

MARCU, C.; STROESCU, V.; SCHWARTZ, Rita

Action of imipramin on the oxidation of glucose by rat brain. Studii cerc fiziol 5 no. 4:679-685 '60.

(1. Imipramin) (2. Oxidation, Physiological)

1. Catedra de farmacologie, Facultatea de medicina si farmacie, Bucuresti.

MIRZA, V.D., acad.; ZAHARIA, N., assist. prof.; MARCU, C., assist. prof.;
MOGRANSKI, R.; BARBARASA, C.

Contributions to the problem of nervous regulation of the morphophysiological processes involved in gastric secretion in male rats. Rumanian M Rev. no.3:7-12 '61.

(STOMACH physiology) (CEREBRAL CORTEX physiology)
(REFLEX, CONDITIONED physiology)

ROMANIA

MARCU, C., Lecturer; DIATU, Victoria; MATIUCHI, M., MD; DEMETRIU, Catalina, Chemist; DOBRESCU, B., MD; MATULESCU, M., MD; POPA, A., MD.

Bucharest, Farmacia, No 10, Oct 63, pp 617-623

"On the Antituberculous Activity of New Hydrazide Substitutes,
Derived from Certain Aromatic and Cyclo-Aliphatic Acids."

(7)

RUMANIA

MARCU, C., Conf; DOBRESU, D., Dr.

Chair of Pharmacology of the IMF /Institutul Medico-
Farmaceutic; Medical and Pharmaceutical Institute/
Bucharest (Catedra de Farmacologie, IMF, Bucuresti)
- (for all)

Bucharest, Viata Medicala, No 17, 1963, pp 1201-1205

"The Pharmacodynamics of Diuretics"

(2)

Country : RUMANIA
Category : Pharmacology and Toxicology. Anticonvulsants^V
Abs. Jour. : Ref Zhur-Biol, No 19, 1958, No 89786
Author : Marcu, G.; Duminica, A.
Institut. : -
Title : Anticonvulsant Drugs

Orig Pub. : Viata med., 1958, 5, No 3, 199-213

Abstract : No abstract.

Card: 1/1

MARCU, C.

SURNAME (in caps); Given Names

Country: Rumania

Academic Degrees: -Conf. Dr.-

Affiliation: -not given-

Source: Bucharest, Stiinta si Tehnica, No 8, Aug 1961, pp 16-17.

Data: "Biocatalysts and Drugs."

MARCU, C.

1. "Bio-logy and Its Importance in Pharmaceutics," Pharm. A. SECTION, Pharm. Bure. V. RODOVICI and Pharm. A. SPITZER; pp 193-201.
2. "Investigations in the Home^otherapeutic^o Inotropic Class (VII). New Compounds Having an Antihypertensive action." Dr. V. ANITA, Pharm. D. OLESEANU, Pharm. Aurea IDEALU, Pharm. S. GHIRTA and Prof. A. MAVEDUNU. Work performed at the Laboratory of Organic Chemistry (Laboratori de Chimie Organica) of the School of Pharmacy (a Facultate de Farmacie), Bucharest; English summary; pp 203-212.
3. "Contributions to the Study of the Stability of Chelated Hydrate and Solite Internal Solutions," Pharm. R. PODESCU and Pharm. Vasileio ANDRUSCU and Pharm. St. PODESCU; English summary; pp 211-218.
4. "On the Antibactericidal Activity of Certain Hydrazid Derivatives of the β -Benzoylaminophenyl acid and Methylsuccinic acid Series (Note II)," Prof. A. GHITULEA, Prof. M. VALENTINICU, Conf. P. GHIBOIARI, Dr. V. SCUTARIU, Chemist VIORICA BRATU, Chemist CATERINA DEVLIVANESCU, Dr. Sm. MARINESCU, Dr. PODESCU and Dr. A. RODA; English summary; pp 219-227.
5. "Study of the Anticancerous Action of Certain New Imidazole Derivatives (A Polyethylazo Imidazole)," Conf. P. GHITULEA, Conf. G. MAJOU, Chemist VIORICA BRATU, Dr. D. DEDESCU, Dr. ANDRUSCU, Dr. V. SCUTARIU, Dr. A. RODA, Prof. Dr. PODESCU and Chemist Rita SCUTARIU; English summary; pp 229-233.
6. "Study of Galactin Receptants for Various Galenic Substances with a Prolonged Action," Prof. V. GHITULEA, Pharm. I. BARU, Pharm. V. ELIAS, Dr. I. GHITULEA and Dr. S. SCUTARIU. Work performed at the Galenic Department (Catedra de Galenica) of Clinic 11 for Gastroentero-Venereal Ills de (Medicina); pp 235-237.
7. "Contribution to the Study of the Copper Content of Several Kind of Various Flowers," Pharm. WIKSA and Pharm. V. EDUSORU, English summary; pp 239-242.

RUMANIA

MARCU, Carli, Conf.

Department of Pharmacology, Institute of Medicine and
Pharmacy (Catedra de farmacologie I.M.F.), Bucharest.

Bucharest, Viata Medicala, No 13, 1 Jul 63, pp 911-915

"On Maximum Doses."

(1)

MARCU, Carli, conf. univ. dr.

Chemical mediators in psychic processes. St si Teh Buc 15 no.1:
10-11 Ja '63

MARCU, Carli, conf.univ.dr.

Psychotherapy. St si Teh Buc 16 no.4:20-21 Ap '64.

TEITEL, A., MARCU, C.; DOBRESU, D.; MANUCHIAN, M.

