

D. H. E. y King, U.S.

25(1) **PLANE I BOOK EXPLOITATION** 507/2727

Oneshotic metalloy devilyknyes; sbornik statey, VTD. 5 (Metal Forming);
Collection of Articles, No. 5) Moscow, Metallurgizdat, 1959. 197 p.
3,000 copies printed.

Scientific Ed.: L.D. Alimovskiy, Candidate of Technical Sciences; Ed. of
Publishing House: E.A. Pavlov; Tech. Ed.: A.I. Dvornoy.

PURPOSE: This collection of articles is intended for technical personnel and
scientific workers in the metallurgical and machinery-construction industries.

COVERAGE: This collection of articles deals with problems of rolling and tube
manufacture. Results of research done on roll design and use, and of deter-
mining basic manufacturing parameters in the production of tubes and other
rolled shapes are presented. Methods of analyzing the kinematics of processes
in helical piercing mills and rolling mills by means of motion pictures are
discussed. Also discussed are several phenomena associated with tube rolling.
No personalities are mentioned. References follow several of the articles.

PERSONNEL: G.A. (Candidate of Technical Sciences, Vsesoyuznyy nauchno-
issledovatel'skiy tsentr) (All-Union Scientific Research Institute for
Pipes); Investigation of the Kinematics of Processes in Helical Piercing Mills
by Means of Motion Pictures and Other Methods 114

Technical deals with industrial and laboratory tests of a method of in-
vestigating tube processes in rolling by means of motion pictures.
The mechanism of the process is discussed, and experiments on piercing and
through-hole mills are described. Results are shown in tables and diagrams.

PERSONNEL: B.A. E.I. Oplim (Candidate of Technical Sciences), and K.O. Rody
[Engineer], Vsesoyuznyy nauchno-issledovatel'skiy tsentr); Rolling Medium-Diameter
Pipes 129

This article deals with an experimental investigation of the use of stainless
steel with a high austenitization coefficient in piercing processes. Results
show an increase in the rate of production and greater economy of materials.

PERSONNEL: Yu.L. (Candidate of Technical Sciences) A.A. Shvachkin (Doctor of
Technical Sciences) and I.B. Dvornoy, S.V. Borshov, and I.I. Chibrikov
(Engineers), Vsesoyuznyy nauchno-issledovatel'skiy tsentr); Investigation
of Tube Rolling in a Continuous Mill with a Long Mandrel 143

Results of experimental investigations of pass design for a continuous tube-
rolling mill are presented. Causes of such tube defects as nonuniformity of
wall thickness and defective ends are discussed. Improvements in pass design,
mandrel withdrawal, and roll pressure adjustments are suggested as remedies.

PERSONNEL: I.M. (Candidate of Technical Sciences), and P.P. Lavrov [Engineer],
[Vsesoyuznyy nauchno-issledovatel'skiy tsentr)] Torque During Tube Rolling in a Continuous Seven-stand Mill 165

PERSONNEL: G.Y. (Doctor of Technical Sciences), and G. Ye. On [Engineer],
[Vsesoyuznyy nauchno-issledovatel'skiy tsentr)] Analytical Method for Determining Unit Pressure
During Tube Rolling Without a Mandrel 175

PERSONNEL: M.M. [Engineer, All-Union Scientific Research Institute for Pipes,
USSR] Changes in Wall Thickness of Small-size Tubes During Drawing Without a Mandrel.
Formulas are derived for determining changes in wall thickness and outside
diameter, amount of reduction, approach angle of the nib, coefficient of
friction, and ultimate strength of the material. Another formula for deter-
mining initial wall thickness is presented. The formulas are confirmed by
experimental data.

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SHVEYKIN, V.V., prof., doktor tekhn. nauk; GUN, G.Ya., inzh.

Changes in tube wall thickness during the process of rotary swaging
without mandrels. Izv. vys. ucheb. zav.; chern. met. 2 no.4:57-64
(MIRA 12:8)
Ap '59.

1.Ural'skiy politekhnicheskiy institut. Rekomendovano kafedroy
obrabotki metallov davleniyem Ural'skogo politekhnicheskogo instituta.
(Tubes) (Forging)

ORLOV, S.I., inzh.; SHVEYKIN, V.V., prof., doktor tekhn.nauk

Characteristics of plastic deformation in transverse upsetting,
transverse and spiral rolling. Izv.vys.ucheb.zav.; Chern.met. 2
no.5:55-68 My '59. (MIRA 12:9)

1. Ural'skiy politekhnicheskiy institut.
(Deformations (Mechanics)) (Rolling (Metalwork))

SHVEYKIN, V.V.; STUKACH, A.G.; BYKOV, V.D.

Production of thick-walled titanium pipe blanks. Izv.vys.ucheb.
zav.; tsvet.met. 2 no.6:178-184 '59. (MIRA 13:4)

1. Ural'skiy politekhnicheskiy institut, kafedra obrabotki
metallov davleniyem.
(Titanium) (Deep drawing (Metalwork))

SHVEYKIN, V.V., doktor tekhn.nauk; GUN, G.Ya., inzh.

Analytical method of determining unit pressure in pipe rolling
without mandrels. Obr. met. davl. no.5:175-178 '59.
(MIRA 13:3)

1.Ural'skiy politekhnicheskiy institut.
(Rolling (Metalwork))

18.5200

77695
SOV/148-60-1-18/34

AUTHORS: Orlov, S. I., Shveykin, V. V.

TITLE: Deformation of Cylindrical Bodies During Repeated Transverse Upsetting

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1960, Nr 1, pp 108-115 (USSR)

ABSTRACT: This study of the distribution of deformation during repeated upsetting was conducted on the samples which were soldered from the parts having a coordinate network. The quadratic network 3x3 mm was applied to the surfaces of lead samples with an accuracy of 0.1 mm. The repeated upsetting was performed between the smooth, flat parallel dies of a hydraulic press. After the deformation and measuring, the samples were heated up to about 100° C, unsoldered, cleaned, and measured again. The length and the angle of distortion of the deformed network were measured by microscope to an accuracy of 0.01 mm and 1°. In the study of distribution of deformation during

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Deformation of Cylindrical Bodies During
Repeated Transverse Upsetting

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the consecutive reductions, the sample was turned in the same direction for $3-5^\circ$ angle before every consecutive reduction. The character of deformation in cross sections is shown in Fig. 2. Sample 61 was subject to 295 individual reductions. The deformation in longitudinal cross section is shown in Fig. 4. The distribution of plastic deformation during upsetting with a turn of $45-90^\circ$ is illustrated in Fig. 5. The stressed condition of axial layers of metal is illustrated in Fig. 6. As a result of experiments conducted the author states that in the axial zone of the billet there exists a volumetric state of stress (of opposite signs) consisting of compressive stresses along the line of action of external loads and tensile stresses in two other directions, and that the tensile stresses, acting in the cross section perpendicularly to the compression forces, are the largest. During the rotation of the billet around the axis, the whole volume of the axial part of the billet passes through the constant field of stresses and is subject to alternate action of

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Distortion of Cylindrical Bodies During
Repeated Transverse Bumping

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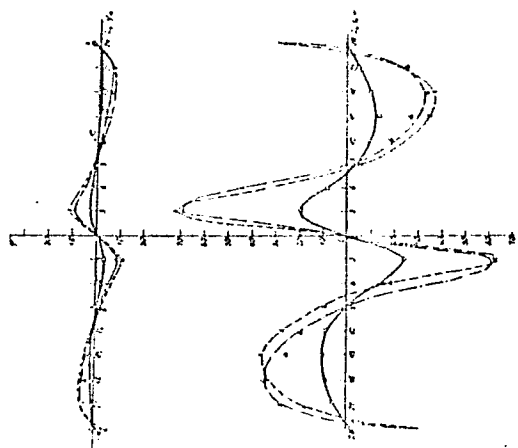


Fig. 2. Distribution of the angle of distortion of sections of diametrical lines on disks 1, 5, and 9 of samples 61 and 62, reduced in diameter by 0.52% and 2.2%.
 o _____ o = face of the sample (disk 1); Δ _____ Δ =
 33 mm from face (disk 5); x _____ x = 76 mm from face
 (disk 9).

