

ACCESSION NR: AP4031143

calculated from the experimental data by using the Curie-Weiss law. It is concluded from the similarity in the properties of the three metals and the near equality of the electronic specific heats that the additional electron in the d-band results in an increased density of the electronic states in these metals. "We are grateful to Professor Ye. I. Kondorskiy for useful remarks." Orig. art. has: 1 figure.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: 05Nov63

DATE ACQ: 07May64

ENCL: 00

SUB CODE: PH, EL

NO REF SOV: 002

OTHER: 004

Card 2/2

ACCESSION NR: AP4019204

S/0056/64/046/002/0444/0446

AUTHORS: Chechernikov, V. I.; Pop, Iuliu; Terekhova, V. F.;  
Kolesnichenko, V. Ye.

TITLE: Magnetic properties of single-crystal and polycrystalline  
yttrium

SOURCE: Zhurnal eksper. i teor. fiz., v. 46, no. 2, 1964, 444-446

TOPIC TAGS: yttrium, single crystal yttrium, polycrystalline yttri-  
um, Curie Weiss law, paramagnetic Curie temperature, magnetic sus-  
ceptibility, susceptibility temperature dependence, transition metal,  
d band electron, s band electron

ABSTRACT: The magnetic susceptibility of yttrium was studied for  
the purpose of obtaining new information on the role of d- and s-  
electrons in the magnetic properties of weakly magnetic transition  
metals. The temperature dependence of the magnetic susceptibility

Card

1/1?

ACCESSION NR: AP4019204

was measured between 77 and 1000K by the Sucksmith method. In the single-crystal yttrium the magnetic susceptibility was higher when measured at right angles to the c-axis than parallel to this axis. The temperature dependence of the susceptibility is attributed to the presence of collective-state electrons of the d-s band and electrons of the d-band, subjected to spatial localization. Use of the Curie-Weiss law yields for the paramagnetic Curie point values  $\Theta_{p||} = -510K$ ,  $\Theta_{p\perp} = -330K$ , and  $\Theta_{p.polycr.} = -390K$ . It is suggested that in view of the below-zero Curie temperature an antiferromagnetic interaction may exist in metallic yttrium. "In conclusion, the authors express their gratitude to Prof. Ye. I. Kondorskiy for valuable remarks." Orig. art. has: 1 figure and 3 formulas.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: 05Jul63

DATE ACQ: 27Mar64

ENCL: 01

SUB CODE: PH

NO REF SOV: 002

OTHER: 004

Card 2/17

CHECHERNIKOV, V.I.; POP, Iuliu

Magnetic properties of Gd -Ce alloys. Fiz. mat. i metalloved. 18  
no.3:363-367 S '64. (MIRA 17:11)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

FCF, Iulian, ing.

Automation of train traffic by the signaling, centralization,  
and blocking plant installations. Rev cailor fer 13 no.2:  
79-83,112 F '65.

POP, Iuliu; CHECHERNIKOV, V.I.

Pendulum type magnetic balance with mechanical compensation.  
Prib. i tekhn. eksp. 9 no.5:180-182 S-O '64.

(MIRA 17:12)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo  
universiteta.

CHECHERNIKOV, V.I.; POP, Iuliu; BUROV, I.V.

Magnetic properties of the alloys gadolinium-terbium and  
gadolinium-erbium. Zhur. eksp. i teor. fiz. 47 no.4:1257-1261  
O '64. (MIRA 18:1)

1. Moskovskiy gosudarstvennyy universitet.

L 57813-65 EWT(m)/EWP(b)/T/EWA(d)/EWP(w)/EWP(t) IJP(c) JD/JG

ACCESSION NR: AP5008796

S/0126/85/019/003/0466/0468  
539.292; 548.0; 538

34  
33  
B

AUTHOR: Pop, I.; Chechernikov, V. I.; Naumkin, O. P.; Savitskiy, Ye. M.

TITLE: Magnetic properties of Er-Sc alloys

SOURCE: Fizika metallov i metallovedeniye, v. 19, no. 3, 1965, 466-468

TOPIC TAGS: nonferrous metal alloy, antiferromagnetic material, metal magnetic property

ABSTRACT: Procedures employed in the preparation of test specimens of Er-Sc alloys are described. An investigation of the temperature dependence of the magnetic permeability indicated it is possible that an antiferromagnetic exchange reaction occurs in these alloys as in alloys of Er-Yt. In alloys with a high content of erbium, antiferromagnetism is basically conditioned by the properties of erbium among which there is a complex spin-spiral structure in which antiferromagnetic reactions occur in addition to the positive reactions. The paramagnetic properties of these alloys are basically conditioned by the localized *f*-electrons whereby the change of permeability follows the Curie-Weiss law, with a term independent of temperature. This

Card 1/2



L 57813-65  
ACCESSION NR: AP5008796

causes a sharp reduction in the slope of  $1/\chi$ -to- $T$  curves. Any conclusions concerning the existence of antiferromagnetism in alloys with high contents of scandium would be premature even though the Curie paramagnetic point is less than zero. Orig. art. has: 2 figures, 1 table.

ASSOCIATION: Moskovskiy gosuniversitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 20Apr64

ENCL: 00

SUB CODE: MM, EM

NO REF SOV: 003

OTHER: 002

*ljp*  
Card 2/2

S/058/63/000/003/082/104  
A059/A101

AUTHOR: Pop, Iuliu

TITLE: Magnetic properties of solid solutions on the base of Ni in the ferro- and paramagnetic region

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 109, abstract 3E772 ("Studia Univ. Babeş-Bolyai. Math.-phys.", 1961, no. 1, 233 - 239, Rumanian; summaries in Russian and French)

TEXT: The relation between various ferromagnetic and paramagnetic parameters characterizing solid solutions on the Ni base in the  $\alpha$ -phase has been established based on experimental studies. This relation has the form:

$$\frac{\theta_a}{\theta_{Ni}} = \frac{(\mu_n)_a}{(\mu_n)_{Ni}} = \frac{\mu_a}{\mu_{Ni}} = \frac{(\mu_n^2)_a}{(\mu_n^2)_{Ni}} = \frac{C_a}{C_{Ni}} = 1 - \frac{nT}{60}$$

where  $\theta$ ,  $\theta_n$ ,  $\mu$ ,  $\mu_n$ ,  $C$  are the ferromagnetic and paramagnetic Curie points, the ferromagnetic and paramagnetic atomic momenta, and the Curie constant, respec-

Card 1/2

Magnetic properties of solid solutions on...

S/058/63/000/003/082/104  
A059/A101

tively, of the alloys (index a) and of pure nickel (index Ni), and  $n$  and  $\tau$  are the valence and the atomic concentration, respectively, of the nonferromagnetic alloy constituents. An explanation of the dependence of the paramagnetic susceptibility constant of Ni alloys on the electron structure and the magnetic properties of various alloy constituents is also given.

[Abstracter's note: Complete translation]

Card 2/2

S/058/62/000/007/017/068  
AC61/A101

AUTHORS: Maxim, I., Pop, Iuliu, Nicula, A.

TITLE: A sensitive method for the comparative measurement of magnetic susceptibility using compensation by the gravitational field

PERIODICAL: Referativnyy zhurnal. Fizika, no. 7, 1962, 36, abstract 7E273  
("Studia Univ. Babeş-Bolyai. Math.-phys.", 1960, no. 1, 259 - 263,  
Romanian; Russian and French summaries)

TEXT: After a brief review of various methods of measuring magnetic susceptibility, a sensitive method of comparative measurement of magnetic susceptibility, using gravity as a compensating force, is described. The simplicity of this method and the accuracy of measurements ( $\pm 0.2\%$ ) are noted.

