89493

S/136/61/000/004/006/006
E073/E135

Investigation of the Bonding Between Titanium and Steel

specially designed vertical tubular electric furnace (located under the press), which was preliminarily heated to temperatures at which the specimens were plastically deformed (700-1000 °C). The temperature in the furnace was monitored by means of a regulating transformer and was recorded with a galvanometer; the temperature of the specimens was monitored by means of a contact thermocouple. Prior to heating, the specimens were preliminarily pressed together for 1 min under the press so as to eliminate the residues of air between the titanium and the steel. The heated specimens were pressed in a press capable of a maximum pressure of 12 tons at various temperatures, pressures and holding times. The influence was also investigated of the thickness of the titanium layer on the strength of the bond between the titanium and the steel; the best results were obtained for a titanium layer of about 2 mm thickness and therefore in the main experiments 2 mm thick titanium sheet was used throughout. After cooling in air, the specimens were removed from the tubular sleeve and used for machining from them tensile test specimens. By means of metallographic analysis, the zone of

Card 2/8

89493

S/136/61/000/004/006/006
E073/E135

Investigation of the Bonding Between Titanium and Steel

contact was studied and the depth of the diffusion layer determined. The deformation temperature influences greatly the strength of the bond between the titanium and the steel. Fig.1 shows the bond strength, kg/mm^2, as a function of the bonding temperature (curve 1 - 12.75 kg/mm^2, curve 2 - 8.50 kg/mm^2, curve 3 - 4.25 kg/mm^2). The dependence of the bond strength on the temperature for various pressures has approximately the same general character; the bond strength increases with increasing temperature, reaching a maximum at 1000 ^oC. In the temperature range 800-900 ^oC a decrease in the bond strength was observed. Apparently this is explained by the influence of the polymorphous α to β transformation of the titanium. The increase in the strength of the bond indicates formation of a brittle intermetallic zone. Fig.2 shows the influence of pressure on the bond strength between titanium and steel, bond strength kg/mm^2 vs. pressure, kg/mm^2 (curve 1 - cladding at 1000 ^oC, curve 2 - 900 ^oC, curve 3 - 800 ^oC, curve 4 - 700 ^oC). It can be seen that for all the cladding temperatures the bond strength increases with increasing cladding pressure.
Card 3/8

89493

S/136/61/000/004/006/006
E073/E135

Investigation of the Bonding Between Titanium and Steel

At 1000 ℃ and 4.25 kg/mm² the specimens were pressed together for durations of 1 to 5 min. Fig.3 shows the influence of the duration (min) of pressure application on the bond strength, kg/mm². An increase in time to 3 min results in a decrease of the bond strength. A further increase in the duration of pressure application (4 to 5 min) did not have any appreciable influence on the bond strength. Simultaneous plastic deformation of titanium and steel produces complicated diffusion processes. The diffusion zone progresses to a depth which depends on the temperature and pressure of the deformation. Metallographic investigations enabled establishing the presence of a considerable diffusion zone; the dependence of this diffusion zone on the deformation temperature and pressure is plotted in Figs. 4 and 5. Fig.4 shows the dependence of the thickness of the diffusion zone of a bimetal Ti-steel strip on the temperature, depth of the diffusion layer 1×10^4 cm vs. $10\,000/T_{abs}$ (curve 1 - 4.25 kg/mm², curve 2 - 8.5 kg/mm², curve 3 - 12.75 kg/mm²). Fig.5 shows the dependence

Card 4/8

89493

S/136/61/000/004/006/006
E073/E135

Investigation of the Bonding Between Titanium and Steel

on pressure, diffusion coefficient 10^{-9} cm^2/sec vs. pressure, kg/mm^2 (curve 1 - 1000 °C, curve 2 - 900 °C, curve 3 - 800 °C, curve 4 - 700 °C). The experimental results confirm the data obtained by S. Storchheim (Ref.5) on the possibility of controlling the depth of the diffusion zone by varying the applied pressure. The following conclusions are arrived at: 1) The thickness of the titanium layer did not have any appreciable influence on the strength of the bond between titanium and steel.   2) The greatest strength of the weld was obtained for a temperature of 1000 °C and a pressure of 12.75 kg/mm^2.   3) The depth of the diffusion zone depends on the deformation temperature and the pressure, and by changing the pressure it is possible to control the depth of the diffusion zone, whereby the greater the pressure the less deep will be the diffusion zone.   There are 5 figures and 5 references: 3 Soviet and 2 non-Soviet.
(Abstractor's Note: This is a slightly abridged translation). χ
ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

Card 5/8

89493

S/136/61/000/004/006/006
E073/E135

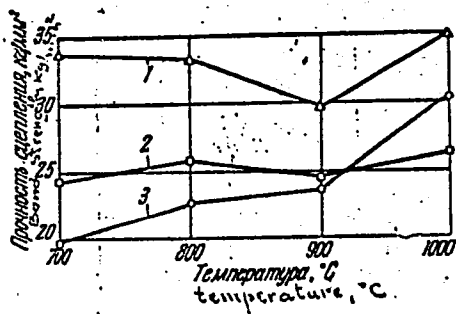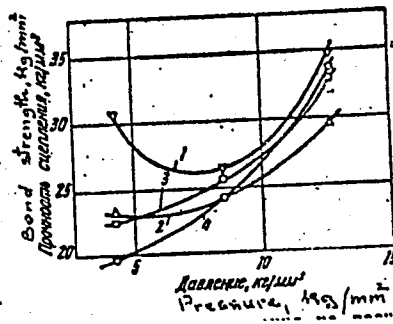Investigation of the Bonding Between Titanium and Steel

Fig. 1

Fig. 2

Card 6/8

89493

Investigation of the Bonding S/136/61/000/004/006/006
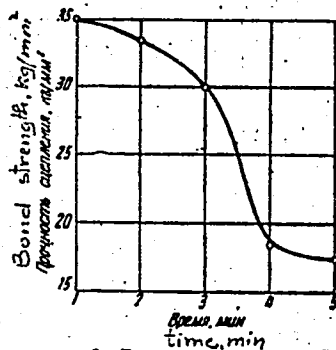   E073/E135
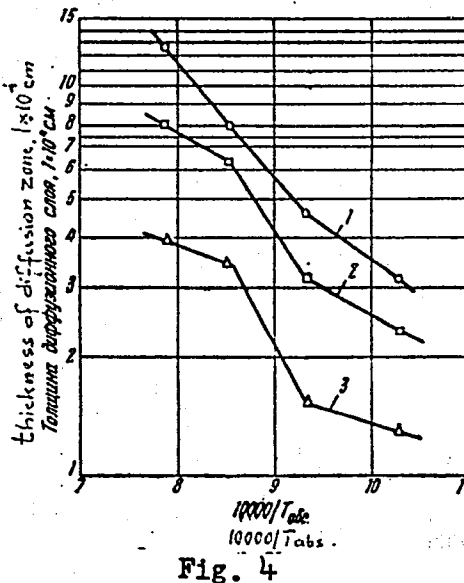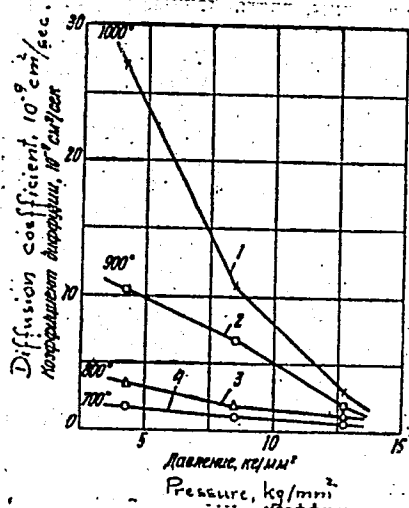

Fig. 3

Card 7/8

Fig. 4

Investigation of the Bonding .....

89493
S/136/61/000/004/006/006
E073/E135

Fig. 5

Card 8/8

30656

S/136/61/000/011/006/007
E193/E135

I.1300

AUTHORS: Pavlov, I.M., and Brinza, V.N.

