

BARTOS, V.; SKAUNIC, V.; NERAD, V.; HRADSKY, M.; FIXA, B.; KOMARKOVA, O.

External pancreatic secretion in relation to age. Cesk. gastro-
ent. vyz. 17 no.7:395-401 N°63

I. I. interni klinika (prednosta doc. dr. F. Cernik) a II.
interni klinika (prednosta prof. dr. V. Jurkovic) lekarske
fakulty Karlovy University v Hradci Kralove.

GROH, Jindrich; KVASNICKOVA, Eva; KVASNICKA, Jiri; BARTOS, Vladimir; ERGEN, Josef.

Determination of minerals, proteins and glycogen in muscle.
Sborn. ved. prac. lak. fak. Karlov. univ. (Hrad.Kral.) 6
no.5 suppl.:619-621 '63

I. I. interni klinika (prednosta: prof. MUDr. F.Cernik) Karlova universita v Hradci Kralove.

ERBEN, Josef; GROH, Jindrich; LOMSKY, Radovan; SVAH, Jozef; HEROUT, Vladimir; NOZICKA, Zdenek; KVASNICKA, Jiri; BARTOS, Vladimir; KVASNICKOVA, Eva. Technicka spoluprace :SCHROFLOVA, A.

Primary aldosteronism in adrenal cortex carcinoma. II. Sborn.
ved. prac. lek. fak. Karlov. univ. (Hrad. Kral.) 6 no.5:
suppl.:601-607 '63

1. I. interni klinika (prednosta: prof. MUDr. F. Cernik);
Urologicka klinika (prednosta: doc. MUDr. Jozef Svab); Pato-
logiccko-anatomicky ustav (prednosta: DrSc. prof. MUDr. A.
Fingerland) Karlova universita v Hradci Kralove.

JEBAVY, Zdenek; BARTOS, Vladimir; NERAD, Vladimir; SKAUNIC, Vladimir;
FIXA, Bohumil; KOMARKOVA, Olga; SAZMOVA, Vera; HRADSKY, Miroslav.

Analysis of salivary secretion and some electrolytes in the
saliva in relation to age. Sborn. ved. prac. lek. fak. Karlov.
univ. (Hrad. Kral.) 6 no. 5: suppl. 609-618 '63

I. Stomatologicka klinika (prednosta: prof. MUDr. L.Sazama, CSc.);
I. interni klinika (prednosta: prof. MUDr. F.Cernik) a II. in-
terni klinika (prednosta: prof. MUDr. V. Jurkovic), Karlova
Universita v Hradci Kralove.

ERBEN, J.; BELOBRADKOVA, J.; STEFAN, H.; GROH, J.; BANTOS, V.;
KRCH, V.; KVASNICKA, J.; NAVRATIL, P.
KLAZAROVA, M., technicka spoluprace; SCHROFLOVA, A., technicka
spoluprace.

Hemodialysis in the treatment of acute uremia (III)
Cesk pediat 18 no. 3:193-199 '63.

1. Interni, detska, chirurgicka a urologicka klinika
lekarske fakulty KU v Hradci Kralove; prednostove:
doc. dr. F. Cernik, prof. dr. J. Blecha, prof.
dr. J. Prochazka, doc. dr. J. Svab
(UREMIA) (DIALYSIS) (HYPERKALEMIA) (KIDNEY, ARTIFICIAL)

BRZEK, Vladimir; JURIN, Ivan; BARTOS, Vladimir; BOBEK, Vladimir

Determination of the lymph pressure in the thoracic duct.
Sborn. ved. prac. lek. fak. Karlov. Univ. 9 no.1:133-138
'64.

1. II.chirurgicka klinika (prednosta: prof. MUDr. J. Prochazka,
DrSc.) a I. interna klinika (prednosta: prof. MUDr. F. Cernik)
Karlov University v Hradci Kralove.

KRCH, Vaclav; ERBEN, Josef; GROH, Jindrich; BARTOS, Vladimir; KVASNICKA, Jiri; BALCAR, Zdenek

The course of hemodialysis in elderly patients with acute renal failure. Sborn. ved. prac. lek. fak. Karlov. Univ. 9 no.1:397-408 '64.

1. I. interni klinika (prednosta: prof. MUDr. F. Cernik),
Karlov University v Hradci Kralove.

CBORI, J., IRZEEK, V.; BARTOS, V.

DMT

I. Medical Clinic and Surgical Clinic of Charles University, Hradec Kralove,
Czechoslovakia

Berlin, Acta Biologica et Medica Germaniae, No.1, 1965, pp 30-33.

"The Electrolytic Composition in Lymph of the Ductus Thoracicus of Men"

KVASNICKA, Jiri; KVASNICKOVA, Eva; GROH, Jindrich; DANICKOVA, Zdena;
BARTOS, Vladimír; ERBEN, Josef. Techn. spolupráce VAVROVA, Eva.

Mineral and water changes during the aging process. I. Methods
of determination of minerals in erythrocytes. Normal values.
Differences between the normal values in women and men. Sborn.
ved. prac. lek. fak. Karlov. Univ. 9 no.1:369-374 '64.

Mineral and water changes during the aging process. II. Mineral
and water changes in erythrocytes in different age groups.
Ibid.:375-381

I. I. interni klinika (prednosta: prof. MUDr. F. Černík)
Karlovy University v Hradci Kralové.

BARTOS, Vladimir

Diagnosis of chronic recurrent pancreatitis. Sborn. ved. prac.
lek. fak. Karlov. univ.: Suppl. 8 no.1:27-52 '65.

1. I. interni klinika (prednosta prof. MUDr. F. Cernik).

BARTOS, Vladimi; BRZEK, Vladimir; GROH, Jindrich

Sectetin-induced changes in the amylase level of the thoracic duct depending on age. Sborn. ved. prac. lek. fak. Karlov. Univ. 8 no. 4:467-471 '65

1. I. interni klinika (prednosta: prof. MUDr. F. Cernik) a Chirurgicka klinika (prednosta: prof. MUDr. J. Prochazka, DrSc.).

SVATOS, Antonin; BRZEK, Vladimir; BARTOS, Vladimir

Endogenous activator of the lipolytic activity of the blood serum. Sborn. ved. prac. lek. fak. Karlov. Univ. 8 no.4: 473-476 ' 65.

1. Vyzkumny ustav pro farmacie a biochemii, Praha (reditel: dr. inz. O. Nemecek, DrSc.); Chirurgicka klinika (prednostas: prof. MUDr. J. Prochazka, DrSc.) a I. interni klinika (prednostas prof. MUDr. F. Cernik), Karlovy University v Hradci Kralove.

BARTOS, V.; SVATOS, A.

