S/166/61/000/003/002/004
B112/B202

AUTHOR: Tekenov, Zh.

TITLE: Study of the mechanics of dust particles

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-
              matematicheskikh nauk, no. 3, 1961, 43 - 47

TEXT: The author studied the accumulation of dust particles from an air
current on a streamlined surface and the adhesion of the dust particles
to the surface. He separately deals with the forces of adhesion and
separation and their equilibrium (critical quantities). The equations of
motion of the particles have the following dimensionless forms:

$$\left. \begin{array}{l} P\,\overline{d^2x/dt^2} + \overline{dx/dt} = \overline{U}_x \\ P\,\overline{d^2Y/dt^2} + \overline{dY/dt} = \overline{U}_y \end{array} \right\} \quad , \tag{1}$$

where $\quad P = \dfrac{2}{9}\,\rho_r\,\dfrac{U_o\,r^2}{\mu\,R}\quad$ is a model parameter, $\overline{dx/dt}, \overline{dY/dt}$ the

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dimensionless velocity components of the particles, and $\overline{U}_x$, $\overline{U}_y$ the dimensionless components of the flow velocity. The determination of the deposition coefficient is related to the solution of system (1). Fig. 1 shows the angular distributions of the deposition coefficient for a cylindrical surface at different mean flow velocities $\overline{U}$ (curve 1: $\overline{U}$ = 5 m/sec; curve 2: $\overline{U}$ = 14.2 m/sec; curve 3: $\overline{U}$ = 6 m/sec, accumulated dust; curve 4: $\overline{U}$ = 16 m/sec, accumulated dust). Fig. 3 shows the dependence of the adhesive power on size and shape of the particles (curve 1a: True values of the adhesive power of spherical particles; curve 1b: Summational values of the adhesive power and particle weight; curve 2: Dependence of the particle shape; curve 3: Calculated values of the force of separation). The force of separation (aerodynamic pressure) for spherical particles is calculated by the formula:

$$F = \psi \frac{\rho_b \, v_{crit}^2 \, \pi \, r^2}{2} \tag{2}$$

where ψ is the frontal resistance of the particles, ρ_b the air density,

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v_{crit} the critical velocity of the breakaway flow, and r the particle radius. For dust particles with a diameter smaller than $5 \cdot 10^{-2}$ cm, v_{crit} is practically equal to the flow velocity of the boundary layer. Breakaway occurs as soon as the condition:

$$v_{crit} > \frac{2 \, F_{adh}}{\rho_b \pi \, r^2}$$

is fulfilled. For spherical particles an experimental determination of v_{crit} permits calculating the force of separation by formula (2). Calculated and measured values are in good agreement. Formula (2) cannot be used for non-spherical particles since in this case the frontal resistance of the particles can be determined only difficultly. There are 4 figures and 15 references: 12 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Institut yadernoy fiziki AN UzSSR (Institute of Nuclear Physics of the AS Uzbekskaya SSR)

SUBMITTED: November 17, 1960
Card 3/4

AUTHOR: Tekenov, Zh.

TITLE: A radioactive method for the study of highly dis-
               persed particles

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1963, 1 , ab-
               stract 2B130 (Dokl. AN UzSSR, 1962, no. 2, 17-19
               (summary in Uzb.))

TEXT: A method is described for the determination of the degree
of dispersion and concentration of natural nonradioactive dust,
which consists of pre-activating the dust, followed by the use of
radiography or radiation counters. It was shown that the radiogra-
phic method of recording required more time but was more sensitive.
Two different methods were used to pre-activate the dust: by mixing
with radioactive liquids and drying, or by irradiation with the slow
neutrons in a reactor. Activation by slow neutron irradiation was
preferred, as the degree of activation was considerably higher than
in the case of the other method, and the physicochemical properties

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A radioactive method ...

of the dust remained unchanged. With the adhesive method of activation and radiography, it was possible to measure 10^{-4} cm and larger particles; measurements of particles down to 10^{-6} cm were possible when the activation was by irradiation with slow neutrons. [Translator's note: Complete translation.]

Card 2/2

ENDROCZI, E.; LISSAK, K.; TEKERES, M.

Hormonal "feed-back" regulation of pituitary-adrenocortical activity.
Acta physiol. hung. 18 no.4:291-299 '61.

1. Institute of Physiology, Medical University, Pecs.

(PITUITARY GLAND physiol)   (ADRENAL cortex physiol)

CZIRBUSZ, Gyorgy, dr.; POKA, Laszlo, dr.; TEKERES, Miklos, dr.

Examination of latent weight loss in surgical patients,
(Latent weight loss as an indication to fluid loss through
perspiration). Orv. hetil. 105 no.50:2368-2370 13 D '64.

1. Pecsi Orvostudomanyi Egyetem. I. Sebeszeti Klinika
(igazgato: Poka Laszlo dr.).

TEKEVA, Nedialka

Demonstrating the lesson on the digestive system. Biol i khim 8 no.1:40-42 '65.

1. High School no.18, Sofia.

TEKEYEV, A.

Case of a stone in the duct of salivary glands. Zdrav.Turk. 7
no.1:27-28 Ja '63.   (MIRA 16:3)

1. Iz Tedzhenskoy rayonnoy bol'nitsy (glavnyy vrach D.A. Kovuzov).
                    (CALCULI, SALIVARY)

TEKFERD, Ye.; KHROLENKO, P., tekhnik; PROKUDIN, A.

Readers letters. Avt. dor. 28 no.4:28-29 Ap '65.

(MIRA 18:5)

1. Nachal'nik Upravleniya stroitel'stva i remonta avtomobil'nykh dorog pri Sovete Ministrov Bashkirskoy ASSR (for Tekferd).

TEKFERD, Ye.S., inzhener

Building roads using sand-shell rock. Avt. dor. 19 no.6:
13 Je '56.   (MLRA 9:9)

(Azerbaijan--Road construction)

TEKFERD, Ye., inzh.

Uring quarry waste in fine-grained asphalt concrete. Avt.dor.
19 no.11:27 N '56. (MIRA 10:10)
(Road materials) (Asphalt concrete)

TEKFERD, Ye.

On the mechanization of building housing and industrial structures.
Avt. dor. 20 no.2:31 F '57.   (MLRA 10:4)
                        (Building)

APPROVED FOR RELEASE: 07/16/2001   CIA-RDP86-00513R001755210005-5

PHASE I BOOK EXPLOITATION   SOV/4893

Vsesoyuznoye soveshchaniye po fizike, fiziko-khimicheskim svoystvam ferritov i fizicheskim osnovam ikh primeneniya. 3d, Minsk, 1959

Ferrity; fizicheskiye i fiziko-khimicheskiye svoystva. Doklady (Ferrites; Physical and Physicochemical Properties. Reports) Minsk, Izd-vo AN BSSR, 1960. 655 p. Errata slip inserted. 4,000 copies printed.

Sponsoring Agencies: Nauchnyy sovet po magnetizmu AN SSSR. Otdel fiziki tverdogo tela i poluprovodnikov AN BSSR.

Editorial Board: Resp. Ed.: N. N. Sirota, Academician of the Academy of Sciences BSSR; K. P. Belov, Professor; Ye. I. Kondorskiy, Professor; K. M. Polivanov; Professor; R. V. Telesnin, Professor; O. A. Smolenskiy, Professor; N. N. Shol'ts, Candidate of Physical and Mathematical Sciences; K. M. Smolyarenko; and L. A. Rabkirov; Ed. of Publishing House: S. Kholyavskiy; Tech. Ed.: I. Volobhanovich.

PURPOSE: This book is intended for physicists, physical chemists, radio electronics engineers, and technical personnel engaged in the production and use of ferromagnetic materials. It may also be used by students in advanced courses in radio electronics, physics, and physical chemistry.

COVERAGE: The book contains reports presented at the Third All-Union Conference on Ferrites held in Minsk, Belorussian SSR. The reports deal with magnetic transformations, electrical and galvanomagnetic properties of ferrites, studies of the growth of ferrite single crystals, problems in the chemical and physicochemical analysis of ferrites, studies of ferrites having rectangular hysteresis loops and multicomponent ferrite systems exhibiting spontaneous rectangularity, problems in magnetic attraction, highly coercive ferrites, magnetic spectroscopy, ferromagnetic resonance, magneto-optics, physical principles of using ferrite components in electrical circuits, anisotropy of electrical and magnetic properties, etc. The Committee on Magnetism, AS USSR (S. V. Vonsovskiy, Chairman) organized the conference. References accompany individual articles.

