24(6)
AUTHOR: Estrin, M.I.   SOV/57-28-10-24/40

TITLE: On the Statistical Theory of the Scale Factor
               (K statisticheskoy teorii masshtabnogo faktora)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, Vol 28, Nr 10, pp 2260-2261 (USSR)

ABSTRACT: The influence of the dimensions of a body upon its critical
               rupture stress can satisfactorily be explained only from a
               statistical viewpoint (Refs 1,2). In this letter to the editor
               one of the variants of the theory of the scale factor is advanced.
               This variant is based upon a utilization of the analysis of
               random steady functions. Formula (6) for the stress in the cross
               section is derived. This formula specifies the critical rupture
               stress versus length of the sample function. The curve obtained --
               by means of this formula differs only insignificantly from that
               presented in reference 3. There are 1 figure and 3 references,
               2 of which are Soviet.

SUBMITTED: April 14, 1958

Card 1/2

On the Statistical Theory of the Scale Factor

SOV/57-2?-10-24/40

Card 2/2

ESTRIN, M.I., inzhener.

Interchangeable equipment of American bulldozers. Stroi. dor.
10 no.7:24-3 of cover. Jl-Ag '47.   (MLRA 6:12)
          (United States--Bulldozers) (Bulldozers--United States)

ESTRIN, E. I.

GOLOVIN, P. M. - st. nauchn. sotr. i, ESTRIN, E. I. - inzh.

Leningradskiy filial Vsesoyuznogo nauchno-issledovatel'sko o instituta stroitel'nogo i dorozhnogo mashinostroyeniya

ISSLEDOVANIYE MASHIN DLYA TSEMENTNO-BETONNYKH POKRYTIY

Page 143

SO: Collection of Annotations of Scientific Research Work on Construction, completed in 1950. Moscow, 1951

ESTRIN, M. I.

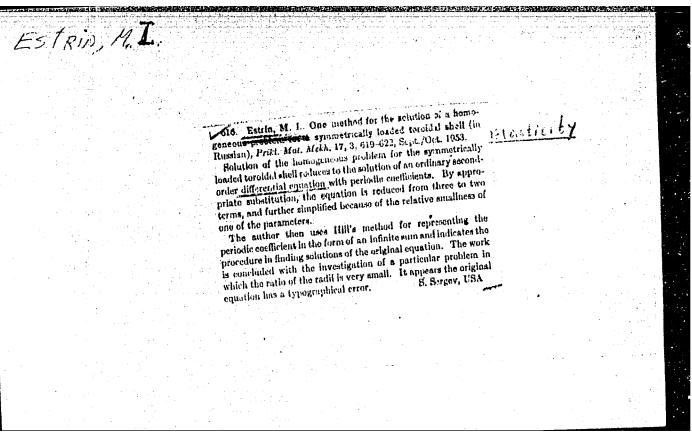GOLOVIN, P. M., St. Nauchn.Sotrudnik i RABINOVICH, S. S., St. Nauch. Sotrud-
nik i ESTRIN, M. I., Inzhener.
Leningradskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta stroit-
el'nogo i dorozhnogo mashinostroyeniya.

POLEVYYE ISPYTANIYA GREIDER-ELEVATORA D-192 S TSEL'YU OPREDELENIYA YEGO KON-
STRUKTIVNYKH I ESKPLOATATSIONNYKH KACHESTV I PROIZVODSTVENNYKH POKAZATELEY.

page 144

SO: Collection of Annotations of Scientific Research Work on Construction,
completed in 1950,
Moscow, 1951

CSTRI; M.I.

ANOKHIN,A.I., doktor tekhnicheskikh nauk,prof.[deceased]; BORODACHEV,I.P. kand. tekhnicheskikh nauk; BROMBERG, professor; VASIL'YEV,A.A., laureat Stalinskoy premii; PETERS, kandidat tekhnicheskikh nauk; POLOSIN-NIKITIN,S.M., kandidat tekhnicheskikh nauk; PRUSSAK,B.N., inzhener; RITOV,M.N., inzhener; FEYNBERG,G.M., inzhener; ESTRIN, M.I., inzhener; ALEKSEYEV,A.P., inzhener; BIRULYA,A.K., professor, doktor tekhnicheskikh nauk; BOLDAKOV,Ye.V., doktor tekhnicheskikh nauk;BOCHIN,V.A., laureat Stalinskoy premii,inzhener; VOLKOV,M.I., professor; GIBSHMAN,Ye.Ye., professor, doktor,tekhnicheskikh nauk; DONCHENKO,V.G., dotsent, kandidat tekhnicheskikh nauk; ZHURAVLEV,A.Ya., laureat Stalinskoy premii; IVANOV,N.N., laureat Stalinskikh premii, professor, doktor tekhnicheskikh nauk; KUVASOV,A.S., inzhener; NEKRASOV, V.K., kandidat tekhnicheskikh nauk; POLOSIN-NIKITIN,S.M., dotsent, kandidat tekhnicheskikh nauk; KHLEBNIKOV,Ye.L., laureat Stalinskoy premii, professor; ORNATSKIY,N.V., doktor technicheskikh nauk, professor, redaktor; VOSKRESENSKIY,N.N., redaktor; KOVALIKHINA,N.F., tekhnicheskiy redaktor

[Manual for highway engineers; road building machinery] Spravochnik inzhenera doroshnika; dorozhno-stroitel'nye mashiny. Moskva, Izd-vo dorozhno-tekhn. lit-ry. Gushosdora MVD SSSR, 1952. 698 p.
(MLRA 9:2)
[Microfilm]
            (Road machinery)

EST II, M. I.

Journal of Applied Chemistry
April 1954
Chemical Engineering and
Electrochemical.

(2)

New types of plant and machinery for construction of concrete road surfacings. M. I. Estrin and Yu. G. Mamulov (Mekhan. Stroit., 1953, 10, No. 7, 11—13; Ref. Abstr., 1954, 21, 30).—The design details, operation, and testing are described of the following types of equipment developed in the U.S.S.R.: (1) D-247 self-propelled track layer, which travels on rails, has its own engine and is equipped with a crane capable of lifting weights of up to 1 ton. Additional equipment includes gripping devices for pulling out and lifting piles and digging up rails; (2) D-227 self-propelled screw-conveyor spreader, which is designed for spreading dumped concrete over a width of 22 ft. The spreading operation is carried out by two independently geared screw-conveyors rotating at 11 r.p.m.; (3) D-190 internal vibrator, used for deep vibration consists of a welded metal frame equipped with individual deep-seated vibrators; the working speed is 11 frames and the travelling speed is ~30 ft./min.; and (4) T-135 transporter, with hydraulic gear, to carry all types of equipment used in road construction and is drawn by the C-80 tractor.   Iu. A... (U).

Estrin, M. I.

616. Estrin, M. I. One method for the solution of a homogeneous problem of a symmetrically loaded toroidal shell (in Russian), *Prikl. Mat. Mekh.* 17, 3, 619-622, Sept./Oct. 1953.

Solution of the homogeneous problem for the symmetrically loaded toroidal shell reduces to the solution of an ordinary second-order differential equation with periodic coefficients. By appropriate substitution, the equation is reduced from three to two terms, and further simplified because of the relative smallness of one of the parameters.

The author then uses Hill's method for representing the periodic coefficient in the form of an infinite sum and indicates the procedure in finding solutions of the original equation. The work is concluded with the investigation of a particular problem in which the ratio of the radii is very small. It appears the original equation has a typographical error.   S. Sergev, USA

Elasticity

ESTRIN, M. I.

ESTRIN, M. I. -- "A Study of Local Stresses in Intersecting Cylindrical
Casings." Min Higher Education USSR. Moscow Order of Labor Red
Banner Construction Engineering Institute imeni V. V. Kuybyshev.
Moscow, 1955. (Dissertation for the Degree of Candidate in Technical
Sciences.)

