MNDZHOYAN, A.L.   AROYAN, A.A.· OVSEPYAN, I.R.

Synthesis of some amino compounds based on 4 alkoxybenzyl chlorides.
Izv. AN Arm. SSR.Khim. nauki 13 no.4:275-285 '60.   (MIRA 13:12)

1. Institut tonkoy organi heskoy khimii AN ArmSSR.
              (Amino compounds)

SOV 124 58 3 2893

Translation from: Referativnyi zhurnal, Mekhanika, 1958, Nr 3, p 44 (USSR)

AUTHOR: Ovsepyan, V. M.

TITLE: The Expression of Hydraulic Losses in Terms of an Averaged
            Velocity for an Unsteady Motion of a Fluid in a Rigid Pipe
            (Vyrazheniye gidravlicheskikh poter' cherez osrednennuyu
            skorost' pri neustanovivshemsya dvizhenii zhidkosti v zhestkoi
            trube)

PERIODICAL: Sb nauchn tr Yerevansk politekhn in-ta, 1957, Nr 4
            pp 119 124

ABSTRACT: The author demonstrates that the hydraulic losses in a pipe
            during unsteady motion are greater than during steady state
            motion. He introduces the concept of an averaged velocity
            of a (virtual) steady-state motion at which the amount of water
            discharged during a given time interval would be equal to the
            amount discharged during the same time interval during the
            actually existing unsteady motion, and a certain parameter
            having a time dimension which is a function of the velocity and
            the resistance coefficient. For this calculation the author
            employs a coefficient β obtained by him, which depends upon

Card 1 2

SOV 124 58 3 289

The Expression of Hydrau Losses in Terms of an Averaged

the time t and the parameter and which for t tends towards
unity   For the expression of the losses during unsteady motion the auth r
has obtained the following form

$$ r_w \quad \beta \xi \frac{u^2}{2k} $$

For practical cases β equals 1 9   0 , e   the losses for the unsteady
motion are approximately twice as great as the losses during steady state
motion

S Ya Vartazar

Card 2 2

CRYSTAL TELL

Designing powerful hydraulic rams. Izv. AN Arm. SSR. Ser. tekh. nauk
11 no.1:3-14 '58.   (MIRA 11:4)

1. Yerevanskiy politekhnicheskiy institut im. K. Marksa.
                    (Hydraulic rams)

OVSEPYAN, V.M.

    Calculating balancing devices on the supply line of yuraulic
ram units. Izv. AN ArmSSR. Ser. tekh. nauk 18 no. 4:3-
15.

1. Yerevanskiy politekhn. uskiy institut imen. Karla Marksa.
Submitted Nov. 2, 1965.

OVSEPYAN, V.M.

[Hydraulics] Gidravlika. Erevan, Armuchpedgiz, 1963.
(M.RA 18:2)
483 p.

TARAYAH, V.M.; OVSEPYAN, Ye.H.

Effect of pH on the ferri-ferro indicator system in determining aluminum by the fluoride method. Nauch.trudy Erev.un.no.53:75-83 '56. (Aluminum)(Indicators and test papers)   (MLRA 9:10)

OVSEPYAN, Ye.N.; TARAYAN, V.M.

Use of an aluminum indicator electrode in determining aluminum by the fluoride method. Nauch.trudy Erev.un.no.53:35-94 '56.
(MLRA 9:10)

1.Kafedra analiticheskoy khimii.
(Aluminum) (Indicators and test papers)

TARAYAN, V.M.; OVSEPYAN, Ye.N.; KHACHATRYAN, I.G.

Composition of the rhodanide complex of rhenium. Report No.3. Dokl. AN Arm. SSR 33 no.4:165-172 '61 (MIRA 15:1)

1. Yerevanskiy gosudarstvennyy universitet. 2. Chlen-korrespondent AN Armyanskoy SSR (for Tarayan). (Rhenium compounds)

OVSEPYAN, Ye N.

1833. The effect of pH on the ferri-ferro indicator system in the determination of aluminum by the second method. V. M. Tarayan and E. N. Ovsepyan. Nauch. Tr. Erevansk. Univ., 1956, 53, 71-81; Ref. Zhur., Khim., 1958, Abstr. No. 53,811.—When the pH of the solution being titrated in the potentiometric determination of Al^{3+} with the indicator system Fe^{3+}–Fe^{2+} is 1·1 to 3·5 there is a drop of potential (DP) at the equivalence point; the equivalence point is attained when the pH of the solution being titrated is 3·3 to 4·0. The DP in the titration with a Fe^{3+}–Fe^{2+} electrode or with a quinhydrone electrode is observed at the same point. It was established that the initial value of pH of the soln. being titrated must be 3·0 to 3·1, as at pH > 3·2 the results of the determination of Al have started to fail. Premature DP was provoked by the hydrolysis of Fe^{3+} occurring in consequence of reduction in acidity of the soln. being titrated and by the presence of basic salts of Al. It is recommended that the pH of the soln. being titrated be established by the indicator Tropaeolin OO). — G. BREWER

OVSEPYAN, Ye.N.; EKIMYAN, M.G.

On the composition of deposits forming in the determination of aluminum by the fluoride method. Izv.AN Arm.SSR.Ser.FMET nauk 8 no.5:41-44 S-O '55.   (MLRA 9:3)

1. Yerevanskiy gosudarstvennyy universitet imeni V.M. Molotova.
   (Aluminum--Analysis) (Potentiometric analysis)

TARAYAN, V.M.; OVSEPYAN, Ye.B.

Behavior of the indicator ferri-ferro electrode in the potentiometric determination of aluminum by the fluoride method. Izv.AN Arm.SSR. Ser.FMET nauk 8 no.5:45-49 S-O '55.   (MLRA 9:3)

1. Yerevanskiy gosudarstvennyy universitet imeni V.M. Molotova.
      (Potentiometric analysis) (Aluminum--Analysis)

ACC NR: AP5018543

AUTHOR: Ovsepyan, Ye. N.; Tarayan, V. M.; Shaposhnikova, G. N.

TITLE: Complex between selenium and thiourea

SOURCE: AN ArmSSR. Izvestiya. Khimicheskiye nauki, v. 18, no. 2, 1965, 225-226

TOPIC TAGS: selenium complex, thiocarbamide, selenium determination, thiourea complex, selenious acid

ABSTRACT: Heretofore, the reaction of selenious acid with thiourea has been treated as an oxidation-reduction process resulting in the formation of elemental selenium. The authors found that thiourea not only reduces selenious acid to selenium, but also dissolves the latter; this dissolution is faster the higher the concentration of thiourea and acid (HCl and H_2SO_4). The dissolution of elemental selenium in thiourea and the lack of formation of a solid phase (selenium) at suitable acidities are the result of the formation of a complex compound between selenium and thiourea. The existence of this complex was confirmed by polarographic and spectrophotometric analysis; the polarographic half-wave potential of selenious acid was shifted toward more negative values upon addition of urea, and the spectral absorption peak of 230 mµ with a molar extinction

Card 1/2

OVSEPYAN, Ye.N.; TARAYAN, V.M.; SHAF..PNIK.VA, G.N. VARTANYAN, .A..
     TOS'NYAN, A.C.; MESROPYAN, L.G.; K'ROYAN, .A.

     Letters to the editors. Izv. AN Arm..S.R. ? im. n8.': .
     no.2:2.-.28 '65.

     1. Yerevanskiy gosudarstvennyy universit'.t kafedra ...
     ticheskoy khimi: (for Ovsepyan, Tarayan, S.ap.shn.: va .
     2. Institut organicheskoy khimi: AN Arm.S.R (for Vartanyan,
     Tosunyan, Mesropyan, kuroyan .

SO... ....

Translation from   Referativnyy zhurnal. Metallurgiya, 195?, Nr   .. USSR

AUTHORS.   Stroyev, A S., Ivanov, A M., Ovsepyan, Ye S

TITLE   Electric-arc Smelting of Molybdenum in a Vacuum
            (Dugovaya plavka molibdena v vakuume)

PERIODICAL   V sb   Primeneniye vakuuma v metallurgii   Moscow   AN SSSR
            1958, pp 62-65

ABSTRACT   The raw material is industrial sintered Mo in .5x.5 mm rods
           the process of smelting under vacuum of the order of . mm Hg,
           Mo, Zr, Ti, and C are deoxidized   Nonporous ingots without flaws
           in the central zone, are obtained   Owing to the relatively fine grain
           structure and the sharpness of boundaries such ingots can be de
           formed by any method, including free forging, so long as a suitable
           heating and a proper degree of mechanical reduction are observed
           The deformed Mo exhibits satisfactory characteristics of ductility
           at room temperature

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Use of Vacuum in Metallurgy (Cont.)   533

recommendations for expanding the use of vacuum metallurgy in the USSR. The
conference took place in 1956. For references and further coverage, see
Table of Contents.

TABLE OF CONTENTS:

The author begins by discussing the important advantages of
the vacuum-melting of steel. Chief among these are (1)
assurance of a minimum content of oxygen, nitrogen, and
hydrogen, as well as of nonmetallic inclusions; (2) the possi-
bility of deoxidizing the steel by carbon alone, with consequent
absence of oxide inclusions; (3) protection against reoxidation
during teeming. Turning to problems, Samarin states, first of
all, that Soviet induction vacuum-melting furnaces are of
unsatisfactory design, and that Soviet metallurgists should
carefully study foreign furnaces of more advanced design.
Another important task is the investigation of refractory
materials suitable for the construction of vacuum-furnace
crucibles. Further, the problem of controlling the temperature
and composition of molten metal during the melting process
must be solved. Though there has been considerable expansion
of vacuum melting in the USSR in recent years, Samarin states

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Use of Vacuum in Metallurgy   (Cont.)   '33

that annual outputs of tens or hundreds of thousands of tons of vacuum-
melted steel cannot be expected as yet because of the cost and complexi·y
of new equipment and the very high consumption of electric power. A
suggested partial solution is to subject ordinary liquid steel (not
·?·mum-melted) to vacuum treatment to eliminate the gases. For this pur-
. ·e, the steel may be treated either in the ladle or during the pouring
· the ingots. These procedures have been industrially tested with good
·esults. There are 9 references of which 7 are Soviet, 1 English, and
1 German.

I. VACUUM MELTING OF STEEL AND ALLOYS

Garryk, G.A. and Samarin, A.M. Vacuum Melting of Transformer Steel   ·.
   The authors have established the following facts: 1. In vacuum-
   melted transformer steel, power losses are 15-20 percent lower than
   in ordinary transformer steel, and magnetic permeability and plastic-
   ity are greater. 2. Use of the vacuum technique makes it possible
   to organize the production of cold-rolled transformer steel with a
   high silicon content. 3. The electromagnetic properties of vacuum-
   melted transformer steel are superior because of a low content of
   harmful impurities like carbon, oxygen, and sulfur. 4. The vacuum
   method increases the deoxidizing capacity of carbon by about 100
Card 3/1·

Use of Vacuum in Metallurgy   (Cont.)   533

times, resulting in a steel very low in carbon and oxygen. 5.
5. Lengthening the period during which the liquid metal is
kept under vacuum after ferrosilicon has been added is conducive
to very low sulfur content.

