

PASTOREK, Imrich, prom. chemik, DRABEK, Jozef, inz., CSc.; TRUCHLIK, Stefan,
inz., CSc.

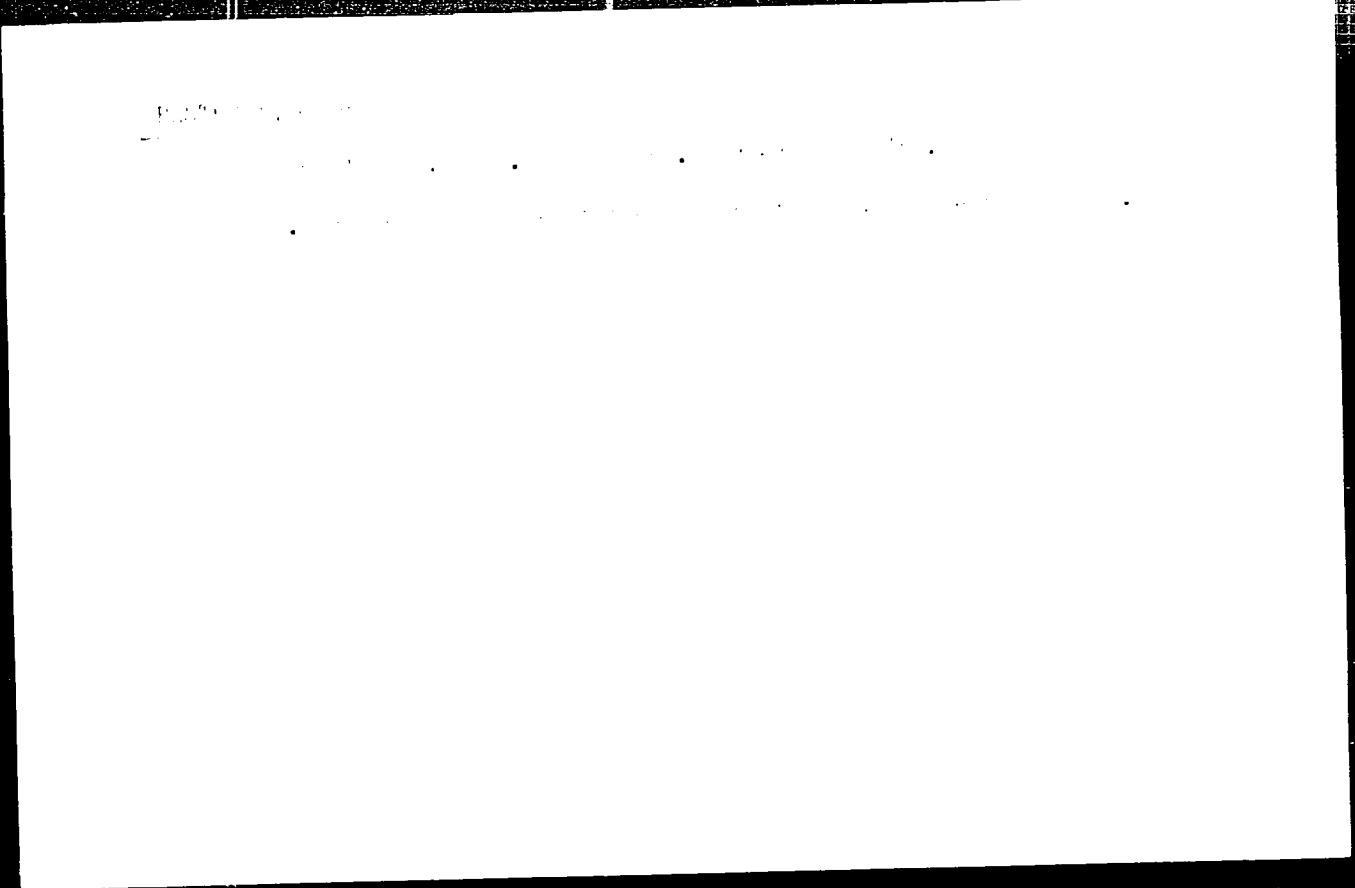
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1. Research Institute of Agrochemical Technology, Bratislava.
Submitted September 23, 1964.

TRUCHLIK, S.; KOVAC, J.; PASTOREK, I.; FEDOR, E.

Some results of the study on the thermostability of O, O-dialkyl dithiophosphoric acids. Chem prum 14, no.5:262-262 My '64.

J. Research Institute of Agricultural Chemistry Technology, Bratislava.



PASTOREK, Pavel

The 12th Congress of the Communist Party of Czechoslovakia.
Rudy 10 no.8:249-250 Ag '62.

1. Ustredni vybor Komunisticke strany Ceskoslovenska, Praha.

PASTORINO, E.

23896 Pastorino, E. Rabocheye Dvizheniya v Urugvaye. Profsoyuzy,
1949, No. 7, s. 43-44

SO: Letopis, No. 32, 1949.

PASTOROVA, Jana;HODER, Josef;JUNGER, Ladislav

Selection of anesthesia in splenectomy in hematological indications. Rozhl. chir. 38 no.9:583-589 S '59

1. I. chirurgické klinika v Praze, přednosta akademik A. Jirisek.
(HYPERSPLENISM, surg.)

BAIAS, V.; JUNGGER, L.; MAYER, M.; PASTOROVA, J.

Visnevsky's therapeutic method with novocaine blockade and oleo-balsamic emulsion; experiences in therapy of inflammatory diseases. Gas. lek. cesk. 92 no.27:743-755 3 July 1953. (CJML 25:1)

1. Of the First Surgical Clinic (Head--Prof. A. Jirasek, M.D.) of Charles University, Prague.

PASTOROVA, JANA.

Celkova anestesia. [2. vyd.] Praha, Czechoslovakia. Statni zdravotnicke nakl.,
1958. 157 p.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 12, December 1959,
uncl.

PASTOROVA, Jana; HODER, Josef

Problem of anesthesia in ambulatory and minor operations. Summary
and instructions for practice. Rozhl.chir.39 no.10:679-682 0'60.

(SURGERY MINOR anesth. & analgesia)

PASTOROVA, Jana

Role of spinal anesthesia in surgical correction of sudden intestinal obstruction. Rozhl. chir. 36 no.2:82-84 Feb 57.

I. I chirurgická klinika Karlovy university v Praze, přednosta akademik A. Jirasek.

(INTESTINAL OBSTRUCTION, surg.
spinal anesth. (Cz))

(ANESTHESIA, SPINAL, in var dis.
surg. for sudden intestinal obstruct. (Cz))

HODER, J.; PASTOROVA, J.; WALCOK, F.

Prevention in anesthesiology. Rozhl. chir. 44 no.8:592-594
Ag '65.

PASTOROVA, V. E.

ml / Strength of capillaries in antagonistic interaction of dicumarin and vitamin K in animal organism. V. E. Pastorova and B. A. Kudryashov (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 107, 340-2(1958).--Intramuscular injection of 1 mg./200 g. dose of dikumarin into rats in Na_2CO_3 soln. resulted in a drop of prothrombin level and in strength of capillaries. Simultaneous administration of dicumarin and an aq. sol. prepa. of vitamin K (bisulfite complex of 2-methyl-1,4-naphthoquinone) (1 injection of 15 mg./200 g. and 2nd after 28 hrs. at 20 mg./200 g.) prevented the loss of capillary strength and kept prothrombin at a normal level.

2

G. M. Kosolapoff

PASTOROVA, V. E.

✓ Change of the thromboplastic activity of blood and strength of the capillaries after splenectomy. B. A. Kudryashov, T. M. Kalishevskaya, and V. E. Pastorova (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 107, 185-7(1958).—Complete removal of the spleen from white rats leads to a rapid and great drop in the thromboplastic activity of blood. After 2 weeks there begins a restoration of this function which is complete in some 4 weeks. Along with the drop in thromboplastic activity there is a parallel drop in the strength of the capillaries, whose restoration occurs somewhat earlier, however.
G. M. Kosolapoff

2

KUDRYASHOV, B.A.; ANDREYENKO, G.V.; BAZAZ'YAN, G.G.; KALISHEVSKAYA, T.M.;
PASTOROVA, V.Ye.; SYTINA, N.P.; ULITINA, P.D. (Moskva)

Physiological anticoagulation system in an experimental pre-
thrombotic state of the organism. Klin.med. 39 no.3:19-30
Mr. '61. (MIRA 14:3)

1. Iz laboratorii fiziologii i biokhimi svertyvaniya krovi
(rukovoditel' - prof. B.A. Kudryashov) Moskovskogo universiteta.
(BLOOD--COAGULATION)

PASTOROVA, V.Ye.; KUDRYACHOV, B.A.