So; Knizhaya Letopis' No 3, 1956

ESTRIN, M. I.,

"Experimental Study of the Process of Layer by Layer Cutting of Ground by the Blades of a Carryall." (Dissertation for Degree of Candidate for Technical Sciences) Min Higher Education USSR, Moscow Automobile Roads Inst iment V. H. Molotov, Moscow, 1955

SO: M-1036 28 Mar 56

ESTRIN, M. I.

ESTRIN, M.I., kandidat tekhnicheskikh nauk.

Relationship between components of the reaction resistance of soils in layer cutting machinery. Sbor.trud.VNIIStroidormash Lenfil. no.1:5-9 '57.   (MIRA 10:8)
                    (Soil mechanics) (Road machinery)

ESTRIN, M.I., kandidat tekhnicheskikh nauk.

Investigation of the cutting pattern of elevator-type grader blades.
Stroi.i dor.mashinostr. 1 no.10:21-23 O '56.   (MLRA 9:11)
                         (Earthmoving machinery)

ESTRIN, M.I., kandidat tekhnicheskikh nauk; RABINOVICH, S.S., inzhener.

Concrete pavers with sliding forms. Stroi. i dor. mashinostr. 2
no.4:38-39 Ap '57.   (MIRA 10:6)
          (Pavements, Concrete)   (Road machinery)

ESTRIN, M.I., kand. tekhn. nauk.

Investigating soil cutting by flat and disc-shaped blades on grader elevators. Stroi. i dor. mashinostr. 2 no.11:18-21 N '57.
(Excavating machinery)   (MIRA 11:1)

ESTRIN, M.I., kand.tekhn.nauk; KAL'MANOVICH, E.L., kand.tekhn.nauk

Investigating basic parameters of concrete vibrators used in
concrete finishing machines. Sbor.trud.VNIIStroidormash.Lenfil.
no.16:68-77 '57.   (MIRA 12:7)
        (Road machinery) (Pavements, Concrete)

ESTRIN, M I

25(2)   p √   PHASE I BOOK EXPLOITATION   SOV/2165

Akademiya stroitel'stva i arkhitektury SSSR. Institut stroitel'nykh
   konstruktsiy

Issledovaniya po voprosam teorii plastichnosti i prochnosti stroitel'-
   nykh konstruktsiy; sbornik statey (Investigating of Problems in the
   Theory of Plasticity and Strength of Engineering Structures; Col-
   lection of Articles) Moscow, Gosstroyizdat, 1958. 211 p. 2,500
   copies printed.

Ed.: A.R. Rzhanitsyn, Corresponding Member, Academy of Building and
   Architecture, USSR, Professor, Doctor of Technical Sciences; Ed.
   of Publishing House: N.O. Yegorova; Tech. Ed.: P.G. Gelenson.

PURPOSE: This collection of articles is intended for scientific wor-
   kers concerned with the theory of structural design.

COVERAGE: The book consists of articles on the theory of plasticity,
   the dynamics of nonelastic systems, and the theory of elasticity.
   The articles deal with investigations of these problems in 1956

Card 1/6

Investigating of Problems (Cont.)   SOV/2165

and 1957 at the Tsentral'nyy nauchno-issledovatel'skiy intitut
stroitel'nykh konstruktsiy, ASiA SSSR (Central Scientific Research
Institute of Structures, Academy of Building and Architecture,
USSR). This collection of articles is the fourth of a series writ-
ten by staff members of the Laboratory for Problems of Strength
and the Laboratory of Structural Mechanics of TsNIISK. References
follow most of the articles.

TABLE OF CONTENTS:

    As a base for his investigation, the author uses the simplified
kinematic method for analysis of elastoplastic systems, which takes
the effect of strain hardening and nonlinear deformation into
account. He presents a number of solutions for the state of
failure of thin-walled structures, such as thin plates and slight-
ly curved and cylindrical shells. Use of this method for the de-
sign of reinforced concrete shells is also explained.

Card 2/6

Investigating of Problems (Cont.)   SOV/2165

Rzhanitsyn, A.R.   Problem of Creep From Temperature and Humidity
Effect   36
    The author discusses a method of calculating creep caused by
    changes of temperature and humidity. The method includes the
    use of a variable scale of conditional time. The scale varies
    with temperature and humidity, while the properties of creep
    are not affected. This method solves the problem of calculat-
    ing creep of a stretched bar during periodical wide-range tem-
    perature changes and the problem of calculating stresses gen-
    erated during the drying of a rigidly fastened thin plate or
    film. This method is also satisfactory for solving creep pro-
    blems in green concrete during setting time.

Rzhanitsyn, A.R.   Limit Equilibrium of a Rectangular Plate Under
a Concentrated Load Applied at an Arbitrary Point   50
    The author discusses types of plate failure occurring at various
    positions of concentrated load.

Rzhanitsyn, A.R.   The Problem of Movement of Elasto-plastic Beams
and Plates Loaded Beyond the Limit of Their Carrying Capacity   62

Card 3/6

SOV/2165

Investigating of Problems (Cont.)

The article discusses sudden loading, during which the movement of a beam does not change in time. Also discussed is an extremal principle for determining the true form of movement of a beam or a plate under steady loading exceeding the carrying capacity of the structure.

Geniyev, G.A. [Candidate of Technical Sciences]. Some Problems of the Propagation of Compression Waves in Soil   72
    The theory of the propagation of compression shock waves in ideally loose compressible soil is discussed. Calculations based on this theory are useful for determining pressure on underground structures during surface blast loading.

Geniyev, G.A. Some Problems in the Dynamics of Visco-plastic   123
Media
    Differential equations for plane steady motion of a visco-plastic medium are derived, and an approximate method for their solution is discussed.

                                                                        134
Geniyev, G.A. Problem of Strength of Concrete
    A relatively simple analytical expression for the strength of concrete is presented showing the behavior of concrete at

SOV/2165

Investigating of Problems (Cont.)

compression and tension and giving results which agree with experimental data.

Estrin, M.I. [Candidate of Technical Sciences]. Theory of the Un-   145
steady Motion of a Perfectly Plastic Body
    Some problems of the dynamics of a perfectly plastic body under
conditions of plane deformation are discussed.

Estrin, M.I. Design of Elastic Systems for Stationary Random Ef-   155
fects
    The author analyzes the problem of the effect of occasional
stationary loads (wind, temperature) on the elastic and non-
linearly elastic systems by using the theory of stationary
random functions. Formulas for relatively simple calculation
of numerical mean values of displacements and deflections are
derived.

Mileykovskiy, I.E. [Candidate of Technical Sciences]. Design of
Massive Plates by the Variational Method Using Resolvent Functions
for Displacements   173

Card 5/6

Investigating of Problems (Cont.)   SOV/2165

    The author reduces the three thermoelastic DuHamel-Neumann
equations to one equivalent polyharmonic resolvent equation
of the sixth order (for each resolvent function) and uses the
variational method to reduce the three-dimensional problem to
a two-dimensional one. The application of resolvent functions
to the problem of designing thick plates is shown.

AVAILABLE: Library of Congress (QA931.A55)

                                                  GO/bg

Card 6/6   9-15-59

ESTRIN, M.I., kand. tekhn. nauk.

A set of machines for mechanizing the construction of concrete
pavements. Stroi. i dor. mashinostr. 3 no.1:17-20 Ja '58.
        (Road machinery)   (Pavements, Concrete)   (MIRA 11:1)

ESTRIN, M.I., kand. tekhn.nauk

       Designing vibration bars for concrete finishing machines. Stroi.
       i dor. mashinostr. 3 no. 8:16-18 Ag '58.   (MIRA 11:8)
                    (Concrete construction)

ESTRIN, M.I., kand.tekhn.nauk; KLEMENT'YEVA, V.G., inzh.