Belyakov, R.S. Effect of the Melting Method on the Properties of
Stainless Steel   5
   Author's conclusions: 1. Chrome-nickel stainless steel which is
   not subject to intergranular corrosion can be made in an induction
   vacuum-melting furnace with a residual pressure of up to 20 mm. of
   mercury, without the addition of stabilizing elements and without
   the loss of much chrome from the stainless-steel scrap additions
   in the charge. 2. Steel with a carbon content not exceeding 0.02
   percent can be made by keeping the molten metal under vacuum for
   30-40 minutes. 3. Vacuum-melted chrome-nickel stainless steel is
   more resistant to attack by boiling nitric acid [than non-vacuum-
   melted] because of low carbon content and total absence of
   titanium. There are 11 Soviet references.

Card 4/6

Use of Vacuum in Metallurgy   (Cont.)   533

Kamenetskaya, D.S. Some Theoretical Questions of Vacuum Metallurgy   4.
    Author's conclusions: 1. In the vacuum melting of metals and
    alloys, there must exist over the metal a pressure somewhat exceeding
    the vapor pressure of the metal at the triple point. At a lower
    pressure, the metal volatilizes. When the vapor pressure of the
    metal is less than 0.01 mm. of mercury, the [required] pressure is
    created by the vapors themselves; at higher vapor pressures—0.1 mm.
    and above—it is necessary to increase the external pressure, e.g.,
    by the use of an inert gas. 2. The degree of vacuum, or purity of
    gas, necessary for degasifying the metal and for minimum reaction
    with the gases remaining in the furnace depends on the vapor pressure
    of the metal: the lower the vapor pressure, the higher the vacuum,
    or the purer the inert gas, must be. The vapors over the metal,
    provided their pressure is high enough (0.01 mm. and above) form a
    protective envelope, which plays an important part in the melting of
    the metal if the vapors react with the gas. 3. In selecting materials
    for crucibles, protective covers for thermocouples, stoppers, graphite
    parts, etc., it is necessary to take into consideration the vapor and
    dissociation pressures of these materials, and also their possible
    reactions with the metal and with each other, accompanied by the liber-
    ation of volatile matter. 4. It is most advisable to conduct the
Card 5 '16

Use of Vacuum in Metallurgy   (Cont.)   533

vacuum refining of metal with the aid of substances like carbon and
hydrogen, which form volatile compounds with certain addition agents.
There are 6 references, of which 4 are Soviet, 1 is English and 1
German.

Yemyashev, A.V. Some Notes on the Technology of the Vacuum Melting of
Metals and Alloys (Experience Gained in the Operation of a Vacuum Furnace for
Refractory Metals)
    The article is divided into the following sections: Brief description of
    the OKB-264A furnace; Operation of the furnace; Temperature measurement;
    Taking metal samples during the melting period; Method of preventing
    hanging of the charge. There is one English reference.

Stroyev, A.S., Ivanov, A.M. and Ovsepyan, Ye.S. Vacuum Melting of Molyb-
denum in an Electric Arc Furnace
    Authors' conclusions: 1. High-vacuum melting of molybdenum in an
    electric arc furnace is feasible and yields metal of high purity.
    2. Ingots of molybdenum melted in a vacuum of the order of 0.003 mm.
    of mercury and with proper deoxidation are free of defects in the
    central zone, regardless of the speed of cooling after melting.

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Use of Vacuum in Metallurgy (cont.)

3. These ingots, thanks to a rather fine-grained structure and distinctness of grain boundaries, can be plastically deformed by any method, including smith forging, provided correct regimes of heating and degree of compression are observed.   4. Plastically deformed molybdenum exhibits satisfactory plasticity characteristisc at room temperature.

VARDANYAN, V., kand.tekhn.nauk; CVSEPIAN, Zh., inzh.

Noise prevention in asynchronous motors of the third size. Prom.
Arm. 6 no.12:37-39 D '63.   MIRA

15-1957-3-3159D

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,
                   p 105 (USSR)

AUTHOR: Ovsepyan, Zh. N.

TITLE: Determination of Aluminum in Silicates (Opredeleniye
             alyuminiya v silikatakh)

ABSTRACT: Bibliographic entry of the author's dissertation for the
             degree of Candidate of Chemical Science, presented to the
             Yerevansk. un-t, (Yerevan University), Yerevan, 1956.

ASSOCIATION: Yerevansk. un-t (Yerevan University), Yerevan

Card 1/1

OVSEYCHIK, N.K. [Ovseichyk, N.K.]

Function of the large intestine in sheep. Pratsi Od. un zbir. τ(..
vchen. un. 148 no.3:223-236 '58   (MIRA 13:3)

1. Nauchnyy rukovoditel' - prof. R.Y. Faytel'berg.
    (Sheep--Physiology) (Intestines)

USSR/Human and Animal Physiology. Digestion. The Intestines.   T-7

Abs Jour: Ref Zhur-Biol , No 12, 1958, 55773.

Author : Ovseychik, N.K
Inst   : University of Odessa
Title   : Some Functions of the Large Intestine in Sheep.

Orig Pub: Nauchn yezhegodnik. Odessk. un-t, 1956, Odessa,
          1957, 234-235

Abstract: Regular (3-4 waves during a 10 minute period) peristaltic
          waves, irrespective of food content, with an amplitude
          of 1-7.5 cm, and a contraction time of 70-90 seconds
          duration, as well as tonic waves with a small amplitude
          were registered in sheep (one sheep with a severed colon
          section between the two external anastomoses, and an-
          other sheep with a severed section according to the
          Tiry method). Chyme fermentation of the large intestine

Card   : 1/2

PHASE I BOOK EXPLOITATION

Vesogrunoye soveshchaniye po fizike, fiziko-khimicheskie svoystva
ferritov i fizicheskie osnovam ikh primeneniy

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

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

Editorial Board: Resp. Ed.: N. N. Sirota, Academician of the
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skiy, Professor; L. R. Polivanov, Professor; R. V. Telesnin, Pro
fessor; O. A. Smolensky, Professor; N. N. Sholin, Candidate of
Physical and Mathematical Sciences, E. M. Smolyarevski and
L. A. Bashkirov; Ed. of Publishing House: S. Kholjarevsky, Tech
Ed.; I. Volozhanovich

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 physi
cochemical analysis of ferrites, studies of ferrites having
rectangular hysteresis loops and multicomponent ferrite systems
exhibiting spontaneous rectangularity, problems in magnetic
struction, 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 Ma
netism, AS USSR (S. V. Vonsovskiy, Chairman) organized the con
ference. References accompany individual articles

Amisov, B. S. Theory of the Rectangular Hysteresis Loop

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

Vlasov, A. Ya., and B. Kh. Innovation. Rotation of the
Polarization Plane of Elastic Wave in Magnetically Polarized
Magnetoelastic Media

Syrkin, L. N. Discussion of the (Preceding) Report

Sirota, N. N. and ... and N. N. Technological
Some Peculiarities of Growing Magnetic Characteristics of
Ferrites at Curie Point

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

Belov, K. P., V. I. Sokolov, A. V. Zalessky, and A. A. Fedorov
Magnetic and 3d Properties of Manganese Magnesium Ferrite
Single Crystals

Titova, A. G. Growing Ferrite Single Crystals with
Structure of the Spinel Type

Card 1/13

SIROVA, N.N.; VARIKASH, V.M.; OVSFYCHUK, E.A.

Intensity variation of Bragg's reflexes at the Curie point in
triglycine selenate. Dokl. AN BSSR 8 no.4:220-222 Ap '64.
(MIRA 17:6)

1. Institut fiziki tverdogo tela i poluprovodnikov AN BSSR.

ACCESSION NR: AP4030640   8/0048/64/028/004/0666/0668

AUTHOR: Sirota, N.N.; Varikash, V.M.; Ovseychuk, E.A.

TITLE: Changes in the intensity of x-ray scattering by triglycine sulfate at the
Curie point /Report, Symposium on Ferromagnetism and Ferroelectricity held in Le---
grad 30 May to 5 June 1963/

SOURCE: AN SSSR. Izv. Ser.fiz., v.28, no.4, 1964, 666-668

TOPIC TAGS: Triglycine sulfate, triglycine sulfate Curie point anisotropy, trigly-
cine sulfate x-ray reflection

ABSTRACT. The intensity of a number of x-ray reflections from triple ... sulfate
was measured at temperatures from 0° to ... Copper III radiation was employed. Af-
ter it was ground to a powder, the sample was annealed for 24 hours a: 7 °C. The
temperature was held constant to within 10.3°C during measurement. The intensity of
the reflections was determined from the number of counts recorded by a mechanical
counter during the exposure, and also from the area under the curve traced by a re-
cording galvanometer. The intensity of some reflections (including 24) and (3...
decreased monotonically with increasing temperature over the full range investigated.

Card 1/2

ACCESSION NR: AP4030640

As regards these reflections, the Curie point was marked only by an increase in the scatter of the experimental points. The intensity of other reflections (for example (040) and (031)) reached a pronounced maximum at the Curie point. The different behavior of the different lines is ascribed to effects of crystal structure, and particularly to those of the system of hydrogen bonds. The behavior of the x-ray reflections indicates that the atomic vibrations are strongly anisotropic at the Curie point. This agrees with earlier findings based on measurements of the linear expansion coefficients and the elastic moduli (N.N.Sirota and V.M.Varikash, Sb.Kristallizatsiya i fazovy*ye perekhody*,p.430,Izd.AN BSSR,Minsk,1962; N.N.Sirota, V.M.Varikash and N.P.Telchanovich,Ibid.,p.435; Z.I.Yezhkova, G.S.Zhdanov and M.M.Umanskiy, Kristallografiya,4,1959).   Orig.art.has: 2 figures.

ASSOCIATION: none

SUBMITTED: 00

SUB CODE: GP

DATE ACQ: 30Apr64

NR REF SOV: 006

ENCL: 00

OTHER: 006

Card 2/2

ACC NR: AP6036760   SOURCE CODF: UR/0020/66/171/001/0088/0090

AUTHOR: Sirota, N. N.;(Academician AN BSSR); Ovseychuk, E. A.; Stribuk, Ye. K.

