

L 6308-66

ACC NR: AP5026718

stable; (B) special case: one simple characteristic index of the linear part is equal to zero; (C) second special case: the zero characteristic index has a multiplicity of two. "In conclusion, the author thanks Yu. I. Neymark for discussing the present paper and for helpful suggestions." Orig. art. has: 21 formulas.

SUB CODE: DP,MA/ SUBM DATE: 24Mar65/ ORIG REF: 009/ OTH REF: 002

Card 2/2

nds

SHIL'MAN, YA. M.

VSELYUBSKIY, S.B.; SHIL'MAN, Ya.M.

New means of using active carbon for the removal of sulfur from
water gas. Gaz. prom. no.5:15-18 My '58. (MIRA 11:5)
(Water gas) (Sulfur)

L 35007-65 ENT(m)/ENF(j)/I/ENP(t)/ENP(b) Pc-4 IJP(c) JD/PM

ACCESSION NR: AP5008527

S/0286/65/000/006/0034/0034

AUTHOR: Shil'man, Ya. M.; Vselyubskiy, S. B.; Alenina, O. S.; Saulina, V. V.;
Vasil, A. Ya.

TITLE: A method for producing modified carbon black. Class 22, No. 169153

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 34

TOPIC TAGS: carbon black

ABSTRACT: This Author's Certificate introduces a method for producing modified carbon black by introducing admixtures to a liquid hydrocarbon stock or to a mixture of gas and carbon. The quality of the carbon black is improved and a wider selection of raw materials is provided by using organic or inorganic compounds of metals in group VI of the periodic table.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

SUBMITTED: 24Feb64

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

Card ///

SHIL'MAN, Ye.I., kandidat tekhnicheskikh nauk.

Construction of precast reinforced concrete bridges on the roads
of Ukraine. Avt.dor.19 no.5:9-11 My '56. (MLBA 9:8)
(Ukraine--Bridge construction)

NOVIKOV, N.V., gornyy inzh.; SHIL'MAN, Ye.L., gornyy inzh.

Radio communication in ~~shaft sinking~~ in the Mel'nikov Mine
No.7. Ugol' Ukr. 6 no.11:36 N '62. (MIRA 15:12)

1. Trest Kadiyevpodzemshakhtostroy.
(Donets Basin--Radio in mining)

SHIL'MAN, Ye.L., inzh.; NOVIKOV, N.V., inzh.; BARDANOV, B.P., inzh.

Sinking of vertical shafts with the help of deep, blastholes.
Shakht. stroi. 8 no.9:26-27 S '64. (MIRA 17:12)

1. Trest Kadiyevpodzemshakhtorstroy.

S/141/63/006/001/015/018
E140/E135

AUTHOR: Shil'man, S.V.

TITLE: The theory of automatic control systems with modulation

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v.6, no.1, 1963, 179-191

TEXT: Servomechanisms with a.c.-powered elements, control systems with continuous amplitude modulation or with pulse amplitude modulation, automatic control systems with discontinuously varying parameters, etc., can be reduced to a system described by linear differential equations with continuously and piecewise continuously periodically varying coefficients which satisfy the Dirichlet conditions. Using Hill's method, based on the Laplace transform, the solution is obtained in the form of a series of modulated harmonics. The characteristic polynomial of the system is found in the form of an infinite determinant, whose convergence is examined. The conditions are found under which the problem can be reduced to the solution of linear differential equations with constant coefficients.

~~Card~~

Sci. Res. Physics-Tech. Inst. at Leningrad Univ

SHIL'MAN, S.V.

Contribution to the theory of automatic control systems with
modulation. Izv. vys. ucheb. zav.; radiofiz. 6 no.1:179-191
'63. (MIRA 16:7)

1. Nauchno-issledovatel'skiy fiziko-tehnicheskiiy institut pri
Gor'kovskom universitete.

(Automatic control)

SHIL'MEYSTER, A.S.; SHIL'MEYSTER, A.P.

Two-unit KAS-22 automatic knitter without casting-off mechanisms.
Tekst.prom. 21 no.5:66 My '61. (MIRA 15:1)
(Knitting machines) (Hosiery)

SHIL'MEYSTER, A.S.; SHIL'MEYSTER, A.P.

Two-unit KAS-22 automatic knitter without casting-off mechanisms.
Tekst.prom. 21 no.5:66 My '61. (MIRA 15:1)
(Knitting machines) (Hosiery)

ACC NR: AR7004885

SOURCE CODE: UR/0276/66/000/009/V032/V032

AUTHOR: Aryshenskiy, Yu. M. ; Shil'meyster, B. D. ; Fedorova, T. M. ;
Yurkenik, T. A.

TITLE: Problems related to wrapping VT1-2 and OT4-1 titanium alloys

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 9V235

REF SOURCE: Tr. Kafedry proiz-va letatel'n. apparatov. Kuybyshevsk. aviats.
in-t, vyp. 20, ch. 2, 1965, 55-59

TOPIC TAGS: titanium alloy, material deformation, mechanical properties,
wrap forming, jacketing

ABSTRACT: A study was made of the maximum permissible amount of deforma-
tion of billets at which maximum strain hardening does not affect the initial
mechanical properties of the material. The samples were exposed to stretching
prior to obtaining 2, 3, 5, 10, 12 and 15% of the residual elongation, after which the
experimental data were correlated with those obtained by calculation. It was
determined that in work-hardening by tension up to 5—5%, the mechanical proper-

UDC: 621.981.011

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ACC NR: AR7004885

ties of the specimen remain within the limits of the specifications, and that parts can be manufactured from these materials by wrap-forming without subsequent annealing. A study was made of the effect of changes in the mechanical properties due to deformation by stretching and the changes in the permissible amount of thinning and narrowing of the material on the overall amount of deformation by wrapping. Orig. art. has: 3 figures. S. Shirman. [Translation of abstract]

[AM]

SUB CODE: 11, 13/

Card 2/2

ACC NR: AR7004886

SOURCE CODE: UR/0276/66/000/009/V032/V032

AUTHOR: Sorokin, I. N.; Shil'meyster, B. D.; Grebennikov, O. P.