Operations of some foreign rotary and milling snow plows. Stroi. i
dor. mashinostr. 3 no.9:33-36 S '58.   (MIRA 11:10)
(Snow plows)

ESTRIN, M.I., kand.tekhn.nauk

Efficient conditions for ramming cement concrete by the new D-376
concrete finishing machine. Stroi. i dor. mashinostr. no.4:16-18
Ap '58.   (MIRA 11:4)
            (Pavements, Concrete)
            (Road machinery)

AUTHOR: Estrin, M. I. (Moscow)

TITLE: Calculation of Cylindrical Shells Clamped on an Inclined
Contour (Raschet tsilindricheskoy obolochki, zakreplennoy
po kosomu konturu)

PERIODICAL: Izvestiya Akademii nauk SSSR OTN, Mekhanika i mashino-
stroyeniye, 1959, Nr 2, pp 151-155 (USSR)

ABSTRACT: The paper deals with an approximate method of solving
the problem of a cylindrical shell in which the boundary
conditions are given along a contour defined by the inter-
section of the shell with a plane inclined to its axis.
Such shells are often encountered as duct elements, gas-
holders, aerodynamic tubes, etc. Following Vlasov (Ref 1)
and Gol'denveyzer (Ref 2), the differential equations for
the shell are set up and solved approximately for a clamped

Card 1/2

SOV/179-59-2-22/40

Calculation of Cylindrical Shells Clamped on an Inclined Contour

contour and for a supported contour. In the first case, graphs are given showing the bending moments and stresses in the shell. Thanks are expressed to V. Z. Vlasov for advice and help during the course of the work. There are 3 figures and 4 Soviet references.

SUBMITTED: September 27, 1957.

Card 2/2

ESTRIN, M.I., kand.tekhn.nauk

Determining the manner of soil rising along the working face of
blades in cutting. Stroi.i dor.mashinostr. 4 no.9:22-23
S '59.   (MIRA 12:11)
          (Graders(Earthmoving machinery))

ESTRIN, M.I., kand.tekhn.nauk; RITOV, M.N., kand.tekhn.nauk

New heavy-duty trailer with 20-ton capacity. Stroi.i dor.
mashinostr. 4 no.10:15-16 0 '59.   (MIRA 13:2)
                         (Truck trailers)

KLEMENT'YEV, V.G., inzh.; ESTRIN, M.I., kand.tekhn.nauk

Foreign machinery for constructing cement-concrete pavements. Stroi.
i dor.mashinostr. 5 no.3:36-40 Mr '60.   (MIRA 13:6)
                (Road machinery)

$8 \cdot 6 53$

24 4100 $1208, 1385$ S/020/60/135/001/009/030
                                         B006/B056

AUTHOR: Estrin, M. I.

TITLE: The Equations of the Dynamics of a Compressible Plastic Medium

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 1, pp. 36-39

TEXT: The author of the present paper investigates an approximative
variant of equations describing the two-dimensional motion of a plastic
medium; other variants were investigated in Refs. 1-3. The system of equa-
tions describing the state of the medium consists of: plasticity condition

$(\sigma_x - \sigma_y)^2 + 4\tau_{xy}^2 = 4k^2$, coaxiality condition

$$\frac{2\tau_{xy}}{\sigma_x - \sigma_y} = \frac{\dot{\gamma}_{xy} - \dot{\tau}_{xy}/G}{\dot{\varepsilon}_x - \dot{\varepsilon}_y - (\dot{\sigma}_x - \dot{\sigma}_y)/2G}$$, and the incompressibility condition

$\dot{\varepsilon}_x + \dot{\varepsilon}_y = 0$. Instead of the latter it is possible, because a two-dimen-
sional problem is being investigated, to use the condition $\dot{\varepsilon}_x + \dot{\varepsilon}_y$

$= \frac{1}{2K} (\dot{\sigma}_x + \dot{\sigma}_y)$. The motion of the medium is described by the system

84658

The Equations of the Dynamics of a Compressible   S/020/60/135/001/009/030
Plastic Medium   B006/B056

$$\frac{\partial \chi}{\partial x} - 2 \sin\varphi \frac{\partial \varphi}{\partial x} + \cos 2\varphi \frac{\partial \varphi}{\partial y} - \frac{\varrho}{2k}\frac{\partial u}{\partial t} = 0; \quad \frac{\partial \chi}{\partial y} + \cos 2\varphi \frac{\partial \varphi}{\partial x} + \sin 2\varphi \frac{\partial \varphi}{\partial y} - \frac{\varrho}{2k}\frac{\partial v}{\partial t}$$

$$= 0; \quad h \frac{\partial \chi}{\partial t} - \frac{\partial u}{\partial x} - \frac{\partial v}{\partial y} = 0; \quad h_1 \frac{\partial \varphi}{\partial t} + \sin 2\varphi \left(\frac{\partial u}{\partial x} - \frac{\partial v}{\partial y}\right) - \cos 2\varphi \left(\frac{\partial u}{\partial y} + \frac{\partial v}{\partial x}\right) = 0;$$

ϱ - density, $h = 2k/K$, $h_1 = 2k/G$; σ_x, σ_y, τ_{xy} - the components of the
stress tensor, ε_x, ε_y, γ_{xy} - the components of the deformation tensor,
u, v - the velocity components. Using these equations, the propagation
of a weak discontinuity and the behavior of the wave fronts is investigat-
ed. A problem outlined in Fig. 2 is briefly discussed, and finally the
special case is investigated, in which $h_1 = 0$ and therefore, according
to equation (5) for the propagation rate of a weak discontinuity it holds
that this rate $D = c_1 \cos 2(\varphi - \alpha)$ $(c_1 = \sqrt{2k/\varrho k_1}$, $\alpha = \varphi - \gamma)$. The author
investigated the self-simulating motion of the medium and gives a geometri-
cal interpretation of the result. G. A. Geniyev is mentioned. There are
3 figures and 5 references: 4 Soviet and 1 US.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'-
                nykh konstruktsiy (Central Scientific Research Institute
Card 2/3   of Building Constructions)

84658

The Equations of the Dynamics of a Compressible   S/020/60/135/001/003/030
Plastic Medium   B006/B056

PRESENTED: June 8, 1960, by L. I. Sedov, Academician

SUBMITTED: June 3, 1960

$\times$

Card 3/3

10.9200
16.7300

AUTHOR: Estrin, M. I. (Moscow)

TITLE: On the Application of the Self-Modeling Solutions to Dynamic Problems of a Plastic Medium

PERIODICAL: Prikladnaya matematika i mekhanika, 1960, Vol. 24, No.6, pp. 1140-1142

TEXT: The author considers the system of equations which describes the instationary motion of an ideal plastic medium under plane deformation. In this system the stresses are expressed by two unknown functions χ and φ according to the formulas

$$\left.\begin{array}{c}\sigma_x\\\\\sigma_y\end{array}\right\} = k(2\chi \pm \cos 2\varphi), \quad \tau_{xy} = k \sin 2\varphi .$$

After introducing nondimensional variables (especially nondimensional time $\tau = t/t_o$) the author obtains a system which passes over into the equations of the self-modeling motions for $t_o \rightarrow \infty$ (see(Ref.6)). In order to obtain approximative solutions corresponding to large t_o-values, the author sets up the unknown functions χ, φ, u, v as series in τ

88769

S/040/60/024/006/024/024
C 111/ C 333

On the Application of the Self-Modeling Solutions to Dynamic
Problems of a Plastic Medium

(4)
$$\chi = \chi^{(0)} + \tau \chi^{(1)} + \ldots, \quad u = u^{(0)} + \tau u^{(1)} + \ldots$$
$$\varphi = \varphi^{(0)} + \tau \varphi^{(1)} + \ldots, \quad v = v^{(0)} + \tau v^{(1)} + \ldots$$

χ

By substituting (4) into the equations of motion, the author
obtains systems of equations for determining $\chi^{(0)}$, $\chi^{(1)}$,... etc.

