COUNTRY : Rumania
CATEGORY :

ABS. JOUR. : RZKhim., No. 22 1959, No. 78386

AUTHOR : Psemetchi, V. and Iordanescu, R.
INST. : Not given
TITLE : Physicochemical Methods for the Direct Determination of Phenol in Multicomponent Nonaqueous Mixtures.

ORIG. PUB. : Rev Chim (RPR), 10, No 1, 30-33 (1959)

ABSTRACT : A photometric and a conductometric method has been developed for the determination of phenol (I) in the nonaqueous mixture obtained by the acid decomposition of isopropylbenzene (cumene) hydroperoxide. The cumene, acetone, cumene hydroperoxide, methylstyrene, cuminol, dimethylbenzylphenol, cumenealpha-peroxide, acetophenone, and small p,p'-dihydroxydiphenylpropane present in the above mixture do not interfere with the determination. The photometric method is based

CARD: 1/3

COUNTRY : Rumania E-3
CATEGORY :

ABS. JOUR. : AZKhim., No. 22 1959, No. 78386

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : tract is diluted with water to 100 ml, 0.8-2 ml of the solution obtained are neutralized with 4% HCl to a pH of 7, and the resulting solution is again diluted with water to 500 ml. 2 ml of the I solution prepared as described above are added gradually to 2 ml of a 5% borax solution together with 0.4 ml of 0.27% III and 0.4 ml of 1% IV, the resulting mixture is held over a water bath for 5 min at 37°, the volume is adjusted to 25 ml with water, and after 5 min the

CARD: 3/5

B-3

COUNTRY : Rumania
CATEGORY :

ABS. JOUR. : RZKhim., No. 22 1959, No. 78386

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : resulting solution is analyzed photometrically with a red filter. The Beer law is observed for I concentrations of 5-15 γ/ml. For the conductometric titration of I in the presence of the above-indicated impurities the optimum medium appears to be 66% isopropyl alcohol (V). 2 ml of the solution to be analyzed (about 0.2 gm I) are placed in the cell to be used for the conductometric titration (Pt-electrodes) together with 33 ml V and 20 ml H_2O_2 and the

CARD: 4/5

107

CARD: 5/5

PSENETCHI, V.; ZUGRAVESCU, S.

"Organic admixtures for concrete."

p. 39 (Revista De Chimie) Vol. 7, no. 1, Jan. 1956
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

PSENAK, M.; WOITOWITZ, D.; KOVACS, P.; JINDRA, A., prof. Dr.Mr.,
(Bratislava, Kalinciakova 8)

Sugar in wood avens (Geum urbanum). Cesk. farm. 14 no.8:397-401
O '65.

1. Katedra biochemie a mikrobiologie Farmaceutickej fakulty
Univerzity Komenskeho, Bratislava. Submitted June 4, 1965.

KOVACS, P.; PSENAK, M.; JINDRA, A.

Biosynthesis of alkaloids. IX. The phenolase complex in poppy plants (Papaver sominferum L.) Cesk. farm. 13 no.4:179-180 My'64

1. Katedra biochimie a mikrobiologie Farmaceutickej fakulty Uk [University Komenskeho], Bratislava.

L 21363-66
ACC NR: AP6010923 SOURCE CODE: CZ/0039/65/026/006/0343/0346

AUTHOR: Psenicka, Bohumil (Engineer)

ORG: Electrical Engineering Faculty, Department of Communications, CVUT, Prague (CVUT, fakulta elektrotechnicka, katedra sdelovaci)

TITLE: Designing a filter by means of a Rumpelt pattern of the general type

SOURCE: Slaboproudy obzor, v. 26, no. 6, 1965, 343-346

TOPIC TAGS: electric filter, signal transmission, approximation

ABSTRACT: The article describes the computation of a filter according to the working parameters by means of a Rumpelt pattern of the general type. The method consists in approximating the desired attenuation response by means of the characteristic function $\phi(p)$, determining it and the transmission coefficient $G(p)$, and realizing the four-terminal network, as two elements of its matrix are known. Orig. art. has: 9 figures and 8 formulas. [JPRS]

SUB CODE: 09 / SUBM DATE: 13Jul64 / ORIG REF: 001 / OTH REF: 002

Card 1/1 UDC: 621.392.52

HORAVKA, F.; PSENICKA, J.

New method for the mechanical grafting of grapevines [with summary in German] Chekh. biol. 1 no.1:130-134 '52. (MLRA 6:12)

1. Tsentral'nyy institut biologii, fiziologiya rasteniy, Praha, Tsentral'noye issledovaniye mashin i kollektiv Vinogradarsko-sadovodcheskoy arteli v gorode Znojmo.
(Grapes) (Grafting)

VARECHA, Karel, inz.; PSENICKA, Jaroslav

Parametric amplifier for the microwave band. Slaboproudy obzor 24 no.6:328-334 Je '63.

1. Tesla Pardubice, n.p., Vyzkumny a vyvojovy zavod Opocinek.

Z/039/60/021/01/004/040
E140/E135

AUTHOR: Karel Vařecha and Jaroslav Pšenička (Engineers)

TITLE: Equipment for Measuring the Conversion Loss of Si Diodes

PERIODICAL: Slaboproudý Obzor, 1960, Vol 21, Nr 1, pp 11-15

ABSTRACT: The article first mentions the fact that in Slaboproudý Obzor, Vol 19, Nr 2, pp 67-72, an equipment for measuring the noise temperature of silicon diodes was described. The present article presents an analysis and design for an equipment which can rapidly measure the conversion loss of silicon diodes. The theoretical analysis and design are based on Ref 3. There are 7 figures, 2 tables and 6 references, of which 4 are English and 2 German.

Card 1/1

ASSOCIATION: Výzkum a vývoj radiotechniky, Opočinek (Radio Engineering Research and Development, Opočinek)

SUBMITTED: July 17, 1959

PSENICKA, Josef, inz.

Safety and health protection of workers in geodesy and cartography. Geod kart obzor 8 no.6:113 Je '62

1. Ustredni sprava geodesie a kartografie.

PSENICKA, P.

Contribution to the study of the skin innervation in certain laboratory animals. I. Rabbit and guinea pig. Cesk. morf. 13 no.3:246-251 '65.

1. Institute of Anatomy, Medical Faculty, Charles' University in Hradec Kralove, Czechoslovakia.

PSENICKA, P.

Contribution to the study of the skin innervation in certain laboratory animals. Pt.2. Folia morph. (Praha) 13 no.4:348-351 '65.

1. Anatomical Institute of the Medical Faculty, Charles' University in Hradec Kralove, Czechoslovakia.

PSENICKA,P.; JURIN, I.

The morphological observations of 100 cases Willis' circle in rhesus monkey (Macaca mulatta). Cesk. morf. 12 no.3:321-326 '64

1. Anatomicky ustav lekarske fakulty Karlovy university Hradec Kralove; prednosta: prof. MUDr. Jan Hromada, DrSc.

L 20432-66 EWT(1)/EWP(e)/T/EWP(t) IJP(c) JD/AT

ACC NR: AP6000659 SOURCE CODE: CZ/0055/65/015/009/0667/0677

AUTHOR: Bohun, A.; Sak, J.; Psenickova, M.

ORG: Institute of Solid State Physics, Czechoslovak Academy of Sciences, Prague

TITLE: The theory of chemielectron emission of metals

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 15, no. 9, 1965, 667-677

TOPIC TAGS: electron emission, chemical absorption, metal, secondary emission, molecular interaction, halogen oxygen nitrogen compound, oxidation

ABSTRACT: The theory of potential molecular electron emission of metals bombarded by hot electronegative molecules was investigated. The most frequently quoted theories of chemiemission (chemically excited exoelectron emission), and absorption and oxidation theories were compared by the authors with the hitherto less-known Izmailov-Furman theory of potential secondary emission. The values of yields calculated according to the original or adapted Izmailov-Furman theory are compared with the values of yields measured by Geiger on a series of systems of alkaline metal-halogen molecules (also partly oxygen molecules), and by Lohff and Wüstenhagen on systems of certain non-precious metals (Al, Fe) with oxygen or nitrogen molecules
The authors thank Dr. J. Dolejsi and K. Dolezalova for their help during the work and for careful execution of the numerical calculations. Orig. art. has: 13 formulas and 3 tables. [Based on authors' abstract.] [NT]

SUB CODE: 07/ SUBM DATE: 30Dec64/ ORIG REF: 004/ OTH REF: 022/ SOV REF: 004/

Card 1/1

PSENICKOVA, Vera; STIKAR, Jiri

Evaluation of devices for personal hearing protection against noise with special regard to their functional efficiency. Prac. lek. 17 no.7:313-317 S '65.