The anti-inflammatory action of phenylbutazone in stress conditions. Fiziol. norm. pat. 6:513-517 '64

1. Catedra de farmacologie, Institutul medico-farmaceutic, Bucuresti.

MARCU, C.; DOBRESCU, D./

Effect on insulin convulsions of phenoxyacid derivatives. Fiziol.
norm. pat. 6:529-533 '64

1. Catedra de farmacologie, Institutul medico-farmacologic,
Bucuresti.

MARCU, C.; MANUCHIAN, M.; DOBRESCU, D.; TEITEL, A.; DUMINICA, A.

Contribution to the pharmacodynamic study of pathogenic E. coli
endotoxin. Pt.1. Fiziol. norm. pat. 11 no.2:175-181. Mar-Apr 1965.

1. Catedra de farmacologie (for Teitel), Catedra de boli conta-
gioase (for Duminica), Institutul medico-farmaceutic, Bucuresti.

MARKU, K. [Marcu, C.], d-r

Psychopharmacology. Nauka i tekhn mladezh 16 no.10:28-30 '64.

MARCU, Constanta, ing., candidat in stiinte tehnice

International Congress of Colorists. Ind text Rum 14 no.2:62-69
F '63.

1. Institutul de cercetari textile.

MARCU, Constanta, ing., candidat in stiinta tehnice

From the experience of some enterprises of East Germany in
applying the bleaching process of textile materials. Ind
text Rum 14 no.11:527-531 N'63

MARCU, C.

Continuing the reduction of the cost price in foundries. Metallurgy and
Machine Construction, #3:77:Mar. 55

MARCU, C.

MARCU, C.

MARCU, C. Analysis of planned losses in certain siderurgical enterprises and possibilities of rendering them profitable. p. 62.

Vol. 3, no. 6, June 1956

METALURGIA SI CONSTRUCTIA DE MASINI.

TECHNOLOGY

RUMANIA

See: East European Accession, Vol. 6, No. 5, May 1957

Mareu, C.

RUMNL. / Chemie l Technology. Chemical Products and Their H
Application. Dyeing and Chemical Treatment of
Textile Materials.

Abs Jour: Ref Zhur-Khimiya, No 9, 1959, 33621.

Author : Mareu, C.

Inst : Not given.

Title : An Investigation of the Process of Formation of
Insoluble Azo Dyes on Fabrics During Imprinting.

Orig Pub: Ind. textila, 1958, 9, No 6, 222-223.

Abstract: The most favorable conditions for the formation
of insoluble azo dyes (I) on fabrics (F) for
two imprinting methods were investigated: the
imprint of a diazo-constituent dye (II) on fab-
rics impregnated with an azo-constituent dye (III)
(method A), and the imprint of III with a subse-
quent treatment of the II solution (method B).

Card 1/3

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RUMANIA / Chemical Technology: Chemical Products and H
Their Application. Dyeing and Chemical Tre t-
ment of Textile Materials.

abs Jour: Ref Zhur-Khimiya, No 9, 1959, 33621.

Abstract: In the capacity of a coagulator, corn starch,
partially hydrolyzed by hydrochloric acid, was
used. During imprinting by method .., with an
augmented concentration of III, the absolute a-
mount of I is increased; however, the outlet of
I is decreased; with the increase of the duration
of the fabrics' impregnation with III, the amount
and outlet of I are increased; the optimal value
of the pH medium in the azo-combination is about
7.7-8.0, when the maximum I outlet is 84.0-89.0%;
with the increase of the molecular ratio of II:
III, the I outlet is increased; the amount of I
on the fabrics at the imprint of moist fabrics

Card 2/3

RUMENI / Chemical Technology. Chemical Products and H
Their Application. Dyeing and Chemical Treat-
ment of Textile Materials.

Abs Jour: Ref Zhur-Khimiya, No 9, 1959, 33621.

Abstract: impregnated with III, is considerably greater
than during the imprint of the previously dried
fabrics. Method A produces clearer and more
durable colors than method B; in the first in-
stance, about 8% of the formed dye is washed
away during rinsing of the impregnated fabrics;
in the second instance, 35-40%. -- G. Markus.

Card 3/3

296

Card 2/2

MARCU, D.

TECHNOLOGY

PERIODICAL: ENERGETICA. Vol. 6, No. 12, Dec. 1958

MARCU, D. Problems and prospects of the development of industrial electric power in the USSR. p. 566.

Monthly List of East European Accessions ^{LE}(RAI) LC Vol. 8, No. 4
April 1959, Unclass.

DIMITRIU, N. ing.; MARCU, D., ing.

Testing pressure tubes made of prestressed reinforced
concrete of the Progresul type. Rev constr si mat constr
15 no.9:471-479 S'63.

MARCU, G. - IONESCU, A.

Studies on the influence of forests, located along the east Moldavian watersheds, on the soil humidity. p. 532

REVISTA PADURILOR. (Asociata Stiintifica a Inginerilor si Technicienilor din Romania si Ministerul Agriculturii si Silviculturii) Bucuresti, Rumania. Vol. 73, no. 9, Sept. 1958

Monthly list of East European Accessions (EEAI) IC Vol 8, No. 6, June 1959
Uncl.

MARCU, G.

RIPAN, R.; MARCU, G.; PASCU, N. Finding of products rich in tellurium
in the nonferrous metal industry and recovery of tellurium. p. 7

Vol. 4, No. 1/2, Jan/June 1956

Bucuressti, Rumania

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 10,
Oct. 1956

Marcu, Gheorghe

RUMANIA/Inorganic Chemistry - Complex Compounds.

C.

Abs Jour : Ref Zhur - Khimiya, No 10, 1958, 31968

Author : Raluca Ripan, Gheorghe Marcu

Inst : Academy of Sciences of Rumania,

Title : Study of Inorganic Compound Structure with Radioactive Isotopes. I. Structure Study of Hexamethaphosphates With Sr^{90} .