Akulov, N. S. Theory of the Rectangular Hysteresis Loop   23

Turov, Ye. A., and A. I. Mitsek. Theory of the Temperature Dependence of the Magnetic Anisotropy Constant of Ferromagnetics and Ferrites   28

Vlasov, K. V., and B. Kh. Ishmukhametov. Rotation of the Polarization Plane of Elastic Waves in Magnetically Polarized Magnetoelastic Media   ??

Syrkin, L. N. Discussion of the [Preceding] Report   48

Sirota, N. N. The Physicochemical Nature of Ferrites and Their Properties   50

Sirota, N. N., E. A. Ovseychuk, and N. N. Tsekhnovich. Some Peculiarities of the Magnetic Transformation of Ferrites at Curie Point   72

Belov, K. P., and R. Z. Levitin. Magnetoelastic Phenomena in Antiferromagnetics   78

Belov, K. P., V. P. Belov, A. V. Zalesskiy, and A. A. Popova. Magnetic and SHF Properties of Magnesium-Manganese Ferrite Single Crystals   83

Sirota, N. N. Growing Ferrite Single Crystals with Structure of the Garnet Type   89

Card 1/18

APPROVED FOR RELEASE: 07/16/2001   CIA-RDP86-00513R001755210005-5"

TEKHER, L.B.

Recurrent perforation of a peptic ulcer of the gastro-intestinal
anastomosis. Vest.khir. 75 no.4:127-128 My '55.   (MLRA 8:8)

1. Iz kliniki obshchey khirurgii (zav.-prof. A.S.Al'tshul') Chka-
lovskogo meditsinskogo instituta. Chkalov, Lionerskaya ul., d.8,
kv.1.
        (PEPTIC ULCER, perforation,
            recur., postop., surg.)

TEKHMENEV, B. N.

USSR/Engineering – Locomotive, Electric   Jul 49
                 Motors, Condenser

"AC Mining Electric Locomotive With Condenser Motors," Prof B. Ye. Rosenfel'd, Dr Tech Sci,
M. I. Kraytsberg, Cand Tech Sci, B. N. Tekhmenev, Engr, Moscow Power Eng Inst imeni Molotov,
6 pp

"Elektrichestvo" No 7

Discusses dificiencies in widely used DC system of haulage with electric mining locomotives
and difficulties in converting to AC. Presents advantages of converting to AC and using
condenser motors. Points out possibility of using such a system in other branches of the
national economy.

PA3/50T25

TEKHMISHCHYAN, A. V. (Aspirant)

"An Investigation of the Turbodrive of Mine Elevators." Cand Tech Sci, All-Union
Sci-Res Coal Inst, 29 Dec 54. (VM, 20 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational
Institutions (12)

SO: SUM NO. 556, 24 Jun 55

KRASIL'NIKOV, N.P., inzh.; TEKHMISHCHYAN, A.V., kand.tekhn.nauk; SHLAU, A.V., inzh.

Use of turbo-transmissions on centrifuges. Obog.i brik.ugl. no.11: 36-39 '59.   (MIRA 13:6)
               (Centrifuges)

               (Turbomachines)

TEKHMISHYAN, A.V., kand.tekhn.nauk

Increasing the life of mining machinery by using turbine gears.
Nauch. soob. Inst. gor. dela 4:116-122 '60.   (MIRA 15:1)
(Mining machinery)

TEKHMISHCHYAN, Azat Vagramovich; kand. tekhn. nauk; TSETNARSKIY, Igor'
Aleksandrovich, inzh.; KAZANSKIY, Anatoliy Sergeyevich, kand. tekhn.
nauk; SEMENOV, Vladimir Mikhaylovich, kand. tekhn. nauk; KORABLEV,
Anatoliy Aleksandrovich, kand. tekhn. nauk; SEMENOV, I.B., otv. red.;
ABARBARCHUK, F.I., red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[Mining machinery] Gornaia mekhanika. Moskva, Gos. nauchno-tekhn.
izd-vo lit-ry po gornomu delu, 1961. 291 p.   (MIRA 14:6)
(Coal mining machinery)

KRASIL'NIKOV, I.F., inzh.; TEKIMISHCHYAN, A.V., kand. tekhn. nauk

Selection of a plan for cooling hydraulic coupling for the
drive of a powerful centrifuge. Obog. i brik. ugl. no.26:
25-32 '62.   (MIRA 17:8)

TEKHMISHCHYAN, A.V., kand.tekhn.nauk; KRASIL'NIKOV, N.P., inzh.; SHLAU, A.V.,
inzh.

Experience in the use of safety turboclutches in the drive of worm
settling centrifuges. Khim.mashinostr. no.6:34-35 N-D '63.
(MIRA 17:2)

TEKHNENEV, V. N.

23219   Pudnichnyy elektrovoz peremennogo toka s kondensatornymi dvigatelyami.
Elektrichestvo, 1949, No. 7, c. 37-42

SO: LETOPIS' NO. 31, 1949

K-2

USSR/Forestry - Forest Biology and Typology -

Abs Jour   : Ref Zhur - Biol., No 5, 1958, 20108

Author   : Tekhneryadov, A.V.

Inst   : The Institute for Water and Forest Management of the
              Kazakh Affiliate of the All-Union Academy of Agricultural
              Sciences.

Title   : The Role of the Kirgiz Birch in the Natural Renewal of the
              Naurzumskiy Pine Forest in Kustanayskaya Oblast'.

Orig Pub   : Tr. In-ta vodn. i lesn. kh-va, Kazakhsk. fil. VASKhNIL,
              1956, 1, 238-243.

Abstract   : Two years of research on the natural renewal of pine have
              shown that generally speaking this process is most unsatis-
              factory throughout the entire Naurzumskiy pine forest.
              The best conditions for the appearance and growth of shoots
              were seen when windows perforated the canopy of birch trees

Card 1/2   - 27 -

Card 2/2

..e, ..rgiz ooth -rch
            birch

TEKHNERYADNOV, A. V. Doc Cand Agr Sci -- (diss) "Certain charac-
teristics of the process of natural renewal of pine-trees in
the steppe forests on sandy soils." Alma-Ata, 1957. 15 pp 22 cm.
(Min of Agr USSR. Kazakh State Agr Inst), 120 copies
(KL, 21-57, 104)

TEKHT, V.F.

Engr. , Leningrad Order Lenin Metallurgical Factory im. I.V. Stalin, -el.p.-.
"Effect of the Temperature and Length of Heating on the Relieving of Residual
Strain in Austenite Steel," Kotloturbostroy. No. 2, 1 48.

10

S

INFLUENCE of TEMPERATURE and HEATING PERIOD on the REMOVAL of RESIDUAL STRESSES in AUSTENTIC STEELS. L. A. Gilkman and V. P. Tekht. (Kototurbostroenie, 1948, No. 2, pp. 12-16 (in Russian) (Abstract) Centre national de la Recherche Scientifique, Bulletin Analytique, 1949, vol. 10, Nos. 2, p. 1164). Residual stresses were created in austentio 18% chromium 8% nickel steel by quenching in water from 1050°C. The influence of tempering temperature in the range 600-850°C. Similar treatment for other austenitic steels is recommended.

METALLURGICAL LITERATURE CLASSIFICATION

TEKHT, V.P., inzh.; ANDREYEV, V.M., prof., otv.red.; TYUMENEVA, S.T., inzh., red.; KRASLAVSKIY, G.M., tekhn.red.

[Color method for surface defect detection; experience of the Leningrad Metal Works] TSvetnoi metod vyiavleniia poverkhnostnykh defektov; opyt Leningradskogo metallicheskogo zavoda imeni Stalina. Leningrad, 1952. 5 p. (Informatsionno-tekhnicheskii listok, no.8(349)).   (MIRA 14:6)

1. Leningradskiy Dom nauchno-tekhnicheskoy propagandy. 2. Leningradskiy metallicheskiy zavod imeni Stalina (for Tekht). 3. Leningradskiy Dom nauchno-tekhnicheskoy propagandy (for Tyumeneva).
        (Surfaces (Technology)—Testing)

PA 252T44

TEKHT, V. P.