1. Vyzkumny ustav bezpecnosti prace ROH v Praze.

SOKOLOV, G.V., inzh.; PSHCHENITSIN, L.S., inzh.; NAUMOV, V.N., inzh.

Practice in using polystyrene in construction. Prom. stroi. 43 no.9:19-20 '65. (MIRA 18:9)

PSHEBEL'SKIY, V.V.

Absorption of fall and winter precipitations by soil. Zemledelie 6 no.8:32-35 Ag '58. (MIRA 12:11)

1. Drabovskoye opytnoye pole.
(Soil absorption)

PSHEBEL'SKIY, V. V.

PSHEBEL'SKIY, V. V. -- "The Causes of Thinning of Perennial Grasses on the Chernozems of the Drabovo Region and Possible Ways of Eliminating This Phenomenon." Min Higher Education Ukrainian SSR. Ukrainian Order of Labor Red Banner Agricultural Inst. Drabovo, 1955. (Dissertation for the Degree of Candidate in Agricultural Sciences).

So.: Knizhnaya Letopis', No. 2, 1956.

ZAKHARCHENKO, I.G.[Zakharchenko, I.H.], kand.sel'skokhoz.nauk; PSHEBEL'SKIY, V.V.[Pshebel's'kyi, V.V.], kand.sel'skokhoz.nauk

Effect of perennial legumes and legume-grass mixtures on soil fertility. Nauch. trudy UASHN 9:4-17 '59. (MIRA 14:3)
(Grasses) (Legumes) (Soil fertility)

PSHEBEL'SKIY, V. V.

Grasses

Productivity of the grass field depending upon the composition of the seen mixture., Sov. agron, 10, No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952. ~~1953~~, Uncl.

PSHECHENKOV, K.A.; PUGACHEV, A.N.

A continuous line for sorting, washing, and packaging potatoes. Trakt.i sel'khozmash. no.8:44-46 Ag '62. (MIRA 15:8)

1. TSentral'naya mashinoispytatel'naya stantsiya.
(Potatoes)

AVDEYEV, N.Ye.; PUGACHEV, A.N.; PSHECHENKOV, K.A.; CHERNIKOV, B.P.

Machinery tested at the Central Machinery Testing Station. Trakt. i sel'khozmash. 32 no.4:39-41 Ap '62. (MIRA 15:4)
(Agricultural machinery—Testing)

PSHECHENKOV, K.A.; PUGACHEV, A.N.

Machines for the mechanization of potato growing. Trakt. i sel'khozmash. no.8:40-41 Ag '65. (MIRA 18:10)

1. TSentral'naya mashinoispytatel'naya stantsiya.

VERESHCHAGIN, N.I.; PSHECHENKOV, K.A.

[Working parts of the machinery for cultivating, harvesting and sorting of potatoes] Rabochie organy mashin dlia vozdelyvaniia, uborki i sortirovaniia kartofelia. Moskva, Mashinostroenie, 1965. 266 p. (MIRA 19:1)

VERESHCHAGIN, N.I.; PUGACHEV, A.N.; PSHECHENKOV, K.A.; CHERNIKOV, B.P.

Machines tested at the Central Machinery Testing Station. Trakt. sel'khozmash. 33 no.6:39-40 Je '63. (MIRA 16:7)

1. TSentral'naya mashinoispytatel'naya stantsiya.
(Agricultural machinery)

VERESHCHAGIN, N.I.; PUGACHEV, A.N.; PSHECHENKOV, K.A.

One center of potatoes in 30 minutes. Zemledelie 26 no.6:39-52 Je '64. (MIRA 17:8)

1. TSentral'naya mashinoispytatel'naya stantsiya Vsesoyuznogo ob"yedineniya Soveta Ministrov SSSR po prodazhe sel'skokhozyaystvennoy tekhniki, zaspasnykh chastey, mineral'nykh udobreniy i drugikh material' notekhnicheskikh sredstv, organizatsii remonta i ispol'zovaniya mashin v kolkhozakh i sovkhozakh, Solnechnogorskiy rayon, Moskovskoy oblasti.

DOVGALEVSKIY, Yakov Mironovich; PSHECHENKOVA, G.V., redaktor; GOLYATKINA, A.G., redaktor; ATTOPOVICH, M.K., tekhnicheskiy redaktor

[Alloys for permanent magnets] Splavy dlia postoiannykh magnitov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi matallurgii, 1954. 157 p. (MLRA 8:3)
(Magnets) (Alloys)

PSHECHENKOVA, G.V., kand. tekhn. nauk; SKOKOV, A.D., inzh.

Magnetic alloys for operation at high temperatures. Elektrichestvo no.4:81-83 Ap '65. (MIRA 18:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni Bardina.

PSHECHENKOVA, G.V.; GORBUNOV, V.I.

Investigating the connection between the magnetic properties and the microstructure of iron-nickel alloys. Sbor.trud. TSNIICHM no.23:228-247 '60. (MIRA 13:7)
(Iron-nickel alloys--Metallography)
(Magnetic materials)

GUDTSOV, N.T., akademik, redaktor; DAVYDOVA, L.N., sostavitel';
PSHECHENKOVA, G.V., sostavitel'.

[Structural steels; reference book] Konstruktsionnye stali (spravochnik). Pod nauchnoi red.N.T.Gudtsova. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii. Vol. 1. 1947. 481 p. (MLRA 7:1)
(Steel, Structural--Tables, calculations, etc.)

30669
S/137/61/000/010/026/056
A006/A101

242200 1121, 1137, 1164

AUTHORS: Pshechenkova, G.V., Gorbunov, V.I.

TITLE: Investigating the correlation of magnetic properties and the microstructure of iron-nickel alloys

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 10, 1961, 22, abstract 10Zh140 ("Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii", 1960, no. 23, 228 - 247)

TEXT: Fe-Ni alloys melted in an induction furnace contained 2-40% Ni. The content of impurities was (in %): C 0.01 - 0.02. Si 0.04 - 0.1, Mn 0.3 - 0.4, Cu 0.2 - 0.25. Specimens for magnetic measurements were manufactured from 3 mm-diameter wire with 80% degree of reduction. During the heating of alloys with 20 - 30% Ni, having a martensite structure after quenching, the $\alpha \rightarrow \gamma$ transformation proceeds by two ways: 1) expansion from the grain boundaries in the form of areas with dispersed 2-phase structure; the stability of the γ-phase increases with lower temperature of its formation owing to its higher Ni-content. 2) allotropic transformation within the range between the beginning and completion of the $\alpha \rightarrow \gamma$-transformation during heating, occurring very rapidly and

Card 1/2

Investigating the correlation ....

apparently diffusionless. H_c of the alloys has a maximum near 28% Ni in quenched alloys and increases as a result of diffusion transformation, accompanied by the formation of the dispersed mixture of 2 phases. There are 6 references.

A. Fedorovskiy

[Abstracter's note: Complete translation]

FILM I BOOK EXPLOITATION SOV/3895

Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
Institut pretsizionnykh splavov

Pretsizionnyye splavy (Precision Alloys) Moscow, Metallurgizdat, 1960. 283 p. (Series: Its: Sbornik trudov, vyp. 23). Errata slip inserted. 2,525 copies printed.

Additional Sponsoring Agency: USSR. Gosudarstvennaya planovaya komissiya.

Ed.: D.I. Gabrielyan; Ed. of Publishing House: Ye.I. Levit; Tech. Ed.:
Ye.B. Vayshteyn.

PURPOSE: This book is intended for engineers and scientific personnel in the metallurgical, instrument-production, and electrical-equipment industries, as well as for industrial personnel engaged in the production of precision alloys. It may also be useful to students attending advanced technical schools.

COVERAGE: The articles in this collection present the results of investigations conducted in recent years by the Central Scientific Research Institute of Ferrous Metallurgy (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii). The articles deal with industrial techniques of producing soft magnetic alloys, properties and structure of the alloys at extremely low temperatures and in high-frequency magnetic field, deformation textures, magnetostriction, the galvanomagnetic effect, volume changes, etc. Some articles are concerned with the investigation of deformed hard magnetic alloys. No personalities are mentioned. The articles are accompanied by references, both Soviet and non-Soviet.

AVAILABLE: Library of Congress

Card 6/6

VK/rm/mas
7-21-60

YELYUTIN, O.P.; PSHECHENKOVA, G.V.

Investigating alloys in the system Ni - Mn - Cr. Stal. trud. TSNIICHM no.25:189-213 '62. (MIRA 15:6)
(Nickel-manganese-chromium alloys--Metallography)

PSHECHENKOVA, G.V.