Orig Pub : Commun. Acad. RPR, 1957, 7, No 3, 323-327

Abstract : Sr hexamethaphosphate was prepared for the determination of hexamethaphosphate structure. The activity distribution was investigated by synthesis followed by analysis, and it was found that about 4% of the total activity appeared in $SrSO_4$ obtained by dissolving hexamethaphosphate in HCl and treating it with Na_2SO_4 . This activity

Card 1/2

、 RUMANIA/Inorganic Chemistry • Complex Compounds. C.

Abs Jour : Ref Zhur • Khimiya, No 10, 1958, 31968

distribution indicates that the strontium atoms produce bonds in the compound under study in a different way.

Card 2/2

RUMANIA/Chemical Technology. Chemical Products and Their
Application. Elements. Oxides. Mineral Acids.
Bases. Salts.

H-8

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5246.

Author : Ripan, Raluca; Marcu, Gheorghe; Pascu, Nicolae.
Inst : Academy of Sciences of Rumania.
Title : Utilization of By-Products of Calcination of Pyrite.

Orig Pub: Comun. Acad. RPR, 1957, 7, No 5, 531-540.

Abstract: The dust settling in flues in the calcination of pyrite contains the following (in %): As - 4.13 (2.09 of which in compounds insoluble in water), Zn - 4.6 (2.41 of which in compounds soluble in water), Fe - 38.8, S - 7.75 (4.55 of which in the form of sulfates), as well as SiO_2 - 8.6, Cu - 0.3 and Sb - 0.1. In order to extract As, Zn and S from this dust, it is treated with

Card : 1/3

RUMANIA/Chemical Technology. Chemical Products and Their
Application. Elements. Oxides. Mineral Acids.
Bases. Salts.

H-8

Abs Jour: Ref Zhur-Khin., No 2, 1959, 5246.

hot water, after which the solution is heated to 80° and a small excess of 12% NH_4OH is added to it (with stirring for 2-3 hours). The solution is filtered, and the precipitate is washed with 5% solution of NH_4OH until SO_4^{2-} is eliminated completely. The filtrate together with the wash water is evaporated. The precipitate is boiled with 45% NaOH solution (55 ml per every 70 g of the product). Having boiled it for 15-20 min, a flow of air is passed through for 2 hours under continuous stirring in a water bath in the presence of catalysts CuO and CuSO_4 in order to oxidize As^{3+} into As^{5+} . The precipitate is filtered off and washed with water. The filtrate is treated (under stirring) with

Card : 2/3

RUMANIA/Chemical Technology. Chemical Products and Their
Application. Elements. Oxides. Mineral Acids.
Bases. Salts.

H-8

Obs Jour: Ref Zhur-Khim., No 2, 1959, 5246.

$\text{Ca}(\text{OH})_2$ suspension at $80 - 90^\circ$ for 3-4 hours. $\text{Ca}_3(\text{AsO}_4)_2$
formed on this occasion is filtered off, and NaOH is used
again. The ammonium salts produced by the described
method contain the following (in %): $(\text{NH}_4)_2\text{SO}_4$ - 9.63,
Zn - 9.27, Fe - 0.6 and Si - 0.5; the arsenic salts con-
tain: $\text{Ca}_3(\text{AsO}_4)_2$ - 45.84, CaCO_3 - 45.70 and CaSiO_2 - 8.46.
Bibliography with 7 titles. - Ya. Matlis.

Card : 3/3

MARCU, G.

RUMANIA / Physical Chemistry. Solutions. Theory
of Acids and Bases.

B

Abs Jour : Ref Zhur - Khimiya, No 12, 1959, No. 41711

Author : Ripan, Raluca; Marcu, Cheorghe
Inst : Rumanian AS, Iasi Affiliate
Title : Determination of the Solubility of
Dipyridine Zinc Halides and of
Dipyridine Zinc Thiocyanide by means
of Radioactive Zn-65

Orig Pub : Studii si cercetan stunt. Acad. RPR
Fil. Iasi. chim, 1957, 8, No 1, 27-31

Abstract : Solubility and solubilization (S) of
(ZnPy₂)Cl₂(I), (ZnPy₂)Br₂(II), (ZnPy₂)₂I₂
III and (ZnPy₂).(SCN)₂(IV) were determined
by means of Zn⁶⁵. It was established that
the solubility in moles/l and S of I, II,

Card 1/2

MARCU, R

7 19
A study of some inorganic complexes using radioactive
isotopes. R. Rinau and G. Marcu. *Rev. chim., Acad.
rdp. populare Roumaine* 12: 121 (1965) (in French). — Ex-
change between Zn^{2+} ion and $[Zn(py)_4]Cl$ (I); $[Zn(py)_4]Br$
(II); $[Zn(py)_4]I$ (III); and $[Zn(py)_4](SCN)_4$ (IV) (py =
pyridine) was measured at 1, 24, and 360 hrs. Results are,
in the above order, for I, 2.00, 3.04, and 8.38% exchange;
for II 3.24, 3.35, and 10.13%; for III 0.98, 1.20, and 8.83%;
and for IV, 1.39, 2.06, and 9.84%. No rate consts. or
mechanisms are given and no conclusions drawn. Solv.
products were detd. as I 4.23×10^{-4} , II 2.14×10^{-4} , III,
 3.84×10^{-4} , IV 8.99×10^{-4} . Exchange takes place at two
very different rates between Sr^{++} and the two types of Sr in
 $Sr_2(PO_4)_3$. Approx. 16 to 18% of the Sr was readily
exchangeable. It is concluded that only atoms at the
surface of the complex participate in exchange.
W. Alexander Van Hecke

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DR

RUMANIA / Inorganic Chemistry. Complex Compounds.

C

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 7745.

