/9   65

Sergiyenko, S. R., R. E. Davydov, A. D. Litmanovich, and V. A. Shuklnov. Physicochemical Properties of Petroleum Asphaltenes and Tar Solutions. Part 11.   76

Sergiyenko, S. R., and Yu. I Gordash. Composition and Properties of the Tar Fraction of Radchenkovo Petroleum. Part 13   85

Sergiyenko, S. R., and Yu. I. Gordash. Low-Temperature Transformations of High-Molecular Weight Aromatic Hydrocarbons of Radchenkovo Petroleum. Part 16   88

Sergiyenko, S. R., Ye. V. Lebedev. Chemical Nature of Saturated High-Molecular Weight Hydrocarbons of Romashkino (Devonian) Petroleum. Part 17   102

Sergiyenko, S. R., and Ye. V. Lebedev. Chemical Nature of Saturated High-Molecular Weight Hydrocarbons of Romashkino (Devonian) Petroleum. Part 18   117

Sergiyenko, S. R., and A. A. Mukhnryukov. The Chemical Nature of High-Molecular Weight Monocyclic Aromatic Hydrocarbons of Romashkino (Devonian) Petroleum. Part 19   136

Sergiyenko, S. R., I. A. Moshkina, and Ye. V. Mazhkina. Investigation of the Chemical Nature of High-Molecular Weight Condensed Dicyclic Aromatic Compounds of Romashkino Petroleum by the Catalytic Hydrogenation Method in the Presence of Raney Ni. Part 20   147

Sergiyenko, S. R., Ye. V. Mazhkina, and I. A. Moshkina. Hydrogenation of High-Molecular Weight Condensed Dicyclic Aromatic Compounds of Romashkino Petroleum in the Presence of a MS2 - MS - Al2O3 Catalyst under Mild Conditions. Paper 21   156

Sergiyenko, S. R., I. A. Moshkina, and Ye. V. Mazhkina. Hydrogenation of Tars Isolated from Romashkinskaya Petroleum. Paper 22   160

Sergiyenko, S. R., V. I. Korchagina, P. N. Galich, L. I. Ratman, B. E. Brylov, and M. I. Kravchenko. Effect of the Depth of Selective Cracking on the Composition and Properties of Heavy Residual Petroleum Fraction. Part 23   173

Sergiyenko, S. R., V. I. Korchagina, P. N. Galich, L. I. Ratman, B. E. Brylov, and M. I. Kravchenko. Effect of the Nature of the Raw Material and Oxidation Time on the Composition and Properties of Oxidized Bitumens. Article 24   184

KORCHAGINA, V.I.; GINZEURG, S.A.; FIN'KO, A.A.; RUTMAN, L.I.;
DAVYDOV, I.V.; IAVRINOVICH, D.A.

Electric method for measuring the water content in crude oil.
Neft. i gaz. prcm. no.2:51-56 Ap-Je '62.   (MIRA 15:6)

1. Odesskiy neftepererabatyvayushchiy zavod.
          (Petroleum--Refining)

KORCHAGINA, V.I.; RU!MAN, L.I.; SHNOL', F.M.

Evaluating methods for determining the group composition of
bitumens. Nefteper. i neftekhim. no.2:18-21 '64.

(MIRA 17:8)

1. Odesskiy neftepererabatyvayushchiy zavod.

KORCHAGINA, V.I.; RUTMAN, L.I.; FIN'KO, A.A.; SHMOL', F.M.; CHMIR', L.N.;
        AMBROKH, R.V.; VULIKH, Yu.L.

    Plant use of a cracking residue in the production of bitumens.
    Nefteper. i neftekhim. no.6:25-28 '64.   (MIRA 17:9)

    1. Odesskiy neftepererabatyvayushchiy zavod i Odesskiy politekhni-
    cheskiy institut.

KRAVCHUK, V.F., inzh.; KORCHAGINA, V.I., inzh.; GINZBUKG, S.A., inzh.; LONGRE,
    G.A., inzh.; RUTMAN, L.I., inzh.; FIN'KO, A.A., inzh.; DAVYDOV, I.V.,
    inzh.; LAVRINOVICH, D.A., inzh.

    Express method for determining water content in highly viscous mazuts
    using their dielectric constant. Elek. sta. 35 no.9:22-26 S '64.
                                                        (MIRA 18:1)

KORCHAGINA, V.I.; RUTMAN, L.I.; SHNOL', F.M.

Change in the quality of road bitumen in asphaltic concrete.
Nefteper. i neftekhim. no.5:21-24 '65.   (MIRA 18:7)

1. Odesskiy neftepererabatyvayushchiy zavod i Odesskiy politekhni-
cheskiy institut.

KORCHAGINA, Ye.L., ordinator

Pregnancy and diaphragmatic hernia. Akush. i gin. 32 no.4:84-85
Jl-Ag '56.   (MLRA 9:11)

1. Iz gospital'noy khirurgicheskoy kliniki (dir. - professor A.M.
Dykhno) Krasnoyarskogo meditsinskogo instituta.
            (HERNIA, DIAPHRAGMATIC, in pregn.
                clin. aspects)
            (PREGNANCY, in various dis.
                hernia, diaphragmatic, clin. aspects)

KORCHAGINA, Ye.L.

Preliminary observations on washing hands with diocide. Khirurgiia
32 no.7:86 Jl '56.   (MLRA 9:11)

1. Iz kliniki gospital'noy khirurgii Krasnoyarskogo meditsinskogo
instituta (dir. - professor A.M.Dykhno)
       (DISINFECTION AND DISINFECTANTS)

KORCHAGINA, Ye.L.

Remarks on the treatment of the hands with diocide. Khim. i med. no.10:48-51 '59.
(MIRA 13:2)

1. Iz kliniki gospital'noy khirurgii (dir. - prof. A.M. Dykhno) Krasnoyarskogo meditsinskogo instituta.
   (SURGERY, ASEPTIC AND ANTISEPTIC)   (DIOCIDE)

621.396.615.14 – 82   741

U.S.S. **..............**, **..................** E. P. **................**,
2 (No. 0 36 43) (1947) *In Russian.* — A generalized
analysis of u.h.f. triode oscillators is given, with con-
sideration of interelectrode capacitance and electrode
lead inductance. The effect of the type of tuned circuit
used on the choice of oscillator is discussed, the important
valve parameter being C_{ag}/C_{gf}.   A. L.

AUTHORS: Korchagina, Ye. P. and Utkin, G.M.   265

TITLE: Thermal grid emission in metal-ceramic tubes.
          (Termoemissiya setki v metallokeramicheskikh lampakh).

PERIODICAL: "Elektrosvyaz" (Telecommunications), 1957, No.4, April,
                        pp. 12 - 21 (U.S.S.R.)