ORG: Institute of the Physics of Solids and Semiconductors, Academy of Sciences
BSSR (Institut fiziki tverdogo tela i poluprovodnikov, Akademiya nauk BSSR)

TITLE: The effect of deformation on the superconductivity characteristics of niobium
and vanadium

SOURCE: AN SSSR. Doklady, v. 171, no. 1, 1966, 88-90

TOPIC TAGS: superconductors, superconducting characteristics, niobium, vanadium,
niobium superconducting characteristics, vanadium superconducting characteristics

ABSTRACT: Niobium and vanadium specimens (3 x 17 x 0.6 mm), annealed at 1100C for
6 hr and furnace cooled, were cold rolled with 23, 29, 43, 52, 74 and 92% reduction
(vanadium) or 38, 57, 70 and 78% reduction. (niobium). It was found that the
electrical conductivity and critical magnetic field increase linearly with increased
reduction in rolling. For example, the intensity of the critical magnetic field at
4.2K, 1050 oer for annealed vanadium and 5000 oer for annealed niobium, increased
to 1320 oer for vanadium rolled with 52% reduction and to 6300 oer for niobium
rolled with 57% reduction. The critical temperature of transition to the super-
conducting state was not affected by deformation. It was concluded that the critical
current density and critical magnetic field can be substantially increased by cold

Card 1/2   UDC: 536.483

L. 00078-67   ...(m)/...(w)/ ...(v)/... (t)/.../...(n)   ...(c)   .../...

ACC NR: AP6025004   (N)   SOURCE CODE: UR/0122/66/000/007/0052/0055

AUTHORS: Fedorov, N. M. (Engineer); Ovsoyonko, A. N. (Engineer)

ORG: none

TITLE: Influence of residual stresses in the stock on the warping of turbine blades during the manufacturing process

SOURCE: Vestnik mashinostroyeniya, no. 7, 1966, 52-55

TOPIC TAGS: turbine blade, metallurgic research, metal deformation, steel, metal stress / 1Khl7N2 steel

ABSTRACT: The influence of residual stresses in the stock of steel 1Khl7N2 on the warping of turbine blades produced from the latter material was investigated at TsNIITMASH. The effect of three different treatments of the stock on the residual stress was studied: a) quenching from 1030C in clamp and annealing at 550C, followed by cooling in air; b) free quenching from 1020C, annealing at 570C in clamp, followed by cooling in air, and c) quenching from 1020C in clamp and annealing at 560C in clamp followed by cooling in furnace. The experimental results are shown graphically (see Fig. 1). It was found that thermal treatment of stock does not insure complete removal of stresses in the latter. The most effective method for residual stress

Card 1/2   UDC: 62-226.2:539.319
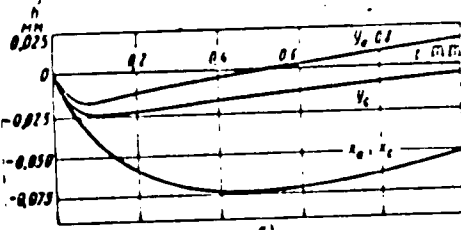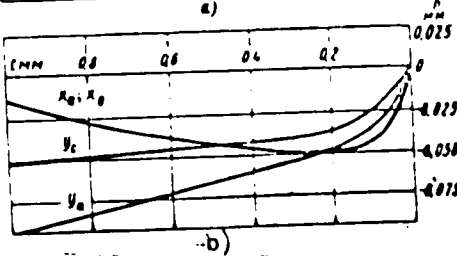
L 09078-67

ACC NR: AP6025084

Fig. 1. Dependence of the
deformation h of rolled stock
treated according to third
method, on the thickness
of the removed layer t for:
a - trough; b - back of
blade (etching order:
blade--trough)

removal was that of method (c), see above. Orig. art. has: 4 graphs and 2 equations.

SUB CODE: 13/   SUBM DATE: none
        10/
                      /t
turbine blade material

Card 2/2

ACC NR: AP7004767   SOURCE CODE: UR/0413/67/000/001/0081/0081

INVENTOR: Fedorov, N. M.; Ovseyenko, A. N.

ORG: None

TITLE: An installation for determining permanent deformations. Class 42, No. 190045
[announced by the Central Scientific Research Institute of Technology and Machine
Building (Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i
mashinostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 81

TOPIC TAGS: material deformation, electroerosion machining, turbine blade

ABSTRACT: This Author's Certificate introduces an installation for determining per-
manent deformations due to the use of electrochemical methods for removing surface
metal. The unit contains an electrohydraulic chamber, a measurement device and a
fastener for holding the part and placing it in the chamber. Profiled components
such as turbine blades are studied by making this fastener in the form of guides
mounted outside the chamber with a sliding carriage holding a rotating sleeve to which —
the component is fastened.

Card 1/2   UDC: 620.172.216

ACC NR: AP7004767
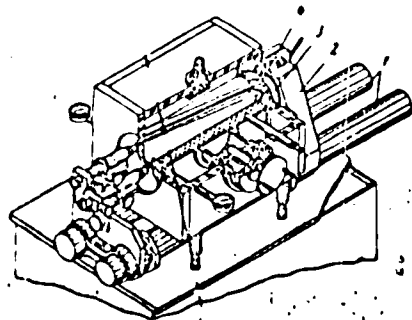
1--guides; 2--carriage; 3--sleeve; 4--component

SUB CODE: *11, 10* SUBM DATE: 09Oct65

Card 2/2

ACC NR: AP7005388   (N)   SOURCE CODE: UR/0114/67/000/001/0028/003

AUTHOR: Ovseyenko, A. N. (Engineer), Fedorov, N. M. (Engineer)

ORG: none

TITLE: Reducing the warpage of large turbine blades during their cold working

SOURCE: Energomashinostroyeniye, no. 1, 1967, 28-31

TOPIC TAGS: steam turbine, turbine blade, metal machining, metal deformation / 2Kh13
steel, PVK-200 steam turbine

ABSTRACT: The blade shop of the Leningrad Metalworking Plant carried out a comprehen-
sive study of the deformations involved in the processes of production of turbine blades,
starting with examination and processing of the billet and ending with finishing operations.
The blades used in this research were of 2Kh13 steel and belonged in the last (27th) low-pres-
sure stage of the PVK-200 steam turbine, the length of their working part was 770 mm., their
mean width was 100 mm and their angle of twist, 67°. Deformations at various points on the
blade were measured with the aid of a composite template, separately during every principal
machining operation (planing of the concave front, milling of the convex back, grinding and

_Card 1/2   UDC: 62-226.2:620.191.38.002

L 4867-66   EWT(m)/EPF(c)/ETC(m)   WW/DJ

ACC NR. AP5026825   SOURCE CODE: UR/0286/65/000/017/0104/0104

INVENTOR: Kragel'skiy, I. V.; Silin, A. A.; Ovseyenko, O. R.

ORG: none

TITLE: Device for dry lubrication of the rubbing surface of a slider bearing.
Class 47, No. 174477

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 104

TOPIC TAGS: solid lubricated bearing, lubrication equipment, solid lubricant,
slider bearing

ABSTRACT: An Author Certificate has been issued for a device for dry lubrication of
the rubbing surface of a slider bearing. To simplify the design and improve operating
conditions, lubricating inserts are placed in recesses in the shaft journal and are
pressed against the rubbing surface by centrifugal force. To improve the lubrication,
the lubricating inserts are weighted with a high density material.   [8M]

SUB CODE: FP, M/SUBM DATE: 17Jan64/ ATD PRESS: 4/36

Card 1/1   UDC: 621.822.5-72

L 4932-66   EWT(m)/EWP(w)/EPF(c)/EWA(d)/EWP(j)/T/EWP(t)/EWP(s)/EWP(b)/ETC(m)

ACC NR: AT5022684   MJW/JD/HW/DJ/GS/RM   SOURCE CODE: UR/0000/65/000/000/0307/0311

AUTHORS: Silin, A. A.; Ovsyenko, G. R.

ORG: Scientific Committee on Friction and Lubrication, AN SSSR (Nauchnyy sovet po treniyu i smazkam AN SSSR)

TITLE: Use of "rotaprint" in dry friction bearings

SOURCE: AN SSSR. Nauchnyy sovet po treniyu i smazkam. Teoriya treniya i iznosa (Theory of friction and wear). Moscow, Izd-vo Nauka, 1965, 307-311

TOPIC TAGS: solid lubrication, dry friction, sleeve bearing, molybdenum disulfide/ teflon

ABSTRACT: The "rotaprint" method of lubricating dry friction bearings (suggested at IMASh) is described, and some preliminary experimental results are presented. The method consists of using inserts of MoS_2 or teflon-based materials to lubricate friction surfaces. The inserts carry no load and are worn away during the lubricating process. Thus, bearings can be lubricated by spring-loaded inserts (sleeve bearings) or by solid lubricant separating rings (ball bearings), gears

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L 4932-66
ACC NR: AT5022684   /

can be lubricated by idler gears/made of lubricants, etc. Some preliminary tests
of sleeve bearings (steel 2Kh13 outer sleeve, bronze for inner sleeve fixed to
shaft) lubricated by three MoS_2 or teflon inserts (120° apart) were conducted in a
special friction machine over a temperature range of -100 to 40C. The results are
shown in Fig. 1. Control experiments with unlubricated bearings show binding after
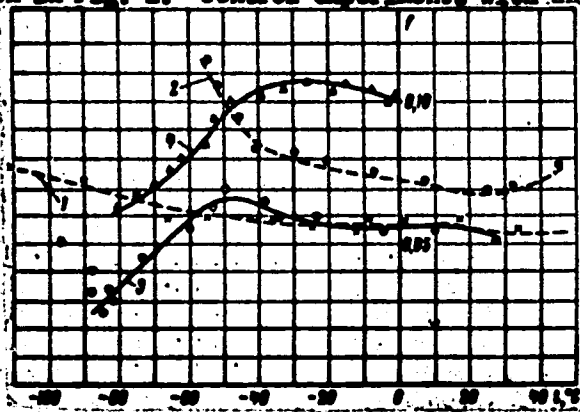

Fig. 1. Friction coefficient
vs. temperature for teflon
and MoS_2 based inserts:

1- MoS_2, 0.73 kg/cm^2;
2- MoS_2, 1.4; 3- teflon,
0.73; 4- teflon, 1.42
kg/cm^2

Card 2/3

L 4932-66

ACC NR: AP5022684   ○

3-4 minutes (0.75 kg/cm^2, 6000 rpm). The wear at constant conditions (0.75 kg/cm^2, 6000 rpm, 20C) was also measured over a period of 10-20 hours. It was found that MoS$_2$ and teflon-based inserts were worn at a rate of 0.19 and 11.0 μ/km respectively (0.53 and 0.25 kg/cm^2 load on inserts) while the bearing surfaces remained essentially unworn. The preliminary experiments were very encouraging and showed that lightly loaded solid lubricant inserts can substantially increase dry friction bearing life. Orig. art. has: 2 figures and 1 table.

SUB CODE: IE, ME/   SUBM DATE: 18May65

Card 3/3

OVSEYENKO, V., agronom po zashchite rasteniy (Kalushskiy rayon, Ivano
Frankovskcy oblast'

Predators of the Colorado beetle. Zashch. rast. ot vred. i bol.
10 no.1:46 '65.   (MIRA 18:?)

MEN'CHUKOV, Aleksandr Yevgen'yevich, inzh.; VSEYENKO, Vladimir
    Vladimirovich, inzh.; TNIK, Nikolay Petrovich, inzh.;
    ANASTASIYEV, P.I., red.; FROLOV, Yu.A., red.; LARION V,
    G.Ye., tekhn. red.