Depression of the function of the physiological anticoagulation system following experimental radiation injury in animals. *Biul. eksp. biol. i med.* 54 no.9:39-42 S '62.
(MIRA 17:9)

1. Iz laboratorii fiziologii i biokhimii svertyvaniya krovi kafedry biokhimii zhivotnykh Moskovskogo universiteta imeni Lomonosova. Predstavlena deystvitel'nyim chlenom AMN SSSR S.Ye. Severinym.

PASTOROVA, V.Ye.

Change in the permeability of capillary vessels and the absorption of the Congo red from the blood channel by the cells of reticulo-endothelium following intravenous injection of thrombin. Nauch. dokl.vys.shkoly; biol.nauki no.2:105-108 '63. (MIRA 16:4)

1. Rekomendovana laboratoriyey fiziologii i biokhimi svertyvaniya krovi Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(RETICULOENDOTHELIAL SYSTEM) (THROMBIN)
(CAPILLARIES--PERMEABILITY) (ABSORPTION (PHYSIOLOGY))

KUDRYASKOV, B. A., prof.; PASTOROVA, V. Ye.

Development of a prethrombotic state in the body as a consequence of experimental splenectomy. Probl. gemat. i perel. krovi no.8: 12-15 '62. (MIRA 15:7)

1. Iz laboratorii fiziologii i biokhimii svertyvaniya krovi biologo-pochvennogo fakul'teta Moskovskogo gosudarstvennogo universiteta.

(SPLEEN—SURGERY) (BLOOD—COAGULATION)

PASTOROVA, V.Ye.; ROSKIN, G.I.; KUDRYASHOV, B.A.

Function of the physiological anticoagulation system in a
reticulo-endothelial block. Biul. eksp. biol. i med. 52
no.11:23-26 N '61. (MIRA 15:3)

1. Iz laboratorii fiziologii i biokhimii svertyvaniya
krovi i kafedry gistologii biologo-pochvennogo fakul'teta
Moskovskogo gosudarstvennogo universiteta imeni Lomonosova.
Predstavlena deystvitel'nyim chlenom AMN SSSR S.Ye. Severinym.
(RETICULO-~~ENDOTHELIAL~~ SYSTEM) (BLOOD--COAGULATION)

PASTOROVA, V.Ye.

Changes in the absorbing function of cells of the reticulo-
endothelial system in animals following intravenous administration
of thrombin and thromboplastin. Nauch. dokl. vys. shkoly; biol.
nauki no.3:98-101 '61. (MIRA 14:7)

1. Rekomendovana laboratoriya biokhimii i fiziologii svertyvaniya
krovi Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(RETICULO-ENDOTHELIAL SYSTEM)
(BLOOD--COAGULATION) (ADSORPTION (PHYSIOLOGY))

PASTOROVA, V. Ye.

KUDRYASHOV, B.A., prof.; ANDREYSIKO, G.V.; ULITINA, P.D.; BAZAS'YAN, G.G.;
PASTOROVA, V.Ye.; SYTINA, N.P.; KALISHEVSKAYA, T.M.; SHIMONAYEVA, Ye.Ye.

Nature of hemorrhage in experimental radiation sickness in animals
[with summary in English, p.60]. Probl.gemat. i perel.krovi 2 no.6:
3-11 N-D '57. (MIRA 11:2)

1. Iz biologo-pochvennogo fakul'teta Moskovskogo gosudarstvennogo
universiteta.

(HEMORRHAGE, experimental,
x-ray induced in animals (Rus))
(ROENTGEN RAYS, injurious effects,
exper. hemorrh. induced in animals (Rus))

PASTOROVA, Jana; BALAS, Vladimir; BIGANOVSKY, Mojmir; JUNGER, Ladislav;
LUKESOVA, Tamara; VLACH, Vladimir

Importance of open intracranial injuries with regard to mortality &
loss of working ability. Rozhl. chir. 38 no.6:373-380 June 59

I. I. chirurgicka klinika v Praze, prednosta prof. dr. J. Pavrovsky
Neurologicka klinika v Praze, prednosta akademik prof. dr. K. Henner.
(BRAIN, wds. & inj.)
(DISABILITY EVALUATION)

РАСТРАУ, Д.

196/5788

TABLE I BOOK EXPLANATION

Cluj, Transylvania. Institutul Politehnic

196/5788. 637 p. Brevia also inserted. No. of copies printed not given. No contributors mentioned.

FRONT: This book is intended for mathematicians, physicists, chemists, and civil and mechanical engineers.

COVER: The book consists of 59 papers by Romanian specialists on problems in sciences and technology, particularly mathematics, physics, chemistry, metallurgy, civil and mechanical engineering. Summaries in Russian and French or German are given at the end of each article. Some of the articles are accompanied by references. No personalities are mentioned. At the back of the book there are 23 references, all Romanian.

TABLE OF CONTENTS:

Billman, V. Effect of the Term Geometry on the Machining Process of Machining a Turn Piece	437
Billman, V. and E. Ghiorghis. Determining the Degree of Wear of Machine Tools	451
Madanescu, I. Problems of Mathematics in the Production of Thread Taps and Threading Dies for Metric Thread	465
Mary, D. Geometrical Determination of the Distribution of Accelerations in Mechanisms Under a Given System of Forces for a Certain Position and a Known Distribution of Speeds	479
Miller, L. Quick-Response Automatic Lines of High-Speed Machine Tools	487
Patachi, B. Synchronization of the Eduction Motor as a Means of Improving the Power Factor in Industrial Plants	505
Popules, M. Cooling Efficiency of a Cascade Cycle	511
Popules, M. An Industrial Cooling Installation for Cold Treatment at Subzero (-7) Temperatures	519
Pop, R., I. Ionescu, and A. Chiriac. Use of Methane Gas in Furnaces for Glass Calcination	529
Pop, R., I. Ionescu, and A. Chiriac. The Problem of Non-Directional Wave Air Pressure Acting as a Carrier	547
Rajkovic, A. Use of Complex Numbers in Kinematic Plane Motion. Proof of Similarity Theorem by Means of Complex Numbers	559
Stancu, P. Solution of the Problem of Automating the Milling of Teeth on Bars of Helical Chucks	567
Stancu, A. and Fr. Lovas. Problem of Building a High-Frequency Generator	577
Stancu, A., Fr. Lovas, D. Balint, and O. Costea. Electronic Device for Pulse Tests Based on Resonance-Limited Vibrations	587
Stancu, A., Fr. Lovas, and L. Sander. An Electronic Potentiometer	609
Stancu, A., Fr. Lovas, and O. Costea. Electronic Viscometer for Measuring the Viscosity of Liquids	609
Trifu, M., D. Matru, E. Patachi, I. Rastrea, and M. Duta. Study of the Behaviour of Carbon Steels (C45, C50, C60) and Notched Cast Iron	615

Card 10/11

27

USSR / Human and Animal Physiology (Normal and Pathological).
Metabolism.

T-3

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 60045

Author : Pastorova, V. Yo.

Inst : AS USSR

Title : Changes of Capillary Fragility in K Avitaminosis and
the Specific Effect of Vitamin K Upon Capillary
Resistance

Orig Pub : Dokl. AN SSSR, 1957, 113, No 6, 1379-1382

Abstract : The blood prothrombin level and capillary fragility were
investigated in rats with K avitaminosis produced by
the ligation of the bile duct, and with P avitaminosis
produced by omission of P in the feed. In K avitaminosis,
there was an impairment of blood coagulation, and also
an increase in capillary fragility. The administration of
a water-soluble preparation of vitamin K (bisulphite

Card 1/2

USSR / Human and Animal Physiology (Normal and Pathological).
Metabolism.

T-3

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 60045

complex of 2-methyl-1, 4-naphtoquinone) decreased the capillary fragility caused by K avitaminosis, and also increased the capillary strength of normal rats, but had no effect on the low capillary strength in animals with P avitaminosis. The latter condition was remedied to a certain degree by the administration of vitamin P - catechin. -- L. A. Kashchevskaya

Card 2/2

20

PASTOROVA, V.Ye.

Studying the strength of capillary vessels and the effect of a vitamin P preparation (catechin) on capillary strength in X-irradiated animals. Nauch. dokl. vys. shkoly; biol. nauki no.4:74-77 '59.
(MIRA 12:12)

1.Rekomendovana laboratoriyey fiziologii i biokhimii svertyvaniya krovi Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(VITAMINS--P) (RADIATION PROTECTION) (CAPILLARIES)

KUDRYASHOV, B.A.; PASTOROVA, V.Ye.; ZAGOREVSKIY, V.A.

Effects of synkavite (tetrasodium salt of 2-methyl-1,4-naphthoquinone diphosphate) on concentrations of prothrombin and convertin and on the thromboplastic activity of the blood in experimental vitamin K deficiency. Vop.med.khim. 5 no.4:279-284 J1-Ag '59. (MIRA 12:12)

1. Laboratoriya fiziologii i biokhimii svertyvaniya krovi, kafedra biokhimii zhivotnykh Moskovskogo gosudarstvennogo universiteta.
(VITAMIN K DEFICIENCY exper.)
(BLOOD COAGULATION pharmacol.)

