POZHARITSKIY, G.K. (Moskva)

Equations of motion for systems with nonideal contacts.
Prikl.mat.i mekh. 24 no.3:458-462 My-Je'60. (MIRA 13:10)
(Mechanics, Analytic)

POZHARISSKAYA, L. P.

POZHARISSKAYA, L. P. -- "Meadow Plants of the Moldavian SSR." Acad Sci USSR. Botanical Inst imeni V. L. Komarov. Botanical Garden, Moldavian Affiliate, Acad Sci USSR. Kishinev, 1956
(Dissertation for the Degree of Candidate in Biological Sciences).

SO: Knizhnaya Letopis', No 9, 1956

RASKIN,A.M., dotsent, kandidat tekhnicheskikh nauk; ALEKSEYEV,V.B., dotsent, kandidat tekhnicheskikh nauk; POZHARISSKIY,P.P., assistent

Combating blowing of road bed soils during the construction of railroads in sandy deserts. Trudy TASHIIT no.3:67-89 '51. (MLRA 8:10)

(Railroads--Construction) (Soil stabilization)

GINZBURG, A.I.; MECHAYEVA, Ye.A.; LAVRENEV, Yu.B.; POZHARITSKAYA, L.K.; MALYSHEV, I.I.,red.; RODIONOV, G.G.,red.; FAGUTOV, F.P.,red.; KHRUSHCHOV, N.A.,red.; CHERNOSVITOV, Yu.L.,red.; SHMANENKOV, I.V., red.; SHCHERBINA, V.V.,red.; EYGELES, M.A.,red.; OVCHINNIKOVA, S.V., red.; AVERKIYEVA, T.A.,tekhn.red.

[Rare metal carbonatites] Redkometal'nye karbonatity. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhr.nedr, 1958. 126 p. (Geologiia mestorozhdenii redkikh elementov, no.1) (MIRA 12:2)

(Carbonates (Geology))

POZHARITSKAYA, L.K.

Hydrothermal contact zone chlorites in Rudnyy Altai complex ore deposits. Izv. vys. ucheb. zav.; zav.; geol. i razv. 1 no.4:100-103 Ap '58. (MIRA 11:12)

1.Vsesoyuznyy institut mineral'nogo syr'ya.
(Altai Mountains--Chlorites)

3(5), 15(6) PHASE I BOOK EXPLOITATION SOV/1644

Ginzburg, A.I., Ye.A. Nechayeva, Yu.B. Lavrenev, and L.K. Pozharitskaya

Geologiya mestorozhdeniy redkikh elementov. vyp. 1: Redkometal'nyye karbonatity (Geology of Rare Element Deposits. no. 1: Rare Metal Carbonatites) Moscow, Gosgeoltekhizdat, 1958. 126 p. 5,000 copies printed.

Sponsoring Agency: Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya

Eds.: A.I. Ginzburg, and S.V. Ovchinnikova; Tech. Ed.: T.A. Averkiyeva; Editorial Board: A.I. Ginzburg (Chairman), I.I. Malyshev, G.G. Rodionov, F.P. Fagutov, N.A. Krushchov, Yu.L. Chernosvitov, I.V. Shmanenkov, V.V. Shcherbina, and M.A.Eygeles.

PURPOSE: This booklet is intended primarily for geologists. It may, however, because of its non-technical nature be of interest to the general reader.

COVERAGE: The introductory chapters of this booklet give a short history of the exploration and study of carbonatities. Approximately half of the contents are devoted to a description of the geological and geochemical properties of some rare minerals, mainly niobium. These descriptions are aided by the use of tables and charts. The second half of the book gives a physical description and the geographical location of some of the well known deposits of the world. There are 131 references of which 16 are Soviet.

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Geology of Rare Element Deposits. SOV/1644

TABLE OF CONTENTS:

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3(5) SOV/132-59-7-4/17

AUTHORS: Bezsmertnaya, M.S., Gorzhevskiy, D.I.and Pozharitskaya, L.K.

TITLE: The Prospecting Importance of Transformation of Ore-Enclosing Rocks in the Altay

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 7, pp 14-17 (USSR)

ABSTRACT: According to the authors the transformation of rocks enclosing ore deposits of the Rudnyy Altay occurred in three successive stages before, during and after the formation of ore deposits. They accordingly divide these metasomatic transformations caused by hydrothermal solutions into three groups. Metasomatic transformations of enclosing rocks, which occurred before the formation of ore deposits, play the most important role. Large aureoles were created at that stage, when, as a result of this metasomatic activity, 4 main groups of rocks were formed: chloritic, sericitic, quartzite and epidositic groups with many varieties within each of these groups. The variety of

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rocks found in aureoles was due to many factors, the most important of which are the composition of initial rocks, the temperature and composition of penetrating hydrothermal solutions. Thus, depending on the composition of enclosing rocks, the following minerals were formed in the metamorphized rocks: a) in acid rocks - albite, sericite, quartz and less often - chlorite; b) in basic and neutral rocks and skarns - epidote, actinolite, prehnite, chlorite, albite, carbonate and less often - quartz; c) in sedimentary and tuffogenic-sedimentary rocks - chlorite, sericite, quartz, and in calcareous varieties - also epidote and carbonate. Aureoles created in the next two metasomatic stages almost coincide with the dimensions of the ore deposit itself and their prospecting importance is insignificant. It was found that ore deposits were usually formed in zones of intensive occurrence of metasomatic processes, but sometimes they occupy a slightly excentrical place in these zones (aureoles). It indicates that these two

The Prospecting Importance of Transformation of Ore-Enclosing Rocks in the Altay

stages followed each other quite closely and that the penetration of ore-forming metasomatic solution occurred through the same channels. The dimensions of aureoles in enclosing rocks vary from 20 to 200 and more m and depend on the lithology of these rocks. The largest aureoles were observed in homogeneous volcanic rocks, especially in tuffs. Thus, say the authors, large metasomatic aureoles can serve as indications when prospecting for ore deposits. Polymetallic ore deposits of the Rudnyy Altay are definitely associated with these aureoles. Presumably such association could also be found in other regions. There are 8 Soviet references.

ASSOCIATION: VIMS

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POZHARITSKIY, G.K. (Moskva)

Extending Gauss' principle to dry friction systems. Prikl. mat. i mekh. 25 no.3:391-406 My-Je '61. (MIRA 14:7)
(Mechanics, Analytic) (Friction)

POZHARITSKIY

AUTHOR: POZHARITSKIY, G.K. (Moscow) 40-4-8/24

TITLE: On the Stability of Dissipative Systems (Ob ustoychivosti dissipativnykh sistem)

PERIODICAL: Prikladnaya Mat.i Mekh., 1957, Vol.21, Nr 4, pp.503-512 (USSR)

ABSTRACT: The author considers the system

(1) $\frac{d}{dt}\frac{\partial L}{\partial \dot{q}_i} - \frac{\partial L}{\partial q_i} = 0$, $\frac{dq_i}{dt} = \dot{q}_i$ $(i=1,\ldots,n)$

with the solution

$\dot{q}_1 = \ldots = \dot{q}_k = 0$, $\dot{q}_l = \dot{q}_l^o$ $(l=k+1,\ldots,n)$

(2)

$q_k = q_k^o$ $(k=1,\ldots,k)$, $q_l = \dot{q}_l^o\,(t-t_o)$ $(l=k+1,\ldots,n)$

where $q_1,\ldots,q_n$ are independent parameters by which the point coordinates can be expressed: $x_j = x_j(q_1,\ldots,q_n)$ $(j=1,\ldots,N)$, and the system

(3) $\frac{d}{dt}\frac{\partial L}{\partial \dot{q}_i} - \frac{\partial L}{\partial \dot{q}_i} = \frac{\partial F}{\partial \dot{q}_i}$, $\frac{dq_i}{dt} = \dot{q}_i$ $(i=1,\ldots,n)$,

$F(\dot{q}_1,\ldots,\dot{q}_n) = \frac{1}{2}\sum_{i,j=1}^{n} \beta_{ij}\dot{q}_i\dot{q}_j$

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on which, besides of conservative forces, there act also dissipative ones. By additional forces $F_1,..,F_n$ which satisfy the conditions

$$(4) \qquad \sum_{j=k+1}^{n} \beta_{ij}\dot{q}_j^{o'} + F_i = 0 \quad , \quad \sum_{j=k+1}^{n} \beta_{mj}\dot{q}_j^{o'} + F_m = 0$$

it can be achieved that the system thus extended

$$(5) \qquad \frac{d}{dt}\left(\frac{\partial L}{\partial \dot{q}_i}\right) - \frac{\partial L}{\partial q_i} = \sum_{j=1}^{n} \beta_{ij}\dot{q}_j + F_i \qquad \frac{dq_i}{dt} = \dot{q}_i \qquad (i=1,..,k)$$

$$\frac{d}{dt}\left(\frac{\partial L}{\partial \dot{q}_m}\right) = \sum_{j=1}^{n} \beta_{mj}\dot{q}_j + F_m \qquad \frac{dq_m}{dt} = \dot{q}_m \qquad (m=k+1,..,n)$$

admits a solution which is identical with the system of functions (2). The author investigates the stability of (2) with the aid of the Hamilton variables and states that, if a certain quadratic form is positive definite, (2) will be asymptotically stable, in the opposite case it will be unstable. Furthermore: By adding dissipative and additional forces the stable motion of the conservative system passes over into an asymptotically stable one, if one form is

On the Stability of Dissipative Systems

positive definite. If the form can attain negative values, then the stability of the conservative system is disturbed and its instability will not be stabilized.

SUBMITTED: June 25, 1956

AVAILABLE: Library of Congress

CARD 3/3

POZHARSKIY, B.G.; FEDOROV, I.A.; SHEVCHENKO, V.B.

Effect of temperature on the complex formation of plutonium (IV) in nitric acid solutions. Zhur. neorg. khim. 9 no.2:279-282 F'64. (MIRA 17:2)

ACC NR: AP6035696 (A,N) SOURCE CODE: UR/0413/66/000/019/0045/0045

INVENTORS: Gurevich, A. M.; Pozharitskiy, D. M.

ORG: none

TITLE: A method for pulse control of a relay amplifier using a thyristor. Class 21, No. 186531 [announced by State All-Union Central Scientific Research Institute of Complex Automation (Gosudarstvennyy vsesoyuznyy tsentral'nyy nauchno-issledovatel'skiy institut kompleksnoy avtomatizatsii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 45

TOPIC TAGS: control circuit, pulse amplifier, amplifier design

ABSTRACT: This Author Certificate presents a method for pulse control of a relay amplifier using a thyristor with an alternating current power supply and a direct current electromagnetic load shunted by a diode. The design provides for storage of the control signals. Pulses are fed to the control electrode of the thyristor during each positive half-cycle of the voltage power supply. These pulses are of such a duration that the current in the load is insufficient to maintain the thyristor in the "on" state. To switch on the amplifier, the duration of the pulses is briefly increased. To switch off the amplifier, the supply of pulses is briefly cut off.