The zero approximation ($\chi^{(0)}$, $\varphi^{(0)}$, $u^{(0)}$; $v^{(0)}$ corresponds to
the self-modeling solution. For the first approximation one
obtains a hyperbolic system with the characteristics

(7)
$$\frac{d\omega}{d\lambda} = tg(\varphi^{(0)} \pm \frac{\pi}{4})$$

where $\lambda = \frac{x}{at}$, $\omega = \frac{y}{at}$ (a $= \frac{2k}{\rho}$) are the nondimensional spatial
coordinates. For the numerical solution of the system the author
refers to the difference method (Ref.6).

Card 2/3

88769
S/040/60/024/006/024/024
C 111/ C 333

On the Application of the Self-Modeling Solutions to Dynamic
Problems of a Plastic Medium

L. J. Sedov, G. J. Barenblatt and Ya. B. Zel'dovich are mentioned in
the paper.

There is 1 figure, and 7 Soviet references.   ✗

[Abstracter's note: (Ref.6) is a paper of the author: On the
Theory of the Instationary Motion of an Ideal-Plastic Medium. Sbornik
"Issledovaniya po voprosam teorii plastichnosti i prochnosti
stroitel'nykh konstruktsiy", 1958.(Volume "Investigations on
Questions of the Theory of Plasticity and Stability of Constructions)].

SUBMITTED: April 14, 1960

Card 3/3

KLEMENT'YEV, V.G., inzh.; SHALMAN, D.A., kand.tekhn.nauk; ESTRIN, M.I., kand.
    tekhn.nauk

Universal slope planers. Stroi. i dor. mash. 6 no.2:8-10 F '61.
                                                    (MIRA 14:5)
                    (Road machinery)

ESTRIN, M.I., kand.tekhn.nauk; KLEMENT'YEV, V.G., inzh.

Designing equipment for laying cement-concrete pavements. Stroi.i
dor.mash. 6 no.4:15-17 Ap '61.   (MIRA 14:3)
(Pavements, Concrete)

EVENTOV, I.M.; LAZAROV, V.V.; ESTRIN, M.I., inzh., retsenzent

[Emulsification machines and plants] Emul'sionnye ma-
shiny i ustanovki. Moskva, Mashinostroenie, 1964. 143 p.
(MIRA 17:9)

KAZAKOV, Aleksandr Aristarkhovich; ZHIL'TSOV, P.N., inzh., retsenzent;
ESTRIN, M.Z., inzh., retsenzent; MARENKOVA, G.I., inzh., red.;
KHITROVA, N.A., tekhn. red.

[Electric interlocking of switches and singnaling systems]
Elektricheskaia tsentralizatsiia strelok i signalov. 4., perer.
izd. Moskva, Transzheldorizdat, 1962. 315 p.   (MIRA 16:1)
    (Railroads--Signaling--Interlocking systems)
   (Railroads--Signaling)   (Railroads--Switches)

ESTRIN, P.I.

Plenum of the Solar Engineering Section of the Central Administration of the Scientific and Technical Society of Power Engineering. Gelio-tekhnika no.1:73-74 '65.   (MIRA 18:5)

1. Chlen byuro geliotekhnicheskoy sektsii TSentral'nogo pravleniya nauchno-tekhnicheskogo obshchestva energeticheskoy promyshlennosti.

KATSENOVICH, R.A.; KETKO, M.I.; SADYKOV, A.S.; ESTRIN, P.I.

Treatment of digestive diseases with mineral waters of Uzbekistan. Izv.AN Uz.SSR.Ser.med. no.4:15-20 '58.

(MIRA 12:5)

1. Uzbekskiy gosudarstvennyy nauchno-issledovatel'skiy institut kurortologii i fizioterapii im. Semashko.
(UZBEKISTAN--MINERAL WATERS) (DIGESTIVE ORGANS--DISEASES)

L 24816-66   EWP(e)/EWT(m)   WW/WH
ACC NR: AP5007693   SOURCE CODE: UR/0413/66/000/003/0072/0072

AUTHORS: Veynberg, V. B.; Estrin, P. I.; Galant, Ye. I.; Afon'kin, A. L.

ORG: none

TITLE: Method for fusing fiber packets. Class 42, No. 178521

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 72

TOPIC TAGS: fiberglass, ███████, light scattering glass, vacuum

ABSTRACT: This Author Certificate presents a method for fusing fiber packets by
compressing the packet (situated in a softened glass sheath) in vacuum. To obtain
light-transmitting packets of high resolution and large dimensions, the external
pressure on the packets is produced by compressed air via a heated glass sheath
softened by application of heat. To obtain phocons of axial symmetry, the circular
uniform pressure is realized by means of a gas, while those regions where the speci-
men is not to be compressed are protected by high-melting glass rings.

SUB CODE: 11/ SUBM DATE: 24Oct64

Card 1/1   UDC: 535.8
                                                     666.1.036.9

ESTRIN, P.L.

Treatment of some diseases of the digestive system with Tashkent
mineral water. Trud/ Uz. gos. nauch.-issl. inst. kur. i fizioter.
no.15:115-120 '59.   (MIRA 14:9)
          (MINERAL WATERS)   (DIGESTIVE ORGANS—DISEASES)

ESTRIN, P.L.; SHATALIN, A.S.

Influence of Tashkent mineral water on the blood sugar content.
Trudy Uz. gos. nauch.-issl. inst. kur. i fizioter. no.15:163-174
'59.   (MIRA 14:9)
        (BLOOD SUGAR)   (MINERAL WATERS)

SULTANOV, D. (g.Baku); ESTRIN, R. (g.Baku)

Improve working conditions for oil-field workers.   NTO 3 nc.6:48-49
Je '61.   (MIRA 14:6)

1. Predsedatel' sektsii tekhniki bezopasnosti Azerbaydzhanskogo
respublikanskogo pravleniya nauchno-tekhnicheskogo obshchestva
neftyanoy i gazovoy promyshlennosti (for Sultanov).   2.   Uchenyy
sekretar' sektsii tekhniki bezopasnosti Azerbaydzhanskogo
respublikanskogo pravleniya nauchno-tekhnicheskogo obshchestva
neftyanoy i gazovoy promyshlennosti (for Estrin).
               (Azerbaijan—Oil fields—Safety measures)

SADOVNIKOV, V.; YASINOVSKIY, M.; ESTRIN, R.; ABRAMOV, G.; FRIDMAN, Ye.

Technical information. Okhr. truda i sots. strakh. 6 no.8:41-44
Ag '63.   (MIRA 16:10)

MANVELYAN, B.G., inzhener; SKORNYAKOV, M.V., inzhener; ESTRIN, R.Ya., inzhener.

Double-seat supports used in repairing. Bezop. truda v prom. 1 no.2:
27-28 F '57.   (MIRA 10:4)
              (Oil fields—Equipment and supply)

MANVELYAN, B.G., inzh.; ESTRIN, R.Ya., inzh.

Submarine geophysical prospecting. Bezop.truda v prom. 3 no.1:14-15
Ja '59.   (MIRA 12:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po tekhnike bezopasno-
sti v neftyanoy promyshlennosti.
                (Prospecting--Geophysical methods)
                (Petroleum in submerged lands)

ESTRIN, R.Ya., inzh.; MANVELYAN, E.G. inzh.; ARZUMANOV, A.A., inzh.

Safety measures in completing oil wells. Bezop.truda v prom 4
no.6:14-17 Je '60.   (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po tekhnike
bezopasnosti v neftyanoy promyshlennosti.
            (Oil well drilling—Safety measures)

ESTRIN, R.Ya.; ARZUMANOV, A.A.; MANVELYAN, E.G.