KUDRYASHOV, B.A.; ANDREYENKO, G.V.; BAZAZ'YAN, G.G.; KALISHEVSKAYA, T.M.;
PASTOROVA, V.Ye.; SYTINA, N.P.; ULITINA, P.D.

The physiological anticoagulating system and experimental prethrombotic
state of the organism. Vest. Mosk. un. Ser. 6:3-23 Mr-Apr '61.

(MIRA 14:5)

1. Laboratoriya fiziologii i biokhimi svertyvaniya krovi Moskov-
skogo gosudarstvennogo universiteta.

(BLOOD--COAGULATION)

PASTOROVA, V.Ye.; KUDRYASHOV, B.A.

Effect of bone marrow injections on the thromboplastic activity of blood in X-irradiated rats. Nauch.dokl.vys.shkoly; biol. nauki no.1:80-83 '59. (MIRA 12:5)

1. Rekomendovana kafedroy biokhimii zhivotnykh Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(RADIATION PROTECTION) (MARROW) (BLOOD--COAGULATION)

ИСТОКОВИ, В. Ye

KUDRYASHOV, B.A.; KALISHEVSKAYA, T.M.; PASTOROVA, V.Ye.; PREOBRAZHENSKAYA,
M.Ye.

Blood prothrombinase and thrombotropine deficiency in splenectomized
rats. Dokl. AN SSSR 114 no.5:1128-1131 Je '57. (MLRA 10:9)

1. Moskovskiy gosudarstvennyy universitet im. L.V. Lomonosova. Pred-
stavleno akademikom V.H. Shaposhnikovym.
(BLOOD) (FIBRIN)

PASTOROVA, V.Ye.

Variation in the strength of capillaries in the case of vitamin K deficiency and the specificity of the effect produced by this vitamin on the strength of capillaries. Dokl. AN SSSR 113 no.6: 1379-1382 Ap '57. (MLRA 10:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
Predstavleno akademikom V.N. Shaposhnikovym.
(VITAMINS--K) (CAPILLARIES)

20-5-59/60

AUTHOR KUDRYASHOV, B.A., KALISHEVSKAYA, T.M., PASTOROVA, V. Ye. and PREOBRAZHENSKAYA, H. Ye.

TITLE Blood Prothrombokinase and Thrombotropine Deficiency in Splenectomised Rats.
(Nedostatochnost' prothrombokinazy krovi i trombotropina u splenektomirovannykh krys. - Russian)

PERIODICAL Doklady Akademii Nauk SSSR 1957 Vol 114 Nr 5, pp 1128-1131 (U.S.S.R.)

ABSTRACT The authors showed already previously that a complete splenectomy in animals leads to an abrupt thromboplastic activity of the blood. At the same time a certain loss of solidity of the capillaries is observed. The present investigation is dedicated to the study of the immediate causes of the catastrophic reduction of the mentioned blood activity. This activity depends on the amount and quality of prothrombokinase in the blood platelets (of factor 3 of the blood platelets) and on the level of thrombotropine in the plasma. Therefore, when tests were resumed, chief attention was concentrated on the study of the number of blood platelets and the prothrombokinase "charge" contained in them. The concentration of this latter enzyme in the plasma at different stages of the ex-

CARD 1/4

20-5-59/60

Blood Prothrombinase and Thrombotropine Deficiency in Splenectomized Rats.

periment, the change of the number of erythrocytes, of the percentage of hemoglobin and prothrombin were also studied. Finally the solidity of the capillaries before and after splenectomy was determined. White rats served as test material. In 262 of them the entire spleen, and in 149 only half of the spleen was removed. 145 normal rats served for control. Results: It is known that in splenectomized rats the greatest reduction in thromboplastic blood activity is observed between the 6th and 9th day after operation, which fact was confirmed by the authors' tests. The half-operated and the normal animals exhibited no essential changes. Only one death occurred here. Toward the 18th and 25th day the mentioned activity was almost restored to the normal physiological level in the majority of the surviving operated animals. Complete splenectomy inevitably caused the death of part of the animals toward the 5th to 8th day. The prothrombin concentration usually remained unchanged, in individual cases however it completely disappeared from the plasma which was a very bad prognostic symptom. Complete splenectomy, in contrast to a partial one, leads to hypothrombotropinemia. On the 21st day the physiological level returns. As is known, thrombotropine-biosynthesis is

CARD 2/4

20-5-59/60

Blood Prothrombokinase and Thrombotropine Deficiency in Splenectomised Rats.

under control of vitamin K. In operated animals which received large doses of 2-methyl -1,4-naphthoquinone and in others which received small doses of synkavit, the thrombotropine concentration was restored after 24 hours. It was found to decrease further by 15 %. In spite of this restoration the former low thromboplastic blood activity was conserved in the rats. This indicates that the noticed decrease in concentration to 40 % is not the only and main cause of the catastrophic decrease in blood activity. Therefore the prothrombokinase of blood platelets as the second agent on which the formation of blood thrombokinase depends was studied. On the 7th to 8th day after the full operation the number of erythrocytes in the blood is considerably reduced: the number of blood platelets rises sharply. It seems that there occurs a certain absolute increase in platelets at this time. The results indicate that the prothrombokinase deficiency (of factor 3 of the blood platelets) occurring in splenectomised

CARD 3/4

20-5-59/60

Blood Prothrombokinase and Thrombotropine Deficiency in Splenectomised Rats.

rats is due to an infection agent (bartonellosis). Thus the insufficiency of blood platelets with regard to factor 3 may be a consequence of infectious toxicoses. This phenomenon can be removed by antiinfectious agents.

(4 Tables, 5 Slavic references)

ASSOCIATION: "M.V. Lomonosov" Moscow State University.
(Moskovskiy gosudarstvennyy universitet in.M.V. Lomonoova)

PRESENTED BY: V.N. Shaposhnikov, member of the Academy.

SUBMITTED: 1.10.56.

AVAILABLE: Library of Congress.

CARD 4/4

20-6-56/59

AUTHOR: PASTOROVA, V. Ye.

TITLE: Variation in the Strength of Capillaries in the Case of Vitamin K Deficiency, and the Specificity of the Effect produced by this Vitamin upon the Strength of Capillaries.
(Izmeneniye prechnosti kapillyarnykh sosudev pri K-avitaminoge i spetsifichnost' deystviya vitamina K na prechnost' kapillyarev. Russian).

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 6, pp 1379 - 1382 (U.S.S.R.)

ABSTRACT: Vitamin K is known as an anti-haemorrhagic. If there is not enough of it, haemorrhages can develop in the blood. On this occasion the concentration of some thrombogenic blood elements decreases abruptly: Protithrombogene and Tromboplastin. There are only few references in literature concerned the influence of Vitamin K on the strength of the capillaries. Some authors say it has a capillary-strengthening effect. On the occasion of the introduction of its antagonistic dicoumarin the strength of the capillaries decreases, which does not occur if at the same time considerable doses of vitamin K are introduced. The purpose of the present work was to find out: 1) whether the capillary strength of animals with too little vitamin K changes, and whether vitamin K has a positive effect on the capillary strength of such animals, 2) whether in the case of a positive influence, the

Card 1/2

USSR/Human and Animal Physiology (Normal and Pathological).
Blood. Blood Coagulation.

T-3

Abs Jour : Ref Zhur - Biol., No 16, 1958, 74670

Author : Kudryashov, B.A., Kalishevskaya, T.M., Pastorova, V.Ye.,
Preobrazhenskaya, M.Ye.

Inst : AS USSR

Title : Insufficiency of Prothrombokinasas of Blood and Thrombotro-
pin in Rats that have Undergone Splenectomy.

Orig Pub : Dokl. AN SSSR, 1957, 114, No 5, 1128-1131

Abstract : In 262 rats the spleen was completely removed; in 149,
only partially. In the first case, the thromboplastic ac-
tivity (TA) decreased sharply on the 6-9th day; in the se-
cond it did not change. Toward the 18-25th day TA in a ma-
jority of splenectomized rats was restored almost to nor-
mal. The concentration of prothrombin after splenectomy

Card 1/3

- 36 -

USSR/Human and Animal Physiology (Normal and Pathological).
Blood. Blood Coagulation.

T-3

Abs Jour : Ref Zhur - Biol., No 16, 1958, 74670

II, obtained from T of RS, comprised only 16% of normal. After full removal of the spleen an acute deficit of prothrombinases of the blood (factor 3 T) appeared; in this connection during blood coagulation there was not a sufficient quantity of II, in spite of the abundance of T. Seemingly, in connection with the infection of the rats with Bartonella muris, full S occurs due to the development of the infection to toxicosis, which blocks the formation of II. In tests with the introduction of novarsenol, the TA in RS remained normal. -- A.D. Beloborodova.