SUB CODE: 09/ SUBM DATE: 10Nov64 UDC: 621.375.67

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POZHARITSKIY, G.K. (Moskva)

Property of characteristic numbers of solutions of differential equations. Prikl.mat. i mekh. 22 no.5:707-710 S-O '58. (MIRA 11:11)

(Differential equations)

POZHARITSKIY, G. K.

AUTHOR: None given 30-12-41/45

TITLE: Defense of Dissertations (Zashchita dissertatsiy) January - July 1957 (Yanvar' - iyul' 1957) Section of Technical Sciences (Otdeleniye tekhnicheskikh nauk)

PERIODICAL: Vestnik AN SSSR, 1957, Vol. 27, Nr 12, pp. 122-123 (USSR)

ABSTRACT: At the Institute for Mechanics (Institut mekhaniki). Applications for the degree of Doctor of Technical Sciences: N. I. Druzhinin - Development of the electro-hydrodynamic analogy method when applied to the investigation of filtration on large areas (Razvitiye metoda elektro-gidrodinamicheskikh analogiy v primenenii k issledovaniyu fil'tratsii na bol'shikh territoriyakh). A. A. Kostyukov - - Theory and computation methods of the formation of waves and the wave resistance of ships (Teoriya i metody rascheta volnoobrazovaniya i volnovogo soprotivleniya sudov). A. Kh. Mirzadzhanzade - Some problems of hydrodynamics of viscous and viscousplastic liquids when applied in the connection of the production of mineral oil (Nekotoryye voprosy gidrodinamiki vyazkikh i vyazkoplastichnykh zhidkostey v primenenii k neftedobyche). Applications for the degree of

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Defense of Dissertations 30-12-41/45
January - July 1957
Section of Technical Sciences

Doctor of Physical-Mathematical Sciences: S. V. Kalinin - - On the constancy of periodic motions of mechanical systems in critical cases (Ob ustoychivosti periodicheskikh dvizheniy mekhanicheskikh sistem v kriticheskikh sluchayakh). N. N. Krasovskiy - Some problems concerning the theory of constancy of nonlinear systems (Nekotoryye voprosy teorii ustoychivosti nelineynykh sistem). Ya. I. Sekerzh-Zen'kovich - Investigations carried out according to the hydrodynamic theory of waves of the end amplitude (Issledovaniya po gidrodinamicheskoy teorii voln konechnoy amplitudy). V. M. Starzhinskiy - Some problems connected with the constancy of periodic motions (Nekotoryye voprosy ustoychivosti periodicheskikh dvizheniy). Application for the degree of Candidate of Technical Sciences: G. I. Pshenichnov - - Calculation of the arc-shaped netlike "Shells" as spatial systems (Raschet kruzhal'no-setchatykh obolochek kak prostranstvennykh sistem). Application for the degree of Candidate of Physical-Mathematical Sciences: G. K. Pozharitskiy - On the problem of the constancy of the

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motion of conservative and dissipative systems (K voprosu ob ustoychivosti dvizheniya konservativnykh i dissipativnykh sistem).
At the Petroleum Institute (Institut nefti).
Applications for the degree of Candidate of Technical Sciences: V. A. Amiyan - Putting into operation, utilization, and repair of fountain wells (Osvoyeniye, ekspluatatsiya i remont fontannykh skvazhin). V. I. Grigor'yev - The prevention of the arbitrary bending of opening shafts in turbine drilling (Bor'ba s proizvol'nym iskrivleniyem tvolov skvazhin v turbinnom burenii). V. I. Sergeyevich - Investigation of the viscosity and the density of deposit water of mineral oil deposits and the binary electrolyte solutions in dependence on temperature and pressure (Issledovaniye vyazkosti i plotnosti plastovykh vod neftyanykh mestorozhdeniy i binarnykh rastvorov elektrolitov v navisimosti ot temperatury i davleniya). Yu. S. Shimelevich - activation analysis of rocks under the conditions of drill holes and their

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S/040/61/025/003/002/026
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24.4200 1103, 1191, 1327

AUTHOR: Pozharitskiy, G.K. (Moscow)

TITLE: The Gaussian principle for systems with solid friction

PERIODICAL: Akademiya nauk SSR. Otdeleniye tekhnicheskikh nauk. Prikladnaya matematika i mekhanika, v. 25, no. 3, 1961, 391 - 406

TEXT: In the first part of the present paper the author derives general equations of motion, specific for the Law of Solid Friction with vel. of sliding $\neq 0$. A mechanical system is considered with homonomic coordinates $q_1 \ldots q_{n+k+l}$ for which

$$A_{i1}\dot{q}_1 + \ldots + A_{i,n+k+\ell}\dot{q}_{n+k+\ell} = 0 \quad (i = 1, \ldots, \ell) \qquad (1.1)$$

$$A_{i1}\delta q_1 + \ldots + A_{i,n+k+\ell}\delta q_{n+k+\ell} = 0 \quad (i = 1, \ldots, \ell) \qquad (1.2)$$

and $$q_{n+1} \leq 0, \ldots, q_{n+k} \quad 0. \qquad (1.3)$$

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The Gaussian principle for ...

In Eq. (1.3) the equality sign corresponds to sliding. On virtual displacement

$$\frac{\partial S}{\partial \ddot{q}_j} = Q_j + \sum_{i=1}^{s} -k_i N_i \frac{v_{ix}\alpha_{ij}^1 + v_{iy}\alpha_{ij}^2}{\sqrt{v_{ix}^2 + v_{iy}^2}} + N_i \alpha_{ij}^3 \qquad (j = 1, \ldots, n+k) \tag{1.6}$$

is obtained, where s = acceleration energy for a system with Eq. (1.3) absent, and Q_j = generalized forces, and α's are given by

$$\begin{aligned} \delta x_i &= \alpha_{i1}^1 \delta q_1 + \ldots + \alpha_{i,n+k}^1 \delta q_{n+k} \\ \delta y_i &= \alpha_{i1}^2 \delta q_1 + \ldots + \alpha_{i,n+k}^2 \delta q_{n+k} \\ \delta z_i &= \alpha_{i,n+1}^3 \delta q_{n+1} + \ldots + \alpha_{i,n+k}^3 \delta q_{n+k} \\ \alpha_{i1}^3 &= \ldots = \alpha_{in}^3 = 0 \end{aligned} \tag{1.5}$$

If $2S = \sum_{ij=1}^{n+k} \gamma_{ij} \ddot{q}_i \ddot{q}_j + \beta_i \ddot{q}_i + \delta$.

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The Gaussian principle for ...

where γ_{ij}, β_i, δ are independent of $\ddot{q}_j$ the solution of Eq. (1.6) gives

$$\ddot{q}_j = \sum_{m=1}^{n+k} \gamma_{mj}\left(Q_m - \beta_m + \sum_{i=1}^{s} -k_i N_i \frac{v_{ix}\alpha_{im}^1 + v_{iy}\alpha_{im}^2}{|v_i|} + \alpha_{im}^3 N_i\right)$$
$$(j = 1, \ldots, n+k)$$

and reactions are given by

$$\sum_{m=1}^{n+k} \gamma_{mj}\left(Q_m - \beta_m + \sum_{i=1}^{s} -k_i N_i \frac{v_{ix}\alpha_{im}^1 + v_{iy}\alpha_{im}^2}{|v_i|} + \alpha_{im}^3 N_i\right) = 0$$
$$(j = n+1, \ldots, n+k)$$

The case of relative velocities equal to zero is considered next and it is shown that $\dot{v}_{\mu+1} \ldots \dot{v}_n$ are determined from

$$\frac{\partial}{\partial \dot{v}_j}\left(S^* - \sum_{i=\mu+1}^{n} Q_i \dot{v}_i + \sum_{i=\nu+1}^{\tau} k_i N_i \sqrt{\dot{v}_{ix}^2 + \dot{v}_{iy}^2}\right) = \frac{\partial}{\partial v_j}(S^* + \Psi^*) \qquad (4.1)$$
$$(j = \mu+1, \ldots, n)$$

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The Gaussian principle for ...

where S^* is S for which $\dot{v}_1 = \ldots = \dot{v}_\mu = 0$, and that the solution

$$\dot{v}_1 = \ldots = \dot{v}_\mu = 0, \quad \dot{v}^*_{\mu+1}, \ldots, \dot{v}^*_n \tag{4.2}$$

of (4.1) satisfies the isolated minimum of

$$S' + \Psi = S' - \sum_{i=1}^{n} Q_i \dot{v}_i + \sum_{i=1}^{\tau} k_i N_i \sqrt{\dot{v}_{ix}^2 + \dot{v}_{iy}^2}$$

$\delta(S + \Psi)$ variation of $(S + \Psi)$ in the neighborhood of Eq. (4.2) will be

$$\delta(S' + \Psi) = \sum_{j=1}^{\mu} \left[\left(\frac{\partial S}{\partial \dot{v}_j} \right)^{\cdot} - Q_j + \sum_{i=\nu+1}^{\tau} k_i N_i \frac{\dot{v}_{ix} \beta_{ij}^1 + \dot{v}_{ix} \beta_{ij}^2}{\sqrt{\dot{v}_{ix}^2 + \dot{v}_{iy}^2}} \right] \dot{v}_j + \tag{B}$$

$$+ \sum_{i=1}^{\nu} k_i N_i \sqrt{\dot{v}_{ix}^2 + \dot{v}_{iy}^2} + \delta^2 S' + \delta^2 \Psi' + \lambda$$

and the positiveness of

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The Gaussian principle for ...

$$\Pi = \sum_{j=1}^{\mu} \left[\left(\frac{\partial S'}{\partial \dot{v}_j} \right)^{\cdot} - Q_j' + \sum_{i=\nu+1}^{\tau} k_i N_i \frac{\dot{v}_{ix}\beta_{ij}^{1} + \dot{v}_{iy}\beta_{ij}^{2}}{\sqrt{\dot{v}_{ix}^{2} + \dot{v}_{iy}^{2}}} \right] \dot{v}_j + \sum_{i=1}^{\nu} k_i N_i \sqrt{\dot{v}_{ix}^{2} + \dot{v}_{iy}^{2}} \geqslant 0$$

will be a necessary and sufficient condition for the validity of (B). The following conclusions are then drawn: 1) The positiveness of the function implies that the solution Eq. (4.2) satisfies the Law of Friction. 2) A system inequilibrium under the influence of frictional and inertial forces and some other active forces; the accelerations related to inertial forces are absent if it is under the influence of the above forces. The enlarged principle is then formulated as follows: If for the system with restraints all maxima of frictional forces are known, the resulting motion fulfilling the Law of Friction will differ from other possible motions by the fact that for the actual motion, the difference bet-

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D208/D304

The Gaussian principle for ...

ween the accelerating energy and work done by all forces in the actual acceleration, will be a minimum, and at least one type of motion will always satisfy the above principle. There are 3 Soviet bloc references.