    [Preliminary planning of electric power transmission-line
    routes] Predvaritel'nye izyskaniia trass linii elektrope-
    redachi. Moskva, Gosenergoizdat, 19. 3. 222 p.
                                          (MIRA .:.1)
            E.ectric .ines---errend'

OYSEIENKO, V.V., inzh.

Standardization of wooden poles for 35 kv., 110kv., and 220 kv.
overhead power transmission lines. Elek.sta. 34 no.2:73-78 F '63.
                                                        (MIRA 16:4)
                    (Electric lines--Poles and towers)

MOLDAVSKAYA, Ya.A., inzh; OVSEYENKO, V.V., inzh

Exploring a region of karst holes for the construction of a 220 kv.
electric power line. Elek.sta. 29 no.9:55-58 S '59.
          (Electric power distribution--High tension) (MIRA 11:11)

OVSEYENKO, V. V.

USSR/Electricity - Transmission, Power   Jan 52
Poles

"Some Problems in the Design of Four-Wire Transmission Lines," V. V. Ovseyenko, Engr, "Teploelektroproyekt"

"Elektrichestvo" No 1, pp 30-34

Considers the following problems. : distances between wires of a 4-wire of the poles of a 35-kv 3-phase li wire line, and new types of poles a line. Gives approx cost of a 4-wi 2 types of poles. Submitted 8 Ser

_01T

OVSEYENKO, V. V.

PA 161T94

USSR/Metallurgy - Furnaces, Steel   Mar 50
                    Smelting
                Regulators, Electrode Feed

"On the Problem of Selecting Electrode Feed
Regulators for Steel Smelting Furnaces," V. V.
Ovseyenko, $1\frac{1}{2}$ pp

"Prom Energet" No 3

Describes regulator invented by Soviet Engr
G. A. Lukashenko. Claims it is simpler and
less cumbersome than amplidyne regulator re-
cently tested by Cen Automatics Lab, Min of
Metallurgical Ind.

FDD   161T94

CVETKOVIC, A. M., ???.

Electric ???s

Using ???
19??.

9. Monthly List of Russian Accessions. Library of Congress. ??? ??? ??? ???

OVSEYENKO, Yu. G.   (Nov cherkassk)

"On the Motion of a Viscous Fluid Filling the Gap Between Two rotating Spheres."

report presented at the First All-Union Congress on Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb 1960.

L 17243-63   BDS/EWT(1)/EPA(b)---AFFTC/ASD--Pd-4

AUTHOR: Ovsyenko, Yu. O. (Novocherkassk)

56

TITLE: Motion of a viscous fluid between two rotating spheres

TOPIC TAGS: hydrodynamics, differential equation, viscous flow, Navier-Stokes equation, Reynolds number

ABSTRACT: The author considers the steady-state motion of an incompressible viscous fluid between two concentric spheres turning about one axis with constant angular velocities. Assuming the motion of the fluid to be axisymmetric, he writes its equation in spherical coordinates in dimensionless variables. This problem reduces to solving a system of two nonlinear partial differential equations

$$\frac{\partial^2 u}{\partial x^2} + \frac{1-\tau^2}{x^2}\frac{\partial^2 u}{\partial \tau^2} + \frac{2}{x}\frac{\partial u}{\partial x} - \frac{2\tau}{x^2}\frac{\partial u}{\partial \tau} - \frac{u}{x^2(1-\tau^2)} =$$
$$= \mathrm{Re}\left[\frac{1}{x^2}\frac{D(\theta; u)}{D(x; \tau)} - \frac{u}{2x^2(1-\tau^2)}\frac{D[x^2(1-\tau^2);\theta]}{D(x,\tau)}\right]; \quad (1)$$

where

$$L = \frac{\partial^2}{\partial x^2} + \frac{1-\tau^2}{x^2}\frac{\partial^2}{\partial \tau^2}, \quad \frac{D(\psi;\eta)}{D(x;\tau)} = \frac{\partial \psi}{\partial x}\frac{\partial \eta}{\partial \tau} - \frac{\partial \psi}{\partial \tau}\frac{\partial \eta}{\partial x}, \quad \tau = \cos\theta,$$

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ACCESSION NR: AP3005615

$$LL\Phi = Re\left[\frac{1}{\lambda^0}\frac{D(\Phi; L\Phi)}{D(x; \tau)} + \frac{L\Phi}{x^2(1-\tau^2)}\frac{D[x^2(1-\tau^2); \Phi]}{D(x; \tau)} + \right.$$

$$\left. + \frac{u}{x^2}\frac{D[x^2(1-\tau^2); u]}{D(x; \tau)}\right].$$

(2)

with boundary conditions (conditions of adhesion)

$$\left. \begin{array}{l} \text{for} \quad x = 1 \quad u = \sqrt{1-\tau^2}, \quad \frac{\partial\Phi}{\partial\tau} = 0, \quad \frac{\partial\Phi}{\partial x} = 0; \\ \text{for} \quad x = \frac{r_1}{r_1} = a \quad u = \frac{r_1}{u_1}a\sqrt{1-\tau^2}, \quad \frac{\partial\Phi}{\partial\tau} = 0, \quad \frac{\partial\Phi}{\partial x} = 0. \end{array} \right\}$$

(3)

The author seeks the solution of (1), (2) in the form of a series in positive powers of Reynolds numbers

Card 2/3

L 17243 63

ACCESSION NR: AP3005615

$$u(x; \tau) = \sum_{n=1} Re^{n-1} \sum_{k=1} u_{k,i}(x) P^i_{N-1}(\tau),\qquad (4)$$

$$\phi(x; \tau) = \sum_{n=1} Re^{n-1} \sum_{k=1} \Phi_{k,i}(x) \sqrt{1-\tau^2} P^i_N(\tau),\qquad (5)$$

This yields the desired solution for sufficiently small Reynolds numbers. Orig. art. has: 33 formulas.

ASSOCIATION: none

SUBMITTED: 13Nov59   DATE ACQ: 27Aug63   ENCL: 00

SUB CODE: MM, AI   NO REF SOV: 001   OTHER: 001

Card 3/3

OVSEYENKO, YU. G. (Novocherkassk)

"On the motion of a viscous fluid between two rotating ell solids"

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

OVS.YENKO, Yu.G.

Stationary rotation of a sphere in a viscous liquid. Trudy
109:51-60 '60.
        (Hydrodynamics)

NATALEVICH, V.K.; ABRAMOVICH, S.V., dots., otv. red.; SAVEL'YEV,
    G.I., st. prepodav., red.; OVSEYENKO, Yu.G., assist.,
    red.; POGREBTSOVA, L.V., red. izd-va; NAUMOVA, Yu.A.,
    tekhn. red.

[Course of lectures in the theory of functions of complex
variables] Kurs lektsii po teorii funktsii kompleksnogo
peremennogo. Novocherkassk, Redaktsionno-izdatel'skii ot-
del NPI, 1962. 189 p.   (MIRA 16:5)

1. Novocherkassk. Politekhnicheskiy institut. Kafedra vys-
shey matematiki. 2. Novocherkasskiy politekhnicheskiy
institut (for Natalevich).
        (Functions of complex variables)

24-7 300

S/044/61/000, 010, 007, 004
C111/C222

AUTHOR: _Ovseyenko, Yu.G.

TITLE: On the stationary rotation of a sphere in a tenacious fluid

PERIODICAL: Referativnyy zhurnal. Matematika, no. 10, 1961, 54,
            abstract 10 B 247. ("Tr. Novocherk. politekhn. in-ta", 040
                                   109, 51-60)

TEXT: The author investigates the axialsymmetric motion of an infinite
tenacious incompressible fluid caused by a sphere of the radius a which
rotates with a constant angular velocity ω . The author seeks a
solution independent of φ of the Navier - Stokes equations in the
spherical coordinates r, θ, φ with a series arrangement in terms of
powers of the Reynold's number

$$Re = \frac{a^2 \omega}{\nu}$$ and the sin θ . The

convergence of the successive approximations is proved ; the flow pattern
is considered in the first approximation.

[Abstracter's note : Complete translation.]

Card 1/1

OVSEYEVICH, I.A.

Transient processes in line systems with monotonically increasing
time characteristics. Sbor.nauch.rab. po prov. sviazi no.2:71-104 '53.
(MLRA 7:5)

(Electric lines) (Mathematical physics)

CVSEYEVICH, I. A

"Investigations of the Transient Processes in Linear Electrical Circuits by Methods of Approximation." Cand Tech Sci, Inst of Automatics and Telemechanics, Acad Sci USSR,   Dec 54. (VM, 20 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

So: Sum. No. 521,   Jun 55

PD-1449

USSR/Electricity

Card 1/1 : Pub. 41-3/17

Author : Ovseyevich, I. A. and Yaglom, A. M., Moscow

Title : Monotonic transient processes in homogeneous long lines

Periodical : Izv. AN SSSR, Otd. tekh. nauk 7, 13-20, Jul 1954

Abstract : Established canonical form of propagation constant of homogeneous long lines in which the constant component of voltage or current is transmitted without attenuation and time functions have a monotonically increasing character. Shows that attenuation and phase (the latter correct to linear component) of such a line must be power functions of frequency with index between zero and unity. The obtained results are used for study of time functions possible for homogeneous lines. Ten references.

Institution :

Submitted : May 15, 1954

Ovseyevich I. A.

AUTHORS: Ovseyevich, I.A., Pinsker, M.S., Ordinary Members of the Society

TITLE: The Evaluation of the Permeability of a Transmission Channel the
Parameters of which are Random Functions of Time (Otsenka pro-
pusknoy sposobnosti kanala svyazi, parametry kotorogo yavlyayut-
sya sluchaynymi funktsiyami vremeni)

ABSTRACT: The theory given here solves the problem of the evaluation
from below of the permeability of a channel without imposing
any essential restrictions on the properties of the channel or
on the static. Though the reasons for the change of channel pro-
perties as well as of their character can be different, their
influence on the signal transmitted can, in most cases, be uni-
formly regarded as modulation of a signal of a random function
of time. The scheme of a transmission channel with linear quadri-
pole which has parameters changing according to time, can be re-
placed by an equivalent scheme where the linear quadripole has
fixed parameters and the multiplier arranges modulation. The ne-
cessary definitions for the number of informations for the
transmission velocity of informations as well as for the per-

Card 1/2

AUTHORS: Ovseyevich, I.A.   Member of the Society
           Pinsker, M.S.   Member of the Society

TITLE: The Evaluation of the Transmissivity of Some Real Communicating
           Channels (Otsenka propusknoy sposobnosti nekotorykh real'nykh
           kanalov svyazi)

PERIODICAL: Radiotekhnika, 1958, Vol 13, Nr 4, pp 15-25 (USSR)

ABSTRACT: The results previously obtained (Ref 4) are used and the trans-
           missivity for the following cases is evaluated: 1.) For a real
           communication-channel with parameters fixed according to time
           ... equation (17). 2.) For a channel, the parameter modification
           of which according to time have the form of white noise ...
           equation (31). 3.) For a real channel, the "transfer factor"
           modifications according to time of which have the form of white
           noise ... equation (36). It is shown, on the strength of examples
           that the results obtained are generalizations of the well known
           cases of E.D.Sunde (Ref 1) and J. Feinstein (Ref 3). The last
           chapter deals with the calculation of the approximated value for
           the transmissivity of the channel. The solution of this problem

Card 1/2

The Evaluation of the Transmissivity of Some
Real Communicating Channels

is here given for a special case, namely a case in which the
parametric effect can be represented as a sequence of non-cor
related random quantities which are distributed according to the
normal law with a low degree of dispersion, whereas the noise in
the channel is a Gaussian noise. There are 5 references 3 of
which are Soviet.