Card 3/3

- 37 -

KUDRYASHOV, B.A.; KALISHNEVSKAYA, T.M.; PASTOROVA, V.Ye.

Changes in the thromboplastic activity of blood and in capillary strength as a result of splenectomy. Dokl.AN SSSR 107 no.1:185-187
Mr '56. (MIRA 9:7)

1.Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
Predstavleno akademikom A.D.Speranskim.
(Blood--Coagulation) (Spleen)

PASTOROVA, V.Ye.; KUDRYASHOV, B.A.

Strength of capillaries in the case of antagonistic interaction
between dicoumarin and vitamin K in the animal organism. Dokl.
AN SSSR 107 no.2:340-342 Mr '56. (MLRA 9:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
Predstavleno akademikom A.D. Speranskim.
(CAPILLARIES) (COUMARIN) (VITAMINS--K)

PASTORS, A.A.

Water balance of the Gulf of Riga. Trudy GOIN no.73:96-105 '63.
(MIRA 16:7)

(Riga, Gulf of--Hydrology)

PASTORS, A.A.

Discharge of ~~fresh water~~ and advection of heat into the Gulf of
Riga. Trudy GOIN no. 65:14-38 '61. (MIRA 14:8)
(Riga, Gulf of--Hydrology)

PASTORS, A.A.

The extremely low water level in the Gulf of Riga. Trudy GOIN
no.65:128-137 '61. (MIRA 14:8)
(Riga, Gulf of--Hydrography)

PERISIC, Vera; GLIDZIC, Lela; PASTRAC-LUC, Madozda; KANFRGA, Radmila

Enlarged parotid glands in liver diseases. Srpski arh. celov.
lek. 92 no.2:155-165 F'64.

1. Interna klinika A Medicinskog fakulteta Univerziteta u Beogradu
(Upravnik: prof. dr. Branislav Stanojevic).

KONDINI, [unclear]; PERISIC, Vera; BANICEVIC, Bozidar; PASTRAKULJIC, Nada;
GLIDZIC, Lela

Hydrocortisone therapy of acute infectious hepatitis. II. Results of prolonged therapy. Srpski arh. celok. lek. 92 no.7: 723-733 JI-Ag '64

1. Interna klinika A Medicinskog fakulteta Univerziteta u Beogradu (Upravnik: prof. dr. Branislav Stanojevic).

PERISIC, Vera; GLIDZIC, Lela; BANICEVIC, Bozidar; PASTRAKULJIC, Nalenda

Role of the determination of protein metabolism in liver diseases.
Srpski ark. celok. lek. 93 no.1:15-22 Ja 1955.

1. Interna klinika A Medicinskog fakulteta Univerziteta u Beogradu.
(Upravnik: prof. dr. Branislav Stanojevic).

PASTRAKULJIC, Nadezhda; IVANOVIC, Dragan

Mitral valvulotomy in multivalvular sequelae of rheumatic heart disease. Srpski arh. celok. lek. 93 no.2:167-177 F ' 65.

1. Interna klinika & Medicinskog fakulteta Univerziteta u Beogradu (Upravnik: prof. dr. Branislav Stanojevic).

PAP0, Izidor; SLAVKOVIC, Jovan; BRKIC, Dobrivoje; PASTRAKULJIC, Nedzda

Transventricular mitral valvulotomy in pregnancy. (Report of a case with a general review of the problem related to surgical therapy of mitral stenosis in pregnancy.) Srpski arch. celok. lek. 92 no.12:1219-1225 1964.

1. Interna klinika A Medicinskog fakulteta Univerziteta u Beogradu (Upravnik: prof. dr. Dorde Brkic) i Klinika za hirurske bolesti Vojnomedicinske akademije u Beogradu (Nacelnik: general-major prof. dr. Izidor Papo).

PASTRAVANU, M.

COUNTRY : Rumania
CATEGORY :

F

ABS. JOUR. : RZKhim., No. 21 1959, No.

74754

AUTHOR : Schiopu, M., Onu, V., and Pastravanu, M.

INST. : Iasi Polytechnic Institute

TITLE : A method for the Calibration of Mercury Thermometers

ORIG. PUB. : Bul Inst Politehn Iasi, 4, No 1-2, 155-158 (1958)

ABSTRACT : The authors criticize methods used in the calibration of Hg-thermometers which do not take into account nonuniformities in the ruling of the thermometer scale. The results of measurements with a cathetometer having an accuracy of 2μ of the distances between scale divisions (0.01°) of a Beckman thermometer are presented. It has been found that these differences vary from 403 to 449 μ . The authors propose a calibration method

CARD: 1/3

COUNTRY : Rumania

AUTHOR :

ABS. JOUR. : RZKhim., No. 21 1959, No.

74754

AUTHOR :

INST. :

TITLE :

ORIG. PUB. :

ABSTRACT : consisting in the determination of two corrections: a correction for the nonuniformity in the graduation of the scale, obtained by measuring distances between scale divisions with a cathetometer, and a correction for the nonuniformity of the thermometer capillary, obtained by measuring the length of a Hg column separated from the reservoir over different sections of the capillary. The total correction to the indication of the thermometer is the sum of the above two

CARD: 2/3

TRIPA, M.; PASTRAV, I.

Determination of the unitary tension of trees. Bul stiint
polit Cluj no.5:443-447 '62.

POSTKIV I

PLAS I BOOK EXPLANATION

RM/5735

Class, Metallurgy, Industrial Engineering

Author: L. K. Kovács (Scientific Works) and L. Kovács (Scientific Works), 1959. 637 p. Errata slip inserted. No. of copies printed not given. No contributors mentioned.

Purpose: This book is intended for mathematicians, physicists, chemists, and civil and mechanical engineers.

Content: The book consists of 59 papers by Russian specialists on problems in science and technology, particularly mathematics, physics, chemistry, metallurgy, civil and mechanical engineering. Summaries in Russian and French or German are given at the end of each article. Some of the articles are accompanied by references. No personalities are mentioned. At the back of the book there are 23 references, all Russian.

TABLE OF CONTENTS:

William, L. Effect of the Vore Co-axial on the Machining Process of Machining a Vore Vase	437
William, V., and H. Chiriac. Determining the Degree of Wear of Machine Tools	453
Maizurov, I. Problems of Tolerances in the Production of Threaded Pipes and Tapering Dies for Metric Thread	465
Mary, D. Graphoanalytical Determination of the Distribution of Accelerations in Mechanisms Under Given System of Forces for a Certain Position and a Given Distribution of Speeds	479
Miller, E. Quick-Response Automated Lines of Bit-Head Machine Tools	487
Mitsch, H. Synchronization of the Induction Motor as a Means of Improving the Power Factor in Industrial Plants	505
Perdue, N. Cooling Efficiency of a Cascade Cycle	511
Perdue, N. An Industrial Cooling Installation for Cold Treatment at Subzero [C°] Temperatures	519
Pope, R., I. Leifer, and A. Churchill. Use of Methane Gas in Furnaces for Low Calcination	529
Pope, R., I. Leifer, and A. Churchill. The Problem of Down-Directed Water Air Pressure Acting as a Curtain	547
Rapman, A. Use of Complex Numbers in Elastic Plane Motion. Proof of Singularity Theorem by Means of Complex Numbers	559
Shapiro, P. Solution of the Problem of Automating the Milling of Teeth on Bars of Universal Chucks	567
Stamm, A. and P. Kovács. Problems of Building a High-Frequency Generator	577
Stamm, A., P. Kovács, G. Balint, and C. Cornea. Electronic Devices for Helium Tests Based on Resonance-Limited Vibrations	587
Stamm, A., P. Kovács, and L. Mandor. An Electronic Transducer Testing the Spindle Used in Cotton Spinning	603
Stamm, A., P. Kovács, and G. Cornea. Electronic Vibrometer for Testing the Spindle Used in Cotton Spinning	609
Trime, M., D. Matray, E. Mitsch, L. Kijowski, and A.L. David. Study of the Behaviour of Carbon Steels GIC 500-19 and Modular Cast Iron	615

Card 10/11

9

PH

Effect of preliminary illumination on the conductivity and photoconductivity of cadmium oxide. Emanuel Kier, Radomir Kuzel, and Josef Pastrňák (Charles Univ., Prague). *Czechoslov. J. Phys. S.* 4:21-1955 (in Russian); cf. Brattain, C.A. 49, 837i.—The cond. (C) and photocond. (P) at temps. (T) from -120 to $+450^\circ$ were measured of samples-I Cd₂O (1 mm. thick) prepd. in a described manner. The plotted C of a certain sample (I) was in accord with the equation $C = C_0 e^{-E/kT}$, where E varies from 0.436 e.v. at 20° to 1.54 e.v. at 450° , k is Boltzmann's const., and C_0 is a const. After 4 hrs. exposure to intense light from a Hg lamp the C at 20° was over 4 times its previous value.