[Abstracter's note: Complete translation]

Card 1/1

ACCESSION NR: AP4030656

S/0048/64/028/004/0748/0750

AUTHOR: Chechernikov, V.I.; Pop, Iuliu

TITLE: Magnetic properties of some d and f metals (single crystals and polycrystals)  
Report, Symposium on Ferromagnetism and Ferroelectricity held in Leningrad 30 May  
to 5 June 1963

SOURCE: AN SSSR. Izv. Ser.fiz., v.28, no.4, 1964, 748-750

TOPIC TAGS: magnetic susceptibility, temperature variation of susceptibility, mag-  
netization isotherms, scandium, yttrium, gadolinium, d transition metal, f transi-  
tion metal

ABSTRACT: Whereas the magnetic properties of most transition d metals have by now  
been thoroughly studied in a wide temperature range, little is known regarding the  
magnetic properties of metallic scandium and yttrium, particularly in the form of  
single crystals. This is due partly to the difficulties of preparing high purity  
Sc and Yt. Yet their properties are of particular interest in view of the fact that  
Sc and Yt have one uncompensated electron spin in the 3d and 4f shells, respective-  
ly. In the present work there was determined the temperature dependence of the re-

Card 1/4

ACCESSION NR: AP4030686

reciprocal susceptibility for several polycrystalline specimens of scandium of different degrees of purity. The results are shown in the figure (Enclosure). However, primary attention was given to investigation of the magnetic properties of Sc and Yt single crystals. After considerable experimentation, cubic crystals suitable for measurement were finally prepared by the method of "recrystallizational anneal" under high vacuum. For susceptibility measurements these were mounted in the holder with the c axis either parallel or perpendicular to the field. It was found that in Sc the susceptibility in the parallel field is greater than in the perpendicular one; the opposite is true for Yt. The temperature dependences of the reciprocal susceptibility were obtained [Abstracter's note: The results are described only in very general terms.] In view of the fact that in Sc and Yt, as in many rare earth metals, there may obtain antiferromagnetic exchange interaction in a certain temperature range, it was deemed of interest to investigate the magnetic properties of gadolinium; measurements of the magnetization isotherms were carried out on single crystals (c axis parallel and perpendicular to the field) and polycrystalline samples in the range from 17 to 1000°C. The magnetization isotherms are presented in figures. The breaks evinced in the curves are analogous to those reported for other rare earth metals in the region of existence of a helicoid spin configuration. It

Cont 2/4

ACCESSION NR: AP4030656

is concluded on the basis of the experimental results obtained for Sc, Yt and Gd that a complex antiferromagnetic structure obtains in these metals. Orig.art.has: 4 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: 00

. DATE ACQ: 30Apr64

ENCL: 01

SUB CODE: PH

NR REF SOV: 000

OTHER: 004

Card 3/4

ACCESSION NR: AP4034069

S/0126/64/017/004/0636/0638

AUTHORS: Chechernikov, V. I.; Pop, Iuliu

TITLE: Antiferromagnetism in Ni-Cr alloys

SOURCE: Fizika metallov i metallovedeniye, v. 17, no. 4, 1964, 636-638

TOPIC TAGS: antiferromagnetism, nickel alloy, chromium alloy, magnetic susceptibility, temperature dependence

ABSTRACT: An experimental study was carried out on the temperature dependence of the paramagnetic susceptibility  $\chi$  of Ni-Cr alloys, which contained 3.4, 5.0, 8.75, and 11.1 at. % of Cr (hereafter referred to as 1, 2, 3, and 4 respectively). For cast samples the curves of  $1/\chi$  as a function of temperature T for 1 and 2 increased linearly up to about 1000K and satisfied the Curie-Weiss law in the form

$\chi = \chi_0 + \frac{C}{T - \theta_p}$  where  $\chi_0$  is the temperature-independent part of the susceptibility,

$C$  is the Curie-Weiss constant, and  $\theta_p$  is the temperature of the paramagnetic Curie point. Curves for the cast samples of 3 and 4 were definitely nonlinear and followed more closely the Neel law  $\frac{1}{\chi} = \frac{1}{\chi_0} + \frac{T}{C_2} - \frac{\theta_p}{T}$ . For annealed samples all

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ACCESSION NR: AP4034069

the curves satisfied the Néel law for T above 500-650K. At lower temperatures the dependence of the susceptibility on the magnetic field intensity predominated. Experimental values for the parameters occurring in the above equations are given for each curve. Neutron diffraction studies show that for Ni-Cr alloys in this region of Cr concentration the magnetic moments of the chromium and nickel atoms are oriented antiparallel. Consequently, it is concluded that strong antiferromagnetic exchange interactions exist for this system. Orig. art. has: 2 equations, 3 diagrams, and 1 table.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. Lomonosova (Moscow State University)

SUBMITTED: 24May63

ENCL: 00

SUB CODE: EM, MM

NO REF SOV: 004

OTHER: 002

Card 2/2

CHECHERNIKOV, V.I.; POP, Iuliu; TEREKHOVA, V.F.; KOLESNICHENKO, V.Ye.

Magnetic properties of single-crystal and polycrystalline yttrium.  
Zhur. eksp. i teor. fiz. 46 no.2:444-446 F '64.

(MIRA 17:9)

1. Moskovskiy gosudarstvennyy universitet.

L 15684-65

ACCESSION NR: AP4047483

S/0120/64/000/005/0180/0182

AUTHOR: Pop, Iuliu; Chechernikov, V. I.

TITLE: Pendulous magnetic weigher with a mechanical compensation B

SOURCE: Pribory\* i tekhnika eksperimenta, no. 5, 1964, 180-182

TOPIC TAGS: magnetic weigher, magnetic susceptibility, pendulous magnetic weigher

ABSTRACT: A sensitive pendulous weigher with a mechanical compensation is described. It is intended for measuring the magnetic susceptibility of slightly magnetic substances. A sketch of the instrument shows that its fundamental part is a quartz-rod pendulum suspended on 20-cm-long filaments. The pendulum carries a little quartz cap (for specimen) on one end and a mirror on the other. A heater or a cryostat provides a test temperature between liquid nitrogen and

Card 1/2

L 15684-65

ACCESSION NR: AP4047483

1,500K. The sensitivity of susceptibility measurements is  $10^{-7} \text{ g}^{-1} \text{ cm}^5$  for a 10-mg specimen. The instrument error is 2% or less. Orig. art. has: 1 figure and 4 formulas.

ASSOCIATION: Fizicheskiy fakul'tet MGU (Physics Department, MGU)

SUBMITTED: 01Oct63

ENGL: 00

SUB CODE: EM, MB

NO REF SOV: 001

OTHER: 005

Card 2/2

L 18527-63

EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG

ACCESSION NR: AP3002854

S/0126/63/015/006/0934/0936

AUTHORS: Chechernikov, V. I.; Pop, IuliuTITLE: Relation of temperature to paramagnetic susceptibility of Gd-Y alloys 57 56

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 6, 1963, 934-936 11 21

TOPIC TAGS: Gd-Y alloy, magnetic property, electron structure

ABSTRACT: The Gd-Y alloys with a general composition: 25, 50, 65, 75 and 90 at.% Gd were studied at temperatures of 300-1500K. These samples were chosen because they form a continuous series of solid solutions in the whole interval of concentration, and they have the same hexagonal close-spaced lattice. The purpose was to investigate the magnetic properties, the electron structure and the nature of the interaction between these rare-earth metals which have an open 4f-shell. The results showed that the reciprocal of the specific susceptibility followed the Curie-Weiss law along the whole temperature interval of the investigation, i.e., it had a linear relation to temperature. The effective magnetic moments per alloy-atom and per Gd-atom as well as the paramagnetic Curie points were calculated on the basis of these data. The increase in yttrium content caused a sudden drop in the Curie point and a decrease in the effective moment of the alloy. The authors

Card 1/2

L 18527-63

ACCESSION NR: AP3002854

conclude that a gradual change in Gd-Y magnetic properties occurs with the increase in yttrium content. The gadolinium atom may be regarded as being in a free state in the alloy. Its magnetic properties are determined basically by the spins of electrons located in the 4f-shell. Orig. art. has: 2 figures

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

IDENTIFIED	DATE	NO.	NO.	NO.
MI	NO	NO	NO	NO

Card 2/2

POP, Iuliu; POP, Olivia; NICULA, Alexandru

Observation on normal points of fusion of the elements of  
transition. Studia Univ B-B S. Math-Phys 7 no. 2:97-101 '62.

