

POPA, S., Dr, BERCOVICI, C., Dr, HAIMOVICI, M., Dr, DIMITRIU, M., Dr, DANDRACHE, Ludmila, Dr, and PETROAE, Olga, Dr. Work performed at the RPR Institute of Hygiene and Public Health (Institutul de Igiena si Sanatate Publica RPR), Iasi Branch (Filiala Iasi) and the Bacau Regional Sanepid (Sanepidul Regional Bacau).

"Concerning In-Hospital Infections Due to Pathogenic Esch. coli."

Bucharest, Microbiologia, Parazitologia, Epidemiologia, Vol 8, No 3, May-Jun 63, pp 237-241.

Abstract [Authors' English summary modified]: Describes an infection with enteropathogenic E. coli O₂₅:L₁₁ in a maternity hospital and an infection with serotype O₁₁₁:B₄ in another hospital. Hospital conditions rendered the viral source more active epidemiologically than family foci. No long-term carriers were detected. In-hospital infections of this type spread rapidly among newborns and their prophylaxis is difficult. Includes a bibliography with 21 entries, of which 7 Western, 3 Russian and 11 Rumanian.

1/1

3

BERCOVICI, C., dr.; BESLEAGA, Virginia, dr.; IOSUB, C., dr.; POPA, S., dr.;
FREUND, S., dr.; OVANESCU, A., dr.; SABAREZI, I., dr.

Contribution to the problem of the germ carrier state in dysentery
and its importance in epidemiology. I. Microbiologia (Bucur) 9 no.2:
137-143 Mr-Apr '64.

1. Lucrare efectuata in Institutul de igiena Republica Populare
Romina Filiala Iasi.

POPA, S., dr.; POPA, Suzana, dr.; BERCOVICI, C., dr.; BESLEAGA, Virginia, dr.;
IOSUB, C., dr.; FREUND, S., dr.

Contribution to the problem of the duration of the germ carrier
state in dysentery and its importance in epidemiology. II. Carrier
state in so-called healthy persons. Microbiologia (Bucur) 9 no.2:
145-150 Mr-Apr '64.

L 13060-66 EWA(j)/T/EWA(b)-2 JK

ACC NR: AP6005726

SOURCE CODE: RU/0023/65/010/001/0027/0032

AUTHOR: Bercovici, C.--Berkovich, K. (Doctor); Besleaga, Virginia--Beshlyaga, V. (Dr.)
Iosub, C.--Iosub, K. (Doctor); Oana, C.--Oane, K. (Doctor); Popa, S. (Doctor)

ORG: Institute of Hygiene and Labor Safety, Iasi, Bacau (Institutul de Igiena si
Protectia muncii, Iasi, ISIPM)

TITLE: Contributions to the study of the incidence of dysenteric etiology in acute digestive disorders

SOURCE: Microbiologia, parazitologia, epidemiologia, v. 10, no. 1, 1965, 27-32

TOPIC TAGS: digestive system disease, bacteria, gastroenterology, bacteria disease

ABSTRACT: In 117 subjects with acute digestive disorders, the authors established dysenteric etiology in 44 percent of the cases by isolation of the dysenteric bacillus from the faeces. Because of the many similarities between dysentery and various digestive disorders with polymorphous diarrhoeic syndromes, the authors suggest that such disorders should be comprised in the category of dysentery so that true dysenteric cases will not be missed when taking prophylactic measures. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: 11Jun63 / ORIG REF: 010 / OTH REF: 003
SOV REF: 002

Card 1/1

UDC: 616.935-02:616.34-008.314.4

IATAN, Nicolaie, ing.; LANDES, V., ing.; ILINA, I., ing.; CIOCIRLIE, S., ing.;
MITROFAN, A.; POPA, M., ing.; MIHAILA, Gh.; POPA, Septimiu, ing.;
PASARE, P.; STENSCHI, C., ing.

Considerations on the quality of the equipment used for casting steel
ingots in Rumania. Metalurgia constr mas 14 no.11:976-983 N '62.

1. Institutul de cercetari metalurgice (for Iatan, Landes, Ilin).
2. Uzina "Victoria" Calan (for Ciocirlie, Mitrofan).
3. Intreprinderea metalurgia Aiud (for Popa, M., Mihaila).
4. Combinatul siderurgic Hunedoara (for Popa, Septimiu; Pasare).
5. Combinatul siderurgic Resita (for Stenschi).

POPA, S., ing.

Problems of territory organization and the fight against soil erosion
in the Moldavian S.S.R. Rev geodesie 7 no.1:57-63 '63.

1. Consiliul Superior al Agriculturii.

POPA, S., ing.

Land problems in the Arges region and the measures for using
it rationally and intensively. Rev geodesie 8 no.4:47-57 '64.

BERCOVICI, C.; IOSUB, C.; BESLEAGA, Virginia; POPA, S.

Considerations on the problem of classification of dysenteric bacilli. Phage typing as a criterion of classification of dysenteric bacilli. Arch. roum. path. exp. microbiol. 21 no.2: 373-380 '62.

1. Travail de l'Institut d'Hygiene et de Sante Publique de Roumanie, filiale de Fasay. Directeur: Prof. Dr. D. A. Cornelson.
(SHIGELLA) (BACTERIOPHAGE TYPING)

SPINU, I.; BIBERI-MOROIANU, S.; POPA, S.

Considerations on the practice of immunizing children against transmissible diseases in Rumania. Stud. cercet. inframicrobiol. 13 no.5:593-606 '62.

1. Directia Generala sanitaro-antiepidemica din Ministerul Sanatatii si Prevederilor Sociale, Bucuresti.
(COMMUNICABLE DISEASE CONTROL) (VACCINATION)

POPA, Serban, ing.

Some earthwork machines used in the U.S.S.R. Mec electrif
agric 8 no.6:52-56 N-D '63.

1. Sectia fondului funciar si a organizarii teritoriului.

LAMBRINO, Vladimir, conf. ing.; POPA, Simion V., conf. dr.; TANASESCU, Dumitru, lector ing.

Study on the behavior of some bentonites as active charges in batches of rubber and plastic materials. Industria usoara 11 no.10:522-528
O '64.

1. Chair of Sp. Toxicology of the Institute of Medicine and Pharmacy, Bucharest (for Lambrino). 2. Laboratory of General Chemistry. Faculty of Chemistry, Bucharest University (for Popa). 3. Chair of General Chemistry, Petroleum, Gas, and Geology Institute, Bucharest (for Tanasescu).

POPA, T.

"How cereals bloom and form fruit", p. 12 (Stinta Si Cultura, Vol. 5, no. 5, May 1953, Bucuresti)

East European Vol. 2, No 9
SO: Monthly List of Russian Accessions, /Library of Congress, September 1953, Uncl.

Рева, Th.

COUNTRY : ROMANIA
 CATEGORY : CULTIVATED PLANTS, Fodder Grasses and Hoods.
 AIC. JCRN : REZNR - BUCURESTI, NO. 4, 1959, No. 15683
 AUTHOR : Apostol, Th.; Balan, G.; Balaciuc, A.;
 Baramet, I.; Bocu, M.; Sores, Th.
 TITLE : Methods of sowing Perennial Grasses for
 Seeds.

ORIG. FB. : Agr. Inst. cercetari agron., 1957, 24, No. 5,
 179-184
 ABSTRACT : In the experimental research Institute of Bu-
 ranka during 1950 to 1958, the sowing methods
 and the sowing rates of perennial grasses
 (23) in the experimental plots (EP) and tall grasses
 (20) were obtained in broad-row sowing (45
 to 60 cm between rows) with seeding quota
 of 15 to 20 kg/ha for 50% of
 the area, 7 to 8 kg/ha for 10% and
 7.5 to 9.5 kg/ha for 10% in a number of regions.

COUNTRY : ROMANIA
 CATEGORY : CULTIVATED PLANTS.
 AIC. JCRN : REZNR - BUCURESTI, NO. 4, 1959, No. 15683
 AUTHOR :
 TITLE :

ORIG. FB. :
 ABSTRACT : It is expedient to sow P, R and PR under
 a cover of two-row barley. The duration of
 the period of use for seed is not above 5
 years. The sowing of P and R seeds before
 sowing narrows the expenditure of sprouts of
 P and R seeds, as well as the cost of the
 seed. It is expedient to sow P and R seeds
 in a crop practically close to the row sowing.
 50 cm spacing between rows and cannot
 be recommended because of the higher net cost
 of seed production. -- M. V. Zamiatkova

POPA, T.