Concentration of anticholecystokinin in the serum of healthy
and cholecystectomized persons. Cesk. gastroent. vyz. 19 no.6:
331-334 S '65.

1. I. interni klinika lekarske fakulty Karlovy University v
Hradci Kralove (prednosta prof. dr. F. Cernik) a Vyzkumny ustav
pro farmacii a biochemii v Praze (reditel dr. inz. O. Nemecek,
DrSc.).

BARTOS, Z.

Effect of lowered environmental temperature on the stability of
the body temperature of hibernating animals during the summer.
Cesk.fysiol. 9 no.3:218-219 My '60.

1. Zoologicky ustatv KU, Praha.
(HIBERNATION physiol)
(BODY TEMPERATURE physiol)

KEIL, B.; KEILOVA H.; BARTOSK, I.

2
CSSR

Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of
Science, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 12, 1962,
pp 2940-2955

"On Proteins. LXXX. Column Gradient Extraction of Proteins"

3

KEIL, B.; KELOVA, H.; BARTOSEK, I.

On proteins. Part 80: Column extraction of proteins. Coll Cz
Chem 27 no.12:2940-2945 D '62.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak
Academy of Sciences, Prague.

CZECHOSLOVAKIA

CEKAN, Z; TICHA, M; BARTOSEK, I.

Research Institute for Natural Drugs, Prague - (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 5, May 1966, pp 2068-2072

"Hydrolysis of esters of androstane derivatives by rat
liver homogenate. Relationship between the rate of hydro-
lysis and structure"

ACC NR: AP7010704

SOURCE CODE: CZ/0038/66/000/010/0386/0388

AUTHOR: Bartosek, Jiri; Jolinek, Vit

ORG: Ustav užite geofyziky, Brno (Institute of Applied Geophysics)

TITLE: Contribution to the error theory in low activity measurements

SOURCE: Jaderna energie, no. 10, 1966, 386-388

TOPIC TAGS: geophysics, radioactivity measurement, error

SUB CODE: 18,08

ABSTRACT: A formula was obtained for calculating the relative standard error in low-activity measurements. The effect of optimum total measuring time on the specimen and the background measurements was evaluated. Optimum measuring time was found for a series of specimens. Orig. art. has: 1 figure, 24 formulas and 1 table. Paper presented by J. Klumper. NA

Card 1/1

UDC: 539.1.07

0130

0705/

BARTOSIK, J.

Project Collection of Czechoslovak Chemical Communications, Vol. 27,
No. 4, April 1962 (continued)

(36)

9. "Separation Methods for Natural Products. Part II. General Discussion Separation and Purification of Phenolic Compounds," J. KALIN, J. LIND, and V. PROCHAZKA, Research Institute of Natural Products, Prague; pp 325-382 (Russian article).
10. "Synthesization Reactions in the Group of Monomers for Alkaloids. Part XIII. The Synthesis of the Alkaloid Compound for the Opiate Analogue of the Alkaloid "Dihydro-*alpha*-Methoxy-*beta*-Acetyl-*gamma*-Butyryl-*delta*-Oxide," J. SIEBEL, Research Institute of Pharmacy and Biochemistry, Prague; pp 383-395.
11. "Synthesization Reactions in the Group of Monomers for Alkaloids. Part XIV. On the Synthesis of the Basic Compound of the Alkaloid "Dihydro-*alpha*-Methoxy-*beta*,*beta*-Keto and *beta*,*beta*-Dihydro-*alpha*-Methoxy-*beta*-Acetyl-*gamma*-Butyryl-*delta*-Oxide," J. SIEBEL, Research Institute of Pharmacy and Biochemistry, Prague; pp 397-407.
12. "Chemical Properties of Alkaloids. Part I. Isolation of the Cardiac Glycosides," J. KALIN, J. LIND, O. BURKOV, and J. SIEBEL, Research Institute of Pharmacy and Biochemistry, Prague; pp 409-421.
13. "On Proteins. Part. XXVII. Structure of Proteins. Protein by Paper Method of Separation," V. KOMORNÍK, J. PERNÍK, J. VITÝČEK, and F. ŠTĚPÁN, "On the Structure of Proteins. Chemistry and Biochemistry," pp 423-428 (Russian article).
14. "Chemical Properties of Alkaloids. Part II. The Structure of Protoporphyrin and Its Derivatives," J. KALIN, O. BURKOV, and D. ŠTĚPÁN, "On the Structure of Protoporphyrin and Its Derivatives," J. KALIN, O. BURKOV, and D. ŠTĚPÁN, "The Department of the Ministry of Agriculture, Czechoslovakia," pp 429-439.
15. "Studies and Comparisons and Their Applications. Part XVII. Synthesis of Aromatic Poly(Chloro-Alkyl-Aromatic) Compounds and Their Application to Chemistry and Technology," J. KALIN, O. BURKOV, and D. ŠTĚPÁN, "The Department of the Ministry of Agriculture, Czechoslovakia," pp 440-455 (Russian article).
16. "A Review on the Investigation of the Antitumor Activity of Some Synthetic Polymers," J. KALIN, O. BURKOV, and D. ŠTĚPÁN, "The Department of the Ministry of Agriculture, Czechoslovakia," pp 456-467 (Russian article).
17. "Study of the Depolymerization of the Synthetic Polymers," J. KALIN, O. BURKOV, and D. ŠTĚPÁN, "The Department of the Ministry of Agriculture, Czechoslovakia," pp 468-473 (Russian article).

BARTOSEK, V.

"Reactor analysis" by R.V.Meghrebian and D.K.Holmes. Reviewed
by V.Bartosek. Jaderna energie 8 no.2:72 F '62

REHOR, Jan; BARTOS, Vladimir; FIEDLEROVA, Dagmar

Electrocardiographic changes in acute and chronic recurrent pancreatitis. Cas.lek.cesk 100 no.4:119-125 27 Ja '61.

1. I.interni klinika lekarske fakulty KU v Hradci Kralove, prednosta prof. MUDr. Jan Rehor.

(PANCREATITIS diag) (ELECTROCARDIOGRAPHY)

MOZES, G. (Bucuresti); LAPEDATU, E. (Bucuresti); ZAHARIA, C. (Bucuresti,
FRIEDMANN, A. (Bucuresti); ARABIAN, L. (Bucuresti); RADU, C. (Bucuresti);
BARTOS, V. (Bucuresti); DEDULESCU, L. (Bucuresti)

New types of selenium rectifying cells. Electrotehnica 10 no.2/3:72-86
F-Mr '62.

1. Colectiv de la Institutul de Cercetari Electrotehnice (for Mozes, Lapedatu, Zaharia, and Friedmann).
2. Colectiv de la uzinele "Grigore Preoteasa" (for Arabian, Radu, Bartos, and Dedulescu).