TITLE: A study of deformation of titanium-clad steel
             during rolling

PERIODICAL: Tsvetnyye metally, no.11, 1961,   59-64

TEXT: The object of the present investigation was to study
the effect of various factors on the strength of bond between the
components of titanium-clad steel. The method of preparation of
test pieces is best explained with reference to Fig.1, showing:
1 - two "Steel 2" plates; 2 - two Ti plates; 3 - end spacers;
4 - rivets (preventing the relative movement of the pack components
during rolling); 5 - a separating compound film. Prior to
rolling, each pack was compressed in a 12-t press to ensure good
contact between steel and Ti, and to expel from the pack as much
air as possible. To protect the interior of the pack from
oxydation during pre-heating and rolling, its edges were either
arc-welded or sealed with a protective paste (unspecified).
Magnesium shavings, acting as oxygen getters, were packed in the
space between Ti plates and spacers. Preheating to 700-1000 °C

Card 1/8

30656

A study of deformation of Ti-clad ...   S/136/61/000/011/006/007
                                           E193/E135

was carried out in a protective atmosphere. A "360" two-high
reversible plate mill was used for rolling. The form of test
pieces used to determine the bond strength is shown in Fig. 8.
The results can be summarized as follows: 1) The bond strength
increased with increasing total reduction and with raising
rolling temperature. This effect is illustrated in Fig. 2, where
bond strength (kg/mm^2) is plotted against total reduction

$\left(\dfrac{H - h}{H} \; 100\%\right)$, curves 1-4 relating to rolling temperatures of 700,

800, 900 and 1000 °C respectively.   2) The lower the initial
Ti/steel plate thickness ratio, the higher is the bond strength of
the clad material. Maximum strength was attained when Ti
constituted 11.1% of the total thickness of the pack before
rolling.   3) The bond strength decreases slightly on increasing
the rolling speed to 0.4 m/sec, after which it remains constant.
4) Although the thickness of the diffusion layer increases with
increasing preheating time, the bond strength is not affected by
this factor.   5) The greater the total reduction, the smaller is
the difference between the reduction of steel and Ti plates.

Card 2/9 3

A study of deformation of Ti-clad ...

30656
S/136/61/000/011/006/007
E193/E135

6) If excessively light drafts are employed in the first few passes, the pack components separate.   7) The larger the number of passes in which a given total reduction is attained, the higher is the bond strength. This is illustrated in Fig.6, where the bond strength (kg/mm^2) of a bi-metal strip, given 80% reduction, is plotted against the number of passes. The thickness of the diffusion layer is similarly affected, increasing from 0.0025 mm in a Ti-clad steel, given 80% reduction in one pass, to 0.0045 mm in material given the same reduction in 15 passes.   8) Welding of the edges of the pack can be dispensed with, since sufficient protection against oxydation is provided by sealing with a protective paint.   9) For maximum bond strength, the following procedure is recommended: pickle, buff, and degrease the contacting surfaces; preheat to 900-1000 $^\circ$C; use a draft of at least 35% in the first pass, and follow by as many passes as practicable. There are 8 figures, 1 table and 9 references: 8 Soviet-bloc and 1 non-Soviet-bloc. The English language reference reads: Ref.1: Bertossa, R.C. Iron Age, 1957, v.180, no.18.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

Card 3/8

PAVLOV, I. M.; BRINZA, V. N., inzh.

Lamination during the rolling of bi-metal. Sbor. Inst. stali
i splav. no.40:152-158 '62.   (MIRA 16:1)

1. Chlen-korrespondent AN SSSR(for Pavlov).

            (Laminated metals—Defects)
            (Rolling(Metalwork))

S/848/62/000/040/003/005
E193/E483

AUTHORS: Pavlov, I.M., Corresponding Member AS USSR,
             Brinza, V.N., Engineer

TITLE: Contribution to the problem of the bond of titanium to
             steel in the solid state

SOURCE: Moscow. Institut stali i splavov. Sbornik. no.40,
             1962. Protsessy prokatki. 160-164

TEXT: The behaviour of the contact zone between titanium and
steel bi-metal components under common plastic deformation was
studied by the authors with particular reference to the formation
of a diffusion zone and the properties of the transition zone.
The experimental methods have been previously described by the
same authors (Tsvetnyye metally, no.10, 1961).   It is now found
that with increasing pressure the thickness of the diffusion
inter-layer diminishes.   Beyond a critical pressure, the diffusion
inter-layer thins out and may even vanish.   The change in the
thickness of the diffusion layer is associated with the phenomenon
of its being squeezed out by the less pliable layers of titanium
and steel.   As the diffusion inter-layer becomes thinner its
microhardness approaches that of titanium and steel.   The
Card 1/2

Contribution to the problem ...

S/848/62/000/040/003/005
E193/E483

temperature in the interval between 700 and 1000°C has only a
small effect.   There are 6 figures.

Card 2/2

PAVLOV, I.M.; LEDENEV, Yu.N.; BRINZA, V.N.

Nonuniform deformation in the rolling of bimetals. Izv. vys.
ucheb. zav.; chern. met. 5 no.7:110-113 '62.   (MIRA 15:8)

1. Moskovskiy institut stali i splavov.
    (Rolling (Metalwork)) (Deformations (Mechanics))

L 21737-65   EWT(m)/EWP(t)/EWP(b)   IJP(c)   JD

ACCESSION NR: AP4021565   S/0136/64/000/003/0090/0091

AUTHOR: Brinza, V. N.; Lepekin, V. S.

TITLE: Repeated heatings of the titanium-clad steel   b

SOURCE: Tsvetnyye metally, no. 3, 1964, 90-91

TOPIC TAGS: titanium clad steel, cladding steel transition zone, transition zone property, transition zone structure, clad steel annealing, diffusion zone

ABSTRACT: The effect of repeated heating at 400-1000C on the microhardness and the structure of the transition zone between titanium cladding and low carbon steel was investigated to determine the optimum annealing temperature for the titanium clad steel. The heating was done in a vacuum of 10 mm Hg at a rate of 200C/hr. Annealing at 1000C changes the structure significantly - the diffusion zone consists of sharply differing phases, its plasticity is reduced sharply due to the formation of intermetallic compounds, the eutectic that is formed is brittle and porous, and the microhardness of titanium, especially at the diffusion zone, is sharply increased (Fig. 1). Annealing at 900C for 1 hr also impaired properties; repeated annealing at 750C (four 2 hr cycles) resulted in increased width

Card 1/2

L 21738-65
ACCESSION NR: AP4021565

and microhardness of the transition zone due to the formation of intermetallic compounds. Only annealing at 450-500C has no detrimental effects; on the contrary it lowers microhardness and improves physical properties in the transition zone: treatment at 400C results in a slight decrease, only 3-5%, in the original strength of the bond between cladding and steel (Fig. 2). Orig. art. has: 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00   ENCL: 02   SUB CODE: MM

NO REF SOV: 006   OTHER: 003

Card 2/4

LEDENEV, Yu.N., kand. tekhn. nauk, dotsent; BRINZA, V.N., kand. tekhn. nauk, dotsent; VAGIN, V.S., inzh.

Dynamometer for measuring torques on large-diameter shafts.
Vest. mashinostr. 44 no.11:49-50 N '64   (MIRA 18:2)

BRINZA, Vladimir Nikolayevich; KOSHKA, Aleksey Petrovich

[Improving the performance of rolling mills for the cold rolling of sheet steel] Povyshenie proizvoditel'nosti stanov kholodnoi prokatki tonkolistovoi stali. Moskva, Metallurgiia, 1965. 138 p.   (MIRA 18:5)

L 31807-65   EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(b)   Pf-4   T-05
AM4045251   BOOK EXPLOITATION
                                                      S/

Koshka, Aleksey Petrovich; Brinza, Vladimir Nikolayevich

Equipment for cold-rolling mills (Oborudovaniye tsekhov kholodnoy prokatki)
    Moscow, Metallurgizdat, 1964. 208 p. illus., biblio. Errata slip inserted.
    2460 copies printed. Editor of the publishing house: M. R. Lanovskaya;
    Technical editor: P. G. Islent'yeva

TOPIC TAGS: cold rolling, sheet, steel, sheet steel

PURPOSE AND COVERAGE: This book was intended for engineers and technicians who
utilize cold-rolling equipment and for those who design such equipment. It may
be of use to students specializing in the technology and the automation of the
rolling process and rolling-mill construction. Problems of utilizing equipment
for cold rolling thin strip are clarified, the design of machinery and mechanisms
is analyzed, and certain questions in the mechanization and automation of techno-
logical processes are studied. The authors express their gratitude to Professor
A. A. Korolev.

