

~~SHLIGERSKIY, M. Sh.~~

Attachment for polishing. Mashinostroitel' no.11:16 N '64
(MIRA 18:2)

SHLIGIN, G.K.

Quantitative estimation of anteroxinase. Biokhimiya '50, 15, 509-512.
(Ba - A III Mr '55:37^h) (MLRA 3:10)

P.A. SHLIGIN, G.K.

Capacity for auto-activation of pancreatic juice obtained in response to different foods. G. K. Shligin (*J. Physiol., USSR*, 1951, 37, 336—342).—Pancreatic juice was collected from a fistula in a dog, and tested for its capacity for auto-activation of its tryptic activity on maintenance at 37°. The juice secreted in response to fat possesses this in high degree, for the first 24 hr. it has no tryptic activity, within 48 hr. this is present and increases up to 72 hr. Simultaneously the capacity for activation by enterokinase decreases, indicating a destruction of trypsinogen. Capacity for auto-activation varies according to the previous diet. The juice secreted in response to bread or meat has never any significant capacity for auto-activation. D. H. SMYTH.

FOMINA, L. S.; MIKHLIN, S. Ya. and SHLIGIN, G. K.
SHLIGIN, G. K.

"Methods of the Defining of 'Fesfataza' (ferment) of the Intestines,"
Biochemistry (Biokhimiya), Vol. 17, Issue No. 2, Press of the AS USSR, Moscow, 1952.

SHLIGIN, G. K.

"Influence de regimes qualitativement differents sur quelques aspects de chimisme de gros intestin chez le chien," Shligin, G. K.

paper presented at the 4th Intl. Congress of the Intl Union of Nutritional Sciences, Paris, France, 26 July - 2 August 1957

Abst. available.

CHILLI, A. A., and FOMIN, T. ...

"¹⁴C in the Study of the Biosynthesis of Chlorophyll," a paper
presented at the Atoms for Peace Conference, Geneva, Switzerland, 1955

SURIS, P.L., inzh.; SHLIK, L.R., inzh.

Heat transfer coefficient of an oil cooler with transverse flow
about a cluster of pipes. Energomashinostroenie 7 no.6:44-46
Je '61. (MIRA 14:7)

(Oil coolers)

SHLIKAR', P. M., Cand to Tech Sci -- (diss) "Hydrological Features and Calculation Parameters of River Drainage in the Crimea," Moscow, Simferopol', 1959, 20 pp (Moscow Institute for Engineers in Water Economy in V. R. Vil'yams) (KL, 7-60, 109)

SHLIKAS, A.V.

Biology of *Capillaria anseris* Madsen, 1945. Trudy Gel'm.
lab. 15:238-240 '65 (MIRA 19:1)

SHLIKEYZEN, S. R., KHLOPOTCV, N. N. (Engs.)

Excavating Machinery

Results of testing power shovel E-258 equipped with tire wheels. Mekh. stroi. 9,
no. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

GARBUZOV, X.Ye., inzhener; ~~SHLIKEYZEN, S.R., inzhener;~~ FEDOROV, A.P., inzhener.

Excavator for the digging of small rectangular ditches. Mekh.stroi. 10 no.
6:10-11 Je '53. (MLRA 6:6)

(Excavating machinery)

GARBUZOV, Z. Ye., inzhener; NEDOKUCHAYEV, B. N., inzhener; BESH, F. F., inzhener
FEDOROV, A. P., inzhener; KHLOPOTOV, N. N., inzhener; SHLIKBYZEN, S. R.,
inzhener

The M-153 excavator with hydraulic transmission mounted on the
"Belarus" tractor. Mekh. stroi. 12 no. 6:5-9 Je '55. (MLRA 8:6)
(Excavating machinery)

SHLIKHYZEN, S.R.

GARBUZOV, Z.Ye., inzhener; SHLIKHYZEN, S.R., inzhener; KHLOPOV, N.N.,
inzhener.

Set of standardized excavators: E-259, E-2510 and E-2511. Stroi.
dor. mashinostel no. 1: 12-16 Ja '56. (MIRA 10:1)
(Excavating machinery)

04800-67 EWT(11)/EWT(m)/EWP(t)/ETI IIR(s) ID
ACC NR: AP6024477 SOURCE CODE: UR/0181/66/008/007/2124/2129

AUTHOR: Dobrego, V. P.; Ryvkin, S. M.; Shlimak, I. S. 61
58
B.

ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR Leningrad (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Radiative inter-impurity recombination in germanium 27

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, 2124-2129

TOPIC TAGS: germanium, photoconductivity, impurity center, recombination radiation, low temperature research, phonon

ABSTRACT: This is a continuation of earlier investigations of the photoconductivity of germanium at helium temperatures and at sufficiently large concentration of shallow impurities (jump photoconductivity) (FIZ v. 6, 1203, 1964), where it was shown that the main recombination process under these conditions is inter-impurity recombination. The present investigation is an attempt to confirm the presence of inter-impurity transitions in germanium by direct observation of the radiation connected with such transitions. The particular transitions considered were arsenic - gallium and antimony - gallium in germanium at 2K. The arsenic and gallium impurities were produced by irradiating the original germanium in a reactor. The original germanium contained various amounts of antimony. The sample was excited with continuous white

Card 1/2

04800-67

ACC NR: AP6024477

light and the investigated recombination radiation was registered at instants between the excitation pulses. A monochromator and a photoresistor were used to analyze the radiation. The gallium-arsenic³ recombination spectrum contains two lines corresponding to phononless transitions and to transition with emission of a single longitudinal acoustic phonon. The antimony-gallium¹ transition spectrum corresponds to transition spectrum spectrum corresponds to transitions with emission of a longitudinal acoustic phonon. It is concluded that the presence of inter-impurity recombination in germanium is confirmed by the present experiments both as a whole, and in its details which involve the nonequilibrium distribution of impurities and the dependence of the recombination probability on the distances between them. Orig. art. has: 4 figures, 1 formula, and 1 table.

SUB CODE: 20/ SUBM DATE: 18Dec65/ ORIG REF: 001/ OTH REF: 006.

Card 2/2 afs

PETRUSHOV, A., doktor ekonom.nauk; AFANAS'YEV, L.A., kand.ekonom.nauk;
DANILEVICH, M.V., kand.ekonom.nauk; YEGIAZAROVA, N.A., kand.ekonom.
nauk; KOVALEV, Ye.V.; KOL', M.A.; KUZNETSOV, B.P., kand.ekonom.
nauk; KUTSOBINA, N.K.; MARTYNOV, V.A., kand.ekonom.nauk; MEN'SHI-
KOVA, M.A.; NIKITENKO, B.A.; ONUFRIYEV, Yu.G.; PROKHOROVA, G.N.;
RYDVANOV, N.F.; SEGAL', N.M., kand.istor.nauk; UKHOVA, A.M.; FARIZOV,
I.O., kand.istor.nauk; SHIFRIN, E.L., doktor ekonom.nauk; SHLIKHTER,
A.A., kand.ekonom.nauk; LISOVSKIY, Yu.P.; MARTYNOV, V.D.; GARSIA, L.,
red.; MOSKVINA, R., tekhn.red.