19
Manufacture of low-grade ceramics from Banat G. Wood.

Handwritten initials or signature, possibly "day".

POPA, T.

Technique of preparation of minerals in dense media. p. 164.

REVISTA MINELOR

Vol. 7, no. 4, Apr. 1956

Rumania

Source: EAST EUROPEAN LISTS Vol. 5, no. 10 Oct. 1956

POPA, T. S. D.

RUMANIA/Chemical Technology, Chemical Products and Their Application, Part 2. - Elements, Oxides, Mineral Acids, Bases, Salts. - Other Elements, Oxides, Mineral Acids, Bases, Salts.

H-8a

Abs Jour: Referat. Zhurnal Khimiya, No 10, 1958, 33077.

Author : Teodor Popa, Ioan Ion, Dumitru Tulliu.

Inst : Institute For Studying Minerals.

Title : Industrial Utilization of Barytes and Questions Connected with its Concentration in People's Republic of Rumania.

Orig Pub: Rev. minelor, 1957, 8, No 7, 342-347.

Abstract: The results of work carried out by the Rumanian Institute for Studying Minerals in 1953 to 1957 concerning the development of a method of concentration of local barytes of the chemical composition (in %) BaSO_4 - 50 to 52, CaCO_3 - 36 to 38, SiO_2 - 5 to 6 and CuSO_4 -

Card : 1/2

Card : 2/2

2 c/

MICHAESCU, S., ing.; POPA, T., ing.

Analysis of transistor diagrams for supplying voltage
stabilization in direct current compensators. Metrologia
apl 10 no.12:543-553 D '63.

POPA, Teodor, ing.

Simplified method for checking standard specific consumption
of central heating plants. Energetica Rum 11 no.8:443-444
Ag '63.

POPA, V., STINGHE, D.

For a continuous development of the wool and silk industries. p. 89.

INDUSTRIA TEXTILA. (Asociatia Stiintifica a Inginerilor si Technicienilor din Romnia si Ministerul Industriei Udostre) Bucuresti, Rumania. Vol. 10, no. 3, Mar. 1959.

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

Uncl.

ZITTI, Ye.; BRAND, L.; KORBU, M.; POPA, V.

Bilateral pulmonary resections in tuberculosis [with summary
in English]. Khirurgia 35 no.1:25-28 Ja '58. (MIRA 12:2)

1. Is tuberkuleznogo sanatoriya Moroyen' Rumyniya.
(PNEUMONECTOMY, in var. dis.
tuberc., bilateral (Rus))

L 30153-66

ACC NR: AP6020328

SOURCE CODE: RU/0012/65/061/001/0037/0040

AUTHOR: Vasiliad, M. (Doctor; Lieutenant colonel); Popescu, P. (Doctor; Lieutenant colonel); Cutoiu, Rodica (Doctor); Popa, V. (Doctor; Major); Budac, A. (Doctor; Captain) 10

ORG: none 8

TITLE: Problems of anesthesia and functional re-balancing in gynecological emergencies. The hemorrhagic syndrome

SOURCE: Revista sanitara militara, v. 61, no. 1, 1965, 37-40

TOPIC TAGS: genitourinary system, military medicine

ABSTRACT: An analysis of 70 cases of various types of hemorrhages of genital origin treated during the years 1962-1963 in the gynecological section of the Central Military Hospital. The cases were classified as: 4 cases of peritoneal inundation of cataclysmic form, 15 cases of peritoneal inundation with a decompensated state of shock, 22 cases of peritoneal inundation with a compensated state of shock, and 29 cases of circumscribed hemorrhage. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 010 / OTH REF: 006
SOV REF: 001

Card 1/17M

CORBU, M.; POPA, V.; BRAND, L.; DUMITRESCU, L.; DAVIDESCU, C.; COSTEA, A.;
GIDEA, G.; BURIAN, E.

Considerations on bronchial fistula following resections for
pulmonary tuberculosis. Rumanian M. Rev. 3 no.4:22-25 O-D '59.

1. Moroeni Sanatorium, Director Dr. C. Iordan.
(TUBERCULOSIS, PULMONARY, surgery)
(BRONCHIAL FISTULA, etiology)

POPA, Valeriu

A method to demonstrate some theorems in the chapter on
the divisibility of numbers and polynomials. Gaz mat fiz
69 no.9:337-346 S '64.

POPA, VASILE

RUMANIA/Cultivated Plants. Fruits. Berries. M

Abstr Jour : Ref Zhur-Biol., No 15, 1958, 68328

Author : Popa, Vasile

Inst : -

Title : The Development of Fructiculture in Mountain Regions.

Orig Pub : Gradina, via si livada, 1957, 6, No 4, 59-65

Abstract:: Data are presented on climatic and soil conditions, on the behavior of fruit trees, and on their hardiness under the environmental conditions of the Carpathian mountain regions. With increasing elevation, early-ripening dwarf apples become predominant. The relatively low temperatures and frequent precipitations, delay the ripening of apples by an average of 6 days for every 100 meters of elevation and create

Card : 1/2

POPA, Yuli

Use of nicotinic acid in patients with coronary insufficiency.
Terap.arkh. 33 no.2:49-54 P '61. (MIRA 14:3)

1. Iz gosspital'noy terapevticheskoy kliniki (dir. - prof. P.Ye.
Lukemskiy) II Moskovskogo meditsinskogo instituta imeni N.I.
Pirogova.
(CORONARY HEART DISEASE) (NICOTINIC ACID)

POPA, Yuli, Cand. Medic. Sci. (diss) "Use of Nicotinic Acid
on Patients with Coronary Arteriosclerosis," Moscow, 1961,
12 pp. (2nd Moscow Med. Inst.) 300 copies (KL Supp 12-61, 287).

POPA-CRACIUNEANU, R.

RUMANIA Analytical Chemistry - Analysis of Inorganic Substances. E-2

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24775

Author : Popper, E., Ariton, N., Popa-Craciuneanu, R.

Inst : Rumanian Academy.

Title : Rapid Semi-Micro Method of Gravimetric Determination of Lead.

Orig Pub : Studii si cercetari chim. Acad. RFR Fil. Cluj, 1956, 7, No 1-4, 85-88

Abstract : In the synthesis of 2-mercapto-5-anilono-1,3,4-thiodiazole used in the determination of Pb^{2+} and Hg^{2+} (RZhKhim, 1958, 24757, 24774), there is obtained as an intermediate product the anilide of hydrazine-N,N'-bis-thiocarboxylic acid (I), which is a white crystalline substance, MP 192-193°, readily soluble in pyridine, acetone and alkalies, less soluble in C_2H_5OH and insoluble in water.

Card 1/2

3

RUMANIA/Analytical Chemistry + Analysis of Inorganic Substances. E-2

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24775

I precipitates quantitatively Pb^{2+} in the form of a yellow crystalline precipitate which is suitable for a gravimetric determination of Pb. To 0.5-5 ml of the solution being analyzed, containing not more than 200 μ /ml Pb^{2+} , are added about 20 ml C_2H_5OH , 0.2% alcoholic solution of I [sic] and the mixture is allowed to stand for 1 hour. The resulting precipitate is filtered off, washed, first with alcohol then with ether, dried in a vacuum desiccator, and weighed. I precipitates also Ag^+ , Hg^{2+} , Hg^{2+} , Bi^{3+} , Cu^{2+} , Co^{2+} , Ni^{2+} , Fe^{2+} , Mn^{2+} and Cr^{3+} . Alkali and alkaline earth metals do not interfere. Duration of determination of Pb is 1.5-2 hours; error \pm 0.4%.

Card 2/2

POPADEYKIN, Vitaliy Ivanovich; STRUKOV, Vladimir Vladimirovich;
KREKSHINA, L., red.

[On the march, friends and tourists! One day routes] V
pokhod, druž'ia turisty! Odnodnevnye marshruty. 2. dop.
izd. Moskva, Mosk. rabochii, 1964. 494 p.

(MIRA 17:11)

POPA-DIMIAN, Elena

Contributions to the paleontologic study of the Subcarpathian Tortonian (Crivineni and Valea Muscelului) with special regard to the fauna of layers with *Venus konkensis*. *Dari seama sed* 47:185-198 '59/60 [publ. '62].