USSR/Metallurgy - Fatigue   1 Oct 52

"Problem of the Physical Nature of Fatigue Process,"
L.A. Glikman and V.P. Tekht

DAN SSSR, Vol 86, No 4, pp 699-701

Carbon steel 35 and stainless steel Zh-2 were inves-
tigated by method of V.I. Iveronova and T.P. Kostet-
skaya (see Zhur Tekh Fiz, 10, 4 (1940)) using radio-
grams due to cobalt and chromium rays, which pro-
duced interference pattern on film and showed distor-
tion of atomic lattice at deformation. Fatigue is a
process similar to that occurring at deformation and
is due to "weakened" grains. Presented by Acad I.P.
Bardin 5 Aug 52.   252T44

TEKHT, U. P.

GLIKMAN, L.A., doktor tekhnicheskikh nauk; TEKHT, V.P., kandidat tekhnicheskikh nauk; ZOBACHEV, Yu.Ye., inzhener.

Problem of the physical nature of cavitation breakdowns. Trudy TSNIIRF no.28:45-59 '54.

(Cavitation) (Matallography)

TEKHT, V.P.

In their article, "Method of Photometering with a Wide and Long Slit,"
V. P. Tekht and Ye. A. Kheyn, discuss the problem of choosing the dimen-
sions of a photometer slit for photometering interference lines of roent-
genograms. It was established that the use of wide slits is justified
and gives a smaller error than the use of narrow slits. The lengthening
of the slit up to a certain limit is also advantageous for accuracy. It
is noted that the use of wide slits in photometry may also be applied in
measuring the intensity of spectral lines. (Trudy Leningradskogo Metal-
lurgicheskogo Zavoda, No 2, 55, pp 100-105; Referativnyy Zhurnal -- Fizika,
No 10, Oct 56, Abstract No 29947)

Sum. 1305

FD-3045

USSR/Physics - Cavitation

Card 1/2   Pub. 153 - 14/23

Author   : Glikman, L. A.; Tekht, V. P.; Zobachev, Yu. Ye.

Title   : Problem of the physical nature of cavitational destruction

Periodical : Zhur. tekh. fiz., 25, *No. 2 -* February 1955, 280-298

Abstract   : The authors state that although there are many works (e.g. I. M.
               Metter, Usp. fiz. nauk, 35, No 1, 1948; I. N. Voskresenskiy, Kor-
               roziya i eroziya sudovykh grebnykh vintov [Corrosion and erosion
               of ships' screw propellers], Ship Industry Press, 1949; M. O.
               Kornfel'd, Uprugost' i prochnost' zhidkostey [Elasticity and sta-
               bility of fluids], GITGL, 1951; V. A. Konstantinov, Dokl. AN SSSR,
               4, No 3, 1947) there are no generally accepted ideas as to the
               physical nature of cavitational destruction and as to the mechan-
               ism governing the occurrence of this process. They present new
               experimental data in an investigation of the surface layer of spec-
               imens subjected to cavitational action in a magnetostriction vi-
               brator in initial or earlier stages of destruction; they employed
               microstructure and x-ray analysis and also microhardness measurement,

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Abstract   : namely on various steels, brass, and nonferrous alloys. They
                claim that their results permit sharpening existing concepts of
                cavitational destruction; they present photographs and detailed
                conclusions (e.g. establishment of plastic deformation in the
                surface layer etc.). Nine references: e.g. L. A. Glikman, ibid.,
                7, 14, 1434, 1937.

Institution : -

Submitted   : May 16, 1954

SOV/122-58-7-9/31

AUTHOR: Tekht, V.P., Candidate of Technical Sciences

TITLE: A Method of Straightening of Components by Cyclic Plastic
            Deformation (Metod pravki detaley posredstvom tsiklicheskoy
            plasticheskay deformatsii)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 7, pp 35-36 (USSR)

ABSTRACT: The proposal arose during fatigue tests of steel specimens
         when it was necessary to find a method of straightening
         which would not affect the stressed condition of the
         specimen. It was shown that the cyclic application of
         plastic deformation produced specimens without a trace of
         residual deflection. Tests were carried out in a
         "Schenck" fatigue testing machine, rotated by hand at
         15 rpm. Specimens of 0.35% carbon steel and 13% chromium
         steel were examined. The residual deflection was
         measured to an accuracy of 10 μ. Specimens were 226 mm
         long and had a diameter of 7.52 mm. Some specimens were
         tested with intermediate stops at cycle stresses exceeding
         the yield point, others were bent before the test to a
         deflection of 3-8 mm. If a load 20% above the yield point
         is applied during 10-20 cycles and then removed, some
         residual deflection remains. If the load is gradually
  Card1/2 reduced, the specimen is straightened to an accuracy of

SOV/122-58-7-9/31

A Method of Straightening of Components by Cyclic Plastic Deformation

10 μ . The same procedure when applied to bent specimens produced straightening. Subsequent fatigue tests showed almost no reduction in fatigue strength. After a larger number of cycles, the deflection increases and after more cycles, it decreases again. Further tests with low-carbon steel showed similar behaviour at different cycle numbers. Final straightening was achieved well beyond 100 cycles after gradual removal of load. Repeated cyclic deformation of medium-carbon steel reduces the fatigue strength. Tests with low-carbon steel continued for 250 cycles showed the specimen to have lost the elongation under yield stress. Tempering at 600 ^{o}C after straightening by cyclic plastic deformation did not restore the deflection. X-ray tests showed that during cyclic plastic deformation, locked-in stresses of the second kind are eliminated. These tests indicate the possibility of using the method in shop practice. There is 1 table.

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24(6)　　PHASE I BOOK EXPLOITATION　　SOV/2585

Akademiya nauk SSSR

Nekotoryye problemy prochnosti tverdogo tela; sbornik statey (Some Problems in the Strength of Solids) Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 386 p. Errata slip inserted. 2,000 copies printed.

Ed. of Publishing House: V.I. Aver'yanov; Tech. Ed.: K.S. Pavlov; Editorial Board: I.P. Ioffe, Academician; G.V. Kurdyumov, Academician; B.M. Zhurkov, Corresponding Member, USSR Academy of Sciences; B.P. Bastanchuk, Corresponding Member, USSR Academy of Sciences; P.P. Vinar, Doctor of Physical and Mathematical Sciences, Professor (Resp. Ed.); L.A. Glikman, Doctor of Technical Sciences, Professor; M.A. Elkin, Doctor of Physical and Mathematical Sciences; V.A. Stepanov, Doctor of Technical Sciences; D.L. Fridman, Doctor of Technical Sciences, Professor; A.S. Ioffe, Candidate of Technical Sciences (Deputy Resp. Ed.).

PURPOSE: This book is intended for construction engineers, technologists, physicists and other persons interested in the strength of materials.

COVERAGE: This collection of articles was compiled by the Otdeleniye fiziko-matematicheskikh nauk AN SSSR (Department of Physical and Mathematical Sciences) and the Fiziko-tekhnicheskiy institut AN SSSR (Institute of Applied Physics, Academy of Sciences, USSR) in commemoration of the 80th birthday of Nikolay Nikolayevich Davidenkov, Member of the Ukrainian Academy of Sciences, founder and head of the Otdel prochnosti materialov (Department of the Strength of Materials) at the Institute of Applied Physics, Academy of Sciences, USSR, founder of the Fakul'tet fizicheskogo metallovedeniye (Department of Physical Metallurgy) at the Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute), recipient of the Stalin Prize (1943), the Order of the Red Banner of Labor (1945) and the Order of Lenin (1953). The articles deal with the strength of materials, phenomena of imperfect elasticity, temper brittleness, hydrogen embrittlement, cold brittleness, influence of deformation speed on the mechanical properties of materials, fatigue of metals, and general problems of the strength, plasticity, and mechanical properties of materials. Famous personalities are mentioned in the introductory profile of Professor Davidenkov. References are given at the end of each article.

Bobr, I.S., and T.B. Bbein. Investigation of the Hydrogen Embrittlement of Two-Phase Titanium Alloys ... 140

Card 7/10

SOV/126-7-1-21/28

AUTHORS: Tekht, V.P.   and   Chernikova, I. Ye.

TITLE: X-Ray Investigation of Fatigue by the Independent Standard
          Method   (Rentgenograficheskoye issledovaniye protsessa
          ustalosti metodom nezavisimogo etalona)

ABSTRACT: Steel St.35 as normalized and subsequently tempered at
          700°C was used for the investigation. After final mechanical
          working the specimens were given a supplementary tempering at
          650°C.   The fatigue limit and mechanical properties of the
          specimens in the original condition are given in the table on
          p 142.   Fatigue tests were carried out, using two-directional
          bending under cyclic stress.   After an even number of cycles
          the test was discontinued and the specimens removed from the
          machine.   X-ray photographs were taken of each specimen at
          various stages of fatigue.   The chamber was provided with an.
          aluminium standard made in the shape of a disk with radial
          slits.   The standard was placed on the axis of an electric

Card 1/3 motor and put in the path of the primary beam of rays.