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Distribution of Longitudinal Deformation During
Reduced Transverse Upsetting

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307/148-60-1-18/34

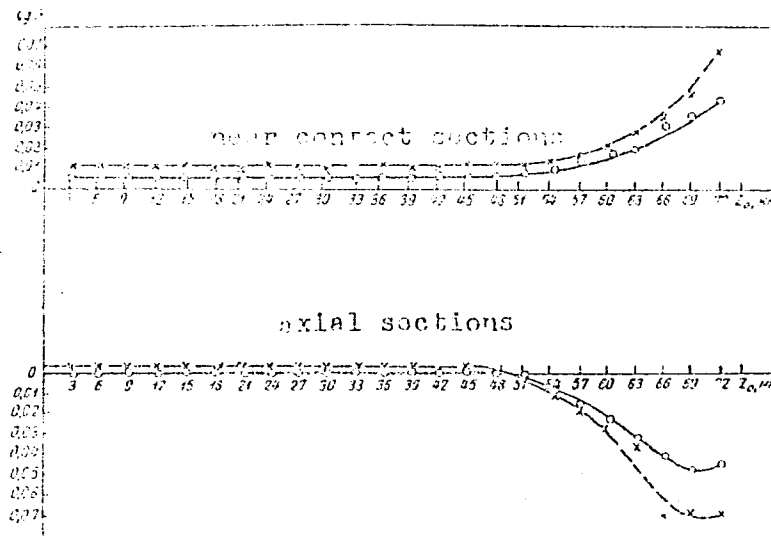


Fig. 4. Distribution of longitudinal deformation in samples 102 and 103 reduced in diameter by 0.0% and 0.2%.

Distribution of Cylindrical Bodies During
Repeated Temperature Upsetting

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SOV/143-60-1-18/34

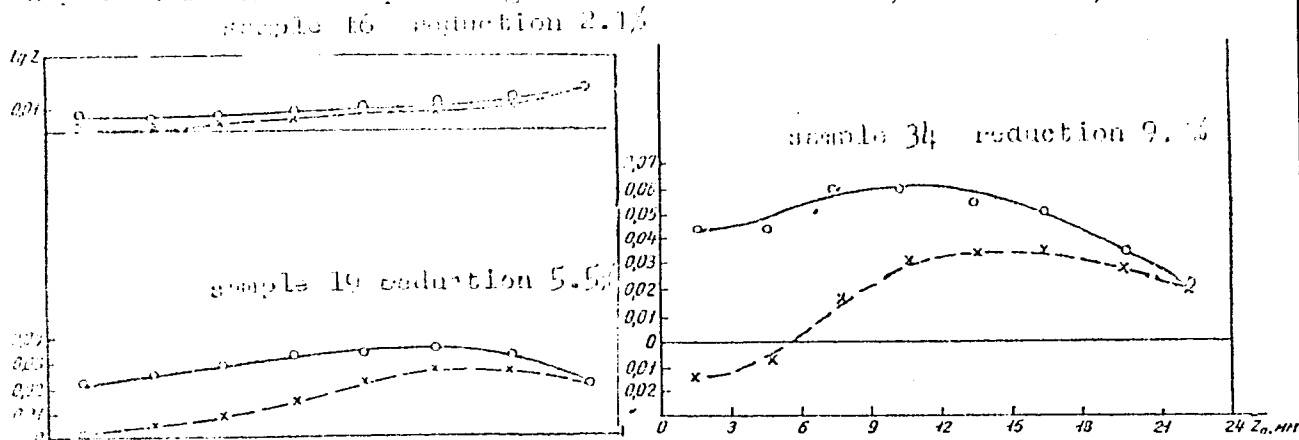


Fig. 5. Distribution of deformation of cells of longitudinal coordinate network in the direction $z-z$ during the two mutually perpendicular reductions to 2.1; 5.5 and 9.8%. \circ — \circ = first reduction; x — x = second reduction.

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Deformation of Cylindrical Bodies During
Repeated Transverse Upsetting

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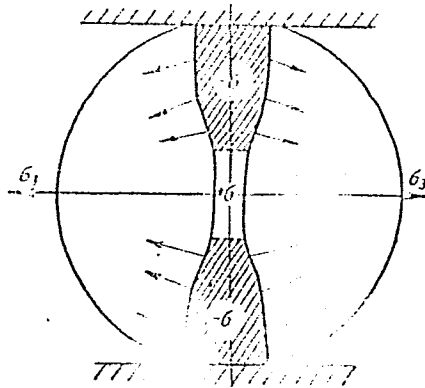


Fig. 6. A diagram of "bedging" of axial fibers by barrel-like widening.

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Deformation of Cylindrical Bodies During
Repeated Transverse Upsetting

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compressive and tensile stresses. Consequently, when a definite value of the transverse deformation and stresses (for a given material) is reached, the continuity in the axial zone is disrupted. The previous work of Unksov, Frokht, and V. S. Smirnof is mentioned. There are 7 figures; and 4 Soviet references.

ASSOCIATION: Ural Polytechnic Institute (Ural'skiy politekhnicheskiy institut)

SUBMITTED: October 25, 1958

Card 7/7

SHVEYKIN, V. V.

Efficient shape of piercing mill mandrels. Izv. vys. ucheb. zav.;
chern. met. no.8:81-87 '60. (MIRA 13:9)

1. Ural'skiy politekhnicheskiy institut.
(Rolling mills—Equipment and supplies)

S/148/61/000/002/005/001
A161/A133

AUTHORS: Shvaykin, V.V., Ivshin, P. N., Karpenko, L. N.

TITLE: Experimental determination of pressures and axial slip coefficient in the piercing of large ingots

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 2, 1961, 62 - 67

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TEXT: The results are given of an experimental investigation of the axial slip in the shell in the piercing mill process with mandrels of different gage, carried out at the Chelyabinskiy truboprokatnyy zavod (Chelyabinsk Tube Rolling Plant). The purpose was to find out the metal pressure on the mill rolls and the mandrel in rolling with new standard roll gages (УПМ (UPI)) that has replaced since 1959 the old "UPI" of 1954. Ingots with 547/531 and 615/500 mm diameters (i.e. diameters of the bottom and top ingot ends) were pierced on 375 and 425 mm diameter mandrels of "20" and Ст.А (St.D) steel. The slip was studied simultaneously as to its considerable effect on the metal pressure and its dependence on the pressure. It was determined by marks made on the mandrel rod and on the water feed pipe above it, and measuring the mean time during which the shell passed every



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rolled
references.

Experimental determination of pressures and ...

S/148/61/000/002/005/011
A161/A133

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnical Institute)
and Chelyabinskiy trubnyy zavod (Chelyabinsk Tube Plant)

SUBMITTED: January 29, 1960

Card 3/3

SHVEYKIN, V.V. prof., doktor tekhn. nauk; SKORNYAKOV, V.B., assistant,
kand. tekhn. nauk

Principles of the modern theory of deformation and stresses in
cross rolling and screw rolling. Sbor. nauch. trud. Ural.
politekh. inst. no.122:243-253 '61. (MIRA 17:12)

S/133/61/000/003/010/014
A054/A033

AUTHORS: Shveykin, V. V., Professor, Doctor of Technical Sciences;
Orlov, S. I., Engineer; Karpenko, L. N., Engineer

TITLE: Improving the roll-pass designs and mandrels for piercing
large ingots

PERIODICAL: Stal', no. 3, 1961, 256 - 259

TEXT: To investigate the principal factors affecting the operation of the piercing mill tests were carried out with the cooperation of P. N. Ivshin, Engineer, to improve the roll-pass designs and mandrels with the purpose: 1) to obtain the smallest possible reduction before the mandrel front piece; 2) to increase the length of deformation focus in the piercing cone; 3) to use piercing mandrels with a shaping nose having an average angle of inclination of 10 - 12°; 4) to apply small angles of inclination of the shaping cone of lateral rolling. As it is not easy to increase roll barrel, the new roll-pass design of the piercing cone has two stages. In the first stage the shaping piercing cane has a great angle of inclina- ✓

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S/133/61/000/003/010/014
A054/A033



Improving the roll-pass designs

tion (4°). This is necessary to equalize the diameter of the multi-edged billet crosswise and lengthwise. In the second stage the angle of inclination of the effective area of the piercing cone is $2^{\circ}30'$ as compared to $3^{\circ}15'$ in the conventional roll-pass design. The maximum roll diameter is 64 mm nearer to the piercing cone to make it possible to use elongated mandrels. The angles of inclination of the shaping cone are calculated in such a way that the diametrical reduction of the billet before the mandrel nose is at least 5 %, provided this end coincides with the area of contraction. The angle of the shaping cone in transversal rolling was taken as 2° ; in this way the diameter of the pierced tube blank is approximately equal to the average diameter of the billet. The profile of the mandrel was designed for three positions: 1) when its nose coincides with the contraction area; 2) when it is 30 mm and 3) when it is 60 mm ahead of the contraction area. When the nose of the mandrel coincides with the contraction area, the coefficient of relative reduction of the wall can be calculated by means of the following formula:

$$\frac{S_o}{S_{t.b.}} = \eta_{red} \quad (4)$$

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Improving the roll-pass designs