POPA-LISSEANU, Aurel

Style and creativeness in our shoe industry. Industria usoara
9 no.3:103-104 Mr '62.

POPA-RANG, Adina; RALEA, R.

Studies on the formation of complexes with amino acids.
Pt.4. Anal St Jassy I 10 no.2:145-148 '64.

1. Laboratory of Inorganic Chemistry, "Al. I. Cuza" University.

L 30138-66 RO

ACC NR: AP6020333

SOURCE CODE: RU/0012/65/061/001/0119/0122

AUTHOR: Voicu, V. (Doctor; Lieutenant major); Popa-Zeletin, I. (Doctor; Major) ^{2/}_B

ORG: none

TITLE: Considerations on the relationship between caffeine and curarizing substances

SOURCE: Revista sanitara militara, v. 61, no. 1, 1965, 119-122

TOPIC TAGS: pharmacology, drug effect

ABSTRACT: From their study of caffeine as an indirect decurarizing agent, probably involving the calcium ion, the authors conclude that caffeine sensitizes to acetylcholine, an effect proportional to the time of action of the xanthic base; caffeine contracts the right abdominal muscle of frogs blocked by curarizing substances; caffeine antagonizes the effects of tubocurarine and to a smaller extent those of decamethonium; the anti-curarizing action of caffeine is indirect, by rendering the cellular membranes permeable following mobilization of the calcium ion and increase of its activity. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 011

Card 1/1 *Tr*Card 1/1 *CV*

MANGOLTESCU, Em.; POPA-SMELTIN, T.; MURCU, Lucia; CRISTINA, Elena; SNEA,
Cristina

The neuromuscular blocking action of some new oximes. Stud.
genet. fiziol. no. 8:159-165, '64

POPADEYKIN, Vitaliy Ivanovich; YANCHUK, A.A., red.; DONSKAYA, G.D.,
~~tekhn. red.~~

[Moscow-Minsk-Brest; automobile road guide] Moskva - Minsk -
Brest; putevoditel' po avtomobil'noi doroge. Moskva, Nauchno-
tekhn. izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog
RSFSR, 1961. 167 p. (MIRA 15:2)
(Automobiles---Road guides)

BURYKH, Ye.B.; D'YAKONOV, M.V.; KOLOBOVA, M.I. [deceased]; KOLOBOV, V.M.;
KONOVALOVA, K.A.; POPALEYKIN, V.I.; SKOTNIKOV, Yu.A.; TIKHONOVICH,
S.S.; SHEPOVALOV, T.I. Prinimali uchastie YUN'YEVA, N.P.;
POLYAK, Ye.V.; SULTANOVA, N., red.; YAKOVLEVA, Ye., tekhn.red.

[Memorable places in Moscow Province; a concise guidebook] Pa-
miatnye mesta Moskovskoi oblasti; kratkii putevoditel'. Izd.3.,
dop. i perer. Sost.E.B.Burykh i dr. Moskva, Mosk.rabochii, 1960.
734 p. (MIRA 14:2)

1. Moscow. Oblastnoy krayevedcheskiy muzey. 2. Zamestitel' predse-
datelya Moskovskogo oblastnogo obshchestva krayevedeniya (for
Konovalova).

(Moscow Province---Guidebooks)

POPADNYKIN, Vitaliy Ivanovich; TSETLIN, M.N., red.; GALAKTIONOVA, Ye.N.,
tekh.red.

[Moscow - Leningrad; road guide] Moskva - Leningrad; putevoditel'
po avtomobil'noi doroge. Moskva, Nauchno-tekhn.isd-vo M-va avto-
mobil'nogo transp. i shosseinykh dorog RSFSR, 1960. 145 p.
(MIRA 13:7)

(Autcmobiles--Road guides)

VASILESCU, C.,; STROESCU, G.,; MIRZA, B.,; POPA-NEREANTIU, Fl.,; CARP, N.

Histopathological study of the evolution of experimental meningeal tuberculosis in untreated dogs treated with streptomycin and with combined sulfo-salicylate, allylthiocyanate and streptomycin.
Bul. stiint., sect.med. 7 no.3:901-931 July-Sept 55

- (TUBERCULOSIS, MENINGEAL, experimental
eff. of streptomycin alone & with allylthiocyanate & sulfo-salicylate)
- (STREPTOMYCIN, eff.
on exper. meningeal tuberc., with allylthiocyanate & sulfo-salicylate)
- (SALICYLATES, eff.
sulfo-salicylate, on exper. meningeal tuberc., with streptomycin & allylthiocyanate)
- (THIOCYANATES, eff.
allylthiocyanate, on exper. meningeal tuberc., with streptomycin & sulfo-salicylate)

POPADIC, M. (Beograd)

"Solved and unsolved problems of mathematics" by Dr. Ivan Vidav.
Reviewed by M. Popadic. Ves mat fiz Srb no.11:220 '59.

POPADIC, Milan S. (Beograd)

General principle of induction. Ves mat fiz Srb no.11:9-10
'59.

POPADIC, Milan S. (Beograd)

Axioms for natural numbers. Ves mat fiz Srb no.11:99-116
'59.

POPADIC, Milan S. (Beograd)

Principle of general induction. Ves mat fiz Srb no.11:3-8
'59.

POPADIC, Milen S.

Mathematical induction. Skopje, 1950. 28p. (Skopje, Univerzitet. Filozofski fakultet. Prirodno-matematički odel. Posebni izd., k. 2)

POPADIC, MILAN

Popadić, Milan, Induction complète. Fac. Philos. Univ. Skopje. Sect. Sci. Nat. Éd. Spéc. 2, 29 pp. (1950). (Serbo-Croatian. Russian and French summaries)

Cet article est de la nature instructive et informative et s'occupe de la méthode de démonstration nommée. . . . C'est un abrégé de différentes définitions du principe de l'induction complète, avec plusieurs exemples de mathématiques élémentaires principalement. À la fin, après un aperçu historique, on a indiqué l'importance de cette méthode.

Résumé de l'auteur.

Lozier 16

analyzed 16
SMW

Source: Mathematical Reviews,

Vol 13 No. 1

Popadić, Milan S.

Popadić, Milan S. A relation between the prime numbers.
Fac. Philos. Univ. Skopje, Sect. Sci. Nat. Annuaire 3,
no. 3, 14 pp. (1950). (Serbo-Croatian, English sum-
mary)

The author denotes by $\lambda_n(x)$ the number of integers x which are divisible by no prime greater than the n th prime p_n , and remarks that $x = \lambda_n(x)$ if and only if $x = p_n$. Also the equation $x = \lambda_n(x) + 1$ has the unique solution $x = p_{n+1}$. An impractical formula for $\lambda_n(x)$ in the form of a multiple sum involving the greatest integer function and the logarithms of the first n primes is given and generalized.

D. H. Lehmer (Berkeley, Calif.)

Source: Mathematical Reviews, Vol 12 No. 9.

10/11/50

POPADIC, MILAN S.

4000

Popadic, Milan S. Generalization of a problem of J. Karamata on a kind of sequences. Fac. Philos. Univ. Skopje. Sect. Sci. Nat. Annuire 3, no. 7, 13 pp. (1950). (Serbo-Croatian. English summary).
 An elementary discussion of the number of integers in $[1, n]$ which contain a given factor k an even number of times.
 G. G. Lorente (Toronto, Ont.).

Source: Mathematical Reviews,

Vol. 11 No. 1

Series

POPADIC, MILAN S.

Mathematical Reviews
Vol. 14 No. 8
Sept, 1953
Analysis

89-54
LL

Popadić, Milan S. A characteristic property of finite sets.
Fac. Philos. Univ. Skopje. Sect. Sci. Nat. Annuaire 4,
no. 6, 8 pp. (1951). (Serbo-Croatian. English sum-
mary)

Math
2

A set is finite if and only if it can be expressed as a simply
ordered set M such that, for any set N , the relation $M \subseteq N$
holds if (1) there exists a closed interval A of M with
 $OC A \subseteq M$ and $A \subseteq N$, and (2) for any closed interval B of
 M with $OC B \subseteq M$ and $B \subseteq N$, there exists a closed interval
 C of M with $B \subseteq C \subseteq M$ and $C \subseteq N$.

F. Bagemihl.

POPADIC, MILAN S.