Author : Ripan, Raluca., Marou, Gheorghe.

Inst : Rumanian Academy.

Title : Study of Structure of Inorganic Compounds by Means of Radioactive Isotopes. II. Study of the Structure of Complex Compounds of Zinc of $(ZnPy_2)X_2$ -Type by Means of Radioactive Zinc Zn^{65} .

Orig Pub: Comun. Acad. RPR, 1958, 8, No 3, 269-273.

Abstract: Study of isotope exchange between compounds of the type $(ZnPy_2)X_2$ where $X = Cl^-$, Br^- , I^- , SCN^- , and Zn^{65} ions in homogeneous medium. It was found that very slow isotope exchange is taking place between them. This indicates stability of these compounds even in very diluted aqueous sol-

Card 1/2

MARCU, G.

Distr: 4E20

27
A new rapid method for the determination of tellurium.
Baluta R. Ion, Gheorghe Marcu and Nicolae Pascu. *Comun.
acad. rep. populare romane* 6, 467-71 (1968) (Russian and
French summaries).—The method is based on the reduction
of Te with thiosemicarbazide in a HCl media. The
pptn. of Te is done in a 1:1 soln. of CS₂ and alc. in order to
dissolve the colloidal S which is formed during the reduction
of Te. To a soln. contg. about 0.1 g. of Te is added 10 ml.
of 36.8% HCl and 50 ml. of a 1:1 mixt. of CS₂ and alc.
The mixt. is dild. with 10 ml. of water, 10 ml. of a 2% soln.
of thiosemicarbazide is added drop by drop, and the mixt. is
left standing for 5 mins. It is then heated at 45-50° for 15-20
min. to coagulate the ppt. After cooling, the ppt. is filtered
through a glass filter washed with CS₂, EtOH and then abs.
alc. Finally, after a washing with abs. ether, it is dried in a
vacuum desiccator over P₂O₅ for 30 min. The weight of the
ppt. obtained must be multiplied by 0.94498. The preci-
sion of the method is ±0.3%. The sensitivity of the
reagent is 7.9 γ/0.001 ml. Au, Ag, Se, Cu, and Bi must be
absent.

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Marcu, G.

RUMANIA / Inorganic Chemistry. Complex Compounds.

C

Abs Jour : Ref Zhur - Khimiya, No 14, 1959, No. 49000

Author : Ripan, R. and Marcu, G.

Inst : Rumanian Academy of Sciences

Title : Investigation of the Structure of Inorganic Compounds by the Use of Radioactive Isotopes. III. Investigation of Isotope-Exchange in *

Orig Pub : Comun Acad RPR, 8, No 7, 655-658 (1958)

Abstract : The authors have investigated isotope exchange in homogeneous medium between strontium hexameta-phosphate and Sr^{2+} ions. It has been found that in the case of $Sr [Sr^{90}_2 (PO_3)_6] + Sr^{2+}$

*Homogeneous medium Between Strontium Hexameta-phosphate and Strontium Ions Using Radioactive Sr^{90}

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RUMANIA / Inorganic Chemistry. Complex Compounds.

C

Abs Jour : Ref Zhur - Khimiya, No 14, 1959, No. 49000

exchange occurs to the extent of about 6%, where-
as in the case of $\text{Sr}^9 \left[\text{Sr}_2^{90} (\text{PO}_3)_6 \right] + \text{Sr}^{2+}$
exchange takes place to the extent of about 19%.
These results are interpreted as an indication
that the Sr atom in the strontium hexametaphos-
phate molecule are differently bonded. For
Communication II see Ref Zhur Khim, No 3, 1959,
7745. -- From author's summary

Card 2/2

C-7

MARCH, G.

Study of the structure of inorganic compounds with the help of radioactive isotopes. I. A radio-chromatographic study of the condensation of Na_2WO_4 by HNO_3 . R. Ripan and G. Marcu. *Acad. rep. populare Romine, Filiala Cluj, Seria de chim.* 10, 17-28(1959); cf. *C.A.* 53, 21073f. H_2WO_4 (or Na_2WO_4) in H_2O soln. is condensed by strong acids to the isopoly acid ions ($\text{HW}_6\text{O}_{21}\text{aq.}^{3-}$ (hexatungstate) and ($\text{H}_2\text{W}_6\text{O}_{21}\text{aq.}^{4-}$) (I) (paratungstate). The degree of condensation of Na_2WO_4 in relation to pH, concn., temp., and time is detd. An ascending paper chromatographic method with W^{182} as a radioactive indicator is used. A satd. NaCl soln. is used because it permits the migration of the uncondensed ions, whereas the condensed ions remain at the start. The radioactivity is measured with a Geiger-Müller type MST-17 counter every 0.5 cm. along the chromatographic strip and the percent condensation is detd. It appears that pH, concn., temp., and time are important factors in the formation of isopoly compds. The chromatographic strips are developed with a soln. of KSCN and SnCl_4 . Perfect

agreement between these and the previous results is observed. Previous investigations, the methods used, and the conclusions are given. 28 references. V. A radio-chromatographic study of the behavior of sodium paratungstate prepared in warm solutions. R. Ripan, G. Marcu, and V. Neagu. *Ibid.* 27-30. A radio-chromatographic study shows that freshly prepd. $\text{Na}_2\text{HW}_6\text{O}_{21}\text{aq.}$ (I) soln. decomps. on heating: $3\text{Na}_2\text{HW}_6\text{O}_{21}\text{aq.} \rightarrow 6\text{Na}_2\text{W}_6\text{O}_{21} + \text{Na}_2\text{H}_2\text{W}_6\text{O}_{21}\text{aq.}$ (ψ -metatungstate). I was prepd. by acidifying N Na_2WO_4 with N HCl at 70° using litmus as indicator. A satd. aq. soln. of recrystd. I was studied chromatographically by the technique described in part IV. Pyrotungstate migrates to the upper part of the paper and ψ -metatungstate remains in the lower part. Chromatography of I prepd. from Na_2WO_4 contg. W^{182} shows twice as much W^{182} in the upper part of the paper as in the lower portion. Results are similar to those of Knorre [*J. prakt. Chem.* 27, 49(1883)] but differ from those of Souchay (*C.A.* 46, 9450f) and of Jander and Krüderke (*C.A.* 46, 3440f). A. Gottlieb

RIPAN, Raluta, acad.; MARCU, Gh.