SUBMITTED: November 28, 1960

Card 6/6

ACCESSION NR: AP4013381 S/0040/64/028/001/0060/0067

AUTHOR: Pozharitskiy, G. K. (Moscow)

TITLE: Effect of viscosity on stability of equilibria and stationary rotation of a solid body with a strip partially filled by a viscous fluid

SOURCE: Prikladnaya matematika i mekhanika, v. 28, no. 1, 1964, 60-67

TOPIC TAGS: viscosity, stationary rotation, solid body, viscous fluid, energy dispersion, velocity field, potential energy, holonomic stationary relations, equilibrium stability

ABSTRACT: Intuition says that if the energy of a system is dissipated at every motion, and for equilibrium or stationary motion there is an isolated minimum, then near unperturbed motion the oscillations of the system will die out. For systems with a finite number of degrees of freedom this fact can be derived from the results of Ye. A. Barbashin and N. N. Krasovskiy (Nekotory*ye zadachi teorii ustoychivosti dvizheniya. Fizmatgiz, 1959). Extension of their results to a system with an infinite number of degrees of freedom becomes difficult.. The author makes a series of assumptions on continuity of the perturbed surface, the velocity field,

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ACCESSION NR: AP4013381

and the total energy of the system; therefore, all his deductions concerning stability are of a somewhat conditional nature. The restrictions are dictated by the method of proof; it is doubtful if, from consideration of only total energy and its derivative, one could draw more definite conclusions on stability. Orig. art. has: 10 formulas.

ASSOCIATION: none

SUBMITTED: 16Nov62 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: AI NO REF SOV: 008 OTHER: 000

Card 2/2

POZHARITSKIY, G.K. (Moskva)

Effect of viscosity on the stability of the equilibrium and stationary rotation of a solid body having a cavity partly filled with a viscous liquid. Prikl. mat. i mekh. 28 no.1: 60-67 Ja-F'64. (MIRA 17:2)

25113
S/040/61/025/004/007/021
D274/D306

24 4100 1344, 1109, 1327

AUTHOR: Pozharitskiy, G.K. (Moscow)

TITLE: On the asymptotic stability of equilibrium and stationary motion in mechanical systems with partial dissipation

PERIODICAL: Prikladnaya matematika i mekhanika, v. 25, no. 4, 1961, 657-667

TEXT: Conditions are found for the asymptotic stability of mechanical systems proceeding from the theorem by Ye.A. Barbashin and N.N. Krasovskiy (Ref. 4: Ob ustoychivosti dvizheniya v tselom. DAN SSSR, 1952). This theorem states the conditions under which the solutions of the equations $dx_i/dt = X_i(x_1,...,x_n,t)$ (0.1) are asymptotically stable. The coordinates q_n are expressed by

$$q_i = b_{i1}x_1 + ... + b_{in}x_n \quad (i = n-k+1,...,n) \quad (1.7)$$

The equations of motion in the first approximation are:

$$\dot{x}_i = \lambda_i x_i + \frac{\partial F}{\partial \dot{x}_i}$$

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On the asymptotic stability...

Differentiating each of the linear forms (1.7) $2p_i$ times, one obtains:

$$b_{i1}\lambda_1^l x_1 + \ldots + b_{in}\lambda_n^l x_n = 0 \qquad (l = 1,\ldots,p_i;\ i = n-k+1,\ldots,n) \quad (1.8)$$

The results of the foregoing analysis are given by: Theorem 1) In order that partial dissipation involving $k < n$ coordinates render the equilibrium of a system (which is isolated and stable under potential forces) asymptotically stable in the first approximation, it is necessary and sufficient that equations (1.7) and (1.8) have a matrix of rank n; (the expansion of the system's force function in the neighborhood of the equilibrium position begins with a negative definite quadratic form). The same conditions is sufficient for asymptotic stability based on the exact equations. 2) If in the first approximation there exist k + 1 equal fundamental frequencies, no dissipation involving k coordinates will render the system asymptotically stable in the first approximation. 3) If there are no more than k equal fundamental frequencies, then k generalized coordinates can always be found, so that dissipation involving them

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On the asymptotic stability...

leads to asymptotically stable equilibrium $q_i = 0$. Barbashin and Krasovskiy's theorem can be interpreted as follows. A constrained system

$$\ddot{x}_i = \lambda_i x_i + \sum_{j=n-k+1}^{n} \theta_j b_{ji} + X_i \qquad (1.9)$$

is considered; according to the theorem it is sufficient for asymptotic stability that system (1.9) should have no solutions along which

$$\sum_{j=n-k+1}^{n} \theta_j b_{ji} = 0 \qquad (i = 1,\ldots,n)$$

in the entire course of the motion. It follows from above equation that not a single solution exists along which all the θ_j become zero. The quantities θ_j can be interpreted as the reactions of constraints; hence the result: If additional constraints can be imposed on the system so that the constrained system should allow no motion, along which all the reactions of the new constraints vanish, then the introduction (into the initial system) of dissipation forces acting along the coordinates which are removed by the new constraints, renders the equilibrium of the system asymptotic-

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On the asymptotic stability...

ally stable. System (0.1) is taken in the form

$$\frac{dx_i}{dt} = p_{i1}x_1 + \ldots + p_{in}x_n + X_i \qquad (2.1)$$

where p_{sj} are bounded periodic functions of time, and x_i are holomorphic functions (with respect to x_i) with periodic coefficients. Functions

$$\Phi_i = b_{i1}y_1 + \ldots + b_{in}y_n + U_i$$

are introduced, (where U is the force function and y is related to x in (2.1) by Lyapunov's theorem). If the system

$$b_{i1}\lambda_1^s y_1 + \ldots + b_{in}\lambda_n^s y_n = 0 \quad (s = 0, 1, \ldots; i = 1, \ldots, k)$$

(λ_i being complex number) has a matrix of rank m, then system (2.1) as well as the first-approximation system will be asymptotically stable. If the rank is smaller than n, the first-approximation system will not be asymptotically stable; this will always be the case if k + 1 equal λ's, can be found; if this does not occur, it is always possible to indicate such linear parts of the functions Φ_i, that the system should be asymptotically stable with respect

On the asymptotic stability...

to all variables. For matrices of rank n - m, other criteria for asymptotic stability are given. A system is considered whose kinetic energy T is not an explicit function of t and q. In this case stability criteria can be found by a method analogous to that used in the first part of the article; results are also given which were first published by the author in v. 21, no 4, 1957, of same periodical. Finally, a system is considered with first-approximation equations

$$\ddot{x}_i + \sum_{\substack{i,s \leq n-k \\ j > n-k}} \left(\frac{\partial \beta_{ij}}{\partial x_s}\right)^{o} q_i^{o} \dot{x}_s = \lambda_i x_i \qquad (3.2)$$

and variation of particular integrals

$$\sum_{i=1}^{n-k} \beta_{i\beta} \dot{x}_i + \sum_{i,s \leq n-k} \left(\frac{\partial \beta_{ij}}{\partial x_s}\right)^{o} \dot{q}_i^{o} x_s = c_j \quad (j = n-k+1, \ldots n) \qquad (3.3)$$

If the rank of the matrix of the system $q_{n-l+1} = q_{n-k} = 0$, obtained from (3.3) by infinite differentiation, equals n-l, then the motion

Card 5/6

On the asymptotic stability...

will be asymptotically stable, and only then asymptotically stable in the first approximation. There are 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: E.J. Routh, The advanced part of a treatise on the dynamics of a system of rigid bodies. London, 1930.

SUBMITTED: February 25, 1961

Card 6/6

AUTHOR: Pozharitskiy, G.K. (Moscow) AP-20-1-15/19

TITLE: On One Property of the First Approximation System (Ob odnom svoystve sistemy pervogo priblizheniya)

PERIODICAL: Prikladnaya Matematika i Mekhanika, 1958, Vol 22, Nr 1, pp 143-144 (USSR)

ABSTRACT: The author investigates the properties of a system of solutions of linear equations with constant coefficients. According to Lyapunov a quadratic form is performed from the variables, the derivative of which is to be definite. It is shown that under certain restrictions for the quadratic forms and their derivatives - which can be simply proved - the proof of instability or asymptotic stability with respect to the variables of the system can be simply carried out. Two theorems are proved: Theorem 1 : If the quadratic form W possesses a constant, negative total derivative with respect to the time, and if the rank of the forms W and $\frac{dW}{dt}$ is equal, and if W can attain negative values, then the initial equation possesses a negative characteristic number. Theorem 2 : If under the conditions of the first theorem the

Card 1/2

On One Property of the First Approximation System 40-22-1-15/15

quadratic form W is positive and constant, then the motion is asymptotically stable with regard to the variables. Both theorems are shortly proved. There are 3 references, 2 of which are Soviet, and 1 French.

SUBMITTED: February 26, 1957

Card 2/2 USCOMM-DC-60599

AUTHOR: Pozharitskiy, G.K. (Moscow)

40-22-2-1/21

TITLE: On the Construction of a Lyapunov Function From Integrals of the Equation of the Disturbed Motion (O postroyenii funktsii Lyapunova iz integralov uravneniy vozmushchennogo dvizheniya)

PERIODICAL: Prikladnaya matematika i mekhanika, 1958, Vol 22, Nr 2, pp 145-154 (USSR)

ABSTRACT: The author considers a general system of equations for dynamical systems which has the form :

$$\frac{dx_i}{dt} = X_i\ (x_1, \ldots, x_n, t) \qquad (i = 1, 2 \ldots, n)$$

a series of integrals

$$U_1(x_1, \ldots, x_n, t) \quad \ldots \quad U_p(x_1, \ldots, x_n, t)$$

are assumed to be known. These integrals are functions of the variables of state of the system. If it is possible to construct a definite function of these integrals, then the stability of the motion can be judged without being forced to solve the equations of the disturbed motion. The author investigates necessary and sufficient conditions which the first

Card 1/2

On the Construction of a Lyapunov Function From Integrals of the Equation of the Disturbed Motion 40-22-2-1/21

integrals have to satisfy in order that the construction of a definite Lyapunov function will be possible. Starting from simple cases he also investigates the case where the first integrals are holomorphic functions of the variables of state. The author gives ways how to determine the Lyapunov function in these cases, and he shows how his method of construction is connected with the method given by Chetayev. Here it appears that the method given by the author represents a generalization which admits far reaching conclusions in many cases. As an example a theorem given by Routh is proved by the means here given.
There are 4 references, 3 of which are Soviet and 1 English.

SUBMITTED: December 18, 1956

1. Equations of state--Theory

Card 2/2

POZHARITSKIY, G.K. (Moskva)

Characteristic number for a vanishing solution of disturbed motion equations. Prikl.mat.i mekh. 19 no.4:481-484 Jl-Ag '55. (Motion) (MLRA 9:1)

POZHARITSKIY, G.K.