Popadić, Milan S. On ordered sets with finite chains. *Fac. Philos. Univ. Skopje. Sect. Sci. Nat. Annuaire 5* (1952), no. 1, 8 pp. (1954). (Serbo-Croatian. English summary)

A necessary and sufficient condition is derived for a partially ordered set to have the property that all its simply ordered subsets are finite. This condition is formally the same as a necessary and sufficient condition obtained by the author [same *Annuaire 4*, no. 6 (1951); these Rev. 14, 733] for a simply ordered set to be finite. *F. Bogemihl.*

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001342210013-4

The Serbo-Croatian text (pp. 1-55) of the paper is the 1954 (the reviewer was the mentor); the English text sends some deviations from it. The paper deals with general considerations on induction, i.e. on exhaustion of a set by means of the elements of a system of sets. The paper is connected with some of the reviewer's works (only partially published).

The main aim of the author is to study inductive systems as systems of subsets of a set M by means of which, according to a procedure π , one can exhaust M . Roughly speaking, π consists in associating to each considered DCM a larger part SDD . A system $SM \subset PM$ is inductive relative to M

(over)

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if for every set N the relation $M \subseteq N$ is implied by the following two conditions: 1) $(S(M) - \{A\}) \cap PN$ is non vacuous; 2) for every element B of $(S(M) - \{A, M\}) \cap PN$ there exists a $C \subseteq S(M) - \{A, M\}$ such that $B \subseteq C$ and $C \cap PN = \emptyset$.

2

POPADIC, MILAN S.

any $x = (x_1, \dots, x_n) \in C$ let $(-, x|_C)$ denote either the set $\{y|y \in C, y \leq x\}$ or the set

$$\{(y_1, \dots, y_n) | y_1 < x_1, \dots, y_n < x_n, (y_1, \dots, y_n) \in C\}.$$

In order that the system of sets $(-, x|_C)$ ($x \in C$) be inductive for C , it is necessary and sufficient that the chain C have no interior gap (Th. 8.2.2; this theorem answers a question of the reviewer's).

3/5

The author gives two still more general formulations of induction procedures in terms of binary relations and mappings, respectively. Let φ be a binary relation in M , i.e., $\varphi \subseteq M^2$. Let $pr_1\varphi$ (resp., $pr_2\varphi$) be the set of the first (resp., second) components of elements of φ . Let M, N be any sets. A system $SM \subseteq PM$ is inductive for M relative to an "inductor", (S_1M, φ) , where $S_1M \subseteq PM$ and φ is a binary relation with $pr_1\varphi = SM, pr_2\varphi = PM$, if the relation $M \subseteq N$ is implied by the following ones: 1) $S_N(M) \cap S_1M \neq \emptyset$; 2) here $S_N(M) = S(M) \cap PN$; 3) there exists a $\psi \in P\varphi$ so that $pr_1\psi = SM - \{A, M\}, pr_2\psi \subseteq P_N(M)$, where

One has then a "fundamental theorem" (second formulation) stating the necessary and sufficient conditions in order that SM be inductive for M relative to such a (S_1M, φ) . The paper contains numerous other definitions and statements partly connected with ordered sets. G. Kurepa.

P.6 p. A. C. 1. C. M. S. E. A. N. S.

Poppele, Allan S.: A new formulation of the principle of induction. *Publ. Math. Debrecen*, 1974, 28, 1-2, 1-10. (English summary)

Let M, S, S_1, N be sets; let φ be a binary relation. (The wording of the induction principle is proved (Proposition 2.1). We have $M \subseteq N$, provided that 1) $S \cap M \cap S_1 \neq \Lambda$, 2) there exists a relation $\psi \in P\varphi$ such that

$$D\psi = S_M \setminus (\Lambda, M), W_{S_{M \cap S_1}} \setminus (\Lambda, M) \psi \subseteq P(M \cap N).$$

Here $S_A = S \cap PA$ (PA = the class of all subsets of A). A binary relation in V is any set in V^2 ; $D\varphi$ (respectively $W\varphi$) is the class of first (second) components of all the $x \in \varphi$. For any class A , $D_A\varphi$ ($W_A\varphi$) is the class of all left (right) components of elements of A whose right (left) components are in A . In the previous wording, S, S_1 and φ are called: inductive system, basis of induction and inductor respectively. The ordered quadruple (M, S, S_1, φ) is "potential" provided $\sim W_{S_M \setminus \{v\}} \psi \subseteq PE$ for each $\psi \in P\varphi$ such that $D_\psi = S_M \setminus (\Lambda, M)$, $ECM \cup \cap X (X \in W\psi)$, $S_E \cap S \neq \Lambda, \{A\}$. In order that Proposition 2.1 hold, it is necessary and sufficient that (M, S, S_1, φ) be potential and that the union of sets $W\psi$ contains M for every $\psi \in P\varphi$ with $D\psi = S_M \setminus (\Lambda, M)$.

D. Kurepa (Zagreb).

Math

POPADIC, Miodrag; RUSTEMBEGOVIC, Fahrudin; NUMIC, Nurudin

Lasix in edematous conditions. Med. arh. 19 no.3:19-23 My-Je '65.

1. III interna klinika Medicinskog fakulteta u Sarajevu (Sef:
Prof. dr. Ibro Brkic).

SECUJAC, Branko; MATIC, Marija; ALEKSIN, Jedica; POPADIC, Slavko

Staphylococcal pneumonias in children. Srpski arh. celok.
lek. 90 no.3:275-282 Mr '62.

1. Decje odeljenje Opste bolnice "Dorde Joanovic" u Zrenjaninu
Nacelnik: dr. Branko Secujac.
(PNEUMONIA in inf & child)
(STAPHYLOCOCCAL INFECTIONS in inf & child)

SECUJAC, Branko; SOLARIC, Stojan; POPADIC, Slavko

Fiedler's myocarditis in a small child. Srpski arh. celok.
lek. 88 no.1:91-94 Ja '60.

1. Decje odeljenje Opste bolnice "Dorce Joannovic" u Zrenjacinu,
Sef: dr Branko Secujac; Institut za patolosku anatomiju Medicinskog
fakulteta Univerziteta u Beogradu, Upravnik: prof. dr Zivojin Ignjacev.
(MYOCARDITIS in inf. & child)

PEDIATRICS

YUGOSLAVIA

BOSKOV, Zorica; DAUTOVIC, Milan; POPADIC, Slavko; PURKOV, Milan; SECUJAC, Branko and CVETKOV, Radojica; Department of Pediatrics (Decje odeljenje) Chief (Nacelnik) Dr Branko SECUJAC; and Department of Neuropsychiatry (Neuropsihijatrijsko odeljenje) Chief Dr Milan PURKOV, General Hospital (Opsta bolnica) "Gjorgje Jovanovic", Zrenjanin.

"The Problem of Chorea Minor in Children."

Belgrade, Srpski Arhiv za Tselokupno Lekarstvo, Vol 93, No 3, Mar 65; pp 251-259.

Abstract [English summary modified]: Review of clinical data from the histories of 37 children with chorea minor, treated 1957 to 1964; graphs showing ages and sex; EKG changes; socioeconomic origin; onset by time of year; laboratory and other diagnostic findings; treatment; prevention; infections; psychological factors. Three graphs; 1 Soviet, 1 Yugoslav and 11 Western references; ms received 30 Oct 64.

1/1

SECUJAC, Branko; POPADIC, Slavko

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001342210013-4"

A case of Waterhouse-Friderichsen's syndrome in an infant with satisfactory outcome. Srpski arh. celok. lek. 88 no.2:225-228 F '60.

1. Decje odeljenje Opste bolnice "Borde Joanovic" u Zrenjaninu.
Sef: dr. Branko Secujac.
(WATERHOUSE-FRIDERICHSEN SYNDROME in inf. & child)

BOSKOV, Zorica; DAUTOVIC, Milan; POPADIC, Slavko; PURKOV, Milan; SECUJAC, Branko; CVETKOV, Radojica

The problem of chorea in children. Srpski arh. celok. lek. 93
no.3:251-259 Mr ' 65.

1. Decje odeljenje Opste bolnice "Djordje Joanovic" u Zrenjaninu
(Nacelnik: dr. Branko Secujac) ; Neuropsihijatrijsko odeljenje
Opste bolnice "Djordje Joanovic" u Zrenjaninu (Nacelnik: dr.
Milan Purkov).

CA POPADICH, I. A.