Effect of rhenium on the magnetic and mechanical properties of iron-cobalt alloys. Sbor. trud. TSNIICHM no.25:227-237 '62.
(MIRA 15:6)

(Iron-cobalt-rhenium alloys)

L 32811-66 EWT(m)/EWP(e)/EWP(w)/T/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6010398 SOURCE CODE: UR/0126/66/021/003/0339/0345

57
B

AUTHOR: Pshechenkova, G. V.

ORG: Institute of Precision Alloys (Institut pretsizionnykh splavov); TsNIIChERMET im. I. P. Bardina

TITLE: Investigation of the magnetic properties and hardness of iron-cobalt alloys

SOURCE: Fizika metallov i metallovedeniye, v. 21, no. 3, 1966, 339-345

TOPIC TAGS: iron alloy, cobalt alloy, magnetic property, hardness, metal heat treat-treatment, cooling rate

ABSTRACT: This investigation was performed over a wide range of compositions of alloys of the Fe-Co system, which at room temperature have a body-centered cubic lattice, with the object of obtaining the information necessary for finding materials with the desired combinations of magnetic characteristics and determining the optimal conditions for the heat treatment of alloys of various chemical composition. Alpha-alloys of the Fe-Co system (0-72.92 at. % Co) which have a higher saturation induction than the other known alloys, were melted in a 10-kg vacuum furnace with refining in a hydrogen atmosphere. Specimens taken from the ingots were subjected to the following types of heat treatment: 1) slow cooling (10 deg/hr) from 1100°C in the absence of a magnetic field; 2) slow cooling from 1100°C in a magnetic field; 3)

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L 32811-66

ACC NR: AP6010398

accelerated cooling from 800°C in the absence of a magnetic (cooling rate ~600 deg/hr); 4) accelerated cooling from 800°C in a magnetic field. All specimens were measured for density, coercive force, magnetization curves in fields of up to 800 oe, initial permeability, magnetization energy. In addition their Brinell hardness was measured at temperatures of up to 800°C. Findings: the curves of the dependence of coercive force on composition show that Fe-Co α-alloys can be divided into two groups according to their reaction to heat treatment: the alloys in the first group contain up to 40% and more than 60% Co and their coercive force is independent of cooling rate but is greatly reduced in the presence of a magnetic field during heat treatment. This effect may be explained by the theory of directional ordering. The alloys in the second group -- closer to an equiatomic composition -- behave differently: their coercive force markedly increases when the cooling rate is low particularly during cooling in the 600-550°C range, but is weakly affected by thermomagnetic treatment; this effect may be explained by the theory of a high degree of long-range order formation, which conditions the existence of a special ferromagnetic structure stabilized by anti-phase ordering domains and hence also the sharp increase in coercive force during slow cooling, due to the low rate of diffusion at temperatures below 600°C. As for hardness, at room temperature it increases to 220 H_B with increase in Co content to 30%; beyond that point it remains relatively constant. Orig. art. has: 6 figures, 1 table.

SUB CODE: 11, 13/ SUBM DATE: 27Aug64/ ORIG REF: 004/ OTH REF: 003

Card 2/2 J.O.

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 330 (USSR)

AUTHORS: Pshechenkova, G. V., Krasnopevtseva, T. V.

TITLE: An Investigation of Fe-Co Alloys With a High Degree of Magnetic Saturation (Issledovaniye zhelezokobal'tovykh splavov s vysokim magnitnym nasyshcheniyem)

PERIODICAL: Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii, 1956, Nr 15, pp 102-110

ABSTRACT: Hardness, microstructure, critical points, and magnetic properties were investigated in alloys containing 50 percent Co and 2 percent V. V substantially affects the critical points of alloys of the Fe-Co system, by lowering the temperature of the $\alpha \rightleftharpoons \gamma$ transformation. The microstructure of slowly cooled alloys exhibits a characteristic grain lattice, probably due to the phenomenon of orderly regulation of grains. The hardness of cold rolled specimens is considerably increased by heating to 400-600°; any further increase in temperature reduces the hardness due to incipient recrystallization. Initial permeability is strongly affected by the degree of reduction in the process of cold deformation. Optimal results are, apparently, obtained at a 60-70 percent reduction. P. N.

Card 1/1

1. Iron-cobalt alloys-Properties-Analysis 2. Iron-cobalt alloys-Magnetic properties

S/776/62/000/025/013/025

AUTHORS: Yelyutin, O. P., Pshechenkova, G. V.

TITLE: Investigation of alloys of the system Ni-Mn-Cr.

SOURCE: Moscow. Twentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov. no. 25. Moscow, 1962. Pretsizionnyye splavy. pp. 189-213.

TEXT: The paper reports the results of an experimental investigation of several alloys of the system Ni-Mn-Cr which exhibit an elevated electrical resistance (ER) and a low temperature coefficient of the ER and which, therefore, are readily utilized for the making of resistor elements which operate in instruments and equipments at near-room T. In addition to the electrical properties of a number of alloys of this system it was found to be necessary, in the interest of the development of suitable manufacturing techniques and related heat treatments, to study the phase composition and the transformation processes therein. The phase diagrams of the systems Mn-Ni and Mn-Ni-Cr are shown. The experimentation comprised a dilatometric analysis, ER measurements, and an investigation of the effects of various elements on the properties of the alloys, an investigation of the effect of heat treatment on the electrical properties of the alloys (performed by I. A. Savost'yanova).

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In summary, the test performed in the investigation of alloys of the system Ni-Mn-Cr, containing from 20-45% Mn and 8-10% Cr, permit certain conclusions on the phase composition, transformations, and possible uses of the physical properties of these alloys. The alloy containing 20% Mn and 8% Cr constitutes a single-phase solid solution. During slow heating and cooling in the 400-500°C T interval a K-state forms in the alloy. As the Mn content is increased beyond 23%, an incipient phase transformation of the face-centered γ phase into a face-centered tetragonal ε phase was detected dilatometrically; this transformation was distinctly fixed by the X-ray method at a Mn content of 30%. ER measurements during heating denoted a smooth transition from the single-phase to the two-phase alloys which occurs during an increase of the Mn content from 23 to 28%. The alloys lying at the boundary of the two-phase region exhibit a fairly elevated ER (1.4 ohm·mm^2/m) which increases with increasing Mn content; these alloys have an ER-temperature coefficient varying from positive values to negative values within the T range from room T to 300°. The same properties can be obtained in the two-phase alloy by means of heat treatment that achieves the required solid-solution state in which the new phase does not yet precipitate. The detection of this state is feasible by means of ER measurements and the dilatometric method. An advantage of the alloys obtained from the 2-phase region is the elevated ER. The required state can be obtained by quench or by quench-plus-subsequent-aging, at which the required initial stage of decom-

Investigation of alloys of the system ....

position of the phase from the solid solution is obtained. The alloying elements contribute to an increase in the ER and an improvement in the mechanical properties of the alloys. There are 20 figures, 1 table, and 4 references (2 Russian-language Soviet, 1 German, 1 English-language).

Card 3/3

S/776/62/000/025/015/025

AUTHOR: Pshechenkova, G. V.

TITLE: The effect of Rhenium on the magnetic and mechanical properties of Iron-Cobalt alloys.

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov. no. 25. Moscow, 1962. Pretsizionnyye splavy. pp. 227-237.

TEXT: The paper describes an experimental investigation of the effect of Re on the magnetic and mechanical properties of Fe-Co alloys containing 35-50% Co, which, because of their elevated saturation magnetization, are used in the making of transformer elements and other electromagnetic equipments in which soft magnetic alloys are required. At temperatures (T) below 700°C pure Fe-Co alloys attain an ordered structure, thereupon becoming embrittled. The introduction of Re as an anti-embrittlement alloying element was sought to replace such other alloying elements as V and Cr which ensure an adequate ductility after quench but which affect the magnetic saturation and the surface quality of the material. The alloys (chemical composition of 15 melts are tabulated) were smelted in a high-frequency induction furnace and were cast into circular ingots of 5-17 kg. The Re was introduced into the alloy in the form of small rods H-sintered at 1,100°C out of metallic Re powder.