S/133/61/000/003/010/014
A054/A033

where S_0 = initial wall-thickness in the plane of the front piece of the mandrel, $S_{t.b.}$ = wall-thickness of the finished tube blank, ψ_{red} = coefficient of relative reduction of the wall. [Abstractor's note: subscripts t.b., red. (tube blank, reduction) are translations of the original r. (gil'za) and ob (obzhatiyе)]. The diameter of the tube blank in each section can be calculated from

$$D_i = D_0 + 2x \frac{\operatorname{tg} \alpha}{\cos \beta} \quad (8)$$

where x = distance from the origin of the coordinate, α = angle of taper of the rolls in the cone of piercing or transverse rolling, β = angle of inclination of the rolls towards the direction of rolling. The diameter of the mandrel in each section can be derived from

$$d_i = D_i - 2s_i \quad (9)$$

where s = wall-thickness. The new УПМ-59 (UPI-59) roll-pass design has been tested mainly on 15" diameter billets, pierced with three kinds of

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S/133/61/000/003/010/014
A054/A033

Improving the roll-pass designs

mandrels a) short ($l = 538$ mm; average angle of inclination of the shaping nose of the mandrel: 22°); b) mediumsized ($l = 568$ mm and 20°) and c) long mandrels ($l = 598$ mm and 18°). During the tests the following values were determined: billet dimension, its temperature when discharged from the furnace, heating time, duration of transport to the stand and of piercing, the length of the tube blank, piercing temperature, the rate at which the tube blanks are discharged from the stand, the metal pressure on the working rolls and the mandrel, voltage in the winding of motor-rotor. Table 1 shows that optimum results were obtained with the medium-length mandrel, (568 mm: lower specific power consumption, (12 %), increase in the piercing speed, i.e., in the output of the piercing mill) by 10 - 12 % and increases in the output of faultless (1st class) tubes: 93 - 95 % instead of 87 - 90% obtained with the old-roll-pass design. There are 4 figures, 1 table and 1 Soviet reference.

ASSOCIATION: Ural'skiy politekhnicheskii institut (The Ural Polytechnical Institute) and Chelyabinskiy trubnyy zavod (Chelyabinsk Tube Plant)

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S/133/61/000/003/010/014
A054/A033

Improving the roll-pass designs

Table 1:

① Comparison of the operational parameters of piercing mill mandrels according to the UPI-59 and UPI-54 roll-pass designs; ② Roll-pass design; ③ Length of mandrel, mm; ④ Steel grade; ⑤ Velocity of piercing mm/sec; ⑥ Power consumption kwh/t, ⑦ Piercing 15"-diameter billets; ⑧ Piercing 17"-diameter billets; ⑨ + In brackets: acceleration in the new roll-pass design as compared with the old, in %; ⑩ ++ In brackets: decrease in power consumption, according to the new roll-pass design, in %; a UPI-54; б UPI-59; c UPI-54; @ UPI-59

Сопоставление показателей работы инструмента
① прошивного стана по калибровкам УПИ-59 и УПИ-54

Калибровка ②	Длина оправки ③ мм	Марка стали ④	Скорость прошивки ⑤ км ² , мм/сек	Расход энергии** ⑥, квт-ч/т	
⑦ Прошивка слитка diam. 15 дюймов					
@УПИ-54	—	20	30,9	15,05	
		Д	29,1	16,15	
б UPI-59	{	538	20	35,6 (+15,2)	14,4 (-4,55)
		568	20	36,6 (+18,4)	13,2 (-12,2)
		598	20	36,6 (+18,4)	13,9 (-11,9)
		538	Д	34,9 (+19,9)	14,4 (-11,1)
		568	Д	—	14,15 (-12,4)
⑧ Прошивка слитка diam. 17 дюймов					
@УПИ-54	—	20	28,7	13,4	
		Д	24,3	15,5	
б UPI-59	{	538	20	30,0 (+4,53)	14,64 (-8,7)
		538	Д	30,7 (+26,3)	14,4 (-7,5)

⑨ * В скобках—ускорение при новой калибровке по сравнению со старой, %.

⑩ ** В скобках—снижение расхода энергии при переходе на новую калибровку, %

Table 1

SHVEYKIN, V.V.; BISK, M.B.

Geometry of floating mandrels for tube drawing. Trudy Ural.
politekh. inst. no.127:56-64 '61. (MIRA 16:8)

1. Ural'skiy politekhnicheskiy institut (for Shveykin).
2. Sinarskiy trubnyy zavod (for Bisk).

SVEIKIN, V.V. [Shveykin, V.V.]; SKORNEAKOV, V.B. [Skornyakov, V.B.]

Use of the optical polarization method in the study of the deformations and tensions in transversal lamination. Analele metalurgie 16 no.4:122-129 O-D '62.

SHVEYKIN, V. V.; IVSHIN, P. N.

Changes in pipe wall thickness during its rolling without
mandrel. Izv. vys. ucheb. zav.; chern. met. 5 no.12:67-73
'62. (MIRA 16:1)

1. Ural'skiy politekhnicheskiy institut.

(Rolling (Metalwork))

BISK, Matvey Borisovich; SHVEYKIN, Viktor Vasil'yevich; ORLOV, S.I., kand.
tekhn.nauk, retsenzent; TSYMBALIST, N.N., red.; MAL'KOVA, N.T.,
tekhn. red.

[Pipe drawing on self-centering mandrels] Volochenie trub na
samoustanavlivaiushcheisia opravke. Moskva, Metallurgizdat,
1963. 126 p. (MIRA 16:6)
(Drawing (Metalwork))

SHVEYKIN, V.V.; SLAVIN, V.B.

Investigating stresses in the forcing of a tube through the
hole of a die. Izv. vys. ucheb. zav.; chern. met. 6 no.8:
72-81 '63. (MIRA 16:11)

1. Ural'skiy politekhnicheskiy institut i Sinarskiy trubnyy
zavod.

SHVEYKIN, V.V.; BISK, M.B.

Determination of the maximum reduction in pipe drawing. Izv. vys.
ucheb. zav.; chern. met. 6 no.10:88-94 '63. (MIRA 16:12)

1. Ural'skiy politekhnicheskiy institut i Sinarskiy trubnyy zavod.

SHVEYKIN, V.V.; BISK, M.B.

Elements in the theory of tube drawing in colls. Izv. vys.
ucheb. zav.; chern. met. 6 no.12:99-108 '63. (MIRA 17:1)

1. Ural'skiy politekhnicheskii institut i Sinarskiy trubnyy
zavod.

BISK, M.B.; SOMINSKIY, Z.A.; SHVEYKIN, V.V.

Tube drawing with self-centering mandrels on rectilinear-type mills.
Stal' 23 no.6:536-540 Je '63. (MIRA 16:10)

1. Sinarskiy trubnyy zavod i Ural'skiy politekhnicheskiy institut.

SHVEYKIN, V.V.; IVSHIN, P.N.

Deformation of tubes without mandrels. Izv. vys. ucheb. zav.;
chern. met. 7 no.1:123-130 '64. (MIRA 17:2)

1. Ural'skiy politekhnicheskiy institut.

SHVEYKIN, V.V.; SLAVIN, V.B.

Deformation during the pushing of a pipe through a die hole.
Izv. vys. ucheb. zav.; Chern. met. 7 no.2:86-93 '64.
(MIRA 17:3)

1. Ural'skiy politekhnicheskiy institut.

SHVEYKIN, V. V.; GUN, G. Ya.; IVSHIN, P. N.

Stability of the cross sectional shape of a pipe during reduction.
Izv.vys.ucheb.zav.; chern.met. 7 no. 4:88-92 '64. (MIRA 17:5)

1. Ural'skiy politekhnicheskiy institut.

SHVEYKIN, V. M.; OSHIN, P. N.

Dependence of changes in the thickness of pipe walls during
their reduction on the toughness and plasticity (hardening
of the metal. Izv. vys. ucheb. zav.; Chern. met. 7 no. 6-92 196
'62. (MIRA 1972)

Leningradsky politekhnicheskii institut.