12

Thermal stability of amylases in heated wheat dough.
Z. F. Fakhmina and I. A. Popadich (Moscow Food Ind.
Tech. Inst.). *Doklady Akad. Nauk S.S.S.R.* **78**, 1036
(1951).—Even at 80–90° the α -amylase activity persists,
since the dextrin content may rise 31% during heating from
80° to 90° over about 18 min. β -Amylase is inactivated at
83–5°. Thus the data on thermostability in aq. solns. do
not correspond to the situation existing within a dough bis-
cuit. G. M. Kosolapoff

POPADICH, I. A.

Improvement of bread-baking properties of wheat grain by means of hydrothermic treatment and methods of determination of its amylolytic activity. E. G. Onishchenko and I. A. Popadich (Technol. Inst. Food Ind., Moscow). *Biokhim. Seriya, Sbornik* 1956, No. 3, 126-44. Heat treatment of wheat grain markedly reduces the amylolytic activity, and this allows the utilization of this grain for the prepn. of grade flour. The activity of α - and β -amylases decreases considerably more after hydrothermic treatment than by thermic treatment alone. The inactivation of amylolytic enzymes during thermic treatment is partially reversible. Comparative studies of methods of detg. amylolytic activity indicated that, under practical manufg. conditions, the method of Proskuryakoy and Kozhevnikova (C.A. 36, 6047) is preferable. In cases where the content of water-sol. compounds in the samples exceeds 50%, the addn. of starch to the sample is desirable. I. A. Stekol

POPADICH, I. A. Cand. Tech Sci -- (diss) "Effect of hydrothermal treatment upon the ~~starch~~^{protein} and proteinase complex and amylolytic ferments of seeds of ~~sprouting~~^{germinated} wheat." Mos, 1957. 18 pp 22 cm. (Min of Higher Education USSR. Mos Technological Inst of Food Industry), 100 copies (KL, 24-57, 119)

POPADICH, I.A.

Changes in wheat proteins during heating Khleb. i kond. prom. 1
no.1:21-25 '57. (MIRA 10:4)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti.
(Wheat) (Proteins)

POPADICH, I.A.

FALUNINA, Z.F. : POPADICH, I.A.

Changes in gluten proteins during heating. Khleb. i kond.
prom. 1 no.4:6-9 Ap '57. (MLRA 10:5)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti.
(Gluten) (Proteins)

POPADIN, S.; DINOV, V.

"Determining the computed power of condenser-asynchronous electric motors with permanent connected condenser"

Tezhka Promishlenost. Sofia, Bulgaria. Vol. 8, no. 2, Feb. 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

POPADIIN, St. inzh.

Determining the main dimension of the asynchronous, low-powered
condenser motors. Mashinostroene 10 no.12:3-7 '61.

POPADIUK, Jan

The "Alga" restaurant in Sopot. Architektura Pol no.7/8:259-262 '61.

SURNAME, Given Names

Country: Poland

POPADYUK, L.

5

Academic Degrees: ~~not given~~

Presumed: Ludwik Hirszfild Institute of Immunology and Experimental Therapy (Instytut Immunologii i Terapii Doswiadczalnej im. Ludwika Hirszfelda), Polish Academy of Sciences (PAN-Pol.

Source: Akademia Nauk), Wroclaw; Director: Prof. Stefan SLOPEK, Dr.

Source: Warsaw, Postępy Higieny i Medycyny Doswiadczalnej, Vol XV, No 4
Bataw 1961, pp 369-371.

Data: "Antigenicity of Domestic Preparations of Crystalline Somatotrophin"
English abstract of article, published in Post. Hig. i Med Dosw.,
1960, 14, 421.

Authors:
BARANCZYNSKI, T.
POPADYUK, L.

870 9816

POPADIUK, Leonard

A rapid electrophoretic micromethod for proteins in agar gel.
Arch.immun.ter.dosw. 9 no.1:139-152 '61.

1. Zaklad Biochemii Instytutu Immunologii i Terapii Doswiadczalnej
PAN we Wrocalwiu.

(ELECTROPHORESIS) (BLOOD PROTEINS chem)

POLAND / Human and Animal Physiology. Blood Circulation.

T-4

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3413

Author : Garbulinski, T.; Popadiuk, L.; Bula, B.

Inst : Not given

Title : Mechanical and Other Influences on the Blood Circulation
in Active Skeletal Muscles

Orig Pub : Acta physiol. polon., 1957, 8, No 2, 165-178

Abstract : The blood flow in the arteries and veins of the hind limb and in the abdominal aorta was recorded in dogs under narcosis by means of a photochematachometer. Rhythmic compression of the limb and, to a lesser degree, stimulation of the muscles or of the sciatic nerve by an electric current and heat, led to an increase of the blood flow which attests to the great importance that the mechanical compression of vessels by muscular fibers has for blood circulation increase in contracting muscle

Card 1/2

BARANOWSKI, Tadeusz; POPADIUK, Leonard

Antigenic properties of domestic "crystalline" somatotropin. Postepy
hig.med. dosw. 14 no.4:421-427 '60.

1. Z Zakladu Biochemii Instytutu Immunologii i Terapii Doswiadczalnej
PAN im. Ludwika Hirszfelda we Wroclawiu.
(COMATOTROPIN chem)

POPADIUK, LEONARD

GARBULINSKI, Tadeusz; POPADIUK, Leonard; BULA, Boleslaw

Effect of massage and muscle contractions on blood circulation.
Polski tygod. lek. 12 no.11:381-383 11 Mar 57.

1. (Z Zakladu Fizjologii A.M. we Wroclawiu; kier. prof. dr.
med. A. Klisiecki, z Katedry Chirurgii Wet. W.S.R. we
Wroclawiu; kier. prof. dr. nauk wet. K. Szcudlowski i z
Zakladu Fizjologii WSWF we Wroclawiu; kier. mgr lek. B. Bula).
Adres: Wroclaw, ul. Chalubinskiego 10 Zakl. Fizjol. A.M.

(MESSAGE, eff.

on circ. in dogs (Pol))

(MUSCLES, physiol.

contraction, eff. on circ. in dogs (Pol))

(BLOOD CIRCULATION, physiol.

eff. of massage & musc. contraction in dogs (Pol))

POPADYCH, Leonard

SURNAME (in caps); Given Names

Country: Poland

Academic Degrees:

Affiliation: Dept of Biochemistry, Institute of Immunology and Experimental
Mental Therapy, Polish Academy of Sciences (Instytut Immunologii i Terapii Doświadczalnej PAN), Wrocław

Source: Warsaw, Archiwum Immunologii i Terapii Doświadczalnej, No 1,
1961, pp 139-152

Topic: "A Rapid Micromethod of Protein Electrophoresis in Agar Gel."

KAPUSCINSKI, Witold, J.; SZCZUDLOWSKI, Kazimierz; POPADIUK, Leonard

Experimental jet pulse on the mesentery & the artery of dog; analogy with the jet pulse of retina in man; demonstration of a film. Klin. oczna 27 no.3:263-268 1957.

1. Z Kliniki Ocznej A. M. we Wroclawiu. Kierownik: prof. W. J. Kapuscinski i z Zakladu Chirurgii Weterynaryjnej W. S. R. we Wroclawiu. Kierownik: prof. K. Szczudlowski.

(MESENTERIES, blood supply

exper. jet pulse in dog, relation to jet pulse in retina in man (Pol))

(RETINA, blood supply

jet pulse, relation to exper. jet pulse in mesentery in dog. (Pol))

POPAD'KO, Ivan Isayevich; URYUPIN, Dmitriy Alekseyevich; KOKINA, N.N.,
tekhn. red.

[Rocket weapons of capitalist countries; based on materials
of the foreign press for 1960-1962] Raketnoe oruzhie kapitalisti-
cheskikh stran; po materialam zarubezhnoi pechati, 1960-1962 gg.
Moskva, Voenizdat, 1962. 247 p. (MIRA 16:2)
(Rockets (Ordnance))

POPADYUK, O. YA.