[Agriculture of capitalist countries; a statistical manual] Sel'skoe
khoziaistvo kapitalisticheskikh stran; statisticheskii spravochnik.
Otvet.red.A.Petrushov. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1959.
829 p. (MIRA 13:6)

1. Akademiya nauk SSSE. Institut mirovoy ekonomiki i mezhdunarodnykh
otnosheniy.
(Agriculture--Statistics)

NOVIKOV, Mikhail Pavlovich; SMIRNOV, G.L.; BUDZKO, I.A.; RADIN, K.S.;
SHLIKHTER, A.A.; GREBTSOV, P.P., red.; GOR'KOVA, Z.D.,
tekh.red.

[Farm electrification in the U.S.A.] Elektrifikatsiia sel'skogo
khoziaistva v SShA. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960.
238 p. (MIRA 14:3)
(United States--Electricity in agriculture)

SHLIKHTER, Artseiy Aleksandrovich (1902-1962); MARTYNOV, V.A.;
MESHKOVA, M.A.; USVYATSOV, A.Ye.

[Electrification of agriculture in the U.S.A.; travel notes]
Ob elektrifikatsii sel'skogo khoziaistva SShA; putevye za-
piski. Moskva, Nauka, 1965. 169 p. (MIRA 18:12)

TOFCHIYEV, A.V.; KOLBANOVSKIY, Yu.A.; POLAK, L.S.; KHAIT, Yu.L.;
SHLIKHTER, E.B.

Radiolysis of alkanes adsorbed on semiconductor catalysts.
Neftekhimia 1 no.1:105-116 Ja-F '61. (MIRA 15:2)

1. Institut neftekhimicheskogo sinteza AN SSSR.
(Paraffins) (Radiation) (Catalysts)

S/020/61/136/001/032/037
B004/B056

AUTHORS: Kolbanovskiy, Yu. A., Polak, L. S., and Shlikhter, E. B.

TITLE: Gamma Radiolysis of n-Heptane Adsorbed on Oxide Catalysts

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 1, pp.147-150

TEXT: The purpose of the present work was investigation of the particular features of radiolysis of adsorbed n-alkanes with n-heptane whose homogeneous radiolysis had already been thoroughly investigated (Refs. 1 - 3). Gamma radiolysis the method of which had already been described (Refs. 6, 7) was performed by means of the following catalysts. I: Pure Al_2O_3 ;

II: aluminum-chromium catalyst, promoted with potassium oxide, 90 % Al_2O_3 ;

8 % Cr_2O_3 , 2 % K_2O ; III: aluminum-molybdenum catalyst, 87 % Al_2O_3 ,

10 % MoO_3 , 3 % basic sulfates; IV: cobalt-aluminum-molybdenum catalyst,

79 % Al_2O_3 , 15.5 % MoO_3 , 5.5 % CoO . Radiolysis at catalyst II was

investigated in the case of rare surface occupation ($\theta \ll 1$) as well as in

Card 1/5

Gamma Radiolysis of n-Heptane Adsorbed on
Oxide Catalysts

S/020/61/136/001/032/037
B004/B056

the case of adsorption of several molecular layers. The other catalysts were investigated with monomolecular surface coating ($\theta = 1$). Temperature during the experiment was about 10°C in which case heptane adsorption is reversible and chemisorption does not occur. Fig. 1 shows for catalyst II the increase ΔP in gas pressure with respect to 1 g heptane as depending on β , which stands for the ratio of the electron fractions catalyst/heptane. The break in the curve corresponds to the appearance of monomolecular coating; this permits to determine the specific surface of catalysts by means of this curve. If for homogeneous radiolysis ΔP is set equal to unity then the following values of P_{rel} resulted for the catalysts. Catalyst I:

12.7; catalyst II: 2.0; catalyst III: 1.7; catalyst IV: 3.6. The linear dependence of ΔP on β in the case of monomolecular covering proves that energy transfer takes place only in the monomolecular layer. Rate of radiolysis for the layers above is equal to the rate of the homogeneous process. From a paper of the authors (Ref. 6) on epr spectra of catalyst systems it is concluded that the most active catalyst is the one whose epr spectrum during irradiation in the presence of the hydrocarbon changes the least with respect to the spectrum of the irradiated pure catalyst.

Card 2/5

Gamma Radiolysis of n-Heptane Adsorbed on
Oxide Catalysts

S/020/61/136/001/032/037
B004/B056

The $\Delta P = f(t)$ curve taken by an ЭПР-09 (EPP-09) recorder is not linear in its first section which is attributed to impurities. The latter also are assumed to be responsible that previously irradiated catalysts were considerably less active. The probability of energy transfer from the catalyst to adsorbed substance is estimated on the basis of the following processes.

- 1) $X_{ads} \xrightarrow{h\nu} X^*$ (direct absorption of radiation by adsorbed substance);
2) $X^* \rightarrow X$ (deactivation processes, except chemical reactions); 3) $X^* \rightarrow$ products of chemical reactions; 4) catalyst $\xrightarrow{h\nu}$ catalyst * ; 5) catalyst $^* \rightarrow$ catalyst; 6) catalyst $^* + X_{ads} \rightarrow$ catalyst + X_{ads}^* . The rates of these processes

are: $W_1 = k_1' I \theta$; $W_2 = k_2 [X^*]$; $W_3 = k_3 [X^*]$; $W_4 = k_4' I$; $W_5 = k_5 [D]$;

$W_6 = k_6 [D] \theta$. $[D]$ denotes the concentration of elementary excitations in the solid, I - radiative intensity. The following is deduced:

$W_3 = k_3 I \theta / (k_2 + k_3) [k_1' + k_4' k_6 / (k_5 + k_6 \theta)]$ and for homogeneous radiolysis:

$W_3' = k_1' k_3 I / (k_2 + k_3)$. In the case of $\theta = 1$, $W_3 / W_3' = 1 + 1 / (\epsilon k_1 / k_4) (k_5 / k_6 + 1)$ holds, where ϵ stands for the ratio of absorbed radiation energy per 1 cm^3

Card 3/5

Gamma Radiolysis of n-Heptane Adsorbed on
Oxide Catalysts

S/020/61/136/001/032/037
B004/B056

heptane and catalyst. W_3/W_3^1 was determined experimentally; ϵ was calculated according to Ref. 12, $k_1/k_4 \cong 1$. From these data the authors estimated the probability Z of total energy transfer: $Z = k_6/(k_5 + k_6)$. The values of Z for the respective catalysts are: I: 0.41, II: 0.032, III: 0.026, IV: 0.073. L. V. Pisarzhevskiy and A. I. Kitaygorodskiy are mentioned in the paper. The authors thank V. V. Shchekin and A. L. Klyachko for their collaboration, and Yu. L. Khait for his discussion. There are 2 figures, 2 tables, and 12 references: 6 Soviet, 4 US, and 1 Polish.

ASSOCIATION: Institut neftekhimicheskogo sinteza Akademii nauk SSSR
(Institute of Petrochemical Synthesis of the Academy of
Sciences USSR)

PRESENTED: July 5, 1960 by A. V. Topchiyev, Academician

SUBMITTED: July 5, 1960

Card 4/5

SHLIKHTER, E. B.

16

PHASE I BOOK EXPLOITATION

SOV/6177

Akademiya nauk SSSR. Institut neftekhimicheskogo sinteza

Radioliz uglevodorodov; nekotoryye fiziko-khimicheskiye problemy
(Radiolysis of Hydrocarbons; Some Physicochemical Problems)
Moscow, Izd-vo AN SSSR, 1962. 207 p. Errata slip inserted.
5000 copies printed.