SOV/126-7-1-21/28

X-Ray Investigation of Fatigue by the Independent Standard Method

As the standard rotated the X-rays alternately fell on the specimen and on the standard, giving in the X-ray fil the lines (310)$_\alpha$ and (220)$_\alpha$ for the investigated s ecimen, and the standard lines (420)$_\alpha$ and (331)$_\alpha$.   The X-ray films obtained were photometered at a magnification of x 8. The intensity of the lines was determined at first by the magnitude of m a x i m u m blackening, but afterwards, when the width of the lines during the fatigue process remained unaltered, by the height of the peak in the photometric curves.   Whilst the intensity of the interference line (310)$_\alpha$ remains practically unaltered with increase in the number of cycles (see Fig.1), the intensity of the line (220)$_\alpha$ constantly increases and attains a maximum value up to fracture (see Fig.2).   By the behaviour of the above two lines the relative intensity I_{310}/I_{220} curve is determined.   The relative intensity decreases with increase in the number of cycles (see Fig.3).   The authors have

Card 2/3   arrived at the following conclusions:-

SOV/126-7-1-21/28

X-Ray Investigation of Fatigue by the Independent Standard Method

(1) In the fatigue process a change in mosaic structure is observed apart from tertiary distortions which arise in the crystal lattice of the metal.
(2) The method of relative intensity of I_{310}/I_{220} does not give the correct picture of changes occurring during fatigue in the atomic structure of a metal; hence, this method should not be used.
(3) The independent-standard method makes it possible to detect not only distortions arising in the crystal lattice, but also changes which have occurred in the mosaic structure of the metal.
There are 3 figures, 1 table and 7 Soviet references.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: April 1, 1957

Card 3/3

GLIKMAN, L.A., doktor tekhn.nauk; TEKHT, V.P., kand,tekhn.nauk

Effect of intermediate heatings during the fatigue process in
steel on its durability. Trudy LMZ no.9:123-136 '62.

(MIRA 16:6)

(Steel—Fatigue)   (Annealing of metals)

GLIKMAN, L.A., doktor tekhn.nauk; TEKHT, V.P., kand.tekhn.nauk;
NAZAROVA, Ye.I., inzh.

Removal of residual stresses in titanium alloys with a 4% content
of aluminum by means of tempering. Trudy LMZ no.9:175-180 '62.
(MIRA 16:6)

(Titanium alloys--Heat treatment)   (Strains and stresses)

TEKHT, V.P., kand.tekhn.nauk

X-ray equipment for the investigation of anodic slime of heat-
resistant steels. Trudy LMZ no.9:275-279 '62.   (MIRA 16:6)
                (X rays--Equipment and supplies)
                (Steel, Heat-resistant--Electrometallurgy)

L 42817-66   EWT(m)/EWP(w)/T/EWP(t)/ETI   IJP(c)   JD

ACC NR: AP6027789   SOURCE CODE: UR/0126/66/022/001/0078/0081

AUTHOR: Glikman, L. A.; Tekht, V. P.

ORG: Leningrad Metal Plant im. XXII Congress KPSS (Leningradskiy metallicheskiy. . zavod)

TITLE: Effect of "in process" training on fatigue life of steels

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 1, 1966, 78-81

TOPIC TAGS: steel fatigue, steel endurance, steel endurance life, fatigue strength, carbon steel, chromium steel, endurance test

ABSTRACT: Specimens of carbon steel 40 (0.37—0.45% carbon) and chromium stainless steel 2Kh13 (0.16—0.23% carbon, 12—14% chromium) were subjected to cyclic stresses 10—15% higher than their fatigue strength (29.5—30.6 and 33.7 kg/mm^2, respectively) for a number of cycles equal to 75 to 95% of the number of cycles at failure. After that, the stress was lowered to 75—90% of the fatigue strength for 5,000,000 cycles (training period) and then returned to the initial magnitude, which was maintained up to failure. The training significantly improved the fatigue "life" of both steels. For instance, while untrained specimens of steel 40 under stresses 10 or 15% higher than fatigue strength failed after 192,650—353,500 or 230,650—239,950 cycles, respectively, the trained specimens failed after 254,200—750,600 or 259,400—352,200 cycles; 2Kh13 steel exhibited similar behavior. Post-training annealing of 2Kh13 steel

Card 1/2   UDC: 539.43:539.292

L 42317-66

ACC NR: AP6027789

at 650C for 2 hr in argon produced no additional beneficial effect.   Orig. art.
has: 3 tables.

SUB CODE: 11, 13/ SUBM DATE: 05Jul65/ ORIG REF: 005/ OTH REF: 001 AT 0 PRESS.
5067

[DV]

Card 2/2

ACC NR: AP6022180

SOURCE CODE: UR/0023/66/000/001/0009/0015

AUTHOR: Tekhver, I. — Tehver, I.; Khizhnyakov, V.

ORG: Institute of Physics and Astronomy, Academy of Sciences Estonian SSR (Institut fiziki astronomii Akademii nauk Estonskoy SSR)

TITLE: Raman scattering and luminescence in the secondary glow of an impurity center

SOURCE: AN EstSSR. Izv. Ser fiz-matem i tekhn n, no. 1, 1966, 9-15

TOPIC TAGS: Raman scattering, luminescence, impurity center, crystal impurity, spectral line, line width, light excitation, absorption band

ABSTRACT: This is a continuation of earlier work (Tr. in-ta fiz. i astron. AN ESSR, no. 29, 54, 1964 and no. 32, in press) where the possibility of using Raman scattering to investigate impurity centers in crystals was first investigated. The purpose of the present investigation is to separate the Raman-scattering and luminescence components of the secondary glow. It is assumed that the centers have a random distribution in the impurity crystal, and that the monochromatic light incident on the crystal has a frequency in the impurity absorption band. Calculation of the Raman scattering intensity reveals that the spectrum excited by the incident light contains a luminescence component with purely electronic line having a radiation width much smaller than the width of the vibrational excitation spectral lines. The luminescence

Card 1/2

ACC NR: AP6022180

can be separated only if the exciting light lies in the region of the phonon wing of the absorption band. The results are interpreted as a direct proof that the quantum yield of luminescence is constant and that the luminescence spectrum is independent of the excitation frequency within the limits of the impurity absorption bands. Detailed calculations are presented, by way of examples, for the spectrum of the secondary glow in the concrete cases of the single-oscillator model and in the case of a center with large Stokes losses. In the latter case it is concluded that the resonant Raman scattering can be used to advantage for the study of the impurity absorption centers. The authors thank K. K. Rebane for directing the work. Orig. art. has: 13 formulas.

SUB CODE: 20/ SUBM DATE: 19Oct65/ ORIG REF: 010

Card 2/2

L 23516-66 EWT(1)/T IJP(c) GG
ACC NR: AT6008330

AUTHOR: Rebane, K. K.; Tekhver, I. Yu.; Khizhnyakov, V. V.

SOURCE CODE: UR/2613/64/000/027/0017/0022

ORG: none

43

B+1

TITLE: Detailed structure of a purely electronic quasi-line

SOURCE: AN EstSSR. Institut fiziki i astronomii. Trudy, no. 27, 1964. Issledovaniya po teorii tverdogo tela (Research on the theory of solids), 17-22

TOPIC TAGS: crystal theory, impurity center, Mossbauer effect, line spectrum, line width, vibration spectrum, crystal impurity

ABSTRACT: The authors study the theoretical width of an extremely narrow purely electronic quasi-line in vibrational electron spectra of impurity crystals. Two cases are considered: 1. the impurity centers are assumed to be ideally identical, 2. the impurities are assumed to be in slightly different conditions due to nonuniformity in the structure of the crystal matrix. The second case corresponds to actual experimental conditions. The theoretical similarities between the purely electronic quasi-line and the Mössbauer line are discussed. It is shown that the purely electronic quasi-line in the vibronic spectrum of an impurity crystal may have a width of the order of the radiation width, at least at low temperatures, i. e. of the order of 10^{-4} cm^{-1} for allowed transitions. This line is narrow enough to be lost through statistical dispersion due to nonhomogeneities in the crystal matrix in ordinary experimental condi-

Card 1/2

2

L 23516-66

ACC NR: AT6008330

tions. An experimental study of the shape of these lines will require improvement in experimental techniques to eliminate the effect of nonhomogeneities in the crystal on the purely electronic energy of impurities. Orig. art. has: 1 formula.