Fractionation and crystallization of water-soluble muscle proteins. M. F. Gulyi, P. D. Dvorukova, M. A. Kolomitshenko, and O. Ya. Popadyuk. *Ukrain. Biochim. Zhur.* 26, 180-7 (in Russian, 187-8) (1954).—The proteins of fresh, cooled, and twice-ground rabbit muscles were extd. in the cold with an equal vol. of 0.25% K_2HPO_4 . Then $(NH_4)_2SO_4$ was added to 0.25 satn.; after 15-20 min. the ppt. was centrifuged and removed; to the clear supernate $(NH_4)_2SO_4$ was added to 0.35 satn.; a new ppt. formed which was centrifuged down 25-30 min. later; the supernate was poured off completely and the ppt. dissolved in a min. vol. of the original K_2HPO_4 soln. After two-days' standing in the refrigerator a cryst. ppt. was formed which had high adenosinetriphosphatase activity. By bringing the supernate up to 0.45 satn. and letting it stand for 30 min., a protein ppt. was formed; upon dissolving the latter in phosphate buffer and letting it stand in the cold for 24 hrs. crystals of the shape of cucumber seeds were formed. This protein fraction possesses

phosphohexokinase activity, which in the presence of protein pptd. by 0.50 satn. by $(NH_4)_2SO_4$, transfers PO_4 groups from adenosinetriphosphoric acid to fructose-6-monophosphate. The protein fraction of 0.50 satn. crystallizes out in the cold from phosphate soln. in 6-7 hrs. as hexagonal double pyramids. This fraction is identical with myogen A, obtained by the method of Baranovskii (*C.A.* 35, 14314) and Dvorukova (*C.A.* 48, 12215d). The ppt. formed at 0.55 satn. is discarded and satn. brought up to 0.60. The ppt. formed crystallizes out in the cold from phosphate soln. in 2-3 days as thin needles loosely gathered in sheaves. At 0.65 satn. a protein fraction is obtained which, when treated as above, forms crystals in the shape of long narrow and flat sticks. Crystn. and preservation is best accomplished at room temp.; the fraction possesses a high enolase activity. Above 0.65 satn. protein fractions are obtained which seemingly do not differ from the protein fraction of 0.60 satn.; their identity has not been detd. B. S. Levine

POPADYUK, O. YA.

U S S R 3

The crystalline protein fraction 0.50 (myogen A) of animal muscle. P. D. Dvornikova, M. P. Gulyi, and O. Ya. Popadyuk. *Ukrain. Biokhim. Zhur.* 26, 245-50 (1954); cf. *C.A.* 48, 7070a; 49, 1119b. — A method was described for the continuous sepn. of 5 muscle protein fractions. In this study it was shown that one of these fractions (fraction 0.50 satn.) by the shape of its crystals, its soly., isoelec. point, enzyme activity, mol. enzyme activity, and mol. wt. is identical with the fractions obtained by Baranovskii (*C.A.* 35, 14314) and D. (*C.A.* 48, 12215d) which was designated as myogen A. The present method for obtaining this protein fraction is simpler, less time consuming, and assures a product of high purity. B. S. Levine. CH 4

POPADYUK, O. YA.

U S S R

The nature of muscle phosphohexokinase. M. F. Gulyi, P. D. Dvotnikova, and O. Ya. Popadyuk. *Ukrain. Biochim. Zhur.* 26, 251-6 (1954) Russian, 281 (1954).—Muscle protein fraction 0.45 obtained by a procedure previously described (cf. *C.A.* 49, 1110b) was studied in detail after purification by recrystn. The higher the purity of the final product the lower its enzymic activity, until at the highest point of purity it completely disappears. The addn. of some fraction 0.50 (cf. preceding abstr.) to the highly purified and enzymically inactive crystals of fraction 0.45 reactivates its phosphohexokinase, although it alone has no such enzymic activity. Other muscle and egg albumin protein fractions failed to reactivate the phosphohexokinase of the purified fraction 0.45. It is hypothesized that muscle protein fractions 0.45 and 0.50 are specific constituents of the complex hexophosphokinase. Other hypothetical deductions are discussed. H. S. Levine.

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POPADYUK, O. YA.

CH

The properties of crystalline phosphoenolpyruvate kinase (PEPCK) of rabbit muscles takes place overnight in the absence of a primer at pH 6.8-6.9, temp. -5° to 0°, and at 0.31-0.35 (NH₄)₂SO₄ satn. Raising the protein content of the mother liquor to near 10% and the (NH₄)₂SO₄ satn. slightly causes the appearance of crystals of bipyramidal myogen A along with those of PEPCK. Prolonged maintenance of the PEPCK crystals in the mother liquor or in a soln. of (NH₄)₂SO₄ causes them to become insol. No effective solvent has thus far been found. Solns. of fresh PEPCK crystals are very unstable and ppt. very rapidly in aggregate form, even in the presence of myogen A or of gum arabic. The pptd. aggregate possesses enzymic activity which becomes lowered with time. The molar activity or the migration index (no.) of cryst. PEPCK reaches a value of 1900-2300. The activity of cryst. PEPCK rises in the presence of cysteine and is considerably greater in the presence of myogen A. Cryst. serum albumin fractions do not activate cryst. PEPCK to any noticeable degree. PEPCK preps. do not transport P from inorg. pyrophosphate or from adenosinediphosphate to fructose-6-phosphate or from adenosinetriphosphate (ATP) to glucose or pentose. The max. light absorption by solns. of cryst. PEPCK in the ultraviolet region is observed at 2700 A., the min. at 2500 A. For myogen A the values are correspondingly 2800 A. and 2500-2550 A. PEPCK transports P from ATP to fructose-6-phosphate at pH 4.0-11.5, the optimum being pH 6.0-9.0. The temp. range for the enzymic activity of PEPCK is 22-60°, the optimum being at 45-55°.

B. S. Levine

(2)

POPADYUK, O. Ya.

DVORNIKOVA, P.D.; GULIY, M.P.; ~~POPADYUK, O. Ya.~~

Phosphofructokinase from the muscles of rabbits [with summary in English]. Ukr.biokhim.shur. 29 no.1:42-53 '57. (MLRA 10:5)

1. Institut biokhimi Akademii nauk Ukraïns'koi RSR, Kïiv.
(PHOSPHOFRUCTOKINASE) (MUSCLE)

POPADYUK, O. Ya.

GULIY, M.F.; DVORNIKOVA, P.D.; POPADYUK, O.Ya.

Nature of the activation of the enzymic action of crystalline muscle phosphofructokinase by myogen A [with summary in English].
Ukr. biokhim.zhur. 29 no.4:392-399 '57. (MIRA 11:1)

1. Institut biokhimii AN URSR, Kiy.
(MYOGEN) (PHOSPHOFRUCTOKINASE)

FEDORCHENKO, (POPADYUK), O.Ya. [Fedorchenko (Popadiuk), O.Ya.]

Certain properties of crystalline muscle enolase [with summary
in English]. Ukr.biohim.zhur. 30 no.4:552-560 '58 (NIRA 11:9)

1. Institut biokhimii AN URSR, Kyiv.
(UOOLAHN)

SOULYY, M.F.; DVORNIKOVA, P.D.; KOLOMIYCHENKO, M.A.; POPADYUK, Ye.Ya.

Fractionation and crystallization of water-soluble proteins obtained from muscle. Ukr.biokhim.zhnr. 26 no.2:130-138 '54. (MIRA 7:6)

1. Institut biokhimi Akademii nauk USSR.
(Proteins)

Popadyuk Ye. Ya.
DVORNIKOVA, P.D.; GULYY, M.F.; POPADYUK, Ye. Ya.

Crystalline protein fraction 0,50 from animal muscle (myogen A).
Ukr. biokhim. zhur. 26 no.3:245-250 '54. (MLRA 7:12)

1. Institut biokhimii Akademii nauk USSR.
(Myogen)

GULYY, M.F.; DVOHNIKOVA, P.D.; POPADYUK, Ye. Ya.

Nature of phosphohexokinase in muscle. Ukr. biokhim. zhur. 26 no. 3:
251-261 '54. (MLRA 7:12)

1. Institut biokhimii Akademii nauk USSR.
(Phosphohexokinase) (Myogen)

POPADYUK, Ye. Ya.

GULYY, M.F.; DVORNIKOVA, P.D.; POPADYUK, Ye. Ya.

Increasing the aldolase activity of myogen & by various purified
and crystalline proteins [with summary in English]. Ukr.biokhim.
zhur. 29 no.2:152-165 '57. (MLRA 10:7)

1. Institut biokhimii Akademii nauk Ukraineskoj SSR, Kiyev.
(ADOLASE) (MYOGEN)

DVORNIKOVA, P.D. [DVORNYKOVA, P.D.], GULYY, M.F. [GULYI, M.F.], POPADYUK,
Ye.Ya. [POPADIUK, O.IA], MARYNENKO, F.P.