CHVEYKIN, V.V.; IVSHIN, F.N.

Preliminary deformation during pipe reduction without a mandrel.
Izv. vys. ucheb. zav.; Chern. met. 7 no.8:66-71 '64.

(MIKA 17:9)

1. Ural'skiy politekhnicheskiy institut.

SHVEYKIN, V.V.; LVSHIN, P.N.

Pipe elongation depending on the degree of ovality of the grooves
and the number of rolls in the reduction mill stand. Izv. vys.
ucheb. zav.; chern. met. 7 no.10:92-97 '64.

(MIRA 17:11)

1. Ural'skiy politekhnicheskiy institut.

SHVEYKIN, V.V.; ORLOV, S.I.; KAUFMAN, M.M.; STOLETNIY, M.F.; NODEV, E.O.
STERN, V.A.; ORLOV, V.A.

Guillotine shears for the hot cutting of round ingots. Metallurg
9 no.1:35-36 Ja '64 (MIRA 18:1)

1. Ural'skiy politekhnicheskii institut, Ural'skiy nauchno-issle-
dovatel'skiy institut chernykh metallov i Petroural'skiy novo-
trubnyy zavod.

BISK, M.B.; SHVEYKIN, V.V.

Dependence of the shape and position of the self-adjusting mandrel
in the area of deformation on the parameters of the tube drawing
process. Stal' 24 no.11:1022-1024 N '64.

(MIRA 18:1)

1. Sinarskiy trubnyy zavod i Ural'skiy politekhnicheskii institut.

ABCEYKIN V.V. & SLAVIN V.R.

Fig. 1. In the pushing in of shaped tubes. Izv. vys. ucheb. zav.;
Mekhanika, 8 no. 6:89-96 '65. (MIRA 18:8)

Inst. Fizicheskoy matematicheskoy institut.

SHVEYKINA, R. V.

USSR/Biology - Biochemistry

Card : 1/1

Authors : Yurkevich, V. V., and Shveykina, R. V.

Title : Formation of active invertin in *Saccharomyces Globosus*

Periodical : Dokl. AN SSSR, 97, Ed. 2, 297 - 300, July 1954

Abstract : Experimental data show that the largest formation of invertin is observed during the action of fructose. This confirms the assumption that fructose and not saccharose has a specific effect on the formation of invertin. This also gives proof of the affinity of yeast invertin toward fructose. Ten references. Tables.

Institution : The A. M. Gorkiy Ural State University, Sverdlovsk

Presented by : Academician A. I. Oparin, May 14, 1954

5(4)

AUTHOR:

Shveykina, R. V., Mokrushin, S. G.

SVV/133-58-4-2/22

TITLE:

II. On the Influence of Surface-Active Substances Upon the Coagulation of Colloidal Particles at the Interphase Surface. Liquid-Gas (II. Vliyeniye poverkhnostno-aktivnykh veshchestv na koagulyatsiyu kolloidnykh chastits na mezhfaznoy poverkhnosti zhidkost'-gaz)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, No 4, pp 6 - 12 (USSR)

ABSTRACT:

Surface-active substances are adsorbed at the phase limit: liquid-gas as positively charged particles from the solutions. These compounds exercise influence upon the formation of surface films, the formation of foam and the extraction of colloids by foam. A survey of the respective publications is given (Refs 1-6). It results from these papers that considerable influence is exerted by surface-active substances upon both the foam formation and the sol state. There is ample reason to assume that influence is exercised in a certain way by these substances upon

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II. On the Influence of Surface-Active Substances Upon the Coagulation of Colloidal Particles at the Interphase Surface: Liquid-Gas SMV/155-98-4-2/22

the extraction of colloidal particles by means of small air bubbles. The authors carried out tests to check that assumption and to clarify how far the extraction degree of the disperse hydrosol phase varies in the presence of some surface-active substances. Ethanol, glycerin, n-butyl alcohol and isoamyl alcohol served as such substances. Sb_2S_3 , $Fe(OH)_3$ and gold sol were used as sols. The solution to be investigated was filled into a vertical tube with porous bottom, and foam was obtained by blowing air through the bottom. The colloidal particles were adsorbed and coagulated at the surface of the air bubbles, which then were removed from the solution together with the foam. Figure 1 (colloidal Sb_2S_3) demonstrates that the extraction process is usually considerably accelerated by the surface-active substances (ethyl, n-butyl and isoamyl alcohol). The extraction degree of the colloids is increased with increasing glycerin- and ethanol con-

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II. On the Influence of Surface-Active Substances Upon the Coagulation of Colloidal Particles at the Interphase Surface: Liquid-Gas

centration. The authors draw the following conclusions from the above-mentioned results and additional tests carried out with titanium hydroxide and gold: 1) The extraction degree of colloids extracted from solutions is changed by surface-active substances; 2) It was found that in the presence of isoamyl and n-butyl alcohol the extraction degree of negatively charged colloidal particles is increased, whereas the extraction degree of positively charged particles is decreased; 3) Alcohols added to the hydrosols (without gelatin) form an unstable foam that is not able to extract the disperse phase from the solutions. There are 3 figures, 1 table, and 7 references, 2 of which are Soviet.

Cont 3/4

II. On the Influence of Surface-Active Substances Upon the Coagulation of Colloid Particles at the Interphase Surface: Liquid-
303

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S.M.Kirova
(Ural Polytechnical Institute imeni S.M.Kirov) Kafedra
fizicheskoy i kolloidnoy khimii (Chair of Physical and
Colloidal Chemistry)

SUBMITTED: October 14, 1957

Card 4/4

AUTHORS: Shveykina, R.V.; Mokrushin, S.G. 69-58-2 -18/23

TITLE: ~~_____~~
The Effect of Electrolytes on the Coagulation of Colloid Particles at the Liquid-Gas Interface (Vliyaniye elektrolitov na koagulyatsiyu kolloidnykh chastits na mezhfaznoy poverkhnosti zhidkost'-gaz)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 2, pp 233-236 (USSR)

ABSTRACT: Colloid particles of silver, gold, arsenic, antimony sols, etc., have been extracted from solutions by means of gelatine foam [Ref 1]. This method is also useful in separating colloidal and molecularly dissolved substances. The colloidal particles acquire a surface active character after the addition of gelatine. They move spontaneously to the interface liquid-gas. The process is considerably influenced by the presence of electrolytes. The electrolytes increase the foam formation [Ref 4-6]. The electrolytes studied were KNO_3 , $NaNO_3$, $LiNO_3$, $Ba(NO_3)_2$, $Al(NO_3)_3$, $Zr(NO_3)_4$, etc. Figure 1 shows that the degree of extraction increases with the presence of an electrolyte. Bivalent cations cause a greater increase than monovalent cations. Ions with three and four valencies cause a reduction. The

Card 1/2

69-58-2 -18/23

The Effect of Electrolytes on the Coagulation of Colloid Particles at the Liquid-Gas Interface

most effective among the monovalent ions Li^+ , Na^+ , and K^+ were the Li ions, because they had the highest degree of hydration. The degree of extraction is connected with the aggregation of the colloid particles under the influence of electrolytes and with the foam producing capacity of gelatine.

There are 5 graphs and 7 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskii institut imeni S.M. Kirova, Sverdlovsk (Ural Polytechnical Institute imeni S.M. Kirov, Sverdlovsk)

SUBMITTED: January 5, 1957

1. Colloids--Separation--Methods
2. Gelatine--Foam--Applications
3. Electrolytes--Applications

Card 2/2

SHVEYKINA, R. V.: Master Chem Sci (diss) -- "The kinetics of foam extraction of the dispersion phase of hydrosols". Sverdlovsk, 1959. 16 pp (Min Higher Educ USSR, Ural Polytech Inst im S. M. Kirov, Chair of Phys and Colloid Chem), 150 copies (KL, No 11, 1959, 116)

PROSKURYAKOVA, G.F.; SHVEYKINA, R.V.; CHERNAVINA, M.S.

Comparative characteristics of some most sensitive methods for
determining iodine in water. Izv.vys.ucheb.zav.;khim.i khim.tekh.
6 no.5:729-734 '63. (MIRA 16:12)

1. Sverdlovskiy sel'skokhozyaystvennyy institut, kafedra khimii.

VERZHIKOVSKAYA, N.V., kand.med.nauk, SHVEYKO, I.I.