L 15295-65 EWT(m)/EWP(b) AS(mp)-2/ESD(gs)/ESD(t) JD/JG  
ACCESSION NR: AP4048304 S/0078/64/009/011/2594/2598

AUTHOR: Burov, I. V.; Chechernikov, V. I.; Savitskiy, Ye. M.; Pop Iuliu B

TITLE: The cerium-gadolinium system

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 11, 1964, 2594-2598

TOPIC TAGS: cerium, gadolinium, cerium gadolinium alloy, paramagnetic susceptibility, alloy susceptibility temperature dependence, alloy phase diagram

ABSTRACT: To determine the suitability of the thermomagnetic method for purposes of physiochemical analysis of substances, the paramagnetic susceptibility ( $\chi$ ) of Ce-Gd alloys containing from 5 to 95 wt % Gd was investigated. The experimental data on the temperature dependence of  $1/\chi$  showed that the properties of the investigated alloys do not follow the Curie-Weiss rule. The thermomagnetic data agreed well with the data obtained from differential thermal analysis of the alloys, and were found to be very useful in plotting the phase diagram of the Ce-Gd system. Thermomagnetic data were particularly useful for exact delineation of the boundaries of solid solutions on an  $\alpha$ -Gd base. This is because the thermal analysis data are not stable in this region of the phase diagram, whereas the paramagnetic

Card 1/2



L 15295-65

ACCESSION NR: AP4048304

susceptibility of  $\alpha$ -Gd is appreciably higher than that of  $\gamma$ -Ce. Orig. art. has:  
3 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 28Mar63

ENCL: 00

SUB CODE: MM, IC

NO REF SOV: 002

OTHER: 001

ATD PRESS: 3138

Card 2/2

L 6986-65 EWT(m)/EWP(q)/EWP(b) IJP(c)/AFWL/AFETR/ASD(m)-3/ESD(t) JD  
ACCESSION NR: AP4044976 S/0181/64/006/009/2876/2877

AUTHORS: Pop, Iuliu; Chechernkov, V. I.

TITLE: Resonance paramagnetic absorption in Gd-Ce alloys B

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2876-2877 27 2/

TOPIC TAGS: gadolinium alloy, cerium alloy, paramagnetic absorption, resonance absorption, microwave spectrometry

ABSTRACT: The alloys tested contained 65, 73.8, 80, 90, and 95% Gd by weight. The resonance absorption was investigated in the 3-cm band using a reflected-wave spectrometer, in the temperature range 20--100C; i.e., with all samples in the paramagnetic state. The g-factor and the line width exhibited similar variations with respect to the composition, with a minimum at 95% Gd by weight and a maximum at 73.8% Gd by weight. The line width increases with temperature, while the g-factor decreases. The curve showing the dependence of

Card 1/2

L 6986-65  
ACCESSION NR: AP4044976

the first derivative of the absorption on the field has an asymmetrical form for all samples, and is similar in shape to the analogous curve obtained for gadolinium by A. F. Kip (Rev. Mod. Phys. v. 25, 229, 1953). The swing of the line width from minimum to maximum is from approximately 900 to 1900 Oersted, while the g-factor varies in a narrow range 1.83--1.93. Orig. art. has: 2 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 25Mar64

ENCL: 00

SUB CODE: EM, MM

NR REF SOV: 000

OTHER: 001

Cord 2/2

CHECHERNIKOV, V.I.; PCP, Iuliu

Antiferromagnetism of Ni-Cr alloys. Fiz. met. i metalloved. 17  
no.4:636-638 Ap '64. (MIRA 17:8)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

POP, Iuliu; CHECHERNIKOV, V.I.

Resonance paramagnetic absorption in Gd--Ce alloys. Fiz. tver. tela  
6 no.9:2876-2877 S '64. (MIRA 17:11)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

L 11119-63

EWT(1)/EWP(q)/EWT(m)/BDS AFFTC/ASD IJP(C)/JD

ACCESSION NR: AP3003105

S/0056/63/044/006/1826/1828

AUTHOR: Chechernikov, V. I.; Pop, Iuliu; Neamkin, O. P.

TITLE: Magnetic properties of scandium single crystals

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1826-1828

TOPIC TAGS: scandium, single crystal, scandium single crystal, magnetic susceptibility, temperature dependence, recrystallization annealing, Curie temperature, magnetic field, orientation

ABSTRACT: Magnetic properties of scandium single crystals and their temperature dependence have been studied. The scandium metal, obtained by reduction of scandium fluoride with distilled calcium, contained a maximum 0.11% of oxygen, 0.015% carbon, 0.006% molybdenum, 0.04% nitrogen, 0.02% calcium, and 0.0089% hydrogen. A single crystal 6 x 9 x 14 mm was obtained by recrystallization annealing of an arc-melted ingot. The recrystallization annealing was performed in a vacuum of 10<sup>-5</sup> - 10<sup>-6</sup> mm Hg at 1350C for 8 hr. The magnitude of magnetic susceptibility of a single crystal at temperatures from 77 to 1100K was found to depend on the orientation of the magnetic field and was greater with the magnetic

Card 1/32

61  
57

L 11119-63  
ACCESSION NR: AP3003105

4

field parallel to the c axis of the crystal than with the field perpendicular to this axis (see Fig. 1 of Enclosure). The temperature of the paramagnetic Curie point determined from the magnetic susceptibility-temperature dependence was found to be 1300K for parallel orientation and 900K for perpendicular orientation of the magnetic field. "The authors express their thanks to Professor Ye. I. Kondorskiy for discussing the results of the work and for his valuable comments and to Professor Ye. M. Savitskiy and V. F. Terekhova for their assistance."  
Orig. art. has: 1 figure and 1 formula.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University); Institut metallurgii Akademii nauk SSSR (Institute of Metallurgy of the Academy of Sciences SSSR)

SUBMITTED: 12Jan63

DATE ACQ: 23Jul63

ENCL: 01

SUB CODE: EL,PH

NO REF SOV: 002

OTHER: 001

Card 2/3

BUROV, I.V.; CHECHERNIKOV, V.I.; SAVITSKIY, Ye.M.; POP IULIU

Cerium - gadolinium system. Zhur. neorg. khim. 9 no.11:2594-2598  
N '64 (MIRA 18:1)



L 35026-65 EPA(s)-2/EMA(c)/EWT(l)/EWT(m)/EWP(b)/T/EMA(d)/EWP(w)/EWP(t) Pt-10  
IJP(s) GG/3E/3G