JELINEK, Vit; BARTOSEK, Jiri

Stable single-channel amplitude analyser. Jaderna energie 8
no.7:245-248 Jl '62.

1. Ustav uzite geofyziky, Brno.

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Presents the results of experiments carried out with a straight ("wire pole") and a Y-shaped ("tree pole") bare wire (Pt core 10¹⁰ ohm cm, thickness 20-30^μm, lengths 4-7 m) and at $\lambda = 0.33-0.73$. The smallness of the straight bridge was always more than the wire λ ($\approx 20\mu$). The "tree pole" was more effective than the straight one, especially for the higher frequencies.

P. Lardizabal

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203730012-3"

BARTOSEK, V.

Experimental basis for measuring the speed and the direction of air flow by
a hotwire instrument. p. 529. (CESKOSLOVENSKY CASOPIS PRO FYSIKU, Vol. 6,
No. 5, Sept 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) 1C, Vol. 6, No. 12, Dec 1957. Uncl.

BARTOSEK, V.

SCIENCE

Periodicals: CESKOSLOVENSKY CASOPIS PRO FYSIKU. Vol. 8, No. 4, 1958

BARTOSEK, V. Equation for the colling of a body in a stream of
compressible fluid. p. 450.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5,
May 1959, Unclass.

CZECHOSLOVAKIA/Nuclear Physics - Nuclear Technology and Power. C

Abs Jour : Ref Zhur Fizika, No 12, 1959, 26975
Author : Roccek, Jindrich; Bartosek, Vaclav
Inst : Institute of Nuclear Physics, Czechoslovak Academy
of Sciences
Title : Physical Data for the Design of Homogeneous Reactor
with Light and Heavy Water
Orig Pub : Jaderna energie, 1958, 4, No 12, 365-371

Abstract : In connection with the project of a homogeneous ten-
megawatt reactor, a theoretical investigation was
made of the dependence of the critical parameters of
the active zone on the composition of the fuel sus-
pension, and also of the long-term changes in the com-
position of suspension during the reactor operation.
-- P.P. Sosenko

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- 33 -

CZECHOSLOVAKIA/Atomic and Molecular Physics. Heat.

D

Abs Jour : Ref Zhur Fizika, No 8, 1959, 17650

Author : Bartosek, Vaclav

Inst : Vyzkumny a zkusebni letecky ustav, Prague, Czechoslovakia

Title : Cooling of an Incandescent Wire in a Gas Stream with a Speed Lower Than the Velocity of Sound

Orig Pub : Ceskosl. casop. fys., 1958, 8, No 5, 554-565

Abstract : An experimental investigation was made of the temperature equilibrium of thin tungsten wires, placed in air stream having a velocity $V/a = \lambda$ (V and a are the velocities of the air stream and of sound respectively), and a ratio $T_p/T_0 = 1 - \lambda$ is obtained, where the coefficient λ depends on the parameter of the wire, T_p is the equilibrium temperature, and T_0 is the temperature of the

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CZECHOSLOVAKIA/Atomic and Molecular Physics - Heat.

Abs Jour : Ref Zhur Fizika, No 8, 1959, 17650

isentropic slowed-down stream. For heat removal from the incandescent wire, the applicability of a modification of the King formula (King, L.V., Philosophical Transactions, Royal Society, London, 1914, A 214, 373) up to speeds of 170 meters per second ($\lambda = 0.53$). Various methods of measuring the speed and fluctuations of the parameters of the air stream with velocity below that of sound are considered.

Card 2/2

- 51 -

BART'SEK, V.

The P 45 pneumatic jet loom.

p. 698 (Strojirenstvi. Vol. 7, no. 9, Sept. 1957. Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

BARTOSEK, V.

"A. D. Galanin's Theory of Nuclear Reactions with Thermal Neutrons; a book review.

p. 31 (Jaderna Energie, Vol. 4, no. 1, Jan. 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 6, June 1958

AUTHOR: Bartošek, Václav

CZ/37-58-5-6/19

TITLE: Cooling of a Hot Wire in a Subsonic Gas Flow
(Ochladzování žhaveného drátka v podzvukovém proudu plynu)PERIODICAL: Československý Časopis pro Fysiku, 1958, Nr 5,
pp 554-565 (Czech)ABSTRACT: The author investigated experimentally the relation between the equilibrium temperature of thin tungsten wires at subsonic speeds of an air stream by means of a test rig, sketches of which are shown in Figs. 1-3. It was found that a thin wire exposed to a subsonic air flow will assume an equilibrium temperature which depends on the speed coefficient λ :

$$T_{eq} = T_0 (1 - \eta\lambda)$$

whereby the coefficient η depends on the wire diameter, equalling 0.0516 ± 0.0014 for 10μ dia. wire and 0.0857 ± 0.0080 for 20μ dia. wire. The experimentally determined relation for the quantity of heat carried away from the wire per unit of length can be expressed for the range $\lambda = 0.25$ to 0.53 by means of the relation:

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CZ/37-58-5-6/19

Cooling of a Hot Wire in a Subsonic Gas Flow

$$Nu = \beta \sqrt{Re} + \gamma;$$

where Nu is the Nusselt number for a cylinder, Re the Reynold number, β and γ are constants. Using the method of the heated wire it is possible by means of Eq.(12), p 562, to determine the temperature fluctuations and by means of Eq.(24), p 564, it is possible to determine the speed. This paper is a part of Candidate Dissertation work carried out at the Aircraft Experimental and Test Institute, Prague. Acknowledgments are made to Dr. Zb. Janour for his useful advice and to the official opponents, Prof. Doctor Engineer V. Smolař and Doc.Dr.

Card 2/2 M. Brdicka for their critical comments. There are 6 figures and 5 references, 2 of which are Czech, 1 Soviet, 1 English, 1 German.

ASSOCIATION: Výzkumný a zkušební letecký ústav, Praha
(Aircraft Experimental and Test Institute, Prague)
(At present employed by Institute of Nuclear Physics,
Czech Ac.Sc., Prague)

SUBMITTED: December 9, 1957

CZECHOSLOVAKIA/Atomic and Molecular Physics - Heat.

Abs Jour : Ref Zhur - Fizika, No 6, 1959, 12814
Author : Bartosek, Vaclav
Inst :
Title : Equation for Cooling of a Body in a Flow of Compressible Liquid.
Orig Pub : Ceskosl. casop. Fys., 1958, 8, No 4, 450-452.
Abstract : No abstract.

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- 29 -

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203730012-3"

CZECHOSLOVAKIA/Atomic and Molecular Physics - Heat.