Resp. Eds.: A. V. Topchiyev, Academician, and L. S. Polak,
Doctor of Physics and Mathematics; Ed.: L. T. Bugayenko;
Tech Ed.: Ch. A. Zentsel'skaya.

PURPOSE: This book is intended for physical and industrial chemists
interested in the properties and behavior of irradiated hydro-
carbons.

COVERAGE: The book gives a systematic presentation of the results
of research on the radiolysis of hydrocarbons carried out from
1957 through 1961 at the Laboratory of Radiation Chemistry,
Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petro-

Card 1/4

16

Radiolysis of Hydrocarbons (Cont.)

SOV/6177

chemical Synthesis, Academy of Sciences USSR). Although the results were obtained for individual compounds, they may be generalized and applied to other members of the same homologous series. The following persons participated in making the experiments and in writing the text: V. G. Boryozkin, V. E. Glushnev, Yu. A. Kolbarovskiy, I. M. Kustanovich, V. D. Popov, A. Ya. Temkin, V. D. Timofeyev, N. Ya. Chernyak, V. A. Shakhray, E. B. Shlikhter, A. S. Shcherbakova, B. M. Negodov, A. Z. Paryshkina, N. M. Rytova, T. A. Tgina, Yu. B. Emin, A. M. Brodskiy, V. W. Vovodskiy, P. Ya. Glazunov, B. A. Smirnova, and Yu. L. Khaik. References, mainly Soviet and English, follow individual chapters.

TABLE OF CONTENTS [Abridged]:

Foreword	3
Ch. I. Physicochemical Characteristics of Hydrocarbon Radiolysis	5
Card 2/4	

S/844/62/000/000/053/129
D204/D307

AUTHORS: Kolbanovskiy, Yu. A., Polak, L. S. and Shlikhter, E. B.

TITLE: A study of the radiolysis of hydrocarbons adsorbed on oxide hydrocarbons

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 317-321

TEXT: The radiolysis kinetics of n-heptane were studied, on oxide catalysts (Al_2O_3 , $\text{Al}_2\text{O}_3/\text{Cr}_2\text{O}_3$ activated with K_2O , Al-Mo oxides and Co-Al-Mo oxides), under x ray irradiation; the degree of catalyst coverage (θ) being 0.6, 1.0 or >1 (multilayer adsorption) for the $\text{Al}_2\text{O}_3\text{-Cr}_2\text{O}_3$ catalyst, and with $\theta = 1$ in all other cases. The pressure was recorded continuously and its rate of increase rose linearly (for the $\text{Cr}_2\text{O}_3/\text{Al}_2\text{O}_3$ catalyst) with increasing ratio of the electron fractions of catalyst/heptane, to a maximum (corresponding to the completion of a monolayer), followed by a linear decrease,

Card 1/3

11
01

S/844/62/000/000/053/129
D204/D307

A study of the ...

showing that the energy absorbed by the catalyst is transmitted solely into the monolayer. The relative rates of radiolysis, Δp_{rel} , ranged from 1.7 to 12.7 ($\Delta p = 1$ in the absence of catalyst), being lower for previously irradiated catalysts. Al_2O_3 was most effective. From these and previous results (DAN SSSR, 129, 145 (1959)) it appears that the lesser the difference between the EPR spectra of irradiated (and covered with a monolayer) and pure catalysts, the more effective the catalyst. It is believed that the adsorption is under these conditions intermediate between physical and chemical types. The following sequence of events is envisaged: (1) absorption of energy by the directly adsorbed compound, (2) deactivation processes (other than chemical reaction), (3) chemical reaction, (4) absorption of energy by the catalyst, (5) energy loss processes within the catalyst, and (6) transfer of energy from the catalyst to the adsorbed hydrocarbons; the corresponding rate constants are denoted by k_1, \dots, k_6 . The probability of step (6), Z

is shown to be $\frac{k_6}{k_5+k_6}$, and is linearly related to Δp_{rel} . The rela-

Card 2/3

KOLBANOVSKIY, Yu.A.; POLAK, L.S.; SHLIKHTER, E.B.

Radiation polymerization of n.heptane in the presence of $TiCl_4$.
Neftekhimiia 3 no.2:222-226 Mr-Ap '63. (MIRA 16:5)

1. Institut néftékhimicheskogo sinteza AN SSSR imeni A.V.Topchiyeva.
(Heptene) (Radiation) (Polymerization)

KAPASOV, A.K.; FALAR, I.S.; KRIKH, G.R.; SHEININ, V.S.

Study of catalytic processes by means of Weibuller effect. Kin. i
kav. 6 no. 19. 1976. 11-18. (MIRA 18:9)

1. Institut neftekhimicheskogo sinteza imeni A.V. Topshiyeva AN SSSR.

SHLIKHTER, S.

Works of the economists of the German Democratic Republic on
the problems transportation economics. Vop. ekon. no.3:115-117
Mr '63. (MIRA 16:3)

(Transportation)
(Germany, East—Economic research)

SHLIKHTER, S.B.

"Jena; the formation, growth, and prospects for development of
a university and industrial city" [in German] by J.H. Schultze.

Reviewed by S.B. Shlikhter. Vop. geog. no.41:299-301 '57.
(Jena) (Schultze, J.H.) (MIRA 10:12)

SHLIKHTER, S.B.

Development of maritime transportation and shipbuilding in East
Germany. Biul.tekh.-ekon.inform. no.2:72-75 '58. (MIRA 11:4)
(Germany, East--Shipping)

SHLIKHTER, S.B.

Petroleum industry in West Germany. Biul.takh.--ekon.inform.
no.10:92-96 ' 58. (MIRA 11:12)
(Germany, West--Petroleum industry)

SHLIKHTER, S. E.

Transportation of fuel in pipelines in the U.S.A. *Biul. tekhn.-ekon.*
inform. no. 8:92-96 '60. (MIRA 13:9)
(United States---Petroleum---Pipelines)

SHLIKHTER, S.B.

Role of transportation in the development and distribution
of the petroleum industry in Western Europe. Vop. geog. no.61:
177-191 '63. (MIRA 16:6)

(Europe, Western—Petroleum industry)
(Europe, Western—Petroleum—Transportation)

SHLIKHTO, P. N.

Medel', V. B.
Shlikhto, P. N.
Zakharchenko, D. D.
Tikhmenev, B. N.
Trakhtman, L. M.
Zorokhovick, A. Ye.
Krylov, S. K.

"Electric Railroad Rolling Stock"(textbook,
3 vols)

Moscow Electromechanical
Institute of Railroad
Engineers imeni
F. E. Dzerzhinskiy

SHLIKOVA, B.D.
USSR/Pharmacology, Toxicology. Chemo-therapeutical Products

U-9

Abs Jour : Ref Zhur - Biol., No 4, 1958, No 17791

Author : ~~Shlikova~~ B.D.
Inst : Institute of Ophthalmology
Title : A Comparative Study of Various Methods of Treating Obstinate
and Protracted Trachoma with the newest Soviet Antibiotics

Orig Pub : Sb. inform.-method. materialov. Gos. n.-i in-t glaznykh
bolyeznei, 1956, No 4, 111-113

Abstract : Patients suffering from obstinate and protracted forms of Trachoma were treated at the end with sintomycin (I) (231 patients), biomycin (II) and terramycin (III) (256 patients). Simultaneously the following methods were used: 1. The application of an emulsion of I with subconjunctive injections of a 0.3% of its solution; 2. Internal administration of I in combination with an application of a 1% emulsion or subconjunctive administration of a 0.3% solution of I; 3. The application of a 1% and 10% emulsion of II or a 0.5% and 1% emulsion of III; 4. The cross-application of a 1% emulsion of I and II, II and III. Best results were obtained from

Card : 1/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549720003-0
USSR/Pharmacology, Toxicology. Chemo-therapeutical Products

Abs Jour : Ref Zhur - Biol., No 4, 1958, No 17791

a combination of I's internal use (24.2g in 15 days) and the application of its emulsion. In some patients the internal administration of I induced nausea, vomiting and diarrhea. After I's cancellation these effects ceased. The fault of the II and III emulsions, as compared with emulsion I, was the fast decrease in their activity.