The given equation was applicable at temps. up to 70° , but E at 20° was 0.334 e.v. From 70 to 130° C decreased; at T above 130° C was equal to its previous value and remained so on cooling to 20° . A stable increase of C could be obtained with light of wave length $0.7-0.85 \mu$ but not with ultraviolet light. The P at 20° was measured of a sample (II) which had been heated 2 hrs. at 130° and slowly cooled; P was plotted as a junction of the wave length of the incident light. Max. of P were observed having relative values of 112, 165, and 270 at $0.63, 0.75,$ and 0.85μ , resp. After 10 hrs. exposure of II to strong light max. were observed at the same wave lengths, but the corresponding values of P were 100, 65, and 100. At 130° , when a sample was exposed to light of moderate intensity, its C rose; when the exposure ceased, C fell to its original value. The rise and fall of C were both exponential; the time const. was about 2 sec. for each, as is shown graphically. These effects may be due to metastable levels of attachment in the forbidden zone as well as the normal lattice defects.

J. W. Lowenberg, Jr.

SMW

PASTRŇAK, JOSEF

CZECHOSLOVAKIA/Electricity - Semiconductors

G-3

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12224

Author : Pastrnak, Josef., Kuzel, Radomir

Inst : Physics Institute of Karlovy University, Prague, Czechoslovakia.

Title : Effect of Illumination on the Conductivity and Photoconductivity of Cuprous Oxide.

Orig Pub : Askosl. casop. fys. 1956, 6, No 2, 170-187

Abstract : Description of the technology for obtaining specimens of Cu_2O for the performance of experiments. The electric conductivity is measured by the probe method. It is shown, that at high temperatures (70 -- 90°) there is no observed exponential law of variation of conductivity with temperature. If the specimen was illuminated, its conductivity began to increase to saturation, which took place at room

Card 1/2

PASTRMAK, JOSEF

Effect of Illumination on the conductivity and photocon-
ductivity of cuprous oxide

... of cups were prepd. by the method of Blankenburg and Kassel (C. A. 47, 3744). Photocond. was measured at temps. from -120° to 250° and a few samples at 450° with the rate of heating at 0.5°/min. Probe potentials were measured with an electrostatic voltmeter. The logarithm of cond. as a function of temp. was linear up to 50°. At higher temps. the cond. decreased and at 130° it reached the initial value at room temp. Illumination of the sample resulted in a permanent increase in the cond. contrary to the conclusions of Angello (cf. C. A. 37, 262). On the basis of the results the authors propose a model according to which the cond. must be considered as a semi-conductor in which lattice defects, being the cond. in the dark attained on heating or illumination in equil. between the associated processes of the lattice centers. Illumination shifts the balance in the direction of favor of the disce.

... as traps. 19 references.

A. P. K.

PM

MS
mgj

L 63896-65 EWT(1)/EMP(1)/T/EMP(t)/EEC(b)-2/EMP(b) IJP(c) JD/CG
ACCESSION NR: AP5012378 GE/0030/65/009/002/K073/K075

AUTHOR: Fustrnak, J.; Roskovecova, L.

TITLE: Epitaxial growth of AlN layers on SiC and Si single crystals in gas discharge
44.55 16 27 27 27 21 18

SOURCE: Physica status solidi, v. 9, no. 2, 1965, K73-K75

TOPIC TAGS: epitaxial growing, single crystal, crystal growth, silicon single crystal, aluminum nitride, silicon carbide, aluminum oxide, crystal orientation, gas discharge

ABSTRACT: The possibility of oriented, epitaxial growth of AlN on a special crystal substrate was investigated. Corundum single crystals (Al₂O₃) were used for control purposes and SiC and Si were chosen as substrates best suited to the conditions for oriented AlN growth. In the case of SiC and Al₂O₃ single crystals the AlN layers were grown on the natural (00.1) crystal faces, and in the case of Si on the oriented cut and polished (111) face. The symmetry of these faces is identical and their dimensions differ by about 1% in the case of SiC and by around 25% in the case of Si. A mixture of nitrogen and AlCl₃ vapors was fed through the reaction

Card 1/2

L 63896-51

ACCESSION NR: AP5012378

zone; the temperature of the zone was at 1150 °C, the discharge current 10 mA. The overall pressure in the tube was from 3 to 4 mm Hg. Unlike Si and SiC substrates, Al₂O₃ had no orienting effect on the orientation of the developing AlN nucleus. In the case of higher voltages a voltage hysteresis was observed, just as in the case of BaO layers described elsewhere.

ASSOCIATION: Physikalisches Institut der Tschechoslowakischen Akademie der Wissenschaften, Prague (Physical Institute, Czechoslovak AS) 44,55

SUBMITTED: 13Feb65

ENCL: 00

SUB CODE: SS, ME

NO REF SOV: 000

OTHER: 005

llh
Card 2/2

L 53823-65 EWA(k)/FBD/ENG(x)/BEG(k)-2/BEG(t)/T/BEG(b)-2/EWP(k)/EWA(m)-2/
EWA(n)-2/Pn-4/Pn-4/Po-4/Pf-4/Feb/E1-4/P2-4 SCFE/LJP(c) WG
ACCESSION NR: AP5015924 CZ/0055/65/015/006/0379/0390

AUTHOR: Pastrnak, J.

TITLE: Thermal source of stimulated radiation

SOURCE: (Chekhoslovatskiy fizicheskiy zhurnal, v. 15, no. 6, 1965, 379-390)

TOPIC TAGS: stimulated radiation, laser, maser, photon engine

ABSTRACT: An investigation is made of a source of stimulated radiation whose energy is supplied from a thermal reservoir. Coherent radiation sources based on the use of thermal energy can be used in the far infrared and microwave regions and in the region of high energies of emitted coherent radiation, particularly when no strict demands are made on monochromaticity, e.g., in the construction of photon engines. Although technical realization will be difficult, owing to the necessity of working with very high temperatures, in principle it will be possible through present technical means (plasma, chemical, and nuclear reaction in the gaseous phase). The most likely materials for the far infrared and microwave regions are atoms and molecules, which permit suitable transitions between components of the ground states. A calculation based on thermodynamic considerations and kinetic equations for a three-level system was made and the dependence of the minimum temperature of the hot reservoir, which is necessary for inversion, on the parameters of the system

Card 1/2

L 55823-15
ACCESSION NR: AP5015924

and on the maximum intensity of exciting radiation was obtained. The efficiency of converting thermal energy into stimulated radiation is always lower than the Carnot efficiency and depends on the value of the Einstein coefficients for spontaneous emission between different levels. Orig. art. has: 52 formulas. [JA]

ASSOCIATION: Institute of Physics, Czechosl. Acad. Sci., Prague

SUBMITTED: 00

ENCL: 00

SUB CODE: EC, TD

NO REF SOV: 003

OTHER: 004

ATD PRESS: 4023

Am
Card 2/2

G/030/63/003/002/010/012
B163/B138

AUTHORS: Pastrňák, J., and Součková, L.

TITLE: Production of thin layers of the nitrides of aluminum, gallium, and indium in a gas discharge

PERIODICAL: Physica status solidi, v. 3, no. 2, 1963, K 71-K 74

TEXT: Chloride of aluminum, gallium or indium, respectively is evaporated from a boat in a quartz tube with a N_2 gas flow. Evaporation and reaction temperatures, which give satisfactory results, are given in Table 1. Fig. 1 shows the experimental arrangement. The nitrides are formed by the reaction $2 AlCl_3 \xrightarrow{N_2} 2 AlN + 3 Cl_2$ etc. This reaction is promoted by a d-c discharge in the reaction tube with a voltage of 1.5 kv and 10 ma discharge current. The quartz plate on to which the nitrides are deposited must be carefully polished and degreased. According to the layer thickness required (1 μm to several tenths μm) the duration of the reaction is varied between 1 and 8 hours. If an additional activator substance is brought into the reaction tube, activated layers containing

Card 1/3

Production of thin layers of the ...

G/030/63/003/002/010/012
B163/B138

Mn, Cu, or Si can be produced, which can be used for cathodoluminescence investigations. There are 1 figure and 1 table.

ASSOCIATION: Physikalisches Institut der Tschechoslovakischen Akademie
 der Wissenschaften, Prag (Physics Institute of the
 Czechoslovakian Academy of Sciences, Prague)

SUBMITTED: January 8, 1963

Table 1

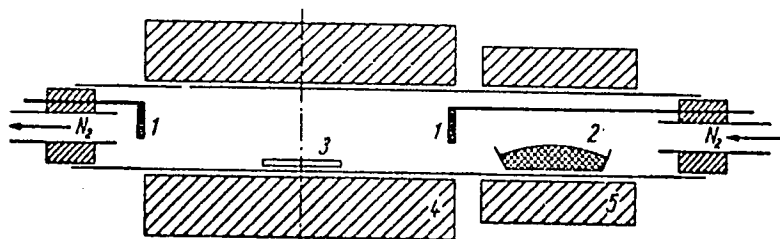
Nitride	original material	evaporation temperature of chloride °C	pressure in the reaction tube mm Hg	temperature in the reaction tube °C
AlN	AlCl ₃	100 - 110	3 - 5	950 - 980
GaN	GaCl ₃	60 - 70	3 - 5	650 - 680
InN	InCl ₃	380 - 420	3 - 5	560 - 590

Card 2/3

Production of thin layers of the ...