ABSTRACT: The authors give results of an experimental
          investigation of the thermal emission of the grid in
          metal-ceramic tubes. Results proved to be in good
          agreement with theoretical considerations. The thermal
          emission from the grid results in erroneous indications
          of measuring instruments in the anode circuit. The
          effective power and the efficiency decrease, while
          input power from the driving stage is increased, so
          that the overall gain of the stage is sharply reduced.
          These effects are due to the increase of the d.c.
          component of the anode and decrease of the d.c. component
          in the grid circuit. The thermal emission produces
          substantial distortions when anode modulation is used,
          this increase being due to additional pulses of the
          anode current which reduce the value of the fundamental.
          This distortion is increased by use of the automatic
          bias.   For the types of tubes which were used in the
          experiment, i.e. GI-7B, GI-6B and GS-9B, the thermal
          emission occurs with instantaneous grid voltages $e_{g\ max} > 55V$,

Korchagina, Ye, P.

AUTHORS: Korchagina, Ye. P.,   Utkin, G. M.   108-11-4/10

TITLE: On the Computation of Generators by Means of a Grounded
            Grid (O raschëte generatorov s zazemlënnoy setkoy).

PERIODICAL: Radiotekhnika, 1957, Vol. 12, Nr 11, pp. 29-38

ABSTRACT: In this place the question of selection of an optimum
            working of the frequency-amplifiers and the frequency-
            transformer according to the scheme with a grounded grid
            is examined. As given are assumed: efficiency at a load
            P_n, resonance-resistance R_{axx} of the anode-circuit and the
            tube-parameters. It is assumed that the anode-voltage E_a
            and the impulse height of the anode-current I_n are not
            limited at the investigation. Later on criterions are
            introduced for the valuation of the usefulness of the
            recommended working. The anode-reaction is not taken under
            consideration here. The given efficiency at a load can be
            kept at different values of the amplitude of those harmonic
            vibrations of anode-current I_{an} for which the anode-circuit

Card 1/4

On the Computation of Generators by Means of a Grounded   108-11-4/10
Grid.

efficiency at a load the impulse height of the anode-current
determines the circuit degree of effect and influences
substantially the energy conditions in the anode-circuit.
In the output cascades it is necessary in order to increase
the general degree of effect of the transmitter to chose
the impulse height of the anode-current according the
minimum-efficiency used by two cascades. It is shown, that
at the projecting of the intermediate cascades the fact
that the same are loaded by the cathode circuit of the
succeeding cascades (which form a nonlinear resistance) is
to be taken into consideration. In order to multiply the
frequency in the intermediate cascades of the transmitter
the cut-off angle of the anode-current has to be chosen
according to the conditions for the maximum cascade-
amplification according to the efficiency. For the doubling
of the frequency a $\Theta = 75^0$ and for the tripling of the same
a $\Theta = 50^0$ has to be taken. The obtained diagrams show that
a transition to a working with a minimum anode-voltage
provokes an increase of the actual output and a reduction

Card 3/4   of the coefficient of the cascade-amplification according

On the Computation of Generators by Means of a Grounded   108-11-4/10
Grid.

to the efficiency. There are 14 figures, and 2 references,
2 of which are Slavic.

SUBMITTED: November 23, 1956.

AVAILABLE: Library of Congress

Card 4/4

9(4)

SOV/162-58-3-15/26

AUTHORS: Korchagina, Ye.P., Ovchinnikova, T.D., and Pertseva, Zh.M.

TITLE: The Influence of the Thermal Grid Emission on the Work of a Self-Oscillator (Vliyaniye termoemissii setki na rezhim avtogeneratora)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Radiotekhnika i elektronika, 1958, Nr 3, pp 112-119 (USSR)

ABSTRACT: The authors investigate the thermal grid emission of a metalloceramic tube GI-12B used in a self-oscillator circuit. The experimental investigation was performed on a self-oscillator with inductive feedback as shown by figure 1. The experiments were performed at a frequency of 25 kc. When the grid is heated considerably, it begins emitting electrons like a cathode. Such a thermal emission arises with overvoltage conditions and with great feedback factors. The thermal grid emission increases the anode current cut-off angle and reduces the oscillator efficiency. The phase of the feedback factor is important for the

Card 1/3

SOV/162-58-3-15/26

The Influence of the Thermal Grid Emission on the Work of a Self-Oscillator

formation of the thermal emission. The latter arises when the voltages U_c and U_a are in the opposite phase. A phase shift between U_a and U_c reduces the number of electrons moving from the cathode to the grid and the conditions for the arising of a thermal emission are made more difficult. Tests performed with different GI-12B tubes showed that the thermal emission begins with different tubes at different anode voltages. With GI-12B tubes the thermal emission of the grid begins when the components of the anode and grid currents reach 90-100 milliamps at overvoltage conditions. There are 1 circuit diagram, 5 oscillograms, 6 graphs and 1 Soviet reference.

ASSOCIATION: Kafedra radioperedayushchikh ustroystv Moskovskogo energeticheskogo instituta (Chair of Radio

Card 2/3

KORCHAGINA, Ye.P.

Stability of stationary conditions in an oscillator with a circuit between the plate and grid. Nauch.dokl.vys.shkoly; radiotekh.i elektron. no.4:81-92 '58.
(MIRA 12:6)

1. Kafedra radioperedayushchikh ustroystv Moskovskogo energeticheskogo instituta.

(Oscillators, Electron-tube)

Г. Г. Ганов

О возможности упорядочения системы линий.

Л. К. Михайловский

Структурные формулы контур-избыточных связей.

III. СЕКЦИЯ ПЕРЕДАЮЩИХ УСТРОЙСТВ

Руководитель М. С. Нейман

9 июня
(с 10 до 16 часов)

М. С. Нейман

О некоторых основных вопросах развития мощных радиопередающих устройств.

Б. В. Иванов,
В. В. Панов

Теоретическая и экспериментальная разработка импульсного усилителя мощных колебаний частотой 1300 мгц с промышленным к.п.д. 50%.

В. И. Романов

Метод повышения выходной средней мощности импульсного передатчика.

30

9 июня
(с 10 до 22 часов)

М. В. Богомольный

Анализ режима магнетронного генератора при модуляции с помощью расчетных графиков.

Е. И. Баранцева

Об устойчивости стационарных режимов генератора с контуром между анодом и сеткой.

Б. Н. Авдеев

Соотношение между уровнем фона радиопередающих устройств и уровнем пульсаций питающих напряжений.

11 июня
(с 10 до 16 часов)

С. И. Ветчинкин

Двухтактное деление частоты.