TITLE: Test data on vibration wrapping of sheets

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 9V236

REF SOURCE: Tr. Kafedry proiz-va letatel'n. apparatov. Kuybyshevsk. aviats. in-t, vyp. 20, ch. 2, 1965, 75-83

TOPIC TAGS: sheet metal, vibration analysis, metal test, material deformation, vibration wrapping

ABSTRACT: Conditions for modernizing wrapping presses were analyzed for the purpose of using vibrational forming of blanks at the final stage of wrapping. A laboratory setup was developed for wrap-forming vibration. According to the results obtained from tests on the experimental setup, it was determined that the combination of static and vibrational methods of application of force in forming a specimen reduces the number of transitory stages by 25—30%. The deformation resistance of metal is reduced and the area of uniform deformations is slightly increased. The

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UDC: 621.981.011

L 26272-66 EWP(k)/EWI(m)/EWA(d)/EWP(t) IJP(c) JH/JD/HW
ACC NR: AP6012612 SOURCE CODE: UR/0182/66/000/004/0023/0024

AUTHOR: Sorokin, I. N.; Saparovskiy, S. V.; Smelyakov, Ye. P.; Shil'meyster, B. D.

ORG: none

TITLE: Stretch forming of metal sheets with vibrations

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 4, 1966, 23-24

TOPIC TAGS: metal forming, sheet forming, stretch forming, vibration forming

ABSTRACT: The effect of vibration in stretch forming has been investigated in forming DL6AM aluminum-alloy sheets (200 x 300 x 1 mm). Vibrations were applied either perpendicular to or in the direction of the stretching pressure. Perpendicular vibrations with a force of 110—355 kg, a frequency of 45—70 Hz, and an amplitude of 0.3—0.8 mm increased considerably the relative deformation at the same stretching pressure. The relative deformations achieved in the first four stretch forming steps were 7.0, 12.5, 15.5, and 17.0% without vibration and 11.0, 17.5, 15.5, and 26.0 with vibration. Vibration in the direction of stretching pressure at a frequency of 20—30 Hz and an amplitude of 0.09—0.22 mm had a similar effect. It increased the relative deformation in five steps from 7.5, 9.5, 12.0, 14.0, and 16.0% to 13.5, 16.0, 20.0, 24.0, and 27.0%. Thus, vibration increases the relative deformation and makes it possible to achieve the desired shape in fewer steps or to use a lower pressure to achieve the same relative deformation compared to

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UDC: 621.98.043

L 26272-66

ACC NR: AP6012612

0

conventional stretch forming without vibration. Vibrations applied simultaneously in both directions reduce the stretching pressure by 30% and increase the relative deformation from 22.5 to 33.0%. Orig. art. has: 1 figure and 4 tables. [WW]

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 001/ ATD PRESS: 4243

Card 2/2 . CC

L 46969-66 EWP(k)/EWT(m)/EWP(t)/EPI LJP(c) JD/HW/JH
 ACC NR: AT6024946 (A,N) SOURCE CODE: UR/2981/66/000/004/0307/0311

AUTHOR: Gol'dbukht, G. Ye.; Mal'tseva, L. I.; Shil'meyster, B. D.; Chunarev, V. A.

ORG: none

TITLE: Study of the capacity of semifinished products of V95-2 alloy for cold deformation

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat resistant and high-strength alloys), 307-311

TOPIC TAGS: cold working, metal deformation, aluminum alloy property

ABSTRACT: Semifinished products of V95-2 alloy (sheets of 1.5 and 4 mm, tubes 40 x 1.5 and 20 x 1.5 mm, sections Pr100-6 and Pr113-2) were tested for cold deformation. Their chemical composition was (in %): Cu 1.5-2.7, Mg 1.3-2.7, Zn 3.0-4.7, Mn 0.2-0.8, Fe up to 0.8, Si up to 0.7, Ti no more than 0.05, Cr up to 0.25. It was found that the sheet material in the annealed and freshly quenched state can be subjected to stamping, forming and shaping operations. For sections with wall thicknesses of 1.0-1.5 mm in the quenched and artificially aged state, the following operations are permissible: bending with radii up to 120 mm, fullering with extension and fitting of the vertical flange with a radius up to 90 mm, incisions with a deformation up to 40%, beveling at angles up to 15°. Tubes 40-20 mm in diameter with a wall thickness of 1.5 mm can be subjected to bending with radii up to 70 mm in the annealed and freshly

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L 49709-05

ACC NR: AT6024946

3

quenched states without preheating and in the quenched and artificially aged state/
with preheating of the area of deformation. In the processes of cold deformation,
studied, the semifinished products of V95-2 alloy can be used instead of ^UD1, AK6, and
D16M alloys for a number of products made by cold deformation processes. Orig. art.
has: 2 figures and 2 tables.

SUB CODE: 11/ SUBM DATE: none

rs
Card 2/2

Shilnik, M.N.

15

Vegetable-base thermo-insulating material. I. A. Kor-
 chagin, L. I. Bykova, and M. N. Shilnik. U.S.S.R. 108,1
 438. Dec. 26 1957. Dried *Luffa* steeped for 30 min. in a
 5% soln. of $(NH_4)_2PO_4$ at 80°. It is then dried at 30-50°
 and immersed in a 10-15% soln. of poly(chlorovinyl) resin
 in AcOBu or dichloroethane. The *Luffa* thus prepd. is
 pressed under 0.1 kg/cm², and the pressed product is
 dried for 20 hrs. at 30-50°. M. Huseh

Distr: 4E20 J.

4
2 May

JAF

MEL'NIK, M.I., inzh.; SHIL'NIK, M.N., inzh.

New protective coating for metal surfaces. Sudostroenie 25
no.6:30-32 Je '59. (MIRA 12:9)
(Protective coatings) (Ships--Painting)

SHIL'NIK, M.N., inzh.; VOL'SKIY, E.V., inzh.

LKF-2 plastic furniture for ships. Sudostroenie 27 no.10:50-
53 0 '61. (MIRA 14:12)

(Furniture)

(Plastics)

(Ships--Equipment & supplies)

SHHIL'NIK-YARROS, Ye. G.

"Morphology of the Bidual Analysor", Zhurnal Vysshey Nervnoy Devatel'nosti,
Vol 4, No. 2, pp 289-304, 1954.

Neurohistology Laboratory, Brain Institute, Ministry Of Health USSR.

SO: Translation-M-730, 25 Aug 1955.

SHIL'NIKOV, A., kapitan 1-go ranga

Persuasiveness and resultfulness in propaganda work. Komm Vooruzh.
S11 2 no.4:20-25 F '62. (MIRA 15:2)

1. Nachal'nik otdela propagandy i agitatsii politupravleniya
Tikhookeanskogo flota.
(Russia--Armed forces--Political activity)

27 18
Electrolytic nickel plating of metals. A. M. Ozbrov and
A. V. Shil'mkov, U.S.S.R. 106,275, July 25, 1957.
Metals are plated with Ni from a bath contg. 300-50 g./l.
NiSO₄ and 20 g./l. H₂SO₄ with intense stirring, at a cathodic
c.d. of 18 amp./sq. dm. and an anodic c.d. of 5 amp./sq. dm.
at 50-70°. The bath may also contain Na disulfophthalate.
The process is intensified and the deposit is improved by
using an asymmetric a.c. with an amplitude ratio of 4:1.
This is obtained from a transformer equipped with elec.
valves and fed by an industrial a.c. M. Hosh

4
4E2C
MT RB

SHIL'NIKOV, I.L.