Card : 2/2

USCOMM-DC-54,929

BABAYEV, S.G.; SHILMAK, I.V.

Efficiency of the various structures of the basic supports
of swivels. Mash. i nefr.obor. no.11:17-20 '64. (MIRA 19:1)

1. VNIITneftemash.

111971
S/249/62/018/010/001/004
D204/D307

5.3830
AUTHORS:

Bagirov, M. A. and Shlimak, V. M.

TITLE:

The problem of the polymerizing action of electric barrier discharge

PERIODICAL:

Akademiya nauk Azerbaydzhanskoy SSR. Doklady, v. 18, no. 10, 1962, 15-19

TEXT: The nature of barrier discharge (discharge between two dielectric barriers) is described in brief. Assuming the polymerizing action of such discharge to be due to the fission of molecules in the zone of micro-spark discharges into reactive free atoms and radicals, an attempt is made to obtain an approximate expression describing the rates of such polymerizations. Inelastic collisions in the discharge zone may lead to excitation and dissociation, and to ionization. It is proposed that the formation of free radicals is mainly governed by monomolecular dissociations, bimolecular collisions, ionization by electron impacts and photoionization.

Card 1/3

The problem of the ...

S/249/62/018/010/001/004
D204/D307

The radicals are also taken as forming by a chain process. A general expression is given for the rate of radical formation, from which an equation is derived which allows a calculation of free radical concentration, [R], in terms of velocity constants for the various processes, k_i , concentrations of starting, intermediate, and final products, $[M_i]$, the number of photons emanating from the discharge and absorbed by the reactants, P, and the number of electrons with energy sufficient to ionize the molecules, N. Evaluation and the physical meaning of these factors are discussed, and the overall rate of polymerization, V_p , is shown to be

$$V_p = \left\{ k_1 [M]^2 + k_2 [M] - k_3 [M][R] + k_4 [M_3]^2 + k_5 [M_3] - k_6 [M_3][R] + \right.$$

$$\left. + k_7 P [M] + k_8 P [M_3] + k_9 [N][M] + k_{10} [N][M_3] \right\}^{\frac{1}{2}} \frac{k_p}{k_0^{\frac{1}{2}}} [M]$$

Card 2/3

The problem of the ...

S/249/62/018/010/001/004
D204/D307

It is pointed out that other, side reactions may also take place
in the discharge zone.

PRESENTED: by Academician M. F. Nagiyev

SUBMITTED: October 15, 1962

Card 3/3

SHNEYDEROV, M.R.; SHLIMAK, Ya.B.; KASIMOV, I.F.

Using chromium-boron steel for petroleum equipment parts.

Metalloved. i term. obr. met. no. 6:43-44 Je '64.

(MIRA 17:7)

1. AzNIIBurneft'.

SHELLIMMER, A.L.

Experience with loading cement into vehicles with screw conveyers.
Rats. i izobr. predl. v stroi. no.117:27-29 '55. (MIRA 9:7)
(Loading and unloading)

GRIGOR'YEV, K.I., inzhener; SHLIMMER, A.L., inzhener.

Equipment for loading and unloading loose-flowing materials.
Mekh. trud. rab. 10 no.8:37-40 Ag '56. (MLRA 9:10)

(Loading and unloading)

GRIGOR'YEV, K.I.; SHLIMMER, A.L.

The PS-60 cement reloader [Suggested by K.I. Grigor'ev, A.L.
Shlimmer] Rats. i izobr. predl. v stroi. no.6:43-45 '58.
(Loading and unloading) (Cement) (MIRA 11:10)

SHLIMOVICH, B., inzh.

Thermometers for measuring soil temperature. Radio no. 12:25-27
D '62. (MIRA 16:3)

(Thermometers)

ZAKHAROV, N.G., kandidat sel'skokhozyaystvennykh nauk; SHLIMOVICH, B.M.,
inzhener.

New electric soil thermometer. Zemledelie 4 no.5:128 My '56.
(MLRA 9:8)
(Soil temperature) (Thermometers)

KAGANOV, M.A.; KOROBOCHKIN, I.V.; ~~SHLIMOVICH, B.M.~~

Measuring instruments based on the utilization of semiconducting
thermistors. Priborostroenie no.8:10-12 Ag '56. (MLRA 9:10)

(Electric instruments) (Thermistors)

SHLIMOVICH, B., inzhener.

Electric thermometer with a semiconductor thermoresistor for measuring
the temperature of grain. Muk.-elev.prom 22 no.9:17-18 S '56.
(MLRA 10:8)

Leningradskiy agrofizicheskiy nauchno-issledovatel'skiy institut.
(Thermometers)

KOROBICHEKIN, I.V.; SHLIMOVICH, B.M.

Semiconductor thermistor regulators and thermostats with two-position
and programmed control. Priborostroenie no.1:13-15 Ja '57.
(Thermistor) (Thermostat) (MLRA 10:4)

SHLIMOVICH, B.M.; inzhener; GRECHKO, F.M., inzhener.

Semiconductive controlling and measuring instruments. Nauka 1 pered.
op.v sel'khoz.7 no.1:26-28 Ja '57. (MLRA 10:2)
(Measuring instruments)

SHLIMOVICH, B.M.

Instruments for automatic regulation of soil and air temperatures. Biul.tekh.-ekon.inform. no.1:61-62 '59. (MIRA 12:2)
(Thermostat)

KOROBOKHIN, I.V.; SHELOVICH, B.M.

Equipment for automatic regulation of climatic conditions in
greenhouses. Biol. tekhn.-ekon. inform. no. 4:56-58 '61.
(AIR 14:2)

(Greenhouse management)

CHUDNOVSKIY, Abram Filippovich; SHLIMOVICH, Boris Mavshevich;
GONCHAROV, B.P., red.; BARANOVA, L.G., tekhn. red.

[Transistorized devices in agriculture] Poluprovodnikovye pribory v sel'skom khoziaistve. Leningrad, Izd-vo sel'khoz. litery, zhurnalov i plakatov, 1961. 197 p. (MIRA 15:2)
(Transistors) (Electronics in agriculture)

GONCHAROV, Boris Prokop'yevich; SHLIMOVICH, Boris Moiseyevich;
LEONOVA, T.S., red.; RAKITIN, I.T., tekhn. red.

[Semiconductors in agriculture] Poluprovodniki v sel'skom
khoziaistve. Moskva, Izd-vo "Znanie," 1962. 29 p. (Novoe v
zhizni, nauke, tekhnike. V Seria: Sel'skoe khoziaistvo,
no.4) (MIRA 15:4)

(Semiconductors) (Transistors)
(Electronics in agriculture)

SHLIMOVICH, B.