ACCESSION NR: AP4046089

S/0126/64/018/003/0363/0367

AUTHOR: Chechernikov, V. I.; Pop, Iuliu

TITLE: Magnetic properties of gadolinium-cerium alloys

SOURCE: Fizika metallov i metallovedeniye, v. 18, no. 3, 1964, 363-367

TOPIC TAGS: magnetic property, gadolinium cerium alloy, antiferromagnetism, paramagnetism, crystal structure, magnetic susceptibility, Curie Weiss law

ABSTRACT: The authors have investigated the magnetic properties of alloys of the gadolinium-cerium system. The crystalline structure of these alloys depends on the relative amounts of Gd and Ce, and their magnetic properties could be expected to vary accordingly. The magnetic susceptibility was measured as a function of temperature up to 1000 K, for alloy with Gd and Ce in various proportions. It appears from the results that the alloys with more than 60% of gadolinium by weight are in the ferro-anti- and paramagnetic states. The rest of the alloys are antiferromagnetic at low temperatures, and at higher temperatures there is

Card 1/2

L 35026-65

ACCESSION NR: AP4046089

2

a transition into the paramagnetic state. This variation in the magnetic structure can perhaps be explained by the presence in the Gd-Ce alloys of a complex spin configuration of the spiral-type, as it was observed in pure rare-earth metals. The authors are grateful to professor E. I. Kondorsky for helpful discussion. Orig. art. has: 5 figures.

ASSOCIATION: Moskovskiy gosuniversitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 14Oct63

ENCL: 00

SUB CODE: IM, EM

NR REF SOV: 005

OTHER:006

Card 2/2

POP, Iuliu

Some magnetic properties of metallic cerium. Studia Univ B-B S.  
Math-Phys 10 no.1:147-150 '65.

POP, Iulian, ing.

Rapid development of centralizing installations. Rev caller fer  
12 no.9:479-481 S '64.

POP, Iulian, ing.

Normal position and on a direct line position of the railroad  
switches. Rev callor fer 13 no.1:19-21, 33 Ja '65.

CATEGORY	: ROMANIA	H-29
ABS. JOUR.	: RZKhim., No. 5 1960, No.	20064
AUTHOR	: Pop, I. N. and Mayer, I. A.	
INST.	: <del>Not given</del>	
TITLE	: On the Hardness and Elasticity of Gelatinized Polyvinyl Chloride Based Plastic Sols.	
ORIG. PUB.	: Rev Chim, 9, No 10, 557-560 (1958)	
ABSTRACT	: The physicochemical characteristics of pastes made up with different polyvinyl chloride/plasticizer (dioctylphthalate, dibutylphthalate, tricresylphosphate, dioctylsebacate) ratios are listed. L. Pesin	
CARD:	1/1	

POP, L.; HODISAN, L.

Contributions to the knowledge of the flora and vegetation of Cheile Ardeu. p. 183.

Academia Republicii Populare Romine. Filiala Cluj. STUDII SI CERCETARI DE BIOLOGIE. Cluj, Rumania. Vol. 9, no. 2, 1958.

Monthly List of East European Accessions (EEAI) Vol. 8, no. 7, July, 1959.

Uncl.

POP, I; THETIU, T.

Contributions to the knowledge of the vegetation of Sinca Noua in the Fagaras Mountains. I. p. 209.

Academia Republicii Populare Romine. Filiala Cluj. STUDII SE CERETARI DE BIOLOGIE. Cluj, Rumania. Vol. 9, no. 2, 1958.

Monthly List of East European Accessions (EEAI) Vol. 8, no. 7, July 1959

Uncl.



FADEI, Lidia; POP, I.

Morphological alterations induced in the I.O.B. H<sub>10</sub> tumour  
by alternative in vivo and in vitro cultivation. Rumanian  
med.rev. 7 no.3:65-70 J1-S'63

\*

MODIGA, M.; VADUVA, P.; DUMITRESCU, Constantiny CARICI, S.; POP, I.

Studies for designing the active parts of special plows.  
Bul St si Tehn Tim 8 no.1:195-203 Jan-Je '63.

POP, L.

J

Country : RUMANIA  
Category: Soil Science. Tillage. Reclamation. Erosion.

Abs Jour: RZhBiol., No 18, 1958, No 82146

Author : Maxim, I.; Pop, L.

Inst : -

Title : Methods of Basic Amelioration of Sandy Soils Applied in  
the Hungarian Peoples' Republic.

Orig Pub: Probl. agric., 1957, 9, No 2, 86-94

Abstract: Results are reported on the application of 35-50  
ton of manure or compost (65% peat and 35% manure)  
to sandy soils which had been plowed to an extreme  
depth (60-70 cm). At this depth a great part of  
the manure was converted to humus due to decomposi-  
tion under anaerobic conditions. A greater depth of  
the site of the organic layer considerably reduced

Card : 1/3

J-34

PORTOCALA, R.; POPA, L.; SAMUEL, I.

Column fractionation of ribonucleic acid extracted from murine encephalomyocarditis viruses and exposed to the action of heat. Studii cercet. inframicrobiol. 15 no.6:519-522 '64

POP, Liviu, prof. univ.; OPREAN, Mircea, conf. univ.

~~The sand~~ will be evaluated in Oltenia. St si Teh Buc 14 no.8:  
10-11, 16 Ag '62.

1. "Tudor Vladimirescu" Agronomic Institute, Craiova.

POP, M.

1

ROMANIA

RUSESCU, A., Professor; POP, M., MD.

Pediatrics Clinic No. 1, Institute of Medicine and Pharmacy,  
Bucharest (Clinica I de pediatrie I.M.F., Bucuresti) -  
(for all)

Bucharest, Viata Medicala, No 21, 1 Nov 63, pp 1441-1451

"Diabetes Mellitus in Children."

PAPAFIL, E.; HURDUC, N.; POPA, M.; LAZAR, D.

Copper determination with the reagent p-amino-azobenzene.  
Anal St Jassy I 10 no.1:23-26 '64.

Conductometric titration of cooper. Ibid.:27-32

1. Laboratory of General And Physical Chemistry, "I.I.Cuza"  
University. Submitted October 26-27, 1963.

RUMANIA

GLIGOR, V., Prof Dr, POP, M., Eng and LORINTZ, T., Eng, of the Zootechnical Research Institute (Institutul de Cercetari Zootehnice).

"Feeding of Bazna Pigs Being Fattened with Rations Rich in Corn."

Bucharest, Revista de Zootehnie si Medicina Veterinara, Vol 13, No 6, Jun 63, pp 5-16.

Abstract [Authors' English summary modified]: Bazna pigs were fattened from an initial weight of 50 kg to a weight of 110 kg in 90 days with a diet containing between 74.98 and 86.84 percent corn. Mean daily weight increases varied from 619 g for lot II to 681 g for lot IV, consumption of nutritive units from 4.927 per kg of live weight increase for lot II to 4.695 for lot IV. The slaughterhouse yield was not influenced by the different proportions of corn in the rations. Fattening of pigs with high-corn rations is recommended; best results were obtained by the authors with a combination of 86.84 percent corn, 7.01 percent wheat bran, 2.12 percent sunflower seeds and 4.03 percent blood flour. It is recommended to remove the pigs from the pens when they reach 105 kg. Contains 5 tables and 5 Rumanian, 1 Russian and 1 US references.

1/1



2

Dentistry

RUMANIA

POP, A., Dr, Maj, POP. Marioara, Dr, HAJDU, Al., Dr, Maj, and FEHER, St., Dental Technician [affiliation not given]

"Considerations on Cases of Dental Caries in Twenty-Year-Old Young People."

