

S/198/62/008/005/003/009
D234/D308

Contact problem for ...

surface and a symmetrical die acts on the top layer. The image function $\chi(p)$ for the top layer is sought in the form

$$\chi(p) = \frac{1}{lp^2} \int_0^a \chi(t) J_0(pt) dt \quad (2.5)$$

J_0 denoting the cylindrical function of the first kind. The problem is reduced to a Fredholm integral equation

$$\chi(x) = \frac{E}{2(1-\nu^2)} \left[y'(0+x) \int_0^{\frac{\pi}{2}} y''(x \sin \gamma) d\gamma \right] + \int_0^a \chi(t) K(x,t) dt \quad (2.11)$$

Card 2/4

Contact problem for ...

S/198/62/008/005/003/009
D234/D308

where $y(x)$ is a function determining the shape of the die, and

$$K(x, t) = x \int_0^{\infty} p \varphi(p) J_0(px) J_0(pt) dp \quad (2.12)$$

$$\varphi(p) = 1 - \frac{A(p)}{1} \quad (2.8)$$

$$B_1 = \alpha_1 p A(p) \quad (1.6)$$

[Abstracter's note: l not defined, probably Eq. (2.6) in which the left hand side is missing.] The image functions α and B were defined by the authors in a previous paper (Prykladna mekhanika, v. 8, 1962, no. 2), $2a$ is the maximum width of the die. When the layer thickness tends to ∞ one obtains the solution for a half-plane

Card 3/4

Contact problem for ...

S/198/62/008/005/003/009
D234/D308

[-Abstracter's note: The meaning in which the authors use this term is not clear. Eq. (2.11) is reduced to a form suitable for numerical computation. Tables of auxiliary coefficients which do not depend on the shape of the die are given for the case of a layer placed on a half-plane and on a rigid base. The method of computation is described and the results quoted for the two above cases, the die being round and the contact segment four times as large as the layer thickness. The forces P have the form $P = m\pi Ea^2/(1-\nu^2)R$. The radius of the die R is assumed to be sufficiently large. The coefficient m is equal to 0.21 for a layer on a half-plane and to 0.51 for a layer on a rigid base. There are 2 tables and 1 figure. ✓

ASSOCIATION: Dnipropetrovs'kyy derzhavnyy universytet (Dnipropetrovsk State University)

SUBMITTED: March 10, 1962

Gard 4/4

FRIVARNIKOV, A.K.: SHEVLYAKOV, YU.A. (Dnepropetrovsk)

"Solution of certain basic boundary value problems of elasticity for multilayered foundations"

Report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow 29 Jan - 5 Feb 64.

TRENIN, S.I.; CHEKHOV, V.N.; SHEVLYAKOV, Yu.A.; SHEVCHENKO, V.P. (Dnepropetrovsk)

"General solution of the equations of shallow shells and some estimates of the bending theory"

Report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow 29 Jan - 5 Feb 64.

L 10440-65 EWT(d)/EWT(m)/EWA(d)/ENP(w)/ENP(k)/ENA(h) Pf-4/Peb ASD(f)-2

EM

ACCESSION NR: AP4043300

S/0198/64/010/004/0382/0391

AUTHOR: Shevlyakov, Yu. A. (Dnipropetrovsk); Shevchenko, V. P. (Dnipropetrovsk)

TITLE: Solution of the problem of the flexure of shallow spherical shells

SOURCE: ^{2/6} Prykladna mekhanika, v. 10, no. 4, 1964, 382-391

TOPIC TAGS: spherical shell, shallow shell, shell flexure

ABSTRACT: A particular solution of differential equations for the flexure of a shallow spherical shell under the action of concentrated forces and bending moments was found by the method of Fourier-Hankel integral transformations. The axially symmetric deformation of the shell was studied. The application of the superposition method made it possible to obtain particular solutions for circular and annular loading. Nonaxisymmetric loading by a concentrated force at an arbitrary point and by a concentrated moment was also studied. A particular solution for more complex asymmetric loading can be obtained from the solution for a corresponding symmetric load and by using the

Card 1/2

~~L 10440-65~~

ACCESSION NR: AP4043300

translation of coordinates. The variation of deflection and force parameters for the case when the concentrated force and bending moment act on the apex of the shell is shown in diagrams. Orig. art. has: 38 formulas and 2 figures.

ASSOCIATION: Dnipropetrovs'ky'y derzhavny'y universy'tet (Dnepropetrovsk State University)

SUBMITTED: 13Apr63

ATD PRESS: 3110 ENCL: 00

SUB CODE: AS, MA

NO REF SOV: 008 OTHER: 000

Card 2/2

SHEVLYAKOV, Yu.A. (Dnepropetrovsk); SHEVCHENKO, V.P. (Dnepropetrovsk)

Shallow spherical shell under the action of concentrated forces
and moments. Prikl. mekh. 1 no.2:74-77 '65.

(MIRA 18:6)

1. Dnepropetrovskiy gosudarstvennyy universitet.

L 02525-67 EWT(d)/EWT(m)/EWP(w)/EWP(k) IJP(c) EM

ACC NR: AT6020971

SOURCE CODE: UR/3207/65/000/002/0075/0083

AUTHOR: Shevlyakov, Yu. A. (Doctor of technical sciences, Professor);
Fen', G. A.ORG: Dnepropetrovsk University (Dnepropetrovskiy universitet)34
BT1TITLE: Thermoelastic stresses in multilayer plates and basesSOURCE: Gidrosferomekhanika, no. 2, 1965, 75-83

TOPIC TAGS: thermoelasticity, stress analysis

ABSTRACT: The article considers the problem of the state of stress of a multilayer plate which is under conditions of plane deformation, and which consists of m layers which have different mechanical and thermophysical properties not dependent on the temperature. On the free surfaces of the first and last layer the temperature is given as a function of the coordinate x_k (steady state process) or as a function of the coordinate and the time (unsteady state process). The state of stress of a multilayer bundle on an elastic or rigid base can be obtained by infinitely increasing the thickness of the last layer, $h_m \rightarrow \infty$. After setting the initial conditions, the authors solve mathematically the problem of finding the thermoelastic stresses due to steady state

Card 1/2

L 02525-67

0

ACC NR: AT6020971

temperature fields, and then those due to unsteady state temperature fields. Orig. art. has: 37 formulas.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 003

Card 2/2 *egfs*

SHEVLYAKOV, Yu.A. (Dnepropetrovsk); CHEKHOV, V.N. (Dnepropetrovsk)

Approximate solutions of the axisymmetric deformation of a spherical shell. Prikl. mekh. 1 no.4:12-18 '65.