Card 1/2

The ingots were forged into plates 10-15 mm thick. After hot rolling at 1,150-1,200°, sheets 1.5-mm thick were obtained which were quenched at 930° and cold-rolled into sheet material 0.35-mm thick. The specimens were made from those sheets after anneal at 920° in H or under vacuum. Three series of alloys were made, containing 25, 35, and 50% Co, respectively, in which the Re content varied from 0 to 1.5%. The C content in all the alloys was 0.015 to 0.020%, that of Si and Mn 0.06 to 0.10%, that of S 0.007 to 0.013%, and that of P 0.002 to 0.008%. Control alloys without Re, but with V, were also prepared. The tests showed that Re increases considerably the strength of practically applicable Fe-Co alloys containing 25, 35, and 50% Co, with a simultaneous noticeable increase in the ductility of the alloys. 1.0 to 1.5% Re exerts also a favorable effect on the microstructure of soft magnetic Fe-Co alloys by favoring an increase in grain size. In alloys containing 25 to 35% Co the Re in the quantities investigated here enters into the solid solutions of the alloys; in alloys containing 50% Co a more-than-1% Re content can form a new Co-Re phase which is indicated by a flexure point on the electrical-resistance curves of annealed alloys and by a significant increase in hardness after anneal of the alloys. There are 7 figures, 2 tables; no references.

PSHECHENKOVA, G.V.; SKOKOV, A.D.

Temperature dependence of the induction of magnetic saturation of alloys in the system iron - cobalt. Fiz.met.i metalloved. 14 no.5:797-799 N '62. (MIRA 15:12)

1. Institut pretsizionnykh splavov, TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Iron-cobalt alloys--Magnetic properties)

43556

S/126/62/014/005/015/015
E073/E535

AUTHORS: Pshechenkova, G.V. and Skokov, A.D.

TITLE: Temperature dependence of the magnetic saturation induction of iron-cobalt alloys

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.5, 1962, 797-799

TEXT: The aim of the work was to obtain diagrams of the saturation induction isotherms of alloys of the system iron-cobalt at temperatures up to transition into the non-ferromagnetic state. The alloys used in the experiments contained a maximum of 0.02% C, 0.027% S, the cobalt contents varied between 0 and 95% (in steps of 5%), rest Fe. The alloys were molten in an induction furnace and forged at 1200°C into rods of 15 mm dia. from which specimens of 3 and 6 mm dia. and, respectively, 25 and 120 mm long were produced. On at least two specimens (annealed at 1100°C) of each alloy the saturation induction was measured ballistically at room temperature in a magnetic field of 2740 Oe and then the change in induction with increasing temperature in a field of 2500 Oe was measured by means of an Akulov anisometer.

Card 1/2

Results: At 800°C, when iron is already non-ferromagnetic, an alloy containing 25% Co will still have a saturation induction in excess of 17000 Gauss and an alloy with 30-60% Co will have a saturation induction of about 19000 Gauss. At 700°C the saturation induction of alloys with 30-50% Co is in excess of 20000 Gauss compared to 12500 Gauss for iron. Even at lower temperatures Co-Fe alloys are favourable, due particularly to their higher temperature stability. The temperature coefficient of the saturation induction of iron at 600°C is $1.3 \cdot 10^{-3}$ deg^{-1} as compared to $0.4 \cdot 10^{-3}$ deg^{-1} for an alloy with 30-50% Co. At 700°C the respective values are $4.4 \cdot 10^{-3}$ deg^{-1} and $0.7 \cdot 10^{-3}$ deg^{-1}. Alloys containing 70-80% Co are in the $\alpha + \gamma$ phase range; the isotherms of magnetic saturation of the cobalt-base γ-phase and the iron-base α-phase intersect, indicating the existence of a boundary between the γ-phase and α-phase base alloys. There are 2 figures.

ASSOCIATION: Institut pretsizionnykh splavov TsNIIChM
(Institute of Precision Alloys TsNIIChM)

SUBMITTED: May 4, 1962

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343510004-0"

137-58-2-3851

PSHECHENKOVA, G.V.

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 224 (USSR)

AUTHORS: Pshechenkova, G.V., Kadykova, G.N., Artsishevskiy, M.A.

TITLE: An Investigation of Alloys Based on the Iron-cobalt System and Containing 25-35 ercent Co (Issledovaniye splavov na osnove sistemy zhelezo-kobal't, soderzhashchikh 25-35% Co)

PERIODICAL: Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii, 1956, Nr 15, pp 86-101

ABSTRACT: The best conditions for the production process and heat treatment of alloys containing not only Fe, but 35% Co and 0.4-0.06% Cr, to guarantee a combination of satisfactory magnetic properties (MP) and adequate ductility, are sought. The effect of other alloying elements (Si, Zr, Al) are investigated. It is found that in order to obtain the best MP it is necessary to cool the alloy slowly (20°/hr) after annealing at 850-900°C. However, the metal is brittle in this state. Ductility improves on oil cooling, but this brings a certain impairment of the MP. Cooling in a magnetic field improves MP in the direction of current flow. The most favorable effects upon MP are afforded by combined addition of Cr and Si.

A.Z.

Card 1/1

1. Iron-cobalt systems--Production--Analysis 2. Iron-cobalt systems --Heat treatment--Analysis

PSHECHENKOVA, G.V.

137-1957-12-24905

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 279 (USSR)

AUTHOR: Pshechenkova, G. V.

TITLE: An Investigation of Transformations Occurring in Fe-Co-V Alloys Employed for Permanent Magnets and Subjected to Deformation [(Issledovaniye prevrashcheniy v deformiruyemykh zhelezokobal'tvanadiyevykh splavakh dlya postoyannykh magnitov) Transl. Note: "splavov" in Russian original appears to be a type-setting error]

PERIODICAL: Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii, 1956, Nr 15, pp 111-123

ABSTRACT: An investigation of phase-transformation processes resulting in high magnetic properties of alloys containing 5-18 percent V and 50-52 percent Co. Measurements of changes in the magnetic saturation were performed on Akulov's anisometer. Also measured were the electrical resistance, hardness and micro-hardness; the microstructure was studied, and dilatometric and some X-ray analyses were performed. From the data of the obtained measurements a section of a phase diagram was con-

Card 1/2 structed for alloys containing 50 percent Co and 8-13 percent V.

137-1957-12-24905

An Investigation of Transformations Occurring in Fe-Co-V Alloys (cont.)

Alloys containing more than 12 percent V possesses the gamma-phase structure and undergo no substantial changes during heating or cooling. Plastic deformation of samples extends the region of the $\alpha \rightarrow \gamma$ transformation in the direction of greater V content. It is apparent from the nature of the dilatometric curves that the $\alpha \rightarrow \gamma$ transformation progresses in two stages: the first change occurs in the 450-650° range, then the process subsides until, at 760°, it commences again and continues up to the complete disappearance of the α phase. Optimal magnetic properties are observed in the presence of a mixture of the gamma and alpha phases; this occurs as the result of heating the specimen after subjecting it to severe reduction. The nature of the curves of the magnetic properties indicates that the dispersion of magnetic inclusions, contained in the non-magnetic matrix, and not the occurrence of high internal stresses, is the major factor in the creation of a high coercive force. It is possible that the dispersed magnetic inclusions are "monodomous" particles magnetized merely by the processes of rotation. The attempt to obtain high magnetic properties by heat treatment only, without resorting to deformation of the sample, failed to yield satisfactory results.

Card 2/2

P. S.

1. Iron-cobalt-vanadium alloys - Transformations 2. Iron-cobalt-vanadium alloys-Properties

L 22680-66 EWA(d)/EWP(t) IJP(c) JD/HW

ACC NR: AP6006709 SOURCE CODE: UR/0105/65/000/004/0081/0083

AUTHOR: Pshechenkova, G. V. (Candidate of technical sciences); Skokov, A. D. (Engineer)

ORG: Central Scientific Research Institute of Ferrous Metals (TsNIIchermet im. Bardina)

TITLE: Magnetic alloys intended for operation at high temperatures

SOURCE: Elektrichestvo, no. 4, 1965, 81-83

TOPIC TAGS: magnetic alloy, high temperature alloy, iron alloy, magnetization curve, solid mechanical property

ABSTRACT: Connected with the N. Pavlek work (J. Appl. Phys., 1961, v. 32, p. 372), an investigation is described of magnetization curves of Fe and Fe-alloys containing 25, 35, 50, 60, 80, and 95% Co, and also a Fe-alloy containing 50% Co and 1.5% Va (permendur) at temperatures up to 900C. Also mechanical characteristics of some alloys at temperatures up to 600C are reported. It is found that even 25% Co has beneficial effect on the alloy magnetic characteristics. A 50% Co alloy exhibited the highest magnetic properties; at 800 and 900C, in a 1-oe field, the flux densities were 1500 and 1400 gs, respectively; the flux approaches saturation in a field of 32 oe. Alloys containing 35 and 50% Co are brittle at room

Card 1/2 UDC: 621.318.13

L 22680-66

ACC NR: AP6006709

temperature; at higher temperatures, the 35% Co alloy has a much higher plasticity. The tensile strength of permendur is 35 kg/mm² at room temperature and increases to 60 kg/mm² at 400--500C. Orig. art. has: 5 figures.