Testing the RD-03 conical mill. Bumagodel.mash. no.6:83-90 '58.
(MIRA 13:8)

(Woodpulp industry--Equipment and supplies)

SHIL'NIKOV, I.L.

Testing high-speed conical mills. Bumagodel. mash. no.8:40-51 '60.
(MIRA 14:3)

(Papermaking machinery)

VANCHAKOV, V.M.; SHIL'NIKOV, I.L.

Mills for woodpulp production. Bumagodel.mash. no.9:33-45 '61.
(MIRA 15:1)

(Woodpulp industry--Equipment and supplies)

SHIL'NIKOV, I.L.; KALASHNIKOV, A.P.

Disk mills for the production of wood fiber tiles. Bumagodel.mash.
no.9:46-52 '61. (MIRA 15:1)
(Woodpulp industry--Equipment and supplies)

SHIL'NIKOV, I.L.

Industrial testing of the ML-01 and ML-05 conical refining mills.
Bumagodel.mash. no.9:53-63 '61. (MIRA 15:1)
(Papermaking machinery)

SHIL'NIKOV, I.L., inzh.

Classification of conical beaters. Trudy LTITSBP no.11:27-33
'62. (MIRA 16:10)

PEREKAL'SKIY, N.P., doktor tekhn.nauk; SHIL'NIKOV, I.L., inzh.

Investigating the process of pulp beating in a conical mill.
Report No.1. Trudy LITSEB no.11:34-42 '62. (MIRA 16:10)

KUZNETSOV, Yu.B.; LAVRENOV, B.K.; CHASOVSKIKH, G.G.; SHABANOV, A.M.;
SHIL'NIKOV, L.I.

Local use of tripaflavin in alveolar echinococcosis of the liver.
Med.paraz.i paraz.bol. 29 no.4:421-426 J1-Ag '60.

(MIRA 13:11)

1. Iz kafedr gosпитal'noy khirurgii (zav. - prof. I.L. Bregadze)
i patologicheskoy anatomii (zav. - prof. V.M. Konstantinov) Novo-
sibirskogo meditsinskogo instituta (dir. - prof. G.D. Zaleskiy)
(LIVER)--HYDATIDS) (ANTISEPTICS)

PEREKAL'SKIY, N.P.; SHIL'NIKOV, I.L.

Investigating the milling process on con. cal mills. Trudy LTITSBP
no.13:91-100 '64. (MIRA 18:2)

Card

S/170/59/000/06/008/029
2131/3159

AUTHORS: Neymark, Yu.I., and Shil'nikov, L.P. (Ger'kiy)

TITLE: On the Application of the Method of Small Parameters to Systems of Differential Equations with Discontinuous Right-hand Terms

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 6, pp 51-59 (USSR)

ABSTRACT: The method described is based on Poincare's theory (Ref 1), where a solution of the system of differential equations, such as Eq (1.1) for $\mu = 0$, can be found. Similar periodic solutions can be derived for sufficiently small μ . Because in this case the analytical continuity of solutions should be maintained, the function $F_S(t; x_1, \dots, x_n; \mu)$ must be analytical. If Lyapunov's theory is applied, then the right-hand term of Eq (1) will become more limited. Thus, the method described can be applied in such cases as dry friction, relay or partly linear systems. The above limitations can be avoided if a series of periodic solutions of the function F_S are defined as in the case of smooth surfaces with broken continuity. This

Card
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16.9500

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S/141/60/003/03/011/014

E192/E382

AUTHORS: Neymark, Yu.I. and Shil'nikov, L.P.

16A

TITLE: Investigation of Nearly Piece-linear Dynamic Systems

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1960, Vol. 3, No. 3, pp.478 - 495

TEXT: The results obtained in an earlier work (Ref. 3) are extended to the nearly piece-linear systems by employing the method of a small parameter (Refs. 1-3). It is assumed that depending on the state and possibly the previous behaviour of the dynamic system considered, this can be described by one of N systems of the differential equations of the type (Ref. 9):

✓

$$dx_i^j/dt = X_i^j(t; x_1^j, \dots, x_{n_j}^j) \quad (1.1)$$

(i = 1.2, ..., n_j; j = 1.2, ..., N).

The transformation from p description to q system of description takes place when the transformation point is on the surface:
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S/141/60/003/03/011/014

E192/E382

Investigation of Nearly Piece-linear Dynamic Systems

$$S_{pq}(t; x_1^p, \dots, x_n^p) = 0; \quad \Omega_{pq}^s(t; x_1^p, \dots, x_n^p) > 0 \quad (1.2) \quad \checkmark$$

$$(s = 1, \dots, r_{pq});$$

Here, the values of the new variables $x_1^q, \dots, x_{n_q}^q$ at the instant t are determined by the values of the previous variables at the same instant and are defined by:

$$x_j^q = G^{pq}(t; x_1^p, \dots, x_n^p) \quad (1.3)$$

$$(j = 1, 2, \dots, n_q) .$$

The functions x_i^j of each system of Eqs. (1.1) and also the
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S/141/60/003/03/011/014

E192/E382

Investigation of Nearly Piece-linear Dynamic Systems

functions S, Ω, G are capable of being differentiated a suitable number of times. Further, it is assumed that if the system is non-autonomous, i.e. if the time t is explicitly present in at least one of the functions X, S, Ω, G , the functions are periodic with a period 2π . The phase space of the above system consists of phase sub-spaces Φ_1, \dots, Φ_n .