The agriculturalists will show their appreciation. Radio no.9:
7-8 S '62. (MIRA 15:9)

1. Glavnyy inzhener laboratorii priborov Agrofizicheskogo
nauchno-issledovatel'skogo instituta Ministerstva sel'skogo
khozyaystva SSSR.

(Radio in agriculture)

ACCESSION NR: AP4019325

S/0105/64/000/003/0008/0012

AUTHOR: Borozinets, B. V.; Ginzburg, S. A.; Gornshteyn, V. M.;
Shlimovich, V. D.; Sovalov, S. A.; L'vov, Yu. N.

TITLE: Computer for calculating power-system economy operation and the
operating experience gained at ODU YeES

SOURCE: Elektrichestvo, no. 3, 1964, 8-12

TOPIC TAGS: power system, Soviet united power system, power system
economics, power system economics computer, computer, interconnected
power systems, high economy power system operation

ABSTRACT: An analog computer intended for calculating the high-economy
operation of the Soviet United Power System (UPS) is described. The following
features were taken into account in designing the computer: (1) The UPS is
represented by an equivalent network in which all generating stations of a local
power system are replaced by an equivalent station having an equivalent incre-
mental economy rate characteristic; (2) Easy setting of any incremental
characteristic; (3) System loads are represented by equivalent loads that have

Card 1/2

ACCESSION NR: AP4019325

individual load curves; (4) Interconnection-line losses are evaluated by special methods. The computer comprises the following essential parts: 16 generating station equivalents, 16 loads, 15 tie lines, 8 nonlinear units representing incremental losses due to power exchanges and tie-line load restrictions, 14 elements for setting the resistances of transmission lines. The computer includes 128 UPT-4 amplifiers, 1,000 6D6A diodes, 800 SP-2-A potentiometers, 2,000 resistors, 7 power-supply packs, etc.; power consumption is 7 kw. Computation of a set of operating UPS conditions takes about 2 hrs. The computer has been in continuous use since Nov. '62. "L. B. Denisevich (ODU YeES) and N. S. Malishevskaya (VNIE) took part in aligning and operating the computer." Orig. art. has: 3 figures and 1 table.

ASSOCIATION: VNIE (All-Union Scientific Research Institute of Electrical Power Engineering); ODU YeES (Joint Load-Dispatcher's Office, United Power System)

SUBMITTED: 10Jun63

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: PR, EE

NO REF SOV: 001

OTHER: 000

Card 2/2

BOROZINETS, B.V., inzh.; GINZBURG, S.A., doktor tekhn. nauk;
SHLIMOVICH, V.D., inzh.

Network, construction, and operational indices of the RER
computer of the Administration of Power Production, Distri-
bution, and Control of the Consolidated Power System of the
European part of the U.S.S.R. Trudy VNIIE no.18:4-13 '64.
(MIRA 18:6)

GINZBURG, S A., doktor tekhn. nauk; LYUBARSKIY, Yu.Ya., inzh.;
SHLIMOVICH, V.D., inzh.

Functional converter of the RER computer and its design. Trudy
VNIIE no.18:35-52 '64. (MIRA 18:6)

L 06109-67

SOURCE CODE: UR/0105/66/000/007/0085/0089

ACC NR: AP5023617

AUTHOR: Ginsburg, S. A. (Doctor of technical sciences); Stavrovskiy, A. N. (Engineer); Shlimovich, V. D. (Engineer)

27
B

ORG: VNIIE

TITLE: Special-purpose computers for calculating economic distribution of active loads in power systems [A review]

SOURCE: Elektrichestvo, no. 7, 1966, 85-89

TOPIC TAGS: electric power system, electric power transmission, special purpose computer

ABSTRACT: Based on 1957-65 Soviet, 1955-62 Western, and 1959-64 Japanese literature, a review is presented which covers the following points: Scope of problems and type (mostly analog) of computer. Representation of incremental-rate characteristics of plants. Allowance for network losses. Uses of special-purpose computers and economic efficiency: (a) prediction of load diagrams, (b) counseling the dispatcher, and (c) automatic control. Data re uses of special-purpose computers in the following power systems is presented: Estonian Power System; Sverdlovsk, Chelyabinsk, Bashkir ASSR, Donbass Power Systems; Ural Joint Dispatching System; European-SSSR Joint Dispatching System; Altay Power System; Georgian SSR Power System; West-Siberian Joint Dispatching System; Hungarian Joint Dispatching System; S. California, Edison Co; West Penna; Ohio, Edison Co; Colorado Public Service Co; unnamed Soviet Power System; Kusu, Tubu, Japanese System; Tugoku, Tokyo System. Orig. art. has: 1 table.

SUB CODE: 0919 / SUBM DATE: none / ORIG REF: 023 / OTH REF: 020

UDC: 681.142.35:621.31

Card 1/1 LC

BEREZOVSKIY, V. M.; KOLTUNOVA, V. I.; SHLIMOVICH, Ya. A.; DEVYATNIN, V. A.

Nucleotides, coferments, phosphoric esters. Part 1: Synthesis
of a monophosphoric ester of thiamine phosphate. Zhur. ob.
khim. 32 no.12:3890-3892 D '62. (MIRA 16:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.

(Thiamine) (Phosphoric acid)

BEREZOVSKIY, V. M.; KOLTUNOVA, V. I.; PEKEL', N. D.; SHLIMOVICH, Ye. A.

Nucleotides, coenzymes, phosphoric esters. Part 2: Synthesis
of cocarboxylase. Zhur. ob. khim. 33 no.1:49-55, '63.
(MIRA 16:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.

(Cocarboxylase)

MURASHOV, V.I.; SHLIOMOVICHUS, Ya.G.

Changes in the manifestation of rock pressure in working coal seams with preliminary wetting. Fiz.-tekhn. probl. razrab. pol. iskop. no.5:20-28 '65. (MIRA 19:1)

1. Vostochnyy nauchno-issledovatel'skiy institut po bezopasnosti rabot v gornoy promyshlennosti, Kemerovo.

SHLIMPER, G.S.

EROPKIN, N. V., RABINOVICH, I. K., SHLIMPER, G. S.

Physical therapy of prevalent forms of pulmonary tuberculosis.
Probl. Tuberk., Moskva No. 6, Nov.-Dec. 50. p. 65-7.

1. Of No. 9 VTeSFS Sanatorium (Director--I. K. Rabinovich;
Physical Therapy Consultant--Docent M. M. Pimus), Chernogubovo).

GIZL 20, 3, March 1951

SHLIN, D.M.

Quartz-agirine granite-porphyry from the Aginskoye District of
eastern Transbaikalia. Dokl.AN SSSR 106 no.1:119-122 Ja '56.
(MLRA 9:4)

I.Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.
Predstavleno akademikom D.S.Korzhinskim.
(Aginskoye District--Porphyry)

SHLINCHAK, N.V., kand. med. nauk

Skin cancer according to materials of the Omsk Province Oncological Dispensary for 5 years (1958 - 1962). Trudy OMI no.54:165-170 '64. (MIRA 18:9)

1. Iz kafedry patologicheskoy anatomii (zav.- zasluzhennyy deyatel' nauki prof. I.S. Novitskiy) Omskogo meditsinskogo instituta i Omskogo oblastnogo onkologicheskogo dispansera (glavnyy vrach S.G. Reznikov).