SUB CODE: 11 / SUBM DATE: 26Aug64 / ORIG REF: 001 / OTH REF:001

Card 2/2

PSHEDETSKAYA, A.D.; SOROKHTIN, G.N.

Reciprocity of the steady polarizing potentials of the muscles in the muscle-stretching reflex in frogs. Fiziol.zhur. 51 no.4:472-478 Ap '65. (MIRA 18:6)

1. Kafedra fiziologii zhivotnykh i cheloveka Gosudarstvennogo universiteta, Petrozavodsk.

ANDRIAYNEN, O.A.; PSHEDETSKAYA, A.D.; TSEGEL'NITSKAYA, E.V.

Connection between the cardiovascular system and lactation in cows.
Uch.zap. Kar.ped.inst. 8:49-56 '59. (MIRA 13:11)
(Cows) (Lactation)

PSHEDETSKAYA, L.I.; CHEREPANOVA, N.P.

Preservation of Phytophtora infestans De Bary in culture. Vest LGU 16 no.21:23-31 '61. (MIRA 14:11)
(FUNGI PHYTOPATHOGENIC)
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA)

PSHEDETSKAYA, L.I.; CHEREPANOVA, N.P.

Possibility of the conservation of Phytophthora infestans de Bary in the tubers, plant residues and soil. Uch. zap. LGU no.313:49-57 '62. (MIRA 15:12)
(Phytophthora)

PSHEDETSKAYA, L.I.; CHEREPANOVA, N.P.

Applying the luminescence method for studying the structure of mycelium of Phytophthora **infestants de Bary in tissues** of the infested plant. Bot. zhur. 46 no.11:1655-1662 N '61. (MIRA 15:2)

1. Biologicheskiy nauchno-issledovatel'skiy institut Leningradskogo gosudarstvennogo universiteta, Staryy Petergof.
(Potatoes---Diseases and pests)

GOLOVIN, P.N.; CHEREPANOVA, N.P.; PSHEDETSKAYA, L.I.

Comparative study of different strains of Phytophthora infestans de Bary. Bot. zhur. 45 no.11:1600-1618 N '60. (MIRA 13:11)

1. Leningradskiy gosudarstvennyy universitet.
(Fungi, Phytopathogenic) (Nightshade--Diseases and pests)

PSHEDETSKAYA, L.I.; CHERNOVA, N.F.; STEPANOVA, A.M.

Physiological and ecological characteristics of three strains of Phytophthora infestans de Bary. Vest. LGU 19 no.15:49-53 '64. (MIRA 17:11)

CHEREPANOVA, N.P.; PSHEDETSKAYA, L.I.

Phytophthora infestans DB races in Leningrad Province. Vest. LGU 20 no.21:57-63 '65. (MIRA 18:12)

L 22366-66 EWT(1)/T JK

ACC NR: AP6005101 (A) SOURCE CODE: UR/0325/65/000/004/0180/0182

AUTHOR: Pshedetskaya, L. I.; Cherepanova, N. P.; Gorobets, A. M. 29 B

ORG: none

TITLE: Preliminary study of the Phytophthora infestans de Bary strain on tomatoes under Leningrad regional conditions

SOURCE: Nauchnyye doklady vysshey shkoly. Biologicheskiy nauki, no. 4, 1965, 180-182

TOPIC TAGS: horticulture, plant disease, fungus, plant parasite

ABSTRACT: This investigation in 19[illegible] of the resistance of different varieties of tomato plants to Phytophthora infestans included a determination of the strains of the fungus collected from the tomatoes at the experimental plots of the Leningrad University Biological Institute. Only strain 4 and possible strain 0 (as determined according to the Shick scale by means of plant differentiators) were isolated

Card 1/2

L 22366-66

ACC NR: AP6005101 O

from all six varieties of tomatoes. Strains 1 and 1.3 were observed in 2 instances, but in no case were aggressive strains with a 3 or 4 scale rating observed. This was explained by the favorable growing season in 1963. Further studies may expose a greater variety of fungus strains infesting tomatoes. Orig. art. has: 1 table.

SUB CODE: 06/ SUBM DATE: 120ct64/ ORIG REF: 001/ OTH REF: 003

Card 2/2dda

PSHEDBORSKIY, Sh. [Przedborski, Sz.], inzh.

Production of autoclave hardened porous concrete in the Polish People's Republic. Stroi.mat. 4 no.10:34-38 O '58. (MIRA 11:11)

(Poland--Concrete)

SHALTYKO, G.Ye.; PSHEDETSKAYA, L.I.

Investigating the fungicide properties of shale tars. Zhur.prikl. khim. 33 no.1:212-215 Ja '60. (MIRA 13:5)

1. Leningradskiy institut inzhenerov zheleznogorozhnogo transporta imeni V.N.Obraztsova.
(Oil shales) (Fungicides)

PSHEDETSKAYA, L.I. --

"Biological Characteristics of Sumut on Cultivated and Wild Grasses as Data on which to Base the Fight Against It." Cand Biol Sei, VASKHNIL, Leningrad, 1953. (RZhBiol, No 3, Oct 54)

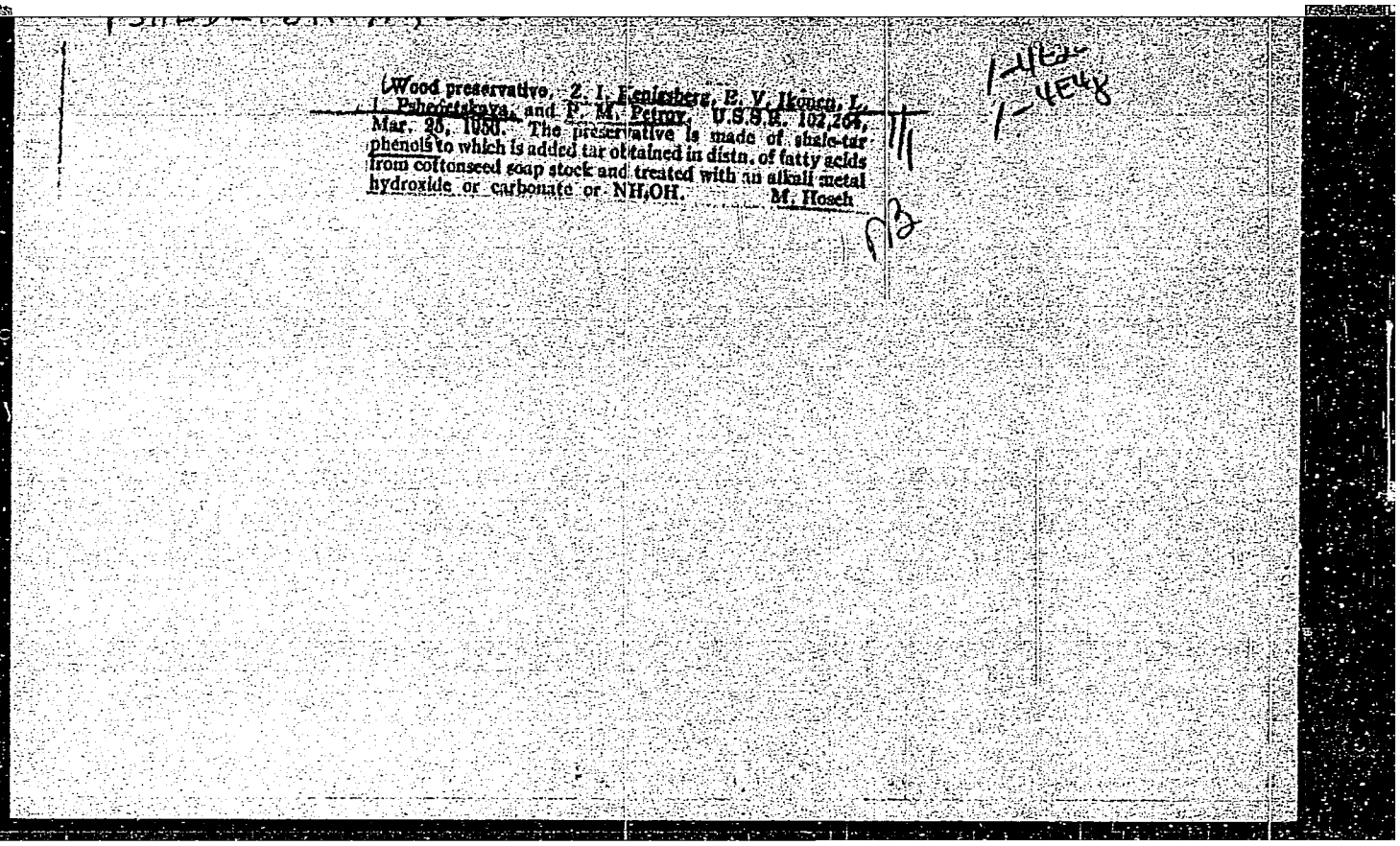
Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

PSHEDETSKAYA, L. I.