The transition from one phase sub-space Φ_p into another sub-space Φ_q is effected in accordance with the transformation defined by Eq (1.3), provided the conditions of Eq.(1.2) are met. Consequently, the points of the surface S_{pq} of the phase sub-space Φ_p , which satisfy Eq. (13), can be regarded as being identical with the corresponding points of the phase sub-space Φ_q . As an example of a system which can be described by the above equations, the following system of differential equations:

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S/141/60/005/03/011/014

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Investigation of Nearly Piece-linear Dynamic Systems

$$dx_i/dt = f_i (t; x_1, \dots, x_n) \quad (1.4)$$

$$(i = 1, 2, \dots, n)$$

is considered. In this system, the functions φ_i are subject to the discontinuities of the first kind on the smooth surfaces S_α , which split the space D of the variables x_1, x_2, \dots, x_n and t into regions D_1, \dots, D_k . In each of these regions, D_j , the equations of motion are in the form of Eqs. (1.5), where f_i^j are smooth functions in D_j . In order to obtain a complete description of the phase-point motion it is necessary to determine what happens when the point reaches the boundary of the region D_j . For this purpose, various special cases of the phase trajectories lying in the vicinity of the discontinuity surfaces S_α

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S/141/60/003/03/011/014

E192/E382

Investigation of Nearly Piece-linear ^{E192/E382} dynamic Systems

are investigated. In the sub-space Φ_k , a trajectory L is described by a system of vectorial equations defined by Eq. (2.1). Now the transformation $T_k G^{k-1}$ of the solution of Eqs (2.1) is in the form of Eqs (2.5). Investigation of the stability of the periodic solutions of the system represented by Eqs (1.1) for $\mu = 0$ is done by considering the characteristic equation, which is in the form of Eq (3.6). The periodic solution is stable for all the roots of the characteristic equation lying inside a unit circle. It is shown that the periodic solutions corresponding to the generating solutions for μ are stable if $(n - m)$ roots of the characteristic equation, are smaller than unity and if the roots of Eq. (4.6) lie in the lefthand semiplane. The above analytical results are used to investigate some special systems. The first of these is described by Eqs (5.1). The second system is

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82456

S/141/60/003/03/011/014

E192/E382

Investigation of Nearly Piece-linear Dynamic Systems

represented by Eqs.(5.10); the periodic solutions of this system are determined. The last example is represented by Eqs. (5.12). There are 8 figures and 14 Soviet references. ✓

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tehnicheskii institut pri Gor'kovskom universitete
(Scientific-Research Physics-Engineering Institute of Gor'kiy University)

SUBMITTED: January 16, 1960

Card 6/6

NEYMARK, Yu.I.; SHIL'NIKOV, L.P.

Study of the stability of the periodic motion of quasilinear systems.
Izv. vys. ucheb. zav.; radiofiz. 4 no.4:776-779 '61. (MIRA 14:11)

1. Nauchno-issledovatel'skiy fiziko-tekhnicheskiy institut pri
Gor'kovskom universitete.

(Oscillations) (Automatic control)

16,3450

S/O2C/62/143/002/005/022
B112/B106

AUTHOR: Skil'nikov, L. P.

TITLE: Some cases of production of periodic motions in
n-dimensional space

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 2, 1962, 289-292

TEXT: The author considers systems of differential equations
 $dx_i/dt = X_i(x_1, x_2, \dots, x_n; \mu)$, where the parameter $\mu = 0$ corresponds to the
state of equilibrium. Conditions are derived under which a stable
periodic motion is produced by a trajectory entering the state of
equilibrium with a state of non-equilibrium. The present results are
generalizations of results obtained by A. A. Andronov and Ye. A. Leontovich
(Matem. sborn., 48 (90), 3, 335 (1959)). There are 13 references:
12 Soviet and 1 non-Soviet.

√B

Card 1/2

L 17835-63 EPA(b)/EWT(d)/EWT(1)/FCG(w)/FS(v)-2/BDS/ES(v) AFFTC/AFMDC
ESD-3/APGC/IJP(C)/SSD Pd-4/Ps-4/Pg-4/Po-4/Pq-4 TF

ACCESSION NR: AP3004793 S/0039/63/061/004/0443/0466

AUTHOR: Shil'nikov, L. P. (Gor'kiy)

87
85

TITLE: On certain cases of originating periodic motions from singular trajectories

SOURCE: Matematicheskiy sbornik, v. 61, no. 4, 1963, 443-466

TOPIC TAGS: motion generation, stable periodic motion, saddle-node-type equilibrium, saddle-type equilibrium, separatrix surface, point transformation method

ABSTRACT: The following two cases of originating stable periodic motions from singular trajectories are investigated: a) from a trajectory going from saddle node to saddle node and b) from a trajectory going from saddle to saddle. In the first case is considered the system of differential equations

$$\frac{dx_i}{dt} = X_i(x_0, x_1, \dots, x_n; \mu), \quad i = 0, 1, \dots, n, \quad (1)$$

where X_i are definite analytic functions with respect to the variables

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L 17835-63

ACCESSION NR: AP3004793

x_0, x_1, \dots, x_n . Characteristics of the composite state of the saddle-node type are established for the parameter μ . On the basis of these characteristics it is proved that when the composite state of the saddle-node type vanishes, only one periodic motion originates from the trajectory going from the saddle node to a saddle node which is not located on the separatrix surface. This motion is stable either at $t \rightarrow +\infty$ or at $t \rightarrow -\infty$. In the second case is considered the system of differential equations

$$\frac{dx_i}{dt} = X_i(x_1, \dots, x_n; \mu), \quad i = 1, \dots, n, \quad (2)$$

where X_i is a twice continuously differentiable function with respect to the arguments x_1, \dots, x_n , and μ is the parameter. Assuming that at $\mu = 0$ system (2) has a simple, saddle-type state of equilibrium in which all roots of the characteristic equation except the root $\lambda_n > 0$ have negative real parts, the theorem is proved by establishing that when

$$-\operatorname{Re} \lambda_i(0) > \lambda_n(0), \quad i = 1, \dots, n-1,$$

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L 17835-63

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ACCESSION NR: AP3004793

then for sufficiently small $\mu > 0$ ($\mu < 0$) only one stable periodic motion originates from the trajectory going from the saddle to the saddle. The proof of the theorem was based on the proof of the existence of a fixed point of a certain point transformation. "The author thanks his scientific supervisor Yu. I. Neymark and Ye. A. Leontovich-Andronova for their useful advice and for reviewing the article." Orig. art. has: 98 formulas and 5 figures.

ASSOCIATION: none

SUBMITTED: 15Jun62

DATE ACQ: 27Aug63

ENCL: 00

SUB CODE: MM

NO REF SOV: 009

OTHER: 000

Card 3/3

NEEMARK, V.I.; TRIL'NIKOV, I.P.

On the origin of the genesis of periodic motions. Izv. vys. ucheb.
zav.; radiofiz. S. no. 4:399-414 '65. (MIRA 16:6)

1. Nauchno-issledovatel'skiy fiziko-tekhnicheskii institut
pri Tav'kovskom universitete.

SHIL'NIKOV, L.P.