SHLINCHAK, N. V. Cand Med Sci -- (diss) "Data ^{fr} on the pathomorphology of
the liver in ~~cases of~~ rheumatism and rheumatic heart defects." Omsk, 1959.
17 pp (Min of Health RSFSR. Omsk State Med Inst im M. I. Kalinin), 200 copies
(KL, 52-59, 127)

SHLINDMAN, Sh. I., (Kaliningrad)

Result of the treatment of gynecological diseases with preserved
tissue. Akush. i gin. no. 3:72-74 My-Je '54. (MIRA 7:8)

(TISSUE THERAPY, in various diseases,
*gyn. dis.)

(GYNCOLOGICAL DISEASES, therapy,
tissue ther.)

SHLINDMAN, Sh.I., kand.med.nauk

Treatment of female sterility. Sov.med. 22 no.5:104-106 My '58
(MIRA 11:7)

1. Iz Rzhskogo okruzhnogo voyennogo gosпитalya (nachal'nik
A.K. Khaldin).

(STERILITY, FEMALE, ther.
early ther. (Rus))

SHLINDMAN, Sh.I., kand.med.nauk

Test for patency of the Fallopian tubes by introduction of a
penicillin solution. Akush. i gin. 34 no.3:95-98 My-Je '58.
(MIRA 11:6)

(FALLOPIAN TUBES
patency test with penicillin solution (Rus))
(PENICILLIN, ther. use
patency test of Fallopian tubes (Rus))

SHLINDMAN, Sh.I., kand.med.nauk

Early prevention of sterility in women. Vop. okh. mat. i det.
5 no. 5:51-54 S-0 '60. (MIRA 13:10)
(STERILITY)

SHLINDMAN, Sh.I., kand.med.nauk (Riga)

Apparatus for hydrotubation. Ped., akush. i gin. 23 no.3:50-52
'61. (MIRA 15:4)

(FALLOPIAN TUBES--INTUBATION)
(MEDICAL INSTRUMENTS AND APPARATUS)

SHLINDMAN, V. M.

PA 65T84

USSR/Petroleum Industry
Pumps, Turbine

May 1948

"Exploitation of Oil Wells With Turbine Pumps," V. M.
Shlindman, 3 pp

"Neft Khoz" Vol XXVI, No 5

Exploitation of oil wells with turbine pumps may in
number of cases be effective substitute for compressor
exploitation and electric rotary pumps, when for some
reason these methods are impracticable or uneconomical.

LC

65T84

SHLINDMAN, V. M.

AID P - 567

Subject : USSR/Mining
Card 1/1 Pub. 78 - 4/22
Author : Shlindman, V. M.
Title : Theoretical analysis of volumetric losses in turbo-drills
Periodical : Neft. Khoz., v. 32, #8, 17-18, Ag 1954
Abstract : The author discusses the method of calculation of volumetric losses described by V. M. Kas'yanov (Neft. Khoz., #9, 1953) and offers a few corrections to the equation for the turbo-drill power and its volumetric efficiency. The discussion is illustrated by numerical example for turbo-drills of the T.12M2-10 type. Two Russian references (1953).
Institution : None
Submitted : No date

SHLINDMAN, V.M.

Range of application of centrifugal pumps without sucker rods in
petroleum production. Neft.khoz. 33 no.2:43-49 F '55. (MIRA 8:4)
(Oil well pumps)

SHLINDMAN, V.M.

Balance and reduction of power required by an installation of
submersible electric centrifugal pumps. Energ.biul. no.1:23-28
Ja '56. (MIRA 9:5)

(Oil well pumps)

SHLENDMAN, V.M.

Hydraulic calculation of spiral conduit branches of centrifugal pumps. Nauch. trudy Mosk. inst. radicelek. i gor. elektromekh. no.44:87-98 '62. (MIRA 17:9)

L 19455-65 EWT(d)/EWT(l)/EWT(m)/EPF(n)-2/EPR/T-2/EPA(bb)-2/ENP(f) Ps-h
AEDC(a)/AFETR
ACCESSION NR: AP4049726 S/0114/64/000/011/0014/0017

AUTHOR: Shindman, V. M. (Candidate of technical sciences, Docent) B

TITLE: Results of testing centrifugal-pump ²³ stages having different flow swirls at the impeller inlet

SOURCE: Energomashinostroyeniye ^{10 -} no. 11, 1964, 14-17

TOPIC TAGS: centrifugal pump, pump inlet flow

ABSTRACT: The results are reported of testing a model centrifugal pump whose entrance flow was twisted by a stationary 12-blade radial set with adjustable blading. Stage characteristics were measured at 0° , $\pm 15^\circ$, $\pm 30^\circ$, and $\pm 45^\circ$ of the blade turn; data obtained from seven variants of impellers and guide sets is tabulated. Extensive conclusions are offered covering the hydraulic efficiency as a function of vortex, total efficiency, head ratio, rate-of-flow, swirl angles, use of stationary blading, etc. The article offers a new method for determining the

Card 1/2

L 19455-65
ACCESSION NR: AP4049726

stream entrance swirl from the conventional characteristics of a stage measured at different swirl angles. Orig. art. has: 5 figures, 11 formulas, and 1 table.

ASSOCIATION: Vsesoyuzny*y nauchno-issledovatel'skiy institut
gidromashinostroyeniya (All-Union Scientific Research Institute of Hydro-Machine
Construction)

SUBMITTED: 00

ENCL: 00

SUB CODE: PR

NO REF SOV: 005

OTHER: 000

Card 2/2

SHLINGER, A.

Good-quality seed as the basis of field. Zemledelie 26 no 8:67-68
Ag '64. (MIRA 17:11)

1. Starshiy agronom Tokushinskogo sovkhoza Severo-Kazakhstanskoy
oblasti.

SHLIOMIS, M.I.

Ultrasonic absorption in electrolytes. Akust.zhur. 6 no.1:116-
119 '60. (MIRA 14:5)

1. Permskiy gosudarstvennyy universitet.
(Electrolytes) (Ultrasonic waves)

36035
S/040/62/026/002/007/025
D299/D301

24.4300 21.1000

AUTHOR: Shliomis, M.I. (Ivanovo)

TITLE: On the stability (with respect to periodic disturbances) of a rotating fluid, heated from below

PERIODICAL: Prikladnaya matematika i mekhanika, v. 26, no. 2, 1962
267 - 272

TEXT: The effect of rotation on the stability of a fluid, heated from below, is considered. The fluid occupies a closed cubic container. The stability is investigated in a coordinate-system which rotates together with the container walls. Terms due to centrifugal and Coriolis forces, are added to the ordinary convection equations; (only terms, linear in the disturbances, are retained). The equations of motion and of heat-conduction are

$$\dot{v} = -\nabla f + \nu \nabla^2 v + \alpha g \gamma T + 2\Omega(v \times \gamma) \quad \dot{T} = A \gamma v + \chi \nabla^2 T, \quad \nabla v = 0. (1.5)$$

By introducing characteristic units l , v_1 , and T_1 , one obtains:

$$\dot{v} = -\nabla f + \nabla^2 v + C \gamma T + D(v \times \gamma) \quad P \dot{T} = C \gamma v + \nabla^2 T, \quad \nabla v = 0. (1.7)$$

Card 1/5.