В. И. Тарасов

Плавная разностная с частотным разделением каналов.
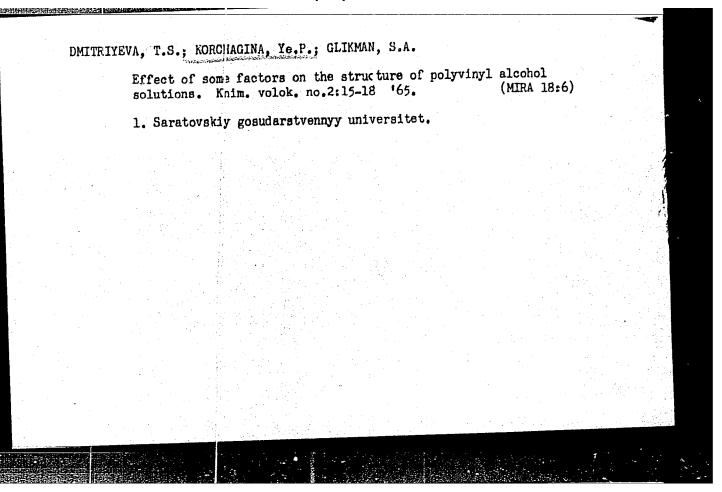
54

GLIKMAN, S.A.; KORCHAGINA, Ye.P.; SEV'YANTS, L.L.

Studies of the molecular interaction in solutions of polymers by their conversion to colloidal systems. Vysokom.soed. 3 no.3: 353-358 Mr '61.
(MIRA 14:6)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo
(Polymers) (Molecular association)

TEPELEV, L.G.; MIKUL'SKIY, G.F.; KORCHAGINA, Yo.P.; GLIKMAN, S.A.

Spectrophotometric analysis of the interaction of iodine with polyvinyl alcohol solutions. Vysokom.soed. 7 no.1:123-128 Ja '65.   (MIRA 18:5)

1. Saratovskiy gosudarstvennyy universitet.

DMITRIYEVA, T.S.; KORCHAGINA, Ye.P.; GLIKMAN, S.A.

Effect of some factors on the structure of polyvinyl alcohol
solutions. Khim. volok. no.2:15-18 '65.   (MIRA 18:6)

1. Saratovskiy gosudarstvennyy universitet.

KHOMUTOV, L.I.; KORCHAGINA, Ye.P.; GLIKMAN, S.A.

Thermal characteristics of gels. Zhur. prikl. khim. 38 no.4:
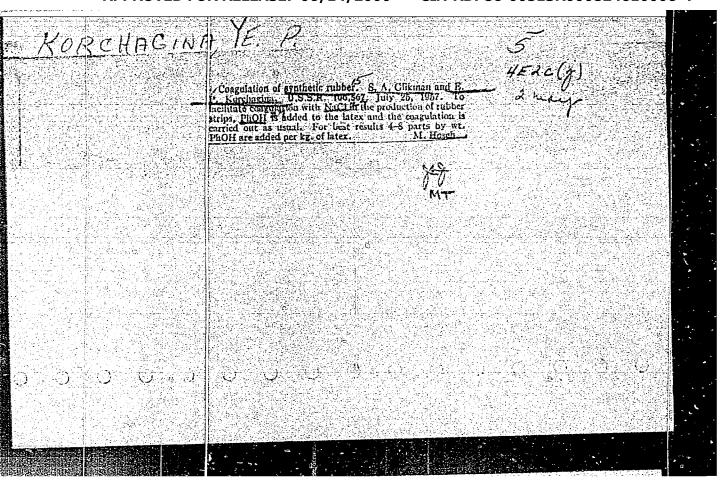786-791 Ap '65.   (MIRA 18:6)

KHOMUTOV, L.I.; TROFIMOVA, G.P.; KORCHAGINA, Ye.P.; GLIKMAN, S.A.

Gelation processes and visco-elastic properties of gels.
Zhur.prikl.khim. 38 no.3:638-643 Mr '65.

(MIRA 18:11)

1. Submitted March 19, 1964.

KORCHAGINA YE. P.

5

4E2c(y)

Coagulation of synthetic rubber. S. A. Glikman and E. P. Korchagina. U.S.S.R. 100,367, July 26, 1957. To facilitate coagulation with NaCl in the production of rubber strips, PhOH is added to the latex and the coagulation is carried out as usual. For best results 4-5 parts by wt. PhOH are added per kg. of latex.   M. Hosch

MT

KOECHLING NA, E. P

The mechanism of coagulation of butadiene-styrene latex, S. A. Glikman and E. P. Koechling (State Univ., Saratov). *Kolloid Zhur.* 19, 667–81(1957).—The concn. of LaCl₃ which caused a measurable increase in the turbidity of SKS-30A latexes increased with the latex concn., c, from 0.03 to 80 meq./l. when c increased from 0.01 to 3%; but the concn. z₂ which caused complete coagulation was almost independent of c. The z₁ of NaCl was about 10–100 and z₂ was near 600 meq./l. When hydroquinone (2–5%) was added to the latex, NaCl caused no coagulation but the latex globules had (from turbidity) vols. about 10 times those of the initial latex. The size of these "primary coagulation particles" apparently was independent of the presence of addns. The size of "secondary particles" as present in films of fully coagulated latex depended on the other constituents since these could reduce or intensify the "autohesion" of the primary particles. Thus, when 0.8 g. PhOH was added to 100 g. latex, the latter required less than the standard amt. of NaCl for full coagulation, and the resulting film was better than that made without PhOH.   J. J. Bikerman.

5(3), 5(4)   SOV/156-59-1-38/54

AUTHORS: Glikman, S. A., Korchagina, Ye. P.

TITLE: The Lyophobe Sols of High Polymers (Liofobnyye zoli vysoko-
                polimerov)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya
                tekhnologiya, 1959, Nr 1, pp 147 - 150 (USSR)

ABSTRACT: Lyophobe systems produced according to earlier data (Ref 3)
                were investigated: a) nitrocellulose (celloxylin) -acetone -
                water, b) benzyl-cellulose (acetone-soluble fraction) -
                acetone - water, c) benzyl-cellulose - acetone - methanol,
                d) four different fractions of the polymethyl-methacrylate -
                acetone - water, e) polystyrene polymerized to an emulsion -
                benzene - ethanol, f) solid polystyrene - benzene - methanol,
                g) polyisobutylene P-200 - toluene - ethanol, and h) latex
                of butadiene-styrene caoutchouc KS-30A. For a characteriza-
                tion of the dispersion degree, the light dispersion was
                measured by means of a nephelometer "NFM" with a green
                light filter (λ = 5300 Å). The apparatus frosted glass Nr 2,
                to which the values were related, served as a comparison.
Card 1/2   All sols were tested in the 0.008 % concentration. The

The Lyophobe Sols of High Polymers   SOV/156-59-1-38/54

intensity of light dispersion is graphically represented.
The particle sizes inferred therefrom (in angstrom units)
were between 40 (nitrocellulose) and 21000 (solid poly-
styrene). The four polymethyl-methacrylate fractions also
differed clearly with regard to particle size (500-950).
By measuring of light dispersion the stabilities of the sols
were also tested (Figure). The differences in stability
are explained by the action of third components in the
colloid system: ionized, low-molecular impurities, in
particular those of a mineral type. The addition of surface-
active substances, such as phenol or soap, also prevents
aggregation. There are 3 figures, 1 table, and 8 references,
7 of which are Soviet.