Study of the structure of inorganic combinations by utilizing radioactive isotopes. VI. Study of the stability of the phosphotungstic acid [P:12W] and silicotungstic acid [Si:12W] by the electroradiochromatographic method. VII. Study of the isotopic exchange between tungstates and polytungstate. Studii cerc chimie Cluj 10 no.2: 201-216 '59. (EEAI 9:9)

1. Academia R.P.R. - Filiala Cluj, Institutul de chimie si Universitatea "V.Babes" - Cluj, Catedra de chimie anorganica si analitica..2. Redactor responsabil, Comitetul de redactie, Studii si cercetari de chimie, Cluj (for Ripan)
(Inorganic compounds) (Radioisotopes)
(Phosphotungstic acids) (Silicotungstic acids (Chromatography)
(Solutions) (Oxalic acid) (Tungstates) (Crystals)

S/081/62/000/005/030/112
B149/B101

AUTHORS: Ripan, Raluca, Pascu, N., Marcu, G.

TITLE: A new gravimetric method for the determination of selenium

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 158, abstract
5D115 (Studii si cercetări chim. Acad. RPR Fil. Cluj, v. 11,
no. 2, 1960, 277-279)

TEXT: The method (published earlier) for the determination of Se by
reduction to the elementary state with thiosemicarbazide (I) in an HCl
medium (RZhKhim, no. 7, 1959, 23091) has been applied to a gravimetric
determination of Se: 58.51 ml of 37 % HCl are added to 20 ml of the
solution to be analyzed (appr. 0.2 g Na_2SeO_3), the mixture is heated to
40-45°C and 79 ml of the precipitating solution (10 ml 1 % I + 69 ml
water), heated to the same temperature, are then added, drop by drop with
constant stirring. The precipitate is filtered through a glass filter G₄,
washed with water, ethanol and ether, dried in a vacuum desiccator for
15 min, and weighed. The time needed for the determination is 25-30 min;

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A new gravimetric method for the...

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B149/B101

the error is $\pm 0.42\%$. The sensitivity of the determination is 7 μ g Se in 1 ml solution. Te, Au, Cu, Bi interfere with the analysis. [Abstracter's note: Complete translation.]

Marcu, George

2

RIPAM, Baluca
SURNAM (in case): Given Name
Country: Rumania
Academic Degree: Academician
Affiliation: --
Source: Bucharest, Comunicatle Academiei Republicii Romania,
No 4, 1961, pp 409-411.
Data:
* A New Radiochemical Method for the Quantitative Determination
of Potassium.
Co-authors:
MARGU, George, Academician,
OCSMA, Minerva, Academician.

RIPAN, Saluca; MARCU, Gh.

Study of the inorganic combination structure by means of radioactive isotopes. Pt. 11. Rev chimie 7 no. 1: 471-479 '62.

1. Membre de l'Academie de la R.P.R. (for Ripan); Chaire de Chimie Inorganique et Analytique Faculte de Chimie, Universite "Babes-Polyai", Cluj.

RIPAN, Baluca; MARCU, Gh.; MURGU, Gh.

Application of the method of analysis by β -radiation reflection in industry. Rev chimie Min petr 13 no.10:612-614 0 '62.

1. Universitatea "Babes-Bolyai", Cluj, Catedra de chimie anorganica si analitica.

RIPAN, Hăluca, acad.; MARCU, Gheorghe; PASCU, Nicolae; CĂRĂ, Vasile

Determination of the speed of circulation by phases in auriferous pyrite flotation by radioactive gold 198. Studia Univ B-B S. Chem 7 no.1:61-69 '62.

PANAITIDE, C., ing.; MARCU, Gh., ing.; IONESCU, Gh.; RADU, H.; PAVEL, D.
VASILESCU, P., ing.; ROSU, A., ing.; PAVEL, M., ing.; ENEDI, A.;
MIHAI, Gh.; SANDULESCU, P., ing.; AVACHIAN, A., ing.; ANDREICOVICI,
Gh., ing.; UNTERFINGER, E., ing.

New technology in combed cotton spinning for improving yarn
quality. Ind text Rum 14 no.10:448-450 S '63.

1. De la Filatura romineasca de bumbac (for Panaitide, Marcu,
Ionescu, Radu, Pavel, D., Vasilescu, Rosu, Pavel, M., Enedi,
Mihai, Sandilescu).
2. De la Institutul de cercetari textile (for Avachian,
Andreicovici, Unterfinger).

RIAN, Baluca, acad.; MARCU, Gheorghe; MURGU, Gheorghe

Application of the method of analysis by reflection of β
radiations to the systems of Pb-Cu, Pb-Sn, Zr-Cd, and Pb-...
Studia Univ B-B S. Chem 7 no.1:53-59 '62.

MARCU, Gheorghe; TOLEA, Florian

Separation of the radioactive iodine of tellurium by the radio-
chromatographic method. Studia Univ B-B S Chem 8 no.1:101-105 '63

1. "Babes-Bolyai" University, Cluj.

MARCU, Gh.

Forest vegetation between the rivers Olt and Teleorman. Studii
cere biol veget 14 no.4:467-485 '62.