Bucharest, Revista Sanitara Militara, Vol 62, No 1, Jan-Feb 66, pp 169-178.

Abstract: The authors report on a study of 10,500 cases of dental caries in new military recruits aged 20 to 21 years, during the years 1959 to 1964. Analysis of the figures showed that the incidence of dental caries is increasing, reaching 70 to 85 percent of the total number of recruits in recent years (average, 77.6 percent). The morbidity figures showed marked regional variations not explainable in terms of the local dietary or sanitary conditions; they could be correlated, however, to the mineral contents of the drinking water in the different regions.

Includes 3 tables and 27 references, of which 11 are Rumanian, 3 Russian, 3 German and 10 Western. -- Manuscript submitted 22 February 1965.

RUMANIA

Ing M. POP, Animal Husbandry R search Institute; Ing M. MACRI, Suceava;  
Ing Viorica DINU, Bucharest, and Veterinarian Sanda CONSTANTINESCU,  
Galati.

"Artificial Insemination of Hens."

Bucharest, Revista de Zootehnie si Medicina Veterinara, Vol 13, No 4,  
Apr 63; pp 45-52.

Abstract [English summary modified]: Artificial insemination of hens  
permit rapid upgrading of stock with optimal utilization of the expensive  
roosters of noble breeds: 0.52 ml. semen can be obtained by abdominal  
massage from rooster, suffices for 100 to 150 hens. Complete technical  
details. Table; 8 photographs of technique; 3 Soviet, 4 Rumanian include  
thesis, 3 Western references.

POP, M.

3

The rheochor. St. Popovici and M. Pop. Acad. rep. popu-  
 lare Romins, Baza cercetari stiint. Timisoara, Studii cercetari  
 stiint. Ser. stiinte chim. 6, No. 3-4, 87-76 (1959); cf. CA 54,  
 7270h. — A series of formulas for the calcul. of rheochors for var-  
 ious groups has been proposed: for normal paraffins  $R = R_s f^n$   
 (where  $R$  is the rheochor,  $R_s$  is the standard rheochor ob-  
 tained by summation of the groups, and  $f^n$  is a correction  
 factor of 0.9988<sup>n</sup> for C<sub>1</sub>-C<sub>7</sub>, 1.0013<sup>n(1-n)</sup> for C<sub>8</sub>-C<sub>14</sub>, and  
 1.0013<sup>n(1-n)</sup> for the higher ones;  $n$  being the no. of C atoms);  
 for alic.  $R = 21.29 + 1.254 (R_s - 21.29)$  and for acids  $R =$   
 $22.70 + 1.019 (R_s - 22.70)$ . These corrections have been  
 introduced similarly to those of Gibling in the case of the  
 parachor. A comparison of the values obtained for a  
 large no. of substances by the calcul. proposed, by the expl.  
 data, by means of Friend's formula, and by those indicated

by Shukla, has shown better results in the first 2 cases.  
 The rheochor varies with the temp. in the case of substances  
 with tendencies to assoc., the influence being more pro-  
 nounced in the case of higher mol. interactions. The  
 highest variations appear in substances contg. H bonds;  
 the polarity of a substance is not a detg. factor in the temp.  
 dependence of the rheochor. The viscosity of liquids can be  
 calcul. from the rheochor by means of the equation  $(RD)/$   
 $M^2 = \eta$ , where  $D$  is the d. and  $M$  the mol. weight. In this  
 case the error obtained by calcul. the viscosity value is 8  
 times the error of the rheochor value. The use of group  
 rheochors gives much more accurate values than are ob-  
 tained with at. and structural rheochors. M. Ben Elieser

COJA, N., assist. prof.; POP, M.; PATEPOL, D.

Contributions to the study of the thyroid function during the early puerperium. Rumanian M. Rev. 3 no.4:38-41 O-D '59.

1. 1st Clinic of Obstetrics, Cluj.  
(PUERPERIUM physiology)  
( THYROID GLAND physiology)

RUMANIA

BAIES, I., Dr, Prof, CONTIU, I., Dr, MICLEA, E., Dr, ONET, E., Dr,  
POP, M., Dr, and MOLDOVAN, A., Dr, of the Faculty of Veterinary  
Medicine (Facultatea de Medicina Veterinara) Cluj.

"Epizootiologic and Anatomic-Clinical Studies on Outbreaks of  
Aujeszky and Atypical Hog-Cholera Diseases."

Bucharest, Revista de Zootehnie si Medicina Veterinara, Vol 16,  
No 8, Aug 66, pp 42-48.

Abstract [Authors' English summary modified]: A study of two  
outbreaks of Aujeszky's disease in young and suckling pigs. The  
atypical nature of the symptoms is described; the anatomic-pathol-  
ogic changes were characterized by inconsistent hemorrhagic  
diathasis. Economic losses as a result of a failure to reach a  
correct diagnosis promptly are pointed out, on the basis of one  
of the two described outbreaks in which hog cholera was also  
found.

Includes 6 figures and 5 references, of which 3 Rumanian  
and 2 French.

1/1

BUCIU, C., ing.; BRINCUS, A., ing.; POP, Maria, ing.

Factors favorably influencing the flotation separation of gold  
from the complex ores of the Baia Mare Mining Trust. Rev min  
14 no.5:201-206 My '63.

LITEANU, Candin; CORDOS, Emil; POP, Maria

Rapid methods of analysis. Pt. 6. Studia Univ B-B S. Chem 7 no.2:  
121-125 '62.

VASIU, Viorel; POP, Mircea; PLOCA, Flaviu

The natural meadows in the Danube Delta. Hidrologia 4:515-543  
'63.



RUMANIA / Human and Animal Physiology. Nervous System. T  
General Problems.

Abs Jour: Ref Zhur-Biol., No 22, 1958, 102170.

Author : Pop, Mircea.

Inst : Not given.

Title : The Dominant as the General Principle of the Ac-  
tivity of Nerve Centers.

Orig Pub: Natura, 1958, 10, No 1, 98-106.

Abstract: No abstract.

Card 1/1

POP, M.;MAIANU, A.

Results of cultivating some foodstuff plants on the alkali soils in the inundable zone of the Galmatui River. p. 479.

COMUNICARILE. Bucuresti. Vol. 9, no. 5, May 1959.

Monthly List of East European Accessions (EEA) IC, Vol. 9, no. 1, January 1960.

Uncl.

LUCACI, M., ing.; POP, N., ing.; TUFU, Ion; STANICA, Maria, ing.; BADEA, Gheorghe, ing.; BULBOACA, Eugenia, ing.

Improving the quality of products, an essential objective of the economic activity. Probleme econ 18 no.4:162-164 Ap '65.

1. Director, "Bucuresti" Factory of Plastic Masses, Bucharest (for Lucaci). 2. Head of Technical Service, "Bucuresti" Factory of Plastic Masses, Bucharest (for Pop). 3. Director, Enterprise for Cotton Industry, Bucharest (for Tufa). 4. Head of Service of the Technical Quality Control, Enterprise for Cotton Industry, Bucharest (for Stanica). 5. Director, "Tinara Garda" I.I.S., Bucharest (for Badea). 6. Head of Service of the Technical Quality Control, "Tinara Garda" I.I.S., Bucharest (for Bulboaca).

SIMON, A., dr. [deceased]; DUMITRU, Elena, dr.; POPA, N., dr.

Observations on a case of congenital lymphedema. *Pediatria*  
(Bucur.) 13 no.6:551-557 N-D '64

1. Lucrare efectuata in Spitalul de copii din Brasov.

POP, N., ing.

Determination of the center and axes of the well at the mine  
Muncelul-Mic. Rev min 13 no.1:28-32 Ja '62.