(MIRA 18:6)

1. Dnepropetrovskiy gosudarstvennyy universitet.

PETRISHIN, V.I. (Dnepropetrovsk); PRIVARNIKOV, A.K. (Dnepropetrovsk);
SHEVLYAKOV, Yu.A. (Dnepropetrovsk)

Solution of problems involving multilayer bases. Izv. AN SSSR.
Mekh. no.2:138-143 Mr-Apr '65. (MIRA 18:6)

SHEVLYAKOV, Yu.A. (Dnepropetrovsk); CHEKHOV, V.N. (Dnepropetrovsk)

Coefficients of the influence of a spherical shell. Prikl.mekh. 1
no.7:37-44 '65. (MIRA 18:8)

1. Dnepropetrovskiy gosudarstvennyy universitet.

S/149/62/000/003/002/011
A001/A101

AUTHORS: Kamenetskiy, M. V., Shevlyakova, L. I.

TITLE: Electric conductivity of binary systems consisting of sodium and titanium chlorides or potassium and titanium chlorides

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tavetnaya metallurgiya, no. 3, 1962, 89 - 93

TEXT: The authors studied electric conductivity of binary systems used in electrolytical refining of titanium at 800 - 950°C in order to select an effective composition of electrolytes. The device used for resistance measurements was a conductivity meter with an operation range from 10^{-2} to 10^7 ohm. Molybdenum and tungsten were used as materials for electrodes. The specific electric conductivity of the KCl-TiCl₃ system was measured in the concentration range from 0 to 38 mol.% TiCl₃, and that of the NaCl-TiCl₃ system in the range from 0 to 30.8 mol.% TiCl₃. Isotherms of specific electric conductivity of both systems are shown graphically at various temperatures and compared with data by Yu. K. Delimarskiy and R. V. Chernov. At a content of 25 mol.% TiCl₃ the isotherms show de-

Card 1/2

SHEVLYAKOVA, T.N.

Hygroscopic properties of Baskunchak table salt and of some sodium salts. E. I. Akhmedov, E. I. Nikolaeva, and T. N. Shevlyakova. *Zhur. Priklad. Khim.* 29: 1699-001 (1956); cf. *C.A.* 48, 11147c. — The hygroscopicities of the following salts were detd. by the 2-desiccator method in 100% humidity: NaF, NaCl, NaBr, NaBr·2H₂O, NaI, NaI·2H₂O, Na₂SO₄, Na₂SO₄·10H₂O, NaNO₃, Na₂CO₃, Na₂CO₃·10H₂O and Baskunchak table salt contg. 99.42% NaCl. The hygroscopicity of the table salt was lower than that of NaCl, 797.3 and 869.5 g./sq. m. in one day, resp.

I. Bencowitz

5(4)

AUTHORS:

Lantratov, M. F., Shevlyakova, T. N.

SOV/78-4-5-34/46

TITLE:

The Thermo-dynamical Properties of the Solutions of Melted Salts in the System $PbBr_2 \cdot KBr$ (Termodinamicheskiye svoystva rastvorov rasplavlennykh soley v sisteme $PbBr_2 \cdot KBr$)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 5, pp 1153-1158 (USSR)

ABSTRACT:

The thermodynamical properties of solutions of melted $PbBr_2 \cdot KBr$ were calculated as follows according to the data of electric conductivity in the reversible chemical chain: (Graphite) $Pb|PbBr_2(a_1, N_1) + KBr(a_2, N_2)|Br_2$ (graphite). (a_1 and a_2 denote the activities; N_1 and N_2 - the ratio of molar weights of the components). The lead metal and the initial salts $PbBr_2$ and KBr are of the highest degree of purity. For the purpose of measuring electric conductivity the high-ohmic potentiometer PPTV.1 and as zero-instrument an optical galvanometer with a sensitivity of $1 \cdot 10^{-9} a$ were used. The construction of the cell for measuring electric

Card 1/3

The Thermo-dynamical Properties of the Solutions of Melted Salts in the System PbBr_2 -KBr SOV/78-4-5-34/46

conductivity is shown by figure 1. Measurements were carried out at 380° - 590° . The E_0 -dependence of the chemical chain (graphite) $\text{Pb}|\text{PbBr}_2|\text{Br}_2$ (graphite) on temperature is shown by table 1. Table 2 shows the E_0 of the chemical chain (graphite) $\text{Pb}|\text{PbBr}_2(N_1) + \text{KBr}(N_2)|\text{Br}_2$ (graphite) and the thermo-dynamical data concerning PbBr_2 and KBr at 589° and 539° and the different composition of the solution N_1 . The activities of PbBr_2 at 589° (1) and 539° (2) and of KBr at 589° (3) and the activity coefficients PbBr_2 at 589° (1) and 539° (2) and KBr at 589° (3) are shown by figures 2 and 3. Figures 2 and 3 show that a negative deviation from Raul's law occurs in the system PbBr_2 -KBr. The activity coefficients of PbBr_2 and KBr are in all concentration ranges smaller than unity. In PbBr_2 - and KBr-solutions

Card 2/3

The Thermo-dynamical Properties of the Solutions of Melted Salts in the System $\text{PbBr}_2\text{-KBr}$ SOV/78-4-5-34/46

the complex ions $[\text{Pb}_2\text{Br}_5]^-$ and $[\text{PbBr}_4]^{2-}$ are formed, which cause the negative deviation. Figure 4 shows the partial data concerning $\Delta\bar{Z}_1$ and $\Delta\bar{Z}_2$ and the values of the molar isobaric-isothermal potential (ΔZ). The thermodynamical data of the system $\text{PbBr}_2\text{-KBr}$ at 589° are given in table 3. It was found that the formation of the solution $\text{PbBr}_2\text{-KBr}$ is accompanied by considerable heat generation. The maximum value for the mixing enthalpy is 7460 cal/g-mol. There are 4 figures, 3 tables, and 6 references, 3 of which are Soviet.

SUBMITTED: February 20, 1958

Card 3/3

LANTATOV, M.F.; SEMELYAKOVA, T.M.

Thermodynamic properties of fused salt solutions in the system
 $\text{PbBr}_2 - \text{NaBr}$. Zhur. neorg. Khim. 6 no.1:192-198 '61. (MIA 14:2)
(Lead bromide) (Sodium bromide)
(Lead chloride)

LANTRATOV, M.F.; SHEVLYAKOVA, T.N.

Thermodynamic properties of fused salt solutions in the CdBr_2 -
NaBr system. Zhur.prikl.khim. 34 no.11:2570-2573 N '61.

(MIRA 15:1)

1. Leningradskiy elektrotekhnicheskiy institut im. V.I.Ul'yanova
(Lenina).

(Salts)

(Systems (Chemistry))

SHEVLYAKOVA, T. Ya.

K.

USSR/Forestry - Forest Cultures.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 95842

Author : Stratonovich, A.I., Shevljakova, T.Ya.

Inst : Leningrad Scientific-Research Institute of Forestry.

Title : Plantings of Conifers on Old Cutovers (Reconstruction of Poor Deciduous Undergrowth).

Orig Pub : Byul. nauchno-tekhn. inform. Leningr. n.-i. in-ta lesn. kh.-va, 1957, No 4, 34-43.