SUB CODE: 20/   SUBM DATE: 20Nov63/   ORIG REF: 011/   OTH REF: 003

Card 2/2

L 23515-66   EWT(1)/T   IJP(c)   GG

ACC NR: AT6008331

SOURCE CODE: UR/2613/64/000/027/0023/0056

AUTHOR: Rebane, K. K.; Sil'd, O. I.; Tekhver, I. Yu.

ORG: none

57

TITLE: Vibrational electron bands of a luminescence center with regard to anharmonicity of vibrations

B+1

SOURCE: AN EstSSR. Institut fiziki i astronomii. Trudy, no. 27, 1964. Issledovaniya po teorii tverdogo tela (Research on the theory of solids), 23-56

TOPIC TAGS: luminescence center, crystal theory, energy band structure , harmonic analysis, vibration spectrum, vibration

ABSTRACT: The authors calculate the moments S_l for probability distribution of vibronic transitions of order $l = 0, 1, 2, 3$ and 4 for a luminescence center in a crystal. The adiabatic potentials of the ground and excited electron levels of the luminescence center are given in the form of expansions in power series including anharmonicities of the third and fourth orders. The electron matrix element is accounted for as a function of the vibrational coordinates together with the anharmonicity of the adiabatic potentials. Some of the results are compared with experimental data in the literature. An analysis of the resultant expressions for the moments indicate that vibrational anharmonicity may be definitive in the following effects: 1. a temperature

Card 1/2

2

L 23515-66

ACC NR: AT6008331

shift in the first moment of the band; 2. a deviation in the temperature relation-
ship of the half-width of the band δ from the law $\delta \sim \sqrt{T}$; 3. the sign of asymmetry of
the band. The basic effect which shows the relationship between M and the vibration-
al coordinates is an increase in the intensity of the integral band with temperature.
This relationship does not show up in any other clearly pronounced singularities in
the behavior of a band corresponding to a center where the Stokes losses are high.
Orig. art. has: 16 formulas.

SUB CODE: 20/   SUBM DATE: 06Nov63/   ORIG REF: 045/   OTH REF: 021

Card 2/2

L 23692-66   EWT(1)   IJP(c)   WW/GG

ACC NR: AR6005200   SOURCE CODE: UR/0058/65/000/009/D034/D034

AUTHORS: Rebane, K. K.;   Tekhver, I. Yu.

TITLE: Contribution to the theory of Raman scattering of light by an impurity crystal

SOURCE: Ref. zh. Fizika, Abs. 9D277

REF. SOURCE: Tr. In-ta fiz. i astron. AN EstSSR, no. 29, 1964, 54-65

TOPIC TAGS: Raman scattering, light scattering, impurity scattering, crystal impurity, electron spectrum, vibration spectrum, line spectrum, operator equation, matrix element

TRANSLATION: The authors consider two methods of summation over the intermediate states in the formula for electron-vibration Raman scattering of light by impurity crystals, namely the method of quantum-mechanical sum rules and the method of ordered operators. The previously drawn conclusions concerning the quasi-line structure of the spectrum have been confirmed. It is shown that at scattering-

Card   1/2

L 23692-66

ACC NR: AR6005200

light frequencies lying outside the region of the resonance it is very important to take into account the dependence of the electron matrix elements on the coordinates of the lattice vibration. Under restricting assumptions imposed on the frequency of the scattering light, the authors derive with the aid of the first method certain deductions, which are useful for comparison with experiment, concerning the temperature behavior of the vibrational quasi-lines in the spectra. Bibliography, 16 titles.

SUB CODE: 20

Card   2/2

TEKHVER, YU. T.

6865. Tekhver, Yu. T. Chastnaya gistologiya sel'skokhozyaystvennykh
zhivotnykh. Tallin, Estgosizdat, 1954. 439 a. a ill.; 16 L. ill. 22sm.
3.000 ekz. 16r. 50 k. V per. -- Na eston, yaz. -- (55-1990) 619:611-018

SO: Knizhnaya Letopis' No. 6, 1955

TEKHVER, G. T.

TEKHVER, G. T.: "The significance of the wide-scale use of better pro-
ductive breeds for horse raising in the Estonian SSR." Min Higher
Education USSR. Estonian Agricultural Academy. Tartu, 1956
(Dissertation for the Degree of Candidate in Veterinary Sciences)

So: Knizhnava Letopis', No 17, 1956

TEKHVER, Yu.T.   [Tohver, J.]

"Atlas of photomicrographs on normal histology and embryology"
by L.I. Falin. Reviewed by IU.T. Tekhver. Arkh.anat. gist. i
embr. 35 no.4:111-113 Jl-Ag '58   (MIRA 11:10)

1. Adres avtora: Estonskaya SSR, Tartu, Gosudarstvennyy universitet,
kafedra gistologii.
          (ANATOMY, HUMAN--ATLASES)
          (FALIN, L.I.)

TEKHVER, Yu.T. [Tehver, J.];

"Specialized histology of domestic animals and the fundamentals
of embryology" by P.A. Koval'skii. Reviewed by IU.T. Tekhver.
Arkh. anat. gist. i embr. 38 no. 5:117-119 My '60.   (MIRA 14:2)

1. Adres avtora: Estonskaya SSR, Tartu, ul.Michurina, 36, Estonskaya
sel'skokhozyaystvennaya akademiya, Laboratoriya gistologii.
            (HISTOLOGY) (EMBRYOLOGY) (KOVAL'SKII, P.A.)

TEKHVER, Yu.T. (Tartu, Estonskaya SSR, ul. Yakobsoni, 9a)

Histological terminology. Arkh. anat., gist. i embr. 43 no.11:
3-11 N '62. (MIRA 17:8)

1. Kafedra anatomii, gistologii i embriologii (zav. - prof.
Yu.T. Tekhver) Akademii sel'skokhozyaystvennykh nauk Estonskoy
SSR.

TEKIELSKI, B.

Standardization in the lumber industry.   p. 81. (PRZEMYSL DRZEWNY, Vol. 5,
No. 4, Apr. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec.
1954, Uncl.

TEKIELSKI, B.

Struggle for lower consumption of lumber materials. p. 83. (PRZEMYSL DRZEWNY, Vol. 5, No. 4, Apr. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

IVANOV, V.A.; LISOVSKIY, D.I.; TEKIYEV, V.M.

Mathematical model of a periodic cementation process.
Izv.vys.ucheb.zav.; tsvet.met. 8 no.2:159-166 '65.
(MIRA 18:1)

1. Kafedra avtomatizatsii proizvodstva redkikh metallov
Moskovskogo instituta stali i splavov. Submitted March 5,
1964.

TEKJL, M.

Problems of internal installations with regard to ensuring future
development of gasification. p. 238.

PALIVA. (Ministerstvo paliv a Ceskoslovenska vedecka technicka spolecnost pro
vyuziti paliv pri Ceskoslovenske akademii ved) Prbha, Czechoslovakia, Vol. 39,
no. 7, July 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 11,
November 1959.

uncl.

MENZHERITSKIY, A.I.; OSIPOV, A.V.; YEFREMOV, M.D.; KRUKOVSKIY, Ye.V.;
        SHLUGER, N.A.; REPSHIL', A.P.; MITSKEVICH, V.M.; MIKIRTUCHEVA,
        Z.V.; POLONSKIY, V.V.; OBOTOVA, M.N.; SEMENOVSKIY, A.A.;
        GARASEVICH, G.I.; VAYNBERG, Ye.I.; DOMNICH, A.M.; LEVCHENKO, V.L.;
        RAFAL'SON, V.D.; ROMANENKO, Ye.I.; SHPINER, Ye.I.; TEKLIN, V.G.

        Innovations. Bum. i der. prom. no.2:58 Ap-Je '65.
                                                          (MIRA 18:6)

TEKLINSKA, M.; TEKLINSKI, A. (Pulawy)

    Agglutinin formation in cases of brucellar infection of hens. Rocz
nauk roln wet 70 no.1/4:210 '60.   (EEAI 10:9)

      (Poultry)   (Brucella abortus) (Agglutinations)

TEKLINSKI, A.; TEKLINSKA, M. (Pulawy).