SUBMITTED: June 10, 1957

AVAILABLE: Library of Congress

1. Communication systems—Applications   2. Channels—Trans-
mission   3. Noise   4. Transmission—Mathematical analysis

Card 2/2

AUThOrS: Ovseyevich, I.A., and Pinsker, M.S..

TITLE: The Channel Capacity of a Multi-Channel Communication System
(O propusknoy spcsobnosti mnegoputevoy sistemy
informatsii)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh
Nauk, Energetika i Avtomatika, 1959, Nr 1 pp 133-1   (USSR)

ABSTRACT: It is assumed that a signal $\xi(t)$ is a stationary
process and that it is transmitted by means of n
different linear channels   At the output of the i-th
channel the signal is in the form of:

$$\eta_i(t) = \Phi_i \xi(t) + \zeta_i(t) \qquad (1)$$

where Φ_i is a linear operator corresponding to the
transfer function $\varphi_i(\omega)$ of the i-th channel and $\zeta_i(t)$
is a stationary random process representing the noise
in the i-th channel. The noise and the signal are not
cross-correlated. The average rate of transmission of
the information contained in a L-dimensional vector
process $\eta(t)$ is given by Eq (2) (Ref 1 and c);

Card 1/3   here, $f(\omega)$ denotes the spectral and reciprocal spectral

The Channel Capacity of Multi-Channel Communication System

the terminating filters are expressed by Eq (10)
The authors thank A.A.Kharkevich for his interest in
this work and his advice. There are 4 Soviet
references one of which is translated from English.

SUBMITTED: 7th August 1956

Card 3/3

AUTHORS: Chugyevich, I. A., Pisarev, M. S. M.

TITLE: Optimum Linear Prediction and Correction for Signals Transmitted Via a Multiple-Path Route (Optmal'noye lineynoye predyskazheniye i korrektirovaniye signala peredannogo yego po mnogoputevoy sisteme)

ABSTRACT: The multiple paths may include entirely different transmission channels. The first section deals with systems optimal as regards the mean-square deviation when the signal is a stationary random function and linear filters are used. The signals are stationary and non-correlated with the signal. The correlation systems and their circuits are described. Their Eq. (1.1) values are computed in Eq. (1.5) is the correlation. Below the mean square results is given the Eqs. (1.5) and (1.6). Special cases of the general filtered solutions. The different system a condensed it gives the signal in

Card 1/4

Optimum Linear Pr......
Via a Multiple-Path R...

the j-th channel...
there is the.........
to all channels. E......
shown that this.....
single............
for its transfer.....
constant θ is defined by E.....
with the more general......
own predict......
to the same list......
linear mass...........
noise in the various channels. Then E.....
given at the feet of p... The minimum is.....
finding the least value.......
value of the sum in E. (.....)...
varied to find the ab.......
the same as for a simulation of system....
the form given in the........ appearing.....

Card 2/4

Optimum Linear Prediction and Corr... ...n ... r ... ...a... ...ans...
Via a Multiple-Path Route

Eq (1.14). In subsection ? the noise in the different
channels is assumed to be entirely independent. ...
special subcase, which is one not likely to occ... ...
practice, the condition at the top of p 5? will ... ...
filled. At this point the rigorous argument is ... ...
(on account of mathematical difficulties), ...t is
made to arguments such as that it is best t... ... ...
major signal frequencies in spectral regions where the
noise is minimal a three-path system is dealt with ...
general terms in this way (Fig ...). Subsection ... ...
with a two-path system, to which ma.y of the results ...
encountered in the general argument ... ... a ... ...
second section deals with a system that i ... ...ima... ...
regards signal-t... n... ... rat... . The tr...at...t ...
closely that used in standard tr...atments of signa... ...
noise ratio; the ...ff...t ... ... pr...di...ti... ... ...

Card 3/4

Optimum Linear Prediction and Correction for Signals Transmitted
Via a Multiple-Path Route

     units in the signal-to-noise ratio is in general different
     and each particular case must be considered with care.
     The paper contains 4 figures and 4 references of which 2
     are Soviet and 2 are English.

SUBMITTED: August 7, 1955.

Card 4/4

80955
S/024/60/000/03/018/028
E140/E463

6.9000

AUTHORS: Ovseyevich, I.A. and Pinsker, M.S. (Moscow)

TITLE: Predistorter and Correction in a Channel with Fading

PERIODICAL: Izvestiya Akademii nauk SSSR Otdeleniye tekhnicheskikh
            nauk Energetika i avtomatika 1960. Nr 3. pp 145-156 (USSR)

ABSTRACT: Previous studies of optimal linear predistortion and
            correction (Ref 1 to 5) have assumed fixed channel
            parameters. However, in short and medium waves long-
            distance UHF scatter propagation etc, the signal suffers
            from fading. Many channels of this type may be described
            as a simple single-ray channel with variable absorption.
            The fading frequency is very low compared with signal
            frequency. The random fading process is substituted by
            a random quantity with distribution coinciding with the
            one-dimensional distribution of real fading. Although
            this substitution causes a loss of ergodicity of the
            output signal, it is balanced by considering the random
            quantity representing the fading not as a simple random
            quantity but as an ergodic process. This model does not
            correspond to a general physical model of the channel
            although its results are valid even for more general

Card 1/3

80955
S/024/60/000/03/018/028
E140/E463

Predistorter and Correction in a Channel with Fading

channels. It is assumed that the fading distribution
is Rayleigh. which corresponds to physical models of
single-ray and multi-ray channels where the amplitudes
and delays are independent random quantities. Various
types of optimization are then considered.
Optimization for minimum mean-square deviation of
transmitted message from that received with fixed
predistortion and corrector. Linear coding of the
messages is assumed. The linear coding network is
termed redistorter. The output signal is decoded into
the output message by a linear circuit termed corrector.
For a given mean output signal power, the problem is to
find the predistorter and corrector which minimize the
mean-square deviation of the received message from the
transmitted one. Next optimization with a variable
corrector as in Price and Green (Ref 8) is considered
The corrector parameters are varied in accordance with
data on fading obtained during the course of operation.
A system with a feedback channel from the receiver to

Card 2/3   the transmitter is then considered where adjustment of

86879

6.9000 (also 1344)

AUTHORS: Vvsevevich, I. A.   Member   Society, Junskei W.
             Me   r f the Soc..ty

TITLE: The .nput of Channel With l... and Se...tive nati.a

PERIODICAL: Rai.. ....ka   .... V.. .. .. ..

TEXT: The authors ca....ate. the thr ughput of channels r the ases
strain and weak freq... ny irdej ndent fading The r.... may .
ger... zed t se.ect.ve fad. ar. t fed-back haur.. I. .tra.
prev...us publications, restr. . . . whi.te background is not ne essar.
The throughput 3 f a: rui... . .el with η t . a

. ,   .t. . . . t tente . ..g .t signal: a

con.t.. s hara.. ...ng lire..t and ..cirect waves. r   ....

         . B. . Tsybakov .a. .late. fr.m . .

         #Prop.sknaya Specobrost' carrying capacity

Card /4

86179

Throughput of Chan...   A...   ...d   S...
Selective Fading   R...

$$h^2(\omega, \vec{r}) = a_0 \exp(i\omega \tau_0) + \sum_{i=1}^{n} a_i \exp(i\omega \tau_i)$$

...distribution density... the vector $\vec{r}$ ... a_i ... ...
is the spectral background density; W...T is the bandwidth;

... of the quantity $h^2(\omega, \vec{r})$ ... $\frac{1}{\sigma^2} \exp\left(\frac{...a^2}{...}\right) I_0(...)$ ...

...zero order modified Bessel function of the first kind; ... the
intensity of the indirect signals, may, in the case of strong Rayleigh
...ding ... for ... be restricted to ...

$$p... = \frac{1}{\sqrt{2\pi\sigma}}\sqrt{\frac{...}{a_0}} \exp - \frac{(...-a_c)^2}{2\sigma^2} \quad \text{in the case of weak fading Gaussian}$$

Card 2, 4

86879

Throughput of Channels With Plain and
Selective Fading

S. [CH...]
[...], B[...]

fading) i.e. for $x > a^2$ Equation (4), $x^{-1} + xe^x E_1(-x) = f$.

$(x = f_{\xi\xi}(\omega)/\sigma^2 f_{\xi\xi}(\omega))$; $-E_1(-x) = \int_x^{\cdot\alpha} (e^{-z}/z\,dz$; and λ is an [...]
constant) which was given by B. J. Tsybakov, is s[olved] by [graphic...]
approximation according to I. A. Ovseyevich and M. S. Pinsker, in [order]
to determine the optimum spectral density, $f_{\xi\xi}(\omega)$, [...]

the case of strong fading. For the throughput, $C = -\sum_{i=1}^{m} F_i \cdot r_i$ [...]

obtained F_i denotes the bandwidth of the i th secti[on] and m the [number]
of sections into which the channel is divided. Because $f \ll a^2$ [...]
inner integral of [...] one may omit the $|v^2 - a_i|$ terms [...]
second [...]. After calculating the optimum $f_{\xi\xi}(\omega)$, in the [...]

$$\text{[...]} \quad \text{Thus } C = \frac{1}{2\pi} \iint \{\log \frac{\lambda a^{[...]}}{f_{\xi\xi}(\omega)} - 2a^{[...]} [\frac{\lambda(a^{[...]})}{\lambda a^2 (a^{[...]})} \text{[...]}$$