A case of the existence of a denumerable set of periodic motions.
Dokl. AN SSSR 160 no.3:558-561 Ja '65.

(MIRA 18:3)

1. Issledovatel'skiy fiziko-tekhnicheskii institut pri Gor'kovskom
gosudarstvennom universite im. N.I. Lobachevskogo. Submitted
July 28, 1964.

NEYMARK, Yu.I.; SHIL'NIKOV, L.P.

A case of generation of periodic motions. Dokl. AN SSSR 160 no.6:
1261-1264 F '65. (MIRA 18:2)

1. Issledovatel'skiy fiziko-tehnicheskiy institut pri Gor'kovskom
gosudarstvennom universitete im. N.I. Lobachevskogo. Submitted
July 28, 1964.

VOL'FSON, L. Ya.; LEBOVSKY, V. I., SHIL'NIKOV, W. S.

M. Ekonomika Transporta (The Economics of Transport). Moskva, 1941.

Soviet Source:

Abstracted in USAF "Treasure Island", on file in Library of Congress, Air
Information Division, Report no. 97566

SHILNIKOV, N.

On the improvement of economic management in railroad transport.
Transp delo 6 no.1:11-24 '54,

GIBSHMAN, A. Ye.; DANILOV, S. K., professor; DMITRIYEV, V. I.; KORNEYEV, A. I.;
TVERSKOY, K. N.; UMBLIYA, V. E.; KHANUKOV, Ye. D.; CHERNOMORDIK, D. I.;
GHUDOV, A. S.; SHIL'NIKOV, N. S.; KRISHTAL', L. I., redaktor; KHITROV,
P. A., tekhnicheskly redaktor

[Economics of transportation] Ekonomika transporta. Moskva, Gos.
transp. zhel-dor. izd-vo, 1955. 617 p. (MLBA 9:3)
(Railroads--Finance)

SHIL'NIKOV, Nikolay Stepanovich.

[Transportation in the U.S.S.R. and its growth] Transport SSSR i ego
razvitie. Moskva, Transzheldorizdat, 1957, 70 p. (MIRA 10:5)
(Transporation)

Shil'nikov, N. S.

293

PHASE I BOOK EXPLOITATION

Gibshman, A. Ye., Danilov, S. K., Dmitriyev, V. I., Korneyev, A. I.,
Tverskoy, K. N., Umbliya, V. E. Khanukov, Ye. D., Chernomordik, D. I.,
Chudov, A. S., ~~Krishtal', L. I.~~, Shil'nikov, N. S.

Ekonomika transporta (The Economics of Transportation) 2d rev.
ed. Moscow, Transzheldrizdat, 1957. 711 p. 30,000 copies
printed.

Ed.: Krishtal', L. I., Tech. ed.: Khitrov, P. A.

PURPOSE: This textbook is intended for students in engineering-
economic branches of Railway Transportation Institutes, as well
as for railway workers engaged in the independent study of railway
economics.

COVERAGE: The economic aspects of railway transportation are dis-
cussed in the textbook. It covers such subjects as technical-
economic problems, the most efficient way to use available
facilities, methods for planning and organizing various branches
of transportation operations and production, wages, costs, finances,
and business accountability (khozraschet).

See card for Gibshman, A. Ye. for abstract.

NAYDENOV, I.; SHIL'NIKOV, V.

Apartment house built by one brigade. Na stroi.Ros. 3 no.8:8-9
Ag '62. (MIRA 15:12)

1. Glavnyy inzhener Sverdlovskogo tresta Zhilstroy (for
Naydenov). 2. Nachal'nik otдела truda i zarabotnoy platy
Sverdlovskogo tresta Zhilstroy (for Shil'nikov).
(Sverdlovsk--Apartment houses)

SHIL'NIKOV, V.A., kandidat tekhnicheskikh nauk; KUBLANOVA, M.B., inzhener.

New method of testing gravel for wear. Avt. dor. 19 no.2:18-19 F
'56. (Gravel) (MLRA 9:6)

VOSTROV, A.I., kandidat tekhnicheskikh nauk; SHIL'NIKOV, V.A., kandidat tekhnicheskikh nauk.

Stability of gravel roadbeds under asphalt concrete pavements.
Avt.dor.19 no.3:8-10 Mr '56. (MLRA 9:7)
(Pavements)

SHIL'NIKOV, V.A., kand. tekhn. nauk; KUBLANOVA, M.B.

Using small cement doses in strengthening crushed limestone mixes.
Avt.dor. 21 no.10:6-7 0 '58. (MIRA 11:11)
(Limestone) (Cement)

SHIL'NIKOV, Viktor Alekseyevich; KUBLANOVA, Margarita Borisovna; YAKOVLEVA, A.I., red.; GALAKTIONOVA, Ye.N., tekhn.red.; NIKOLAYEVA, L.N., tekhn.red.

[Using cement in consolidating local materials to be used in constructing roadbeds] Ukreplenie tsementom mestnykh materialov dlia dorozhnykh osnovanii. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1960. 45 p.

(MIRA 13:9)

(Cement)

(Road construction)

SHIL'NIKOV, V.I., mladshiy nauchnyy sotrudnik

Method used in iceberg observations. Inform biul. Sov. antark.
eskp. no.5:11-14 '59. (MIRA 12:10)

1.Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
institut.

(Antarctic regions--Icebergs)

3(5)

SOV/26-59-7-3/55

AUTHORS: Brodskiy, K.A., Markov, K.K., and Shil'nikov, V.I.

TITLE: The Zonality of Moderate and High Latitudes of the Southern Hemisphere

PERIODICAL: Priroda, 1959, Nr 7, pp 19-26 (USSR)

ABSTRACT: The article deals with the establishment of zones of moderate and high latitudes of the Southern Hemisphere based on the findings of the Antarctic expeditions of the AS USSR during 1955-56, 1956-57, and 1957-58, as well as those of Western scientists. It also discusses hydrological and biological aspects of that region. The chart enclosed between pp 24 and 25 shows the boundaries of the antarctic, subantarctic, and moderate zones, as well as other geographical data compiled by the expeditionary ship "Lena", the diesel-electric ship "Ob'", and the diesel ship "Kooperatsiya". The article mentions the names of the following Soviet scientists: B.P. Alisov, G.M. Tauber, V.I. Shil'nikov, K.A. Brodskiy, K.K. Markov, Tolstikov, Golyshev, and

Card 1/2

SOV/26-59-7-3/55

The Zonality of Moderate and High Latitudes of the Southern Hemisphere

Kolp. There are 2 photos, 1 diagram, 1 chart, 4 graphs and 8 references, 3 of which are Soviet, 3 English, 1 Argentinian, and 1 Australian.