Effect of manganese on thyroid function. Vrach.delo no.11:1207-1209
N'58 (MIRA 12:1)

1. Kafedra obshchey gigiyeny (zav. - prof. P.I. Barannik) Kiyevskogo
meditsinskogo instituta.
(MANGANESE--PHYSIOLOGICAL EFFECT)
(THYROID GLAND)

RODE, N.; BARASHINA, A.; LUKERIN, V.; BUKCHIN, I.; MIROPOL'SKAYA, S.,
starshiy ekonomist; SHVEYKO, T., rabotnik; PAVETKINA, L., rabotnik

Bank statistics and methods for their mechanization. Den. 1
kred. 20 no. 5:55-63 Je '62. (MIRA 15:6)

1. Glavnyy bukhgalter Latviyskoy respublikanskoy kontory
gosudarstvennogo banka (for Rode). 2. Glavnyy bukhgalter Orlovskoy
oblastnoy kontory gosudarstvennogo banka (for Barashina). 3. Glavnyy
bukhgalter Tadzhikskoy respublikanskoy kontory gosudarstvennogo
banka (for Lukerin). 4. Zamestitel' glavnogo bukhgaltera Kurskoy
oblastnoy kontory gosudarstvennogo banka (for Bukchin).
5. Khersonskaya oblastnaya kontora gosudarstvennogo banka (for
Miropol'skaya). 6. Glavnaya bukhgalteriya Stavropol'skoy
krayevoy kontory gosudarstvennogo banka (for Shveyko, Pavetkina).
(Banks and banking - Statistics)
(Machine accounting)

SOV/179-59-3-9/45

AUTHORS: Bolotin, V. V., Gavrilov, Yu. V., Makarov, B. P. and Shveyko, Yu. Yu. (Moscow)

TITLE: Non-linear Problems of Stability of Plane Panels at High Supersonic Velocities (Nelineynyye zadachi ustoychivosti ploskikh paneley pri bol'shikh sverkhzvukovykh skorostyakh)

PERIODICAL: Izvestiya Akademii nauk, SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 3, pp 59-64 (USSR)

ABSTRACT: The paper is a continuation of previous work (Refs 1 and 6). The question of the stability of plates and shells, exposed to a current of compressed gas, has so far been discussed in terms of a linear representation (Refs 1-5). For sonic flow and for moderate supersonic numbers M this hypothesis is apparently completely justified. However, for larger supersonic velocities, aerodynamic non-linearity becomes very appreciable. As was shown by Bolotin (Ref 5), solutions different from the unperturbed ones appear in aeroelastic problems, allowing for aerodynamic non-linearity, at velocities below the Card 1/4 critical value. Among these solutions are some which are

SOV/179-59-3-9/45

Non-linear Problems of Stability of Plane Panels at High Supersonic Velocities

stable in relation to sufficiently small disturbances. These solutions can be realised if the elastic system which is subjected to the sub-critical velocity is sufficiently irregular. All real constructions have some irregularities (defects of manufacture, deformations arising from aerodynamic heating, vibrations under the influence of atmospheric turbulence and other non-stationary factors, etc.). Thus in some cases, the critical velocity determined by the linear aeroelastic theory is only a lower limit to the critical velocity for real constructions. In the present paper, the edges of the plate are assumed to be simply supported and elastically restrained against axial displacements; the pressure on the plate is given by:

$$p = p_{\infty} \left(1 + \frac{\kappa - 1}{2} \frac{v}{a_{\infty}} \right)^{\frac{2\kappa}{\kappa - 1}} \quad (1)$$

where p is the pressure of the unperturbed gas, v is the normal component of surface velocity of the plate, a_{∞} is the velocity of sound in the unperturbed gas and

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SOV/179-59-3-9/45

Non-linear Problems of Stability of Plane Panels at High Supersonic Velocities

κ is the polytropy index. The component of load normal to the plate is

$$q = -\rho_0 h \frac{\partial^2 w}{\partial t^2} - 2\rho_0 h \kappa \frac{\partial w}{\partial t} + \Delta p \quad (6)$$

where w is the deflection, ρ_0 is the density and h the thickness of the plate, κ is the damping coefficient, and Δp is the excess pressure, which can be expressed in terms of the Mach number and polytropy index by means of Eq (1). The problem then reduces to the investigation of the non-linear equation for the deflection of the plate, which contains q , subject to the boundary conditions. One solution is expressed as a double sine series and is dealt with both by an approximate numerical method, and with the aid of an electronic calculating machine. The results of the calculations for particular cases are shown graphically (Figs 4, 5 and 6), and indicate the existence of flutter in the panel.

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Acknowledgments are expressed to N. I. Chelnokov

SOV/179-59-3-9/45

Non-linear Problems of Stability of Plane Panels at High Supersonic Velocities

and Yu. R. Shneyder of the Mathematical Machine Laboratory MEI, for participating in the calculations. There are 6 figures and 9 references, 7 of which are Soviet and 2 English.

SUBMITTED: November 18, 1958

Card 4/4

88518

10.9010

S/179/60/000/006/010/036
E031/0155

AUTHOR: Shveyko, Yu.Yu., (Moscow)

TITLE: The Stability of a Circular Cylindrical Shell in a Gas Flow

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1960, No. 6, pp. 74-79

TEXT: The critical flutter velocity for an elastic cylinder of finite length in a supersonic flow parallel to its axis is determined. Piston theory is used in its asymptotic form. As an auxiliary problem, the natural oscillations of a shell with supported ends is considered. Then the displacements can be taken in the form:

$$u(z, s) = A_{mn} \cos \frac{m\pi z}{l} \cos \frac{ns}{R}$$

$$v(z, s) = B_{mn} \sin \frac{m\pi z}{l} \sin \frac{ns}{R}$$

$$w(z, s) = C_{mn} \sin \frac{m\pi z}{l} \cos \frac{ns}{R}$$

(1.7)

X

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S/179/60/000/006/010/036
0031/E135

The Stability of a Circular Cylindrical Shell in a Gas Flow

$$m = 1, 2, \dots \quad n = 0, 1, 2, \dots \quad (1.7)$$

and the equation for the natural frequencies is obtained. The characteristic vectors thus defined are used in the expressions for the displacements in the general case. Substitution of these expressions in the equations of motion leads to a system of ordinary differential equations. Values of the Mach number for which the trivial solution occurs in which the displacements vanish identically are considered by introducing non-dimensional variables and approximating in the differential equations. If the tangential components of the inertia and friction forces can be neglected, a single separable partial differential equation is obtained. Using Galerkin's method, a system of ordinary equations of the type already considered is derived. For large n (where n is the number of waves in the circumferential direction) the expressions for the frequencies given by the two solutions tend to coincide. The same is true for the critical Mach numbers. An equation for the value of n for which the Mach number

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S/179/60/000/006/010/036
E031/E135

The Stability of a Circular Cylindrical Shell in a Gas Flow

attains its minimum value is given. The minimum Mach number corresponds to $n > 6$. As the damping increases, n decreases and the critical Mach number increases.

There are 5 figures and 9 references: 7 Soviet and 2 English.

SUBMITTED: June 17, 1960

UX

Card 3/3

BOLOTIN, V.V., doktor tekhn.nauk, prof.; MAKAROV, B.P., inzh.; MISHENKOV,
G.V., inzh.; SHVEYKO, Yu.Yu., inzh.

Using the asymptotic method in investigating the spectrum of
natural frequencies of elastic plates. Rasch.na prochn. no.6:231-
253 '60. (MIRA 14:1)

(Elastic plates and shells---Vibration)

S/124/62/000/008/012/030
IOC6/I242

AUTHOR: Shveyko, Yu. Yu.