1. Comunicare prezentata de C.C.Georgescu, membru corespondent
al Academiei R.P.R.

MARCU, Gh.

Comparative studies on resistance to soil drought of
Quercus frainetto Ten. and Quercus robur L. Rev biol
8 no. 1: 27-35 '63.

1. The Institute of Forest Research, Bucharest.

MARCU, Gh.; TOMUS, Minerva

Study of the behavior of tungstates and polytungstates in
paper chromatography b irrigation with organic solvents
with the aid of radioactive tungsten 185. Studia Univ
B-B S. Chem 8 no. 2:11-18 '63.

RIPAN, Raluca, acad.; MARCU, Gheorghe; TOMUS, Minerva

Study on the formation of the ~~ter~~abasic salts of silico-12-wolframic acid and substitution of the metallic ions by the aid of ^{24}Na , ^{42}K , ^{134}Cs , and ^{110}Ag radioisotopes. Studia Univ B-B S Chem 8 no.1:87-91 '63

Study of the decomposition of the silico-12-wolframic acid by the radiochromatographic method. Ibid.:93-95

1. "Babos-Bolyai" University, Cluj.

MARCU, Gheorghe; BUTURCA, Flaviu

Application of the method of analyzing by reflection of
radiations to the systems: $\text{PbO-Fe}_2\text{O}_3$; PbO-NiO ;
 PbO-ZnO ; Fe_2O_3 and $\text{Fe}_2\text{O}_3\text{-C}$. Studia Univ B-B S. Chem 8
no. 2:7-10 '63.

RIPAN, Raluca, acad.; MARCU, Gheorghe

Refining metals by the zonal melting method. Pt.1. Studia
Univ B-B S Chem 8 no.1:97-100 '63

MARCU, Gheorghe; MURGU, Gheorghe

Analysis of sodium hydroxide solution by the method of

β -radiation reflection. Studia Univ B-B S Chem 8 no.1:107-112
'63

1. "Babes-Bolyai" University, Cluj.

MARCU, Irina, ing., correspondent

The plan of economic measures for Trust No.5, Brasov. Constr Eng 11.
no.649:3 16 Je '62.

IFRIM, N.; MARCU, I., ing.; LOGHIN, I., ing.; IANUS, P., ing.

Suggestions, concrete achievements, prospects. Constr Buc
16 no.741:3 21 Mr'64.

RASEEV, D.; MARCU, M.

Experimental studies for improving the operation of
chain drives. Bul Inst Petrol Rum 9; 143-153 '63.

RIPAN, Raluca; MARCU, M.; CORDIS, V.

Contributions to gold dosing in industrial cyanic solutions. Rev
chimie Min petr 15 no.11:684-685 N '64.

MARCU, M

IBRESCAN, I.
SURNAME, Given Names

Country: Rumania

Academic Degrees: /not given/

Affiliations: /presumably the No 2 Surgery Clinic (Clinica II de Chirurgie), Timisoara/

Sources: Timisoara, Timisoara Medicala, No 2, Jul-Dec 60, pp 33-37

Data: "Experience of the Timisoara No 2 Surgery Clinic in Connection with the Therapy of Breast Cancer."

Co-authors:

CALOGHERA, C.

MARCU, M.

CRIBAN, G.

/degrees not given; affiliations presumably No 2 Surgery Clinic, Timisoara/

(10 11/60)

BRINZEU, P.; RUSSO, I.; MARCU, M.; REKASI, C.

Intestinal infarction of venous origin. Romanian M. Rev. 4 no.1:
88-90 Ja-Mar '60.

1. 2nd Surgical Clinic of the Medical Institute in Timisoara.
(~~INTESTINES~~ blood supply)
(INFARCTION etiol.)

GAVRILESCU, M., dr.; MARCU, M., dr.

Anatomoclinical considerations on 2 cases of primary cardiac hydatid cyst. Med. intern. 13 no.11:1555-1558 N '61.

1. Lucrare efectuata in Laboratorul de anatomie patologica I. M. Timiscara (conf. L. Georgescu)

(HEART DISEASES case reports)
(ECHINOCOCCOSIS case reports)

ROMANIA

MURESAN, I., Professor; CALOGHERA, C.; MARCU, M.; POP, Z.; CRISAN, G.;
BIHOIU, I.; RAICU, I., Extern.

Surgical Clinic II in Timisoara (Clinica II-a Chirurgicala,
Timisoara) - (for all)

Timisoara, Timisoara Medicala, No 1, Jan-Jun 63, pp 27-32

"Our Experience in the Surgery of the Hydatid Cyst of the Liver."
(Report presented to the Timisoara Society of Medical Sciences -
Surgery Section - 5 April 1961.)

7

MARCU, M.

Central and peripheral interactions of 7.3-b.e.v. negative pions in emulsions. B. Friedländer, M. Marcu, and M. Salcher (Inst. At. Phys., Bucharest). *Acta. rep. populare Romine, Inst. fis. st. IFA/Eld-39*, 7 pp. (1969) (in English).—In collisions of 7.3-b.e.v. π^- with emulsion nuclei, about $\frac{1}{2}$ of the incident energy is transferred to secondary pions. About $\frac{1}{2}$ of the collisions are peripheral, and are interactions of the incident π^- with virtual pions in the meson cloud of the emulsion nucleus. The production and fast decay of pionic resonant (isobaric) states can be assumed for the kinematics of peripheral meson showers, especially for the $\pi-\pi$ events. The results are derived from irradiation of a stack of 100 NIKFI-R pellicles, $10 \times 20 \times 0.04$ cm. each, in the 7.3-b.e.v. π^- beam of the JINR proton synchrotron at Dubna to a total dose of 18 pions/sq. cm. A total of 543 interactions has been detected. 17 references.