Abstract : During reconstruction of low-value plantations, it is proposed to prepare the strips by plowing the tree-shrub and grass vegetation, with subsequent rolling and packing of the cover on which the plantings are set. By investigations in the Oredzhenskiy, Gatchinskiy and Siverskiy leskhozoes, a difference was established in the taking root of trees created by planting or seeding.

Card 1/2

L 31120-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 EM

ACCESSION NR: AP5007172

S/0286/65/000/003/0042/0042

22
B

AUTHOR: Shkol'nikov, V. M.; Shevlyakov, V. A.; Borovitskiy, B. K.; Tseytlin, I. M.

TITLE: A method for producing antiager for rubber products. Class 23, No. 167935

15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 3, 1965, 42

TOPIC TAGS: antiager, rubber, paraffin, asphalt

ABSTRACT: This Author's Certificate introduces a method for producing an antiager for rubber products. The antiager is based on crude paraffins. In order to provide a wider choice of raw materials and to simplify the process, the asphalt from deasphaltization of tar is deasphalted in a solution of propane, the deasphaltizate is treated in a selective solvent and the resulting product is deparaffinated.

ASSOCIATION: none

SUBMITTED: 09Aug63

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

Card 1/1

SHEVLYUGA, N.G.

Data on the nature of riboflavin activity in certain food products
of animal origin. Gig. sanit., Moskva no.11:35-36 Nov 1951. (CLML 21:2)

1. Of the Department of General Hygiene, Tbilisi State Medical Institute.

SHEVLYUK, N.Ya.

Method of conserving steam locomotive boilers. Zhel. dor. transp.
40 no.8:75 Ag '58. (MIRA 11:9)

1.Nachal'nik parovoznogo depo, predsedatel' Nauchno-tehnicheskogo otdela,
st.Kerch' II.
(Locomotive boilers--Maintenance and repair)

A. D. SHEVCHIN

CALENDAR OF GEOMAGNETIC ACTIVITY IN THE U.S.S.R.

Report presented at the COMINT meeting, 1-9 August 1978, Moscow.

SHEVNIN, A.D.

Calendar of geomagnetic activity in the U.S.S.R. Magn.-ionosf. vozm.
no.1:70-73 '59. (MIRA 13:1)
(Magnetism, Terrestrial)

86390

S/020/60/135/002/013/036
B019/B077

3,2300

AUTHORS: Antsilevich, M. G. and Shevnin, A. D.

TITLE: Evaluation of the Geomagnetic Observations Obtained From the First Soviet Cosmic Rocket

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 2,
pp. 298 - 300

TEXT: The measurements made by the first Soviet cosmic rocket showed that the geomagnetic field strength decreases much faster with increasing height than had been calculated. The measured field strength varied as follows:

There is a minimum of $4 \cdot 10^{-3}$ oersteds at a distance of 20,800 km, a maximum of $8 \cdot 10^{-3}$ oersteds was found at 22,000 km, and above that height the decrease is very slow. Antsilevich concluded from studies of a magnetogram of Tashkentskaya observatoriya (Tashkent Observatory) that a small magnetic storm must have occurred on that day causing the disturbances of the magnetic field. Observations of 16 stations indicated that a magnetic disturbance started on January 2, 1959 at 11 h 20 min universal time. This
Card 1/2

86390

Evaluation of the Geomagnetic Observations S/020/60/135/002/013/036
Obtained From the First Soviet Cosmic Rocket B019/B077

storm reached its peak after 12 hours and its lowest value after 14 hours. The earth had passed through a weak corpuscular current which caused this disturbance. Since the first Soviet cosmic rocket went through the same system, the magnetic storm showed up in the measurements. The authors conclude that the corpuscular current created an equatorial current belt, and assuming the mean diameter of the belt as $r_{\text{mean}} = 26,280$ km, the current is calculated to be $6.3 \cdot 10^5$ a. There are 3 figures and 2 Soviet references.

ASSOCIATION: Institut matematiki im. V. I. Romanovskogo Akademii nauk UzSSR (Institute of Mathematics imeni V. I. Romanovskiy of the Academy of Sciences Uzbekskaya SSR). Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln Akademii nauk SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Propagation of Radio Waves of the Academy of Sciences USSR)

PRESENTED: August 5, 1960, by Ye. K. Fedorov, Academician

SUBMITTED: August 4, 1960

Card 2/2

S/203/63/003/002/003/027
D207/D307

AUTHOR: Shevnin, A.D.
TITLE: Magnetic field of a toroidal current
PERIODICAL: Geomagnetizm i aeronomiya, v. 3, no. 2, 1963, 215-222

TEXT: The general problem of the magnetic field of a toroidal current of constant density is solved. Formulas are derived for calculation of the magnetic field in toroidal and cylindrical systems of coordinates. Using the latter system the magnetic field is calculated and shown graphically for current flowing along a simple torus and along a system of two toruses one inside the other with their boundary in contact. The latter case represents the ionospheric ring current. Magnetic fields for the two cases are compared with each other and with the experimental geomagnetic data. This comparison indicates the existence of a system of currents at a distance 25,750 - 26,800 km from the center of the earth and another system (only about 1/5 as strong as the first) at a distance of about

Card 1/2

ACCESSION NR: AP4041570

S/0293/64/002/003/0478/0484

AUTHOR: Shevnin, A. D.

TITLE: Analytical representation of the earth's magnetic field in an orbital system of coordinates

SOURCE: Kosmicheskiye issledovaniya, v. 2, no. 3, 1964, 478-484

TOPIC TAGS: terrestrial magnetic field, geomagnetism, orbital coordinate system, magnetic field, artificial earth satellite

ABSTRACT: Computation formulas have been derived as a function of time and the elements of an elliptical orbit for the components of the strength of the earth's main magnetic field in an orbital system of coordinates. For investigations on artificial earth satellites it is important to know the character of the magnetic field at that point of the orbit at which the satellite is situated at a particular time; the derived analytical expressions facilitate such determinations. The point of departure can be understood from Fig. 1 of the Enclosure. The projection of the elliptical orbit on the celestial sphere is represented: Υ is the point of the vernal equinox, Ω is the ascending node of the satellite orbit, N is the north celestial pole, p is the projection of the point P on the sphere, NA is the geographic meridian passing through the point p, J is the projection of the perigee

Card

1/4

ACCESSION NR: AP4041570

on the sphere, $\gamma \Omega A$ is the plane of the geographic equator, $\Omega \pi p$ is the orbital plane of the artificial earth satellite, OB is the normal to the satellite orbit, drawn from the center O of the sphere and, λ_u is the longitude of the point p from the ascending node. The position of the satellite orbit is determined by the angles: the longitude of the ascending node Ω and the orbital inclination i to the plane of the geographic equator. For the elliptical orbit Ω and i are considered constants. However, due to deviation of the earth's gravitational field from central, the satellite orbit will experience perturbations which can be represented as the two following effects: 1) small periodic variations of the angle i with an amplitude of about $0^{\circ}01'$; this perturbation can be neglected and i assumed constant; 2) orbital precession -- an almost uniform change in the longitude of the ascending node Ω , determined by the formula:

$$\dot{\Omega} = \Omega_0 - 2\pi k_0 \frac{t}{T_0}, \quad k_0 = \beta \left(\frac{R}{a_0} \right)^4 \frac{\cos i}{(1-e^2)^2} \quad (1)$$

Card 2/4

ACCESSION NR: AP4041570

where $\beta = 0.00163$ and Ω_0 is the initial value of the ascending node. On the basis of this model and other considerations the author presents the proposed analytical expressions for solution of the problem. Orig. art. has: 21 formulas, 1 figure and 1 table.