Abs Jour : Ref Zhur Fizika, No 1, 1960, 848
Author : Bartosek, Vaclav
Inst :
Title : The Cooling of an Incandescent Wire in a Stream of Gas with Velocity Below the Velocity of Sound
Orig Pub : Cheskosl. fiz. zh., 1958, 8, No 6, 716-726
Abstract : See Referat Zhur Fizika, 1959, No 8, 17650.

BARTOSEK, Vaclav

"The theory of nuclear reaction with thermal neutrons" by
A.D. Galanin. Reviewed by Vaclav Bartosek. Jaderna
energie 4 no.1:31-32 Ja '58.

BARTOSEK, V.

"Transformation of atomic nuclei" by V. Gol'danskij and
E. Lejkin. Reviewed by V. Bartosek. Jaderna energie
8 no.4:121 Ap '62.

BARTOSEK, Vaclav

Reactor transient states in exchanging constant speed fuel elements.
Jaderna energie 9 no.3:74-77 Mr '63.

1. Ustav jaderneho vyzkumu, Ceskoslovenska akademie ved, Rez.

BARTOSEK, V.

Symposium on the physics of the graphite moderated reactors.
Jaderna energie 9 no.1:28-31 Ja '63.

BARTOSEK, Vaclav

Macrocombustion in the system of natural uranium and heavy water. Jaderna energie 9 no. 7:234 Jl '63.

1. Ustav jaderneho vyzkumu, Ceskoslovenska akademie ved,
Rez u Prahy.

BARTOSEK, V.

L 25121-65 EMT(m)/EPF(c)/EPF(n)-2/EPR Pr-4/Ps-4/Pu-4

ACCESSION NR: AP4047434

Z/0038/64/000/010/0357/0364

AUTHOR: Bartosek, V. (Bartoshek, V.); Hron, M. (Khron, M.); Lelek, V.; Neprazova, M. (Neprashova, M.)

TITLE: Some physical problems in the burn-up of uranium in heavy-water reactors

SOURCE: Jaderna energie, no. 10, 1964, 357-364

TOPIC TAGS: uranium burn up, heavy water reactor, fuel element refueling, fuel shuffling, heavy water reactor, multiplication constant, neutron flux

ABSTRACT: This article reports on the investigation of the dependence of the multiplication constant on attainable uranium burn-up under steady-state reactor conditions during the continuous refueling of whole elements and during fuel shuffling in the direction of the axis of three kinds: 1) all fuel moving in one direction, 2) half of the fuel moving in the opposite direction, and 3) back, i.e., the fuel returns after reaching the second base. The results of the calculations are analyzed with the aid of computers, i.e., the local multiplication constant which provides the initial information for the computation of the overall fuel burn-up during operation with continuous refueling of whole elements combined

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L 25121-65

ACCESSION NR: AP4047434

with fuel shuffling is examined; the most efficient methods for reactor transition from the initial state to the steady state are also described. The technical and economic parameters which find application in the various methods of reactor transition with continuous refueling of elements are investigated. In all, eight transition regimes are discussed. In the analysis the authors limit themselves to the zone in which the neutron flux is unchanging in space, and it is assumed that refueling of an element in one fuel channel causes only a small jump in the reactivity of the whole system. Orig. art. has: 2 figures, 1 table, and 37 formulas.

ASSOCIATION, Ústav jaderného výzkumu ČSAV, Řež (Institute of Nuclear Physics of the Czechoslovak AS)

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NO RFP Sov: 003

OTHER: 003

Card 2/2

BARTOSEK, Vaclav; LELEK, Vladimir

Burning out of natural uranium during the axial movement of
fuel in the reactor. Jaderna energie 10 no.8:291 Ag '64.

1. Institute of Nuclear Research, Czechoslovak Academy of
Sciences, Rez.

BARTOSEK, Vaclav; HRON, Miroslav; LELEK, Vladimir; NEPRASOVA, Marie

Some physical problems of uranium irradiation in heavy water reactors. Jaderna energie 10 no.10:357-364 O '64.

1. Institute of Nuclear Research of the Czechoslovak Academy of Sciences, Rez.

BARTOSHEK, V. [Bartosek, V.]; LELEK, V.

Natural uranium burn-up during its axial motion in a reactor.
Atom. energ. 17 no.5:380-384 N '64. (MIRA 17:12)

1. Institut yadernykh issledovaniy Chekhoslovatskoy Akademii
nauk, Praga-Rzhez.

L 18526-66 EWT(m)/ETC(f)/EWG(m)/EPF(n)-2 WV

ACC NR: AP6010226

SOURCE CODE: CZ/0038/65/000/004/0143/0143

AUTHOR: Bartosek, Vaclav

ORG: Institute of Nuclear Research, CSAV, Rez (Ustav Jaderneho vyzkumu CSAV)

TITLE: Transient states of a nuclear reactor during refueling

SOURCE: Jaderna energie, no. 4, 1965, 143

TOPIC TAGS: nuclear reactor, reactor fuel element

ABSTRACT: INR Report No. 1163/64, published in Jaderna Energie only as Czech and English summaries (modified). The article describes analyses of the mutual dependences of individual parameters during refueling from the initial state (when all fuel elements are fresh) to the continuous refueling of exhausted elements (with elements at different stages of burn-up). The following in particular are investigated: 1. The total duration of the transient state of the reactor; 2. The required radiation stability of the elements; 3. The attainable average utilization of fuel; 4. The requisite refueling rate. The article contains a survey of the following transient states: 1. Equilibrium transition; 2.

L 18526-66
ACC NR: AP6010226

Transition with delayed refueling; 3. Variable refueling period; 4.
Combined operation; 5. Transition with constant refueling rate and
with reactivity saving; 6. Transition with constant reactivity and re-
activity saving; 7. Combined transition with reactivity saving; 8.
Transition with quadratic reactivity dependence. [JPRS]

SUB CODE: 18 / SUBM DATE: none

Card 12

UDC: 621.039.514.25: 621.039.516.2

LC

BARTOSEVICH, N.K.; ZHIVAYKIN, L.Ya.

Role of cooling elements in the increased operation rate of ovens
for pulverizing the roasting of pyrites. Sbor. mat. po obn. opyt.
NIUIF no.12:1-7 '59. (MIRA 16:12)

1. Zavod "Maardu" (for Bartosevich). 2. Ural'skiy nauchno-
issledovatel'skiy khimicheskiy institut (for Zhivaykin).

BARTOSEVICH, N.K.

"Chemistry and technology of selenium and tellurium" by
A.A.Kudriavtsev. Reviewed by N.K.Bartosevich. Khim.prom.
no.3:227-228 Mr '62. (MIRA 15:4)
(Selenium) (Tellurium) (Kudriavtsev, A.A.)