Card 3, 4

9, 879

Throughput of Channels with ____ and
Selective Fading

S ____
B____ B___

obtained ____ λ ____

formulas may be generalized to selective fading by substituting
a (3) ____ for a ____ In calculating ____
the optimum $f_{ff}(\omega)$ is chosen for a given ϑ because of the requirement for
optimum conformity of the spectral signal density to the ____
situation. This is in contrast to (2

$$C = \frac{1}{2\pi} \int_R p(\vartheta)d\vartheta \left\{ \sup_{f_{ff}(\omega)} \int_A \log\left[1 + \frac{\vartheta^2 f_{ff}(\omega)}{f_{ff}(\omega)}\right] d\omega \right\}$$

f the optimum $f_{ff}(\omega)$ is analogous to the case of non-fading channel.
The following relation results for optimum $f_{ff}(\omega)$:

$$C = \frac{1}{2\pi} \int_{\vartheta} p(\vartheta)d\vartheta \sum_1 \int_{W_1} \log \frac{\lambda_1 \vartheta^2}{f_{ff}(\omega)} \quad \lambda = \frac{P_f + P_f \vartheta^2}{W}$$ There are

and 4 references: 2 Soviet and 2 US
SUBMITTED: March 28, 1960
Card 4/4

27666

S/024/61/000/004/024/025

E140/E135

$16.6000 (1031, 1132, 1329)$

AUTHORS: Ovseyevich, I.A., and Pinsker, M.S.   (Moscow)

TITLE: The transmission capacity of a multi-path system

TEXT: The capacity of a system in which a single message is
transmitted over n paths is calculated on the basis of output
signal formation by a mechanism similar to that in multi-ray
transmission of radio waves.   For n = 1 the problem was
investigated in detail by B.S. Tsybakov (Ref.1: Radiotekhnika i
elektronika, 1959, Vol.IV, No.9). The fading in each channel is
assumed dependent on that in the other channels, while the
respective noises are independent. The rate of transmission of
information over a channel with random fading is equal to the rate
of transmission of information for a channel with fixed fading,
averaged for all possible values of fading. Assuming Rayleigh
fading and Gaussian input signal, an expression is found which can
be expressed in simple form only for white noise. The solution can
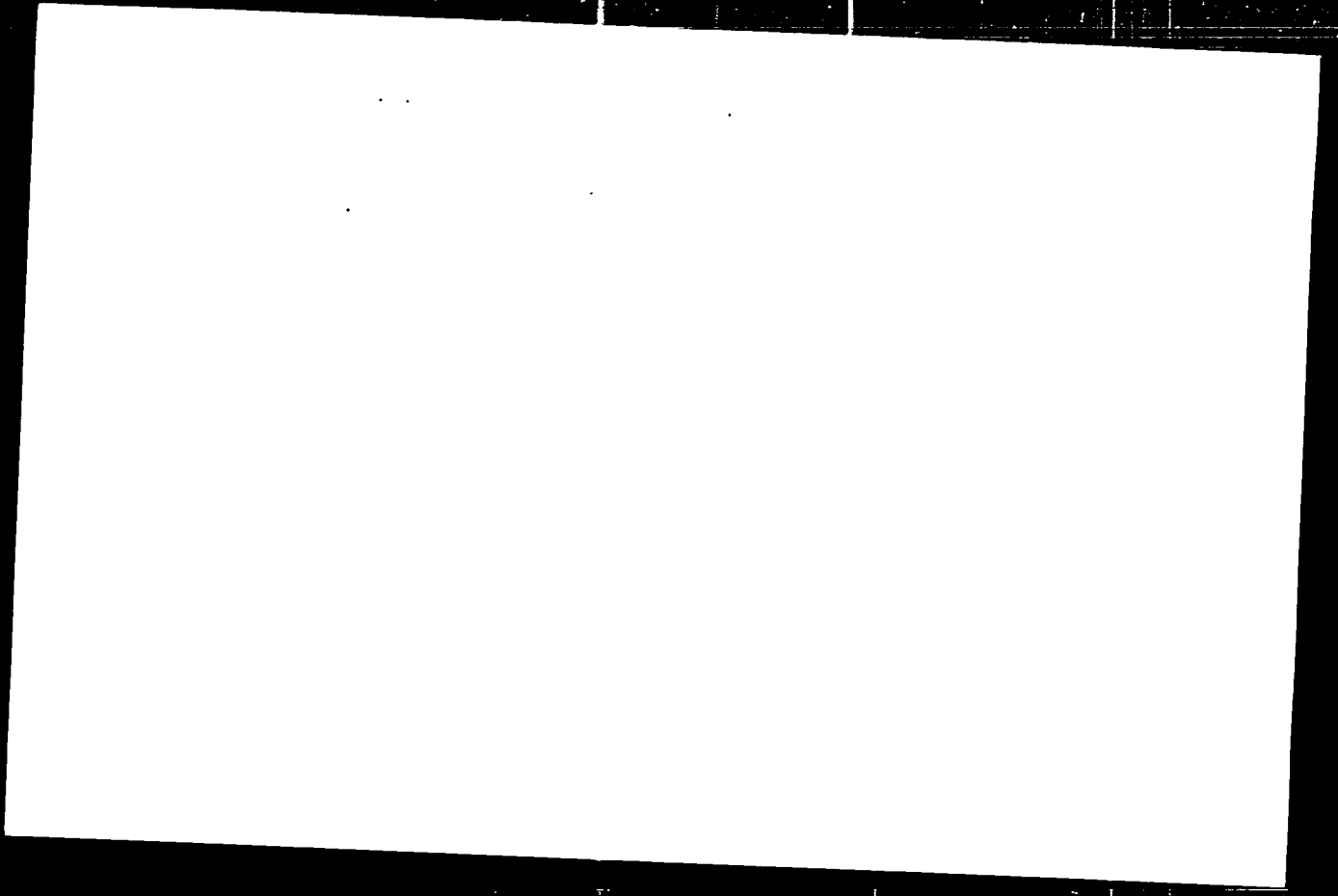be modified to express uncorrelated fading.

Card 1/2

OVSEYEVICH, I.A. (Moskva); PINSKER, M.S. (Moskva)

Optimum linear pre-emphasis and compensation. Izv. AN SSSR. Tekh.
kib. no.5:54-61 S-O '63.   (MIRA 16:12

OVSEYEVICH, I.A.

Carrying capacity of a multipath system. Probl. pered. inform.
no.14:43-58 '63.

(MIRA 17:1)

L 22307-66   EWT(d)/FSS-2
ACC NR: AP6005862

SOURCE CODE: UR/0406/65/001/003/0039/0047

AUTHOR: Ovseyevich, L A.

ORG: None

TITLE: The matching of a vector source with a vector channel by means of linear coding and transposition of spectra

SOURCE: Problemy peredachi imformatsii, v. 1, no. 3, 1965, 39-47

TOPIC TAGS: probability, communication coding, coding evaluation

ABSTRACT: The author describes a method for matching the vectors of the source and the channel with a piecewise-weighted mean-square criterion of reproduction probability. This method, which includes optimal linear coding (pre-distortion and correction) and optimal transposition of the frequency bands of the components of the vector communication, proves to be the best in the class of possible linear transformations. It provides a frequency-weighted mean-square deviation no greater than at any other linear methods of coding and transposition. A procedure is presented for finding the optimal characteristics of the coder and decoder with correlated components of the vectors of communication and noise and in the presence of linear distortions in the channel. Author thanks M. S.
Card 1/2

UDC: 621.391.18

L 22307-66

ACC NR: AP6005862

Pinsker and R. L. Dobrushin for valuable advice and comments. Orig. art. has: 22 formulas.

SUB CODE: 09, 17 / SUBM DATE: 11May65 / ORIG REF: 004

Card 2/2   set
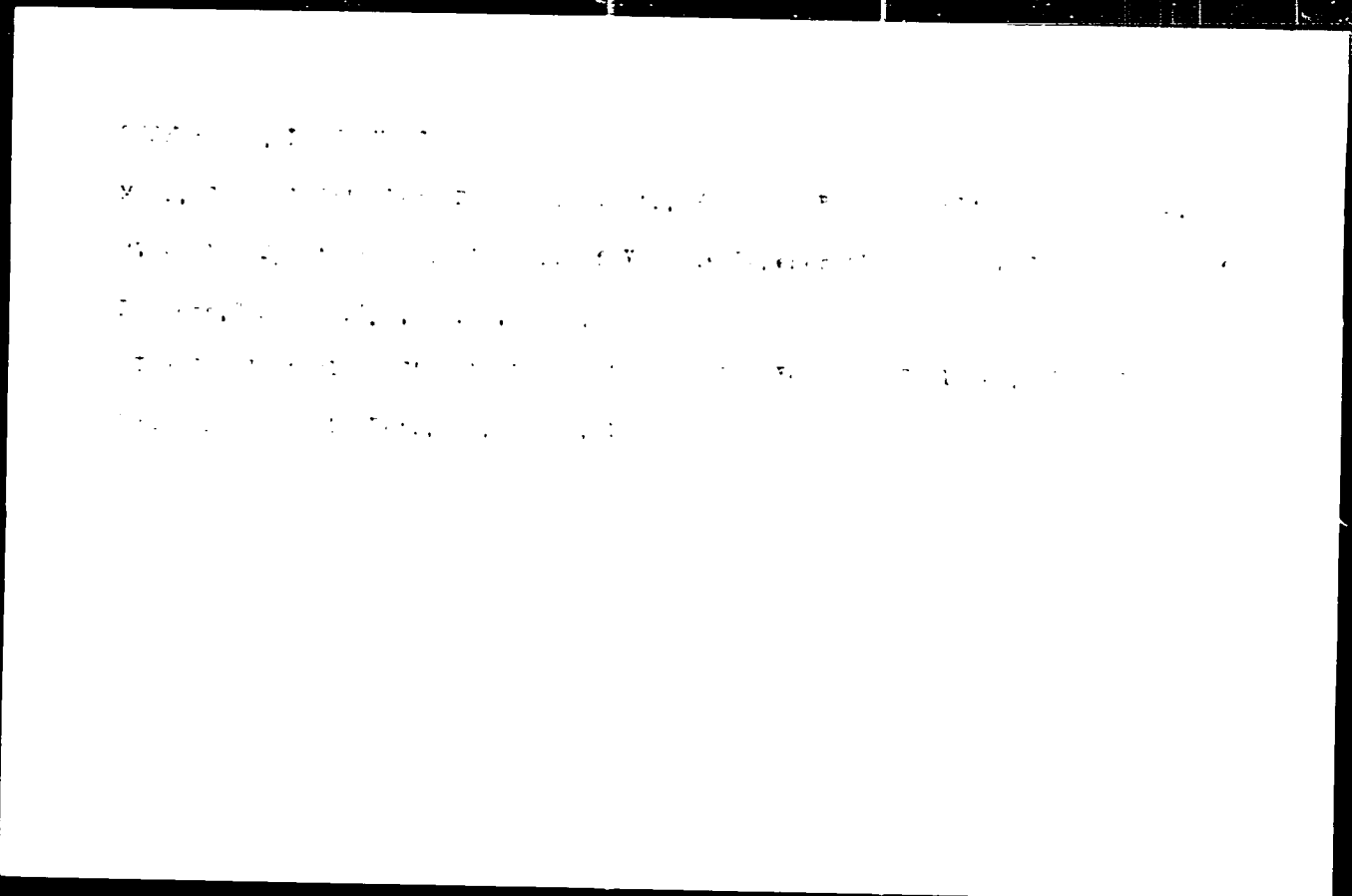
OVSHINNIKOV, A.M.