ASSOCIATION: None

SUBMITTED: 27Dec63

ENCL: 01

SUB CODE: AA, SV

NO REF SOV: 005

OTHER: 002

Card

3/4

SHEVCHIN, A.D.

Measuring the X, Y, and Z components of the geomagnetic field
with the aid of satellites and rockets. Kosm.issl. 3 no.2:231-
236 Mr-Ap '65. (MIRA 38:4)

L 15217-66 EWT(1)/EWP(m)/FS(v)-3/EEC(k)-2/EWA(d) GW

ACC NR: AP5026050

SOURCE CODE: UR/0293/65/003/005/0700/0708

AUTHOR: Shevni, A. D.

73
B

ORG: none

TITLE: On the perturbing moment of a satellite moving in the earth's magnetic field

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 5, 1965, 700-708

TOPIC TAGS: artificial satellite, perturbed satellite motion, earth satellite orbit, artificial satellite orbit, geomagnetic field, iron, magnetic moment

ABSTRACT: The sign of the field-strength components in an orbital coordinate system is evaluated. A surface type described by the strength vector relative to the bi-normal to the satellite orbit is established. The perturbing moments of satellites of magnetically hard and magnetically soft iron and current coils are examined. On the basis of a dipole approximation of the earth's magnetic field, the strength components of a uniformly magnetized earth in the coordinate system of the satellite are:

$$X_0 = X_M \cos \alpha = \frac{M_{\oplus}}{r^3} \cos \varphi_M \cos \alpha,$$

$$Y_0 = X_M \sin \alpha = \frac{M_{\oplus}}{r^3} \cos \varphi_M \sin \alpha,$$

$$Z_0 = Z_M = \frac{2M_{\oplus}}{r^3} \sin \varphi_M.$$

UDC: 521.61

Card 1/3

L 15217-66

ACC NR: AP5026050

The scalar magnitude of the geomagnetic field strength

$$H = \frac{M_e}{r^3} \times \sqrt{1 + 3\sin^2 i_m \sin^2 u_m}$$

A diagram of a surface type, described by the geomagnetic field strength vector relative to the binormal of the satellite orbit, is shown in Fig. 1. The perturbing moment from current coils can be considered as that from magnetically hard iron. In the case of spherical symmetry of the soft iron of the satellite, the perturbing moment from the magnetically soft iron is equal to zero.

Card 2/3

L 15217-66

ACC NR: AP5026050

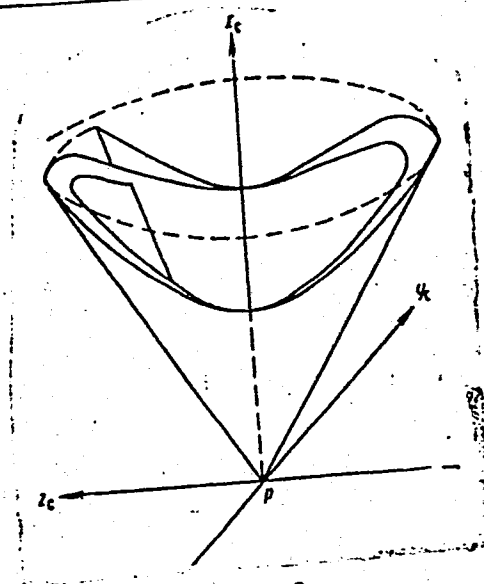


Fig. 1.

Orig. art. has: 30 formulas, 5 graphs, 3 diagrams, and 1 table.

SUB CODE: . 22 / SUBM DATE: 27May64 / SOV REF: 004

TS
Card 3/3

L 38566-56 FSS-2/EWT(1)/EEC(k)-2/RJC

IT/GW

ACC NR: AP6007749

SOURCE CODE: UR/0293/66/004/001/0165/0167

Author: Shevnin, A. D.58
E

ORG: none

TITLE: Components of the geomagnetic fields strength in the solar-ecliptic coordinate system

SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 1, 1966, 165-167

TOPIC TAGS: geomagnetic field, satellite, coordinate system, space coordinate system

ABSTRACT: The geomagnetic field strength is expressed in the solar ecliptic coordinate system in order to describe the complete orientation of artificial satellites of the type "Electron-2." These coordinates are given by: S - in the solar direction; S₁ - perpendicular to the ecliptic plane, and S₂ - in the direction complementary to a right-handed coordinate system. Starting from a spherical coordinate system, this leads to the expressions

$$\begin{aligned}
 S^1 &= (-\sin \varphi \cos \lambda^* \cos \Lambda - \sin \varphi \sin \lambda^* \cos \varepsilon \sin \Lambda + \cos \varphi \sin \varepsilon \sin \Lambda) X_0 + \\
 &\quad + (-\sin \lambda^* \cos \Lambda + \cos \lambda^* \cos \varepsilon \sin \Lambda) Y_0 + \\
 &\quad + (-\cos \varphi \cos \lambda^* \cos \Lambda - \cos \varphi \sin \lambda^* \cos \varepsilon \sin \Lambda - \sin \varphi \sin \varepsilon \sin \Lambda) Z_0, \\
 S^2 &= (\sin \varphi \cos \lambda^* \sin \Lambda - \sin \varphi \sin \lambda^* \cos \varepsilon \cos \Lambda + \cos \varphi \sin \varepsilon \cos \Lambda) X_0 + \\
 &\quad + (\sin \lambda^* \sin \Lambda + \cos \lambda^* \cos \varepsilon \cos \Lambda) Y_0 + \\
 &\quad + (\cos \varphi \cos \lambda^* \sin \Lambda - \cos \varphi \sin \lambda^* \cos \varepsilon \cos \Lambda - \sin \varphi \sin \varepsilon \cos \Lambda) Z_0.
 \end{aligned}$$

Card 1/2

UDC: 550.380

L 38566-56

ACC NR: AP6007749

$$S_1 = (\sin \varphi \sin \lambda^* \sin \epsilon + \cos \varphi \cos \epsilon) X_0 + (-\cos \lambda^* \sin \epsilon) Y_0 + (\cos \varphi \sin \lambda^* \sin \epsilon - \sin \varphi \cos \epsilon) Z_0$$

Orig. art. has: 3 formulas and 2 figures.

SUB CODE: 08, 20/ SUBM DATE: 29Apr65/ ORIG REF: 003

Card 2/2/11LP

ACC NR: AP6028355 SOURCE CODE: UR/0203/66/006/004/0733/0742

AUTHOR: Fel'dshteyn, Ya. I.; Shevnin, A. D.