L 51095-65 EWT(m)/EWA(h)

R/0014/65/000/002/0006/0007

19  
B

ACCESSION NR: AP5007845

AUTHOR: Pop, N. (Lieutenant Colonel)

TITLE: Chemists in action

SOURCE: Viata militara, no. 2, 1965, 6-7

TOPIC TAGS: chemical warfare, gas warfare, radioactive contamination, radiation  
detection, mustard gas

ABSTRACT: This is a rather poetic description of the daily activities of a company of soldiers belonging to the "Chemical Warfare Corps". They go through the motions of insuring the safety of a railroad tract contaminated with "radioactive substances", another tract which has apparently been contaminated with mustard gas, and still other dangerous sections contaminated with non-specified substances which are referred to as the "Invisible Enemy". Various non-technical discussions between the company commander and his soldiers are reported. The article stresses the part played by the soldiers or non-coms in adapting themselves to the requirements of the "Chemical Army Corps", notwithstanding the fact that in civilian life they had other types of occupations. The officers are reported as being mostly chemistry graduates or senior students working for a degree in chemistry.

Card 1/2

L 51096-65

ACCESSION NR: AP5007845

The possibility that other soldiers may turn towards a chemical career when they return to civilian life is visualized. A detection apparatus called the "Miraculous Eye" and using silica-gel as the detection reagent is mentioned, but no other technical details are given. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: CB

NO REF SOV: 000

OTHER: 000

*ml*  
Card 2/2

POP, N.

SCIENCE

Periodicals: REVISTA DE CHIMIE. Vol. 9, no. 10, Oct. 1958

POP, N. The hardness and elasticity of jellied plastols on the base of polyvinyl chloride. p. 557

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 2  
February 1959, Unclass.



Pop, O.

COUNTRY : RUMANIA  
 CATEGORY : Cultivation of Plants. Cereals. M  
 ABJ. JOUR. : RZEMIC., No. 23 1958, No. 104629  
 C AUTHOR : Velican V., Gebotaru, V., Pop, K., Pop, G.  
 INST. :  
 TITLE : Results of Comparative Trials of Varieties and Strains of  
 Spring Barley at Kaluga Agronomic Scientific Research  
 Station in 1949-1956.  
 ORIG. PUB. : Studii si cercetari agron. Acad. RFR Fil. Cluj, 1957, 8  
 No. 1-2, 23-42  
 ABSTRACT : Data on the study of the varieties of Hordeum distichum  
 and H. vulgare. Early maturing varieties: Prekotetius Olh),  
 Khuculnitskiy var., Pisaratskiy, Meditsa 46. Late maturing,  
 Ariete poteca, Klush 52-3-3, Chened 395 and Chened 396.  
 Resistant to loose smut: Pisaratskiy, Dorzhayger and  
 Zhanna Kargin; resistant to damping-off - Pisaratskiy,  
 IGAH 4h), Klush 139, Klush 123. The highest yielding var-  
 ieties: Abad Marya, Vyatka, Pisaratskiy, Sfalale Col'-  
 cerate, Abad Kosiya, strains 51-21, 51-22, Klush 52-410 and  
 Klush 52-323. Local climatic conditions are favorable for  
 the cultivation of barley brewing. -- A. F. Khlystova

Card:1/1

20

POP, O.

ROMANIA/Cultivated Plants. Cereals.

Abstr Jour: Ref Zhur-Sich., No 17, 1968, 775th.

Author : Iancu A.; Balas, V.; Cravan, I.; Cristescu, I.;  
Matusescu, M.; Maclean, C.; Pop, C.; Muresan, J.;  
Mitsureanu, V.; Gheorghiu, N.; Muresan, A.; Stancu, Z.;  
Bucsiu, S.; Zoltan, S.; Crasovan, E.

Inst : On the Problem of Raising Varieties of Winter Wheat

Title : and of Winter and Spring Barley and Oats into  
Districts.

Orig Pub: An Inst. cercetari agric., 1957, No. 5, 213-272.

Abstract: Results of a comparative study at experimental  
stations of the Scientific-Research Agronomy Insti-  
tute of varieties divided into districts and those  
newly obtained for 1969-1972. In regard to winter

Card : 1/3

Wheat, good results were shown of the variety  
divided into districts "Chesad" 117 and the new  
variety "Tyrna France" 16, divided into  
the steppe and forest-steppe regions of Moldavia,  
and "Pavane" 7. In the forest zones of both  
slopes of the Carpathian and western Neamtina  
(Muntii Apuseni) the variety "Chesad" 117 pre-  
valled. In the steppe and forest-steppe regions  
of the western part of Romania, about the  
central part of Transylvania, "Chesad" 281, di-  
vided into districts in Tarasov. As regards a  
barley variety, "Chesad" 195 is the best variety  
maturing and frost resistant, is divided into all  
zones of cultivation of winter barley. As regards

Card : 2/3

spring barley, the best variety - "Tyrna France"  
240, is divided into districts in the steppe and  
forest-steppe regions of Moldavia, Dobruja,  
Munteniya and Olteniya, and "Gena Margh" which  
is divided into districts in all regions of Tran-  
sylvania and Transcarpathia and in the forest zone of  
Moldavia. As regards oats, the best variety -  
"Tyrna France" 9, is divided into districts in  
the steppe and forest-steppe regions of Moldavia,  
Munteniya, Olteniya and Olteniya, and  
Transcarpathia, which is divided into districts in  
the central part of Transylvania. - A. P. Balasescu.

Card : 3/3

POP, O.

ROMANIA/Pharmacology. Toxicology. Chemotherapeutic Preparations V  
A) Antibiotics

Abs Jour : Ref Zhur - Biol., No II, 1958, No 52064

Author : Busila V.T., Pop O., Vasilescu I., Cravecevschi V., Popian R., Fitarau A.

Inst : -

Title : The Dynamics of Immunological Indices in Patients with Typhoid Fever, Treated with Chloramphenicol.

Orig Pub : Rev. microbiol., parazitol., si epidemiol., 1956, 1, No 1, 33-42

Abstract : Results of observation of 34 patients with typhoid fever were described; the dynamics of agglutinins anti-O, H, Vi, and blood changes associated with chloramphenicol therapy (I) were studied. It was established that in I therapy the agglutinins anti-O have a lower titer or disappear completely. Later therapy with I has no effect on the appearance and dynamics of agglutinins. Agglutinins anti-Vi appear in 91 percent of the patients; in 5.8 percent of the

Card : 1/2

POP

RUMANIA / Virology - Human and Animal Viruses.

E

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38246.

Author : Busia, V. T., Topciu, V., Pop, O., Minciu, E.,  
Reichrath, S.

Inst : Not given.

Title : Isolation of Coxsackie Virus in a Case of  
Epidemic Myalgia.

Orig Pub: Viata med., 1957, 4, No 4, 54-57.

Abstract: No abstract.

Card 1/1

45

ZALMAN, M.; GHERMAN, D.; LEVIN, S.; ELIAS, E.; MOISE, O.; POP, O.; VILCEANU, M.

Influence of scarlet fever penicillin prophylaxis on the formation of staphylococci resistant to penicillin. Microbiologia (Bucur) 6 no.1: 60 Ja-F '61.

1. Institutul de igiena si Laboratorul de microbiologie, Institutul medico-farmaceutic, Timisoara.

\*

POP, O., conf.; VILCEANU, M., dr.; MARGINEANU, T., dr.;

Epidemiological study of whooping cough in an urban center.  
Microbiologia (Bucur) 6 no. 1:77-85 Ja-F '62.