Safety measures in the testing of gas wells. Gaz. prom.
5 no. 12:12-14 D '60.   (MIRA 14:1)
            (Gas wells—Safety measures)

HAGIYEV, A.M., inzh.; ESTRIN, R.Ya., inzh., ARZUMANOV, A.A. (Baku)

     Safety engineering in coating pipelines with bituminous mastics.
     Stroi. truboprov. 5 no.12:24 D '60.   (MIRA 13:12)
        (Pipelines)   (Protective coatings)

ESTRIN, R.Ya., inzh.; ARZUMANCV, A A.

Safety measures in oil well completion by air injection. Bezop.
truda v prom. 5 no.6:12-13 Je '61.   (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po tekhnike
bezopasnosti v neftyanoy promyshlennosti.
                        (Oil fields--Production methods)

ZAYCHENKO, V.; ESTRIN, R.

      Checking for leakage of underground gas pipelines. Nov.neft.tekh:
      Nefteprom.delo   no.6:35-38 '54.   (MIRA 14:10)
                (Gas, Natural—Pipelines)

ESTRIN, R.Ya.; MANVELYAN, Z.G.

Safety methods and equipment in performing complicated repair
work from double pole masts. Trudy VNIITB no.10:33-39 '58.
(MIRA 15:5)

(Oil wells--Safety measures)

ESTRIN, R.Ya.; MORDKIN, V.M.; MANVELYAN, E.G.; ARZUMANOV, A.A.

Safety problems in completing oil and gas wells. Trudy VNIITB
no.13:5-20 '60.   (MIRA 14:12)
            (Oil fields--Safety measures)

ESTRIN, R.; ARZUMANOV, A.

        Security measures in well drilling. Okhr. truda i sots. strakh.
        5 no.7:36 Jl '62.   (MIRA 15:7)
              (Oil fields—Safety measures)

ESTRIN, R.Ya., inzh.; KHACHATUROVA, N.S., inzh.; MEDVEDEVA, T.M., inzh.

Safety problems in collecting and storing oil and gas. Bezop.
truda v prom. 6 no.12:8-10 D '62.   (MIRA 15:12)
            (Petroleum--Storage)   (Gas--Storage)

ESTRIN, Rakhil' Yakovlevna; KAYESHKOVA, S.M., ved. red.; STAROSTINA,
          L.D., tekhn. red.

          [Safety measures in the production of gas fields] Tekhnika
          bezopasnosti v gazovom khoziaistve na promyslakh. Moskva,
          Gostoptekhizdat, 1963. 140 p.   (MIRA 16:8)
               (Oil fields--Safety measures)
               (Gas, Natural--Transportation)

ESTRIN, R. Ya.; KHACHATUROVA, N. S.

    Safety requirements for the UB mobile units. Stroi. truboprov.
8 no.4:29 Ap '63.   (MIRA 16:4)

    1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy institut
po tekhnike bezopasnosti, Baku.

                     (Bitumen)

ESTRIN, R.Yu.; IOLOTKOVA, V.V., ved. red.

[Safety technique when welding and cutting gas pipelines
in operation] Tekhnika bezopasnosti pri ognevykh rabotakh
na deistvuiushchikh gazoprovodakh. Moskva, Nedra, 1964.
44 p.   (MIRA 17:8)

L 10692-63

ACCESSION NR: AP3001612   S/0064/63/000/004/0032/0036

AUTHOR: Brodyanskiy, V. M.; Leytes, I. L.; Marty*nov, A. V.; Semenov, V. P.;
Estrin, S. M.

TITLE: Application of vortex effect in chemical engineering

SOURCE: Khimicheskaya promyshlennost', no. 4, 1963, 32-36

TOPIC TAGS: vortex effect, vortex tube

ABSTRACT: A survey of what has been done up to now with respect to the appli-
cation of the vortex effect in chemical engineering. Authors define vortex
effect as the division of gas into cold and hot flows during its expansion in
the vortex tube. Various types of vortex tubes are discussed. Authors made
a number of tests wherein they checked the characteristics of a vortex tube
at different pressures under production-line conditions. This tube had a
40 mm diameter, two right-angled nozzles with spiral inlets. Interchangeable
diaphragms of 18, 20, and 22 mm were used. The gas temperature at the inlet
was 34-40C. Gas expenditure was 840-460 normal cubic meters per hour. The
results are summarized in graphs which are discussed in detail. Treatment

Card 1/2,

BRODYANSKIY, V.M.; LEYTES, I.L.; MARTYNOV, A.V.; SEMENOV, V.P.;
        ESTRIN, S.M.

        Use of the vortex effect in chemical technology. Khim.
        prom. no.4:272-276 Ap '63.   (MIRA 16:8)

STRIZHEVSKIY, I.I. [Stryzhevs'kyi. I.I.]; KORDYSH, Ye.I. [Kordysh, IE.I.];
     VORONOVA, L.Ya.; MOKHOVA, V.S.; SOBODYR', S.G. [Sobodyr, S.H.];
     SHLYAKHOVER, I.V.; ESTRIN, S.M.

     Balloon filling with pyrolysis acetylene. Khim. prom.[Ukr] no.1:
     69-71 Ja-Mr '65.   (MIRA 18:4)

2 C

L 35439-65   EIF(c)/EWP(j)/EWA(o)/EWT(m)   Pc-4/Pr-4   RM

ACCESSION NR: AP5006845   8/0063/65/010/001/0108/0108

AUTHOR: Strizhevskiy, I. I.; Kordysh, Ye. I.; Voronova, L. Ya; Mokhova, V. S.; 26
Shlyakhover, I. V.; Sobodyr', S. G.; Estrin, B. M.   B

TITLE: Filling of cylinders with acetylene made by pyrolysis

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal, v. 10, no.1, 1965, 108

TOPIC TAGS: acetylene pyrolysis, carbide based acetylene, propadiene, methyl
acetylene, diacetylene, divinyl, chromatographic column, acetylene cylinder,
organic solvent

ABSTRACT: Unlike acetylene made from carbide, acetylene made by pyrolysis con-
tains the following impurities: methyl acetylene, propadiene, divinyl, di-
acetylene, etc. The authors experimented with filling 40-liter cylinders with
acetylene made by pyrolysis in order to determine the nature of the distribution
of these impurities during the emptying of the cylinders. The acetylene used
had the following composition in %: C_2H_2 98-99.2; CO_2 0.1-0.2; O_2 0.05-0.1;
propadiene 0.2-0.3; methyl acetylene 0.2-0.3; divinyl 0.01-0.03; vinyl acetylene
0.03-0.05; diacetylene 0.03-0.05. Prior to the experiments this acetylene was

Card 1/2

L 35439-65

ACCESSION NR: AP5006845

subjected to a chromatographic analysis and to a ionization-flame detector test.
In the course of experiments with discharging of acetylene from the cylinder at
the rate of 0.5-0.6m^3/hr in the presence of an ambient air temperature of 23°C
it was found that, as the pressure decreased, the content of impurities in the
acetylene emerging from the cylinder increased. With increasing temperature the
amount of the residual impurities in the cylinder decreases markedly. Polymer-
ization of the diacetylene in organic solvents is extremely slow, and the re-
sulting polymers are non-explosive. The acetylene cylinder filled with the
porous mass is a distinctive chromatographic column. Orig. art. has: 2 figures.

ASSOCIATION: Gosudarstvennyy institut azotnoy promyshlennosti i produktov organi-
cheskogo sinteza (State Institute of Nitrogen Industry and Products of Organic
Synthesis)

SUBMITTED: 20May64   ENCL: 00   SUB CODE: OC,OC

NO REF SOV: 004   OTHER: 002

Card 2/2

YEFIMOV, L.I.; KOROLENKO, T.P.; KHALIF, A.L.; ESTRIN, V.N.