4039B

ORG: Institute of Terrestrial Magnetism, Ionosphere, and Radio Wave Propagation, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: Magnetic field of annular currents on the earth's surface according to observations during the IGY

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 4, 1966, 733-742

TOPIC TAGS: geomagnetic field, magnetic storm, magnetosphere, ~~polar disturbance, aurora, zone, horizontal component, coronal stream~~

ABSTRACT: The ring-current field DR during the magnetic-storm regeneration phase is examined. Using deviation values of the H-component of the field during the quiet state obtained in the period from 1 November 1957 through 31 December 1958 as reference data, different values for the DR field were found for the day and night sides of the earth during the storm regeneration period. The latitudinal distribution of the ring-current field is found to follow the law of the cosines for the geomagnetic latitude. Data obtained during the magnetic storm of 11 February 1958 show that the asymmetry of the disturbance field

Card 1/2

UDC: 550.385

L 43936-66

ACC NR: AP6028355

during the buildup of DR, i.e., before the maximum of the main phase is reached, in the case of intense storms can be explained without having to assume that the current belt DR₁ subsides in the ionosphere on the night side. Orig. art. has: 2 figures and 2 formulas. [DM]

SUB CODE: 08/ SUBM DATE: 07Dec65/ ORIG REF: 018/ OTH REF: 016
ATD PRESS: 5061

hs
Card 2/2

ACC NR: AP6032685

SOURCE CODE: UR/0203/66/006/005/0822/0826

AUTHOR: Ivanov, K. G.; Shevnin, A. D.

ORG: Institute of Terrestrial Magnetism, Ionosphere, and Propagation of Radio Waves, AN SSSR (Institut zemnogo magnetizma, ionosfery, i rasprostraneniya radiovoln AN SSSR)

TITLE: Geomagnetic phenomena observed during the passage of the earth through the tail of Halley's comet in 1910

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 5, 1966, 822-826

TOPIC TAGS: comet tail, comet head, ~~lower conjunction~~, ^{g¹⁰}magnetic disturbance, solar wind, ^{shock} shock wave, ~~Mach wave, magnetic sound wave, particle concentration, Halley comet~~ Comet, earth magnetism, ionized plasma

ABSTRACT: On 18--19 May 1910, the earth passed through the tail of Halley's Comet. At that time the comet was in the lower conjunction with the sun, and its distance from the earth was approximately 24 million km. The tail's length exceeded that distance. The orbital velocity of the comet was 45 km/sec, and the orbital velocity of the earth counter to the comet's head was 30 km/sec at an angle of 30°. The computed velocity of the tail at the earth's orbit was 80 km/sec. In one hr the earth travelled 300,000 km in the comet's tail. Magnetic disturbances were observed at the moment of passage. Magnetograms of Card 1/3 UDC: 550.385:523.6

ACC NR: AP6032685

S. K. Vsekhsvyatskiy, and Yu. O. Kalinin for their interest and discussions of the problem. Orig. art. has: 1 table, 2 figures and 4 formulas.

SUB CODE: 03,08,10/ SUBM DATE: 15May65/ ORIG REF: 008/ OTH REF: 013

Card 3/3

REVYAKIN, Vasiliy Petrovich, doktor tekhn. nauk; SHEVNIN, Aleksandr
Mikheylovich, dots.; KHAVINSON, Yu.I., red.

[Organization of machine repair on a year-round schedule
on the collective and state farms in Eastern Siberia] Or-
ganizatsiia remonta mashin po kruglogodovomu grafiku v
sovkhozakh i kolkhozakh Vostochnoi Sibiri. Irkutsk, Irkut-
skoe knizhnoe izd-vo, 1963. 87 p. (MIRA 17:4)

KASHIRTSEVA, M.F.; SHEVNIN, A.N.; VORONKEVICH, L.V.

Uranium-bearing glauconites. Sov.geol. 4 no.11:131-137 N '61.
(MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya.

(Uranium)

(Glauconite)

VLASOV, V.N., gornyy inzh.; SHEVNIN, B.I., gornyy inzh.

Breaking ore in chambers by using boreholes drilled through
the ore block. Gor. zhur. no.9:71-72 S '64. (MIRA 17:12)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

NOSKOV, B.M.; BORISOV, G.K.; SHEVNIN, Ye.V.

Using diffusion techniques for investigating the elimination of martensite transformation traces during high temperature annealing. Fiz. met. i metalloved. 3 no.2:278-281 '56.

(MLRA 9:11)

1. Nauchno-issledovatel'skiy institut khimii Gor'kovskogo gosudarstvennogo universiteta.
(Martensite) (Diffusion) (Iron alloys--Metallography)

SHEVNINA, N., nauchnyy sotrudnik

Fantastic play of light. Starsh.-serzh. no.2:28 F '61. (MIRA 14:7)

1. Akademiya nauk SSSR.

(Auroras)

S/203/61/001/006/012/021
D055/D113

AUTHORS: Fel'dshteyn, Ya. I., and Shevnina, N.F.
TITLE: Seasonal variations in the frequency with which aurorae appear
PERIODICAL: Geomagnetizm i aeronomiya, v. 1, no. 6, 1961, 936-938

TEXT: The authors investigate seasonal variations in the frequency with which polar aurorae appear and exclude the effect of differences in duration of observation by taking data for a definite period of time each day from a number of stations located in the aurora and polar regions of both hemispheres. The results confirm the conclusions of other authors that equinoctial maxima in the frequency with which aurorae appear occur in the aurora zone and also show that there is no maximum in winter months in the polar region. There are 3 figures, 1 table and 7 references: 4 Soviet and 3 non-Soviet. The English-language references are: C. Störmer. The Polar Aurora. Oxford, 1955; B. McInnes, K.A. Robertson. J. Atmos. and Terr.

Card 1/2

ACC NR: AP7007830

within the oval auroral zone regardless of the decrease of solar activity. The central line of the zone at night observed during the solar activity minimum was shifted toward the pole. At night, the oval zone was located between 68° and 71° geomagnetic latitude. The diurnal variation in the frequency of occurrence of auroras has one maximum at midnight at geomagnetic latitudes less than 68° and two maxima at midnight at 71° latitude. The observed maxima were attributed to the asymmetry of the auroral zone, which is nearer to the pole during the morning and evening than at midnight. The change of the position of the oval auroral zone in the IGY and the IGYQS was the same. Azimuths of stretched auroras changed markedly during the IGY as well as in the diurnal and yearly periods. Orig. art. has: 3 figures.

[EG]

SUB CODE: 04/03/SUBM DATE: 16May66/ ORIG REF: 006/ OTH REF: 006

Card 2/2

FEL'DSHTEYN, Ya.I.; SHEVNINA, N.F.

Position of the auroral zone in the southern hemisphere. Geomag.
i aer. 2 no.2:286-288 Mr-Apr '62. (MIRA 15:6)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR.