BARTOSEVICH, N.K.; ZHUKOV, P.I.; MOROZOV, I.F.; KUDRYAVTSEV, A.A.

Sulfide method for producing selenium and tellurium. Zhur.
VKHO 8 no.5:584 '63.
(MIRA 17:1)

l. Moskovskiy khimiko-tehnologicheskiy institut imeni
D.I. Mendeleyeva.

L 17890-63
ACCESSION NR: AP3003763

EMP(q)/EWT(m)/BDS AFFTC RW/JD

8/0080/63/036/006/1169/1174

60

5-7

AUTHORS: Vol'fkovich, S. I.; Kondrat'yev, N. N.; Bartosevich, N. K.; Morozov, I. E.; Panasova, N. I.

TITLE: Separation of selenium from nitrosylsulfuric acid

SOURCE: Zhurnal prikladnoy khimi, v. 36, no. 6, 1963, 1169-1174

TOPIC TAGS: selenium, nitrosylsulfuric acid, sulfur

ABSTRACT: A number of various methods of analysis have been examined for the determination of selenium in sulfur-selenium concentrate. The extraction of selenium was carried out with sulfur at a temperature of 130°C, and the precipitation was always complete. From the laboratory experiments the following conclusions were made: (i) the extraction of selenium by means of elemental sulfur from nitrosylsulfuric acid is complete if the temperature is higher than 120°C; (ii) the sulfur-selenium concentrate precipitates and quickly falls to the bottom. The sulfuric acid in this case can be decanted; (iii) when using elemental sulfur in the above precipitation, nitrosylsulfuric acid is not contaminated with impurities as is the case when other reducing agents are used; (iv) with an increase in temperature, the process of reducing selenium compounds increases; (v) for

Cord 1/2

L 17890-63

ACCESSION NR: AP3003763

the separation of selenium from nitrosylsulfuric acid, it is sufficient to add only 0.2-0.3% of sulfur based on the total weight of acid; (vi) the reduction process of selenium compounds and the separation of selenium with natural or "gaseous" sulfur takes place quicker than with pure sulfur. Orig. art. has:
4 tables and 1 formula.

27

ASSOCIATION: Moskovskiy gosudarstvennyy universitet i Shchelkovskiy khimicheskiy zavod (Moscow State University and Shchelkovo Chemical Works)

SUBMITTED: 03Sep63

DATE ACQ: 07Aug63

ENCL: 00

SUB CCODE: CH, EL

NO REF Sov: 005

OTHER: 000

Card 2/2

L 47747-65 EWT(m)/ENG(m)/EWP(t)/EWP(b) IJP(c) RDW/JD

2/
B

UR/0286/65/000/061/0104/0104

ACCESSION NR: AP5010921

AUTHOR: Kudryavtsev, A. A.; Ryabova, R. I.; Ustyugov, G. P.; Bartosevich, N. K.; Morozov, I. F.; Zhukov, P. I.; Gerasimov, V. S.

TITLE: Method of refining tellurium. Class 40, No. 169793

SOURCE: Byulleten' izobretensh i tovarnykh znakov, no. 7, 1965, 104

TOPIC TAGS: tellurium, tellurium refining, high purity tellurium

ABSTRACT: This Author Certificate introduces a method of refining tellurium up to 99.999% purity. Commercial grade tellurium is purified by distillation, first in hydrogen at 700C and then in a vacuum of 1 mm Hg at a temperature gradually changing from 800C in the still to 500C in the condenser. [AZ]

ASSOCIATION: none

SUBMITTED: 19Oct62

ENCL: 00

SUB CODE: MM

NO REF Sov: 000

OTHER: 000

ATD PRESS: 4005

P
Card 1/1

1. BARTOGEVICH, S. S., Eng.
2. USSR (600)
4. Steam Boilers
7. Complicated lifting of a boiler, Elek. sta., 24, No. 3, 1953.

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23-26 S-0 '56. (MIRA 10:1)

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(AMPUTATION STUMPS
dermatoglyph on forearm stumps after intense use in work)
(FINGERPRINTS,
same)

ISMAILOV, I.M., kand.tekhn.nauk; MAKHMUDOV, A.U., inzh.; KLEPIKOV, V.G., inzh.;
Prinimali uchastiye: GORYUNOVA, N.P.; VORONINA, L.D.; BARTOSH, F.K.;
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28 no.11:37-39 N '62. (MIRA 15:12)

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instituta zhirov (for Ismailov, Goryunova, Voronina, Bartosh). 2.
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8 no.1:29-30 Ja '59. (MIRA 12:1)
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"APPROVED FOR RELEASE: 06/06/2000

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The employment of motor trucks at loading stations. Moskva, Gos. transp. zhel-dor. izd-vo, 1950. 42 p. (50-55-28)

T1223.B3

APPROVED FOR RELEASE: 06/06/2000

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"Establishing time standards for the mechanical loading and unloading of cars" by A.V.Lenskii. Reviewed by E.N.Gokhboom, N.T. Bartosh. Vest.TSNII MPS 19 no.1:62-63 '60. (MIRA 13:4)

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transportation. Mekh.i avtom.proizv. 15 no.8:24-28 Ag '61.
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SHARANOVICH, Petr Antonovich, inzh.; BARTOSH, N.T.,
inzh., retsenzent; GERASIMOV, V.G., inzh., red.;
VASIL'YEVA, V.P., red. izd-va; PETERSON, M.M., tekhn.
red.

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machinery and devices for basic and auxiliary work] Kom-
pleksnaiia mekhanizatsiia vygruzki navalochnykh gruzov;
mashiny ustroistva dlia osnovnykh i vspomogatel'nykh rabot.
Moskva, Mashgiz, 1962. 283 p. (MIRA 15:8)
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BARTOSH, N.T.; MOGILEVSKIY, L.D.; SHARANGVICH, P.A.; VOROSHILOV, B.P.,
Inzh., retsenzent; GERASIMOV, V.G., inzh., red.; LEYKINA,
T.L., red. izd-va; BARDINA, A.A., tekhn. red.

[Manual for the operator of machinery used in loading and
unloading] Spravochnik mekhanizatora pogruzochno-razgruzochnykh
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(Loading and unloading--Equipment and supplies)

BELOKRINITSKIY, Valeriy Viktorovich; BARTOSH, N.T., red.

[Technological bases for the mechanization and automation of conveying, loading, unloading and warehouse work]
Tekhnologicheskie osnovy mekhanizatsii i avtomatizatsii
transportnykh, pogruzochno-razgruzochnykh i skladskikh ra-
bot. Leningrad, 1964. 30 p. (MIRA 17:12)

BARTOSH, Nikolay Tarasovich; GERASIMOV, V.G., red.