Adsorption of heavier hydrocarbons from natural gases by means of free-falling particles of activated carbon. Trudy VNIIGAZ no.6: 137-148 '59.   (MIRA 12:10)
                    (Hydrocarbons) (Carbon, Activated)

VALEYEV, A.M.; GOLEV,Yu.D.; GOLEVA, Z.N. ; GOLOVKO, R.Ye.; ZAV'YALOVA, B.A.;
    ZARETSKIY, B.A.; ZVEREV, Ye.A.; LIPINSKIY, F.A.; MANGUSHEV, I.Kh.;
    MEYZLER, M.Kh.; MUTOVKIN, V.A.; RUDAKOV, Ya.D.; RUKOVANOV, B.P.;
    KHASANOV, G.M.; ESTRIN, Z.I.; ZUDIN, B.A., red.; BORUNOV, N.I., tekhn. red.

[Adjustment and operation of equipment in the Novo-Ufimskii Heat and
Electric Power Plant] Naladka i ekspluatatsiia oborudovaniia na Novo-
Ufimskoi TETs. Moskva, Gos. energ. izd-vo, 1961. 175 p. (MIRA 14:9)
            (Bashkiria—Electric power plants)
        (Bashkiria—Heating from central stations)

ESTRINA, A.

Problems in selling agricultural machinery to collective farms.
(MIRA 16:9)
Vop. ekon. no.9:96-102 S '63.
(Farm mechanization)

BROKSH, M.M.; GVOZDEV, B.P.; ZAYTSEV, V.I.; ESTRINA, A.A.; SALTYKOV, A.L.

Investigating a full-scale model of a spherical scrubber, a
ball-shaped dust collector. Trudy VNIIGAZ no.21/29:172-182 '64.
(MIRA 17:9)

BROKSH, M.M.; YERMOSHINA, M.S.; SALTYKOV, A.L.; ESTRINA, A.A.

Checking the liquid content in gas flow. Trudy VNIIGAZ
no.21/29:183-195 '64.   (MIRA 17:9)

ESTRINA, E. Ye.

USSR/Medicine - Infectious Diseases

Nov. 51

"Effectiveness of Penicillin Therapy in Jaundice-Free Leptospirosis," A. A. Varfolomeyeva, M. P. Yantsen, E. Ye. Estrina, Moscow Oblast Inst of Epidemiol, Microbiol, and Infectious Diseases imeni I. I. Mechnikov; Sychevsk Rayon Hosp.

"Sov Med" Vol XV, No 11, pp 29-32

Penicillin was found to be very effective in the therapy of jaundice-free leptospirosis.

PA 204T57

L 58961-65   EPF(c)/EWP(j)/EWP(k)/EWP(z)/EWT(m)/T/EWP(b)/EWP(e)/EWP(t)   Pc-4/Pf-4/
ACCESSION NR: AP5016375 Pr-4   IJP(c)   RM/JD UR/0064/65/000/006/0468/0470
661.718.5: 66.096.5.084

AUTHOR: Trofimova, I.V.; Andrianov, K.A.; Estrina, M.A.; Zil'berg, G.A.

TITLE: Synthesis of methylchlorosilanes in a fluidized bed with the use of vibration

SOURCE: Khimicheskaya promyshlennost', no. 6, 1965, 468-470

TOPIC TAGS: organosilicon compound, vibration, fluidized bed, chlorosilane synthesis,
silicon powder, copper powder

ABSTRACT: Experiments involving powdered silicon-copper alloys and also mixtures of
silicon and copper powder were carried out in order to determine the hydrodynamic
characteristics of a fluidized bed with the use of vibration. The latter reduces the
critical rate of fluidization w_k by a factor of 1.5-2, and the critical rate in the
presence of vibration, w_k, decreases with the diameter of the tube in which the process
takes place. Optimum conditions of the process were determined (lowest critical rate
of fluidization, w_k = 0.35 cm/sec, for 75-100 μ particles and a tube diameter of 40 mm).
On the basis of the data obtained, a synthesis of methylchlorosilanes was carried out
with various silicon-copper contact masses, using methyl chloride. The composition of

Card 1/2

L 58961-65

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ACCESSION NR: AP5016375

the mixture of methylchlorosilanes produced was determined by gas-liquid chromato-
graphy with a KhL-3 instrument. The process was very reproducible when vibration
was employed. The conversion of methyl chloride reached 35-55%, as compared to
5-10% in synthesis with a fluidized bed without vibration. Owing to a good mass and
heat exchange, even at low linear gas flow rates, the reproducibility and content of
dimethylchlorosilane are very satisfactory. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00   ENCL: 00   SUB CODE: OC

NO REF SOV: 007   OTHER: 000

Card 2/2

ESTRINOV, YA. K.

USSR/Electronics - Cathode Decay   Oct 52

"Cathode Sputtering and Electron Emission of Iron and
Graphite Under Action of Mercury Ions," M. A. Yere-
meyev and Ya. K. Estrinov

"Zhur Tekh Fiz" Vol 22, No 10, pp 1552-1555

Cathode decay and emission of electrons under action
of a beam of Hg ions was measured for graphite and
iron. The ion energy was varied from 1,000 to 30,000
eV.

236T53

ESTROV, E., kand.tekhn.nauk

Drawbacks in using standard plans in the construction of buildings
serving cultural and public needs. Zhil. stroi. no.2:5-6 '63.
(MIRA 16:3)
(Public buildings—Standards)

ESTROV, Z. I., Engineer

"Questions of the Economics of School Building." Sub 30 Nov 51, Sci
Res Inst of Construction Engineering, Academy of Architecture USSR

Dissertations presented for science and engineering degrees in
Moscow during 1951.

SO: Sum. No. 480, 9 May 55

FSTROV, Z. I.

Skyscrapers

Technical and economic peculiarities of the solutions of volumetric and planning problems of the tall administration buildings at the Smolensk Square and Red Gate. Stroitel'stvo No. 4, 1953.

Monthly List of Russian Accessions, Library of Congress June 1953. UNCL.

RUZIN, B.V., kandidat ekonomicheskikh nauk; ESTROV, Z.I., kandidat tekhni-
cheskikh nauk, redaktor; MASLOV, N.A., redaktor; SMOL'YAKOVA, M.V.,
tekhnicheskiy redaktor; TOKER, A.M., tekhnicheskiy redaktor

[Technical and economic appraisal of plans for rural homes] Tekhniko-
ekonomicheskaia otsenka proektov sel'skikh zhilykh domov. Moskva,
Gos. izd-vo lit-ry po stroit. i arkhitekture, 1954. 39 p. (MLRA 8:3)
  (Architecture, Domestic--Designs and plans)
  (Farmhouses)

ESTROV, Z.I.

ALEKSANDROV, P.A.; ESTROV, Z.I.; GRADOV, G.A., kandidat arkhitektury,
    redaktor; PALLADINA, G.A., redaktor; MEDVEDEV, L.Ya., tekhnicheskiy
    redaktor.

[Hospital buildings; proposals for planning standard designs of
hospital buildings for industrial construction] Bol'nichnye zdaniia;
predlozheniia po tipovomu proektirovaniiu bol'nichnykh zdanii in-
dustrial'nogo stroitel'stva. Moskva, Gos. izd-vo lit-ry po stroit.
i arkhitekture, 1954. 51 p.
        (Hospitals--Construction)   (MLRA 8:1)

RUZIN, B.V., kandidat ekonomicheskikh nauk; ESTROV, Z.I., kandidat tekhni-
cheskikh nauk, nauchnyy redaktor; MASLOV, N.A., redaktor izdatel'stva;
GUSEVA,S.S., tekhnicheskiy redaktor

[Technical and economic evaluation of rural dwellings] Tekhniko-
ekonomicheskaia otsenka proektov sel'skikh zhilykh domov. Izd.
2-oe. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1956.
57 p.

(Farmhouses)   (MIRA 9:11)

ESTROV, Z.I., kand.tekhn.nauk

Estimating the efficiency of standard plans for public buildings.
Trudy MIEI no.9:133-141 '58.   (MIRA 11:6)
            (Building--Estimates)

NESOV, V.D., inzh., red.; SMIRNOV, V.P., inzh., red.; ESTROV, Z.I., kand. tekhn. nauk, red.; STRASHNYKH V.P., red. izd-va; RODIONOVA, V.M., tekhn. red.