(Antarctic regions--Auroras)

FEL'DSHTEYN, Ya.I.; SHEVNINA, N.F.

Some results of visual observations of polar lights in the
northern hemisphere during the IGY--IGC. Geomag. i aer. 3
no.4:679-692 JI-Ag '63. (MIRA 16:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR.

L 33319-66 EWT(1)/ECC GW

ACC NR: AP6011700

SOURCE CODE: UR/0203/66/006/002/0312/0321

AUTHOR: Fel'dshteyn, Ya. I. ; Shevnina, N. F. ; Lukina, L. V.

49
B

ORG: Institute of Terrestrial Magnetism, The Ionosphere, and Radio-Wave Propagation, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: ¹² Polar auroras during magnetically disturbed and magnetically quiet periods

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 2, 1966, 312-321

TOPIC TAGS: aurora, magnetic field, magnetic field interference

ABSTRACT: The distribution of the frequency of the appearance of auroras at the zenith in relation to latitude for magnetically quiet and magnetically disturbed periods is derived on the basis of observational evidence from a network of cameras covering the entire sky during the years 1957 - 1959 and 1963 - 1965. The position of the zone of polar auroras on the night and day sides of the earth during magnetically quiet and magnetically disturbed periods is obtained and the presence of a noticeable asymmetry for both periods is shown. The cyclic changes in the frequency of the appearance of auroras during the night hours are discussed. The latitudinal distribution of the mean diurnal values of the frequency of appearance of polar auroras is derived. It is shown that the ratio between ΔT_{hor} at the stations Tromso, Norway, and Tikhaya, and also the distribution of magnetic activity at Canadian stations,

Card 1/2

UDC 550.388.8

2/2

BRAUDE, A.I.; SHEVNYUK, L.A.; URYANSKAYA, V.N.

Effect of polymixin M in experimental toxicosis. Antibiotiki
8 no.6:540-545 Je'63 (MIRA 17:3)

1. Laboratoriya novykh antibiotikov pri kafedre mikrobiologii
(zaveduyushchiy - chlen-korrespondent AMN SSSR prof. Z.V.
Yermol'yeva) Tsentral'nogo instituta usovershenstvovaniya
vrachey.

SHEVOROSHKIN, V. (moscow)

"Ancient Texts and the Problem of Machine Translations."

Theses - Conference on Machine Translations, 15-21 May 1958, Moscow.

AUTHOR: Shevrin, L.N. (Sverdlovsk) SOV/42-13-3-20/41
TITLE: On Some Classes of Semigroups (O nekotorykh klassakh polugrupp)
PERIODICAL: Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr 3, pp 232-233 (USSR)
ABSTRACT: A semigroup (an associative system) is called a semigroup with torsion if all its cyclic subsemigroups are finite. The author considers some subclasses of this class of semigroups and investigates their relations to each other, e.g.: A semigroup is locally nilpotent then and only then if it is a locally finite nil-semigroup or if it is a locally solvable (in a certain sense) nil-semigroup. A locally finite semigroup is a semigroup with torsion. The author gives necessary and sufficient conditions that all subsemigroups of a semigroup Γ are ideals in Γ . Several assertions of the author are not new, they can be found in Kurosh (Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1941, Vol 5).

Card 1/1

69500

16.2000

S/020/60/131/04/14/073

AUTHOR: Shevrin, L.N.

TITLE: On Densely Imbedded Ideals of Semigroups ^{1b}

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol.131, No.4, pp.765-768.

TEXT: A homomorphism which is no isomorphism is called proper. The ideal N of the semigroup T is called densely imbedded (Ref.1,2) if 1) every proper homomorphism of T in the ideal N also induces a proper homomorphism; 2) let S be a semigroup containing T and being different from T, where N is an ideal in S; then there exists a proper homomorphism of S which induces an isomorphism in N.

Principal result: A semigroup having a non-trivial annihilator, cannot be a densely imbedded ideal in any semigroup.

The proof is given by a construction of a semigroup S, $S \supset T$ in which N is an ideal and every proper homomorphism of which in N induces also a proper homomorphism. The author mentions L.M.Gluskin. There are 4 Soviet references.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet im.A.M.Gor'kogo
(Ural State University im.A.M.Gor'kiy)

PRESENTED: December 8, 1959, by A.I.Mal'tsev, Academician

SUBMITTED: December 3, 1959

4

Card 1/1

85520

16.2000

S/020/60/133/003/022/C31XX
C 111/ C 333

AUTHOR: Shevrin, L. N.

TITLE: Subsemigroups¹⁰ of Free Subgroups

PERIODICAL: Doklady Akademii nauk SSSR, 1960 Vol. 133, No.3,
pp. 537-539

TEXT: Let A be the set of the symbols a_1, a_2, \dots ; let B be the set of the symbols b_1, b_2, \dots . It is assumed that to the a_i there correspond in one-to-one way new symbols a_i^{-1} , the set of which is called A^{-1} . Every finite ordered sequence of symbols from the union of A, A^{-1} and B is called a word, if in it for no α the symbols a_α and a_α^{-1} are placed side by side. If a multiplication is defined on the set of all words of the symbols of A, A^{-1} , B by writing together two words, then the free semigroup $\Gamma = \{A, A^{-1}, B\}$ with the free generators a_i, a_i^{-1}, b_i is obtained. If A is empty, then Γ is called a pure free semigroup. The system M of free generators of Γ is called a basis, if for every $x \in M$ it holds $x \notin \{M \setminus x\}$. Every semigroup possesses the ideals $\Gamma \supseteq \Gamma^2 \supseteq \Gamma^3 \supseteq \dots \supseteq \Gamma^n \supseteq \dots$. Let $\Gamma^\omega = \bigcap \Gamma^n$; if Γ^ω is empty, then Γ is called ω -semigroup.

At first the author formulates 9 lemmata concerning the simplest

Card 1/3

85520

S/020/60/133/003/022/031XX
C 111/ C 333

Subsemigroups of Free Subgroups

properties of the free semigroups, e. g.

Lemma 7: The pure part of a free semigroup is an ω -semigroup.

Lemma 8: If the pure part of the subsemigroup H of a free semigroup is an ω -semigroup, then H possesses a basis.

Let H be a subsemigroup of a free semigroup, let F be its kernel. The basis M of H is called regular, if $M \cap F$ is a free basis of F. ✓

Let H be a subsemigroup of the free semigroup Γ and let it possess a basis. The element $s \in \Gamma$ is called H-element, if

1.) there exists an h in H so that $sh \in H$, $hs \in H$; 2.) if here it is $s^{-1} \in H$, then there exist representations, unshortable in H, $h = b_1 \dots b_k$ and $s^{-1} = b_1' \dots b_l'$ of the elements h and s^{-1} by elements of the regular basis of H, such that it holds at least one of the inequalities $b_1 \neq b_1'$, $b_k \neq b_l'$.

The subsemigroup H of the free semigroup Γ is called closed, if its pure part is an ω -semigroup and if in Γ outside of H there are no H-elements.