G/030/63/003/002/010/012
B163/B138

Fig. 1. 1 Electrodes, 2 - boat with chloride, 3 - quartz plate,
4 - reaction furnace with Kanthal winding, 5 - auxiliary furnace
for the chloride evaporation



Card 3/3

PASTREK, M.

Dependence of facial nerve paralysis on the weather. Meteor
zpravy 16 no.2:36-39 Ap '63.

1. Obvodni ustav narodniho zdravi Praha-vychod.

FASTRNAK, M.

"Epilepsy and the climate." p. 7.

METEOROLOGICKE ZPRAVY. Praha, Czechoslovakia, Vol. 12, no. 1, Feb. 1959.

Monthly List of East European Accessions (EEAI), LC, VOL. 8, NO. 8, August, 1959.
Uncl.

PASTRNAK, Miloslav

The weather and the human body. Cesk. neur. 24 no.3:205-212 My '61.

1. KUNZ, Praha, neurol. odd., predn. prim. dr. Borovanska.

(WEATHER) (DISEASE etiol)

PASTERNAK. S.I.

Chlamys (*Aequipeecten*) *Wisniewskii*, a new species from Upper
Cretaceous deposits. *Nauk. zap. Nauk.-pryrod. muz. AN URSS*
10:9-11 '62. (MIRA 16:8)

PASTERNAK, N.D.

Use of urease of *Proteus vulgaris* for the determination of urea.
Lab. delo 6 no. 6:56-57 N-D '60. (MIRA 13:11)
(UREASE) (UREA) (PROTEUS VULGARIS)

PASTERNAK, S.I.

Pavel Pavlovich Balabai (1904-1961); obituary. Nauk. zap.
Nauk.-pryrod. muz. AN URSR 10:128-130 '62.
(MIRA 16:8)

PASTERNAK, S.I., kand. geol.-miner. nauk, otv. red.; ZDUN, V.I., doktor biol. nauk, red.; MALINOVSKIY, K.A. [Malynovs'kyi, K.A.], kand. biol. nauk, red.; CHERKASHCHENKO, M.I., red.; TISHCHENKO, M.N. [Tyshchenko, M.N.], red.; MATYASHEVSKAYA, T.I. [Matiashevs'ka, T.I.], red. izd-va; REKES, M.A., tekhn. red.

[Ecology and taxonomy of plants of the Carpathian Mountains and adjacent regions] Ekologiya ta systematyka roslyn Karpat i prylehlykh teritorii. Kyiv, Vyd-vo AN URSR, 1963. 92 p.
(MIRA 17:3)

1. Akademiya nauk URSR, Kiev. Naukovo-pryrodoznavchyi muzei, Lvov.

PASTERNAK, S.I., doktor geol.-min. nauk, otv. red.; ZDUN, V.I.,
doktor biol. nauk, red.; CHERKASHCHENKO, M.I., kand. biol.
nauk, red.; MALINOVSKIY, K.A. [Malynovs'kyi, K.A.], kand.
biol. nauk, red.; TISHCHENKO, M.N. [Tyshchenko, M.N.], red.

[Animal world of the western regions of the Ukraine] Tvarynnyi
svit zakhidnykh raioniv Ukrainy. Kyiv, Vyd-vo "Naukova dumka,"
1964. 82 p. (MIRA 17:4)

1. Akademiya nauk URSR, Kiev. Naukovo pryrodoznavchyi muzey,
L'vov.

PASTERNAK, S I

AYZENBERG, D.Ye. [Aizenverg, D.IE.]; BARANOVA, N.M.; VEKLICH, M.F.;
GOLYAK, L.M. [Goljak, L.M.]; GORAK, S.V. [Horak, S.V.];
DIDKOVSKIY, V.Ye. [Didkovs'kyi, V.IA.]; ZELINSKAYA, V.O.
[Zelins'ka, V.O.]; ZERNETSKIY, B.F. [Zernets'kyi, B.F.];
KAPTARENKO-CHERNOUSOVA, O.K.; KRAYEVA, Ye.Ye. [Kraieva, IE.IA.];
KRASHENINNIKOVA, O.V.; KUTSIBA, A.M.; LAPCHIK, T.Yu.; MAKARENKO,
D.Ye.; MOLYAVKO, G.I. [Molievko, H.I.]; MULIKA, A.M.; PASTERNAK,
S.I.; PERMYAKOV, V.V.; ROMODANOVA, A.P.; ROTMAN, R.N.; SLAVIN, V.I.;
SOKOLOVSKIY, I.L.; SOROCHAN, O.A.; SYABRYAY, V.T.; TKACHENKO, T.O.;
SHUL'GA, P.L. [Shul'ha, P.L.], doktor geol.-mineral.nauk; YAMNICHENKO,
I.M. [Iamnychenko, I.M.]; BONDARCHUK, V.G. [Bondarchuk, V.H.], akade-
mik, otv.red.

[Atlas of paleogeographical maps of the Ukrainian and Moldavian
S.S.R. with lithofacies elements. Scale 1:2,500,000] Atlas paleo-
geografichnykh kart Ukrain'skoi i Moldav'skoi RSR z elementamy
litofatsii. Masehtab 1:2,500,000. Sklady D.IE. Aizenverg i dr.
Ze zahal'nym kerivnytstvom V.N.Bondarchuka. Kyiv, 1960. xvi p..
78 col.maps. (MIRA 13:12)

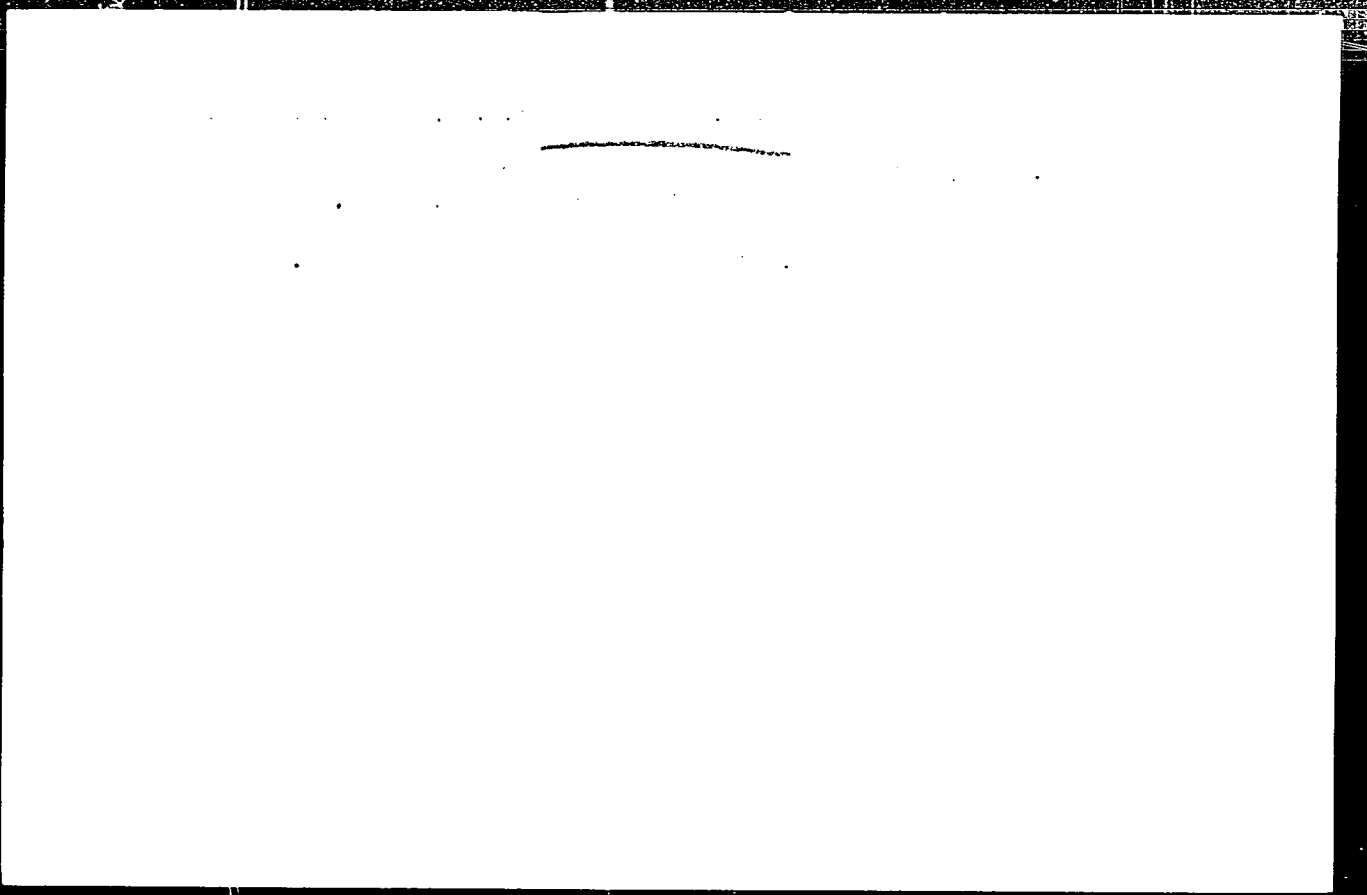
1. Akademiya nauk USSR, Kiyev. Institut geologicheskikh nauk.
 2. Institut geologicheskikh nauk AN USSR (for all, except Bondarchuk,
Pasternak, Slavin).
 3. Instytut geologii korysnykh kopalyn AN URSSR
(for Pasternak).
 4. Moskovskiy gosudarstvennyy universitet im.
Lomonosova (for Slavin).
- (Ukraine--Paleogeography--Maps) (Moldavia--Paleogeography--Maps)