Phosphofructokinase and other crystalline proteins from cat
muscles [with summary in English]. Urk.biokhim.zhur. 30 no.2:187-199
'58 (MIRA 11:6)

1. Institut biokhimi AN URSR, Kiv.
(PHOSPHORFUCTOKINASE)
(PROTEINS)

POPANDA, G; WECLEWSKA, M.

Polarographic determination of germanium in coal ash. p. 889.

CHEMIA ANALITYCZNA. (Komisja Analityczna Polskiej Akademii Nauk i Naczelna Organizacja Techniczna) Warszawa, Poland. Vol. 3, No. 5/6, 1958.

Monthly List of East European Accessions (EEAT) 10, Vol. 0, No. 0, August 1959
Incl.

POPANDA 6

6

Polarographic determination of germanium in coal ash. Maria Weclawska and Gertruda Popanda (Główny Inst. Górniczy, Katowice, Poland). *Chem. Anal.* 3, 889-92 (1958) (English summary).—A polarographic method for detg. Ge in coal ash contg. 0.5 mg./ml. and more is described (cf. Valenta and Zuman, *C.A.* 49, 7417f; Clulcy, *C.A.* 45, 10125h). Fuse about 0.5 g. of coal ash with 4 g. NaOH and about 0.5 g. Na₂O, in a Ni crucible. Dissolve the alloy (product) in about 20 ml. H₂O, and neutralize with H₂SO₄ (3:1). Add 1 vol. of concd. HCl (total vol. of soln. about 75 ml.). Distil off 1/2 vol. at 107-8° to the receiver contg. 10-15 ml. concd. NH₃. To the distillate add NH₃ to pH 6 and fill with H₂O to 50 ml. Take 10 ml. of soln., add 2 ml. of standard soln. (dissolve 58.4 g. of versemate in 2N NaOH, dil. to 1 l. with buffer contg. 50 g. K₂HPO₄/100 ml., dil. with 0.1N NaOH to pH 6.2, and adjusted to pH 7.8 with 2N NaOH), 0.5 ml. of gum arabic, and 1 drop NH₃ if pH < 7.5. Begin polarographic detn. at 800 mv. Add Ge soln. contg. 0.1 mg./ml. in such amts. as will increase the height of the polarographic wave by 1/2 or 1/4. From 0.003 to 0.004% Ge can be detd. in coal ash. The results were compared with those obtained by spectrographic and spectrophotometric methods. Good agreement was obtained within 0.001-0.01% Ge. K. Kurtyka

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1/4

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S/148/62/000/004/002/006
E111/E435

11.11.70
AUTHOR: Popandopulo, A.N.

TITLE: Influence of carbon on the properties of cobalt-vanadium high-speed cutting steel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, no.4, 1962, 124-131

TEXT: The optimum carbon contents in the various high-speed cutting steel compositions have not been settled. At the Leningrad Polytechnical Institute imeni M.I.Kalinin, a universal high-production cobalt-vanadium high-speed cutting steel type P18Φ2K8M (R18F2K8M) has been developed whose carbon content is 0.15 to 0.20% higher than generally adopted with the particular vanadium content; tool heat treatment is modified suitably. Investigation of two induction-melted heats of cobalt vanadium high-speed cutting steel with a normal (0.82%) and higher (1.10%) carbon content are described. After forging and heat treatment the microstructure, hardness and strength of the billets were determined. Other specimens were subjected to further heat treatment and to more detailed testing. Comparative cutting
Card 1/2

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Author: ...
Title: ...
Source: ...
Date: 1962. Metallovedeniye. No. 7.

TEXT: The present paper is concerned with the heat-treatment, structure and mechanical properties of four new, high-speed cutting steels developed at the Leningradskiy politekhnicheskiy institut im. M.I. Kalinina (Leningrad Polytechnical Institute im. M.I. Kalinin). The differential feature of these steels, whose composition is given in Table 1, is their increased C, V and Co contents and the presence of Mo. No steels of similar composition and requiring similar heat-treatment have been used in industrial practice in the Soviet Union or abroad, and three of them have been granted Author's Certificate. The steels are annealed by heating to 850 - 870 °C, cooling to 750 - 750 °C, holding at this temperature for 3-4 hours and furnace-cooling to 450 - 400 °C. After this treatment the steels contain 40% carbides, i.e. in this

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respect they approach the constitution of cemented carbides. After hardening and tempering, the carbide content is not less than 20 - 30%, which ensures high hot-hardness of the steel and outstanding wear-resistance. The objective of combining high strength and toughness of the steels with high wear-resistance and stability at high temperatures was attained by reducing the V/C ratio from the generally recommended value of 3.0-3.2 to 2.2-2.7. As a result, it was possible to lower the hardening temperature and to reduce the holding time at the temperature. Thus, steel R18F4K8M is hardened by pre-heating to 840-860 °C, transferring it to a salt bath at 1 240-1 260 °C, holding in the bath for a time calculated on the basis of 4-5 sec per each 1 mm of the specimen thickness and quenching in oil. Tempering of steel hardened in this manner consists of 2-3 hours at 580-600 °C. The properties of the steels studied after various heat-treatments are given in Table 3. The fact that the steels under consideration can be effectively hardened under conditions described above is demonstrated in Fig. 2, where the hardness (HRC) of a steel R18F4K8M specimen (measuring 27 x 27 x 40 mm), oil-quenched from 1 240 °C, is plotted against the distance (mm) from the centre of the specimen, the number by

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each curve indicating the time (sec/mm) in the salt bath at 1 240 °C. The results of dilatometric studies showed that when steel R18F4K8M was air-cooled after tempering at 550-560 °C a bainitic transformation took place at 350 - 250 °C, the martensitic transformation occurring at much lower temperatures (140-150 °); the bainitic transformation could be suppressed by oil-quenching the steel from the tempering temperature. Further experiments showed that accelerated cooling after tempering brought about an increase in the impact and transverse-bending strength of hardened and steel. A similar increase in the impact strength of hardened and tempered specimens was attained by a second tempering at 300 - 400 °C, which relieved internal stresses set up during the first tempering treatment. The wear-resistance of the new steels was tested in the next series of experiments, both under laboratory and industrial conditions. These experiments consisted of machining tests on several austenitic steels and similar, difficult-to-machine alloys. The results showed that tools made of the new steels were two to three times more durable than those made of conventional materials. This is demonstrated in Fig. 12, where the durability (min) of cutting steels made of various materials

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and tested in turning (without coolant) steel 3M617 (EI617) is plotted against the cutting speed (m/min); the experimental conditions were $s = 0.1$ mm/rev; $t = 2$ mm; $h_3 = 0.5$ mm; blocks nos. 1-5 relate to tools made of the following alloys: P9K5 (R9K5); P9K10 (R9K10). There are 12 figures and 4 tables.

Key to Table 3: Main physicochemical properties of the new high-speed cutting steels with carbide-particle size ranging from 2-4

- 1 - Type of steel; 2 - After annealing; 3 - After hardening and tempering; 4 - Quantity of residual austenite, %; 5 - Hardness, HB; 6 - Weight of carbide residue, %; 7 - Impact strength, kgm/cm^2 ; 8 - Transverse bending strength, kg/mm^2 ; 9 - Impact strength, kgm/cm^2 ; 10 - Hardness, HRC; 11 - Temperature at which the steel begins to soften, $^{\circ}\text{C}$; 12 - Hot hardness at 600°C , HRC; 13 - After hardening; 14 - After tempering; 15 - Less than; 16 - ditto

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Table 3:

① Марка стали	② Состояние стали после отжига			③ Состояние стали после закалки и отпуска						④ Количество остаточного аустенита, % ⑤
	⑥ Твердость HВ	⑦ Вес марки поро марки	⑧ Удельная плотность, г/см ³	⑨ Предел проч- ности при растяж- ении, кг/мм ²	⑩ Удельная вы- стой, км/ч	⑪ Твердость HRC	⑫ Критическая температура, °C	⑬ Температура при 60% HRC после закалки, °C	⑭ Баланс ступи, г/кг	
P9Ф4К8М	241-255	26-30	4,0-5,0	235-250	1,0-1,5	65-66	635	54-56	50	Меньше 5
P18Ф2К8М	255-269	35-38	2,0-2,5	240-260	0,8-1,3	65-67	650	58-60	45	То же
P18Ф3К8М	255-277	38-42	1,8-2,0	200-220	0,8-1,3	68-70	650	58-60	55	То же
P18Ф4К8М	255-277	38-42	1,8-2,0	210-230	0,8-1,2	66-68	650	58-60	55	То же