1688. Pozharitskii, G. K. On the characteristic number of the vanishing solution of the equations of perturbed motion. (Russian) Prikl. Mat. Meh. 19 [illegible] 451-454, July-Aug. [illegible]

Consider a vector equation [illegible] $y' = f(t, y)$, where [illegible] is a vector function of real t and the point y, and let $y(t)$ be a particular solution of [1]. Let the corresponding perturbed vector equation be: [2] $x' = A(t)x + F(t, x)$, where $A(t)$ is a square matrix of real, bounded continuous functions and F is analytic in x for each t and such that $F(t, x) = O(|x|^2)$ for small $|x|$. Author shows that the characteristic number of the vanishing solution $x(t)$ of [2] is equal to one of the non-negative characteristic numbers of the linear equation: [3] $x' = A(t)x$. From this fact and certain theorems of Lyapunov and Chetayev on stability or instability of motion in the first approximation [3] author then deduces various simple consequences.

As an application, author discusses the question as to whether [1] can have two solutions $y_1(t)$ and $y_2(t)$ such that $|x| = |y_2 - y_1| \to 0$ as $t \to \infty$, and also the question of the stability of $y_2 = y_1 + x$ if x is a vanishing solution. In particular, he considers the problem of motion of a heavy rigid body about a fixed point, taking for $y_1(t)$ a permanent rotation and for $y_2(t)$ the classical V. A. Steklov solution. This discussion, however, is not complete.

E. Leimanis, Canada

Math

SMW MT

POZHARITSKIY, G.K. (Moscow)

Deriving Liapunov's function from integrals of perturbation-motion equations. Prikl. mat. i mekh. 22 no.2:145-154 Mr-Ap '58. (MIRA 11:7)

(Motion) (Differential equations)

POZHARITSKIY, G.K. (Moskva)

Unsteady motion of conservative holonomic systems. Prikl.mat.i mekh. 20 no.3:429-433 My-Je '56. (MLRA 9:8)
(Motion)

POZHARITSKIY, G. K. Cand Phys-Math Sci -- (diss) "On the Problem of the ~~Motion~~ Stability of Movements of Conservative and Dissipative Systems." Mos, 1957. 5 pp ■ 19 cm. (Academy of Sciences USSR, Inst of Mechanics), 120 copies (KL, 18-57, 93)

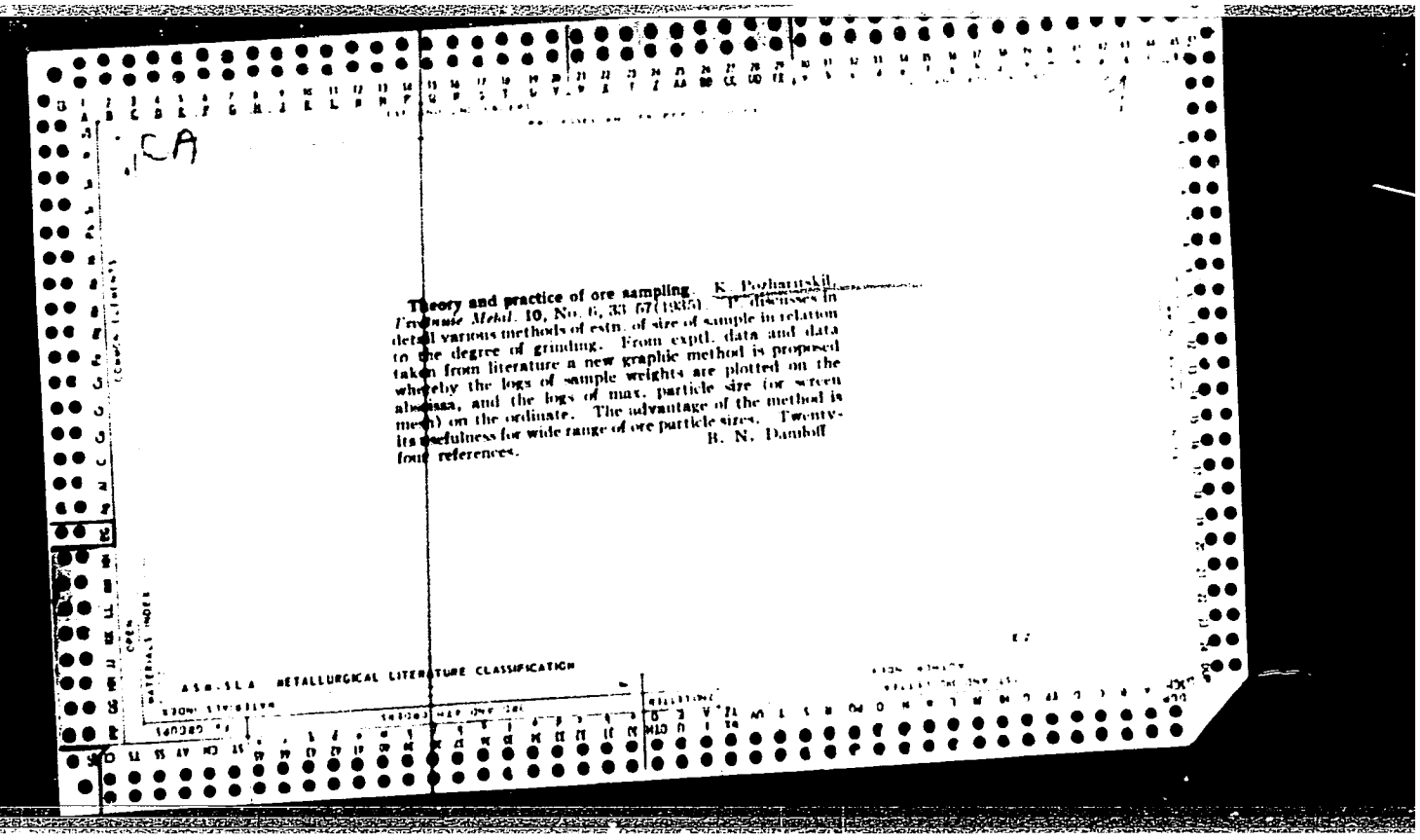
POZHARISKIY, I.F.

Role of tangential stresses in the formation of structures in the Gornyy Altai. Izv.AN SSSR.Ser.geol. 28 no.2:22-29 F '63. (MIRA 16:2)

1. Kompleksnaya laboratoriya Vsesoyuznogo neftyanogo nauchno-issledovatel'skiy geologorazvedochnyy institut, Dushanbe.
(Altai Mountains—Geology, Structural)
(Strains and stresses)

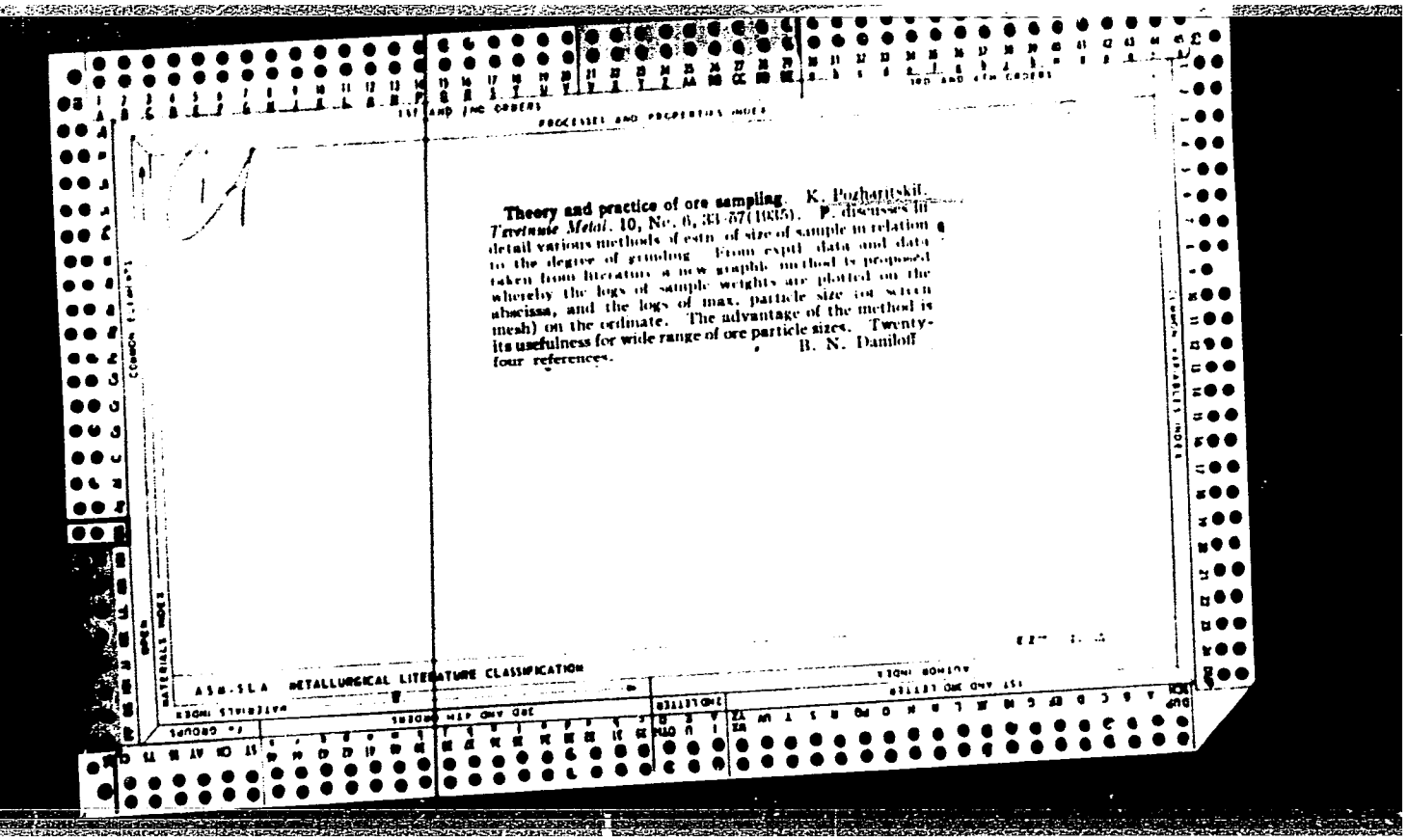
BELOSTOTSKIY, I.I.; ZONENSHAYN, L.P.; KRASIL'NIKOV, B.N.; KUDRYAVTSEV, G.A.
MOSSAKOVSKIY, A.A.; POZHARISKIY, I.F.; KHERASKOV, N.N.