ASSOCIATION: Kafedra fizicheskoy i kolloidnoy khimii Saratovskogo gosu-
darstvennogo universiteta (Chair of Physical Chemistry and
Colloid Chemistry of Saratov State University)

SUBMITTED: July 8, 1958

Card 2/2

AUTHORS: Korchagina, Ye. P., Glikman, S. A.

TITLE: The structure and drying rate of butadiene-styrene rubber strip

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1961, 570, abstract 3P283.
            (Uch. zap. Saratovsk un-ta, 1959, v. 71, 5 - 11)

TEXT: The specific surface (S_{sp}) of the rubber strip was determined according to adsorption from an aqueous solution of "crystalline violet" (I). [Abstracter's note: Subscript sp (specific) is a translation of the original y (udel'naya)] $S_{sp} \sim 0.6$ m^2/g and depends only slightly on the type of rubber (CKC-30A [SKS-30A] or CKC-30 [SKS-30]) or coagulant (NaCl, MgCl$_2$ or CaCl$_2$). Van Boemmelen's exsiccator method was used to determine the strip's equilibrium moisture content (W_{eq}). [Abstracter's note: Subscript eq (equilibrium) is a translation of the original p (ravnovesnaya)]. When NaCl is used W_{eq} first increases slightly then rapidly with a rise in the relative vapor pressure (p/p_r). [Abstracter's note: Subscript r (relative is a translation of the original o (otnositel'noye)]. Where CaCl$_2$ is used this bend is more marked and occurs at a higher p/p_r; it is preceded by a plateau due to the absence of medium diameter pores. The nature of the coagulum does not af-

Card 1/ 2

.fect microporosity or the transitional pores with a diameter < 800 A. The S_{sp} of the larger pores and macropores is higher with NaCl coagulation. The S_{sp} values of these pores, determined from adsorption and by the exsiccator method, correspond closely in the case of $CaCl_2$ coagulation. Since I does not penetrate the narrow pores the authors believe that most of the moisture is contained in the macropores. The difference in the S_{sp} values determined by the exsiccator method with NaCl and $CaCl_2$ coagulation is probably due to the fact that, in the first case, the macropores are not cylinders   cavities connected with the outside environment by narrow channels. The strip was dried in a current of air or N_2 (rate 0.8 l/hour) at $110^{\circ}C$ until its weight was constant. In strip prepared with $CaCl_2$ moisture was removed and water vapor desorbed more rapidly than in strip prepared with NaCl, especially in the initial period of drying or desorption. The slower drying rate in the latter case is connected with the pores' shape and not with their S_{sp}. The exclusion of $FeSO_4$ and the introduction of anti-aging agents speeds up the drying of strip prepared with NaCl. This is due to inhibition of destruction which leads to the pores becoming clogged with low-molecular products.

Summary by I. Shmurak

[Abstracter's note: Complete translation]

Card 2/2

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//, 2217 also 2209

S/081/60/000/023/021/021
A005/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 23, p. 602, # 95121

AUTHOR: Korchagina, Ye.P.

TITLE: On the Destructive Action of Peroxides on the Polymolecules of
               Methyl Methacrylate and Styrene

PERIODICAL: Uch. zap. Saratovsk. un-t, 1959, Vol. 71, pp. 13 - 18

TEXT: The author studied the destructive action of peroxides of benzoyl,
styrene, and methyl methacrylate on polystyrene and polymethyl methacrylate at
80°C under conditions close to the polymerization conditions of the corresponding
monomers. The polymerization of monomers under these conditions was suppressed
by oxygen. It was corroborated by special investigations that the thermal de-
struction of polymers does not take place in absence of peroxides at 80°C. The ef-
fectiveness of the destructive action of peroxides depends on their concentration
and stability. The destruction proceeds most intensely at the desiccation of the
precipitated polymer. It is supposed that the effect studied must affect the change
in the molecular weight of the polystyrene during the thermal polymerization pro-
cess of styrene.   A.Litmanovich

Translator's note: This is the full translation of the original Russian abstract.
Card 1/1

GLIKMAN, S.A.; USHAKOV, S.N.; KORCHAGINA, Ye.P.; LAVRENT'YEVA, Ye.N.

Certain properties of iodopolyvinyl alcohol gels. Dokl.
AN SSSR 154 no.2:372-374 Ja'64.   (MIRA 17:2)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR i
Saratovskiy gosudarstvennyy universitet im. N.G. Cherny-
shevskogo. 2. Chlen-korrespondent AN SSSR (for Ushakov).

L 30502-66   E.T(1)/E.A(h)   TG/GD

ACC NR: AP6004822   SOURCE CODE: UR/0108/66/021/001/0001/0007

AUTHOR: Korchagina, Ye. P. (Active member)

ORG: Scientific and Technical Society of Radio Engineering and Electrocommunication (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Calculation of reliability parameters in systems with repairable elements

SOURCE: Radiotekhnika, v. 21, no. 1, 1966, 1-7

TOPIC TAGS: reliability, repairable system

ABSTRACT: Reliability of multiple-use systems with repairable elements is evaluated. Simple formulas for the system availability, mean time between failures and mean time of system repair for simple and compound systems are developed. The formulas are not based on the conventional queueing theory. It is assumed that during the repair of faulty elements the good elements are in operation, and their failures are possible; exponential distribution of operation and repair time is assumed. Systems with various types of redundancy (reserves) and a compound system consisting of a number of series-connected simple systems are considered. Orig. art. has: 58 formulas.

SUB CODE: 14 / SUBM DATE: none

Card 1/1   UDC: 621.3.019

KORCHAGINA, Ya.P.

Investigation of the stability of stationary operation of an
oscillator which contains a tank circuit between its plate and
grid.   Nauch. dokl. vys. shkoly; radiotekh. i elektron. no.2:
176-184 '59.   (MIRA 14:5)

1. Kafedra radioperedayushchikh ustroystv Moskovskogo energetiche-
skogo instituta.
                    (Oscillators, Electric)

RODIONOVA, K. F.; KORCHAGINA, Yu. I.; IL'INSKAYA, V. V.