Prominent foci of underground water discharge on the Russian
Platform. Biul.MOIP.Otd.geol. 31 no.3:111-112 My-Je '56.
  (Water, Underground)   (MLRA 9:12)
  (Russian Platform--Artesian wells)

1970. **Insulation characteristics of power trans-
formers.** DUBININ, A. I. AND OVSIANNIKOVA, G. G.
Elektr. St., 19, 27 30 (Aug., 1948) *In Russian*
The measurements were carried through on a 1-ph
model transformer. They included the determina-
tion of the temperature dependence of the dielectric
losses, the insulation resistance, the capacitance,
and leakage currents. The temperature curves
of tan δ and of the leakage currents were found
to be linear when plotted on a a logarithmic
scale. The slope of the former decreases with in-
creasing moisture content of the windings. The
relation between the dielectric losses of the transformer
oil and of the transformer as a whole, as well as the
slope of the temperature curve is a criterion of the
insulation quality.   B. F. A.

AC

Complex formation completed with the distribution of ferric chloride between water and ether. N. V. Nekrasov and V. V. Ovsiankina (J. Gen. Chem. Russ., 1941, 11, 873—876).—When an aq. solution of FeCl₃ and HCl is extracted with Et₂O, the ratio Cl : Fe in the Et₂O is near 4 (3·95—4·10) when HCl is 5—6N. and FeCl₃ 1—4N. When [HCl] is < 1N., the ratio is less (e.g., 3·4—3·7 for pure FeCl₃), and for 5N- or 10N-HCl it rises to 5 or 5·4. The solubility of Et₂O in the aq. phase is raised by HCl, especially at concns. > 5N., whereas FeCl₃ decreases the solubility of H₂O in Et₂O. It is concluded that Et₂O extracts from FeCl₃–HCl solutions H[FeCl₄(H₂O)₂] when [HCl] is low, Et₂O contains H[FeCl₃(OH)(H₂O)₃], and when [HCl] is very high, H₂[FeCl₅(H₂O)] and H₃FeCl₆ are transferred to Et₂O. Vals. are given for the distribution of HCl between H₂O and Et₂O.   J J H

_Poznava

SO:

AER   Aerodynamics (2)

Gas Flow with Straight Transition Line. I.Y. Uvaiamnikov. (Prikladnaia Matematika i Mekhanika, Moscow, Vol. 13, 1949, pp. 537-542.) U.S., N.A.C.A., Technical Memorandum No. 1295, May, 1951. 13pp., illus. 2 references.

A solution, based on Chaplygin's solutions, is obtained for the gas flow when the constant pressure in the surrounding medium is exactly equal to the critical pressure for the given initial state of the gas. The method is applied to a jet flowing out of an opening in a vessel with plane walls.
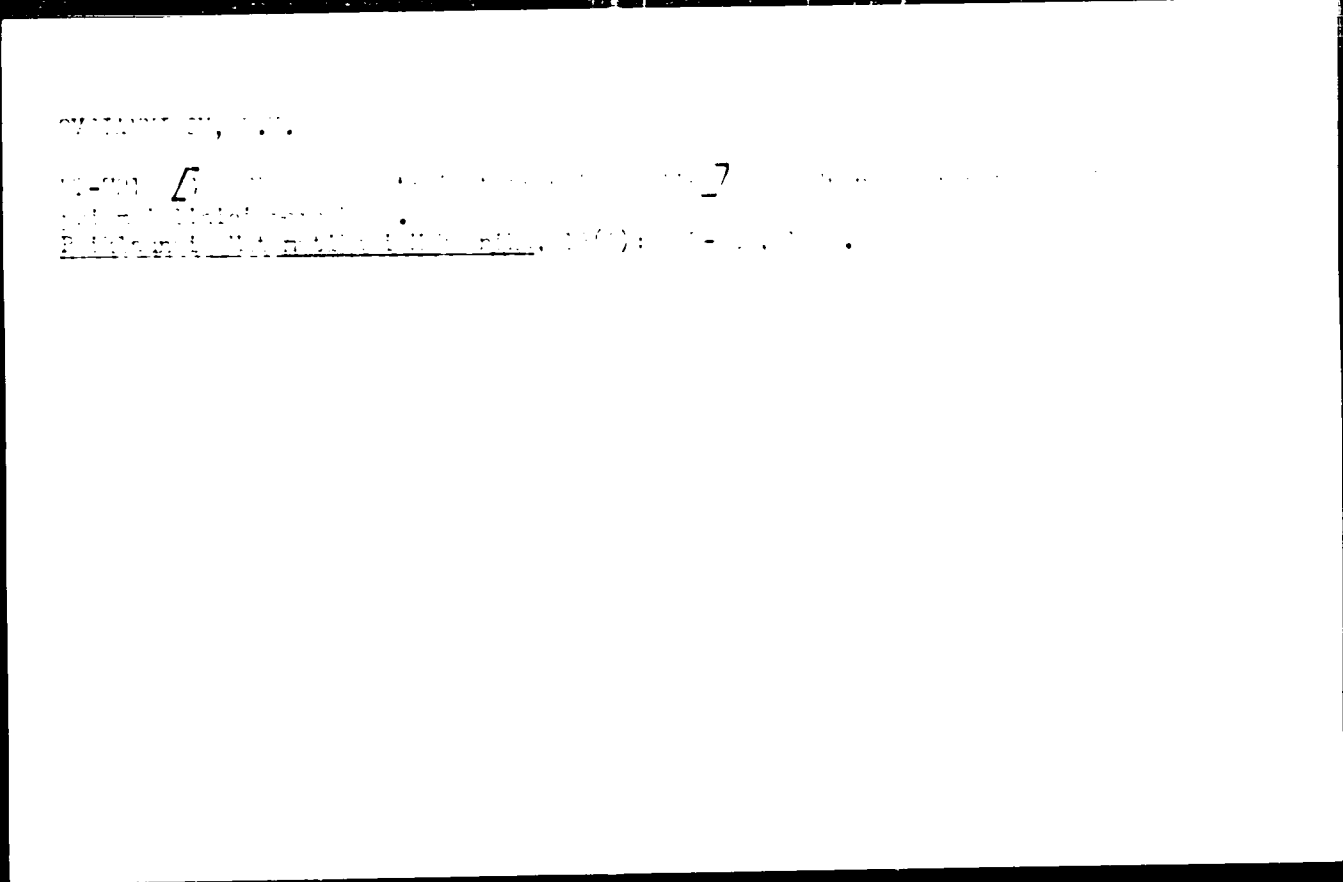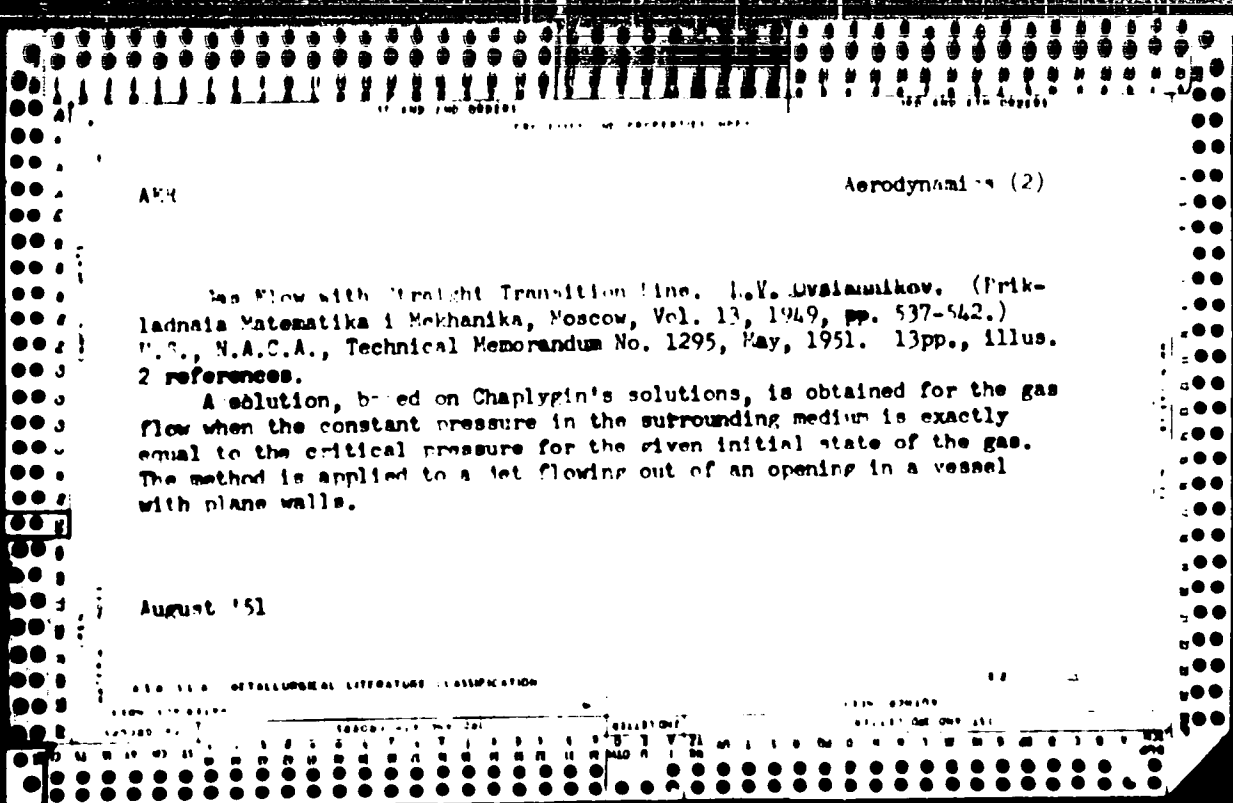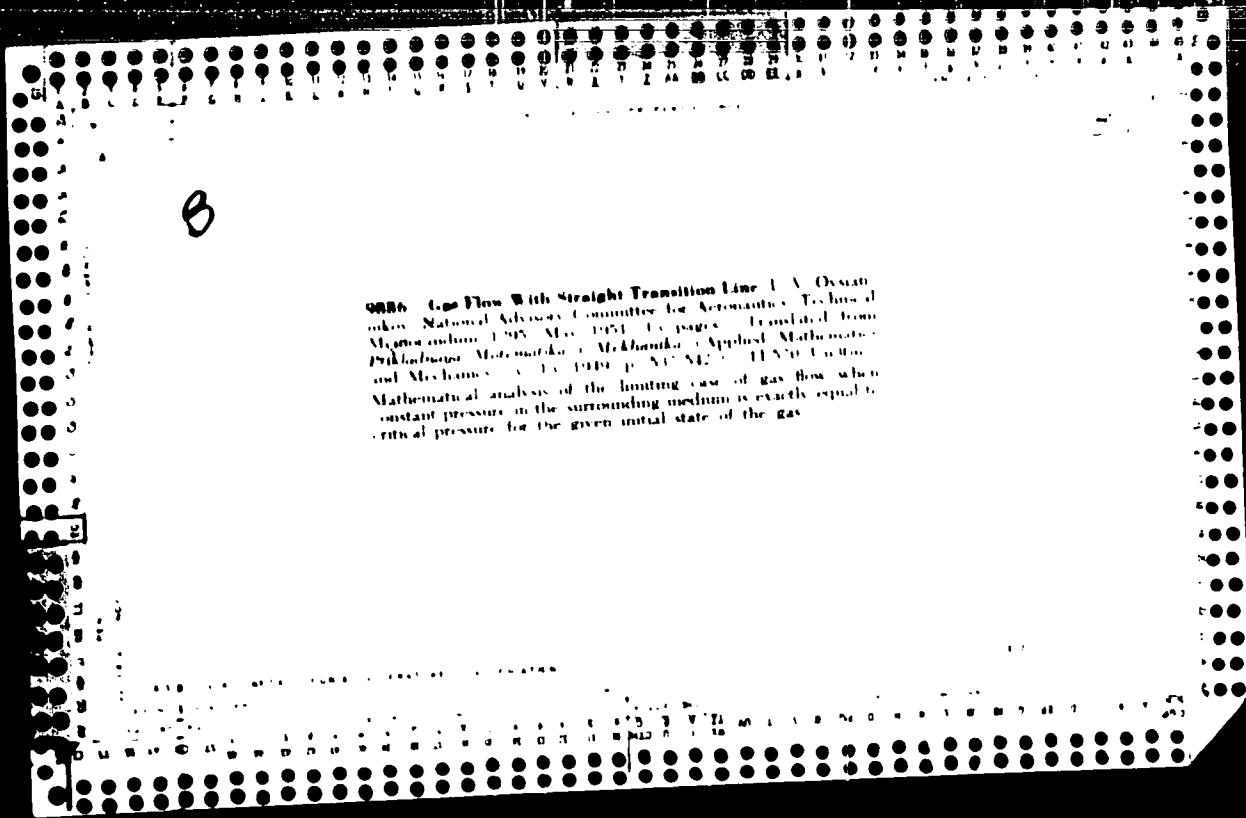
August '51