[Organization and mechanization of storeroom operations
in machinery plants] Organizatsiya i mekhanizatsiya
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Leningrad, 1964. 35 p. (MIRA 18:3)

COUNTRY : USSR 0-3
CATEGORY : Plant Diseases - Cultivated Plants
ABS. JOUR. : RZBiol., No. 19 1958, No. 87325
AUTHOR : Zemanek, I.; Bartosik, I.
INST. :
TITLE : New Methods of Control of Barley Smut
ORIG. PUB. : Vestn. s.-kh. nauki, 1958, No 1, 128-133
ABSTRACT : Because of the widespread occurrence of barley smut in Czechoslovakia, the Prague Institute of Plant Breeding had conducted during 1955-1956 tests of the action of 34 different chemicals on mycelia of Ustilago nuda in pure cultures (laboratory experiments) and on seeds infected with the fungus (field tests). No direct correlation could be detected between efficacy of the preparations against fungus culture and as seed disinfectants. Chloranil was found to be the most effective agent, at a concentration of 0.05%, applied to the seeds over a period of 48 hours, as a solution, at 20-22°. Good results were obtained on steeping the seeds in an
CARD: 1/2

Country	: USSR
Category	: Farm Animals.
	Cattle.
Abs. Jour	: Ref Zhur-Biol., No 21, 1958, 96868
Author	: Bartosh, S.; Bulanek, Ya.; Khatleova, A.;
Institut.	*
Title	: The Effect of Compulsory Exercise and Pasturage on the Metabolism of Calves.
Orig Pub.	: Vestn. s.-kh. nauk, 1958, 2, 110-118
Abstract	: Experiments have shown that raising on pasture and compulsory exercise have a favorable effect upon improving the respiratory, cardio-vascular and biochemical systems which are linked to the citric acid cycle.
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	*Kafka, A.

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[Conical traction of locomotives; basic principles and calculation characteristics] Konusnaya tiaga parovozov; osnovnye principy i raschetnye kharakteristiki. Moskva, gos. transp. zhelez-dor. izd-vo, 1955. 162 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhного transporta. Trudy, no.107).

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tekhnicheskikh nauk; SHEVCHENKO, L.A., inzhener.

Gas turbine locomotive with two-stage fuel combustion. Vest.
TSNII MPS 15 no.1:3-8 Ag '56.
(MLRA 9:12)

(Gas turbine locomotives)

~~BARTOSH, Yevgeniy Tarasovich~~, kandidat tekhnicheskikh nauk; FREYMAN, V.G.,
inzhener, redaktor; BOBROVA, Ye.N., tekhnicheskiy redaktor

[Gas turbine locomotives] Gazoturbinnye lokomotivy. Moskva, Gos.
transp. zhel-dor. izd-vo, 1957. 100 p. (MLRA 10:4)
(Gas turbine locomotives)

Bartosh, Yevgeniy Tarasovich
PHASE I BOOK EXPLOITATION 323

Glagolev, Nikolay Matveyevich, Professor; Kurits, Aleksandr Ariyevich;
Vodolazhchenko, Vitaliy Vasil'yevich; and Bartosh, Yevgeniy Tarasovich,
Candidates of Technical Sciences

Teplovoznyye dvigateli i gazovyye turbiny (Diesel and Gas-turbine Locomotive
Engines) Moscow, Transzhelizdat, 1957. 463 p. 10,000 copies printed.

Ed.: Girshberg, N. M., Candidate of Technical Sciences; Tech. Ed.: Bobrova, Ye. N.

PURPOSE: This book is approved by the USSR Ministry of Higher Education as a text-
book for institutes of railroad transportation. It may also be useful to
engineers specializing in internal combustion engines, and gas turbines.

COVERAGE: The book deals with basic theory and design in the construction of the
modern diesel and gas-turbine locomotives. The following subjects are
discussed: working processes and cycles, engine dynamics, principle of work,
economy and performance characteristics, automation of control systems,
engine output control, locomotive operation, and safety. In addition to these
topics the author also gives a brief history of the development and uses

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Diesel and Gas-turbine (Cont.)

323

of internal combustion engines and gas turbines. The author claims that gas-turbine engines require less time to develop full power capacity than steam turbine engines. He also claims that aircraft gas turbines are able to develop full power capacity within 1.5 to 2 minutes, and that gas turbines in the aircraft industry are fully understood and are widely used on many types of aircraft. According to the author, the 1956 statistics show that Soviet gas turbine engines, not considering those used in aircraft, are able to develop power of about one million hp. A special chapter is devoted to discussion of free-piston gasifiers and prospects for their development and use. The author states that the Voroshilov Diesel Engine Locomotive Plant has developed a free piston-and-turbine compound locomotive engine with a capacity of 6,000 hp. and an efficiency of 29.4 percent. The book contains numerous tables, graphs, diagrams and detail drawings of various types of Soviet and foreign internal combustion engines and gas turbines. There are 84 references of which 82 are Soviet and 2 English.

Card 2/12

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AVAILABLE: Library of Congress

CO/bmd
1 July 1958

Card 12/12

BARTOSH, YE.

AUTHORS: Bartosh, Ye.T., and Meylikov, M.Ye. (Moscow) 47-4-2/20

TITLE: Construction of Locomotives During the Sixth 5-Year Plan
(Lokomotivostroyeniye v shestoy pyatiletke)

PERIODICAL: Fizika v shkole, 1957, No 4, pp 9-28 (USSR)

ABSTRACT: The authors point out that at the beginning of the Sixth 5-Year Plan the freight turnover on the Soviet railroads by means of electric and Diesel locomotives amounted to only 14%. The plan provides for an increase of 40 - 45%. For this purpose the railroads will be supplied with at least 2,000 electric and 2,250 double-section Diesel locomotives during 1956 - 1960. The construction of new powerful gas-turbine locomotives is also planned. They indicate that fuel is the most important component of the net cost of freight transportation. This factor, the kind of fuel and its availability will have to be taken into consideration when comparing the various types of locomotives. After describing in detail the construction, the working process and the economic factors of the locomotives used at present, the authors arrive at the conclusion that the steam engine's efficiency is only 4 - 5%, while that of the Diesel is 4 - 6 times higher. The authors compare the kind of fuel used by these engines and examine the possibility of

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Construction of Locomotives During the Sixth 5-Year Plan