Composition of naphthene-aromatic fractions of oily scattered
bituminous substances and some crude oils. Geol. nefti i gaza 7
no.1:33-40 Ja '63.   (MIRA 16:1)

1. Vsesoyusnyy nauchno-issledovatel'skiy geologorasvedochnyy
neftyanoy institut.

        (Volga-Ural region—Bitumen—Analysis)
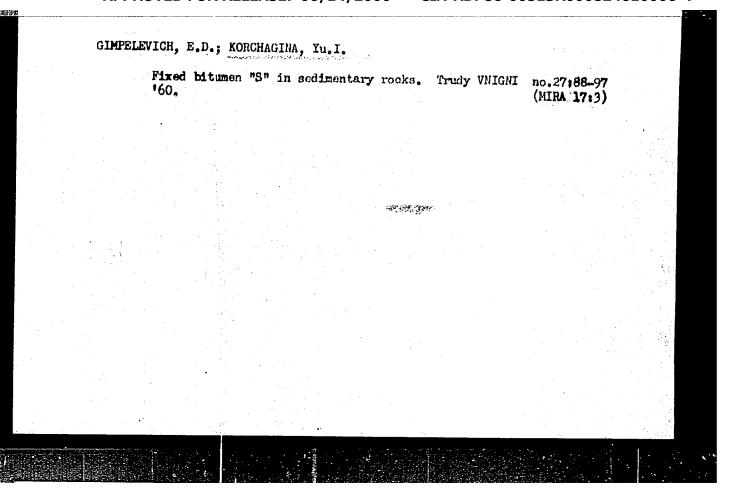   (Volga-Ural region—Petroleum—Analysis)

PETERBURGSKIY, A.V., doktor sel'skokhoz. nauk, prof.; KORCHAGINA, Yu.I., mladshiy nauchnyy sotrudnik

Plant assimilation of ammonia nitrogen in connection with its exchange absorption and fixation by soil. Izv. TSKHA no.2: 47-61 '63.   (MIRA 16:10)

RODIONOVA, K.F.; KORCHAGINA, Yu.I.; PENTINA, T.Yu.

Some data on oil producing rocks in the Volga-Ural region.
Sov. geol. 7 no.1:123-129 Ja '64.   (MIRA 17:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy
neftyanoy institut.

GIMPELEVICH, E.D.; KORCHAGINA, Yu.I.

Fixed bitumen "S" in sedimentary rooks.   Trudy VNIGNI   no.27:88-97
'60.   (MIRA 17:3)

RODIONOVA, K.F.; KORCHAGINA, Yu.I.; KARPOV, P.A.; GORENBEYN, I.A.; PENTINA, T.Yu.

Geochemical characteristics of Upper Devonian sediments in some
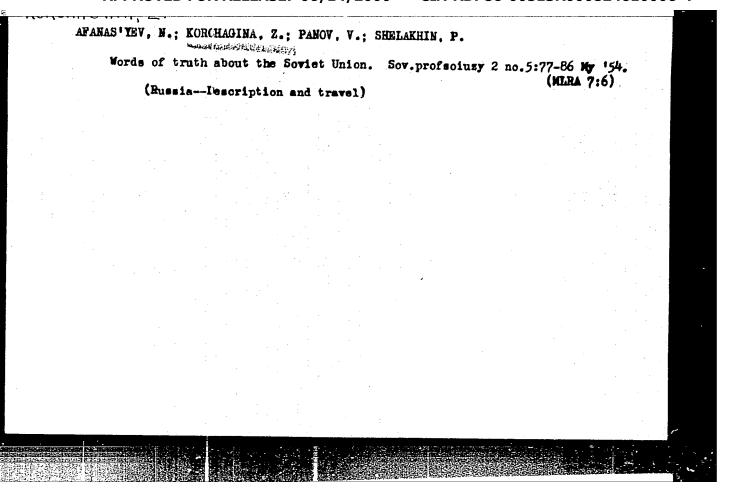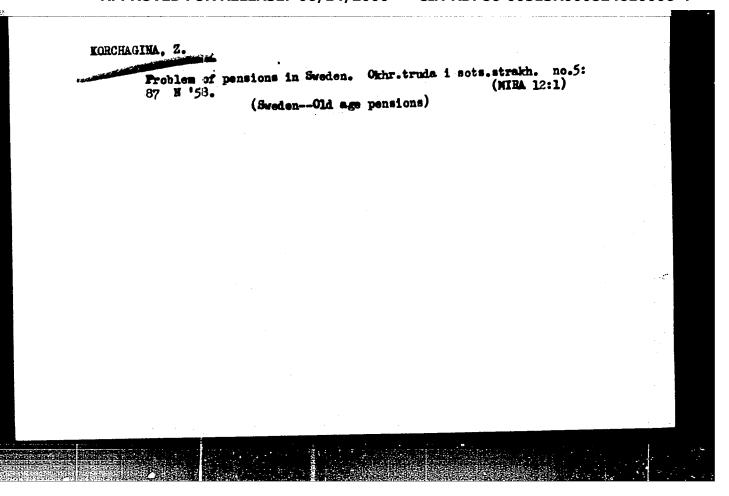areas of Volgograd Province. Trudy VNIGNI no.33:72-116 '62.
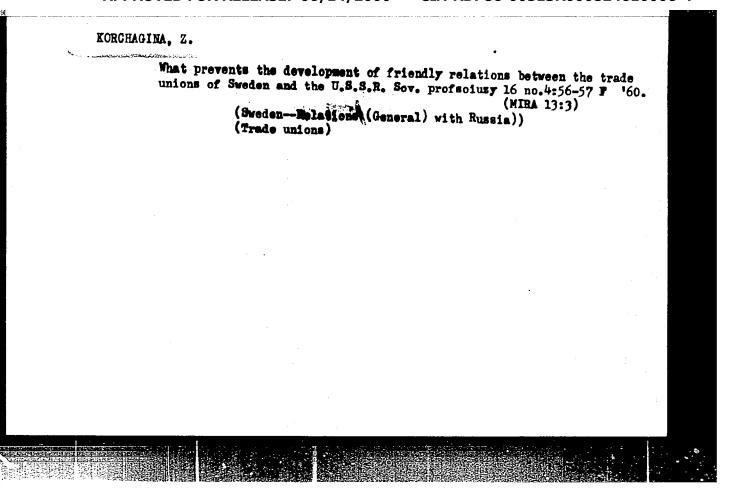
(MIRA 18:12)

KORCHAGINA, Z.

Russia - Social Conditions

Workers' delegation from Iceland in the U.S.S.R. V pom. profaktivu 13, no. 14, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952, Unclassified.

AFANAS'YEV, N.; KORCHAGINA, Z.; PANOV, V.; SHELAKHIN, P.

Words of truth about the Soviet Union. Sov.profsoiuzy 2 no.5:77-86 My '54.
(MLRA 7:6)

(Russia--Description and travel)

KORCHAGINA, Z.

Problem of pensions in Sweden. Okhr.truda i sots.strakh. no.5:
87 N '58.   (MIRA 12:1)

(Sweden--Old age pensions)

KORCHAGINA, Z.