7550 PSHEDETSKAYA, L. I., IKONEN, E. V., RUKOVODSTVO PO PRIMENENIYU EMUL'SI* ONNOGO ANTISEPTIKA NA OSNOVE SLANTSEVOY GENERATORNOY SMOLY (ANTISEPTIK AEG-2). L.,1954. 8 S 20 SM. (LENINGR. NAUCH.-ISSLED. IN-T AKAD. KOMMUN. KHOZYAYSTVA IM. K. D. PAMFILOVA). 1.000 EKZ. BESPL.--NA I-Y S. SOST: L. I. PSHEDETS KAYA I EV. IKONEN. --(55-4290) 699.87 / 674.048.

SO: KNIZHNAYA LETOPIS--Vol. 7, 1955



Wood preservative. 2. I. Fleishberg, B. V. Ikonen, I. Pshenitskaya, and F. M. Petrov. U.S.S.R. 102,264, Mar. 25, 1956. The preservative is made of shale-tar phenols to which is added tar obtained in distn. of fatty acids from cottonseed soap stock and treated with an alkali metal hydroxide or carbonate or NH_4OH. M. Hoseh

COUNTRY : USSR
CATEGORY : Farm Animals. Q
General Problems.
ABS. JOUR. : RZhBiol., No. 6, 1959, No. 25767

AUTHOR : Tile, I.; Pshenichnaya, V.
INST. : Moscow Academy of Agriculture imeni K. A.*
TITLE : The Application of Antibiotics in Feeding Young Fowl and Nursing Piglets.

ORIG. PUB. : Sb. stud. nauchno-issled. rabot Mosk. s.-kh. akad. im. K. A. Timiryazeva, 1957 (1958), vyp.**

ABSTRACT : When 2 1/2 months old pullets were given 16 mg of penicillin with their feed, their weight gains increased by 10 percent and the expenditures of digestible nutritive substances were 23.3 percent lower per 1 kg of weight gain than in control young stock, and correspondingly, the figures for pullets which were each given 24 mg of penicillin, were 5 and 18.5 percent. The egg production of the latter group was 220 percent higher, and

CARD: 1/2

*Timiryazev.
**7, 150-156

2

PSHENICHNAYA, Z.M.

Diagnosis of obliterating endarteritis and ischias. Vrach.delo no.6:643 Je '60. (MIRA 13:7)

1. Klinika nervnykh bolezney (zav. - prof. G.D. Leshchenko) Khar'kovskogo meditsinskogo instituta.
(ARTERIES--DISEASES) (HIP JOINT--DISEASES)

PSHENICHKIN, A., konstruktor

The "OMK" coal-mining combine. NTO 2 no.5:43 My '60. (MIRA 14:5)

1. Institut "Mosbassgiprogormash" g. Stalinogorsk.
(Stalinogorsk—Coal mining machinery)

P/007/62/000/015/001/002
D001/D101

AUTHORS: Reznikova, V., Candidate of Technical Sciences, and Pshenichner, B., Member (see Association)

TITLE: The prospects of space conquest

PERIODICAL: Skrzydlata Polska, no. 15-16, 1962, 16-17

TEXT: The article is an informative account of achievements in space research since the first man-made satellite was launched in the USSR. A popular outline is given of prospects in space travel and of the use of satellites in communications, weather forecasting and other services. There are 2 figures.

ASSOCIATION: Gosudarstvennoye astronomo-geodezicheskoye obshchestvo (National Astronomo-geodetical Association) (Pshenichner, B.)
[Abstracter's note: The Association is mentioned in the periodical as Astronomo-geophysical]

Card 1/1

PIALOV, A.S.; DAVIDOVICH, Ya.G.; PSHENICHKIN, F.A.; GALEYEV, G.S.; TYAN, L.S.

Effect of calcination temperature on the electron paramagnetic resonance of petroleum cokes. Zhur. fiz. khim. 39 no.4:958-961 Ap '65. (MIRA 19:1)

1. Elektrougliskiy filial nauchno-issledovatel'skogo instituta elektromekhaniki. Submitted Feb. 27, 1964.

21355
S/126/61/011/004/002/023
E032/E314

24.2200 (1137, 1147, 1158)

AUTHORS: Volkov, D.I. and Pshenichkin, P.A.

TITLE: Paramagnetism of Manganese-Antimony at High Temperatures

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol. 11, No. 4, pp. 513 - 518

TEXT: The present authors report experimental data on the susceptibility of MnSb alloys in the paramagnetic region. In distinction to earlier work, the susceptibility is measured not only near the melting point but well above this point as well. The susceptibility was measured with the aid of the Faraday-Sucksmith method, using argon as the inert medium. The specimens were obtained in a high-frequency vacuum furnace. Fig. 1 shows the reciprocal of the susceptibility as a function of temperature for MnSb (Curve 1), alloys with 25% Mn (Curve 2), 20% Mn (Curve 3), 15% Mn (Curve 4) and 35% Mn (Curve 5). It follows that below the melting point the paramagnetism of MnSb obeys the Curie-Weiss

Card 1/7

Paramagnetism of ....

law (melting point approximately 700 - 750 °C). The MnSb alloys represented by Curves 2-4 also obey this law. This is due to the fact that the ferromagnetic compound MnSb is always present in those alloys in which there is less than 31% Mn (by weight). A different dependence is found in the case of Mn_2Sb (Fig. 2: Curve 1 - Mn_2Sb; Curve 2 - 40.7% Mn). Analysis of the data showed that the paramagnetic susceptibility of Mn_2Sb can be described by the Neel laws with Neel constants $1/\chi_o = 270$, $\sigma = 6\ 200$ and $\Theta = 553$ °K. The MnSb alloys can be divided into two groups; namely - those containing MnSb and obeying the Curie-Weiss law and those near the Mn_2Sb composition, which are described by the hyperbolic Neel law

$$\left(\frac{1}{\chi} = \frac{1}{\chi_o} + \frac{T}{C} - \frac{\sigma}{T - \Theta} \right) .$$

Card 2/7

S/126/61/011/004/002/023
E032/E314

Paramagnetism of ....

Fig. 4 shows $1/\chi$ as a function of temperature above the melting point (Curve 1 - 15% Mn; Curve 2 - 25% Mn). Fig. 5 shows the same relationship for alloys with 20% Mn (Curve 1) and 29% Mn (Curve 2). Fig. 6 shows the Curie-Weiss constant, C , as a function of concentration of Mn. The upper curve refers to solids and the lower to liquids. The numerical data are summarised in Table 1. There are 6 figures, 1 table and 8 references: 6 Soviet and 2 non-Soviet.

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

SUBMITTED: July 8, 1960

Card 3/7

S/126/61/011/004/002/023
E032/E314

Paramagnetism of ....

Fig. 1:

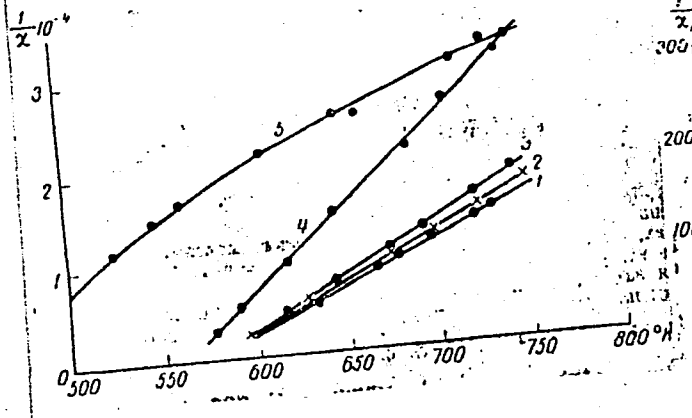
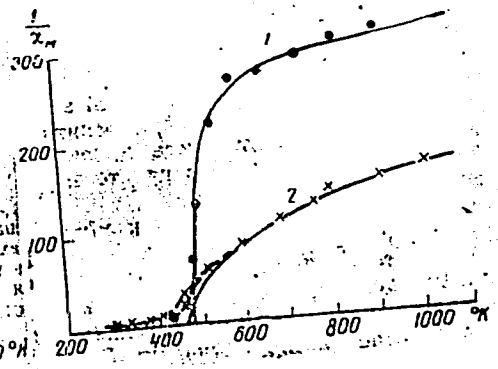


Fig. 2:



Card 4/7

S/126/61/011/004/002/023
E032/E314

Paramagnetism of ....