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utilizing solid fuel for Diesel locomotives by gasifying it in the locomotives or at gas compressor stations with subsequent delivery to the engines in cylinders. But the efficiency of this type of locomotive is about 22% lower than the normal Diesel engines, and they require considerable investment of capital. Referring to the gas-driven turbine locomotives, of which there are only 30 in the world, the article states that their main advantage is the high specific capacity and the possibility to construct powerful engines of small size. They can work on liquid, solid and gaseous fuel. In 1955, Professor N.I. Belokor' suggested a gas turbine engine with a so-called double-stage fuel burning. His scheme provided a series connection of the air boiler working on solid fuel with the combustion chamber for the liquid fuel. The air, going from the compressor to the gas turbine, is preheated to a temperature of 575 - 600° C in the air tank and is later heated by liquid fuel in the combustion chamber to 720 - 750° C. It enables the economic use of solid fuel and ensures favorable conditions for the turbine blades. The efficiency of turbine locomotives run on liquid fuel is at present 16 - 17%, on solid fuel 14.5 - 15.5% and with the so-called "non-shaft piston gas generators" 28 - 30%. Dealing with electric locomotives the authors state

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that the efficiency is considerably higher if the energy is supplied by hydrostations as compared with energy from heat electric stations. The short analysis shows that the replacement of steam locomotives by electric and gas-driven turbine engines is a natural step in technical progress. The high exploitation qualities of electric locomotives and their remarkable efficiency and capacity places the electrification of railroads in the foreground. It is intended to electrify 8,100 km of railroad lines during the Sixth 5-Year Plan. The following lines will be electrified: Moscow - Kuybyshev - Chelyabinsk, Omsk - Novosibirsk - Irkutsk, Moscow - Khar'kov - Slavyansk, Chelyabinsk - Sverdlovsk, Inskaya - Belovo, Belorechenskaya - Tuapse - Sukhumi, Pyatikhatka - Nizhnedneprovsk - Chaplino - Yasinovataya, and others. Also the suburban lines of the biggest cities - Moscow, Leningrad, Khar'kov, Kiev, Stalingrad, Baku will be electric. At the same time powerful Diesel engines will be installed on the lines: Penza - Povorino - Valuyki, Dzhusaly - Arys', Karaganda - Mointy, Akmolinsk - Barnaul, Kalinin - Leningrad, and others. The following electric locomotives will be built: "H8", "ВЛ-22M" and "ВЛ-23" working on direct current, and "HO" running on alternating current. The first three engines work on a voltage of the net

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Construction of Locomotives During the Sixth 5-Year Plan

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of 3,300 volt. Table 1 shows the characteristics of these 3 locomotives. The authors deal with the question of changing over to alternating current, considering the direct current to be uneconomical. They describe the difficulty of using one-phase alternating current. On the section Ozherel'ye - Pavlets of the Moscow - Kursk - Donbass RR, alternating current with a tension of 22 kw is already being used. Electric locomotives "HO" (NO), constructed at the Novocherkassk Plant are running there. Figure No 9 shows a basic electric circuit diagram of locomotive "HO". The engines built are freight locomotives. Special passenger locomotives are not at present being constructed, but Soviet designers are working on special passenger locomotives for a speed of over 150 km per hour. For the suburban passenger traffic, electric engines C₃ have been built which do not satisfy the demand because of slow speed (85 km/h) and poor acceleration (0.45 m/sec²). The Riga RR Car Construction Plant (Rizhskiy vagonostroitel'nyy zavod) produced recently a 10-car electric train 3P-1 which proved to be satisfactory. The comparative characteristics of C₃ and 3P-1 are indicated on table 2. A considerable number of freight Diesel locomotives T3-1 and T3-2 operate on the USSR railroads. Their efficiency and speed no longer satisfies the

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demand. They will be supplemented by new powerful freight Diesel locomotives T9-3 (Figure 11). They have a 2-cycle, 10-cylinder engine type 2Д-100, without compressor and with opposing pistons. The electric circuit diagram of this engine is shown in Figure 12. Its capacity is 2,000 hp with 850 rpm. The article gives further particulars about the T9-3 Diesel locomotive. The speed is 100 km/h. On the basis of the T9-3 locomotive, the Khar'kov Diesel Locomotive Plant has constructed for experimental purposes, new powerful three-section Diesel freight locomotives of 6,000 hp and two-section passenger locomotives T9-7 of 4,000 hp with a construction speed of 140 km/h. The construction of T9-7 and T9-3 is much alike and makes mass production simple. During recent tests a metal-car passenger train took 5 hours 55 minutes from Moscow to Leningrad. A number of gas generator locomotives T9-4, developed by the All-Union Scientific Research Institute of Railroad Transport (Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozh-nogo transporta), are already in use. They consist of two sections of Diesel engine T9-2 with a gas generator tender installed between the sections. The Murom Works (Muromskiy zavod) have already constructed new 400-hp Diesel shunting-engines ТГМ ready for testing. In addition to the ТГМ the

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Voroshilovgrad Plant has built experimental 750-hp shunting-engines with hydro-mechanical gear. The Bryansk Plant works on the construction of a Diesel shunting-engine of 1,000 - 1,200 hp. The Kaluga Works of the MPS (Kaluzhskiy zavod MPS) have built a narrow-gage Diesel locomotive TY-2 with a 4-cycle non-compressor, 12 cylinder, V-like 300-hp Diesel engine. The Kolomna Plant (Kolomenskiy zavod) has started constructing various assemblies of the two-section gas turbine locomotives for heavy liquid fuel (mazut) of 3,740 hp. The Voroshilovgrad Transport Engine Plant (Voroshilovgradskiy zavod transportnogo mashinostroyeniya) is working on the construction of a gas turbine locomotive with a shaftless piston gas generator of 3,000 hp capacity in each section. Figure 16 shows the disposition of this locomotive's equipment. During the next few years the construction of a gas turbine locomotive is planned with two-stage fuel burning, as per a project developed by the TsNII MPS. Figure 17 illustrates the disposition of the locomotive's equipment. The fuel: 20 - 30% liquid and 70 - 80% solid. The principal characteristics of the discussed gas-turbine locomotives are contained in Table 3. The problem of gas-turbine locomotives is of recent origin but wide prospects for their development can be seen already.

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Construction of Locomotives During the Sixth 5-Year Plan

47-4-2/20

There are 11 figures, 1 diagram, 3 tables and 6 photos.

ASSOCIATION: TsNII MPS (Moscow)

AVAILABLE: Library of Congress

Card 7/7

AUTHOR: Chirkin, A.P. Dr.Tech.Sci. and Bartosh, B.T., Cand.Tech.Sci. SOV/96-58-6-24/24

TITLE: Concerning Prof. N.I. Belokon's book "Thermodynamics".
(O knige prof. N.I. Belokonya "Termodynamika")

PERIODICAL: Teploenergetika, 1958, No.6. pp. 93-96 (USSR)

ABSTRACT: In Teploenergetika No.9., 1955, G.N. Fuks gave an unfavourable review of the above book. The present contributors consider that the original reviewer did not properly evaluate the book, which is of original outlook and very useful; this is explained at length. There is an editorial note that the matter requires further discussion.