Manfred Mannheimer

5
130(c)

L2959

S/058/62/000/011/013/061

A062/A101

AUTHORS: Friedländer, E. M., Marcu, M., Spîrchez, M.

TITLE: On the angular distributions and multiplicity of secondary particles formed in 9 GeV proton collisions with light nuclei

PERIODICAL: Referativnyy zhurnal, Fizika, no. 11, 1962, 53, abstract 11B395 ("Rev. phys. Acad. RPR", 1961, v. 6, no. 4, 457 - 462, English)

TEXT: In emulsions irradiated in the internal proton beam of the OIYaI synchrophasotron, investigations were made on collisions of protons with nuclei of light elements (C, N, O) forming ≥ 3 shower particles. In all, 721 such interactions were detected. It was found that multiplicity of the shower particles does not depend on the number of black tracks in the star. This circumstance contradicts the model of multiple meson formation in the nucleus in consecutive interactions. Such angular distributions of shower particles in the center-of-mass system were investigated. The authors conclude that a part of the "jets" has an isotropic angular distribution and a part is characterized by a strong anisotropy.

[Abstracter's note: Complete translation]

L. Landsberg

Card 1/1

FRIEDLANDER, E.; MARCU, M.; SPIRCHEZ, M.

On the angular and multiplicity distribution of the secondaries in the 9 BeV proton collisions with light nuclei. Studii cerc fiz 12 n.3:535-541 '61.

1. Institutul de fizica atomica, Bucuresti.

(Protons) (Collisions(Nuclear physics))
(Nuclear emulsions) (Cell nuclei)

L 64949-65 EMT(m)/EMP(t)/EAP(t) IJP(c) JD/JG

ACCESSION NR: AP5023464

RU/0003/64/015/011/0684/0685

AUTHOR: Ripan, Raluca; Marcu, M.; Cordis, V.

TITLE: Contributions to the determination of gold in industrial cyanic solutions

SOURCE: Revista de chimie, v. 15, no. 11, 1964, 684-685

TOPIC TAGS: gold, solution property, cyanogen compound, spectroscopy, analytic chemistry

ABSTRACT: [Authors' English summary modified]: The authors describe a spectrochemical method for the determination of gold in cyanic solutions. The extraction of cyanauric acid and its adsorption on coal gives a relatively large concentration of gold in the samples for spectral determination and removes interfering impurities. The method may be used for concentrations between 5×10^{-7} and 3.2×10^{-5} ; the error is $\pm 10\%$.

L 64919-65

ACCESSION NR: AP5023464

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IC, GC

NR REF SOV: 000

OTHER: 003

JPRS

2/2

LUPU, M.A.; MARCU, N.

A success of our Marxist-Leninist historiography: "History of Rumania," Vol. I, edited by the following Committee: Academician C. Daicoviciu, Academician E. Condurachi, I. Nestor, corresponding member of the Rumanian Academy, Gh. Stefan, corresponding member of the Rumanian Academy, and M.D. Matei. Reviewed by M.A. Lupu and N. Marcu. Probleme econ 14 no.6:122-130 Je '61.

MARCU, N.

Agrarian crisis in Rumania between the two World Wars. Probleme econ 14
no.11:66-85 N '61.

LUFU, M.A.; MARCU, N.

A success of Rumanian Marxist-Leninist historiography.
Probleme econ 15 no.8:141-148 Ag '62.

LUPU, M.A.; MARCU, N.

Echo of worker struggles in the journalism of the time. Problems
econ 16 no.2:28-41 F '63.

1 15781-65

ACCESSION NO: AP5014775

RU/0011/64/008/004/0155/0165

15
B

AUTHOR: Nistor, M. (Engineer); Badea, I.A. (Engineer); Marcu, M. (Engineer);
Mirea, N. (Engineer); Nenita, E. (Engineer); Simian, E. (Engineer)

TITLE: Development of automation and telemechanics in the power industry of
the Rumanian People's Republic

SOURCE: Automatica si electronica, v. 8, no. 4, 1964, 155-165

TOPIC TAGS: automation, automatic control system, automation equipment,
electric industry

Abstract: A description of the automation devices and systems
used in the Rumanian power system. Covered are automation in
thermoelectric power stations, in hydroelectric power stations,
in the power line network and in the electric distribution
substations. Block diagrams and photographs of the principal
items are given. Orig. art. has 8 figures.

ASSOCIATION: none

SUBMITTED: CO

ENCL: CO

SUB CODE: IE, EE

NO REF SOV: 000

OTHER: 000

JPRS

Card 1/1 me

MARCU, N.; GENSL, Z.

On the character of some statistical and economic research during
the 1920-1940 period. Problema econ 18 no.2:60-74. P 165.

MARCU, O.

Bats, valuable aids to agriculture and its supplementary branches.
p. 48. NATURA. Bucuresti. Vol. 7, no. 3, May/June 1955.

SOURCE: East European Accessions List (EEAL) Library of Congress
Vol. 5, No. 7, July 1956.

MARCU, O.

RUMANIA. / Zooparasitology. Acarina and Insects. Vec- G
tors of Pathogenic Agents. Acarina.

Abs Jour: Ref Zhur-Biol., No 6, 1959, 24273.

Author : Marcu, O.
Inst : Rumanian Academy, Cluj Affiliate.
Title : Caves Ixodidae in Rumania.

Orig Pub: Studii si cercetari biol. Acad. RPR Fil. Cluj,
1957, 8, No 1-2, 209-211.

Abstract: In the caves of the Western Mountains and South-
ern Carpathians of Rumania, Ixodes (Eschatoceph-
alus) vespertilionis Koch was discovered. In
the free state, males were found in considerably
greater quantities than females.