1. Laboratorul de epidemiologie al Institutului de medicina din Timisoara si Sanepidul regional Timisoara.

\*

STANESCU, L.; GOCAN, S.; TERTAN, A.; MOTIU, A.; BOGATEANU, G.;  
POP, O.

Study of some semiconductor characteristics of nickel chromite.  
Bul stiint polit Cluj no.5:65-74 '62.

BUSHILA, V.T.; POP, O.

Pathogenesis and treatment of tetanus neonatorum. *Zimr. mikrobiol. epid. i immun.* 31 no.3:100-104, Mr '60. (MIRA 14:6)

1. Iz kliniki infektsionnykh bolezney Meditsinskogo instituta goroda Timishoara, Rumyniya.  
(TETANUS) (INFANT (NEWBORN)-DISEASES)



POP, Iuliu; POP, Olivia; NICULA, Alexandru

Observation on normal points of fusion of the elements of  
transition. Studia Univ B-B S. Math-Phys 7 no. 2:97-101 '62.

STANESCU, L.; POP, Olivia

Study of the electric resistivity of some cobalt based solutions  
by the four sounder method. Bul stiint polit Cluj 6:103-107 '63.

HORVATH, I.; POP, Olivia; SZILAGYI, M.

X-ray diffraction determination of the oxide content  
in some iron powders. Bul stiint polit Cluj no.7:  
63-69 '64.

POP, Petre (Sacele, Brasov); RUSANDU, Radu (Sacele, Brasov)

A new technology for packing up the stators of asynchronous motors. Electrotehnica 9 no.8:269-272 Ag '61.

1. Seful serviciului, tehnolog sef al uzinei Electroprecizia Sacele, Brasov (for Pop). 2. Inginer tehnolog la uzina Electroprecizia Sacele, Brasov (for Rusandu).

APCSTOL, A.; NICOLAE, M.; POP, R.

Study of the preparation of some nuclear emulsions of very fine  
granulation. Studii cerc fiz 14 no.3:263-269 '63.

1. Institutul de fizica atomica Bucuresti.

VASILIU, G.; MAIOR, O.; POP, R.

Contributions to the chemistry of phenoxathiin. Studia Univ  
B-B S Chem 8 no.1:265-271 '63

1. Bucharest University.

POP, R.A., ing.; GEORGESCU, I., ing.

The conference "Development of the designing work of water management,"  
September 9-11, 1964, Budapest. Hidroteh apele mateor 10 no.1:48-  
50 Ja '65.

POP R

EXCERPTA MEDICA Sec 8 Vol 12/7 Neurology July 59

3174. LONG-TERM RESULTS AFTER ISONIAZID AND STREPTOMYCIN THERAPY FOR TUBERCULOUS MENINGITIS IN CHILDREN - Rezultatul îndepărtat a tratamentului meningitei tuberculoase la copii cu H.I.N. și streptomycină - Pop R., Wagner V. and Zaharia D. Secf. de Tuberc., Spit. de Copii, Sibiu - VIATA MED. 1958, 5/9 (785-788) Tables 1

Of 53 children treated between 1952 and 1956, 98.1% were alive after periods ranging from 12 to 54 months since the end of treatment. Forty-six children showed psychosomatic development corresponding with their ages, while 1 showed cortical blindness, 1 spastic hemiplegia, and 3 psychosomatic deficiency. Of 24 cases evaluated, 20 were good pupils, while 4 were mediocre.

Schachter - Marseilles (L, 7, 8, 15)



MANESCU, N., dr.; AVRAM, J, dr.; METZ, A., dr.; HENNING, R., dr.;  
POP, S., dr.

Nephrogenic anemia. Clinical and etiopathogenic considerations. Med.  
intern. 14 no.9:1109-1116 S '62.

1. Lucrare efectuata in Clinica a III-a medicala (prof. C. Zosin),  
I.M., Timisoara.

(KIDNEY DISEASES) (ANEMIA)

POP, S.

Teaching on the problems of goods production and the action of  
the law of value in socialism in the Rumanian higher schools.  
Probleme econ 16 no.3:114-120 Mr '63.

BOEV, Petur; ENUKESKU, T. [Enachescu, T.]; POP, S.; DZHORDZHESKU, Vl.  
[Georgescu, Vl.]; BONEVA, L.

Anthropologic study of the Bulgarians of the village of  
Vinga (Banat). Izv inst morf BAN 7:109-147 '63.

1. Sekretar i chlen na Redaktsionnata kolegiia, "Izvestiia  
na Instituta po morfologiiia" (for Boev).

CHISU, Alexandru, conf. ing.; FUFUZAN, V., ing.; POPA, M., ing.;  
POP, S., ing.

Contributions to the increase of durability of bridges and  
ingot molds during exploitation. Metalurgia constr mas 14  
no. 3:193-199 Mr '62.

1. Institutul politehnic, Cluj (for Chisu).
2. Intreprinderea metalurgica, Aiud (for Fufezan, Popa).

POP, S., dr.; SCHNEIDER, F., dr.; LEUCA, V., dr.; DRAGAN, P., dr.

Sparteine sulfate in the treatment of cholecystatony. Med. intern.  
15 no.3:333-340 Mr '63.

1. Lucrare efectuata in Institutul de medicina, Timisoara.  
(GALLBLADDER DISEASES) (SPARTEINE)

Pop, S.

ROMANIA

POP, S., MD, Lecturer.

Subject on Pharmacodynamics of the Institute of Medicine and  
Pharmacy, Cluj (Disciplina de farmacodinamie I.M.F., Cluj).

Bucharest, Farmacia, No 3, Mar 63, pp 157-160.

"Dry Matricaria Chamomilla L. Extract Obtained by Lyophilization."

(1)

ZOSIN, G., prof.; MANESCU, N., dr.; BARBU, N., dr.; HENNING, R., dr.;  
ADLER, H., dr.; BROD, M., dr.; POP, S., dr.; SCHWARZKOPF, A., dr.

Arterial hypertension of pyelonephritic origin. Med. intern. 14 no.9:  
1065-1073 S '62.

1. Lucrare efectuata in Clinica a III-a medicala I.M.Timisoara.  
(PYELONEPHRITIS) (HYPERTENSION, RENAL)

VELLUDA, C.C., prof.; POP, S.; TIGSA, I.; CZUTAK, W.

Investigations concerning the influence of the cortex and subcortical centers on the effects of certain substances considered to exert a peripheral action. Rumanian M Rev. no.1:277 Ja-Mr '61.

1. Laboratory of Pharmacology of the Medicopharmaceutical Institute, Cluj. Head of the laboratory: Prof. C. C. Velluda.

(BLOOD PRESSURE pharmacology) (BRAIN physiology)  
(EPINEPHRINE pharmacology) (NITRITES pharmacology)  
(PROCAINE pharmacology)



L 58851-65 EEC(b)-2/EMT(1)/T P1-4/Pg-4 IJP(c)

ACCESSION NR: AP5011143

UR/0051/65/018/004/0744/0746

AUTHORS: Bobashev, S. V.; Pop, S. S.