Card 2/3

85520

S/020/60/133/003/022/031XX
C 111/ C 333

Subsemigroups of Free Subgroups

The fundamental result of the paper is now proved:

Theorem: The subsemigroup H of the free semigroup Γ is free if and only if H is closed.

There are 4 Soviet references.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet imeni A. M. Gor'kogo (Ural State University imeni A. M. Gor'kiy)

PRESENTED: March 30, 1960, by A. J. Malt'tsev, Academician

SUBMITTED: March 27, 1960

Card 3/3

SHEVRIN, L. N.

Cand Phys-Math Sci - (diss) "Several structural problems of the theory of subgroups." Sverdlovsk, 1961. 14 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad State Pedagogical Inst imeni A. I. Gertsen, Chair of Higher Algebra); 170 copies; price not given; bibliography on pp 13-14 (39 entries); (KL, 6-61 sup, 196)

SHEVRIN, L.N. (Sverdlovsk)

General theory of semigroups. Mat.sbor. 53 no.3:367-386 Mr '61.

(MIRA 14:3)

(Groups, Theory of)

SHEVRIN, L.N. (Sverdlovsk)

Nilpotent semigroups with certain conditions of finiteness. Mat.
sbor. 55 no.4:473-480 D '61. (MIRA 15:3)
(Groups, Theory of)

SHEVRIN, L.N.

Structural properties of semigroups. Dokl.AN SSSR 138 no.1:73-76
My-Je '61. (MIRA 14:4)

1. Ural'skiy gosudarstvennyy universitet im. A.M.Gor'kogo.
Predstavleno akademikom A.I.Mal'tsevym.

(Groups, Theory of)

* SHEVRIN, L.N.

Semigroups with certain structural types of subsemigroups. Dokl.
AN SSSR 138 no.4:796-798 Je '61. (MIRA 14:5)

1. Ural'skiy gosudarstvennyy universitet imeni A.M.Gor'kogo.
Predstavleno akademikom A.I.Mal'tsevym.
(Groups, Theory of)

SHEVRIN, L.N.

Semigroups whose subsemigroup structure contains relative complements. Dokl. AN SSSR 144 no.1:72-75 My '62. (MIRA 15:5)

1. Ural'skiy gosudarstvennyy universitet im. A.M.Gor'kogo.
Predstavleno akademikom A.I.Mal'tsevym.
(Groups, Theory of)

SHEVRIN, L.N.

Semigroups of which all sub-semigroups are nilpotent. Sib. mat.
zhur. 2 no.6:936-942 N-D '61. (MIRA 15:7)
(Groups, Theory of)

SHEVRIN, L.N.

Semigroups, all subsemigroups of which coincide with their
idealizers. Mat. zap. Ural. mat. ob-va UrGu 3 no.1:85-87
'61. (MIRA 19:1)

SHEVRIN, L.N.

Structural characteristics of semigroups. Sib.mat.zhur. 3 no.3:446-
470 My-Je '62. (MIRA 15:9)
(Aggregates) (Groups, Theory of)

SHEVRIN, L.N.; KOPYTOV, V.M.

Semigroups having subsemigroups with relative complements.
Dokl.AN SSSR 145 no.5:1012-1015 '62. (MIRA 15:8)

1. Ural'skiy gosudarstvennyy universitet im. A.M.Gor'kogo.
Predstavleno akademikom A.I.Mal'tsevym.
(Groups, Theory of)

S/020/63/148/002/013/037
B125/B112

AUTHOR: Shevrin, L. N.

TITLE: Semigroups with Dedekind structure of subsemigroups

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 2, 1963, 292-295

TEXT: The set $\Sigma(\Gamma)$ of all subsemigroups of the semigroup Γ is semiordered. Semigroups $\Sigma(\Gamma)$ for which $\leq(\Sigma(\Gamma))$ is a Dedekind structure, are considered. The following result is obtained: The structure $\leq(\Sigma(\Gamma))$ is a Dedekind structure only if Γ is a strong bundle of subsemigroups each of which is an extension of a periodic module group by a nilpotent semigroup in which the union of any two subsemigroups agrees with their set-theoretical sum. ✓

ASSOCIATION: Ural'skiy gosudarstvennyy universitet im. A. M. Gor'kogo
(Ural State University im. A. M. Gor'kiy)

PRESENTED: July 6, 1962, by A. I. Mal'tsev, Academician

SUBMITTED: June 26, 1962
Card 1/1

SHEVRIN, L.N.

Semigroups with a Dedekind structure of subsemigroups. Dokl.
AN SSSR 148 no.2:292-295 Ja '63. (MIRA 16:2)

1. Ural'skiy gosudarstvennyy universitet im. A.M. Gor'kogo.
Predstavleno akademikom A.I. Mal'tsevym.
(Groups, Theory of)

SHEVRIN, L.N. (Sverdlovsk)

Semigroups, all subsemigroups of which are composition subgroups.
Mat. sbor. 61 (103) no.2:253-256 Je '63. (MIRA 16:10)

SHEVRIN, L.N.; KOPYTOV, V.M.

Semigroups, the semilattice of whose subsemigroups has
relative complements. Mat. zap. Ural. mat. ob-va UrGu
4 no.1:74-83 '63. (MIRA 17:9)

SHEVRIN, L.N.

Commutative semigroups of finite rank. Usp. mat. nauk 18 no.4:201-
204 J1-Ag '63. (MIRA 16:9)

SHEVRIN, L.N.

Subsemigroup structure characteristics of commutative nonperiodic
groups. Sib. mat. zhur. 5 no.3:671-678 My-Je '64.

(MIRA 17:6)

SHEVRIN, L.N.

Remarks on the article "Structural properties of semigroups."
Sib. mat. zhur. 5 no.3:727 My-Je '64. (MIRA 17:6)

SHEVRIN, L.N.

Structural subsemigroup characteristics of ordered groups. Usp. mat.
nauk 19 no.5:157-161 S-0 '64. (MIRA 17:11)

SHEVRIN, L.N. (Sverdlovsk)

Structural isomorphisms of commutative nonperiodical semigroups
subject to a law of contraction. Mat. sbor. 63 no.1:43-58 Ja '64.
(MIRA 17:3)

SHEVRIN, L.N.

Projective mappings of semilattices. Dokl. AN SSSR 154 no. 3:
538-541 Ja '64. (MIRA 17:5)

1. Ural'skiy gosudarstvennyy universitet im. A.M.Gor'kogo.
Predstavleno akademikom A.I.Mal'tsevym.

SHEVRIN, I.N.

Structural properties of idempotent semigroups. Part 1. Sib.mat.
zhur. 6 no.2:459-474 Mr-Ap '65. (MIRA 18:5)

SHEVRIN, L.N. (Sverdlovsk)

Fundamental aspects of the theory of projections of semistructures.
Mat. sbor. 66 no. 4 563-597 Ap '55. (MIRA 18:6)

SHEVRIN, L.N.