PASTERNAK, Severin Ivanovich; LEVITSKIY, Vladimir Teodotovich
[Levyts'kyi, V.T.]; VYALOV, O.S., akademik, otv. red.;
ZAVIRYUKHINA, V.M., red. izd-va; TURBANOVA, N.A., tekhn.
red.

[Monographic collections of palentological fonds in the
Museum of Natural History of the Academy of Sciences of the
Ukrainian S.S.R.] Monografichni kolektsii paleontologich-
nykh fondiv naukovo-pyrodoznavchoho muzeiu AN URSS. Kyiv,
Vyd-vo Akad.nauk URSS, 1963. 36 p. (MIRA 16:6)

1. AN Ukr.SSR (for Vyalov).

(Ukraine--Paleontology)



7
PASTOR, E.; ZOLTAN, L.; JUHASZ, J.

Surgical therapy in hernias of the intervertebral disk, Vop.
neirokhir. 24 no.4:29-31 Je-Ag '60. (MIRA 13:12)
(INTERVERTEBRAL DISK--SURGERY)

PASTRNAK, VITĚZSLAV.

Fevnost miru; reportage o budování Trince. (1.Vyd.) Praha, Prace, vydavatelství AČS, 1952.84p. (The fortress of peace; reports on the building of Trinec.)

SC: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EMAI) LC, VOL. 7, NO. 1, JAN. 1968

PASTRNAK, V.

"Two Hundred and Seventy-Two Smelting Processes Performed on One Crown of A Furnace", P. 5, (TECHNICKE NOVINY, Vol. 1, No. 17/ 18, Dec. 1953, Praha, Czechoslovakia)

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

SHEVAKIN, Yu.F.; PASTERNAK, V.I.

Distribution of stresses in the bearing assembly of an
electric pipe welding machine. Izv. vys. ucheb. zav.;
chern. met. 8 no.11:99-102 '65. (MIRA 18:11)

1. Moskovskiy institut stali i spravo.

PASTERNAK-MARGINOW, Ewa, mgr inz.; HORSKI, Jerzy, mgr inz.

Shunting rotameters. Chemik 15 no.7/8:309-311 J1-Ag '62.

POLAND

PASTERNAK-WINIARSKI, Zdzislaw [Affiliation not given]

"Arboreous Ash as a Rich Source of Minerals."

Warsaw-Lublin, Medycyna Weterynaryjna, Vol 19, No 7, Jul 63,
pp 383-384

Abstract: Insufficient minerals and vitamins in the diet of livestock is responsible for great economic losses. Commercial additives are expensive and not always available. The author describes and recommends the use of a home-made tree-ash brew as an inexpensive additive rich in minerals and describes the simple method of its extraction, use and manner of administration, as well as the recommended dosages. There are no references.

1/1

PASTINSZKY, I.; KENDEI, I.

Electrocardiographic changes associated with herpes zoster.
Acta med. acad. sci. hung. 19 no.1:228-230 '63.

1. Hungarian Army Medical Corps.
(HERPES ZOSTER) (ELECTROCARDIOGRAPHY) (HEART DISEASES)

Z/037/63/000/001/004/008
E140/E135

AUTHORS: Koranda, M., Pastrňák, J., and Rechziegel, E.

TITLE: Photoelectric recorder as spectrograph accessory

PERIODICAL: Československý časopis pro fysiku, no.1, 1963, 28-30.

TEXT: A brief description is given of a photoelectric recorder using a recording millivoltmeter in conjunction with a Row-Rathenaw FD-S spectrograph. It is intended for spectroscopy work in cases where photoelectric recording is preferable to photographic recording.

There are 3 figures.

ASSOCIATION: Kovohutě, Čelákovice (Koranda, M.);
Fyzikální ústav ČSAV, Praha (Physics Institute
ČSAV, Prague) (Pastrňák, J., and Rechziegel, E.)

SUBMITTED: December 30, 1961

Card 1/1

FASZENEK, K.

"Last weeks of the Five-Year Plan." p. 1 (Technické Noviny, Vol. 1, No. 1, 20. 1953,
Praha)

SO: Monthly List of East European Acquisitions, Library of Congress, Vol. 3, No. 6, June.
1954, Incl.

PASTRNYAK, I.

Distr: 4Klx(g)/4E2d(b) 2 cys

2

1-KR (MS)

3

7 Photoelectric properties of metal-semiconductor contacts.
 I. Pasternak. *Fizichesk. i Optichesk. Yasheniye v Poluprovodnikakh, Trudy Perogo Vsesoyuz. Soveshchaniya, Kiev 1957, 162-7 (Pub. 1959).*—Current-voltage curves are shown for CuO semiconductors, of different thicknesses, in contact with Au and Zn electrodes, resp., and the effects of low temp. are also shown. The differences in the curves are attributed to differences in diffusion of electrode material across the junctions. H. K. Zimmerman

i
//
2k

PASTIRNYAK, I.

24(4) Akademiya nauk Ukrain'skoy SSR. Instytut fiziki

Photoelektricheskiye i opticheskoye yavleniya v poluprovodnikakh

... i opticheskim yavleniyam v poluprovodnikakh. K. Kiyev, 20-26 noyabrya 1957 g. (Photoelectric and Optical Phenomena in Semiconductors; Transactions of the First Conference on Photoelectric and Optical Phenomena in Semiconductors...) Kiyev, 1959. 403 p. 4,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR, Prezidium, Komissiya po poluprovodnikam.

M. of Publishing House, I. V. Kisina; Tech. Ed. I. A. A. Masyvchuk; Rep. Ed. I. V. Lashchuk, Academician, Ukrainian SSR, Academy of Sciences.

PURPOSE: This book is intended for scientists in the field of semiconductor physics, solid state spectroscopy, and semiconductor devices. The collection will be useful to advanced students in universities and institutes of higher technical training specializing in the physics and technical application of semiconductors.

COVERAGE: The collection contains reports and information bulletins (the latter are indicated by asterisks) read at the First All-Union Conference on Optical and Photoelectric Phenomena in Semiconductors. A wide scope of problems in semiconductor physics and technology are considered: photoelectric cells and photoresistors, the actions of hard and corpuscular radiations, the properties of thin films and complex semiconductor systems, etc. The materials were prepared for publication by E. I. Rashboy, O. V. Snitko, K. B. Tolpygo, A. P. Lubchenko, and M. K. Sheynman. References and discussion follow each article.

Photoelectric and Optical Phenomena (Cont.) SOV/3140

Gross, Ya. P., B. P. Zakharchenya, and E. P. Pavinsky. Magnetoelectric Levels of an Exciton (Theses) 149

Pastirnyak, I. Photoelectric Properties of a Metal-Semiconductor Contact 152

Andriyevskiy, A. I., M. M. Biliy, and A. L. Rybachy. The Effect of Nickel and Cobalt Impurities on the Photoelectric Properties of Cuprous Oxide 158

Andriyevskiy, A. I., and A. L. Rybachy. The Phenomenon of Photoelectric Fatigability (Sensitivity Diminution) in Cuprous Oxide 164

Karshapin, Yu. I., and G. P. Zaka. The Effect of an Ionic Electric Field on the Luminescence of Cuprous Oxide 173

Lashchuk, Ch. B., P. M. Zaitov, and G. G. Lazavza. Spectrophotometric Investigation of Electron-Hole and Exciton

Photoelectric and Optical Phenomena (Cont.) SOV/3140

Processes in Alkali-Haloid Crystals 180

Purysan, V. I. Negative Photoconductivity of Selenium Photoelectric Cells with Positive Sign of the Photoelectromotive Force 191

Kolomyata, B. T., and B. V. Pavlov. Displacement of the Edge of the Absorption Band in Vitreous Semiconductors of the System As₂S₃-As₂S₅ 201

Verbanck, V. M., and A. M. Solov'yev. Electronographic (Combined Micro-Microscopic and Radiographic) Investigation of the Composition of Lead Sulfide Photoresistors According to the Method of Their Layers 207

GROSS, Ye.F.; PASTERNYAK, I.