Division of the Altai-Sayan mountainous area into tectonic districts.
Biul.MOIP.Otd.geol. 34 no.4:150-152 Jl-Ag '59. (MIRA 13:8)
(Altai Mountains--Geology, Structural)
(Sayan Mountains--Geology, Strudtural)



Theory and practice of ore sampling. K. Pocharuskil. *Tsvetnye Metal.* **10**, No. 6, 33-67 (1935). — Discusses in detail various methods of estn. of size of sample in relation to the degree of grinding. From exptl. data and data taken from literature a new graphic method is proposed whereby the logs of sample weights are plotted on the abscissa, and the logs of max. particle size (or screen mesh) on the ordinate. The advantage of the method is its usefulness for wide range of ore particle sizes. Twenty-four references. B. N. Danilloff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Theory and practice of ore sampling. K. Pozharitskii. *Tsvetnye Metal.* 10, No. 6, 33–37(1935). P. discusses in detail various methods of estn. of size of sample in relation to the degree of grinding. From exptl. data and data taken from literature a new graphic method is proposed whereby the logs of sample weights are plotted on the abscissa, and the logs of max. particle size (on sieves mesh) on the ordinate. The advantage of the method is its usefulness for wide range of ore particle sizes. Twenty-four references. B. N. Daniloff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

POZHARITSKIY, K.G. (Moskva).

Stability of dissipate systems. Prikl. mat. i mekh. 21 no.4:503-512 Jl-Ag '57. (MIRA 10:12)
(Motion) (Differential equations, Partial)

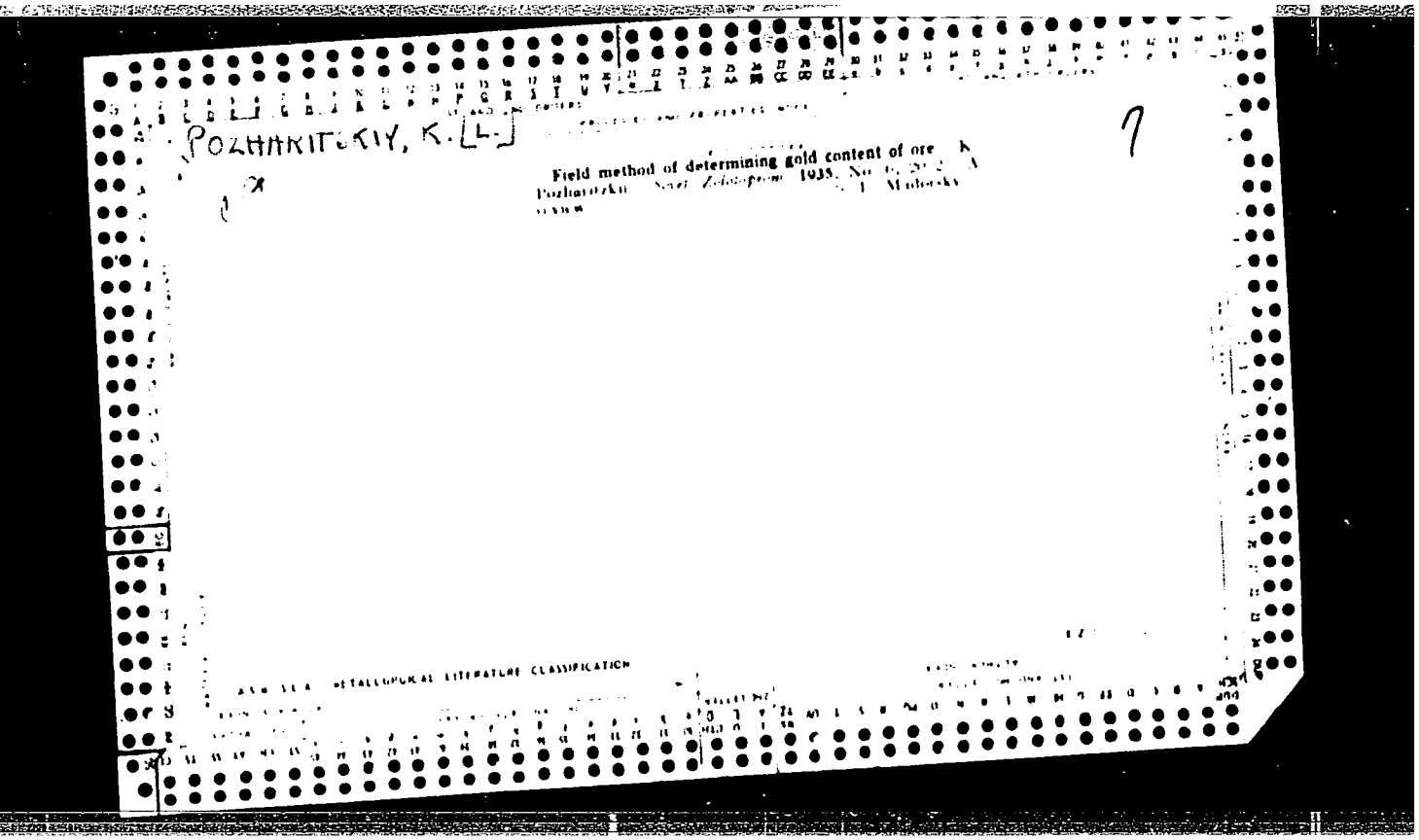
POZHARITSKIY, G.K. (Moskva)

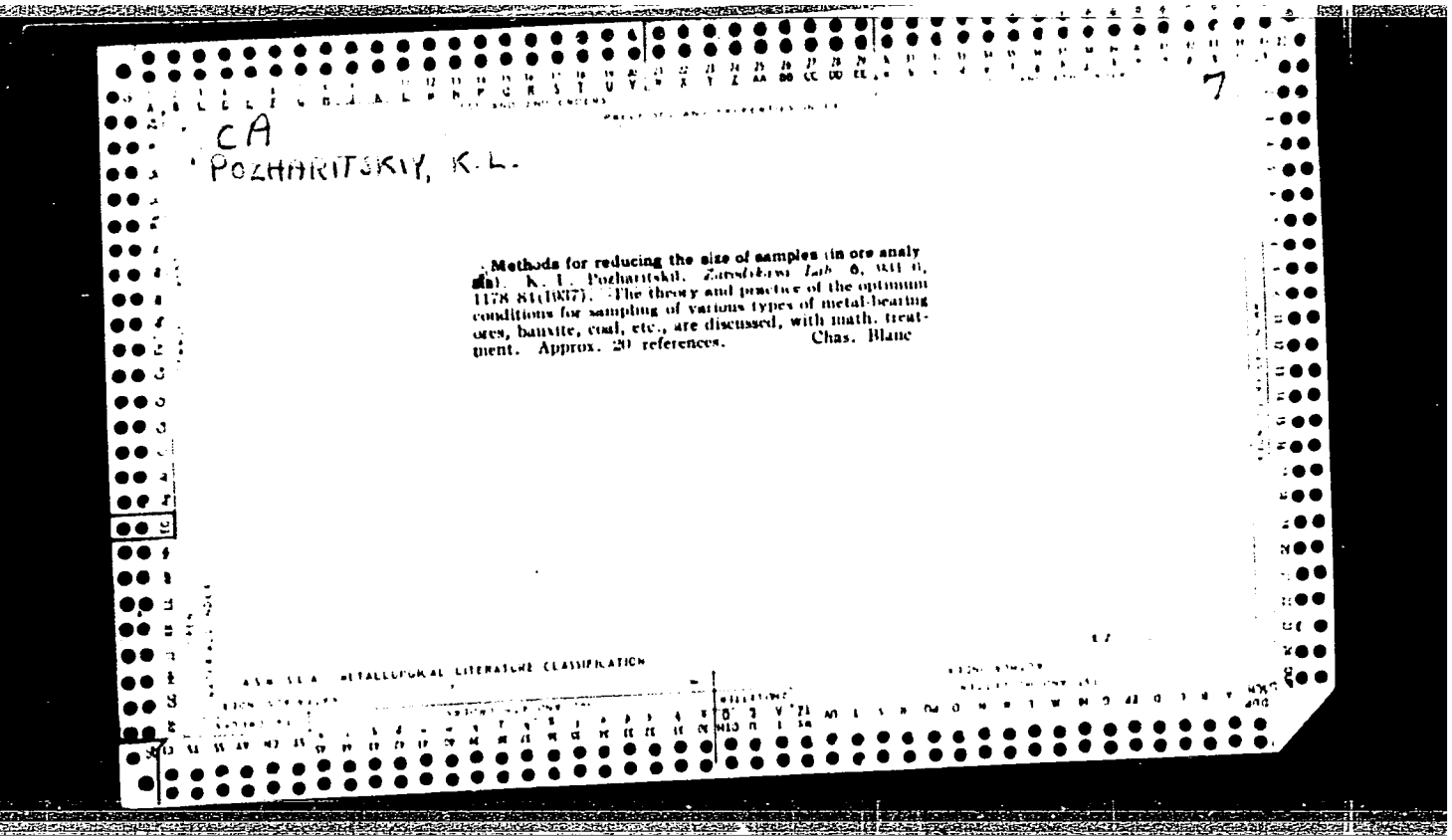
Stability of rotation of a stationary rotating hydraulic channel. PMTF no.4:119-120 Jl-Ag '62. (MIRA 16:1)
(Hydrodynamics) (Rotating bodies)

POZHARITSKIY, G. K.,

"Problem of a minimum in the problem of stability of equilibrium and permanent rotations of a solid body with a cavity partially filled with liquid."

Report presented at the Conference on Applied Stability-of-Motion Theory and Analytical Mechanics, Kazan Aviation Institute, 6-8 December 1962