ASSOCIATION: Kompleksnaya Antarkticheskaya ekspeditsiya Akademii nauk SSSR (Joint Antarctic Expedition of the AS USSR)

Card 2/2

SHESTERIKOV, N.P., mladshiy nauchnyy sotrudnik; SHIL'NIKOV, V.I., mladshiy nauchnyy sotrudnik

Safety measures for cargo transportation on fast ice in the Mirnyy areas. Inform. biul. Sov. antark. eksp. no.7:26-30 '59
(MIRA 13:3)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

(Mirnyy region--Transportation, Automotive--Freight)

GORDIYENKO, P.A., starshiy nauchnyy sotrudnik; FEDOTOV, V.I., inzh.-
laborant; SHIL'NIKOV, V.I., mladshiy nauchnyy sotrudnik;
BUYNITSKIY, V.Kh., doktor geograf.nauk, red.; PAKHAREVA, M.M.,
red.; DROZHZHINA, L.P., tekhn.red.

[Materials of the Soviet Antarctic Expedition, 1955-] Mate-
rialy Sovetskoi antarkticheskoi ekspeditsii, 1955- . Lenin-
grad, Izd-vo "Morskoi transport." Vol.11. [Ice cover of the
shore waters of eastern Antarctica] Ledianoi pokrov pribrezh-
nykh vod Vostochnoi Antarktity. 1960. 116 p.

(MIRA 14:2)

1. Sovetskaya antarkticheskaya ekspeditsiya, 1955- .
(Antarctic regions--Russian exploration)

S/169/61/000/010/021/053
D228/D304

AUTHOR: Shil'nikov, V. I.

TITLE: Experimental calculation of the volume of icebergs in Antarctica

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1961, 56, abstract 10V371 (V sb. Probl. Arktiki i Antarktiki, no. 6, I., Morsk. transport, 1960, 27-36)

TEXT: The experimental calculation is stated for the volume of icebergs in Antarctica in the sector between 44° and 168° E. 31,300 icebergs, containing 4165 km^3 of fresh ice, are situated in the area under consideration. This value comprises 85% of the average amount of the annual discharge of fresh water and ice in the Arctic Ocean. In the eastern half of the described area of Antarctica there is 8 times more land ice than in the western half. In their vertical and horizontal dimensions, the icebergs of the eastern part considerably exceed those of the western half. ✓

Card 1/2

Experimental calculation of...

S/169/61/000/010/021/053
D228/D304

The average duration for the existence of icebergs is 12 years. The chief role in the general volume of ice "breakage" in the sea belongs to the discharge glaciers. The "productivity" of ice shelves is two times less than the volume of icebergs deposited from the discharge glaciers. The significance of the land-ice barrier in the general "productivity" is small. 4 references. [Abstracter's note: Complete translation.] ✓

Card 2/2

SHIL'NIKOV, V.I., mladshiy nauchnyy sotrudnik

Volume and number of icebergs in Antarctica. Inform. biul. Sov.
antark. eksp. no.21:34-37 '60. (MIRA 13:10)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.
(Antarctic regions--Icebergs)

BARDIN, V.I., aspirant; SHIL'NIKOV, V.I., mladshiy nauchnyy sotrudnik

"Productivity" of the coast of eastern Antarctica. Inform. biul.
Sov. antark. eksp. no.23:28-32 '60. (MIRA 14:5)

1. Moskovskiy gosudarstvennyy universitet i Arkticheskiy i
antarkticheskiy nauchno-issledovatel'skiy institut.
(Antarctic regions--Glaciers)

SHIL'NIKOV, V.I.; RESHETKIN, V.I.

"Methodological directions." No.14: Aerial observations of sea ice.
Reviewed by V.I.Shil'nikov, V.I.Reshetkin. Okeanologiya 1 no.4:
773-774 '61. (MIRA 14:11)
(Sea ice)

SHIL'NIKOV, V.I., mladshiy nauchnyy sotrudnik; BARDIN, V.I., aspirant

Distribution of icebergs off the coasts of eastern Antarctica.
Inform. biul. Sov. antark. eksp. no.36:19-21 '62.

(MIRA 16:4)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
institut i Moskovskiy gosudarstvennyy universitet.
(Antarctic regions--Icebergs)

KUPETSKIY, V.N.; LAKTIONOV, A.F.; SHIL'NIKOV, V.I.

Review of V.S. Nazarov's book "Ice c the Antarctic waters."
Okeanologia 5 no.1:180-186 '65. (MIRA 18:4)

SHIL'NIKOV, V. I.

SHIL'NIKOV, V. I. -- "The Effect of Disorders in Zoohygienic Maintenance Conditions on the Development of Pulmonary Diseases in Lambs." Min Agriculture USSR. Moscow, 1956. (Dissertation for the Degree of Candidate in Veterinary Sciences).

So.: Knizhnaya Litopis', No. 7, 1956.

USSR/Diseases of Farm Animals. Noninfectious Diseases

R-2

Abs Jour : Ref Zhur - Biol., No 7, 1958, No 31105

Author : Komarov, N.M., Shil'nikov V .I.

Inst : -

Title : Prevention of Pulmonary Diseases in Lambs During the Summer Period

Orig Pub : Ovtsevodstvo, 1957, No 6, 44-45

Abstract : It is pointed out that the incidence of pulmonary diseases in lambs in the summertime is due to overheating of the organism, associated with a high temperature of the air and prolonged insolation. The keeping of lambs under light awnings in hot weather, and equipping artesian and shaft wells with tanks for heating the water before watering the animals, constitute the surest measures for preventing pulmonary diseases in lambs.

Card : 1/1

SHIL'NIKOV, V.I., kand.veterinarnykh nauk

Survival of the virus of foot-and-mouth disease in water, soil, and
vegetation in the zone adjacent to the tundra in the Komi A.S.S.R.
Trudy VIEV 22:112-119 '59. (MIRA 13:10)
(Komi A.S.S.R.--Foot-and-mouth disease)

SHIL'NIKOV, V. I. (Candidate of Veterinary Sciences (VIGIS); and SHUMAKOVICH, E. E.
(Professor)

"Isolated Stallrange Type Maintenance of Calves, as a Method for the Prevention of Dictyocaulus Infestation".

Veterinariya, Vol. 37, No. 9, p. 30, 1960.