TITLE: Flutter of a circular cylindrical shell

PERIODICAL: Referativnyy zhurnal, Mekhanika, no.8, 1962, 36, abstract
8B221. (Tr. Konferentsii po teorii plastin i obolochek,
1960. Kazan', 1961, 414-418)

TEXT: An approximate expression is obtained for the amplitude of nonlinear vibrations of segment of freely supported cylindrical shell, with a supersonic flow of gas flowing along a generating line on one side of the shell. The aerodynamic loads are calculated by the piston theory (third approximation, neglecting the partial derivative of flexure with respect to time). Some numerical data are given. ✓

[Abstracter's note: Complete translation]

Card 1/1

29061
S/179/61/000/004/003/019
E081/E335

10.1210

AUTHOR: Shveyko Yu. Yu. (Moscow)

TITLE: The influence of supersonic flow of a gas on the lower critical stress of a cylindrical panel

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye. no. 4. 1961. pp. 14 - 19

TEXT: The equilibrium is considered of a cylindrical panel compressed in the direction of the generators and subjected to the flow of a compressible gas, also parallel to the generators (Fig. 1). Assuming that the Kirchoff-Love hypothesis applies, that the deflection of the plate is comparable with the thickness and that the sides of the panel are simply supported, the differential equations for the deformation of the panel are stated in terms of the deflection and the stress function, and the boundary conditions are also stated. The case is considered in detail of a square panel ($a = b$) having a radius of curvature R such that $0 < k \leq k_0$ where

X

Card 1/2

29061
S/179/61/000/004/005/019
E081/E335

The influence of

$$k = \frac{b^2}{R_h} = \frac{a^2}{R_h} \quad k_0 = \frac{5\pi^2}{2.5(1 - \mu^2)} \quad (2.1)$$

and μ is Poisson's ratio. The deflection is expressed in trigonometric form and using Galerkin's method solutions are obtained corresponding to one and two half-waves of deflection along the generators. The lowest critical stress is determined and is found to increase with increasing flow velocity. Calculations are made for the case $k = 10$ and the results are shown graphically. The algebraic stability of the solution is examined using Galerkin's method and the Hurwitz criterion and the requirements for stability are established. There are 2 figures and 5 Soviet references.

SUBMITTED April 11 1961

JK

Card 2/3

L 21113-65 EWP(m)/EWA(h)/EWP(k)/EWT(d)/EWT(1)/EWT(m)/EWA(d)/EWA(1)/EWP(w)/
EWP(v)/FCS(k) Pd-1/Pf-4/PeB ASD(f)-3/AFTC(p) EM
ACCESSION NR: AP5002598 S/0179/64/000/005/0112/0116

AUTHOR: Shveyko, Yu. Yu. (Moscow)

TITLE: Stability of a liquid-filled cylindrical shell in a gas flow

SOURCE: AN SSSR. Izvestiya. Mekhanika i mashinostroyeniye, no. 5, 1964, 112-116 ^{2p} |

TOPIC TAGS: cylindrical shell, cylindrical shell flutter, flutter speed, shell flutter speed, minimum flutter speed

ABSTRACT: A closed circular cylindrical shell having a perfectly rigid diaphragm at one end is placed in a supersonic stream of a compressible gas. The longitudinal axis of the shell is parallel to the gas flow and to the direction of the gravitational field. The shell is partly filled with a perfect liquid; the stresses in the shell caused by the hydrostatic pressure are neglected. The flutter of the shell is discussed and expressions for determining the minimum flutter speed are derived by using a series expansion in coordinate functions (which describe the natural-vibration modes of a nonloaded shell in vacuum) satisfying the given boundary conditions, and the

Card 1/2

L 21113-65

ACCESSION NR: AP5002598

variational Galerkin method. The flutter behavior of a shell completely filled with liquid and of an empty shell is briefly analyzed, and the increase in the minimum flutter speed caused by liquid is pointed out. Some simplified approaches in determining, in the first approximation, the effect of the liquid on the flutter speed are outlined. Orig. art. has: 25 equations.

ASSOCIATION: none

SUBMITTED: 30Oct63

ENCL: 00

SUB CODE: AS, ME

NO REF SOV: 005

OTHER: 003

ATD PRESS: 3164

Card 2/2

SHVEYKO, Yu.Yu. (Moskva)

Stability of a cylindrical shell with a liquid filler in a gas
flow. Izv. AN SSSR Mekh. i mashinostr. no.5:112-116 6-0 '64
(MIRA 18:1)

L 20756-66 EWP(m)/EWA(h)/EWP(k)/EWT(d)/EWT(1)/EWT(m)/ETC(m)-6/EWA(d)/EWP(w)/ EWP(v)

ACC NR: AP6011130

EWA(1)

IJP(c)

SOURCE CODE: UR/0424/66/000/001/0067/0073

AUTHOR: Brusilovskiy, A. D. (Moscow); Mel'nikova, L. M. (Moscow); Shveyko, Yu. Yu. (Moscow)

ORG: none

TITLE: ²⁶ Vibration and stability of a cylindrical shell in a gas flow ⁴⁸
^B

SOURCE: Inzhenernyy zhurnal. Mekhanika tverdogo tela, no. 1, 1966, 67-73

TOPIC TAGS: cylindrical shell, shell flutter, flutter speed, shell vibration

ABSTRACT: The flutter of an elastic closed circular cylindrical shell of finite length in a supersonic axial flow of a compressible gas of a certain undisturbed velocity is investigated. An exact solution of the system of equations in displacements which describes the disturbed motion of the shell, with all inertia forces taken into account, is used in determining the flutter velocity of the gas flow and associated vibration parameters. The expressions for aerodynamic component loads acting on the shell are written by using the linear piston theory, and disregarding the effects of the aerodynamic and structural damping, as well as the initial stresses in the middle surface of the shell. The critical Mach numbers at which the flutter occurs are determined by analyzing the behavior of natural frequencies of the shell in relation to the flow velocity; the corresponding frequencies of the shell are determined by a numerical method in which a parameter is used which accounts for the

Card 1/2

L 20756-66

ACC NR: AP6011130

rigidity of the shell and for aerodynamic quantities. The results of numerical calculation of the minimum flutter velocities for a cylindrical shell with simply supported and clamped faces are given and the effects of support conditions on the shell frequencies, vibration modes, and flutter speeds are discussed and illustrated by diagrams. Orig. art. has: 5 figures, 1 table, and 20 formulas. [VK]

SUB CODE: 20/ SUBM DATE: 02Jul65/ ORIG REF: 008/ ATD PRESS: 4226

Card 2/2

ACC NR: AR7004676

SOURCE CODE: UR/0124/66/000/010/V021/V021

AUTHOR: Novichkov, Yu. N.; Shveyko, Yu. Yu.

TITLE: Vibrations and stability of two-layer shells with flowing liquid in its cavities

SOURCE: Ref. zh. Mekhanika, Abs. 10V160

REF SOURCE: Dokl. Nauchno-tekhn. konferentsii po itogam nauchno-issled. rabot za 1964-1965gg. Mosk. energ. in-t. Sekts. energomashinostroit. M., 1965, 103-118

TOPIC TAGS: elasticity theory, orthotropic shell, shell vibration, shell structure stability, cylindric shell structure, shell stability

ABSTRACT: The problem of the stability and vibrations of a shell consisting of two thin coaxial cylinders joined by a sufficiently large number of longitudinal partitions is investigated. The cavities of the shell contain a liquid flowing at a constant velocity. The initial equations of the structurally orthotropic shell are derived as a result of a "smearing" operation. The pressure of a certain equivalent moving load of constant intensity is substituted for the pressure of the liquid

Card 1/2

ACC NR: AR7004676

on the shell. A characteristic equation which serves to determine critical velocities is derived through the application of Bubnov's variational method. Two characteristic critical speeds are distinguished: buckling and flutter speed. The expression for divergence rate is relatively simple. It is shown how to find the critical flutter speed. For a specific example calculated on a computer, the divergence rate proved to be lower than the flutter speed. There is a bibliography of 11 titles. [Translation of abstract] [DW]

SUB CODE: 13/

Card 2/2

S/219/62/054/010/004/004
D296/D307

AUTHOR: Shveykovskiy, A.B.

TITLE: The removal of hair from the operative areas
on experimental animals

PERIODICAL: Akademiya meditsinskikh nauk SSSR, Byulleten'
eksperimental'noy biologii i meditsiny, v.54,
no. 10, 1962, 123

TEXT: The preparation of operative areas on experi-
mental animals is generally performed by mechanical means, such
as haircutting and shaving, preceded by an administration of mor-
phine. This procedure is lengthy and rarely complete. The author
proposes a chemical method of hair removal, based on an applica-
tion of heated 10 % aq. Na₂S, over a period of 2 minutes. As soon
as the hair begins to disintegrate, the treated area is carefully
washed free of hair and the reagent, leaving a healthy, intact
patch of skin. Previous anaesthesia is not required. Histological
tests showed the hair roots and the epidermis to be fully unimpaired:

Card 1/2

The removal of hair ...

S/219/62/054/010/004/004
D296/D307

normal growth of hair resumes after the same period as after shaving. Numerous areas of skin were treated in this manner on 115 dogs, observing the animals over 40 - 90 days. No complications were detected. The method has thus proved itself and allowed the author to prepare the operative areas without recourse to the mechanical treatment.