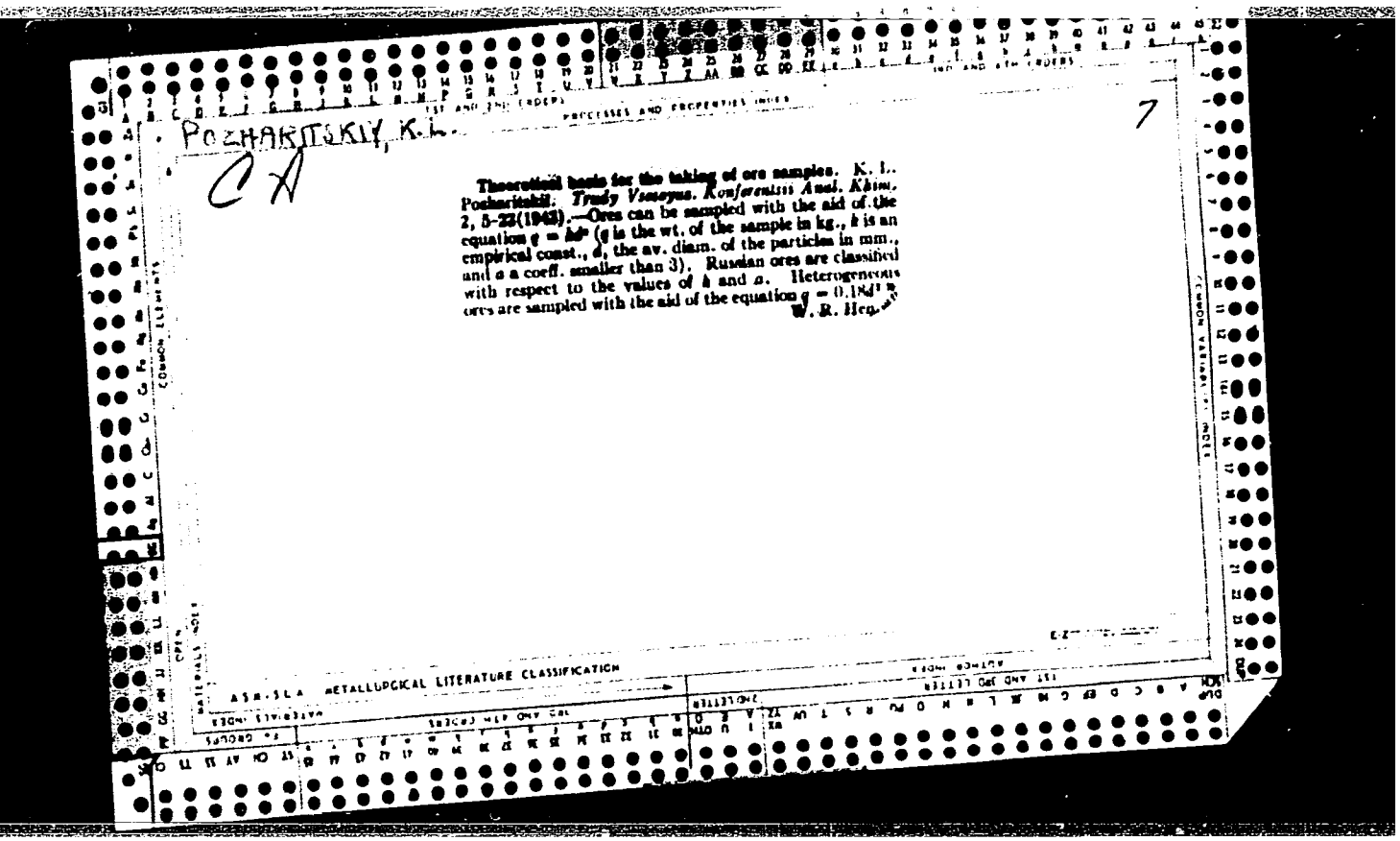




CA

POZHARITSKY, K.L.

Methods for reducing the size of samples (in ore analy sis). K. L. Pozharitskii. *Zavodskaya Lab.* 6, 1177-81 (1937). The theory and practice of the optimum conditions for sampling of various types of metal-bearing ores, bauxite, coal, etc., are discussed, with math. treatment. Approx. 20 references. Chas. Blanc



POZHARITSKII, K. L.

CA

7

Theoretical basis for the taking of ore samples. K. L. Pozharitskii. *Trudy Vsesoyus. Konferentsii Anal. Khim.* 2, 5-23(1943).—Ores can be sampled with the aid of the equation $q = kd^{\alpha}$ (q is the wt. of the sample in kg., k is an empirical const., d, the av. diam. of the particles in mm., and α a coeff. smaller than 3). Russian ores are classified with respect to the values of k and α. Heterogeneous ores are sampled with the aid of the equation $q = 0.1kd^{\alpha}$.
W. R. Hep.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SURAZHSKIY, D.Ya.; POZHARITSKIY, K.L.; KHRUSHCHOV, N.A.

B.S. Levonik's book "Problems of economic geology." Sov. geol. 7 no.1:160-163 Ja '64. (MIRA 17:6)

GLAZKOVSKIY, Aleksandr Aleksandrovich; YERSHOV, A.D., glavnyy red.; ZUBREV, I.N., zamestitel' glavnogo red.; ROGOVER, G.B., red.; GUDALIN, G.G., red.; KORESHKOV, B.Ya., red.; MOMDZHI, G.S., red.; POZHARITSKIY, K.L., red.; SMIRNOV, V.I., red.; SOLOVOV, A.P., red.; TROYANOV, A.T., red.; FILIPPOVSKAYA, T.B., red.

[Nickel.] Nikel'. Moskva, Gosgeoltekhizdat, 1963. 281 p. (Otsenka mestorozhdenii pri poiskakh i razvedkakh, no. 20) (MIRA 17:5)

POZHARITSKIY, K.L.

"The Work of Academician A.A. Skochinskiy on the Mobilization of Mineral Resources for National Defense"
From book Mine Aerology and Labor Safety in Mines, Ugletekhizdat, 1949

ORLOV, A.Ya.; KABANOV, N.Ye., professor, redaktor; POZHARITSKIY, K.L., professor, redaktor; KUL'TIASOV, I.M., redaktor; ALEKSEYEVA, T.V. tekhnicheskiy redaktor.

[Coniferous forests of the Amgun-Bureya interfluve] Khvoinye lesa Amgun'-Bureinskogo mezhdurech'ia. Moskva, Izd-vo Akademii nauk SSSR, 1955. 206 p. [Microfilm] (MLRA 8:11)
(Khabarovsk Territory--Forests and forestry)

PUSTOVALOV, L.V., otv. red.; AL'TGAUZEN, M.N., doktor geol.-min. nauk, red.; VLASOV, K.A., red.[deceased]; DOLGOPOLOV, N.N., red.; IVENSEN, Yu.P., doktor geol.-min.nauk, red.; POZHARITSKIY, K.L., doktor geol.-min. nauk, red.; SERDYUCHENKO, D.P., doktor geol.-min. nauk, red.;KRASNOVA, N.E., red.

[Metals in sedimentary formations; heavy nonferrous, minor and rare metals] Metally v osadochnykh tolshchakh; tiazhelye tsvetnye metally malye i redkie metally. Moskva, Nauka, 1965. 389 p. (MIRA 19:1)

1. Moscow. Laboratoriya osadochnykh poleznykh iskopayemykh.

POZHARITSKIY, K.L.; KHLUSHCHEV, M.A., red.

[Determining the content of valuable components in the margins of an ore deposit] Opredelenie bortovogo soderzhaniia tsennykh komponentov v rude mestorozhdeniia. Moskva, M-vo geologii i okhrany nedr SSSR, 1962. 30 p. (MIRA 17:8)

EGEL', Lev Yeven'yevich; YERSHOV, A.D., glavnyy red.; ZUBREV, I.N., zam. glavnogo red.; GUDALIN, G.G., red.; KRASNIKOV, V.I., red. [deceased];KORESHKOV, B.Ya., red.; MOMDZHI, G.S., red.; POZHARITSKIY, K.L., red.; SMIRNOV, V.I., red.; SOLOVOV, A.P., red.; TROYANOV, A. T., red.; FILIPPOVSKAYA, T.B., red.; KHRUSHCHOV, N.A., red.; CHERNOSVITOV, Yu.L., red.; GINZBURG, A.I., red.vypuska; PROKOF'YEV, A. P., red.vypuska; SOKOLOVSKAYA, Ye.Ya., red.izd-va; BYKOVA, V.V., tekhn.red.

[Rare-earth metals.] Redkozemel'nye metally. Moskva, Gostoptekhizdat, 1963. 332 p. (Otsenka mestorozhdenii pri poiskakh i razvedkakh, no.21). (MIRA 17:2)

PUSTOVALOV, L.V., otv. red.; AL'TGAUZEN, M.N., doktor geol.-min. nauk, red.; DOLGOPOLOV, N.N., red.; IVENSEN, Yu.P., doktor geol.-min. nauk, red.; VLASOV, K.A., doktor geol.-min. nauk, red.; POZHARITSKIY, K.L., doktor geol.-min, nauk, red.; SERDYUCHENKO, D.P., doktor geol.-min. nauk, red.

[Metals in sedimentary formations; ferrous metals, non-ferrous light metals] Metally v osadochnykh tolshchakh; chernye metally, tsvetnye legkie metally. Moskva, Izd-vo "Nauka," 1964. 443 p. (MIRA 17:8)

1. Akademiya nauk SSSR. Laboratoriya osadochnykh poleznykh iskopayemykh. 2. Chlen-korrespondent AN SSSR (for Pustovalov, Vlasov).

POZHARITSKIY, K.L.

Calculation and practical importance of possible reserves of ore deposits of the category C_2. Sov.geol. 5 no.5:104-113 My '62. (MIRA 15:7)

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

(Ore deposits)

POZHARITSKIY, K.L.

Increasing the efficiency of geological prospecting and eliminating excesses in it. Sov. geol. 1 no.1:128-144 Ja '58. (MIRA 11:4)

1. Sovet po izucheniyu proizvoditel'nykh sil Akademii nauk SSSR.
(Prospecting)

PA 18T66

POZHARITSKIY, K. L.

USSR/Ore Deposits
Mineral Industries

Sep 1947

"General Characteristics Governing Minimum Industrial Requirements of Metals in Ore," K. L. Pozharitskiy, Doctor of Geology, 5 pp

"Gornyy Zhurnal" No 9

Russian literature has contained much more information regarding grades of ores for industrial uses than has foreign literature. However, the subject still has many questions. Their solution is necessary for complete industrial exploitation of ores.

18T66

POZHARITSKIY, V. L.

Dr. Geological-Mineralogical Sci.

"Mor., Sci. Council, Inst. Mining, Dept. Tech. Sci., Acad. Sci., -c1947-.

"General Characteristics Governing Minimum Industrial Requirements of Metals in Ore," Gor. Zhur., No. 9, 1947.

POZHARITSKIY, K. L.

Pozharitskiy, K. L. "A calculation of the minimal industrial content of complex ores containing many components", in the collection entitled: Voprosy gornogo dela, Moscow, 1948, p. 407-12.

SO: U-2084, 12 Feb. 53, (Letopis' Zhurnal 'nykh Statey, No. 2, 1949).

POZHARITSKIY, K.L., professor

"Ferroalloy assaying" M.V.Babaev. Reviewed by K.L.Pozharitskii. (MLRA 8:9)
Zav.lab.21 no.6:758 Je '55.
(Iron alloys--Analysis) (Babaev, M.V.)

POZHARITSKIY, K.L., doktor geol.-mineral.nauk

"Principles of evaluating mineral deposits and mines"; results of a discussion. Gor.zhur. no.3:65-68 Mr '59. (MIRA 12:4)
(Mines and mineral resources)

SOV/127-59-3-19/22

14(5)

AUTHOR: Pozharitskiy, K.L., Doctor of Geological and Mineralogical Sciences, Professor

TITLE: The Principles of Evaluating Mineral Deposits and Mines. (Osnovy otsenki mestorozhdeniy poleznykh iskopayemykh i rudnikov.)

PERIODICAL: Gornyy zhurnal, 1959, Nr 3, pp 65-68 (USSR)

ABSTRACT: The article under the above title, by N.D. Ivanov, was published in Nr 9 (1957) of the Gornyy zhurnal. Pozharitskiy closes the discussion on this subject, and sums up the answers made by Ivanov, V.V. Pomerantsev, S.A. Pervushin, B.F. Novozhilov, L.Ye. Zubrilov, S. Ya. Rachkovskiy, Ye. G. Ginzburg and G.P. Shabel'skiy, which were published in issues 3,8 and 12 of this periodical in 1958. He states that despite such a wide exchange of opinions, problems of evaluating mineral resources and mines are still unsolved. Some of the authors consider that

Card 1/2

14(5) SOV/127-59-3-19/22

The Principles of Evaluating Mineral Deposits and Mines.

the basis for price fixation of the products of the mining industry should be the average cost of production in both rich and poor mines. Pozharitskiy insists that such prices be fixed in correlation with the costs of products from poor and unfavorably situated mines. The editors, while agreeing that the problem is far from being solved satisfactorily, do not accept this proposition; according to them he proposes to introduce a capitalistic method of price fixation.