[Construction specifications and regulations]Stroitel'nye normy i pravila. Moskva, Gosstroiizdat. Pt.2. Sec.L, ch.2. [Public buildings and structures; basic principles of design] Obshchestvennye zdaniia i sooruzheniia; osnovnye polozheniia proektirovaniia. (SNiP II-L. 2-62). 1962. 7 p.

(MIRA 15:10)
1. Russia (1923- U.S.S.R.)Gosudarstvennyy komitet po delam stroitel'stva. 2. Gosudarstvennyy komitet Soveta Ministrov SSSR po delam stroitel'stva (for Nesov, Smirnov). 3. Nauchno-issledovatel'skiy institut obshchestvennykh zdaniy i sooru-zheniy Akademii stroitel'stva i arkhitektury SSSR (for Estrov).
(Construction industry--Standards)

NESOV, V.D., inzh., red.; SMIRNOV, V.P., inzh., red.; ESTROV, Z.I., kand. tekhn. nauk, red.; STRASHNYKH, V.P., red.Izd-va; RODIONOVA, V.M., tekhn. red.

[Construction specifications and regulations] Stroitel'nye normy i pravila. Moskva, Gosstroiizdat. Pt.2. Sec.L. ch.2. [Public buildings and structures; basic regulations for design (SNiP II-L. 2-62)] Obshchestvennye zdaniia i sooruzheniia; osnovnye polozheniia proektirovaniia (SNiP II-L. 2-62). 1962. 7 p.   (MIRA 16:5)
1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Gosudarstvennyy komitet Soveta Ministrov SSSR po delam stroitel'stva (for Nesov, Smirnov).
          (Public buildings--Standards)

ESTULIN, G. V.

NICKEL ALLOYS

C/1964

DECEASE

1964

L 4177-66   EWT(m)/EWP(e)/EWP(i)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)

ACC NR: AP5024405 JD/HM/HW/JG MJW(CL)/

SOURCE CODE: UR/0286/65/000/015/0083/0083

INVENTOR: Estulin, G. V.; Zimina, L. N.; Kosheleva, G. F.; Topilin, V. V.; Boyarinova, A. P.; Tsvetkova, V. K.; Khatalakh, R. F.; Shnyakin, N. S.; Polyakov, K. M.; Mel'nikov, M. V.; Belyakova, K. A.; Il'in, A. A.; Morozov, B. S.; Bogdanovskiy, S. P.; Khrakovskaya, P. S.

ORG: none

TITLE: Wrought, heat-resistant, nickel-base alloy. Class 40, No. 173418 [announced by Central Scientific Research Institute of Ferrous Metallurgy im. Bardin (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii); z-d "Elektrostal'" im. I. F. Tevosyan]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 83

TOPIC TAGS: alloy, nickel alloy, chromium containing alloy, molybdenum containing alloy, tungsten containing alloy, titanium containing alloy, aluminum containing alloy, carbon containing alloy, beryllium containing alloy, cerium containing alloy

ABSTRACT: This Author Certificate introduces a wrought, heat-resistant, nickel-base alloy with improved mechanical properties and weldability. The alloy contains 17 to 20% chromium, 8—12% molybdenum, 0—6% tungsten, 2—3% titanium, 1—2% aluminum, 0.1% max carbon, 6% max iron, 0.01% max sulfur, 0.015 max phosphorus, 0.5% max manganese, 0.6% max silicon, 0.01% max boron, and 0.02% max cerium.   [AZ]

SUB CODE: MM/ SUBM DATE: 05Feb64/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4/28

Card 1/1 HA

1. ESTULIN, I. V.

2. USSR (600)

4. Physics and Mathematics

7. Dosimetry of Ionizing Radiation, K. K. Aglintsev. (Radiometry and Rentgenometry. Moscow-Leningrad, 1950). Reviewed by I. V. Estulin, Sov. Kniga, No. 11, 1951.

9. Report U-3081, 16 Jan. 1953, Unclassified.

ESULIN, I.

"Emission of delayed neutrons by the isotope nitrogen".
I. Esulin. Uspekhi Fiz. Nauk 41, 221-4(1950); Chem.
Zentr. 1951, I, 3452.—A review of 9 recent papers with the
work of Alvarez (cf. C.A. 43, 4762c) given special attention.
                                        M. G. Moore

ESTULIN, I. V.

USSR/Nuclear Physics - Gamma Rays   Dec 51

"Slit Ionization Camera for Gamma-Ray Measurement,"
I. V. Estulin, Moscow State U

"Zhur Eksper i Teoret Fiz" Vol XXI No 12,
pp 1412-1415

Performed measurements of ionization by gamma-rays
in an air-filled ionization camera of 400 cm^3 with
walls of C, Al, Fe, Cu, Sn and Pb. Obtained relations
of balanced intensity of electrons, generated by gamma-
rays in various materials. Author thanks Prof I. M.
Frank for advice. Submitted 23 Feb 51.

198T93

ESTULIN, I.

Estulin, I. The scheme for decomposition of ionium and radiothorium. P. 269.

SO: Progress in the Physical Sciences, Vol. XLIV, No. 2, June 1951 (Uspekhi)

ESTULIN, I.V

U S SR

Influence of the spectrum of γ-radiation on the transition effect of γ-rays. I. V. Estulin. *Zhur. Eksptl. i Teoret. Fiz.* 22, 85-91(1952); *Science Abstr.* 56A, 473(1953).— A compensating arrangement of 2 flat ionization chambers whose front walls consisted each of an Al foil, an Al plate, and the same no. of Pb foils was exposed to 0.1-2.62-m.e.v. γ-rays from Ra or RdTh sources and the difference of the currents was measured as a function of the no. of Pb foils inserted between the Al foil and plate of one of the chambers. Assocd. with the transition of the γ's from an element with low Z to one with high Z there is at first a rapid rise of the current followed by a fall when the inserted Pb foils exceed approx. 0.1 g./sq. cm. The influence of Pb shields over the γ-sources and of the nature of the rear wall were investigated. K. L. C.

ESTULIN, I. V.

USSR/Electricity - Ionization Current   Apr 52

"Components of Ionization Current Produced by Gamma-Rays," I. V. Estulin, Moscow State U

"Zhur Eksper i Teoret Fiz" Vol XXII, No 4, pp 414-420

Ionization current produced by gamma-rays in a flat slit chamber used for measuring the equilibrial intensity of electrons in various materials is sepd into 3 components: I and I2 produced by electrons generated in the chamber walls, and I12 produced by mutual effect of the chamber walls (effect of electron "reflection"). Expts were performed in chambers of Pb, Sn, Cu, Fe, Al and C with a gamma-radiation from Ra and RdTh. Indebted to Prof Frank. Received 17 May 51.

215T24

215T24

USSR/Nuclear Physics - Ionization

Card 1/1   : Pub. 146-10/18   FD-493

Author   : Estulin, I. V.

Title   : Dependence of ionization current on energy of gamma-radiation

Periodical   : Zhur. eksp. i teor. fiz., 24, 221-228, Feb 1952

Abstract   : Studies the ionization currents from gamma-rays in air filled chambers
                with walls of lead and carbon as a function of gamma-ray energy. Found
                the sensitivity of slit ionization chambers of carbon and lead to gamma
                rays within the energy range of 0.3 to 3 MeV. Indebted to Prof. I. M.
                Frank and M. V. Klimentovskaya. 24 references, including 18 foreign.

Institution : Moscow State University

Submitted   : June 30, 1952

USSR/ Nuclear Physics

Card 1/1   Pub. 43 - 5/11

Authors   ! Antonova, I. A., and Estulin, I. V.