1. Literature--USSR 2. Thermodynamics

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USCOMM-DC-55487

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CIA-RDP86-00513R000203730012-3

BARTOSH, Ye.T., kand. tekhn. nauk, Shevchenko, L.A., inzh.

Prospects for using gas-turbine locomotives. Zhel. dor. transp.
41 no.4:16-20 Ap '59. (MIREA 12:6)
(Gas-turbine locomotives)

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203730012-3"

BARTOSH, Y.E.T.

NAME & BOOK INFORMATION

807/55

Author: Vasilijevich mechaniko-tehnicheskij institut obnarudovaniyu trenera
Vladimira Ilyuchinovym i tverdopisnyj uchebnik po avtomobilem i
motociklom v konstrukcii i konstruktivnoj uspoistvovaniyu, ochen' slabyj
izdaniyem (Collection of Articles) Moscow, Transportnaya, 1960, 211 p.

Sponsoring Agency: Vsesoyuznyj mehaniko-tehnicheskij institut obnarudovaniyu
trenera.

Editor: (Title page): Ye. T. Bartosh, Candidate of Technical Sciences, and A.V.
Kolybary, Candidate of Technical Sciences, and A.V.
Tchel., M.I. P.A. Editor.

Purpose: This book is intended for engineering and technical personnel,
contents: The book consists of 23 articles on the results of theoretical investi-
gation of gas turbine units with two-stage fuel combustion and on historical investiga-
tion of various regimens of incineration of oil and gaseous fuels and their components. Special features:
economy in incineration of various engines and problems of fuel
utilization. References and stationery units are discussed. No personalities are
Bartosh, Ye. T. Candidate of Technical Sciences. Flow Distribution
in Chambers of Fire.

Vershinskij, V. I. Institute of Technical Sciences. Cutting Process.

Kaz'mirev, A.Y. Candidate of Technical Sciences, Institute of Technical Sciences
and L.P. Bulatova, Institute of Technical Sciences.

Podol'skij, L.D. Professor. Investigation of the Turbine Incinerating Apparatus.

Podol'skij, L.D. Professor. Determining Parameters for the Incineration

of Coal and Fuel Oils.

Chernomorik, I.M. Researcher, Candidate of Technical Sciences, Institute of
the Combustion Process in a Flame Chamber.

Perlov, S.P. Candidate of Technical Sciences. Experimental In-

vestigation of Technical Sciences. Investigation of the
Incinerating Apparatus in Boiling on the Heating Surface of Chambers of Fire.

Dobromyslov, A.M. Researcher, Candidate of Technical Sciences, Institute of
the Combustion Process in a Flame Chamber.

Reznichenko, A.I. Researcher. Aerodynamics of the Combustion Chamber

in a Jet-Engined Fire Box with Dynamic Fuel Supply.

Prokof'yev, F.M. Researcher. Test Stand for the Investigation of the
Incinerating Apparatus. Test Stand for the Investigation of the
Incinerating Apparatus.

AVAILABILITY: Library of Congress.

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203730012-3

BARTOSH, Ye.T., kand.tekhn.nauk

Gas-turbine locomotives (Construction and principles of
operation). Elek.i tepl.tiaga 14 no.3:33-37 Mr '60.
(MIRA 13:7)
(Gas-turbine locomotives)

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CIA-RDP86-00513R000203730012-3

BARTOSH, Ye.T., kand.tekhn.nauk

Traction characteristics of the gas turbine. Vest.
TSNII MPS 19 no.5:29-33 '60. (MIRA 13:8)
(Gas turbines)

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"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203730012-3

BARTOSH, Ye.T., kand.tekhn.nauk

Aerodynamic design of contact packings. Trudy TSNII MPS no.214:121-136
'61. (MIRA 14:8)
(Packing (Mechanical engineering))

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CIA-RDP86-00513R000203730012-3"

BARTOSH, Ye.T., kand.tekhn.nauk

Determining the uniformity of charging of multicylinder engines
with air. Trudy TSNII MPS no.214:182-187 '61. (MIRA 14:8)
(Gas and oil engines)

KUMSKOV, Viktor Timofeyevich, kand. tekhn. nauk; MAKHAN'KO, Mikhail Grigor'yevich; BARTOSH, Ye.T., kand. tekhn. nauk, retsenzent; SMIRNOV, V.A., kand. tekhn. nauk, red.; BOBROV, Ye.N., tekhn. red.

[Fundamentals of heat engineering] Osnovy teplotekhniki. Moskva, Transzheldorizdat, 1962. 231 p. (MIRA 15:6)
(Heat engineering)

34664

S/114/62/000/001/001/006

E143/E435

26.2120

AUTHOR: Bartosh, Ye.T., Candidate of Technical Sciences

TITLE: Discharge characteristics of a gas turbine

PERIODICAL: Energomashinostroyeniye, no.1, 1962, 1-5

TEXT: Well known analytical expressions representing the relationships between turbine discharge and the variable thermodynamic parameters apply only when the deviations of u/c_0 ratio are small, i.e., when variations of efficiency of individual stages and of the turbine as a whole are small. In many cases and particularly when turbines are applied for traction purposes, this condition restricts the possibility of analysing the changing operating regime of the machines. A method of calculating the characteristics of a multistage turbine operating under variable thermodynamic parameters and under variable speed is here presented. For this purpose, Belkon's equation expressing the discharge of gas through the turbine is utilized. Belkon's equation gives similar results to Stodola's and Fluegel's equations when the turbine is regarded as a group of stationary nozzles. When the speed and efficiency change from zero to the design value, it becomes

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Discharge characteristics ...

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E143/E435

necessary to account for rapid increase of heat recovery due to increase of gas temperature as a result of irreversible losses across turbine blades and also on account of high exit velocities from the preceding stages. These factors contribute towards an increase of discharge capacity of intermediate stages and of the turbine as a whole. The introduction of a coefficient of increase of the discharge capacity of a stage, which takes into account those factors, permits the study of thermodynamic parameters to be carried out for any operating regime. From expressions derived, it appears that discharge capacity depends mainly on the number of stages and at full braking of the rotor may increase by 30 to 40%. The theoretical results agree reasonably well with the experimental obtained by G.R.Cox. The method described enables the evaluation of discharge, of the thermodynamic parameters and of the heat drop across the stages of a multistage turbine for any operating regime. Further calculations of the variable operating regime reduces to the analysis of the characteristics of separate stages of the turbine. There are 6 figures.

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