Card 1/2

I 31807-65
AM4045251

TABLE OF CONTENTS:

/

SUB CODE: MM   SUBMITTED: 01Nov63   NB REF SOV: 027

OTHER: 025

Card 2/2

ACC NR: AM5015043 ...., BOOK EXPLOITATION ....   UR/

Brinza, Vladimir Nikolayevich; Koshka, Aleksey Petrovich

Raising the productivity of mills for cold rolling thin-sheet steel (Povysheniye proizvoditel'nosti stanov kholodnoy prokatki tonkolistovoy stali) Moscow, Izd-vo "Metallurgiya", 1965. 138 p. illus., biblio. 2337 copies printed. Editor:of the publishing house: Yu. V. Vladimirov; Technical editor: N. A. Korevina

TOPIC TAGS: cold rolling, sheet metal, rolling mill, steel manufacture process

PURPOSE AND COVERAGE: This book was intended for engineers and technicians in rolling-mill shops and for designers of rolling mills; it may be of use also to students in vuzes studying the forming of metals. The operation of cold-rolling mills for sheet steel is analyzed. The technological processes involved in the production of sheet and factors influencing mill productivity are investigated. Measures to increase the productivity of individual mills are described.

TABLE OF CONTENTS:

Card 1/3   UDC: 621.771.24

ACC NR: AM5015043

Card 2/3

ACC NR: AM5015043

SUB CODE: 13/ SUBM DATE: 17Nov64/ ORIG REF: 060/ OTH REF: 028

Card 3/3

KOSHKA, A.P.; PEDOS, I.F.; BRINZA, V.N.

Making use of emulsions and lubricants from cold rolling mills.
Metallurg 10 no.8:28-29 Ag '65.   (MIRA 18:8)

1. Novolipetskiy metallurgicheskiy zavod.

(N) L 11626-66   EWT(m)/EWA(d)/EWP(t)/EWP(a)/EWP(b)   IJP(c)   JD/WB

ACC NR: AP6001106   SOURCE CODE: UR/0136/65/000/012/0077/0079

AUTHOR: Brinza, V. N.; Lepekin, V. S.

ORG: none

TITLE: Protection of titanium alloys from oxidation

SOURCE: Tsvetnyye metally, no. 12, 1965, 77-79

TOPIC TAGS: coating, protective coating, titanium alloy, alloy coating, titanium alloy coating, titanium alloy oxidation, oxide inhibition

ABSTRACT: A coating for protecting titanium alloys from oxidation during heating for pressure working has been investigated. The coating, consisting of 31—35% talc, 16—18% rutile, 8—10% borax, 12—14% Na_2CO_3, 0.3% K_2CO_3, and 17% coolin mixed with water, was applied by dipping. Coated specimens of BT11, BT14, and OT4 titanium alloys were heated in air for 3 hr at 900—1200C or in a flow of O_2, N_2, and CO_2. The weight loss of coated BT11, BT14, and OT4 specimens heated in air was 0.006, 0.8, and 0.4%, respectively, compared to 5—9% for uncoated specimens. The surface hardness of coated specimens increased by 15—20%, and that of uncoated specimens by 45—50%. The weight loss of uncoated specimens heated in a gas flow was about 10%, and that of coated specimens was 0.01—0.1%. The investigation showed that the properties of uncoated alloy heated in a vacuum furnace or coated alloy heated in an ordinary industrial furnace do not differ greatly. Orig. art. has: 1 figure.   [WW]

Card 1/2   UDC: 669.295:66.042.56

L 11626-66

ACC NR: AP6001106

SUB CODE: 11/   SUBM DATE: none/   ORIG REF: 002/   OTH REF: 001/   ATD PRESS: 4/77

Card 2/

BRINZAN, Gh.

Bucharest, Stiinta si Tehnica, Vol LXV, No 5, May 62

(continued)

14. "The Birth of the Elements," Engr T. TEODORESCU and
    Engr M. MOISA; pp 26-27.

15. "The Formation of Natural Coals," Ch. BRINZAN and
    Ion CISMAS; pp 28-29.

16. "The Overthrow of the Colonial System and the
    Bankruptcy of Missionaries," Aurelian TACHE, University
    Lecturer (Lector universitar); pp 30-31.

17. "The Alpine Pastures," C. BARCULESCU, Candidate in
    Agricultural Sciences (Candidat in Stiinte Agricole);
    pp 32-33.

18. "Modern Methods for the Exploitation of Oil, Fluid
    Injections," Engr Ion TOCAN, Candidate in Sciences
    (Candidat in Stiinte), Institute of Petroleum, Gas
    and Geology (Institutul de Petrol, Gaze si Geologie),
    Engr A. MIHAILESCU, Extraction Trust (Trustul de
    Extractie), Ploiesti; Maria DINU, Extraction Trust,
    Ploiesti, Engr D. ILIESCU, Extraction Trust (Trust
    de Extractie), Engr O. TIRGOVISTE and Engr Mircea PUPEZEscu
    of the Technical Services (Serviciul Tehnic) of the
    General Directorate-for the Drilling and Extraction
    (I.G.) Directiei Generale Foraj-Extractie Titei);
    pp 34-36.

19. "The Automation of Regeneration-Chamber Cooling
    in the Martin Furnaces," Engr Traian GHEORGHITA;
    pp 37.

20. "British Oxygen," Aurelia BAPO, I.C.G.—
    pp 38, 43.

21. "Cosmos. Again the Venus," pp 39.

22. "Modern Equipment. The Textile Industry," pp 40.

23. "Let Us Build a Mini-Jet," Engr Vasile GHEORGHITA;
    pp 42-43.

— 2/2 —

BRINZAN, Gh.; CISMAS, Ion

Formation of natural coals. St si Teh Buc 14 no.5:28-29 My '62

NAICU, I., ing.; BRINZAN,I., ing.;CRACIUNESCU, I.

Method and device for measuring the real unitary compression
stresses in concrete. Rev constr si mat constr 16 no.4:203-204
Ap'64

FLORIAN, Petru, prof. (Dej); MARUSTERU, St., (Baia Mare); HERLING, C.,
        student; PIRSAN, L.C., student (Bucuresti); IONESCU-TIU, C.;
        COSTACHESCU, C.V.; LAMBA, Stelian (Constanta); LIVIU, Petre
        (Pucioasa); STRATESCU, Ion, student; BRINZANESCU, V., elev
        (Constanta); KLIM, Bratu, student (Bucuresti); TEMPEANU, C.
        (Hunedorara); CALINESCU, Aurelian (Brasov); MUNTEANU, Valentin
        (Cluj); OPREA, Miron (Ploiesti); MIHAILEANU, N.; TIGANOIU, Al.,
        inginer; Buicliu, Gh.; POPA, Eugen I. (Iasi)

Proposed problems. Gaz mat B 14 no.8:481-485 Ag '63.

1. Institutul Politehnic Bucuresti (for Herling).

ERINZANESCU, Vasila (Constanta)

     Mathematical notes. Gaz mat. B 15 no.1:14-16 Ja '64.