The serum agglutination titer of blood of guinea pigs vaccinated
with Brucella abortus S 19. Rocz nauk roln wet 70 no.1/4:210-211
'60.
(EEAI 10:9)

(Agglutination)   (Serum)   (Blood)   (Brucella abortus)

TEKLINSKA, M.; TEKLINSKI, A. (Pulawy)

Evaluation of the Newcastle disease vaccine produced in eggs from hens vaccinated with Hertfordshire strain. Rocz nauk roln wet 70 no.1/4:231-233 '60.   (EEAI 10:9)

(Poultry)   (Vaccines and vaccination)
          (Newcastle disease)

L 34524-66

ACC NR: AP6024689   (A)   SOURCE CODE: PO/0071/65/000/007/0397/0400

AUTHOR: Synowiedzki, Zdzislaw—Synovetski, Z. (Warsaw); Teklinska, Maria—Teklin'ska, M.

ORG: Department of Technology and Control of Veterinary Drugs, Veterinary Institute /headed by Doctor A. Teklinski/, Warsaw (Zaklad Technologii i Kontroli Lekow Wetery- naryjnych Instytutu Weterynarii); Regional Institute of Veterinary Hygiene /headed by Veterinarian J. Piotrowski/, Warsaw (Wojewodzki Zaklad Higieny Weterynaryjnej)

TITLE: Preparation "Bioferron" and its effect on hemoglobin level and body weight in piglets

SOURCE: Medycyna weterynaryjna, no. 7, 1965, 397-400

TOPIC TAGS: hemoglobin, experiment animal

ABSTRACT: Administration to 5 piglets of the preparation Bioferron from week 1 to week 8 of age (total 1.5 Gm of the preparation equal to 15 mg of iron) significantly increased both the hemoglobin and body weight in experimental animals as compared to untreated controls. Field use in about 300 additional animals without strict control was also quite successful. The preparation contains a ferrous dextran complex, hydrolyzed starch, and trace elements cobalt, copper, manganese, iodine, zinc and fatty acid esters. The authors thank A. Cholewicki for carrying out the chemical analysis containing Fe as well as the microelements Co, Cu, Mn, Zn, and J, and for the preparation of the 'Bioferron.' Orig.art.has:2 figures and 2 tables./JPRS/

Card 1/1   SUB CODE: 06 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 010

TEKLINSKI, A.; SAMOREK, M. (Pulawy)

Spread of tuberculosis and brucellosis in peasant farm cattle of the
Pulawy District. Rocz nauk roln wet 70 no.1/4:152 '60.
(EEAI 10:9)

(Cattle)   (Tuberculosis)   (Brucellosis)

ROZANSKA, M.; TEKLINSKI, A.; WISNIEWSKI, Z. (Pulawy)

Evaluation of different allergic properties of various strains of
Mycobacterium tuberculosis on the basis of the tuberculin reaction
of cattle. Rocz nauk roln wet 70 no.1/4:160-161 '60.

(EEAI 10:9)

(Cattle)   (Mycobacterium tuberculosis)
(Tuberculin)

TEKLINSKA, M.; TEKLINSKI, A. (Pulawy)

Agglutinin formation in cases of brucellar infection of hens. Rocz
nauk roln wet 70 no.1/4:210 '60.   (EEAI 10:9)

(Poultry)   (Brucella abortus)   (Agglutinations)

TEKLINSKI, A.; TEKLINSKA, M. (Pulawy)

The serum agglutination titer of blood of guinea pigs vaccinated
with Brucella abortus S 19. Rocz nauk roln wet 70 no.1/4:210-211
'60.   (EEAI 10:9)

    (Agglutination)   (Serum)   (Blood)   (Brucella abortus)

TEKLINSKA, M.; TEKLINSKI, A. (Pulawy)

Evaluation of the Newcastle disease vaccine produced in eggs from
hens vaccinated with Hertfordshire strain. Rocz nauk roln wet 70
no.1/4:231-233 '60.   (EEAI 10:9)

(Poultry)   (Vaccines and vaccination)
(Newcastle disease)

KOZICKI, J.; TEKLINSKI, A.; LISOWSKA, Z. (Pulawy)

Experiments in producing a Newcastle disease immune serum as a by product in poultry fattening. Rocz nauk roln wet 70 no.1/4:233 '60.

(EEAI 10:9)

(Poultry) (Newcastle disease) (Immunity) (Serum)

TEKLINSKI, Antoni (Pulawy)

Causes of sterility of cows on small farms. Rocz nauk roln wet 70
no.1/4:362-364 '60.   (EEAI 10:9)

(Cattle)   (Farms)   (Sterility)

TEKLINSKI, Antoni (Pulawy)

Fertility testing of the bulls of the peasants in Pulawy District.
Rocz nauk roln wet 70 no.1/4:381-383 '60.   (EEAI 10:9)

(Bulls)   (Fertility)

TEKLINSKI, A.; PACEK, W. (Pulawy)

The Pulawy model of artificial vaginae for semen receiving. Rocz
nauk roln wet 70 no.1/4:383-385 '60.   (EEAI 10:9)

(Vagina)   (Semen)

TEKLINSKI, A (D.)

SURNAME, Given Names

(4.)

Country: Poland

Academic Degrees:

Affiliation: Department of the Technology and Control of Veterinary Drugs
                     of the Veterinary Institute (Zaklad Technologii i Kontroli
                     Lekow Weterynaryjnych, Instytut Weterynarii), Warsaw;
                     Director (Kierownik): Dr Antoni Teklinski

Source: Lublin, Medycyna Weterynaryjna, Vol XVII, No 10, October 1961,
                     pp 579-584

Data: "Lyophilization of Vaccine S-19 Against Infectious Abortions
                     of Cows."

        Authors:

        √ TEKLINSKI, A, Dr
        KOCHANSKI, J [Academic Degrees not given]
        TERESZCZUKOWA, M [Academic Degrees not given]
        DENIS, B [Academic Degrees not given]

                                                            GPO 981643

TEKLINSKI, Antoni

Immunogenic value of live P vaccine against fowl plague. Zesz
probl post nauk roln no.46:63-85 '64.

1 Department of Technology and Supervision of Veterinary
Drugs, Institute of Veterinary Medicine; Pulawy; Director:
Prof. Dr.St.Kraus.

POLAND

TEKLINSKI, A., of the Research Office for the Technology and Control of
Veterinary Drugs, Veterinary Institute (Zaklad Technologii i Kontroli
Lekow Weterynaryjnych Instytutu Wet.), Warsaw. Dr. A. Teklinski, Head.

"The Effect of Lyophilization on the Antigen Value of Vaccine S-19"

Lublin, Medycyna Weterynaryjna, Vol 22, No 8, 1966, pp 476-483.

Abstract (Author's English abstract modified): An investigation was carried
out to determine the possible effect of the process of lyophilization on
the antigen value of vaccine S-19 against infectious abortion in cows.
On each of the test farms, half the cows were immunised with lyophilized vac-
cine the rest with liquid vaccine. The estimation of the value of both
vaccines was based on statistical analysis (Kolmogorov-Smirnov) of the sero -
logical titers of the blood (agglutination and complement-fixation tests).
1,073 cows and 869 heifers were examined 3, 6 and 12 months after vaccination.
Statistical interpretation of the tests is given.
Contains 2 Tables and 29 references (8 Polish, 12 Western, 3 Russian and
6 German-language).

1/1

TEKSE, K.

"Geometrical constructions with a circular ruler."

p. 255 (Matematikai Lapok) Vol. 7, no. 3/4, 1956.
Budapest, Hungary

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
     April 1958

TEKSHE, K.

16(1)

PHASE I BOOK EXPLORATION   SOV/2508

Matematicheskoye prosveshcheniye; matematika, yeye prepodavaniye, prilozheniya i istoriya, VYP. 4 (Mathematical Education; Mathematics, Its Teaching, Application and History; Nr. 4) Moscow, Gostekhizdat, 1959. 15,000 copies printed.

Ed.: I.M. Bronshteyn; Editorial Board of Series: I.M. Bronshteyn, A.I. Markushevich, I.M. Yaglom; Tech. Ed.: S.N. Akhlamov.

PURPOSE: This book is intended for persons without an extensive mathematical education who are interested in trends in contemporary mathematics. The book may be useful to high school mathematics teachers.

COVERAGE: The book consists of articles, reviews, and scientific and methodological reports, some of which are translations from other languages. The state of modern mathematics is covered, including applications, history, teaching of mathematics in schools, and mathematical developments in the USSR and abroad. One section deals with scientific and pedagogical life in the USSR and another contains reviews of certain mathematical publications. Some mathematical background is necessary to understand the book; certain articles require a knowledge of higher mathematics.