[Abstractor's note: Essentially complete translation]

ASSOCIATION:

Tsentralnaya nauchno-issledovatel'skaya laboratoriya Grodnenskogo meditsinskogo instituta
(Central Scientific Research Laboratory of the Grodno Institute of Medicine)

SUBMITTED:

September 22, 1961

Card 2/2

SHVEIKOVICH, N. T.

"Accumulation of Moisture in Frozen Ground under the Influence of a Temperature Regime,"
Symposium on Regulation of the System of Road Foundations, Road and Highway Press, Moscow:
1946 (180-190).
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

SHVETNIK, I. A.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences
at the Joint Scientific Council on Physicomathematical and Technical Sciences;
Siberian Branch 1962

"Riemannian Spaces Containing a Pole."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

SHVEYNOV, A.F.

Changes in the ribonucleoproteins in the epithelium of gastric
mucosa of dogs after generalized irradiation. Med. rad. 5 no.9:
30-33 S '60. (MIRA 13:12)

(RADIATION--PHYSIOLOGICAL EFFECT)
(STOMACH) (NUCLEOPROTEINS)

SHVEYNOV, A.F.

Problem of the relationship of morphological changes in the
gastric mucosa of irradiated dogs to the changes in the
nucleoproteins of the cells. Arkh.pat. 22 no.3:42-47 '60. (MIRA 13:12)

(RADIATION—PHYSIOLOGICAL EFFECT)
(STOMACH) (NUCLEOPROTEINS)

SHVEYNOV, A.F. (Kursk, ul.K.Marksa, 3)

Distribution of ribonucleoproteins in the cells of the epithelium of the mucosa of the stomach in fasting and fed dogs. Arkh. anat. gist. i embr. 40 no. 1:27-31 Ja '61. (MIRA 14:2)

1. Kafedra patologicheskoy anatomii (zaveduyushchiy - prof. A.S. Brumberg) Kurskogo gosudarstvennogo meditsinskogo instituta.
(FASTING) (NUCLEOPROTEINS) (STOMACH)

SHVEYNOV, A. P. "Nucleoproteids and Mucopolysaccharides in the Stomach Mucous-Membrane Epithelium of Healthy and X-Irradiated Dogs." Cytoplasmic RNA content decreased and nuclear RNA content increased in dogs irradiated with 400-600 r.

... Shveynov, A. P. ... The ... degree was awarded. The annotated ... physiology, radiat on biochemistry, ... radiation on regenerative processes, ... radiation pharmacology.

VOLCHENKO, I.G.; SHVEYSKIY, Ya.G.; TYRYKIN, A.I.

Enclosure for thawing frozen loads. Koks i khim. no.5:16-18
'56. (Thawing) (Waste heat) (Sugar beets) (MLRA 9:10)

COUNTRY : USSR
CATEGORY : Farm Animals. Swine
ABB. JOUR. : RZBiol., No. 13, 1958, No. 59562
AUTHOR : Shveystis, Yu. Yu.
INST. : Lithuanian Scientific Research Institute of*
TITLE : Effectiveness of Industrial Crossing of
Swine of the Lithuanian White Breed Group
ORIG. PUB. : Byul. nauchno-tekhn. inform. Lit. n.-1. in-t
zhivotnovodstva i veterinarii, 1957, No 2, **
ABSTRACT : Swine belonging to three groups (7 heads in
each) of the Lithuanian White breed group
were crossed as follows: the control group
was mated to a boar of the same breed, the
1st group to a boar with a White Short Ear
breed and the 2nd group to a Landras boar.
* Animal Husbandry and Veterinary Medicine
** 33-36

CARD: 1/3

Q - 52

Country : USSR
CATEGORY : Farm Animals. Swine

ABST. JOUR. : ZBiol., No. 13, 1958, No. 59562

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : The fertility of the swine of the 2nd group
cont'd. was higher by 36.2%, the weight of hybrids
at weaning was higher by 7.4%, and the mor-
tality before weaning was lower by 6% as com-
pared with the control group. In the process
of fattening, the pigs of the control group
achieved a live weight of 100 kg. after 140
days, those of the 1st group after 133 days,
and those of the 2nd group after 120 days.
The average daily gain according to groups

CARD: 2/3

COUNTRY : USSR
CATEGORY : Farm Animals. Swine

ABST. JOUR. : RZBiol., No. 13, 1958, No. 59562

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : was: 502.5, 528.6 and 545.7 g., and the
cont'd. slaughter output was 79.3, 78.0 and 77.8%.
At 8 months of age the index of compactness
(by groups) was 92.6, 98.3 and 93.1; the in-
dex of massiveness was 170.7, 182.0 and 173.9.
The hybrids of the 2nd group produced 31.2%
of internal fat, and the hybrids of the 1st
group had 16.9% less abdominal fat compared
with swine of the control group.

CARD: 3/3

Q - 53

SHVEYSTIS, M. Ya.: Master Biol Sci (1956) -- "The productive crossing of swine of the Lithuanian White group with boars of the White Short-Eared and Landras types, and some biological features of the hybrids obtained". Vil'nyus, 1958. 22 pp (Min Higher Educ USSR, Vil'nyus State U in V. Kapsukas), 150 copies (KL, No 6, 1959, 130)

A. STOK, Mirch [Czech. 1955]; TBEJUSVA, Irina [Czechoslovak.
Jirina]; SHVETKOVA, Bela [Czechoslovak. Bela];
BARKHANI, I.F. [translator]; SHVETKOVA, T.L., kand.
med. nauk, red.

[Exercise therapy in children's diseases. Translated from
the Czech] Lечебная физкультура при детских болезнях.
Mosva, Medicina, 1964. 335 p. (MIA 17:7)

LEPP, R. [Lapp, Ralph E.]; RUBAL'SKIY, B.G. [translator]; ROGINKO, Yu.Ya.
[translator]; SHVEYTSER, A.D. [translator]; SOBOLEV, I.N.,
general-mayor, red.; DEYEV, M.N., red.; KHOMYAKOV, A.D., tekhn.red.

[Atoms and people] Atomy i ljudi. Pod red. I.N.Soboleva. Moskva,
Izd-vo inostr.lit-ry, 1959. 286 p. (MIRA 12:8)
(Atomic energy)

SHVAYTSER, D. V.

Executions (Law)

Execution of judicial judgments. B. A. Lickovets, G. V. Stugnov. Reviewed by D. V. Shvaytser. Sov. kniga No. 2, 1953.

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

TILLE, Anatoliy Aleksandrovich; SHVEYTSEK, David Vladimirovich;
ZAKUBINSKIY, Ye.A., dots., kand. yuridicheskikh nauk, otv. red.

[Examination of labor disputes in the U.S.S.R.; a textbook on
the course: "Basic principles of the Soviet State and law"]
Rassmotrenie trudovykh sporov v SSSR; uchebnoe posobie po
kursu: Osnovy Sovetskogo Gosudarstva i prava. Moskva, Vses.
zaochnyy finansovo-ekon. in-t, 1959. 22 p. (MIRA 15:2)
(Labor disputes)

S/048/62/026/003/014/015
B102/B104

AUTHORS: Slonkin, M. A., Demekhin, V. F., and Shveytser, I. G.
TITLE: Correction of the X-ray emission spectrum for self-absorption
PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26,
no. 3, 1962, 419 - 422

TEXT: Corrections for self-absorption are considered for the continuous and the characteristic spectrum separately. In the first case, it is not necessary to know the absolute values of the absorption coefficients. In the second case, the intensity of the characteristic spectrum can be given by $I = A_0 e^{-C_1 x} [C_2 + C_3]$ with

$$C_1 = \frac{x}{\sin \psi} \frac{V^2}{V^2 - V_1^2}, \quad C_2 = \frac{V - V_1}{V_1} - \lg \frac{V}{V_1}, \quad C_3 = \frac{x}{\sin \psi} \frac{2V^3 - 3V^2 V_1 + V_1^3}{6V_1(V^2 - V_1^2)} \quad (5),$$

where x is the maximum penetration depth of electrons, and τ is the absorption coefficient. A practical correction for self-absorption is demonstrated for the L_{α_2} band and the L_{III} spectrum of metallic Mo. The intensities

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SHVEYTSER, I.G.; SACHENKO, V.P.; NIKIFOROV, I.Ya.