LATCU, D., prof. (Hunedoara); PETRESCU, N., prof. (Tg. Carbunesti); CERCHEZ,
    Mihu; ZENEMBISI, I., prof. (P. Neamt); TEODORESCU, Voltaire (P. Neamt);
    IONESCU-TIU, C.; TOMESCU, Ion (Bucaresti); DUMITREASA, Gh. (P.Neamt);
    MIHAILESCU, D., prof. (Pitesti); DUMITRU, Acu (Cluj); LEONTE, Alexandru
    (Bucaresti); ANGHELACHE, Tudorica (Bucaresti); POPA, Al. (Pucioasa);
    BRINZANESCU, V. (Bucaresti); LUSTIG, Gh. (Bucaresti); ISAC, E. (Tg. Jiu);
    LEVIN, Alexandru (Tallin, U.S.S.R.); SIMION, A. (Bacau); AVADANEI,
    Cornelia (P. Neamt); SIMIONESCU, Gh.D.; FLONDOR, Elena, (Bucuresti)

Proposed problems in mathematics. Gaz. mat B 15 no.4:172-177
Ap '64.

BRINZANESCU, V. (Constanta); DASCALESCU, H. (Ploiesti); IONESCU-TIU, C.; ONOFRAS, E., prof. (Ploiesti); LEONTE, Aristide (Craiova); METTLER, Martin, prof. (Viseu de Sus); LUPOVOC, M.L. (Lugansk, U.S.S.R.); BIRZAN, Romanel (Cluj); GRIGORESCU, Serban (Bucuresti)

Solved problems. Gaz mat B 16 no.1:17-31 Ja '65.

LUCIAN, Otilia, dr.; SIMIONESCU, Olga, dr.; POMPAN, L., dr.; BOIAN,
     Alexandra, dr.; BRINZEI, A., dr.; JUVARA, A.N.; PESCARU, Ecaterina

Study of the effectiveness of different methods of treatment in
lambliasis. Pediatria (Bucur.) 14 no.3:265-271 My-Je '65.

1. Lucrare efectuata in Institutul "dr. I. Cantacuzino", Sectia
parazitologie, Institutul medico- farmaceutic, Bucuresti; Catedra
de parazitologie si Spitalul de copii "23 August", Sectia de
parazitologie.

IONESCU-TIU, C.; BRINZEI, P. Dan, elev (Iasi); ATANASIU, Ionel, prof.
(Gugesti); SULA, Octavian (Iasi); MATEI, Augustin I. (Cluj);
MIHALASCU, D. (Pitesti); POPA, Al., elev (Pucioasa)

Exercises and problems proposed for grades 5-8. Gaz mat B 14
no.8:486-488 Ag '63.

BRINZEU,P.; RUSSO,I.; MARCU,M.; REKASI,C.

Intestinal infarction of venous origin. Rumanian M. Rev. 4 no.1:
88-90 Ja-Mr '60.

1. 2nd Surgical Clinic of the Medical Institute in Timisoara.
        (INTESTINES blood supply)
        (INFARCTION etiol.)

RUMANIA

BRINZEU, P., Lecturer.

Institute of Medicine and Pharmacy, Timisoara (I.M.F.,
Timisoara)

Bucharest, Viata Medicala, No 20, 15 Oct 63, pp 1377-1382

"The Possibilities and Limitations of Present-Day Treatment
of the Varicose Disease."

BRINZEI, P., conf.; SELARU, M., dr.

Data on the reintegration of reflexes after epileptic seizures.
Neurologia (Bucur) 10 no.2:119-122 Mr-Ap'65.

1. Lucrare efectuata in Clinica de psihiatrie, Iasi.

SHEVTSOV, Dmitriy Nikolayevich; YURCHENKO, L.I., red.; BRIO,I.L.,
    spets. red.

    [Conditions governing the application of the combined
    method for the development of permafrost placers] Uslo-
    viia primeneniia kombinirovannogo sposoba razrabotki
    vechnomerzlykh rossypei. Magadan, Magadanskoe knizhnoe
    izd-vo, 1964. 29 p.   (MIRA 18:3)

L 23510-66   EWP(k)/EWT(d)/EWP(h)/EWP(v)/EWP(l)

ACC NR: AP6002458   SOURCE CODE: UR/0144/65/000/012/1324/1330

AUTHOR: Balakirev, V. S. (Candidate of technical sciences, Senior research associate, Member of automation of chemical production department);
Brio, B. S. (Engineer, Member of automation of chemical production department)

ORG: Moscow Institute of Chemical Machine Building (Moskovskiy institut khimicheskogo mashinostroyeniya)

TITLE: Determination of settings for digital controllers

TOPIC TAGS: digital controller, automatic control, automatic control system, automatic control theory

ABSTRACT: The inclusion of a digital computer into a closed-loop automatic control system turns the latter into a pulse-type relay system and renders inapplicable conventional methods of calculating the settings for continuous linear controllers (proportional, integral, or proportional-integral). The dynamic properties of plant 1 (see figure) are described by this transfer function: $W_0(p) = \dfrac{ke^{-p\tau}}{\sum\limits_{\mu=1}^{n} T_\mu{}^\kappa p^\kappa + 1}$, where k,

Card 1/2   UDC: 681.142.3+ 62 - 502

L 23510-66

ACC NR: AP6002458
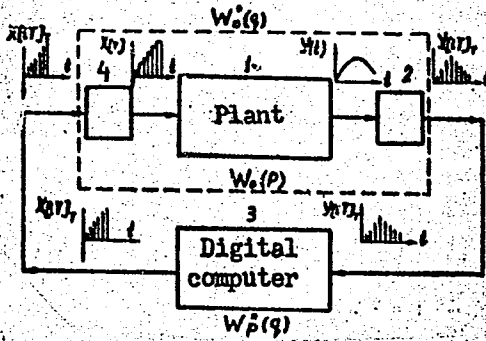
Automatic system with a
control digital computer

2 figures and 26 formulas.

ζ, T_μ, μ = 1, 2, ..., and n are known positive numbers; usually, $n \leqslant 3$. Continuous plant output y(t) is applied to analog-digital converter 2 which level-quantizes the signal. The control response is applied to digital-analog converter 4 (e.g., a pulse-signal shaper). The well-known method of generalized amplitude-phase characteristics (used for determining the settings of continuous linear controllers) is adapted for the above control-computer case, and formulas for setting a proportional-integral controller are developed. A procedure for calculating the settings is indicated. Orig. art. has:

SUB CODE: 09, 13 / SUBM DATE: 18Nov64 / ORIG REF: 007

Card 2/2

C A

12

Modification of Werber's method for determination of fat in milk. N. Brio. *Myasnaya i Molochnaya Prom.* 1945, No. 6, 55-8.—The butyrometer is charged with 16 ml. H_2SO_4 (d. 1.65-1.75), 5 ml. milk, and 1 ml. iso-AmOH. After shaking, the vessel is kept at 65-70° for 5 min. and centrifuged for 10 min. After shaking, the heating and centrifuging are repeated; then the vessel is heated in an inverted position for 5 min. at 65-70°, centrifuged 10 min., and reheated for 5 min. The fat layer reading is taken; milk fat % is obtained by multiplying the reading by 2.2. Iso-BuOH can be substituted for iso-AmOH, by using the above procedure for products with less than 20% fat; otherwise, the amt. of iso-BuOH is reduced to 3 cc. However, the use of iso-BuOH requires H_2SO_4 of d. 1.80-1.81. The modification was devised because of shortages in concd. H_2SO_4. G. M. Kosolapoff

CA

Photoelectric determination of fat in milk. ...N. Iljin and I. Vlodavets. *Molochnaya Prom.* 12, No. 7, 29-31(1951). — Fat is detd. in milk by photoelec. detn. of light transmission; the principle depends on turbidity caused by fat-droplet dispersion. A red color filter is desirable. An overall accuracy of 0.1-0.2% is obtained with the use of a proper calibration scale.   G. M. Kosolapoff

CA

Indications of milk butyrometer. N. Brio, *Moloch naya Prom.* 12, No. 7, 30-4(1951).—The work of several study groups is summarized. The reading of the butyrometer should be referred not to 100 g. of milk but to 100 ml. (or about 100 g.) for sp. d. 1.03.   G. M. Kosolapoff

BRIO, N.P.