Fig. 3:

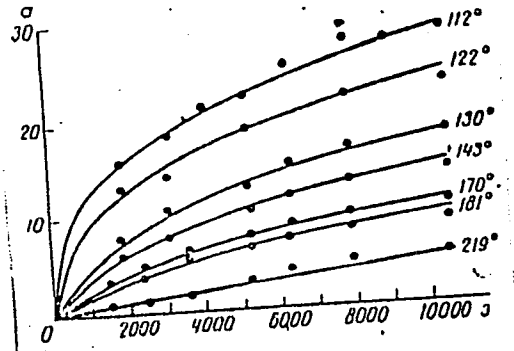
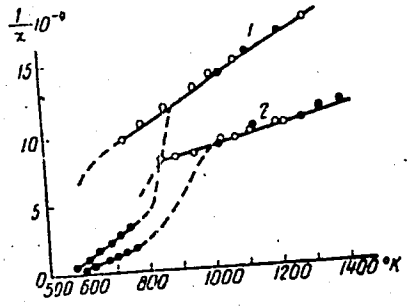


Fig. 4:



Card 5/7

S/126/61/011/004/002/023
E032/E314

Paramagnetism of ....

Fig. 5:

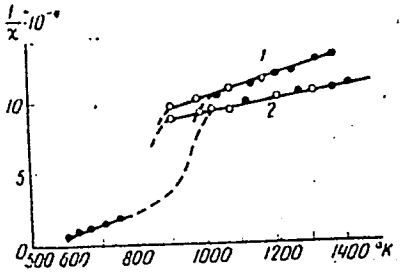
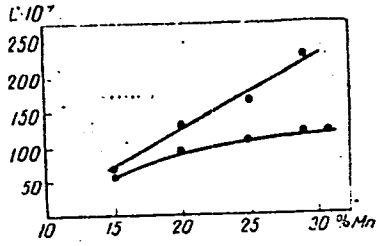


Fig. 6:



Card 6/7

S/126/61/011/004/002/023
E032/E314

Paramagnetism of ....

Table.

Manganese Content, weight %	θ	θ_{liquid}	$C \cdot 10^4$	$C_{liquid} \cdot 10^4$
15	288	-224	57	70
20	303	-600	94	139
25	298	-920	108	162
29	299	-1390	116	230

Card 7/7

PSHENICHKOV, V.A.

Observations of lunar occultations of stars in Tomsk. Astron. tsir. no.217:15 D '60. (MIRA 14:3)

1. Astronomicheskaya observatoriya Tomskogo gosudarstvennogo universiteta.

(Occultations)

UKHANOV, Aleksey Ivanovich; PSHENICHNAYA, G.N., red.; PANKRATOV, A.I., tekhn. red.

[Without manual labor] Bez ruchnogo truda. Ivanovo, Ivanovskoe knizhnoe izd-vo, 1960. 52 p. (MIRA 14:10)

1. Brigadir traktornoy grigady kolkhoza im. Dzerzhinskogo, Gavrilovo-Posadskogo rayona (for Ukhanov).
(Gavrilov Posad District--Farm mechanization)

ACC NR: AP7006118 SOURCE CODE: UR/0209/67/000/001/0060/0063

AUTHORS: Snitkovskiy, A. (Candidate of geographical sciences); Sorochinskiy, M. (Candidate of geographical sciences); Pshenichner, B.

ORG: none

TITLE: The satellite searches for hurricanes

SOURCE: Aviatsiya i kosmonavtika, no. 1, 1967, 60-63

TOPIC TAGS: meteorologic satellite, LONG RANGE weather forecasting, storm, heat radiation, meteorologic research facility

ABSTRACT: Meteorologic satellites are put into orbits of 600--800 km to relay information and advance warning on the formation and location of hurricanes and cyclones. The satellites also relay information on the distribution of solar energy for long-range weather forecasting and on the distribution of the ultraviolet sector of the solar spectrum for determining ozone content and for studying the optic properties of the atmosphere. Kosmos-122 measures atmospheric radiation, radiation from the earth, elements of radiation balance, and radiation in ranges [illegible]-30 microns and 8--12 microns. Cameras on board take infrared pictures on day and night sides of the earth. Computers reduce the data for a global chart showing distribution of radiation intensity. Plans call for launching additional weather satellites which

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ACC NR: AP7006118

can be maneuvered to designated positions by signals (Polet-1 and Polet-2). Orig. art. has: 1 sketch and 1 photograph.

SUB CODE: 22,04/ SUBM DATE: none

Card 2/2

PSHENICHNAYA, L.E.; SKOROKHOD'KO, E.F.

Information retrieval according to semantic codes. NTI no.6:25-26 '64. (MIRA 17:9)

PSHENICHNAYA, Z.M.

Change in capillary blood circulation under the action of heat stresses in endarteritis obliterans. Vrach. delo no.12:98-102 D '61. (MIRA 15:1)

1. Kafedra nervnykh bolezney (zaveduyushchiy - prof. G.D.Leshchenko) Khar'kovskogo meditsinskogo instituta, kafedra nervnykh bolezney Kiyevskogo instituta usovershenstvovaniya vrachey (zaveduyushchiy - zasluzhennyy deyatel' nauki, prof. D.I.Panchenko).
(ARTERIES--DISEASES) (HEAT--PHYSIOLOGICAL EFFECT)
(BLOOD--CIRCULATION, DISORDERS OF)

PSHENICHNIKOV, A.G.; KRYUKOV, Yu.I.; BURSHTEYN, R.Kh.

Electrooxidation of ethylene on electrodes with Pt catalysts.
Elektrokhimiia 1 no.12:1476-1479 D '65.
(MIRA 19:1)

1. Institut elektrokhimii AN SSSR. Submitted April 3, 1965.

L 31817-66 FSS-2/EWT(l)/EWT(m)/EEC(k)-2/ETC(f)/EWP(j)/T IJP(c) DS/WW/RM/WH

ACC NR: AP6012439 EWP(e) (A) SOURCE CODE: UR/0364/65/001/012/1476/1479

77
73

AUTHOR: Pshenichnikov, A. G.; Kryukov, Yu. I.; Burshteyn, R. Kh.

ORG: Institute of Electrochemistry, Academy of Sciences SSSR (Institut elektrokhimii Akademii nauk SSSR)

TITLE: Electrooxidation of ethylene on electrodes containing Pt-catalysts

SOURCE: Elektrokhimiya, v. 1, no. 12, 1965, 1476-1479

TOPIC TAGS: ethylene, fuel cell, electrochemistry, platinum, catalyst, oxidation

ABSTRACT: Since porous electrodes produce large currents per unit area of the apparent surface in this work, oxidation of ethylene on porous gas-diffusion electrodes containing platinum catalysts was investigated. Experiments were conducted in 14.5 M phosphoric acid at 150-200°C in a teflon cell. The electrodes were produced by depositing a thin film of catalyst with polytrifluoroethylene on the porous graphite plate and baking at 200°C. The following catalysts were used: (1) platinized carbon containing 10% Pt; (2) catalyst similar to (1) but containing 9% Pt and 1% Rh; (3) carbon mixed with 25% Pt reduced with formaldehyde; (4) platinum block reduced with formaldehyde; (5) skeletal platinum catalyst produced by leaching Pt-Li (1:10) alloy; (6) platinum block with 10% Rh, produced by coprecipitation from H_2PtCl_6 and $RhCl_3$ solutions. Skeletal platinum and platinum containing 10% Rh produces sufficiently active elec-

UDC: 541.135.52-44

Card 1/2

L 31817-66

ACC NR: AP6012439

trodes. For a catalyst containing 10% Rh at 200°C and E=0.55 volt, current density reaches 150-200 ma/cm^2. Tests of electrode No. 6 for duration of operation show that in the first 2 hrs significant decrease of activity takes place and at 200°C and E= =0.55 v, current density reaches a constant value of 50 ma/cm^2. Investigations were also made of the effect of temperature on current density. For electrode No. 4, the log of current density is linearly dependent on temperature in the 150-200°C region. From the slope of this line the energy of activation for the oxidation of ethylene was calculated to be 20 kcal/mol·°C. Orig. art. has: 5 figures, 1 table.