S/040/62/026/002/007/025
D299/D301

On the stability (with respect to ...

where P is the Prandtl number, C - the Rayleigh number and D - the Taylor number. The linear equations (1.7) do not contain t explicitly. Hence, all the quantities can be assumed as proportional to exp (λt), and the boundary-value problem

$$\Delta v = - \nabla f + \nabla^2 v + C \gamma T + D(v \times \gamma) \quad \lambda P T = C \gamma v + \nabla^2 T, \quad \nabla v = 0 \quad (1.8)$$

is considered, together with the boundary conditions on the container walls. The equilibrium is stable if Re λ is negative. The boundary conditions on the faces of the cube are

$$T = v_z = \frac{\partial^2 v_z}{\partial z^2} = 0 \quad \text{at the upper- and lower faces} \quad (2.1)$$

$$v_x = \frac{\partial v_x}{\partial n} = \frac{\partial T}{\partial n} = 0 \quad \text{at the lateral faces.}$$

Although these conditions are somewhat artificial, yet they yield results which are qualitatively correct. The convection currents which are formed in the container have simple periodicity with respect to all the coordinates. In order to find the allowed values
Card 2/5

On the stability (with respect to ...

S/040/62/026/002/007/025
D299/D301

of λ , one applies the operation rot. to the first equation (1.8). After transformations, one obtains for the velocity- and temperature amplitudes a system of 3 homogeneous algebraic equations; by setting the determinant of this system equal to zero, one obtains the equation for the eigenvalues λ of boundary-value problem (1.8). The stability of the largest-possible motion in the cube, is investigated in more detail. The notations

$$\alpha = D/3\sigma^2, \quad r = 2G^2/27\sigma^4, \quad \tau = D^2/27\sigma^4 \quad (3.1)$$

are introduced. For μ one obtains the equation:

$$\alpha\mu^3 + \beta\mu^2 + \gamma\mu + \delta = 0 \quad (3.2)$$

where $\alpha = P$, $\beta = 2P + 1$, $\gamma = 2 + P + P\tau - r$, $\delta = 1 + \tau - r$. (3.3)

The roots of Eq. (3.2) coincide (to within a factor $3\sigma^2$), with the eigenvalue of (1.8). Therefore, onset of instability coincides with the appearance of solutions to (3.2) with the real part of μ equal to zero; as the arising convection currents may be either stationary or nonstationary, the sought solutions can be either time independent (i.e. the imaginary part of μ is also zero), or periodic

Card 3/5

On the stability (with respect to ...

S/040/52/026/002/007/025
D299/D301

($\text{Im } u \neq 0$). The necessary condition for the existence of periodic solutions is $P = 1$. This condition is satisfied by liquid metals. In the following, it is assumed that the condition is fulfilled. It was found that out of the 3 roots of Eq. (3.2), one is always negative. A table shows the values of the other 2 roots in each of 5 regions (shown in a figure). The stability of the liquid in these regions, is discussed. In addition to the largest-possible motion, considered so far, values of the parameters for all the possible motions are tabulated. It is shown that the effect of a magnetic field on stability of motion in a conducting fluid, is fully equivalent to that of rotation; (i.e. the above results apply also to a conducting fluid placed in a magnetic field). There are 1 figure, 2 tables and 8 references: 4 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: S. Chandrasekhar, On the inhibition of convection by a magnetic field. Phil. Mag., 1952, v. 43, p. 501; S. Chandrasekhar, The instability of a layer of fluid heated below and subject to Coriolis forces. I. Proc. Roy. Soc., A, 1953, v. 217, p. 506; S. Chandrasekhar, D. Elbert. The instability of a layer of fluid heated below and subject to Coriolis forces. Proc. Roy. Soc., A, 1955, v. 231, Card 4/5 f

On the stability (with respect to ...

S/040/62/026/002/001/025
D299/D301

p. 198; Lord Rayleigh. On convection currents in a horizontal layer of fluid, when the higher temperature is on the under side. Phil. Mag., 1916, v. 32, p. 529.

SUBMITTED: October 31, 1961

Card 5/5

f

L 18593-63 EPR/EWT(1)/EWG(k)/BDS/EEC(b)-2/ES(w)-2 AFFTC/ASD/ESD-3/

AFWL/IJP(G)/SSD Ps-4/Pz-4/Pi-4/Po-4/Pab-4 AT/WW

ACCESSION NR: AP3003246

S/0040/63/027/003/0523/0531

AUTHOR: Shliomis, M. I. (Ivanovo)

86
85

TITLE: Oscillating perturbations in a conductive fluid influenced by a magnetic field

SOURCE: Prikladnaya matematika i mekhanika, v. 27, no. 3, 1963, 523-531

TOPIC TAGS: oscillating perturbation , magnetic field

ABSTRACT: The author studies, in general forms, the effect of a homogeneous magnetic field on the character of decay of small perturbations from equilibrium of a conductive fluid in a cavity of any form. He shows that for small Hartman numbers M there are two types of normal perturbations: "magnetic" and "hydrodynamic." Perturbations of both types decay monotonically. The higher of some critical $M = M_*$ in the spectrum of normal perturbations are such that they can be attributed neither to magnetic nor hydrodynamic; he does not express this type. These normal perturbations oscillate with time, and for M a little larger than M_* their frequencies are proportional to $(M - M_*)^{1/2}$. The origin

Card 1/2

L 18593-63

ACCESSION NR: AP3003246

of the critical point must be connected with the presence of the two types of perturbations for small M. The author studies in detail the character of the exceptions which have perturbations at the same point. He expresses his gratitude to V. S. Sorokin. Orig. art. has: 62 formulas.

ASSOCIATION: none

SUBMITTED: 12Dec62

DATE ACQ: 23Jul63

ENCL: 00

SUB CODE: MM,PH

NO REF SOV: 003

OTHER: 000

Card 2/2

S/0207/64/000/004/0023/0028

ACCESSION NR: APL044716

AUTHORS: Bratukhin, Yu. K. (Perm'); Shliomis, M. I. (Perm')

TITLE: On perturbations from equilibrium in conducting fluid filling a spherical cavity in the presence of a magnetic field

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 4, 1964, 23-28

TOPIC TAGS: magnetic field, equilibrium condition, perturbation, Hartman number, hydromagnetic wave, hydrodynamic theory

ABSTRACT: The effect of small perturbations on a conducting fluid with viscosity η and electric conductivity σ filling a cavity with immovable walls and in the presence of a magnetic field H was studied analytically. The equations describing the velocity and field perturbations u and h , proportional to $e^{-\lambda t}$, are given by

$$\begin{aligned}
 -\lambda u &= \nabla^2 u + M (\gamma \nabla) h - \nabla p, & \text{div } u &= 0, \\
 -\lambda h &= \nabla^2 h + M (\gamma \nabla) u, & \text{div } h &= 0, \\
 \left(N = \frac{4\pi\sigma\eta}{c^2}, \quad M = \frac{HR}{c} \left(\frac{\sigma}{\rho\nu} \right)^{1/2} \right)
 \end{aligned}$$

Card 1/2

SHLICHIS, M.I.