Posobie dlia laborantov molochnykh zavo-
dov (Manual for laboratory workers in milk plants).
Moskva, Pishchepromizdat, 1952. 110 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 1, April 1953

1. BRIO. N.

2. USSR (600)

4. Butter - Analysis and Examination

7. Determining salt content of butter. Mol. prom. 13 no. 10, 1952.

9. <u>Monthly List of Russian Accessions</u>, Library of Congress, February 1953. Unclassified.

BRIO IV

☑ Determination of total-solids in whole milk. N. Brio. MD

Molochnaya Prom. 16, No. 6, 20-7(1955).—Computation of total-solids from the fat content and sp. gr. of the milk by means of various formulas, the heat-treatment of milk before taking a lactometer reading, and the errors involved are discussed. Vladimir N. Krukovsky

INIKHOV, Georgiy Sergeyevich, Zasl. deyatel' nauki i tekhniki, doktor
khim. nauk, prof.; BRIO, N.P., retsenzent; SEMENETS, Z.F.,
retsenzent; BOGATAYA, L.M., red.; ZARSHCHIKOVA, L.N., tekhn.
red.

[Biochemistry of milk and milk products]Biokhimiia moloka i mo-
lochnykh produktov. 2. izd. Moskva, Pishchepromizdat, 1962.
287 p.   (MIRA 15:12)
          (Dairy products--Analysis and examination)

BRIO, Nataliya Petrovna; KONOKOTINA, Nadezhda Petrovna; TIOV Aleksandr
        Ivanovich; PICHUGINA, N.V., inzh., retsenzent; CHEKULAYEVA,
        L.V., kand. tekhn. nauk; BOGATAYA, L.M., red.; ZARSHCHIKOVA,
        L.N., tekhn. red.

    [Production and chemical control in the dairy industry] Tekhno-
    khimicheskii kontrol' v molochnoi promyshlennosti. Moskva, Pi-
    shchepromizdat, 1962. 395 p.   (MIRA 16:6)
            (Milk—Analysis and examination)
            (Dairy industry—Quality control)

Microbiology

YUGOSLAVIA

BRION, A.; FONTAINE, M.; FONTAINE, M.P.; and LeFrancois-Chabas, D.;
Poultry Pathology Laboratory INRA of Veterinary College in Alfort, and
Poultry Experimental Station in Poufragan, France [Original versions of
affiliations not given].

"Immunogenicity of a New Strain of Newcastle-Disease Virus."

Abstract [French summary modified]: A new strain of NDV, selected from
chick fibroblast tissue-culture isolates, seems to possess properties
which would make it a very reasonable choice for a live vaccine against
this poultry scourge. Three tables, 7 US references; manuscript received
23 May 66.

1/1

LUNKEVICH, P.N., zaslushennyy zootekhnik RSFSR,;BRION, Ye.

Increasing butterfat in purebreeding. Zhivotnovodstvo 20 no. 10:53-59 O '58.
(MIRA 11:10)

1. Glavnyy zootekhnik Krymskogo oblsel'khozupravleniya(for Lunkevich).
2. Direktor Krymskogo Gosplemrassadnika krasnogo stepnogo skota(for Brion).

(Dairy cattle breeding)

Determination of the fat content of cream at a more than
six-fold dilution. N. Brix Malachawsi From 0, 45 6
(1948); Chem. Zentr. (Russian Zone Ed.) 1949, 1, 811. A
formula is given for the calcn. The d is read off from pre-
viously calcd. tables and the fat content is then measured
with the milk butyrometer.   M. G. Moore

SOV/110-59-4-4/23

AUTHORS: Fedorenko, V.G., Kuznichenko, A.N., Prikhod'ko, A.I., Brisenko, V.K., Morozenko, V.Ya. (Engineers)

TITLE: Production Flow Lines for Bushings and Bracket Insulators (Potochnyye linii proizvodstva proknodnykn i opornykh izolyatorov)

ABSTRACT: Flow lines for bushing and bracket insulator production have been installed at a number of insulator works but they do not cover the whole process of manufacture and usually terminate at the turning process. The production lines described in this article use belt conveyors along which the various machines and ovens are located; the lines are illustrated in Fig 1. The raw material is delivered on a conveyor, it is then extruded and the parts are cut to length and immediately turned on lathes. They are then conveyed to the drying ovens. The dried insulators are inspected for cracks and moisture content. The glazing procedures are somewhat different for insulators and bushings but both operations are served by the conveyor belt. A photograph of the production lines is given in Fig 2 and the bushing glazing section is shown in Fig 3.

Card 1/2

Production Flow Lines for Bushings and Bracket Insulators   SOV/110-59-4-4/23

Available conveyor type ovens are only suitable for drying times of the order of 4 hours and are, therefore, not suitable for high voltage insulators that require 24 hours drying time. It was, therefore, decided to construct three such conveyors in series to form a single unit. The modifications that were required to the ovens are described. Steam injection was used to retard the initial rate of the drying. Hitherto, some types of insulators have been turned in two operations which have now been combined into one. The procedure is illustrated diagramatically in Fig 4 and is explained.

Card 2/2

There are 4 figures, no references.

SUBMITTED: December 22, 1958

AUTHORS: Fedorenko, V.G., Kuznichenko, A.N., Prikhod'ko, A.I., Brisenko, V.K., and Morozenko, V.Ya. (all Engineers)

SOV/110-59-9-8/22

TITLE: Mechanised Flow Lines for the Manufacture of Telephone and Telegraph Insulators

ABSTRACT: The usual methods of manufacturing small telephone and other insulators involves the use of gypsum moulds and is very laborious. The first step in mechanisation is to use metal moulds, which were first introduced in the Tokarovskiy Works in 1957. A semi-automatic moulding machine is now in use with telescopic metallic moulds. The machine and moulds are operated by compressed air at a pressure of 4 atm. The inner part of the moulding tool rotates first in one direction, then in the other, and cuts a thread in the insulator. The outer part of the tool rotates in one direction only. The tool moves backwards and forwards as well as rotating. This semi-automatic moulding machine can produce up to 4000 insulators a shift. In addition to this machine there is a pneumatically-operated trimming lathe of the same output. Waste clay from the moulding and trimming machines is immediately returned to the vacuum press on the return half of the

Card 1/2

Mechanised Flow Lines for the Manufacture of Telephone and Telegraph
Insulators

SOV/110-59-9-8/22

conveyor belt.   Thus the scrap pieces are always quickly
used and do not have time to become dry or dirty.
Thuringia-type conveyor driers 19 metres long are used to
dry the insulators.   The insulators are glazed on semi-
automatic roundabout machines illustrated in Fig 2;   the
principles of operation are briefly described.   As will
be seen from the general illustration of the flow line
given in Fig 3, all the work is handled on conveyors.
The introduction of mechanisation has cut production time
by two days and only a third of the former number of
workers is required.   Immediate and continuous use of
scrap clay without re-milling has cut consumption by a
factor of 1.2.
There are 3 figures and 2 Soviet references.

Card
2/2

FEDORENKO, V.G., inzh.; KUZNICHENKO, A.N., inzh.; PRIKHOD'KO, A.I., inzh.
BRISENKO, V.K., inzh.; MOROZENKO, V.Ya., inzh.

Continuous line for the production of porcelaine used in electric
equipment. Vest.elektroprom. 31 no.1:58-59 Ja '60.

(Assembly-line methods) (Porcelain)   (MIRA 13:5)

AUTHORS: Brish, A.A., Dmitriyev, A.B., Kosmarskiy, L.N., Sachkov, Yu.N., Sbitnev, Ye.A., Kheyfets, A.B., Tsitsiashvili, S.S., and Eyg, L.S.