23  
20  
B  
539.186.3

TITLE: Excitation of the hydrogen H $\beta$  line and of some mercury lines by collision of protons and H $_2^+$  ions with mercury atoms

SOURCE: Optika i spektroskopiya, v. 18, no. 4, 1965, 744-746

TOPIC TAGS: hydrogen line, hydrogen spectrum, Balmer spectrum, proton collision, ion collision, mercury line 21

ABSTRACT: This is a continuation of an earlier investigation of the excitation of the Balmer spectrum of the hydrogen atom (ZhETF v. 45, 1759, 1963). The earlier investigation is now supplemented by measurements of the excitation cross section of the hydrogen H $\beta$  line for collisions of protons and H $_2^+$  ions (5--35 keV) with mercury atoms. The purpose of the investigation was to clarify whether the excitation cross section for the H $\beta$  line is appreciably larger for interaction with a heavy element and for interaction with the light atoms He and Ne. The authors also measured the

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L 58851-65

3

ACCESSION NR: AP5011143

excitation cross section of the strongest mercury lines and obtained for these lines the dependence of the excitation cross section on the energy of the  $H^+$  and  $H_2^+$  at energies at 5--35 keV. The apparatus and procedure used to measure the excitation cross sections were described earlier. A new collision chamber was constructed to work with mercury. Up to 70 lines of HgI, HgII, and HgIII were observed in the luminosity spectrum produced by a beam of hydrogen ions in the collision chamber containing mercury vapor in the wavelength interval 4,000--6,000 Å. The Balmer lines H $\beta$  and H $\gamma$  were also observed. The excitation cross sections of the various lines are estimated. The major results are shown in Fig. 1 of the Enclosure. The authors thank V. M. Dukel'skiy for guidance and V. A. Ankudinov and Ye. P. Andreyev for help with the experiment. Original article has: 4 figures and 2 formulas

ASSOCIATION: None

SUBMITTED: 24Oct64

NR REF SOV: 006

ENCL: 01

SUB CODE: OP, NP

OTHER: 001

Card 2/3

L 58851-65

ACCESSION NR: AP5011143

ENCLOSURE: 01

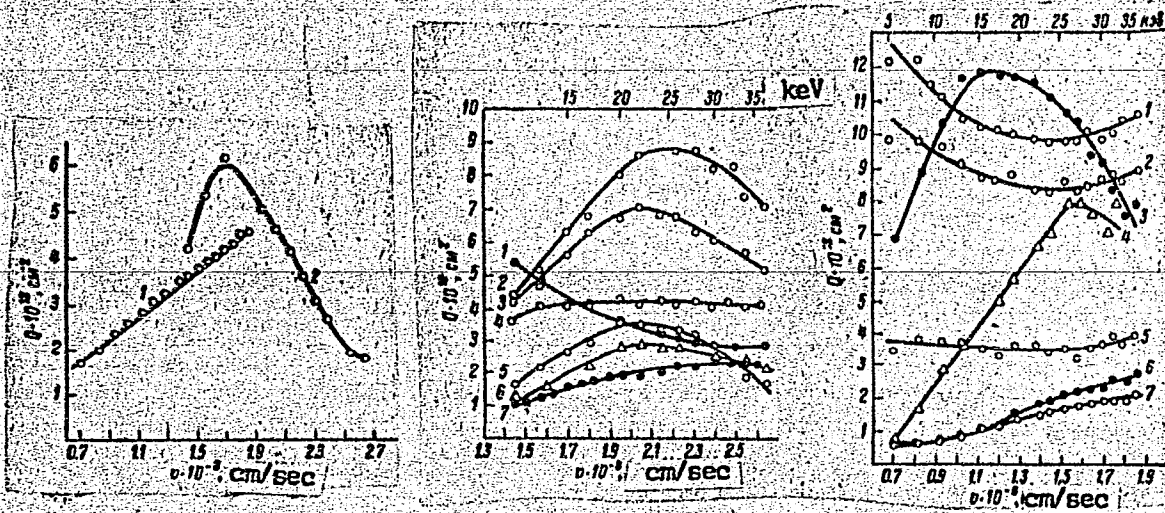


Fig. 1. Cross section for the excitation of the H line (left) by  $\text{H}_2^+$  ions (1) and by protons (2), and for the excitation of mercury lines by protons (center) and  $\text{H}_2^+$  ions (right) at various wavelengths

Card 3/3 *App*

POP, Simion I.

Reactionary character of C.Garoflid's economic concepts.  
Probleme econ 16 no.8:89-102 Ag'63.

POP, Simion, dr., conf. univ. (Cluj)

The green alga *Scenedesmus acutus* (Meyen) Chod. *Natura Biologie*  
16 no.5:78-79 S-O '64.

POP, Simion I.

Beginning the teaching of economics in the Rumanian principalities. Probleme econ 17 no.12:73-83 D '64.

RUM/9-11-4-6/43

25(5)

**AUTHORS:** Chişu, Al., Engineer, Albu, T. and Pop, Ştefan, Engineers

**TITLE:** Some Aspects of the Wear and Limit-Lubrication in Zinal Journal Bearings

**PERIODICAL:** Metalurgia şi Construcţie de Maşini, 1959, Vol 11, Nr 4, pp 287-290 (RUMANIA)

**ABSTRACT:** The sliding bushings made from zinal, cast and processed at the factory "1 Mai", Ploesti, Rumania, have been tested in heavy-duty operating conditions, at high specific pressures of 40 to 150 kilograms per sq.centimeter (569 to 2133.5 psi), and low speeds of 315 rpm. The plotting of the temperature and friction coefficient against the time gives picture of wear in various tests, figures 1 to 5. It is noted that after a smooth increase there is a sudden variation to a maximum temperature and friction coefficient, followed by a decrease to a stable value. The maximum temperature observed was 59°C (138.2 F) which indicates no danger of jamming. The authors also tested the journal bearings of zinal under limit-lubrication conditions. They explain the formation of

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the limit layer qualitatively. The experiments were made with a lubricant corresponding to Rumanian standard 413STAS 751-49, of 13° Engler. The authors conclude that under the heavy-duty operating conditions (2130 psi) the bearings tested had remarkable qualities. They affirm that zinal is as good as bronze or other antifriction materials, and it has the advantage of being cheaper. Limitations for zinal (zinc-aluminum alloys) are imposed by acid mediums and temperatures over 120°C (248 F). There are 7 graphs, 1 diagram and 1 table.

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Country : Rumania T  
Category= : Human and Animal Physiology, Circulation  
Abs. Jour. : Ref Zhur Biol, No. 2, 1959, No. 8084  
Author : Velluda, CC.; Ticsa, J.; Pop, S.; Cautak, W.  
Institut. : --  
Title : Experimental Investigations of the Role of the Higher  
Nervous Centers in the Mechanism of the Peripheral  
Action of Adrenalin.  
Orig. Pub. : Studii si cercetari med. Acad. RPR Fil. Cluj, 1956, 7,  
No. 1-4, 97--108  
Abstract : Adrenalin in doses of 10 and 20  $\mu$ g was injected into  
dogs after they had been given a single dose of caffeine,  
0.5 gm in the acute experiments or 0.5--1 gm daily in  
the chronic experiments (18 days). Bloodpressure was  
seen to rise less than before the injection of caffeine.  
The same phenomenon was observed whether the caffeine  
and adrenalin were injected intravenously or into the  
vertebral artery after removal of the carotid sinuses.  
Gard: 1/1

III, S.

SURNAME (in caps); Given Names

Country: Rumania

Academic Degrees: Dr.

Affiliation: not given

Source: Bucharest, Farmacia, No 5, May 61, pp 315-319.

Data: "Pharmacodynamic Research on the Therapeutical Application of some Ophthalmologic Ointments."

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Bucharest, Farmacia, No 4, Apr 63, pp 203-207.

"Absorption of Labelled Sodium Iodide ( $I^{131}$ ) Via the  
Rectal Mucosa."

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Timisoara, Timisoara Medicală, Vol VII, No 2, Jul-Dec 62, pp 71-81.

"The usual colopathy."