Ind. Aero.

Mechanics of Fluids.

Ovsiannikov, L. V. Gas Flow with Straight Transition Line. Prikl. Mat. Mekh.
(Appl. Math. & Mech.) 13, 537-542, 1941.

9886 Gas Flow With Straight Transition Line [ ] [ ] Ovsan
nikov National Advisory Committee for Aeronautics Technical
Memorandum 1985 May 1951 15 pages   Translated from
Prikladnaya Matematika i Mekhanika [Applied Mathematics
and Mechanics] [ ] [ ] 1919 p [ ] [ ] [ ] [ ] [ ] Section
Mathematical analysis of the limiting case of gas flow when
constant pressure in the surrounding medium is exactly equal to
critical pressure for the given initial state of the gas

SC: Aeronautical Sciences and Aviation in the Soviet Union, Library of
     Congress, 19 .

CVJCHCHFF FHCH, B. M.

HEN INTVERSITYE INSTENIYE AND APPLIES THE IN RSFSR:
HE DUKHY I FHE IKHY
THE RSFSR; HELINGRAD,
I B. H. CHIBSHICH INH.
TIHHI. "HIT NTH H. p. 1HA-1 .

VOLUME 7, ...

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techniques; e rie c of the Iart nizetio of e e J e He
Neskva, Masritz, 1 .   .

Sc: Monthly list of Russian Accessicis, Vol. " No.   May ...

Colorimetric determination of manganese with formaldoxime. V. M. PECHERROVA and A. A. UVARASHEVA (Zavod. Lab., 1957, 6, 810—813).— 1—50 μg of Mn can be determined colorimetrically by Denige' method (A., 1928, 461). The presence of equal amounts of Fe, Ni, Co, and Cr does not interfere, but if the amount of these metals is > that of Mn they should be removed by methods given. Alkali and alkaline-earth metals, and Cl' NO₄", CO₃", NO₃', or PO₄'" do not interfere.
R. T.

METALLURGICAL LITERATURE CLASSIFICATION
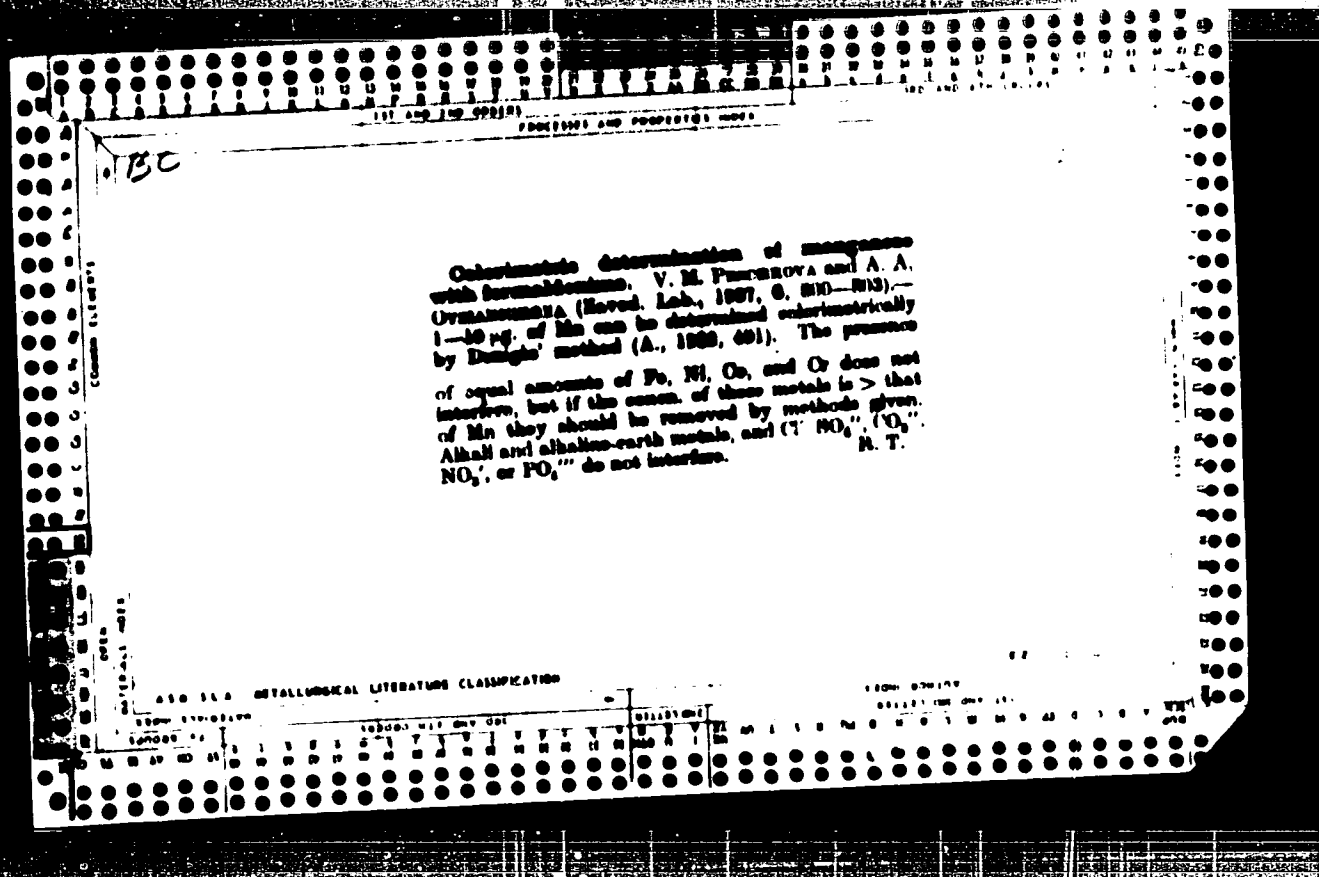
OVSISHCHER, Petr Il'ich; KOCHKINA, Nadezhda Nikolayevna; SHATS, S.Ya.,
kand. tekhn. nauk, retsenzent; MARTYNOV, A.P., inzh., retsenzent;
SUKHOMEKHOV, V.P., nauchnyy red.; CHICHKANOVA, V.S., red. izd-va;
KONTOROVICH, A.I., tekhn. red.; KRYAKOVA, D.M., tekhn. red.

[Handbook on transistor diodes and triodes] Spravochnik po polu-
provodnikovym diodam i triodam. Leningrad, Gos. soiuznoe izd-vo
sudostroit. promyshl., 1961. 239 p.   (MIRA 14:8)
                (Transistors—Handbooks, manuals, etc.)

DUSHUTIN, Yu.; KORCHAGIN, V., kand. tekhn. nauk; PAPE, E.;
SKRYPNIK, A.; YEVTUSHENKO, I.; OVSIY, I.

Exchange of experiences. Mias. ind. SSSR 34 no.5:42-47
'63.   (MIRA 16:11)

1. Volgogradskiy masokombinat (for Dushutin). 2. Odesskiy
tekhnologicheskiy institut pishchevoy i kholodil'noy promysh-
lennosti (for Korchagin). 3. Semipalatinskiy myasokombinat
(for Pape). 4. Leningradskiy ordena Trudovogo Krasnogo
Znameni myasokombinat im. S.M. Kirova (for Skrypnik).
5. Taganrogskiy myasokombinat (for Yevtushenko). 6. Vinnitskiy
myasokombinat (for Ovsiy).

OVSIY, I.

It is advantageous to accept beef cattle from suppliers without deductions from live weight. Mias.ind. SSSR 33 [1.e.34] no.2:43-44 '63.
(MI·A 16:4)

1. Vinnitskiy myasokombinat.
   (Meat industry)   (Industrial procurement)

OVSIY, I.; NESTERUK, V.

Chilling hog carcasses before skinning. Mias.ind. SSSR 34 no.1:52 '63.
(MIRA 16:4)

1. Vinnitskiy myasokombinat.
(Slaughtering and slaughterhouses)

OVSIY, Yu.Ye. (Poltava, ul. Frunze, d.33, kv.3)

Case of profuse bleeding from a gastric ucler in the cardiac
section. Klin. khir. no.10:71 O '62.   (MIRA 16:7)

1. Khirurgicheskoye otdeleniye (zav.- Yu.Ye. Ovsiy) otdelencheskcy
bol'nitsy st. Poltava.
            (STOMACH—ULCERS)   (HEMORRHAGE)

OVSIY, I.

Utilization of pig jowls. Meas. ind. SSSR 29 no.1:45-46   '58.
                                                    (MIRA 11:3)

  1.Vinnitskiy myasokombinat.
                          (Pork)

CHERNYAVSKIY, M., inzh.; ZELENIS, P., inzh.; GAMOV, L., inzh.; BURYUKOVICH, D., inzh; OVSEYENKO, B., inzh.

Mesh-reinforced concrete goes into production. Stroitel' 8 no.5:5-6 My '62.

(MIRA 15:7)

(Precast concrete)