SOV/120-58-5-13/32

TITLE: A Vacuum Spark Switch (Vakuumnyye iskrovyye rele)

ABSTRACT: The device consists of an evacuated glass envelope which contains 3 electrodes (see the general diagram of Fig.1). The principal discharge gap comprises a complex cathode consisting of two electrodes which form an auxiliary discharge gap. The two cathode electrodes are separated by means of a fine mica plate; when a triggering pulse is applied, a discharge is formed on the surface of the mica. Fig.2 shows 6 alternative solutions of the electrode systems of vacuum spark switches. Fig.3 shows photographs of actual switches (tubes 4, 5, 6 and 7) and photographs of 3 thyratrons (tubes 1, 2 and 3) for the purpose of comparison. The basic parameter of a switch is its anode voltage V_a, its operating current I and its triggering breakdown voltage V_π. The anode operating voltages up to 20 kV could be obtained with a discharge gap of 1 mm. The values of the

Card 1/3

A Vacuum Spark Switch   SOV/120-58-5-13/32

discharge current are determined primarily by the external
parameters of the circuit in which the switch is employed.
The currents can be very high since the tube is "extinguished"
at a current of about 20 A. The energy required for the
initiation of the main-gap breakdown is very small. Thus
the switch can be triggered by the energy stored in a
capacitance of about $5~\mu f$, but the triggering voltage should
be at least 1500 V. The switch is subject to some time
delays. The overall delay is $T = t_1 + t_2 + t_3$, where
t_1 is the time between the commencement of the triggering
pulse and the inception of the trigger gap discharge; t_2
is the time lag between the commencement of the auxiliary
discharge and the inception of the main-gap discharge, and
t_3 is the formative time of the main gap discharge. These
time delays are illustrated graphically in Fig.4. In actual
tubes the formative times of the main discharge were of the
order of 0.03 µs. The electrical characteristics of a spark

Card 2/3

SOV/120-58-5-13/32

A Vacuum Spark Switch

switch are affected by the number of switchings performed.
This is illustrated in Fig.11, which shows the ignition
voltage of the auxiliary gap as a function of the number of
switchings N : it is seen that the voltage decreases with
N . The paper contains 11 figures and no references.

SUBMITTED: November 15, 1957.

Card 3/3

24.1200,16.7600,24.2100,
24.2120,24.2500,5.3610

76966
SOV/56-37-6-6/55

AUTHORS: Brish, A. A., Tarasov, M. S., TSukerman, V. A.

TITLE: Electrical Conductivity of the Explosion Products of Condensed Explosives

ABSTRACT: The electrical conductivity of the explosion products of trinitrotoluene + hexogen (1:1 by weight mixture) melt and powdered mixture, hexogen (powder), trinitrotoluene (powder), 2,4,6-trinitrophenyl-methylnitramide, and lead azide was investigated by the electrical contact and electromagnetic methods. Near the wave front the conductivity of the explosives lies between 0.1 $\Omega^{-1}cm^{-1}$ and $6\,\Omega^{-1}cm^{-1}$. With an increase in the distance from the front, the conductivity of the explosion products decreased. The conductivity increased with the increase in the density of the explosives and the intensity of the detonation wave. It is proposed that besides thermal

Card 1/2

Electrical Conductivity of the Explosion   76966
Products of Condensed Explosives   SOV/56-37-6-6/55

        ionization the high values of the electric conduc-
tivity may be related to the high densities and
pressures appearing at the front of the detonation
wave. K. K. Krupnikov and G. M. Gandel'man partici-
pated in the experimental part of this work. There
is a description (with two schematic diagrams) of the
two methods of measuring the conductivity, 5 graphs,
1 table, and 5 Soviet references.

SUBMITTED: July 4, 1959

Card 2/2

BRISH, A.A.; TARASOV, M.S.; TSUKERMAN, V.A.

Electric conductivity of dielectrics in strong shock waves. Zhur.
eksp. i teor. fiz. 38 no.1:22-25 Jan '60.   (MIRA 14:9)
(Dielectrics) (Shock waves)

ACC NR: AP7000650   SOURCE CODE: UR/0414/66/000/003/0132/0133

AUTHOR: Brish, A. A. (Moscow); Galeyev, I. A. (Moscow); Zaytsev, B. N. (Moscow); Sbitnev, Ye. A. (Moscow); Tatarintsev, L. V. (Moscow)

ORG: none

TITLE: Initiation of detonations in condensed explosives with a laser

SOURCE: Fizika goreniya i vzryva, no. 3, 1966, 132-133

TOPIC TAGS: laser, ignition, explosive, solid propellant, combustion, detonation, laser detonation

ABSTRACT: Previous experiments have shown that strong light pulses from gas dis-charge lamps can initiate detonations of primary but not of secondary explosives. The present study showed that detonations of lead azide and PETN can be induced by a Q-modulated laser. The laser contained a neodymium glass plate (10 x 120 mm) and was Q-modulated with a rotating prism (25,000 rpm). The starting pulse was recorded on one track of an OK-21 oscillograph. The signal from another photocell recorded on the second track indicated the instant when the detonation wave reached the end of the charge. The explosives with a 1 g/cm^3 density were placed in an organic glass shell with a 10 mm inner diameter and a height of 5 mm. The starting pulse had an energy of 10 Mw, a duration of 0.1 msec, and a beam diameter of 15 mm. The lead azide was detonated with a laser beam energy on the surface of 0.08 Mw/mm^2, while the

Card 1/2   UDC: 534.222.2+541.427.6

ACC NR: AP7000650

PETN detonated only at considerably higher intensities attained by focusing the beam.
This intensity was higher than that achieved by ordinary light pulses. The results
also showed that transition to detonation is as fast as in impact-detonated charges.
This was proved by using the charge detonated by the laser to detonate a second
charge placed behind it. Orig. art. has: 2 figures.

SUB CODE: 21/ SUBM DATE: 20Jan66/ OTH REF: 004/ ATD PRESS: 5108

Card 2/2

BRISH, N. I.

"Boundary Problems for Ordinary Differential Equations With a Small Parameter in the Highest Derivative." Cand Phys-Math Sci, Mathematics Inst imeni Steklov, Moscow, 1953. Dissertation (Referativny Zhurnal--Matematika Moscow, Feb 54)

SO: SUM 186, 19 Aug 1954

BRISH, N.I.

Boundary value problems for the equation $\varepsilon y'' = f(x, y, y')$ with small values for ε. Dokl.AN SSSR 95 no.3:429-432 Mr '54.

(MLRA 7:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
Predstavleno akademikom I.G.Petrovskim.   (Equations)

RS242

S/044/60/000/008/014/035
C111/C222

AUTHOR: Brish, N.I.

TITLE: On the first boundary value problem for an ordinary
            differential equation with a small parameter for the highest
            derivative

PERIODICAL: Referativnyy zhurnal. Matematika, no.8, 1960, 94,
            abstract no.8903. Uch. zap. Minsk. gos. ped. in-ta, 1957,
            no.7, 3-10

TEXT: On the interval $[a,b]$ the author considers the solution $y_\varepsilon(x)$
of the equation

$$L_\varepsilon(y) \equiv \varepsilon(-1)^n (p_n(x) y^{(n)})^{(n)} + \sum_{k=0}^{n-1} (-1)^k (p_k(x) y^{(k)}(x))^{(k)} = f(x) \qquad (1)$$

$(\varepsilon > 0)$ with the boundary conditions

$$y_\varepsilon^{(k)}(a) = y_\varepsilon^{(k)}(b) = 0 \quad (k=0,1,\ldots,n-1), \qquad (2)$$

as well as the solution $u(x)$ of the corresponding degenerated ($\varepsilon = 0$)
equation

$$L(u) = \sum_{k=0}^{n-1} (-1)^k (p_k(x) u^{(k)})^{(k)} = f(x) \qquad (3)$$

Card 1/3

On the first boundary value...