What prevents the development of friendly relations between the trade unions of Sweden and the U.S.S.R. Sov. profsoiuzy 16 no.4:56-57 F '60.
(MIRA 13:3)
(Sweden--Relations (General) with Russia))
(Trade unions)

VADYUNINA, A.F.; KORCHAGINA, Z.A.

Production of carbon dioxide by semidesert soils. Vest. Mosk.un.
Ser. 6: Biol., pochv. 20 no.5:72-78 S-O '65.

(MIRA 18:11)

1. Kafedra fiziki i melioratsii pochv, Moskovskogo universiteta.
Submitted March 12, 1965.

VADYUNINA, Aleksandra Fedorovna; KORCHAGINA, Zinaida Alekseyevna;
    SHAGIROVA, I.M., red.; YEZHOVA, L.L., tekhn. red.

    [Methods of determining the physical properties of soils in the
    field and the laboratory] Metody opredeleniia fizicheskikh svoistv
    pochv i gruntov; v pole i laboratorii. Moskva, Vysshaia shkola,
    1961. 344 p.   (MIRA 15:6)
                            (Soil physics)

15(2)

AUTHORS: Minakov, A. G., Korchagina, Z. P.,   SOV/72-59-8-8/17
            Pogarskiy, N. I.

TITLE: "Steklofon" (Steklofon)

PERIODICAL: Steklo i keramika, 1959, Nr 8, pp 21-22 (USSR)

ABSTRACT: At the destruction of splinter-proof automobile windshields
            and windows the glass breaks into minute splinters and loses
            its transparency. It was therefore necessary to produce wind-
            shields which retain their transparency at least in a certain
            small sector. In 1957 the first samples of such windshields
            were produced in the USSR at the plant imeni Dzerzhinskiy
            (see footnote 1). The authors of the present paper succeeded in
            obtaining such panes, called steklofon, with different degrees
            of hardness (Fig 1). The center part of the panes is shielded
            off, as is shown in figure 2, by the application of protective
            coatings of kaolin and aluminum dye. They are then heated in
            an electric stove to a temperature of 640° and then cooled on
            a grid by an air jet. After annealing the protective coating is
            removed. It was found by testing steklofon according to the
            GOST 5727-57 method that such panes are not damaged by an 800 g
Card 1/2   steel ball dropped on them from the height of 2.5 m. Steklofon

"Steklofon"

SOV/72-59-8-8/17

also tolerates temperature drops within a range of 125°. At a temperature drop of 135° steklofon breaks along the ring separating the two parts of different degrees of hardness, as can be seen from figure 3. There are 3 figures and 1 Soviet reference.

Card 2/2

86685

S/111/60/000/012/002/004
B019/B058

9.2540

AUTHOR: Korchagova, Ye. M., Engineer

TITLE: Sealed Accumulators for Automatic Current Supply

PERIODICAL: Vestnik svyazi, 1960, No. 12, pp. 11 - 12

TEXT: New acid accumulators of the types C_3-0.5 (S_3-0.5), C_3-1 (S_3-1) to C_3-5 (S_3-5) are described, which are placed in sealed containers. They are intended for use in automatic electric installations and have some advantages over open-type accumulators. They only require periodic inspection and can be incorporated in automatic Diesel, rectifier and similar installations. The accumulators of the type S-0.5 with a power of 18 amp-h, developed by the Kursk sovnarkhoz, have one positive and two negative plates. The negative plates are grids made from a lead alloy with about 5% Sb. The container is made of glass. Some details of design are discussed. Technical data are given in Tables 1 and 2. There are 4 figures and 2 tables.

Card 1/3

86685

Sealed Accumulators for Automatic Current   S/111/60/000/012/002/004
Supply   B019/B058

ASSOCIATION: Tekhnicheskoye upravleniye Ministerstva svyazi SSSR
(Technical Administration of the Ministry of
Communications of the USSR)

TABLE
Таблица 1

1	2	3	4 При разряде в течение								
			a 10 часов			b 3 часов			c 1 часа		
Тип аккумулятора	Номинальная ёмкость а.ч.	Сила тока при заря-же, а	макоим. сила тока, а (I)	ёмкость а.ч. (II)	конеч. напр. (III)	максим. сила тока, а (I)	ёмкость а.ч. (II)	конеч. напр. (III)	максим. сила тока, а (I)	ёмкость а.ч. (II)	конеч. напр. (III)
С-0,5	18	4;5	1,8	18	1,8	4,5	13,5	1,8	9,2	9,2	1,75
С₁-1	36	9	3,6	36	1,8	9	27	1,8	18,5	18,5	1,75
С₂-2	72	18	7;2	72	1,8	18	54	1,8	37	37	1,75
С₃-3	108	27	10,8	108	1,8	27	81	1,8	55,5	55,5	1,75
С₄-4	144	36	14,4	144	1,8	36	108	1,8	74	74	1,75
С₅-5	180	45	18	180	1,8	45	135	1,8	92,5	92,5	1,75

Card 2/3

Legend to Table 1:
1) Type; 2) Rated power;
3) Discharge current;
4a) Discharge time
10 hrs; 4aI) Maximum current in a; 4aII) Power
in amp-h; 4aIII) Final
voltage in v; 4b) Discharge time 3 hrs;
4bI) Maximum current;
4bII) Power in amp-h;
4bIII) Final voltage in v;
4c) Discharge time 1 hr;
4cI) Maximum current;
4cII) Power in amp-h;
4cIII) Final voltage in v.

86685

S/111/60/000/012/002/004
B019/B058

1 Тип аккумулятора	2 Тип пластины	3 Число пластин в аккумуляторе			4 Габаритные размеры сосуда			5 Габаритные размеры аккумулятора по крышке		
		a положительных	b отрицательных		a длина	b ширина	c высота	d длина	b ширина	c высота
			I средних	II крайних						
C_2-0,5	$И_2$-0,5	1	—	2	74	156	230	94	176	290
C_2-1	$И_2$-1	1	0	2	74	200	310	104	230	370
C_2-2	..	2	1	2	114	200	310	144	230	370
C_2-3	..	3	2	2	154	200	310	184	230	370
C_2-4	..	4	3	2	195	200	310	224	230	370
C_2-5	..	5	4	2	234	200	310	261	230	370

Table 2

Card 3/3

Legend to Table 2:
1) Type; 2) Type of plate; 3a) Number of positive plates; 3bI) Number of positive plates in the center; 3bII) Number of positive plates on the edges; 4a,4b, and 4c are length, width, and height, respectively, of the container; and 5a,5b, and 5c are length, width, and height, respectively, of the container with lid and terminals.

KORCHAGOVA, Ye.M., starshiy inzh.

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1. Tekhnicheskoye upravleniye Ministerstva svyazi SSSR.
          (Electric power)
          (Telecommunication—Equipment and supplies)

SMIRNOV, Nikolay Nikolayevich; KORCHAGOVA, Ye.M., otv. red.;
KOMAROVA, Ye.V., red.