SHUMAKOVICH, Ye.Ye., prof.; SHIL'NIKOV, V.I., kand.teterinarykh nauk

Isolated raising of calves in stalls with outdoor runs is the method for prevention of dictyocaulosis. Veterinariia 37
no.9:30-32 S '60. (MIRA 14:11)

1. Vsesoyuznyy institut gel'mintologii im. akad. K.I. Skryabina.
(Lungworms)
(Calves—Diseases and pests)

SHIL'NIKOV, V.I., kand. veter. nauk

Search for anthelmintics against dictyocaulosis of calves. Trudy
VIGIS 10:220-223 '63. (MIRA 17:9)

SHIL'NIKOV, V.I., kand. vet. nauk; MUZYKOVSKIY, A.M., vet. vrach

Testing the anthelmintic effect of methyridine on Dictyocaulus
infestation of cattle. Trudy VIGIS 11:173-174 '64.
(MIRA 18:12)

SHIL'NIKOV, V.I., kand. vet. nauk

Use of aerosols of aluminum iodide in deworming sheep
infested with Dictyocaulus. Trudy VIGIS 11:199-201

'64.

(MIRA 18:12)

SHIL'NIKOVA, A. (Leningrad)

Seminar for chemistry teachers. Politekh. obuch. no.5:90
My '58.

(MIRA 11:5)

(Chemistry--Study and teaching)

SHIL'NIKOVA, A., kand. pedagog. nauk

Occupational requirements of chemical workers. Prof.-tekh. obr.
21 no. 783 J1 '64. (MIRA 17:11)

ИРВИНА, Е.А.; ДИТЯЧЕНКО, Е.В.; СМОЛНИКОВА, А.С.; ИРВИНА, Е.А.

2-метил-3-сульфинил-пропановая кислота. Жур. об. хим. 34 no.9:3122 3 1962.
(MIRA 17:11)

1. Московский государственный университет.

DMITRIYEVA, N.D.; SHIL'NIKOVA, A.G.; SHUSHERINA, N.P.; LEVINA, R.Ya.

δ -Lactones and ζ -lactams. Part 40: Position of the substituent entering an α -pyrone ring during electrophilic substitution reactions. Zhur. ob. khim. 34 no.9:2835-2836 S '64.

(MIRA 17:11)

1. Moskovskiy gosudarstvennyy universitet.

SHUSHERINA, N.P.; DMITRIYEVA, N.D.; SHIL'NIKOVA, A.G.; LEVINA, R.Ya.

δ -Lactones and δ -lactams. Sulfonation of 2-pyrones. Vest.
Mosk. un. Ser. 2: Khim. 19 no.6:60-62 N-D '64.

(MIRA 18:3)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.

SHIL'NIKOVA, I. N.

2

L-20684-65 NPF(c)/EPR/SPA(s)-2/EMP(j)/EMT(m)/T Pc-4/Pr-4/Ps-4/Pt-10/Pa-4/Pb-4
RPL/AND RI/WM/MLK
ACCESSION NR: AT5002132 S/0000/64/000/000/0220/0225

AUTHOR: Muromova, R. S.; Pletneva, I. D.; Afanas'yeva, I. A.; Demi-
dova, T. V.; Pervukhina, I. V. Shkhiyants, I. V.; Shil'nikova, I. N.

TITLE: Synthesis of amino acids of the hexane series and of polyamides based on such acids

SOURCE: AN SSSR, Institut neftekhimicheskogo sinteza. Sintez i svoystva monomerov (The synthesis and properties of monomers). Moscow, Izd-vo Nauka, 1964, 220-225

TOPIC TAGS: amino acid, polyamide, Nylon, thermal stability

ABSTRACT: New amino acids have been prepared and converted to new polyamides with high thermal stability. Table 1 of the Enclosure lists the amino acid monomers and the melting points of the monomers and polymers (all the monomers except the (4-aminocyclohexyl acetic acids are new). Fig. 1 of the Enclosure shows a typical thermomechanical curve. Polycondensation was carried out in sealed ampuls under

Card 1/4

L 20684-65
ACCESSION NR: AT5002132

nitrogen at 200—320C. The polyamides from the trans monomers were insoluble in the solvents common for polyamides, and were soluble only in concentrated H₂SO₄. The polyamides from the cis monomers were soluble in the common polyamide-solvents. Fusible high-thermal-stability copolymers were prepared from the new amino acids and ε-caprolactam or ε-aminoanthic acid. The copolymers melted at temperatures of up to 450C and were soluble both in H₂SO₄ and in cresol. Orig. art. has: 5 formulas, 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 30Jul64

ENCL: 02

SUB CODE: OC, GC

NO REF SOV: 004

OTHER: 007

ATD PRESS: 3165

Card 2/4

L 20684-65
ACCESSION NR: AT5002132

ENCLOSURE 01 0

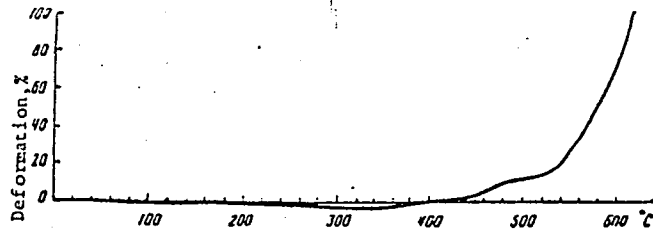


Fig. 1. Thermomechanical curve for the polyamida from trans-4-aminocyclohexylacetic acid







Card 3/4

L 20684-65

ACCESSION NR: AT5002132

ENCLOSURE 02 0

Table 1. Properties of polyamides from α,ω -amino acids with cyclohexane

Amino acid	M.P., C		sp
	monomer	polyamide	
trans-H ₂ N-  -CH ₂ COOH	330	510	0,43
cis-H ₂ N-  -CH ₂ COOH	290	385	0,50
trans-H ₂ N-  -CH ₂ -CH ₂ -COOH	292	490	0,67
cis-H ₂ N-  -CH ₂ -CH ₂ -COOH	253	260	0,78
trans-H ₂ NH ₂ C-  -CH ₂ COOH	257-259	423-428	0,15
cis-H ₂ NH ₂ C-  -CH ₂ COOH	120	-	-

Card 4/4

MUROMOVA, R.S.; PLETNEVA, I.D.; PERVUKHINA, I.V.; Prinsipal'nye uchastiyev:
SHIL'NIKOVA, L.N.

Polyamides based on amino acids of the cyclohexane series.
Part 2: Synthesis of cis- and trans- -(4-aminocyclohexyl)
propionic acids and their polyamides. Vysokom. soed. 5
no.10:1473-1478 0 '63. (MIRA 17:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy
institut azotnoy promyshlennosti i produktov organicheskogo
sinteza.