with the boundary conditions

$$u^{(k)}(a) = u^{(k)}(b) = 0 \quad (k=0,1,\ldots,n-2). \tag{4}$$

On $[a,b]$, $p_k(x)$ has a continuous $(k+2)^{nd}$ derivative, and $p_n(x)$ has a continuous n-th derivative, $f(x)$ has a continuous second derivative. Besides, the following conditions are satisfied on $[a,b]$: $p_n(x) > 0$, $p_{n-1}(x) > 0$, $p_k(x) \geq 0$ $(k=1,2,\ldots,n-2)$,

$$4 \sum_{k=1}^{n-1} \frac{(2k-1)[2(k-1)!]^2}{(b-a)^{2k-1}} \cdot \min p_k(x) + M_0(b-a) > 0$$

($M_0 = 0$ if $p_0(x) \geq 0$ on $[a,b]$, and $M_0 = \min p_0(x)$ in the other case). It is shown that under these assumptions the solution of (1) which satisfies (2) is representable in the form $y_\ell(x) = u(x) + z(x,\ell) + v(x,\ell)$, where $u(x)$ is a solution of (3) which satisfies (4), and

Card 2/3

On the first boundary value...

$$| z^{(k)}(x, \epsilon) | < c_o \sqrt{\epsilon} \quad (k = 0, \ldots, n-2),$$

$$| z^{(n-1)}(x, \epsilon) | < | u^{(n-1)}(a) | e^{-\sqrt{\frac{m}{\epsilon}}(x-a)} +$$

$$+ | u^{(n-1)}(b) | e^{-\sqrt{\frac{m}{\epsilon}}(b-x)} + \sqrt{\epsilon}\, c_1 \left(m = \frac{\min p_{n-1}(x)}{\max p_n(x)} \right),$$

$$| v^{(k)}(x, \epsilon) | < \sqrt{\epsilon}\, c_2 \quad (k = 0, 1, \ldots, n-1),$$

the c_o, c_1, c_2 do not depend on ϵ. The result is an improvement (some assumptions of smoothness are omitted) of a result obtained by the author in an earlier paper (R.zh.Mat, 1959, 6888).

[Abstracter's note: The above text is a full translation of the original Soviet abstract.]

Card 3/3

BRISH, N.I.

Fourier's method for differential equations of the fourth order
containing a second derivative with respect to time. Dokl. AN
BSSR 6 no.1:9-13 Ja '62.   (MIRA 15:2)

1. Belorusskiy gosudarstvennyy universitet imeni V.I.Lenina,
Predstavleno akademikom AN BSSR V.I.Krylvym.
                    (Differential equations)

BRISH, N.I.; VALESHKEVICH, I.N.

Fourier method for solving differential equations containing
a second derivative with respect to time. Dokl. AN SSSR 146
no.6:1247-1250 O '62.   (MIRA 15:10)

1. Belorusskiy gosudarstvennyy universitet im. Lenina.
Predstavleno akademikom I.G. Petrovskim.
                (Differential equations)

BRISH, N.I.

Classical solution to mixed problems for nonstationary equations.
Dif. urav. 1 no.4:523-528 Ap '65.   (MIRA 18:5)

1. Belorusskiy gosudarstvennyy universitet imeni Lenina.

BRISH, N.K.

SHELYASTIN, Vasiliy Nikolayevich, inzhener; BRISH, N.K., inzhener, redaktor;
BOBROVA, Ye.N., tekhnicheskiy redaktor

[Storing coal in uncovered piles] Opyt khraneniia uglia v shtabeliakh.
Moskva, Gos.transp.zhel-dor.izd-vo, 1957. 50 p.   (MIRA 10:9)
        (Coal--Storage)

BRISH, V.N.; DANILYA K, N.I.; TUMANOV, B.A.

Combined porudction of starch and and alcohol. Spirt.prom. 26 no.8:
29-32 '60.   (MIRA 13:11)
            (Starch)   (Alcohol)

BRISH, V.N.; DANILYAK, N.I.

Utilize alcohol plants for the establishment of cannery sections.
Kons.i ov. prom. 16 no.2:36-39 F '61.   (MIRA 14:4)

1. L'vovskiy sovnarkhoz.
         (Lvov Economic Region--Canning industry)

BRISH, V.N.; DANILYAK, N.I.; TUMANOV, B.A.

Combined production of starch and alcohol. Sakh.prom.35 no.3:65-67
Mr '61.   (MIRA 14:3)

1. L'vovskiy sovnarkhoz.
              (Starch)   (Alcohol)

AMBARTSUMYAN, A.P.; BRISK, M.I.; LISTENGARTEN, B.M.; PIRVERDYAN, A.M.

Effect of petroleum viscosity on the effectiveness of water
flooding. Azerb.neft.khoz. 35 no.8:19-22 Ag '56. (MLRA 9:10)

(Oil field flooding)

BRISKER, A.D., dotsent

Content of trace elements (copper and manganese) in the blood of patients with food toxinfections of various etiology. Sov. med. 28 no.7:39-44 Jl '64. (MIRA 18:8)

1. Kafedra infektsionnykh bolezney (zav. - dotsent A.D.Brisker) Chelyabinskogo meditsinskogo instituta; nauchnyy konsul'tant raboty - prof. K.V.Bunin.

BRISKER, A.D., dotsent

Clinical aspects of alimentary toxinfections caused by staphylococci, Escherichia coli and Morgan's bacillus. Sov. med. 28 no.9:71-75 S '65.
(MIRA 18:9)

1. Kafedra infektsionnykh bolezney (zav. - dotsent A.D.Brisker) Chelyabinskogo meditsinskogo instituta, nauchnyy konsul'tant raboty - prof. K.V.Binin.

BRISKER, A. D.

"Data Concerning the Problem of the Formation of Toxic Mus-
cular Infections." Cand Med Sci, Kazakh State Medical Inst, Alma-Ata,
1954. (RZhBiol Khim, No 6, Mar 55)

SO: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical
Dissertations Defended at USSR Higher Educational Institutions (15)

COUNTRY   : USSR
CATEGORY   : Microbiology

ABS. JOUR.   : Ref Zhur-Biologiya, No.4, 1959.   No. 14835

AUTHOR   : Brisker, A.D.
INST.   : Chelyabinsk Medical Inst.

TITLE   : Intensity of Multiplication of Different Re-
                presentatives of the Typhoid and Dysentery
                Groups on Several Food Substances.

ORIG. PUB.   : V sb.: Materialy Nauchn. konferentsii Chelyab.
                med. in-ta, posvyashch. 40-letiyu Velikoy
                Okt. sots. revolyutsii. Chelyabinsk, 1958, 7-9

ABSTRACT   : In a study of the growth dynamics of typhoid,
                paratyphoid B, Gaertner's, intestinal, Kruze-
                Sonne, and Grigor'ev-Shiga bacilli on 10%,
                25%, and 50% autoclaved chopped meat and meat
                broth and on 10% potato broth autoclaved at
                25 degrees, it was established that the in-
                testinal, Gaertner, and Sonne bacilli multi-
                plied the most vigorously. The concentration
                of the media did not influence the intensity
                of multiplication. On potato medium repro-

CARD: 1/3

29

COUNTRY
CATEGORY

ABS. JOUR.

AUTHOR
INST.   No. 14836
TITLE

ORIG. PUB.

ABSTRACT   duction of the intestinal bacilli and the
                Sonne organism was retarded, but growth of
                the typhoid organism was promoted. For a
                colony count 1 ml of liquid medium and 1 g of
                the solid medium were seeded. No adsorption
                of bacteria was observed on the chopped
                meat. A significant growth of bacteria was
                not obtained from the cultivation of washings
                from the solid residue of food substance.
                The author suggests that their multiplication

CARD: 2/3

COUNTRY   :
CATEGORY   :

ABS. JOUR.   :   No. 14336

AUTHOR   :
INST.   :

TITLE   :

ORIG. PUB.   :

ABSTRACT   : was due to the assimilation of water-soluble
                substances of the meat or potato substrate.
                -- E.B. Gurbich

              :

CARD: 3/3

MATOVSKIY, I.M.; EBERT, L.Ya.; BRISKER, A.D.

Second Scientific and Practical Conference on the study of the
influenza epidemic in Chelyabinsk in 1962. Vop.virus. 7 no.6:
757-758 N-D '62.   (MIRA 16:4)
          (CHELYABINSK—INFLUENZA—CONGRESSES)

EBERT, L.Ya., doktor med. nauk; BRISKER, A.D.; RABKINA, S.A.