(Term')

Vibrational convective instability of a conducting fluid in a
magnetic field. Prikl. mat. i mekh. 28 no. 2:678-683 J1-Ag'64
(MIRA 17:8)

L 40318-65 ENT(l)/EWP(m)/EPA(sp)-2/EPF(n)-2/EWG(v)/EPR/EPA(w)-2/T-2/EWA(m)-2
Pd-1/Pab-10/Pe-5/Ps-4/Pi-4/Pu-4 LJP(c) WH
ACCESSION NR: AP4046276 S/0040/64/028/005/0959/0962

53
51
B

AUTHOR: Eratukhin, Yu. K. (Perm'); Shliomis, M. I. (Perm')

TITLE: One rigorous solution of the equations for nonstationary convection

SOURCE: Prikladnaya matematika i mekhanika, v. 28, no. 5, 1964, 959-962

TOPIC TAGS: nonstationary heat convection, rigorous solution, convection equation, magneto hydrodynamics

ABSTRACT: In a gravitational field, a fluid of nonuniformly distributed temperature can be in equilibrium only if the temperature gradient is vertical. By heating the fluid from below, the perturbations are either monotonically decreasing, or increasing, so that the equilibrium may be stable, or unstable. By heating from the top, all perturbations decay. A similar situation occurs in the case of the perturbation spectrum of a conducting fluid in a magnetic field (M. I. Shliomis, Oscillating perturbations in a conducting fluid in a magnetic field, PMM, 1963, v. 27, #3). Therefore, the results of that paper are valid in the present case. The rigorous solution is obtained for the case of a fluid in a spherical cavity. The
Card 1/2

L 40318-65

ACCESSION NR: AP4046276

2

authors are grateful to G. Z. Gershuni and E. M. Zhukhovitskiy for a valuable discussion. Orig. art. has: 27 equations and 1 graph.

ASSOCIATION: None

SUBMITTED: 10Feb64

ENCL: 00

SUB CODE: MA, GP

NR REF SOV: 003

OTHER: 000

llc

Card 2/2

L 45099-66 EWT(1)/EWP(m) WA/DJ

ACC NR: AP6024887

SOURCE CODE: UR/0056/66/051/001/0258/0265

40
B

AUTHOR: Shliomis, M. I.

ORG: Perm State University (Permskiy gosudarstvennyy universitet)

TITLE: Hydrodynamics of a fluid with intrinsic rotation

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 258-265

TOPIC TAGS: hydrodynamics, stress tensor, viscosity, shear viscosity, *VORTEX FLOW*, superfluidity

ABSTRACT: A complete set of hydrodynamic equations is derived phenomenologically from the conservation laws for a fluid with an intrinsic angular momentum. The total angular momentum per unit volume of such a medium consists of the ordinary momentum due to hydrodynamic (translational) motion of the fluid and of its proper (intrinsic) rotation M . In comparison with ordinary hydrodynamics equations, this set of equations contains two additional kinetic coefficients (intrinsic angular momentum diffusion and rotational viscosity coefficients) and an equation for the rate of change of M . It follows from the latter equation that variation of M is due to two causes: the absence of equilibrium coupling between the intrinsic angular momentum and vortex motion of the fluid (relaxation) and inhomogeneity of M (diffusion). The stress tensor is nonsymmetrical. It is shown that interaction

Card 1/2

SHLIOMOVICH, M. KH., Engr

USSR/Electricity
Oscillographs
Switches

Aug 48

"Electromechanical Throw-Over Switch for Cathode
Oscillography," Ya. I. Sozovskiy, Engr, M. Kh.
Shliomovich, Engr, 3 pp

"Elek Stants" Vol XIX, No 8

Subject equipment was tested at the Lab of Elec
Measurements, TSNIIEI. It permits simultaneous
control and recording of two individual mechanical
phenomena on the theory of mechanical vibrating
rectifiers. Includes circuit diagrams of first

26/49T16

USSR/Electricity (Contd)

Aug 48

assembled model. First performance results were
encouraging.

26/49T16

SHELIOMOVICH, M.Eh.

Problems in designing ampery voltohmmeters. Izv. tekhn. no.3:64-65
My-Je '57. (MLRA 10:9)

(Electric meters)

29-58-3-20/39

AUTHORS: Lyubarskaya, A.M., Engineer, and Shlionovich, M.Kh., Candidate of Technical Sciences

TITLE: A Standardization System for Electric Measuring Indicator Instruments (Sistema standartizatsii ukazyvayushchikh elektroizmeritel'nykh priborov) On the "GOST"-project "Electric Measuring Instruments. Classification. General Technical Specifications. Test Methods". (O proyekte GOST "Pribory elektroizmeritel'nyye. Klassifikatsiya. Obshchiye tekhnicheskiye usloviya. Metody ispytaniy")

PERIODICAL: Standartizatsiya, 1958, Nr 3, pp 61-63 (USSR)

ABSTRACT: The problem of the fundamental principles of a basic main standard for electric measuring and indicating instruments was discussed at the first scientific-technical conference on problems of electric instruments in 1957, in Leningrad. The Vsesoyuznyy nauchno-issledovatel'skiy institut elektroizmeritel'nykh priborov Gosplana SSSR (VNIIEP) (The All-Union Scientific Research Institute of Electric Measuring Instruments at the Gosplan USSR) at present is working out a standard of general technical specifications for all indicator-electro-measuring instruments. This standard may become a base for complete stan-

Card 1/2

28-58-3-20/39

A Standardization System for Electric Measuring Indicator Instruments. On the "GOST"-project "Electric Measuring Instruments. Classification, General Technical Specifications. Test Methods".

Standardization of such instruments. It is expected that in the future, when a standard has been worked out, the other single standards will serve as complements to it and will contain only specific data for special types of instruments. The authors make practical suggestions on details of the main standard and criticize the draft of the project, which has been completed by VNIIEP and sent to the organizations concerned for discussion.

ASSOCIATION: VNIKomiteta standartov, mer i izmeritel'nykh priborov (VNII of the Committee of Standards, Measures, and Measuring Devices)

Card 2/2 1. Indicators--Standards

SOV/115-59-5-19/27

9(3), 28(2)

AUTHORS: Shliomovich, M.Kh., and Kapnik, M.Sh.

TITLE: Zero Indicator for Measuring Installations of Direct Current

PERIODICAL: Izmeritel'naya Tekhnika, 1959, Nr 5, pp 41-44 (USSR)

ABSTRACT: The authors state, that with bridge or potentiometer-measuring installations of direct current, it is difficult to find a zero indicator (galvanometer) with a suitable sensivity for current and voltage. For this reason, the use of an installation is recommended, which consists of a condenser, a galvanometer and a commutator (Fig.1). In a bridge scheme, for example, this installation works in the following way: Voltage U_{xx} moves through Commutator P_1 to condenser C , which is loaded at the equilibrium of the bridge. Then the condenser is switched off from the zero diagonal bridge by the commutator and unloads to galvanometer G . The movable part of the galvanometer deviates under the impulse of the unloading current. There are 1 diagram, 1 layout, 12 equations and 3 references, 1 of which is Soviet and 2 English.

Card 1/1

S/115/60/000/06/18/031
B007/B014

AUTHOR: Shliomovich, M. Kh.
TITLE: An Apparatus Used to Analyze Instruments for the Effect of
Outer Magnetic Fields
PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 6, pp. 35-39

TEXT: In Soviet and other specifications it is recommended to use a single coil for generating outer magnetic fields while testing electrical measuring instruments (Refs. 1-3). In the practice, however, a double coil (the Helmholtz coil) is usually applied for this purpose. In connection therewith the author gives a theoretical explanation of the use of this double coil. It is shown that when the unsteadiness of the field in the space occupied by the device instrument to be tested varies but little, the mean radius of the ring of the double coil is half as great as the mean radius of the single coil. The conclusions drawn therefrom are explained. Next, a comparison is made between the double coil and a single coil for a ratio of 1:2 between the two radii. A theoretical study has shown that it is more

Card 1/2