SHIL'NIKOVA, V.K., kand. biolog. nauk

Criterion of the effectiveness of nodule bacteria. Izv.
TSKHA no.4:71-86 '65. (MIRA 18:11)

1. Kafedra mikrobiologii Moskovskoy sel'skokhozyaystvennoy
ordena Lenina akademii Timiryazeva. Submitted December 17,
1964.

SHIL'NIKOVA, V.K.

Nitrogen composition of bleeding sap in pea plants bacterized
with strains of nodule bacteria of various effectivity. Izv.
AN SSSR.Ser.biol. no.6:840-844 N-D '62. (MIRA 16:1)

1. Timiryazev Agricultural Academy of Moscow.
(MICRO-ORGANISMS, NITROGEN-FIXING)
(PEAS)(NITROGEN METABOLISM)

YEMTSEV, V.T., kand. biolog. nauk, dotsent; SHIL'NIKOVA, V.K., mladshiy nauchnyy sotrudnik; GROMYKO, Ye.P., mladshiy nauchnyy sotrudnik

Natural inoculation of forage bean and kidney bean plants in turf-Podzolic soils. Izv. TSKHA no.4:55-64 '63. (MIRA 17:1)

1. Institut mikrobiologii AN SSSR. 2. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya imeni K.A. Timiryazeva (for Shil'nikova).

RODOV, G.S., kand. tekhn. nauk; PIIIPENKO, V.K., inzh.; SHIL'NIKOVSKIY, N.A.,
inzh.; PLOTNIKOV, F.A., inzh.

Improving the technology of manufacturing prestressed reinforced
beams on the TsKB extended stand. Trudy Zap.-Sib.fil.ASiA
no.3:120-131 '60. (MIRA 15:2)

(Girders)

SHILO, A.G., inzhener-marksheyder.

Surveying operations in shaft sinking for an additional two-story
depth. Gor.zhur. no.6:61 Je '57. (MLRA 10:8)

1. Rudoupravleniya imeni Frunze.
(Mine surveying)
(Shaft sinking)

SHILO, A.I.

The NKM₃ high-duty forging crank presses. Sbor. Novo-Kram.
mashinostroi. zav. no.3:40-63 '59. (MIRA 17:1)

VORONKOV, N.I.; GITMAN, F.M.; SHILO, A.Ye.; GVAY, P.I., dotsent, otv. za vypusk

[Experimental and theoretical study of two-layer panels for roofs with prestressed reinforcement] Experimental'no-teoreticheskoe issledovanie dvukhsloinnykh panelei dlia perekrytiia s predvaritel'no-napriazhennoi armaturoi. Dnepropetrovsk. Inzhenerno-stroitel'nyi institut. Nauchnoe soobshchenie, no.45). (MIRA 16:8)
(Reinforced concrete construction)

SAZONOV, N.A., akademik; BARANOVSKIY, E.V., inzh.; SHILO, B.D., inzh.

Use of deeply-placed electrodes for grounding rural electrical systems. Mekh.i elek.sots.sel'khoz. 20 no.4:54-56 '62.

(MIRA 15:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva nechernozemnoy zony SSSR.
2. Akademiya nauk Belorusskoy SSR (for Sazonov).

(Rural electrification) (Electricity in agriculture)

SHILO, B.F.

Acute aminazine poisoning in schizophrenia. Zdrav. Bel. 9 no.8:
82 Ag'63 (MIRA 17:3)

1. Zaveduyushchiy otdeleniyem Polotskoy psikhonevrologicheskoy
bol'nitsy (glavnyy vrach K.L. Anishchenko).

S/0042/64/019/003/0003/0052

ACCESSION NR: APh040431

AUTHOR: Shilov, G. Ye.

TITLE: Proper boundary value problems in a half space for linear partial differential equations with constant coefficients

SOURCE: Uspekhi matematicheskikh nauk, v. 19, no. 3(117), 1964, 3-52

TOPIC TAGS: boundary value problem, half space, partial differential equation, constant coefficient, fundamental solution, Fourier transform

ABSTRACT: The author studies

$$P\left(\frac{\partial}{\partial t}, \frac{\partial}{\partial x_1}, \dots, \frac{\partial}{\partial x_n}\right)u(t, x_1, \dots, x_n) = 0 \quad (1)$$

$(t \geq 0, \quad -\infty < x_j < \infty, \quad j=1, 2, \dots, n).$

to find conditions at $t = 0$ (or if necessary as $t \rightarrow \infty$) to guarantee existence of the solution $u(t, x)$. Each such collection of conditions also forms, by definition, a proper boundary value problem in a half space for (1). He describes the class of functions in which proper problems are given and proves one basic theorem, given roughly as: suppose on each of the sets A_j defined by the author in terms

Card 1/3.

ACCESSION NR: AP4040431

of the terms in the considered differential equation, there is given a function $v_j(\sigma)$ extendable to the entire real Euclidean n -space to a square integrable function, then

$$\frac{\partial^m u(t, x)}{\partial t^m} = \sum_{k=0}^{m-1} p_k \left(t \frac{\partial}{\partial x} \right) \frac{\partial^k u(t, x)}{\partial t^k}, \quad x = (x_1, \dots, x_n), \quad (2)$$

has a solution $u(t, x)$ for which the Fourier transform of

$$\frac{\partial^{l-1} u(0, x)}{\partial t^{l-1}}$$

coincides on A_{j-1} with $v_{j-1}(0)$, $j = 1, \dots, m$. This solution $u(t, x)$ for each $t \geq 0$ is the square integrable and as $t \rightarrow \infty$ grows not faster than a power of t together with its first $m-1$ derivatives in t . It is unique among such solutions and continuously dependent on the $v_j(\sigma)$ with the proper topology. The author then defines a class of regular functions and reduces the problem of their general solution to that of construction of a fundamental solution. He computes the fundamental solution for an homogeneous regular equation with simple characteristic roots. Orig. art. has: 108 formulas.

Card 2/3

SHILO, L. Ya., gornyy inzhener

Consolidation of service shops in mines. Ugol' 35 no.11:24-27 H
'60. (MIRA 13:12)

1. "Zhdanovskoye" No 5/6 shakhtoupravleniye tresta Oktyabr'ugol',
kombinat Stalimugol'.
(Donets Basin--Coal mines and mining--Equipment and supplies)

SHILO, L.Ya., gornyy inzh.

Portable head frame for dump piles. Ugol' Ukr. 5 no.5:24 My '61.
(MIRA 14:5)

(Coal mines and mining—Equipment and supplies)