SUB CODE: 07,09/ SUBM DATE: 03Apr65/ ORIG REF: 001/ OTH REF: 006

Card 2/2

PSHENICHNIKOV, A.G.; SHNAYDER, G.I.

Hydrogen oxidation on a partially immersed nickel electrode when passivation is involved. Elektrokhimiia 1 no.6:640-644 Je '65. (MIRA 18:7)

1. Institut elektrokhimii AN SSSR.

L 7972-66 EWT(m)/EPF(c)/ETC/EWG(m)/EWP(j)/T/EWP(t)/EWP(b) IJP(c) DS/JD/JG/RM
ACC NR: AP5025083 SOURCE CODE: UR/0364/65/001/010/1268/1272

AUTHOR: Burshteyn, R. Kh.; Pshenichnikov, A. G.; Tyurin, V. S.; Knots, L. L.

ORG: Electrochemical Institute AN SSSR (Institut elektrokhimii AN SSSR)

TITLE: Chemisorption and oxidation of hydrocarbons on a platinum electrode. I. Ethane

SOURCE: Elektrokhimiya, v. 1, no. 10, 1965, 1268-1272

TOPIC TAGS: hydrocarbon, chemisorption, oxidation, electrode, platinum, electrolytic cell

ABSTRACT: It has been demonstrated that the chemisorption of organic substances on platinized platinum is accompanied by processes of dehydrogenation, and hydrogenation and by breaking of the C-C and C=C bonds. It follows from galvanostatic charge curves that, in the chemisorption of ethylene and ethane on a platinum surface, the amount of chemisorbed hydrogen and organic groups depends on the experimental conditions. The present article examines the process of the chemisorption and oxidation of ethane on a platinum electrode, using the method of tri-

Card 1/2 UDC: 541.13

L 7972-66
ACC NR: AP5025083

angular pulse voltages with a scanning speed of 5 mv/sec. The i-φ curves were recorded with a two-coordinate automatic recording instrument, Type PDS-021. The experiments were carried out in 1 N H_2SO_4 at 90 C. The electrode, at a given potential (φ), was brought into contact with a solution saturated with ethane. The residence time in the solution saturated with ethane, at a potential equal to 1.1 volts, was calculated from the moment when the electrode attained a potential of 0.6 volts. Then the hydrocarbon was eliminated from the solution by passing argon through it for a determined period of time. The i-φ curves were constructed by taking different intervals of time for the residence of the ethane in the chemisorbed state. The experimental results are exhibited graphically and in tabular form. Orig. art. has: 7 formulas, 5 figures and 1 table

SUB CODE: GC/ SUBM DATE: 30 May65/ ORIG. REF: 003/ OTH REF: 003

GC

Card 2/2

L 55137-65 EWT(m)/EWP(i)/EWG(m)/T/EWP(t)/EWP(b)/EWP(z)/EWA(c) Pad IJP(c) RWH/

ACCESSION NR: AP5012346 JD/HW UR/0364/65/001/004/0418/0421
541.138.2:546.11

AUTHOR: Pshenichnikov, A. G.; Shnayder, G. I.; Burshteyn, R. Kh.

TITLE: Electrochemical oxidation of hydrogen on partially submerged smooth metal electrodes

SOURCE: Elektrokhimiya, v. 1, no. 4, 1965, 418-421

TOPIC TAGS: hydrogen, oxidation, nickel, electrode

ABSTRACT: The purpose of this study was to find direct evidence for the existence of a thin film of electrolyte on an electrode partially immersed in a liquid, and to determine the thickness of this layer. The investigations were carried out with hydrogen as the reactive gas phase on a partially immersed smooth nickel electrode. Two electrodes made from spectral grade Ni foil were used. The electrodes were immersed in 1 *N* KOH. The measurements were made in an instrument in which the nickel electrode could be raised by a special device from the solution into the gas medium. In another instrument the extent to which the electrode was exposed above the solution was controlled by changing the level of the electrolyte in the cell. The ex-

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ACCESSION NR: AP5012346

2

periments were carried out in the 21-72°C interval. Measurements of potential were made with respect to the hydrogen electrode in the same solution and at the same temperature. The accuracy of current measurements was 0.1 μa. Equations are derived by which the thickness of the electrolyte film above the bulk of the solution, δ, can be evaluated. At 21°C the value of δ for the two nickel electrodes which were used was found to be $1.8 \cdot 10^{-5}$ cm and $2.5 \cdot 10^{-5}$ cm respectively. "The authors wish to express their gratitude to Academician A. N. Frumkin for his participation in the discussion of the results of this work." Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: Institut elektrokhimii Akademii nauk SSSR (Institute of Electrochemistry, Academy of Sciences, SSSR)

SUBMITTED: 26May64 ENCL: 00 SUB CODE: EM, IC

NO REF SOV: 007 OTHER: 002

Card 2/2

PSHENICHNIKOV, A. G.; CHIZMADZHE', I. A.; CHIRKOV, Yu. G.; BURSHTEYN, R. Kh.; MARKIN, V. S.

"Investigation of the Relationship between the Structure and the Electrochemical Properties of a Porous Gas Electrode."

Report presented at the 14th meeting CITCE, Intl. Comm. of Electrochemical Thermodynamics and Kinetics, Moscow, 19-25 Aug 63.

Institute of Electrochemistry, Academy of Sciences of USSR.

VASIL'YEV, Yu.B., kand. khim. nauk; PSHENICHNIKOV, A.G., kand. khim. nauk

International Congress on Electrochemistry in Moscow. Vest. AN SSSR 33 no.12:55-57 D '63. (MIRA 17:1)

PSHENICHNIKOV, A.G.

Some problems in the theory of porous electrodes. Dokl. AN SSSR 148 no.5:1121-1124 F '63. (MIRA 16:3)

1. Institut elektrokhimii AN SSSR. Predstavleno akademikom A.N.Frumkinym.

(Electrodes) (Porous materials)

AID P - 5107

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 10/18

Author : Fsnenichnikov, A. G., Eng.

Title : Transformation of the chemical energy of fuel into electric power in fuel cells (News From Abroad).

Periodical : Teploenergetika, 10, 47-51, O 1956

Abstract : This article is based on foreign scientific literature (American, English, German). 2 tables, 4 diagrams. 12 references.

Institution : None

Submitted : No date

VASIL'YEV, Boris Vasil'yevich, kand. khim. nauk; PSHENICHNIKOV, Aleksandr Georgiyevich, kand. khim. nauk; FRUMKIN, A.N., akademik, red.; MEL'NIKOVA, Zh.M., red.

[Horizons of electrochemistry] Gorizonty elektrokhimii. Moskva, Znanie, 1965. 42 p. (Novoe v zhizni, nauke, tekhnike. XI Seriia: Khimiia, no.4) (MIRA 18:4)

BURSHTEYN, R.Kh.; PSHENICHNIKOV, A.G.; SHUMILOVA, N.A.

Mechanism of the operation of diffusion electrodes. Dokl. AN SSSR 143 no.6:1409-1412 Ap '62. (MIRA 15:4)

1. Institut elektrokhimii AN SSSR. Predstavleno akademikom A.N.Frumkinym.

(Electrodes)

L 29136-65 EWT(m)/EPF(c)/EWG(m)/EWA(d)/EWP(j)/T/EWP(t)/EWP(b) Pc-4/Pr-4 IJP(c)
RWH/JD/JG/WB/RM

ACCESSION NR: AP5005895 S/0020/65/160/003/0629/0632

AUTHORS: Burshteyn, R. Kh.; Tyurin, V. S.; Pshenichnikov, A. G. 39

TITLE: Electrochemical oxidation of hydrocarbons at a platinum electrode 37 B

SOURCE: AN SSSR. Doklady, v. 160, no. 3, 1965, 629-632

TOPIC TAGS: electrochemical process, hydrocarbon, platinum, chemisorption, charge method, oxidation, dehydration

ABSTRACT: The nature of chemisorption of ethane and ethylene on a platinum surface in acid and alkaline solutions by means of charge curves was investigated. Experiments were made on platinum-plated electrodes having an area of 4 cm^2. The roughness coefficient ranged from 3800 down to 1000, and this factor was determined from the hydrogen charge curve. The charge curve was then plotted for an argon atmosphere. The electrode voltage was reduced to 400 mv relative to the hydrogen electrode in the same solution, and the ethane or ethylene was poured in. The voltage became negative. When this voltage had been stabilized, the electrolyte was changed to an argon atmosphere, and the charge curve at the Pt electrode was plotted. This was done by chemisorption of the ethylene or ethane in solutions

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