Structure of the energy levels of metallic molybdenum. *Izv.AN*
SSSR.Ser.fiz. 27 no.3:319-321 Mr '63. (MIRA 16:2)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.
(Molybdenum) (Crystallography) (Quantum theory)

S/0048/64/028/005/0797/0800

ACCESSION NR: AP4038764

AUTHOR: Shveytser, I.G.; Nikiforov, I.Ya.; Sachenko, V.P.

TITLE: Concerning the energy spectrum of metallic niobium [Report, Seventh Conference on X-Ray Spectroscopy held in Yerevan 23 Sep - 1 Oct 1963]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.5, 1964, 797-800

TOPIC TAGS: x-ray spectrum, x-ray absorption, molybdenum, niobium, energy band structure

ABSTRACT: In continuation of previous theoretical and experimental investigations of transition metals of the palladium group (I.G.Shveytser, V.P.Sachenko and I.Ya. Nikiforov, Izv.AN SSSR,Ser.fiz.27,319,1963) the $I\beta_2$ emission and LIII absorption spectra of Mo and Nb are compared, and their differences are interpreted in terms of the energy level distributions in the metals as calculated in the orthogonal plane wave approximation. The Mo spectra and energy level distribution are taken from the earlier paper. The Nb emission spectrum was taken from work of M. I. Korsunskiy and Ya.Ye.Genkin (Izv.AN SSSR,Ser.fiz.25,1028,1961) and the Nb LIII absorption spectrum was measured for the occasion. The spectra of the two metals are rather

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similar, but the following differences are noted: the $L\beta_2$ emission band of Mo is both wider and more symmetric than that of Nb, and the first L_{III} absorption line of Nb is wider than that of Mo and its maximum is located farther from the absorption edge. Since no self-consistent wave functions are available for Nb, and since orthogonalized Slater functions proved to be insufficiently accurate, the atomic parameters of Nb required for the orthogonal plane wave calculation, namely the Fourier components of the atomic potential, the orthogonality coefficients, and the energy eigenvalues, were obtained by extrapolation from those of Mo. The extrapolation of the energy eigenvalues was performed with the aid of Moseley's law, that of the orthogonality coefficients by means of Hartree's scale transformation of the wave functions, and the Fourier components of the potential were extrapolated by first calculating their dependence on the atomic number with the Fermi-Thomas model. Thirteen orthogonal plane wave functions were employed in the calculation of the energy levels; the method of calculation is described in more detail in the earlier paper. Considerable differences were found between the level distributions in Mo and Nb. In particular, the maximum density of d levels occurs near or below the Fermi surface in Mo and considerably above it in Nb. The L_{III} spectra of the two metals are discussed in some detail in relation to the level distributions, and all the differences noted above are successfully interpreted - in one case (the width of the

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ACCESSION NR: AP4038764

Nb $L\beta_2$ band) almost quantitatively. It is concluded that even incomplete calculations of the energy structure of a solid can sometimes make it possible to interpret x-ray spectra semiquantitatively. Orig.art.has: 3 formulas and 3 figures.

ASSOCIATION: Rostovskiy-na-donu gosudarstvennyy universitet (Rostov-on-the-Don State University)

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OTHER:006

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ACCESSION NR: AP4038774

S/0048/64/028/005/0834/0835

AUTHOR: Blokhin, M.A.; Demekhin, V.F.; Shveytser, I.G.

TITLE: L Spectra of some molybdenum compounds Report, Seventh Conference on X-Ray Spectroscopy held in Yerevan 23 Sep to 1 Oct 1963

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.5, 1964, 834-835

TOPIC TAGS: x-ray spectrum, x-ray absorption, molybdenum, molybdenum compound, chemical bond

ABSTRACT: In order to obtain information concerning the extent to which electrons in the incomplete 4d shell of transition metals participate in chemical bonding, the LII and LIII absorption spectra and the $I\beta_2$ emission bands of metallic molybdenum, and Mo in MoO_3 , $CaMoO_4$ and MoS_2 were recorded. Although some of these spectra have been previously reported, the results of different workers are not all in agreement; moreover, the earlier spectra were not corrected for the width of the inner level. The spectra were recorded photographically with a spectrometer having a resolution of 12 000, and the LIII edge was observed with a second instrument having half this resolving power and employing an ionization chamber for recording. The ob-

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ACCESSION NR: AP4038774

served spectra were corrected for the width of the inner level, the width of the Mo L_{III} level being assumed to be 1.76 eV. The corrected absorption curve for metallic Mo did not break sharply; this indicates that the L_{III} level is in fact somewhat wider than assumed. A gap between the emission and absorption was perceptible in the insulators MoO₃ and CaMoO₄. The L_{III} spectra were in good agreement with those obtained by I.V. Borovskiy, K.P. Gurov, et al (Izv. AN SSSR, Ser. fiz. 21, 1401, 1957). As the valence increased, the absorption edge shifted toward shorter wavelengths. This shift, which attained 3.4 eV for the L_{III} edge of CaMoO₄, is ascribed to decreased shielding of the inner portion of the atom by the valence electrons that become involved in chemical bonds. A second sharp absorption line was observed in the L_{III} spectrum of CaMoO₄ at 13 eV from the primary line. Such lines have been previously observed in molybdenum compounds and are ascribed to transitions of 2p electrons to the incomplete 4d shell. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-on-the-Don State University)

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OTHER: 000

Card 2/2

SHVIRKOVSKIY, Ye.G.; BEREZIN, A.A.; TOLBINOVA, M.V.

Conditions of growing cadmium whiskers from the vapor phase.
Fiz. tver. tela 6 no. 4:1082-1088 Ap '64. (MIRA 17:6)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonsova.

SHVEYTSER, V. [Schweizer, B.]; SKLAR, A.

Statistical metric spaces arising from sets of random variables
in Euclidean n-space. Teor. veroiat. i ee prim. 7 no.4:456-465
'62. (MIRA 15:11)

1. The University of Arizona, Tucson and Illinois Institute of
Technology, Chicago. (Topology) (Mathematical statistics)

PILIPOVICH, M.F., inzh.; RODENKO, K.V., inzh.; SHVEYTSER, V.D., inzh.

Specifications for boring and blasting operations. Bezop.truda v
prom. 3 no.7:29-31 J1 '59. (MIRA 12:11)
(Blasting)

RODENKO, K.V. (g. Vorkuta); SHVEYTSER, V.D. (g. Vorkuta); PILIPOVICH, M.F. (g. Vorkuta)

Safety certification for boring and blasting operations in coal mines. Ugol' 34 no.10:23 O '59. (MIRA 13:2)
(Coal mines and mining--Safety measures)

KICHAYEV, V.A., inzh.; SHVEYTSEY, V.D., inzh.

Use of rod bolting in the Pechora coal basin. Shakht.stroi. 5 no.4:
(MIRA 14:5)
25-26 Ap '61.

1. Pechorskiy nauchno-issledovatel'skiy ugol'nyy institut (for
Kichayev). 2. Shakhta no.40 Pechorskogo basseyna kombinata Vork-
ugol' (for Shveytser).
(Pechora Basin--Mine roof bolting)

VOZNESENSKIY, Lev Aleksandrovich; VOLKOV, Feliks Mikhaylovich;
SHVEYTSEY, Ye.K., red.; PAVLOVA, A., tekhn. red.

[How to fulfill the work on tests and term papers in
economics; aid for the correspondence school students of
institutions of higher learning] Kak vpolnit' kontrol'-
nuiu i kursovuiu raboty po politicheskoi ekonomii; posobie
studentam-zaochnikam VUZOV. Moskva, Gosizd-vo "Vysshaya
shkola," 1960. 28 p. (MIRA 16:7)
(Economics--Study and teaching)

KOSHELEV, Filipp Petrovich, prof.; SHVEYTSER, Ye.K., red.; VORONINA, R.K.,
tekhn.red.

[Economic law of the preferential growth of the production of the
means of production] Ekonomicheskii zakon preimushchestvennogo rosta
produktstva sredstv produktstva; materialy k leksiim po kursu
politicheskoi ekonomii. Moskva, Gos.izd-vo "Vysshiaia shkola," 1960.
70 p. (MIRA 13:10)

(Economics)

GOLEVA, Yuliya Pavlovna; SHVEYTSER, Ye.K., red.; MURASHOVA, V.A., tekhn.
red.

[Loan capital and credit] Ssudnyi kapital i kredit. Moskva, Gos.
izd-vo "Vysshhaia shkola," 1961. 45 p. (MIRA 14:12)
(Finance)