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KORCHAK, A. A.; TERLETSKIY, Ya. P.

Astrophysics

Electromagnetic radiation of cosmic protons and radio-emanation of the galaxy. Zhur. eksp. i teor.fiz. 22 No. 4, 1952.

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KORCHAK, A. A., Cand Phys-Math Sci -- (diss)"On the magnetic
                                    Radiation
inhibiting nature of cosmic ~~radio-emanation~~ and composition

of primary ~~xxxxx~~ cosmic rays." Mos, 1957. Cover, 4 pp

(Mos Sate Univ im M. V. Lomonosov, Chair of Static Phys

and Mechanics), 100 copies. List of author's works at end

of text (12 titles) (KL, 52-57, 103)

KORCHAK, A.A.

AUTHOR: Korchak, A.A.   33-3-7/32

TITLE: The electromagnetic emissions of cosmic particles in the galaxy. (O Elektromagnitnom izluchenii kosmicheskikh chastits v galaktike)

ABSTRACT: General cosmic electro-magnetic radiation consists of two components: shortwave (centimetre region) and longwave (over one metre). The shortwave radiation is strongly concentrated in the plane of the galaxy. Its intensity is independent of frequency, and hence this component may be attributed to emission by ionised interstellar gas. The long wave component is localised in a sphere of the order of 15 kparsecs. Its spectrum obeys the law $I \sim v^{-\alpha}$, where $0.5 \leqslant \alpha \leqslant 1$ (1), (2), (3).

The spherical component can, most probably, be attributed to electro-magnetic emission by the electronic component of cosmic rays in the galactic magnetic field (6), (12).

For this hypothesis to be successful, it is necessary to show that the spectrum of the bremsstrahlung from the primary cosmic ray component is identical with that observed in the above electro-magnetic radiation. This was shown to be the

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21(7)
AUTHORS:

Korchak, A. A., Syrovatskiy, S. I.

SOV/20-122-5-12/56

TITLE:

On the Possibility of the Preferential Acceleration of Heavy Elements in the Sources of Cosmic Rays (O vozmozhnosti preimushchestvennogo uskoreniya tyazhelykh elementov v istochnikakh kosmicheskikh luchey)

ABSTRACT:

In the primary component of cosmic radiation the nuclei with the nuclear numbers $Z_0 > 2$ (in relation to the protons and α-particles) are on the average 5 to 10 times as frequent as in the interstellar space. This may be explained either by the higher number of elements with $Z_0 > 2$ in the sources of cosmic rays or by their more effective acceleration. The present paper investigates the second possibility on the basis of the example of the statistical mechanism (E.Fermi) (Ref 2). In the sources of cosmic radiation there may exist conditions that favor the predominant

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of Heavy Elements in the Sources of Cosmic Rays

acceleration of heavy elements. A formula for the
increase of the total energy E of the particle
with time is written down. However, the particle
also loses energy by its collisions with atoms and
electrons. It depends on the ratio between the obtained
and the lost energy whether the particle is accelerated
or not. A formula for the threshold energy (usually called
injection energy) is written down. The deliberations
discussed in this paper are indicative of a higher
efficacy of the acceleration of heavy elements in the
case of the amount of initial ionization being equal.
The range of values of the parameter α, in which the
heavy elements are predominantly accelerated, is
rather narrow, and therefore the chance occurrence
of the necessary value of α would, under real conditions,
be little probable. However, in a system that
contains a gaseous magnetic medium and the particles
to be accelerated, there must be automatic control,
and it is because of this fact that α necessarily
belongs to the aforementioned range of values. The

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possibilities for the preferred acceleration of
heavy elements, which were investigated on the basis
of the example of the statistical mechanism, apply
also to several other mechanisms of acceleration,
especially in the case of the exponential increase
of magnetic field strength. This permits renewed
raising of the problem of the formation of the primary
component of cosmic rays. There are 5 references,
2 of which are Soviet.

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

PRESENTED: June 2, 1958, by M.A.Leontovich, Academician

SUBMITTED: May 21, 1958

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KORCHAK, A.A.

"COSMIC RAY COMPOSITION"
A.A.Korchak, S.I. Syrovatskiy

The role of energy losses in cosmic ray particle acceleration is discussed.
The possibility of preferential acceleration of heavy nuclei has been discovered.
An attempt has been made to explain the observed compositionof cosmic rays at the
Earth on the basis of preferential acceleration of heavy nuclei in cosmic ray sources.

report presented at the International Cosmic Ray Conference, Moscow, 6-11 July 1959

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S/033/61/038/005/008/015
E133/E435

3,1730 (1172)

AUTHORS: Korchak, A.A., Syrovatskiy, S.I.

TITLE: The polarization of radiation and magnetic field
             structure in cosmic sources of magnetic brake radiation

PERIODICAL: Astronomicheskiy zhurnal, v.38, no.5, 1961, 885-897

TEXT: The polarization produced by magnetic braking of
relativistic particles is, in general, elliptical.   Linear
polarization results for an isotropic particle distribution.
However, the degree of ellipticity introduced by anisotropy is
usually small.   A homogeneous magnetic field should produce a high
degree of polarization (60 to 80%).   The observed amount, however,
does not exceed 10%.   This could be due either to the
inhomogeneity of the magnetic field or to the Faraday effect.
This latter effect should vary rapidly with frequency, whereas the
observed polarization does not seem to do so.   It is therefore
possible to connect the observed polarization with an
inhomogeneous magnetic field.   This can be done most
conveniently by considering the field as consisting of two
components: one homogeneous and the other completely random
(average value zero).   The authors first consider the brake
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The polarization of radiation ...

radiation produced by a charged particle moving in a homogeneous
magnetic field (Ref.13: K.C.Westfold, Astrophys, J., v.130, 241,
1959).   They thus obtain values for I_1 and I_2:   the flux
density at a distance r from a particle with components of
oscillation parallel (I_1) and perpendicular (I_2) to the
projection of the magnetic field (H) on the celestial sphere.
They next consider a system of particles, instead of a single
particle, and derive the Stoke's parameters (confined to a
homogeneous isotropic distribution of particles).   These are
given by the set of equations

$$I = \frac{\sqrt{3}}{4\pi r^2} \frac{e^3}{mc^2} \int H \sin\mu\, dv \int N(E)\ dE \frac{v_c}{v_c} \int_{\frac{v}{v_c}}^{\infty} K_{v_k}(\eta)\, d\eta,$$

$$Q = \frac{\sqrt{3}}{4\pi r^2} \frac{e^3}{mc^2} \int H \sin\mu \cos 2\chi\, dv \int N(E) dE \frac{v}{v_c} K_{v_k}\left(\frac{v}{v_c}\right),$$

$$U = \frac{\sqrt{3}}{4\pi r^2} \frac{e^3}{mc^2} \int H \sin\mu \sin 2\chi\, dv \int N(E) dE \frac{v}{v_c} K_{v_k}\left(\frac{v}{v_c}\right),$$

$$V = 0.$$

(12)

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The polarization of radiation ...