Table 1:

(TYPE OF Марка стали STEEL)	C	Cr	W	V	Co	Mo
P9Ф4К8М (P9Ф4К8М)	1,3-1,46	3,8-4,2	9-10	3,0-3,6	7,5-8,5	0,8-1,0
P18Ф2К8М (P18Ф2К8М)	0,95-1,05	3,8-4,2	17-19	2,0-2,5	7,5-8,5	1,0-1,2
P18Ф3К8М (P18Ф3К8М)	1,45-1,55	3,8-4,2	16-18	2,8-3,2	7,5-8,5	1,0-1,2
P18Ф4К8М (P18Ф4К8М)	1,25-1,40	4,4-5,0	15,5-17	3,2-3,8	7,5-8,5	1,2-1,5

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Fig. 2:

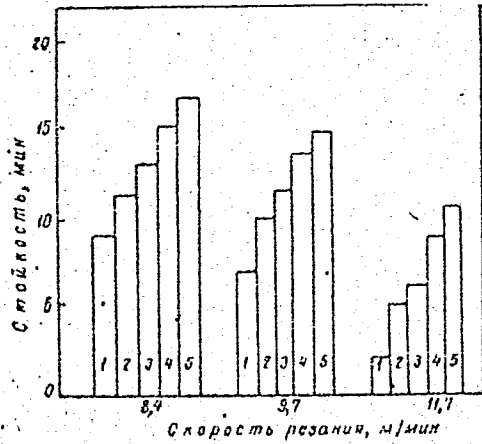
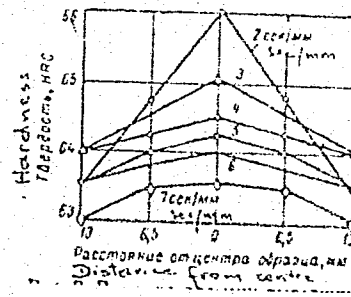


Fig. 12:



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POPANDOPULO, A.N.

Effect of the size of eutectoid and secondary carbides on the
properties of R18 steel. Metalloved. i term.cbr.mst. no.9:46-48
S '65.

(MTRA 18:10)

1. Leningradskiy politekhnicheskii institut.

VYAZNIKOV, N.F.; POPANUCOPULO, A.N.

Effect of structural transformations on the red hardness of high-cobalt, high-speed steel. Trudy LPI no.234:31-34 '64. (MIRA 17:11)

PCFANDOPULO, A.N.

Improvement of the cutting properties of P18 steel. Trudy LPI
no.234:35-38 '64.

(MIRA 17:11)

AMOSOV, I.S.; BELOV, A.V.; ZLOTNITSKIY, B.V.; POPANDOPULO, A.N.

Cutting properties of high-alloyed tungsten-cobalt-vanadium
high-speed steel. Stan.i instr. 33 no.8:33-35 Ag '62.

(MIRA 15:8)

(Tool steel--Testing)

S/737/61/000/000/009/010

AUTHORS: Vyaznikov, N. F., Candidate of Technical Sciences, Popandapulo, A.N., Engineer.

TITLE: The ratio of the C and V contents in high-speed steels.

SOURCE: Stal', sbornik statey. Ed. by A. M. Yampol'skiy. Moscow. 1961, 469-477.

TEXT: The ratio of the C and V contents in CoV high-speed steels currently produced in the USSR, USA, and East and West Germany requires prolonged holding or soaking during final heating (from 10 to 20 sec/mm) to achieve entry of the carbides into the solid solution, whereupon the tool becomes brittle under any impacts that might occur during cutting operations. The dissolution of the carbides would be facilitated and accelerated if the V content were decreased or the C content increased. The existing relationship between the C content (C) and the V content (V) is shown to be $C = 0.2V + 0.5$. One such CoV steel, the P10Φ5K5 (R 10 F 5 K 5), basically designated as 3M931 (E1931), requires a pre-quench holding of 20 sec/mm (instead of the ordinary 10 sec/mm) to improve the dissolution of the carbides and the red-brittleness resistance. Unfortunately, the long high-temperature holding evokes growth of the austenite grain, enlargement of the carbides, and their precipitation along the grain boundaries during cooling and, hence, loss in strength and toughness, as well as appreciable decarbonization, so that the tool is no longer usable for impact cutting. To find a high-speed steel that could be heated quickly

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The ratio of the O and V-contents in high-speed steels, S/737/61/000/000/009/010 to quench temperature, 20 melts were prepared with various % contents: C 0.9-1.8, V 1.2-5.0, W 16.0-18.0, Cr 4.0-4.5, Co ~8.0, Mo ~1.2. 50-kg ingots were cast from a HF induction furnace and forged into rods; all melts, except for that containing 1.8%C, were well suitable for forging. It was found that a relationship $C = 0.225V + 0.675$ yields well-dissolved carbides with short holdings. The best alloy contained (%): C 1.54, W 17.54, V 3.18, Cr 4.17, Co 7.93, Mo 1.23%. Holding was done for 3-4 sec/mm. The microstructure of the 850°-tempered steel consists of perlite and carbides. $H_B = 277-293$. Small grain is retained up to 1240°C. After quench and triple tempering at 560° and 1-hr holding, the structure consists of nonacicular martensite, bainite, and carbides. Hardness specimens were oil-quenched at 700-1260°; when reheated to from 760° to 820°C, the R_C rose sharply from 35 to 52, which is explained by the dissolution of the eutectoid carbides. This is designated as the critical interval A_{C1} . Maximum hardness (68) is obtained at 1100°. The lowering of R_C (to 63.5) at 1260° is explained by the presence in the structure of a large amount of retained austenite (up to 60%). Specimens of PI803K3M (R18F3K3M) quenched at 1240°C and tempered three times at 560° attain $R_C = 70$, an unusual value for high-speed steel. The heating was performed quickly, at 4 sec/mm. The repeated tempering was found (by microstructural and magnetic analysis) to have eliminated virtually any retained austenite. Red-brittleness specimens were quenched at 1240° (holding for 4 sec/mm), triple-quenched at 560°, and soaked at 600-650° for 4 hours. Steel tested at 650° exhibited an $R_C = 60$. The Card 2/3

The ratio of the O and V contents in high-speed steels..S/737/61/000/000/009/010
mechanical properties resulting from various forms of heat treatment are detailed. Rapid cooling in oil after each tempering is found to be advantageous for both improved toughness and increased strength. Chemical carbide analysis is explained in detail; the alloying qualities of the solid solution appear extremely satisfactory both qualitatively and quantitatively. The cutting properties were tested for continuous cutting and for impact cutting, including lathe cutting, planing, and milling. The extremely abbreviated heating before quench (at 3 sec/mm) of the R 18 F 3 K 8 M steel has created amazement among specialists. Yet, the newly introduced C/V relationship ensures the complete dissolution of the carbides and, hence, an elevated hardness and red-brittleness resistance, while preserving the fine-grain structure of the steel which is indispensable in obtaining the high strength and toughness which are essential in impact cutting; this is further ensured by oil cooling after tempering. The chemical composition of the Soviet R10F5K5, the USA T15, and 3 versions of the German EV4Co is tabulated, and it is recommended that the V content of the R10F5K5 steel be reduced to 3-3.5%. It is noted that alterations in that sense have been made in the German EV4Co steels with an increase of the C content from 1.3 to 1.4% and a reduction in V content from 5 to 3.75%. There are 5 figures, 2 tables, and 7 references (4 Russian-language Soviet, 1 English-language, 2 German). The Editor comments that the authors' proposal to increase the C content in high-speed steel by 0.2-0.3% and to reduce the pre-quench holding to 3-4 sec/mm requires verification.

ASSOCIATION: Leningrad politkhnicheskly Institut (Leningrad Polytechnical Institute).
Card 3/3

POPANDOPULO, A.N.

Effect of carbon on the properties of cobalt-vanadium rapid steel.
Izv.vys.ucheb.zav.; Chern.met. 5 no.4:124-131 '62. (MIRA 15:5)

1. Leningradskiy politekhnicheskii institut.
(Tool steel--Testing)