Title   ! Isomeric conversions of In^{115*}, In^{113*} and Sr^{87*}

Periodical ! Izv. AN SSSR. ser. fiz. 18/1, 79-87, Jan-Feb 1954

Abstract   ! The isomeric conversions of In^{115*}, In^{113*} and Sr^{87*} were investigated by the ionization method and the relative conversion energies and semi-decomposition period of these isotopes were established. A comparison of experimental and theoretical data made it possible to determine the multi-polarity of these isomeric conversions. It was established that all such radiation (gamma-radiation) conversions are electrical 2^5-polar conversions. The coefficients of internal conversion of gamma rays in In^{113*}, In^{115*} and Sr^{87*} were determined with an accuracy of 10-15%. Data regarding the odd numbers of neutrons or protons in the nuclei of Sr^{87}, In^{113} and In^{115} are included. Twenty-four references: 15-USA; 8-USSR and 1-English (1949-1953). Tables; graphs; drawing; diagram.

Institution : The M. V. Lomonosov State University, Moscow

Submitted   : November 30, 1953

USSR/Phys╵ · - Internal conversion electrons   FD-2199

Card 1/1   Pub. 146-4/25

Author   :   Estulin, I. V., and Moiseyeva, Ye. M.

Title   :   Measurement of the coefficients of internal conversion by gamma rays of
                Sr-87*, In-113*, and V-51* in electrons of atoms

Periodical :   Zhur. eksp. i teor. fiz. 28, 541-546, May 1955

Abstract   :   The authors determine the complete coefficients of internal conversion by
                gamma rays of Sr-87*, In-113*, In-115* and V-51* in electrons of atoms by way of
                direct measurements of the number of electrons and gamma quanta radiated
                by the source. The corresponding values found 0.26 ± 0.03, 0.39 ± 0.04,
                0.9 ± 0.6, and $(3.1 \pm 0.2) \cdot 10^{-3}$ lead to a conclusion concerning the energy
                25-pole radiational transition of Sr-87*, In-113* and In-115* and the
                electric quadrupole transition of V-51*. The authors thank Z. V.
                Pastukhova, N. I. Mertts, and Ya. A. Kleyman. Eleven references: e.g.
                L. K. Peker, L. A. Sliv, L. V. Zolotavin, 1953.

Institution :   Moscow State University

Submitted   :   April 24, 1954

Category : USSR/Nuclear Physics - Elementary Particles   C-3

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 438

Author   : Shapiro, I.S., and Estulin, I. V.
Inst   : Moscow State University, USSR
Title   : On the Electric Charge of a Neutron.

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 30, No 3, 579-580

Abstract : A narrow beam of thermal neutrons, filtered by graphite, with an average
           kinetic energy of 0.026 ev, was collimated by two foils of cadmium with
           slit apertures 2 mm wide, placed 50 cm apart. Two aluminum plates were
           placed in parallel with the planes of the slits. The plates were 50 cm
           long, and the distance between them was 7.5 mm. The difference of potential
           between the plates was 10 kv. If the neutron charge is qe, where e is the
           electron charge, then the electric field of the capacitor should deflect the
           beam by $\Delta x = qeEl^2/4w$, where E is the electric field intensity and W the
           kinetic energy of the neutrons. The experimentally observed displacement of
           the beam was less than 0.02 mm, corresponding to q less than 6×10^{-12}.

Card   : 1/1

ESTULIN, IV

Category : USSR/Nuclear Physics - Structure and Properties of Nuclei   C-4

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3191

Author   : Estulin, I.V., Popov, V.S., Chukreyev, F.Ye.
Inst   : Moscow State University
Title   : Polarization - Direction Correlation of Successive Gamma Quanta
           From Co^{60} and Na^{24}.

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 30, No 6, 1052-1057

Abstract : Description of apparatus for measuring the polarization-direction
           correlation of gamma quanta emitted in cascade. This apparatus, the
           polarization sensitivity of which was first determined experimentally,
           was used to perform measurements on gamma quanta from Co^{60} and Na^{24}.
           The even parity of the first two excited states of Ni^{60} and Mg^{24} was
           proven.

Card   : 1/1

Estulin, I.Y.

SUBJECT	USSR / PHYSICS CARD 1 / 2 PA - 1786
AUTHOR	ESTULIN,I.V., KALINKIN,L.F., MELIORANSKIJ,A.S.
TITLE	The Gamma Quanta emitted by the Nuclei of J, Rh amd Co on the occasion of the Capture of Thermal Neutrons.
PERIODICAL	Žurn.eksp.i teor.fis,$\underline{31}$,fasc.5, 886-887 (1956) Issued: 1 / 1957

The present work determines the energies and absolute intensities of the γ-quanta mentioned in the title with from 50 to 600 keV. For this purpose a luminescence spectrometer with a cylinder-shaped NAJ(Tl)-crystal (height 9 mm, diameter 28 mm) was used. As a source of thermal neutrons a physical test reactor with heavy water was used. From the horizontal channel in the shield of the reactor a well-collimated neutron bundle emerged, and in the center of the bundle the target made of the substance to be investigated was located. Under the target there was a NaJ(Tl)-crystal with a photoelectric amplifier. On the occasion of the measuring of the γ-rays produced on the occasion of neutron capture, the measuring results obtained in the case of an opened bundle of thermal neutrons (N_o) were compared with those obtained when the output of the neutron collimator was covered by means of a lid of $B_4C(N_1)$. The effect (N) produced by the thermal neutrons on the target is equal to the difference of these two results: $N = N_o-N_1$. In the spectra of the investigated targets the photopeaks of soft γ-quanta (emitted by the nuclei on the occasion of the capture of thermal neutrons) rise above the background of the momenta originating from harder γ-gamma quanta.

Žurn.eksp.i teor.fis,_31_,fasc.5,886-887 (1956) CARD 2 / 2   PA - 1786

On the occasion of the capture of thermal neutrons by iodide nuclei, γ-quanta with E = 135 $\pm$ 4 keV were noticed which had escaped the attention of other authors. The results of such a test are shown in form of a diagram in which the photopeak caused by γ-quanta with 135 keV is distinctly visible. The intensity of these gamma quanta is n = 30 per 100 captures of thermal neutrons. Other much smaller peaks are due to the apparatus.

On the occasion of the capture of thermal neutrons by Rh nuclei 4 discrete lines with the energies E_1 = 217 $\pm$ 4; E_2 = 176 $\pm$ 4; E_3 = 133 $\pm$ 4 and E_4 = 96 $\pm$ 4 keV were observed. Their intensities per 100 acts of capture of thermal neutrons are n_1 = 9,3; n_2 = 18; n_3 = 8 and n_4 = 16. The latter values have an accuracy of 15-20%. The lines found can not be connected with the activation of the target because they differ as to the energy of the γ-quanta of the Rh^{104} isomeres. The γ-lines found here correspond to the transitions between these levels.

On the occasion of capture of thermal neutrons by Co-nuclei, γ-quanta with the energies E_1 = 276 keV and E_2 = 226 keV and with the same intensity of about 20 γ-quanta per 100 captures of neutrons were noticed.

INSTITUTION: Moscow State University.

21(4)

AUTHOR: Estulin, I. V., and Antonova, I. A.

TITLE: Gamma-Spectrum Indicator

PERIODICAL: V sb.: Issled. v obl. dozimetrii ioniziruyushchikh izlucheniy. M.,
    AS USSR, 1957, pp 166-175

ABSTRACT: The quality of a gamma spectrum is usually evaluated in a differential
    ionization chamber which consists of 2 coaxial cylinders. The chamber walls
    are made from aluminum and lead layers in such a way that the inside wall of
    one of the cylinders is coated with lead and that of the other cylinder with
    aluminum. Secondary electrons are set up in aluminum under the effect of
    gamma rays, chiefly by the Compton effect; in the lead, in addition, a photo-
    electric effect is very pronounced. Therefore, the interactions between the
    gamma rays and the walls of both cylinders are different, and the currents of
    both halves of the chamber are varied in different ways with variation of

Card 1/2