Card 2/ 2

POZHARITSKIY, K.L., doktor geologo-mineralogicheskikh nauk, professor.

Principles of the evaluation of mineral deposits and mines. (MLRA 10:9)
Gor.zhur. no.9:3-9 S '57.
(Mines and mineral resources)

POZHARISSKIY, K.M.

Experimental atherosclerosis of arteries in the conducting system of the dog heart. Dokl. AN SSSR 141 no.5:1214-1217 D '61. (MIRA 14:12)

1. Institut eksperimental'noy meditsiny Akademii meditsinskikh nauk SSSR. Predstavleno akademikom N.N. Anichkovym.
(ARTERIOSCLEROSIS) (HEART--DISEASES)

POZHARITSKIY, M., inzh.-tekhnolog

Use greater boldness in experimenting. Mest.prom.i khud.promys. 3, no.4:19 Ap '62. (MIRA 15:5)
(Boots and shoes, Felt)

POZHARITSKIY, M., starshiy inzhener

Specialists are needed. Prom.koop. 14 no.9:37 S '60.
(MIRA 13:9)

1. Rospromsovet.
(Boots and shoes, Felt)

MEMORSKIY, S.; POZHARITSKIY, M., starshiy inzhener

Compact felting out of industrial wastes. Prom.koop. 13 no.8:
22 Ag '59. (MIRA 12:12)

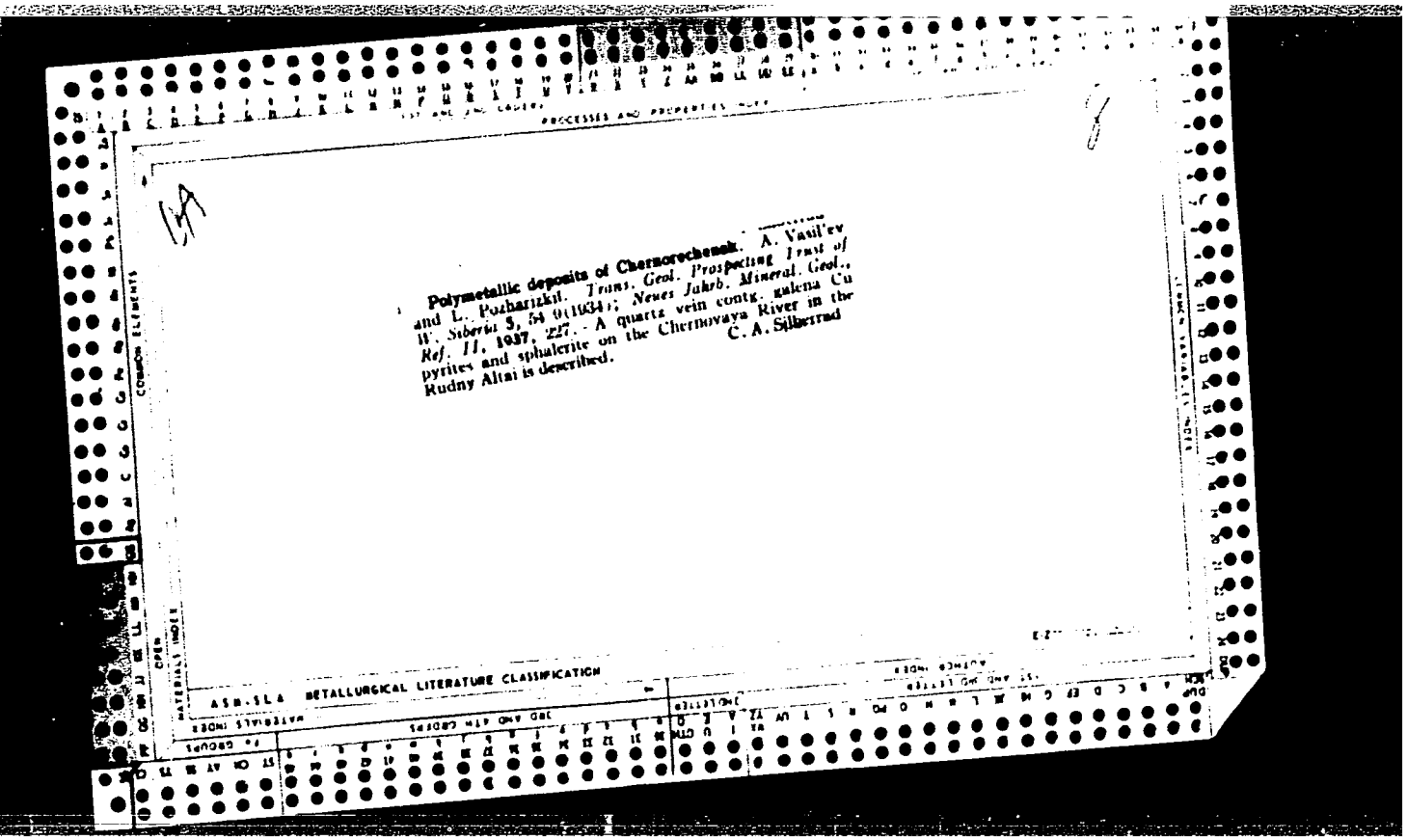
1. Nachal'nik otdela kozhevenno-obuvnoy promyshlennosti Rosprom-soveta (for Memorskiy).
(Felt) (Industrial wastes)

KASAVINA, B.S.; LAUFER, A.L.; POZHARIYSKAYA, L.S.; RYNDINA, V.P.

Occurrence of collagenase in animal tissues. Dokl. AN SSSR 142 no.3:706-708 Ja '62. (MIRA 15:1)

1. TSentral'nyy institut travmatologii i ortopedii i Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti. Predstavleno akademikom A.I.Oparinym.

(COLLAGENASE)



Polymetallic deposits of Chernorechensk. A. Vasil'ev and L. Pozharitzkii. *Trans. Geol. Prospecting Trust of W. Siberia* 9, 54 pp. (1934); *Neues Jahrb. Mineral. Geol., Ref. II*, 1937, 227. - A quartz vein contg. galena Cu pyrites and sphalerite on the Chernovaya River in the Rudny Altai is described.

C. A. Silberrad

POZHARLIEV

BULGARIA/Chemical Technology - Leather. Fur. Gelatine, Tanning Agents. Technical Proteins. H.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 56250

Author : Pozharliev, Papazyan
Inst :
Title : The Vegetable-Tanning of Haberdashery Pig Stock in Pickling Drums.

Orig Pub : Leka promyshlenost, 1957, 6, No 10, 13-15

Abstract : A tanning process is significantly speeded up if the pig stock has been vegetable-tanned in pickling drums. The leather obtained possesses a lighter and a finer outer side, and is more pliable in belting than those which have been tanned without salt. This method makes it possible to use a native tanning agent - sumac, which otherwise could not be used, due to the possibility of its fermentive decomposition. The tanning occurs at a salt concentration of 25-50g./l, and pH of 3.2 - 3.8.

Card 1/2

BULGARIA/Chemical Technology - Leather, Fur, Gelatine. H.
Tanning Agents, Technical Proteins.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 56250

A blend of tanning agents is composed of : 50% sumac tannides, 15% spruce tannides, 25% tannins of pelutan G-37, and 10% tannins of pelutan ECE, 4% of tannigen CN. A detailed technique of soaking and liming operations in this method is given.

Card 2/2

POZHARLIEV, F.; SIMEONOV, K.

Faster tanning of leather soles by chrome-syntan tanning.
Kozhi Sofia 4 no. 8: 3-4 '63.

POZHARLIEV, G.;NIKOLCHEV, K.;MARKOV, E.

"Method for Producing Glue and Wool from Scraps of Sheep, Lamb, and Goat Skins." p. 21,
(LEKA PROMISHLENOST, Vol. 3, No. 3, 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4 No. 5, May 1955, Uncl.

Pozharliyev

BULGARIA/Forestry - General Problems. K-1

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10554

Author : Stoyanov, V., Pozharliyev, G., Koyev, D.
Inst : -
Title : Our Forests as a Source of Raw Material for the Production of Tannic Substances.

Orig Pub : Izv. In-ta za gorata, B"lg. Akad Nauk, 1957, 2, 155-174

Abstract : No abstract.

Card 1/1

KURTEV, B.; POZHARLIYEV, I. [Pozharliev, I.]

Synthesis of diastereomeric DL-β-amino-α-methylbutyric acids in the Rodionov reaction. Doklady BAN 16 no.1:65-68 '63.

1. Institut Organicheskoy khimii Bolgarskoy akademii nauk.

POZHARLIEV, I.

1

3
2-, TAJ (NE) (MAY)

Complex compounds with aromatic amines. IX. Manganous complex compounds of aromatic amines of the dichromate order. M. Genchev and I. Pozharliev. *Compt. rend. acad. bulgare sci.* 12, No. 3, 219–21 (1959) (in English); cf. *CA* 52, 3586*i*.—Aniline (I), *p*-toluidine (II), *p*-anisidine (III), and benzidine (IV) form complex chromates and dichromates which can be crystd. The complexes contg. I, II, and III formed dichromates having a coördination no. of 4. That contg. IV formed a chromate having a coördination no. of 2. Several others were tried. Thus, 2 g. I in 10 ml. 96% EtOH was added to 2 g. $Mn(NO_3)_2$ in 10 ml. H_2O, then 30 ml. 1% $K_2Cr_2O_7$ was added, after 10 min. the complex began to ppt., and if another 30 ml. $K_2Cr_2O_7$ soln. was added to the filtrate after filtration, a second fraction was obtained, the ppt. was washed with H_2O, EtOH, and Me_2CO, and dried, and analysis gave the formula $Mn(PhNH_2)_4Cr_2O_7$. In the same manner were obtained $Mn(p\text{-}CH_3C_6H_4NH_2)_4Cr_2O_7$, $Mn(p\text{-}CH_3OC_6H_4NH_2)_4Cr_2O_7$, and $Mn(H_2NC_6H_4C_6H_4NH_2)_2Cr_2O_7$. Margaret R. Regan

1/1 art

POZHARLIEV, I.