Mathematical Education; (Cont.)   SOV/2508

III. SCIENTIFIC-METHODOLOGICAL REPORTS
(Teaching Experience and Pedagogical Experimentation)

Aramanovich, I.G., and S.I. Zetel'. On an Approximation of Graphs of Functions by Curves of the Second Order [Contd]   179

Gradshteyn, I.S. (Deceased) On One Sufficient Test of Indefinite Integrals Turning to Zero   189

Segal, B.I. On the Local Limit Theorem in Probability Theory   193

Teksha, K. (Hungary) Remarks on the Theory of Geometric Constructions   197

Brief Reports:
1. Balk, M.B. Computing a Sum by Weighting   205
2. Ginzburg, B.L. Simplification of Multiplication From Left to Right
3. Kuznel', A.V. A Study of the Roots of a Cubic Equation   207

Card 5/8

TEISHE, E., aspirant

Comments on the theory of geometrical constructions. Mat.pros.
no.4:197-204 '55.

(MIRA 12:11)

1. Moskovskiy gosuniversitet.
(Geometry)

TEKSE, Kalman

Some problems of the integral geometry of Riemann space. Mat kozl
MTA 11 no.3:289-304 '61.

(Integrals)   (Geometry)   (Spaces, Generalized)

TEKSE, Kalman

Some remarks about the article by A. Renyi entitled "These:
of a debate about applied mathematics." Magy tud 70 no.1:46-50
Ja '63.

1. Kozponti Statisztikai Hivatal tudomanyos munkatarsa.

TEKSTER, Ye. N.

PTITSYN, B.V.; TEKSTER, Ye.N.; VINOGRADOVA, L.I.; MORACHEVSKAYA, M.D.

Using the oxalate-silver electrode for determining the instability constants of complex oxalates. Zhur.neorg.khim. 2 no.9:2025-2030
S '57.

(MIRA 10:12)

1.Leningradskiy tekhnologicheskiy institut pishchevoy promyshlennosti, Kafedra obshchey i analiticheskoy khimii.
(Electrodes) (Oxalates)

5(4),21(1)
AUTHORS:

Tekster, Ye. N., Vinogradova, L. I., Ptitsyn, B. V.

SOV/78-4-4-10/44

TITLE:

The Determination of the Stability Constants of the Complex Oxalates of Magnesium and Uranyl Using an Oxalate-silver Electrode (Opredeleniye konstant nestoykosti kompleksnykh oksalatov magniya i uranila s pomoshch'yu oksalatno-serebryanogo elektroda)

PERIODICAL:

ABSTRACT:

The stability constants of the complexes $K_2\left[Mg(C_2O_4)_2\right]$ and $K_6\left[(UO_2)_2(C_2O_4)_5\right]$ were determined using an oxalate-silver electrode. Solutions of various concentrations of both complexes were saturated with silver oxalate at 25°, and the potential of the oxalate-silver electrode was measured in these solutions in order to determine the equilibrium activity of the $C_2O_4^{2-}$ ion. The results of these measurements are given in a table. The integral stability constant for the magnesium complex $K_2\left[Mg(C_2O_4)_2\right]$ was calculated:

Card 1/4

The Determination of the Stability Constants of the   SOV/78-4-4-10/44
Complex Oxalates of Magnesium and Uranyl Using an Oxalate-silver Electrode

$$K_2\left[Mg(C_2O_4)_2\right]$$

I (ion strength)	$K_{integral}$
$0.89 \cdot 10^{-1}$	$5.7 \cdot 10^{-5}$
$0.49 \cdot 10^{-1}$	$2.9 \cdot 10^{-5}$
$0.31 \cdot 10^{-1}$	$2.9 \cdot 10^{-5}$

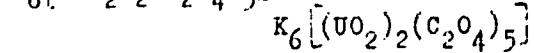The measured results required for the calculations are summa-
rized in a table. The dissociation of the complex ion
$\left[(UO_2)_2(C_2O_4)_5\right]^{6-}$ occurs according to the following scheme:
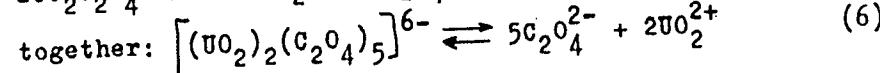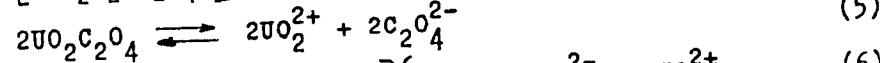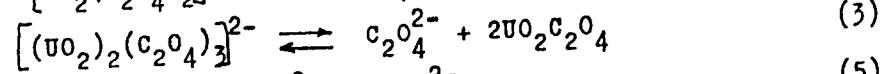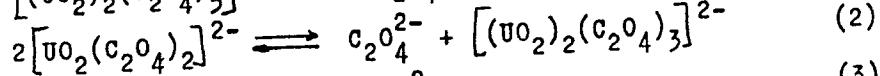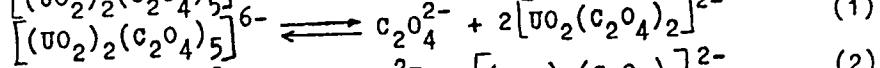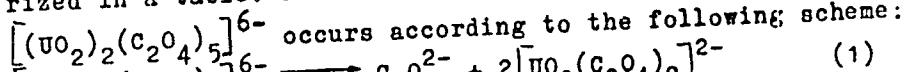
$$\left[(UO_2)_2(C_2O_4)_5\right]^{6-} \rightleftharpoons C_2O_4^{2-} + 2\left[UO_2(C_2O_4)_2\right]^{2-} \tag{1}$$

$$2\left[UO_2(C_2O_4)_2\right]^{2-} \rightleftharpoons C_2O_4^{2-} + \left[(UO_2)_2(C_2O_4)_3\right]^{2-} \tag{2}$$

$$\left[(UO_2)_2(C_2O_4)_3\right]^{2-} \rightleftharpoons C_2O_4^{2-} + 2UO_2C_2O_4 \tag{3}$$

$$2UO_2C_2O_4 \rightleftharpoons 2UO_2^{2+} + 2C_2O_4^{2-} \tag{5}$$

Card 2/4   together: $\left[(UO_2)_2(C_2O_4)_5\right]^{6-} \rightleftharpoons 5C_2O_4^{2-} + 2UO_2^{2+}$ \tag{6}

The Determination of the Stability Constants of the   SOV/78-4-4-10/44
Complex Oxalates of Magnesium and Uranyl Using an Oxalate-silver Electrode

It is assumed that the complex ion $\left[(UO_2)_2(C_2O_4)_4\right]^{4-}$ exists
in the solution. The stability constants $K_1 \cdot K_2$ and K_2 for
$K_6\left[(UO_2)_2(C_2O_4)_5\right]$ were calculated as follows:

$$K_6\left[(UO_2)_2(C_2O_4)_5\right]$$

I (ion strength)	$K_1 \cdot K_2$	K_2
$0.69 \cdot 10^{-1}$	$3.8 \cdot 10^{-5}$	..
$0.22 \cdot 10^{-1}$	..	$4.8 \cdot 10^{-2}$
$0.08 \cdot 10^{-1}$	..	3.0

The data required for the calculations are given in a table.
A further table gives the results of the calculation of K_2.

There are 4 tables and 7 references, 3 of which are Soviet.

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The Determination of the Stability Constants of the   SOV/78 4 4 10/44
Complex Oxalates of Magnesium and Uranyl Using an Oxalate-silver Electrode

ASSOCIATION: Kafedra obshchey i analiticheskoy khimii Leningradskogo
                tekhnologicheskogo instituta pishchevoy promyshlennosti
                (Chair of General and Analytical Chemistry of the Leningrad
                Technological Institute of the Foodstuffs Industry) and
                Kafedra tekhnologii iskusstvennykh radioaktivnykh veshchestv
                Leningradskogo tekhnologicheskogo instituta im. Lensoveta
                (Chair of the Technology of Artificial Radioactive Materials
                of the Leningrad Technological Institute imeni Lensovet)

SUBMITTED: December 30, 1957

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SOV/78-4-10-13/40

5(2)
AUTHORS: Ptitsyn, B. V., Tekster, Ye. N.