The fact that $V = 0$ indicates that the radiation is linearly polarized. The amount of ellipticity introduced by an anisotropic distribution is small, because $V \cong mc^2/E$. It is assumed that the electronic energy spectrum is given by

$$N(E)dE = KE^{-\gamma}dE(E_1 < E < E_2) \tag{15}$$

The equations for the Stoke's parameters can then be transformed to

$$I = \frac{\gamma + 7/3}{\gamma + 1}\, \Phi\, (\nu,\ \gamma) \int_0 [H \sin \mu]^{(\gamma+1)/3}\, dv,$$

$$Q = \Phi\, (\nu,\ \gamma) \int [H \sin \mu]^{(\gamma+1)/3} \cos 2\chi\, dv,$$

$$U = \Phi\, (\nu,\ \gamma) \int [H \sin \mu]^{(\gamma+1)/3} \sin 2\chi\, dv, \tag{18}$$

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This set of equations would allow the determination of the
intensity and polarization distribution, if the magnitude and
distribution of the magnetic field were known.   Two simple cases
are considered: (a) an anisotropic field of constant magnitude;
the field is assumed to be axially symmetric and representable by
a series of zenal harmonics;   (b) a superposition of a homogeneous
and a chaotic field.   The degree of polarization is given by

$$p = \left| \frac{\langle \Delta H^2 \rangle}{\langle H^2 \rangle} \right| f(\gamma),$$ (35)

$$f(\gamma) = \frac{45}{8} \frac{(\gamma+1)(\gamma+5)}{(\gamma+7)(3\gamma+7)}$$ (36)

for case (a) and by

$$\frac{3(\gamma+1)(\gamma+3)(\gamma+5)}{32(3\gamma+7)} \left[1 - \frac{\gamma^2+8\gamma+3}{24} \frac{H_\perp^2}{H_\perp^2} \right] \frac{H_\perp^2}{H_\perp^2};$$ (37)

$$p = \frac{3(\gamma+1)}{3\gamma+7} \left(1 - \frac{2}{3} \frac{H_\perp^2}{H_\perp^2} \right).$$ (38)

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for case (b). Eq.(37) applies if $H_1^2 \gg H_\perp^2$ and Eq.(38) if $H_\perp^2 \gg H_1^2$ (here H_1^2 is the mean square value of the chaotic magnetic field). Eq.(35) and (36) are applied to the Crab nebula. It is found that the anisotropic field produces an excess pressure of $2.9 \times 10^{-3} \langle H^2 \rangle$ along the major axis of the nebula. Assuming that the observed acceleration of the expansion is due to this anisotropy, it is found that $H \sim 1.3 \times 10^{-3}$ to 4×10^{-4}. It is predictable that all radiation sources, of this type, will tend to be non-spherical owing to the anisotropic field. There are 3 figures and 19 references: 11 Soviet-bloc and 8 non-Soviet-bloc. The four most recent references to English language publications read as follows: Ref.3: G.R.Burbidge, Proc. Paris Sympos. on Radioastronomy 1958, Russian translation by IIL, 1961; Ref.11: C.H.Mayer, R.M.Sloanaker, Astron. J., v.64, 339, 1959; Ref.13: as quoted in text; Ref.18: L.Woltjer, Bull. Astron. Soc. Netherl., v.14, 39, 1958.

ASSOCIATION: Fizicheskiy in-t im. P.N.Lebedeva Akademii nauk SSSR
            (Physics Institute imeni P.N.Lebedev AS USSR)

SUBMITTED: January 12, 1961
Card 5/5

S/504/62/017/000/006/007
I046/I246

3,1740

AUTHOR: Korchak, A.A.

TITLE: An estimate of the cosmic ray energy and of the magnetic field intensity in radiosources

SOURCE: Akademiya nauk SSSR. Fizicheskiy institut. Trudy, v. 17. Moscow, 1962. Radioastronomiya, 149-160 .

TEXT: The theoretical analysis of the energy spectrum of relativistic particles is free from the common assumption that the total radiative power output of each particle in a magnetic field is confined to the critical frequency. Allowance for the actual radiative power distribution over frequencies results in a considerable refinement in the determination of the limits of the energy spectrum. The corresponding magnetic field intensities calculated for remnants of supernovae, for radiogalaxies and for galaxies are thus superior to those given by Burbidge (Ref.1: Radioastronomy, the Paris symposium, 1958); the data of the present paper exceed those of Ref. 1 by a factor of 1.5 to 3, and in some cases even by a factor of 5 to 10. There are 2 figures and 4 tables.

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S/203/63/003/001/004/022
A061/A126

AUTHORS: Korchak, A. A., Lotova, N. A.

TITLE: The cyclotron emission of charged particles in a dipole
             magnetic field

PERIODICAL: Geomagnetizm i aeronomiya, v. 3, no. 1, 1963, 37 - 42

TEXT: The polarization degree and the position angle of the cyclo-
tron emission of electrons in a dipole magnetic field are calculated by
starting from the same premises as previously used by G. B. Field (J. Geo-
phys. Res., 1960, v. 65, no. 6, 1661; 1961, v. 66, no. 5, 1395). The
initial relation is Field's formula for the frequency of the emission of
an electron moving to and fro with nonrelativistic velocity between two
symmetric points on a magnetic plane of a dipole magnetic field. If the
electron distribution in the equatorial plane can be described by the
relation indicated by E. N. Parker (Phys. Rev., 1957, v. 107, no. 4,
924) and S. I. Akosofu et al. (J. Geophys. Res., 1961, v. 66, no. 12,
4013); if the radiation belt is sufficiently thin; if the magnetic field

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The cyclotron emission of charged S/203/63/003/001/004/022
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in the particle range differs only little from that of a dipole; if the
magnetic moment of the dipole is perpendicular to the direction of view,
and, finally, if the radiation absorption can be neglected, the following
results: 1) The intensity of the cyclotron emission depends on the angu-
lar distribution of the particles. If the angular distribution has the
form $\sin^n \alpha_0$, the drop of intensity with a decrease of Θ is the quicker,
the larger n is. α_0 is the angle formed by the electron motion and the
magnetic field in the equatorial plane, and Θ is the polar angle. 2) The
polarization degree of emission in the first quadrant ranges between 33
and 100%. It depends on frequency considerably, but not on the angular
distribution of the particles. 3) The polarization degree of the total
emission of a symmetric radiation belt assumes, as a function of frequen-
cy, any value between 0 and 100%; the position angle assumes any discrete
values between 0 and $\pi/2$. There are 3 figures.

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