Some finiteness conditions in the theory of semigroups. Izv. AN SSSR.
Ser. mat. 29 no. 3:552-566 1965. (MIRA 1286)

SHEVRIN, L.N.

Local finite semigroups. Dokl. AN SSSR 162 no.4:770-773 Je '65.
(MIRA 18:5)

1. Ural'skiy gosudarstvennyy universitet im. A.M.Gor'kogo. Sub-
mitted December 21, 1964.

SHEVRIK, L.N. (Sverdlovsk)

Strong bands of semigroups. Izv.vys.ucheb.zav.; mat.
no.6:156-165 '65. (MIRA 19:1)

1. Submitted October 14, 1964.

L 39113-66 ENT(d) IJP(c) SOURCE CODE: UR/0199/66/007/002/0437/0454
ACC NR: AP6030376 24
E

AUTHOR: Shevrin, L. N.

ORG: none

TITLE: Structural properties of idempotent semigroups. II

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 7, no. 2, 1966, 437-454

TOPIC TAGS: mathematics, isomorphism

ABSTRACT: Earlier the author found the necessary and sufficient criteria for structural isomorphism of two commutative semigroups of idempotents. The next logical problem in the study of the structural properties of the semigroup of idempotents is to find the size that a class of commutative semigroups of idempotents which are structurally isomorphic with noncommutative idempotent semigroups must be in order that one of the former be structurally isomorphic with a given noncommutation semigroup. The analogous problem for rectangular semigroups was solved in part I of this work (Sibirskiy Matematicheskiy Zhurnal [Siberian Mathematical Journal], VI, No. 2, 1965, 459-474). Orig. art. has: 4 formulas. [JPRS: 36,139]

SUB CODE: 12 / SUBM DATE: 23Nov64 / ORIG REF: 003

UDC: 519.41.47
8979 1079

Card 1/1

KUZNETSOV, V.A.; ZAGAYNOVA, L.S.; KLEVTSOVA, M.P.; SHEVRINA, Z.A.

Studying electrocapillary phenomena in thallium - gold alloys.
Nauch.dokl.vys.shkoly; khim. i khim.tekh. no.2:268-272 '59.
(MIRA 12:8)

1. Predstavlena kafedroy fizicheskoy khimii Ural'skogo gosudarstvennogo universiteta im. A.M.Gor'kogo.
(Thallium-gold alloys) (Electrocapillary phenomena)

Y 49950-46 BWT(M)/BWT(M)/BWT 13P(0) JD/JG/WB

ACC NR: AP6015287

(N)

SOURCE CODE: UR/0365/66/002/003/0318/0322 32

6

AUTHOR: Kochergin, V. P.; Shevrina, Z. A.; Fomina, T. I.

ORG: Ural State University im. A. M. Gor'kiy (Ural'skiy gosudarstvennyy universitet)

TITLE: Iron corrosion in molten chlorides and phosphates of alkali metals and calcium

SOURCE: Zashchita metallov, v. 2, no. 3, 1966, 318-322

TOPIC TAGS: chloride, phosphate, corrosion rate, iron

ABSTRACT: Iron corrosion processes were studied in the following melts:

LiPO₃ - LiCl, Li₄P₂O₇ - LiCl, Li₃PO₄ - LiCl; NaPO₃ - NaCl,
 Na₄P₂O₇ - NaCl, Na₃PO₄ - NaCl, NaPO₃ - NaF; KPO₃ - KCl,
 K₄P₂O₇ - KCl, K₃PO₄ - KCl; Ca(PO₃)₂ - CaCl₂, Ca₂P₂O₇ - CaCl₂,
 Ca₃(PO₄)₂ - CaCl₂.

A decrease in the corrosion rate of iron was established in the series of meta-, pyro-, and orthophosphate melts, and for molten mixtures of phosphates and chlorides, in the series of cations Ca²⁺ - Li⁺ - Na⁺ - K⁺. The corrosion rate of iron in these melts decreases with increasing exposure and decreasing temperature. In melts kept in a vacuum and in a nitrogen atmosphere, the corrosion rate of iron is lower than in melts

Card 1/2

UDC: 620.193.43

1 2000-06

ACC NR: AP6015287

not subjected to such treatment. In chloride-phosphate melts, wüstite forms on the surface of iron; in chloride-pyrophosphate melts, magnetite is formed, and in chloride-metaphosphate melts, polymer phosphate and iron phosphide coat the iron surface. Orig. art. has: 4 figures.

SUB CODE: 11 / SUBM DATE: 28Jan65/ ORIG REF: 024/ OTH REF: 011

Card 2/2 11b

PINEGINA, N.L., kand.med.nauk; SHEVRYGIN, B.V., ordinator

Otogenic abscess of the brain and candidamycesis in children.
Vest.otorin. 23 no.2:89-90 F '61. (MIRA 14:4)

1. Iz kliniki bolezney ukha, nosa i gorla (zav. - zasluzhenny
deyatel' nauki RSFSR prof. I.Ya. Sendyl'skiy) Moskovskogo
oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta
imeni M.F. Vladimirovskogo.
(MONILIASIS) (EAR) (BRAIN—ABSCESS)

NAZAREVSKIY, L.; SHEVRYGIN, P.

Grain purchasing in the Russian Federation. Muk.-elev. prom.
27 no.10:3-4 0 '61. (MIRA 14:12)

1. Ministerstvo zagotovok RSFSR.
(Grain trade)

NAZAREVSKIY, L.; SHEVRYGIN, P.; SKOROVAROV, M.; MANUYLOV, A.

Receiving, cleaning, drying, and storing beans. Muk.-elev.
prom. 28 no.5:14-18 My '62. (MIRA 15:5)

1. Ministerstvo proizvodstva i zagotovok sel'skokhozyaystvennykh produktov RSFSR (for Nazarevskiy, Shevrygin, Skorovarov).
2. Ministerstvo proizvodstva i zagotovok sel'skokhozyaystvennykh produktov Kazakhskoy SSR (for Manuylov).
(Beans)

NAZAREVSKIY, L.; SHEVRYGIN, P.

Receive and preserve grain of durum and strong wheats in an
exemplary manner. Muk.-elev.prom. 28 no.7:3-4 J1 '62.
(MIRA 15:9)

1. Ministerstvo proizvodstva i zagotovok sel'skokhozyaystvennykh
produktov RSFSR.

(Wheat—Storage)

NAZAREVSKIY, L.; SHEVRYGIN, P.

Receive and preserve efficiently the grain of groats crops. Muk.-elev.
prom. 28 no.8:3-6 Ag '62. (MIRA 17:2)

1. Ministerstvo proizvodstva i zagotovok sel'skokhozyaystvennykh produktov RSFSR.

SH EVSHENKO, A.

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Abstract : The author discusses the method of secondary recovery by means of pumping a **viscous** salt-acid liquid through the well bottom to achieve a breakthrough of the bed adjacent to the well bottom. Different factors are analysed in order to ascertain the proper viscosity of the fluid pumped.
Institution : None
Submitted : No date

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