TITLE: Determination of the Instability Constant of Oxalate Complexes of Uranyl by Means of the Method of the Shifted Equilibrium

ABSTRACT: On description of the solubility method used in the determination of instability constants it is disregarded that in several cases a displacement of the dissociation equilibrium of the complex ion may take place brought about by reaction of a ion situated in the inner sphere of the complex with a ion in the outer sphere. In such cases the equilibrium can be approached from two sides and the thermodynamic equilibration be proved. In the following the equilibrium of the reaction

$$\left[UO_2(C_2O_4)_y\right]^{2-2y} + 2xAg^+ \rightleftharpoons \left[UO_2(C_2O_4)_{y-x}\right]^{2-2(x-y)} + xAg_2C_2O_4$$
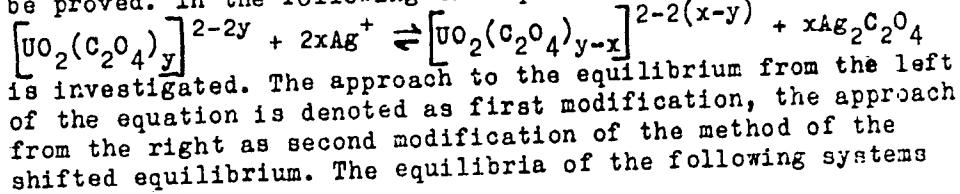
is investigated. The approach to the equilibrium from the left of the equation is denoted as first modification, the approach from the right as second modification of the method of the shifted equilibrium. The equilibria of the following systems

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SOV/78-4-10-13/40

Determination of the Instability Constant of Oxalate Complexes of Uranyl by Means of the Method of the Shifted Equilibrium

were investigated: $K_2\left[UO_2(C_2O_4)_2\right]$ + $AgNO_3$ at an initial molar ratio between silver and uranyl ion of 2 and 4; and $K_6\left[(UO_2)_2(C_2O_4)_5\right]$ + $AgNO_3$ at an ionic ratio of 1, 3, and 5. The equilibrium distribution of silver ions between the solid and liquid phase at 25° was determined. The results are illustrated in the coordinate system $p\left[Ag^+\right]$, $f(p\alpha_{UO_2}{}^{2+})$ in figure 1

Tables 1 and 2 give the computed values of the instability constants K_I and K_{II}. Figures 2 and 3 show the dependence of the constants on $\sqrt{J}$ (J = ionic strength). For K_I $8.3.10^{-6}$ was found by means of the first modification, $3.6.10^{-5}$ by means of the second modification; for K_{II} by means of both modifications $1.0.10^{-6}$ in accordance. The value of K_I obtained by means of the second modification is considered the more likely one. The reasons for it shall be given in a later paper. There are 3 figures, 2 tables, and 5 references, 3 of which are Soviet.

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Determination of the Instability Constant of Oxalate Complexes of Uranyl by Means of the Method of the Shifted Equilibrium

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensoveta
                 (Leningrad Technological Institute imeni Lensovet)
                 Tekhnologicheskiy institut pishchevoy promyshlennosti
                 (Technological Institute of Food Industry)

SUBMITTED: July 11, 1958

Card 3/3

TEKSTER, Ye. N.

PHASE I BOOK EXPLOITATION   SOV/5404

Murin, A. N., V. D. Nefedov, and V. P. Shvedov, eds.

Radiokhimiya i khimiya yadernykh protsessov (Radiochemistry and the Chemistry of Nuclear Processes) Leningrad, Goskhimizdat, 1960. 784 p. Errata slip inserted. 13,000 copies printed.

Ed.: F. Yu. Rachinskiy; Tech. Ed.: Ye. Ya. Erlikh.

PURPOSE : This textbook is intended for students of physical chemistry or radiochemistry at universities and schools of higher education. It may also serve as a handbook for scientific workers and technical personnel in the radiochemical industries and other related branches.

COVERAGE: The textbook deals with problems in modern radio- chemistry, including adsorption, cocrystallization, isotope exchange in radioactive elements, the chemistry of nuclear processes, and methods of preparing radioactive isotopes and labeled compounds. Special attention has been given to chemical processes caused by radioactive transformations and radiation. In the main the book was compiled by person-

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Radiochemistry and the Chemistry (Cont.)   SOV/5404

nel of the Radiochemistry Department, Leningradskiy gos-
udarstvennyy universitet imeni A. A. Zhdanova(Leningrad
State University imeni A. A. Zhdanov), and the Department of
the Technology of Artificial Radioactive Isotopes, Ler. n-
gradskiy tekhnologicheskiy institut imeni Lensoveta (Lenin-
grad Technological Institute imeni Lensovet). No person-
alities are mentioned. References accompany individual
chapters.

TABLE OF CONTENTS:
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Radiochemistry and the Chemistry (Cont.)   SOV/5404

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S/078/60/005/05/27/037
B004/B016

5.2200(A)

AUTHORS: Filinov, F. M. (Deceased), Tekster, Ye. N., Kolpakova, A. A.,
            Panteleyeva, Ye. P.

TITLE: Investigation of the Solubility of Thorium Pyrophosphate in Acids,
            and Investigation of the Equilibrium Between Solid Phase and
            Solution in the Systems ThP_2O_7 - $Na_4P_2O_7$ - H_2O and ThP_2O_7 - $Th(NO_3)_4$ - H_2O

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 5, pp. 1149 - 1156

TEXT: The solubility of ThP_2O_7 was studied in HCl, HNO_3, and H_2SO_4 in the concen-
tration range 0.1 - 0.5 N by means of the radiochemical indicator UX_1. The method
is described in a paper by F. M. Filinov and V. F. Budanova (Ref. 1). The activity
of the solutions was measured on the B-apparatus by means of a B-1 β-counter.
Fig. 1 shows the vessel applied. Data on solubility are presented in Fig. 2, and
for comparison, also the data of Ref. 8 are given. The solubility of ThP_2O_7 in
solutions of $Na_4P_2O_7$ in the concentrations range 0.02 - 0.2 M was also determined

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Investigation of the Solubility of Thorium Pyrophos-   S/078/60/005/05/27/037
phate in Acids, and Investigation of the Equilibrium   B004/B016
Between Solid Phase and Solution in the Systems ThP_2O_7 - $Na_4P_2O_7$ - H_2O and
ThP_2O_7 - $Th(NO_3)_4$ - H_2O

according to the same method. Table 1 presents the data, table 2 the analytical results of the solid phases. The compound $Na_4[Th(P_2O_7)_2]$ was separated, its solubility, the pH of its solution, and its electrical conductivity were determined (Table 3, Figs. 3,4). Further, conductometric titrations of a 0.002 M solution of $Na_4P_2O_7$ by means of 0.0682 M $Th(NO_3)_4$ (Fig. 5), and of a 0.0014 M $Th(NO_3)_4$ solution by means of 0.1 M $Na_4P_2O_7$ were carried out (Fig. 6). Distinct and well reproducible breaks of the curves were observed at $[P_2O_7^{4-}]/[Th^{4+}]$ = 2, 1, and 0.7-0.8. The study of the solubility of ThP_2O_7 in thorium nitrate solutions showed an increased solubility of thorium pyrophosphate. There are 6 figures, 3 tables, and 9 references, 5 of which are Soviet.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensoveta Kafedra tekhnologii iskusstvennykh radioaktivnykh veshchestv (Leningrad Institute of Technology imeni Lensovet, Chair of Technology of Artificial

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69542

Investigation of the Solubility of Thorium Pyrophos-   S/078/60/005/05/27/037
phate in Acids, and Investigation of the Equilibrium   B004/B016
Between Solid Phase and Solution in the Systems ThP_2O_7 - $Na_4P_2O_7$ - H_2O and
ThP_2O_7 - $Th(NO_3)_4$ - H_2O

          Radioactive Substances)

SUBMITTED: February 23, 1959

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S/081/62/C00/006/029/117
B171/B101

AUTHORS: Mikhaylov, A. A., Tekster, Ye. N.

TITLE: The utilization of sodium hypophosphate for the separation
              of thorium from cerium

TEXT: The distribution of Ce between solid and liquid phases has been
investigated with the help of Ce^{144}, in reactions where a 1:5 mixture of
Th and Ce was precipitated from sulfuric acid and hydrochloric acid
solutions by $Na_2H_2P_2O_6$, used with an excess of 150 %. Ce^{4+} was reduced
to Ce^{3+} by hydrogen peroxide before and after precipitation by the
hypophosphate. It has been established that, if Ce^{4+} is reduced before
the addition of the precipitant, practically all Ce remains in sulfuric

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