Fine structure of the spectral photosensitivity curve of cuprous
oxide crystals. *Fis.tver.tela* 1 no.1:162-166 Ja '59. (MIRA 12:4)

1. Leningradskiy fiziko-tekhnicheskii institut.
(Copper oxide crystals) (Photoelectricity)

GROSS, Ye.F.; PASTRYAK, I.

Formation of polarons in crystals during the absorption of light.
Fiz. tver. tela 1 no.3:518-521 Mr '59. (MIRA 12:5)

Leningradskiy fiziko-tekhnicheskii institut AN SSSR.
(Excitons) (Crystal lattices)

GEOS, Ye.F.; PASTERNYAK, I.

Effect of surface treatment on the structure of the curve of spectral
distribution of photoconductivity of cuprous oxide crystals. Fiz.tver.
tela 1 no.5:837-840 My '59. (MIRA 12:4)

1. Leningradskiy fiziko-tekhnicheskii institut AN SSSR.
(Copper oxide crystals) (Photoconductivity)

PASTRNYAK, I.

Temperature dependence of the light absorption coefficient in cuprous oxide crystals in the visible range of spectrum. *Fiz. tver. tela* 1 no.6:970-973 Je '59. (MIRA 12:10)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.
(Copper oxides) (Absorption of light)

GROSS, Ye.F.; PASTRYAK, I.

Optical spectrum of the formation of polarons in cuprous oxide
crystals. Fiz. tver. tela 1 no.6:973-976 Je '59.

(MIRA 12:10)

1. Leningradskiy fiziko-tekhnicheskii institut AN SSSR.
(Copper oxides--Spectra)

SOV/51-6-1-20/30

AUTHOR: Pastrnyak, I.

TITLE: The Infrared Absorption Spectrum of Cuprous Oxide (Spektr infrakrasnogo poglosheniya zatsi medi)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol. 6, Nr 1, pp 107-109 (USSR,

ABSTRACT: The author obtained absorption curves on a Cu_2O sample prepared by oxidation of copper plates with subsequent annealing in an atmosphere of oxygen. Copper plates 30-1500 μ thick were used. For the regions of strong absorption the copper oxide layer was reduced to a fraction of a micron. Measurements were also made on samples prepared from powdered Cu_2O mixed with KBr and pressed into the form of plates. A spectrograph IKS-11 with NaCl, KCl and KBr prisms was used; some curves were obtained by means of a double-beam IKS-14 spectrograph. Measurements were made in the range 5-25 μ . Absorption curves of Cu_2O are shown in Fig 1: curve 1 was obtained on a sample which was 30 μ thick and curve 2 was obtained for powdered Cu_2O whose equivalent thickness was 1 μ . A table on p 107 gives the absorption maxima numbered 1 to 10 in Fig 1. Fig 2 gives the temperature dependence of absorption at the 8.8 μ peak: curve 1 was obtained at 20°C and curve 2 at -110°C. The maxima at 15.1 and 16.4 μ (Fig 1, curve 2) represent two optical branches

Card 1/2

The Infrared Absorption Spectrum of Cuprous Oxide

SOV/51-6-1-20/30

of the vibrational spectrum active in the infrared absorption region. The peaks at 11.7, 12.5, 20.6 and 23.3 μ are composite maxima. Independence of the 8.8 μ peak of the amount of impurities present in Cu_2O and of the concentration of free holes in it suggests that it belongs to the vibrational spectrum of the crystal. The origin of the peaks at 14.3 and 19.3 μ is not clear. The peak at 14.3 is probably due to lattice defects or, like the maximum at 19.3 μ , it belongs to vibrational branches of the crystal which are not active in absorption. Acknowledgments are made to M.F. Gross, A.I. Stekhanov and P.P. Pavinskiy for their advice. There are 2 figures, 1 table and 5 references, 3 of which are Soviet, 1 English and 1 French.

SUBMITTED: June 18, 1955

Card 2/2

PASTERNYAK, I.

Infrared absorption spectrum of cuprous oxide. Opt. 1 spektr. 6 no.1:
107-109 Ja '59. (MIRA 12:3)
(Copper oxides--Spectra)

PASTRNYAK, I.; TITOV, R.A.

Spectral distribution of the photoelectric sensitivity of Cu_2O crystals at low temperatures. Fiz. tver. tela 3 no. 3:861-868
Mr '61. (MIRA 14:5)

1. Fiziko-tehnicheskiy institut AN SSSR, Leningrad.
(Copper oxide—Electric properties) (Photoelectricity)

PASTERNYAK, I.

Light absorption and reflection and nature of optical electron transitions in Cu_2O crystals. Fiz. tver. tela 3 no. 3:869-875
Mr '61. (MIRA 14:5)

1. Fiziko-tekhnicheskiy institut AN SSSR, Leningrad.
(Copper oxide crystals—Optical properties)
(Copper oxide crystals—Electric properties)

24.26.00,

S/058/62/000/008/083/134
A062/A101

AUTHOR: Pastrnyak, I. V.

TITLE: Some photoelectric properties of metal-semiconductor contacts

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 30, abstract 8E221
(In collection: "Fotoelektr. i optich. yavleniya v poluprovodnikakh",
Kiyev, AN USSR, 1959, 152 - 157)

TEXT: An investigation was made of the effect of the contact nature and of the electrode illumination on the photoconductivity of mono- and polycrystalline Cu_2O specimens. By means of a luminous probe it was found that the photosensitivity at the electrode is twice as high as in the middle of the specimen. Illumination at the electrodes causes an increase of the photocurrent, and the increase has a greater magnitude and another character than the usual internal photoeffect. In the case of illuminating an electrode that has rectifying properties (Ag, Zn), the photocurrent increase effect depends on the direction of the field and increases in the barrier direction. In the case of an ohmic contact (Au powder-deposited electrode) the effect does not depend on the polarity. It is

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Card 1/2

Some photoelectric properties of...

S/058/62/000/008/083/134
A062/A101

thought that in the increase mechanism of the current carrier concentration upon electrode illumination the fundamental role is probably played by the injection of carriers from the electrode into the semiconductor in a manner analogous to the photoemission from electrodes into vacuum .

JB

O. Shustova

[Abstracter's note: Complete translation]

Card 2/2

ACCESSION NR: AP4017207 'P/0045/64/025/001/0051/0056

AUTHOR: Pastrnyak, Y. (Pastrnak, J.)

TITLE: Some of the physical properties of AlN

SOURCE: Acta physica polonica, v. 25, no. 1, 1964, 51-56

TOPIC TAGS: aluminum, aluminum nitride, AlN, cathodoluminophore, electrolumino-
phore, fire-resistant material, aluminum nitride physical property

ABSTRACT: The general characteristics of aluminum nitride (AlN) as a semiconductor are given; its possible qualifications as cathodo- and electroluminescent phosphors and as a fire resistant material in certain specialized fields are indicated, and available data are critically reviewed. The author determined the restricted zone width by measuring: (1) transmitted and reflected light from thin AlN layers, (2) diffuse reflection by AlN powder; and (3) spectral distribution of the photosensitivity of AlN monocrystals. The results of the measurements are believed to indicate that the absorption which begins at about 2150A is linked with the unrestricted optical transitions of lattice electrons and that the area of low absorption at longer wavelengths is due to indirect transitions. Further suggested studies are the eventual ascertainment of the energy spectrum; carrier mobility and other principal physical parameters; investigation of luminescent properties

1/2
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ACCESSION NR: AP4017207

with respect to various activators; and the development of a good AIN manufacturing technology. Orig. art. has: 3 graphs and 3 formulas.

ASSOCIATION: Fyzikalni ustav Ceskoslovenske akademie ved, Prague (Institute of Physics, Czechoslovak Academy of Sciences)

SUBMITTED: 02Jul63

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: PH, MA

NO REF SOV: 003

OTHER: 017

2/2

Card

PASTROVIC, A.

Technical assistance of the European Organization for Productivity
in 1961. Produktivnost 3 no.3:243-244 Mr '61.

PASTROVIC, Aleksandar

Labor productivity in Asia. Produktivnost 3 no.7/8:520 Ag '61.

1. Jugoslovenski zavod za produktivnost rada, Beograd.

PASTROVIC, Aleksandar

Meeting of the Administrative Committee of the European Commission for
Labor Productivity. Produktivnost 3 no.9:595-598 S '61.

1. Jugoslovenski zavod za produktivnost, Beograd.

PASTROVIC, A.

Labor productivity in Latin America; the creation of an Inter-American
Institute for Labor Productivity. Produktivnost 3 no.6:445 Je '61.