Effect of a complex bond on the reactivity of organic compounds. II. Chlorination of *m*-toluidine. Ml. Genchev, I. Pozharliev, and D. Kolev. *Compt. rend. acad. bulgare sci.* 12, 305-8(1959)(in German); cf. *CA* 53, 12022d. —The title reaction was studied by chlorination of *m*-$H_2NC_6H_4Me$ as a complex with metal org. salt in 96% or abs. EtOH, $CHCl_3$ with a little or no H_2O, or in H_2O-free CCl_4. By this reaction 3,5,6-trichloro-2-methyl-1,4-benzoquinone (I), 2,4,5,6,3,1'-hexachloro-1-methyl-1,4-cyclohexadien-3-one (II), double salt of 6-chloro-3-aminotoluene·HCl with copper chloride (III), 6-chloro-3-aminotoluene sulfate (IV), and 6-chloro-3-aminotoluene were prepd. Thus, dried Cl was bubbled through 10 g. dried $[Cu(H_2NC_6H_4Me\text{-}m)_2]SO_4$ (V) in 100 ml. 96% EtOH during 30-40 min. at 60-70°. A reddish cryst. ppt. was obtained, which filtered off and washed with cold EtOH and H_2O gave lemon-yellow sheets, m. 236-7°. By Cl detn. and m.p. of a mixt. with I, the substance was identified as I. The substance remaining on distn. (*in vacuo* of the alc. filtrate of the preceding prepn. was dissolved in Et_2O, the soln. filtered, the Et_2O evapd., the residue washed with EtOH, and recrystd. from 2:1 EtOH-H_2O contg. active C. According to the m.p. (116-17°), camphor smell, Cl content, crystal type and properties, the substance was identified as II. III was prepd. by bubbling Cl into 100 ml. $CHCl_3$ or CCl_4 contg. 10 g. V during 30-40 min. The ppt. was filtered off, washed with $CHCl_3$ or CCl_4, recrystd. from EtOH, and washed with EtOH, m. 205-10° (carbonization). In H_2O soln. Cu^{++} and Cl^- were detected. By adding NH_3 to H_2O soln., prisms were obtained, m. 85-7°, identified by analysis and properties as III. IV was obtained by adding III to 100 ml. 10% H_2SO_4, warming to soln. in the presence of active C, filtering, and cooling, m. 262-4°, from an aq. soln. of which by adding NH_3 a cryst. ppt. m. 55-7° (1:1 EtOH-H_2O), was obtained, identified by analysis and properties as IV.

G. Licata

4
1-AW(BW)
1-JAJ(NB)

POZHARLIEV V, IV.

V Complex compounds with aromatic amines. VII. Complex nickel compounds of the chromate and dichromate series. MI. Genchev and Iv. Pozharliev (Med. Acad., Sofia), *Compt. rend. acad. bulgare sci.* 9, No. 4, 29-33(1956)(In English); cf. *C.A.* 51, 17551d.—The compds. were prepd. as in the previous articles. In dichromate compds., $[Ni(ArNH_2)_4]Cr_2O_7$, Ni shows its usual coördination number of 4. In chromate compds., $[Ni(ArNH_2)_4]CrO_4$, Ni has a coördination no. of 2. All compds. obtained were macroscopically brown, but under a microscope they were yellowish. The compds. all were found to have an insignificant soly., the aniline compds. being somewhat more sol. VIII. Complex copper compounds of the chromate and dichromate series. *Ibid.* 33-6.—The conditions used here had to be more rigidly controlled than for the previous compds. No definite compds. were obtained with *o*-toluidine, *o*-anisidine, or 1-naphthylamine. Previously the compds. obtained from $K_2Cr_2O_7$ were of the dichromate series and those from K_2CrO_4 were of the chromate series. With all the aromatic amines except 2-naphthylamine, compds. of the chromate series were obtained regardless of which K salt was used. With 2-naphthylamine and $K_2Cr_2O_7$ two compds. were obtained. One was a red dichromate in which Cu had a coördination no. of 4 and the other was a crude olive green one which probably is a chromate. Only the aniline compd. was sufficiently sol. to permit cond. measurement.

Marian C. Neumann

KURTEV, B.I.; POZHARLIEV, Iv.G.

Synthesis and relative configurations of diastereomeric DL-3-amino-2-methylbutyric acids. Izv Inst org khim 1:91-108 '64

BULGARIA/Inorganic Chemistry - Complex Compounds. C.

Abs Jour : Ref Zhur - Khimiya, No 10, 1958, 31981

Author : Mladen Genchev, Lyan Pozharliev.

Inst : Academy of Sciences of Bulgaria.

Title : Studyes on Complex Compounds with Aromatic Amines. VII. Complex Nickel Compounds of the Chromate and Bichromate Order. VIII. Complex Copper Compounds of the Chromate and Bichromate Order.

Orig Pub :

Abstract : VII. Solid brown complex compounds were produced by reactions of $Ni(NO_3)_2$ aqueous solution with solutions of aromatic amines in alcohol in the presence of 1%-ual $K_2Cr_2O_7$ or K_2CrO_4 solution. The Ni coordination number is 4 in the compounds of the $[Ni(ArNH_2)_4]Cr_2O_7$ chromate

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BULGARIA/Inorganic Chemistry - Complex Compounds. C.

Abs Jour : Ref Zhur - Khimiya, No 10, 1958, 31981

series, and in the $[Ni(ArNH_2)_2]CrO_2$, Ni is coordinationally bivalent. The following complexes were synthetyzed: with aniline - $[Ni(C_6H_5NH_2)_2]CrO_4$, (I) with n-toluidine - $[Ni(n\text{-}CH_3C_6H_4NH_2)_4]Cr_2O_7$ and $[Ni(n\text{-}CH_3C_6H_4NH_2)_2]CrO_4$, and with n-anisidine - $[Ni(n\text{-}CH_3OC_6H_4NH_2)_4]Cr_2O_7$ and $[Ni(n\text{-}CH_3OC_6H_4NH_2)_2]CrO_4$. The electric conductivity of $[Ni(C_6H_5NH_2)_4]Cr_2O_7$ in the 0.0001 M solution is 142 mho, and that of I in the 0.001 M solution is 106 mho, which indicates the dissociation into two doubly charged ions.

Card 2/4

BULGARIA/Inorganic Chemistry - Complex Compounds. C.

Abs Jour : Ref Zhur - Khimiya, No 10, 1958, 31981

VIII. Complex compounds only of the chromate series with coordinationally bivalent Cu are produced at the interaction of alcohol or alcohol-acetone solutions of aniline, n- and m-toluidines, n-anisidine and benzidine with aqueous solution of $CuSO_4$ in the presence of $K_2Cr_2O_7$ with K_2CrO_4. The following was synthetized:

$[Cu(C_6H_5NH_2)_2]CrO_4$ - acicular olive-brown crystals, equ. electric conductivity of the 0.0002 M solution is 69 mho; $[Cu(n\text{-}CH_3H_4NH_2)_2]CrO_4$ - light-brown acicular crystals; $[Cu(m\text{-}CH_3C_6H_4NH_2)_2]CrO_4$ - druses of olive-green crystals; $[Cu(n\text{-}CH_3CC_6H_4NH_2)_2]CrO_4$ - olive-green crystals: $[Cu(H_2NC_6H_4C_6H_4NH_2)_2]CrO_4$ - red druses.

Card 3/4

BULGARIA/Inorganic Chemistry - Complex Compounds. C.

Abs Jour : Ref Zhur - Khimiya, No 10, 1958, 31981

Either a red complex of the bichromate series $[Cu(C_{10}H_7NH_2)_4]Cr_2O_7$ or an olive-green chromate $[Cu(C_{10}H_7NH_2)_2 \cdot (H_2O)_2]CrO_4$ is produced with β-naphthylamine depending on the conditions.
See part VI in RZhKhim, 1958, 10305.

Card 4/4

POZHARNITSKIY, K.L.

SOV-127-58-3-2/24

AUTHORS: Ivanov, N.D., Mining Engineer; Pomerantsev, V.V., Candidate of Technical Sciences

TITLE: Discussion of the article by K.L. Pozharnitskiy (Obsuzhdeniye stat'i K.L. Pozharnitskogo): Principles for Evaluating Mineral Deposits and Mines (Osnovy otsenki mestorozhdeniy poleznykh iskopayemykh i rudnikov)

PERIODICAL: Gornyy zhurnal, 1958, Nr 3, pp 5-11 (USSR)

ABSTRACT: The above mentioned article was published in Nr 9 (1957) of this periodical. This article is the continuation of the discussion on the subject by two different authors. The first author proposes some bases for the evaluation of mineral deposits. The second, criticizing some of the statements of K.L. Pozharnitskiy finds that further discussion is necessary to solve this question. There are 5 references, 2 of which are Soviet and 3 English.

ASSOCIATION: (VIMS)

1. Mineral deposits--Effectiveness

Card 1/1

PCZHARNOV, G.M.; SERDIY, A.G.; LITVINOV, V.N.

Tests of electric pump packing at high pressure. Neft. i gaz. prom. obor. no.6:9-11 '65. (MIRA 18:7)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. Gubkina i Groznenskiy neftyanoy nauchno-issledovatel'skiy institut.

MKRTYCHAN, Ya.S.; POZHARNOV, G.M.

Design of a cylindrical bush with welded collar for drilling pumps. Mash. i neft. obor. no.4:5-8 '63. (MIRA 17:8)

1. Zavod "Krasnyy molot", g. Groznyy.

SHLYKOV, V.I.; MKRTYCHAN, Ya.S.; POZHARNOV, G.M.

Efficient design of the lightened cylinder bush of a drill pump. Neft.khoz. 41 no. 1:66-68 Ja '63. (MIRA 17:7)

POZHAROV, F.

Unforgettable days. Prom.koop. no.7:4 Jl '57. (MLRA 10:8)

1. Tekhnoruk arteli "Lenigrushka," Leningrad.
(Russia--Revolution, 1917-1921)

POZHAROV, I.

Pryzhki S Parashyutom s Aerostata (Parachute Jumps from a Balloon, by) G. Pozharov i V. Shevchenko. Moskva, DOSAAF, 1956.
127 P. Illus., diagrs., (brochure).

MEYLAKHS, M., master sporta; POZHAROV, G., master sporta

Lightning protection during the mechanized take-off of a glider.
Kryl. rod. 9 no. 7:15-16 Jl '58. (MIRA 11:7)
(Lightning protection)
(Gliding and soaring)

85-58-7-21/45

AUTHORS: Meylakhs, M. and Pozharov, G., Masters of Sports

TITLE: Protective Measures Against Storms During a Mechanized Glider Take-off (Grozozashchitnyye sredstva pri mekhanizirovannom vzlete planera)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 7, pp 15-16 (USSR)

ABSTRACT: The authors reply to an inquiry addressed to the editors by a Riga reader concerning an unfortunate phenomenon in mechanized glider take-offs with the Nazarov winch, i.e. tow line and tow lock become charged with electricity. The length of the cable is 1200 to 1500 m. at an altitude of 400 to 600 m. and on uncoupling, the glider pilot experiences an electric shock and occasionally observes a spark even with a grounded winch. Since flights are frequently made near storm clouds and in the vicinity of large broadcasting stations, the writers wonder whether these circumstances contribute to the charge in the cable, although strong shocks are also felt under quiet atmospheric conditions. In reply, the authors state that static electricity accumulates in the atmosphere because of condensed moisture and the movement

Card 1/3