Data on the use of dibazol for the prevention of influenza in
children's collectives during the 1962 epidemic. Kaz. Med.
Zhur. no.6:44-45 '62.   (MIRA 17:5)

1. Chelyabinskiy meditsinskiy institut i Chelyabinskaya
gorodskaya sanitarno-epidemiologicheskaya stantsiya
(glavnyy vrach - N.V. Shelepova).

BRISKER, A.S.

Temperature dependence of the electrical parameters of single-pair rural communication cables. Vest. sviazi 24 no.7:8-10 Jl '64.

(MIRA 17:9)

1. Starshiy inzh. Nauchno-issledovatel'skogo instituta gorodskoy i sel'skoy telefonnoy svyazi.

KLIMOVSKIY, Ye.M., inzh.; BRISKER, I.Ye., inzh.

Progressive methods for organizing the repair of building machinery. Stroi. truboprov. 5 no.9:3-5 S '60.   (MIRA 13:9)
(Building machinery--Maintenance and repair)

MASLYANSKIY, G.N.; RABINOVICH, G.L.; BRISKER, K.L.

Catalytic dealkylatior of isomeric xylenes. Neftekhimia 4
no.3:426-430 My-Je '64.   (MIRA 18 2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimi-
cheskikh protsessov.

BRISKER, N. A.

PA 3/49T81

USSR/Medicine - Tumors, Malignant   Mar/Apr 48
         Medicine - Tumors, Skin

"Water-Soluble Adenosinetriphosphatase of Normal and
Malignant Tissues," I. B. Barskiy, N. A. Brisker,
Biochem Lab, Cen Oncological Inst, Moscow, 7½ pp

"Biokhimiya" Vol XIII, No 2, /95-/92

Reports experiments on rats and mice. Both normal
and malignant tissues contain active, water-soluble
adenosinetriphosphatase, which detaches 2 phosphate
molecules from adenosinetriphosphoric acid, optimum
pH being 7.0-7.2. Activated by magnesium ions in
concentration 10-3 M. Activity or water extracts per
unit weight of raw tissue is as follows. Mice:
                                                3/49T81

USSR/Medicine - Tumors, Malignant (Contd) Mar/Apr 48

kidney, spleen, muscles, lungs, liver, tumor (Croker
sarcoma), skin, tumor (Ehrlich cancer).   Rats: liver,
tumor, muscles, skin. Activity of adenosinetriphos-
phatase of skin is negligible in rats, but clearly
manifested in mice. Submitted 17 Sep 47.

3/49T81

BRISKER, N. A.

PA 63/49T39

USSR/Medicine - Adenosintriphosphate   May/Jun 49
Medicine - Tumor

"Adenosintriphosphate Activity of Aqueous Extracts and Water Insoluble Residue of Normal Tissues and Malignant Tumors in Mice and Rats," I. B. Zbarskiy, and N. A. Brisker, Biochem Lab, Cen Oncol Inst, Moscow, 6½ pp

"Biokhim" Vol XIV, No 3, 284-290.

General adenosintriphosphate activity and the distribution of soluble and insoluble fractions is similar in normal organs and malignant tumors. Activity in several organs (liver, brain, etc.,) of

63/49T39

USSR/Medicine - Adenosintriphosphate   May/Jun 49
(Contd)

the nonsoluble residue is so small that it can be only doubtfully connected to the so-called structural albumens of the myosin type. Submitted 4 Sep 48.

63/49T39

BRISKER, N. A.   Cand Biolog Sci

  Dissertation: "Water-Soluble Adensitriphosphotase of the Normal Organs
and Malignant Tumors of Rats and Mice." 27/4/50

Acad Med Sci USSR

SO Vecheryaya Moskva
      Sum 71

CA

The amount of water-soluble adenosinetriphosphatase in experimental sarcomas in various stages of development. N. A. Brighr. (Gerysen Oncolog. Research Inst., Moscow). Arkh. Patol. 12, No. 3, 47-52(1950).—The growing zone of an exptl. sarcoma (rat, mouse) has a high level of the enzyme. As the tumor develops and its necrotic areas increase, the enzyme content declines and vanishes in the totally necrotic tissue. The detns. were made conventionally with adenosinetriphosphate substrate in rate buffer at pH 7.0 at 37°.   G. M. Kosolapoff

The comparative activity of adenosinetriphosphatase in aqueous extracts of organs of cancerous and normal animals. I. B. Zbarskii and N. A. Brisker. *Voprosy Onkologii* 1 No. 2, 8-10 (1955). Transplantable dibenzanthracene rat sarcoma No. 10 and Ehrlich's mouse carcinoma were used as the inoculation material. Mice were killed 24-50 days and rats 6-27 days after the transplants were made and 1-25 H₂O extracts of the tissues were incubated with Mg adenosinetriphosphate 1 and 1 mM concn. at pH 7.0 and 37° for 15 min. The increase in inorg. P was a measure of the activity of adenosine phosphatase. II. Mouse tissue liver, kidney and other organs inoculated with the sarcoma and Ehrlich carcinoma had a higher content of H₂O-so. II ...

2

Biochem. Lab, State Oncological Inst. im. P.A. Gertson

BRISKI, B.

Rogina, B.; Briski, B. "The role of filter-paper chromatography and ninhydrin reaction in the quantitative determination of amino acides" p. 325. (Kemija U Industriji. Vol. 2, no. 11, 1953. Zagreb.)

SO: Monthly List of East European Accessions. Vol. 3, no. 3. Library of Congress. March 1954.
Uncl.

BRISKI, B.   Czechoslovakia   CA: 47:12665

with S. CMELIK

Central Hyg. Inst., Zagreb, Croatia

"The protein fractions of Taenia echinococcus."

Biochem. Z. 324, 104-14 (1953).

BRISKI, B.

BERKES, I.; BRISKI, B. "Parallel analysis of protamines from domestic Mugil and Pagrus species."
Kemija U Industriji, Zagreb, Vol 3, No 6, June 1954, p. 177

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

BRISKI, BRANKO

YUGO.

Determination of small amounts of amino acids by a modified ninhydrin method. Boźidar Roźina and Branko Briski (Centr. higijenski zavod, Zagreb, Yugoslavia). *Kem. Ind.* (Zagreb) 3, 253-6(1954).—After sepg. the amino acids from artificially prepd. mixts., protein hydrolyzates, or exts. of liq. material by the chromatographic method of Consden, et al. (C.A. 39, 537⁴), the individual acids were detd. as follows: The dry chromatograms were sprayed with 1% ninhydrin and dried for 15 min. at 110°. After spraying again with just enough ninhydrin to cover the surface, the paper was dried for 5-10 min. at room temp. and then kept for 5 min. at 80° in a thermostat satd. with H₂O and EtOH vapors contg. small amts. of collidine and lutidine. The colored spots of amino acids developed are cut out, torn into pieces, and put into separate test tubes. For extg. the violet color the pieces are shaken with 10 ml. of a mixt. of acetone, EtOH, and H₂O (1:1:1); 2 ml. of the ext. is then investigated in a Pulfrich photometer with a yellow-green filter (570 mμ) by comparing with a paper blank obtained by carrying it through the whole procedure without applying an amino acid. Similarly, yellow spots are investigated with a blue filter (440 mμ). By comparison with standard extinction curves, the individual acids were detd. within ±6%.

N. Flavić

COUNTRY	:	Yugoslavia
CATEGORY	:	

ABS. JOUR. : RZKhim., No. 5 1960, No.   19642

AUTHOR	:	Briski, B. and Brodarec, A.
INST.	:	Not given
TITLE	:	The Detection of the Presence of Raffinate Peanut Oil in Edible Oils by Paper Chromatography

ORIG. PUB. : Kemija u Industriji, 7, No 1, 1-12 (1958)

ABSTRACT   : No abstract.

CARD: 1/1