Card 1/1

MARCU, Petre, ing.; VASILESCU, Bartolomeu, ing.; RADULESCU, Elena, ing.

Eutectic aluminum silicium alloys for foundries. Metalurgia
constr mas 14 no.8:683-687 Ag '62.

1. Institutul de cercetari metalurgice.

MARCU, Petre, ing.; RADULESCU, Elena, ing.; VASILESCU, Bartolomeu, ing.

Preparation and casting of Cu-Sn-Pb ternary bronzes.
Metalurgia constr. mas 14 no.9:780-783 S '62.

1. Institutul de cercetari metalurgice.

R/009/63/000/002/001/001
A065/A126

AUTHORS: Marcu, Putre, Vasilescu, Bartolomeu, Caba, Mircea, Bock, Ion, - En-
gineers

TITLE: Plastic deformation of special aluminum alloys for pistons

PERIODICAL: Metalurgia și construcția de mașini, no. 2, 1963, 113 - 117

TEXT: The article presents the results of experiments conducted at the Institutul de cercetări metalurgice (Metallurgical Research Institute) to determine the main parameters of extrusion, upsetting and drop forging of the ACD complex aluminum alloy, to be used in the production of high-capacity diesel engine pistons. The ACD aluminum alloy consisted of 2.1 - 2.4% Cu, 1.40 - 1.55% Mg, 0.70 - 1.00% Si, 1.1 - 1.5% Ni, 1.2 - 1.5% Fe, and 0.04 - 0.1% Ti. The tests proved that the most advantageous heating time prior to extrusion was at least 16 h, and the optimum heating temperature $460 \pm 10^\circ \text{C}$. Adequate lubrication and a deadsmooth machined surface of the tools coming in contact with the extruded alloy have reduced the friction coefficient. All these operations have led to a uniform structure of the extruded ACD bars, 125 mm in diameter. For

Card 1/2

Plastic deformation of special aluminum

R/009/63/000/002/001/001
A065/A126

the manufacturing of pistons from these bars, the authors have determined an optimum preheating temperature of $460 \pm 10^\circ\text{C}$, a preheating time of 6 h, an upsetting temperature of $380 - 470^\circ\text{C}$, and an upsetting time of 2 min. The optimum re-heating time before drop forging was 4 - 6 h at a temperature of $450 \pm 10^\circ\text{C}$. The pistons have been forged by 10 - 13 blows and were then subjected to a heat treatment at 505°C for 4 h, followed by hardening in 80°C hot water. Industrial tests have been accomplished with the cooperation of Engineers M. Codreanu, Gh. Marinescu, and A. Vasiliu. There are 6 figures and 5 tables.

ASSOCIATION: Institutul de cercetări metalurgice (Metallurgical Research Institute)

Card 2/2

ACCESSION NR: AP4015841

R/0017/63/000/006/0385/0387

AUTHOR: Marcu, P. (Engineer); Gheorghiu, C. (Engineer)

TITLE: Aluminum alloy for pressure casting of parts

SOURCE: Metalurgia, no. 6, 1963, 385-387

TOPIC TAGS: aluminum alloy, pressure casting

ABSTRACT: An aluminum alloy containing 7-9% Si, 9-11% Zn, 0.3-0.45 Cu, 0.4-0.6% Mg, and 0.2-0.3 Mn can be pressure cast between 580-600C. Finished parts are not porous and do not require thermal treatment. However, they can be used only up to 150C, and are susceptible to corrosion. The molten alloy shows good fluidity and a small capacity of absorbing gasses. The furnace is degassed every 30 minutes, at 740C, by means of hexachloroethane. Pressure casting experiments were performed on a Polak machine type CLP-220.55.8. The alloy is currently used by the Bucharest Factory for Electric Machinery. Variation of mechanical properties is shown in Fig. 1 and Tables 1, 2, and 3

Card 1/62

ACCESSION NR: AP4015841

Orig. art. has: 2 figures and 3 tables.

ASSOCIATION: Institutul de Chercheteri Metalurgice (Institute for Metallurgical Research)

SUBMITTED: 00

DATE ACQ: 100et63

ENCL: 04

SUB CODE: ML

NO REF SOV: 000

OTHER: 000

Card 2/42

L 41121-66 EWP(k)/EWP(t)/ETI IJP(c) JH/JD
ACC NR: AP6030201 SOURCE CODE: RU/0017/65/000/007, 3358/0363
AUTHOR: Marcu, P. (Engineer); Bock, I. (Engineer); Serban, M. (Chemist) 463
ORG: Metallurgical Research Institute (Institutul de cercetari metalurgice)
TITLE: Elaboration and casting of deformable corrosion-resistant alloys of the Al-Mg type
SOURCE: Metalurgia, no. 7, 1965, 358-363
TOPIC TAGS: metal casting, corrosion resistant alloy, aluminum, aluminum alloy property, magnesium alloy
ABSTRACT: A report on the preparation and casting under laboratory conditions of deformable alloys of the aluminum-magnesium type. The addition of chromium and boron was found to have favorable effects, especially with regard to increased corrosion resistance and improved mechanical properties. E. Radulescu, M. Caba, I. Suci and H. Kremer participated in the research. Orig. art. has: 12 figures and 5 tables. [JPRS]
SUB CODE: 13, 11 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 004
Card 1/1 hg UDC: 669.715.018.8:621.741.71 09/8 1045

SURNAME, Given Names

Country: Rumania

Academic Degrees:

Affiliation: *)

Source: Bucharest, *Revista de Sanitate Publica*, Vol IX, No 4, Sep-Oct 1961, pp 339-344.

Data: " Studies on the Incidence of Pathogenic Staphylococcus and Colibacillus As Health Indicators in Hospital Units."

Authors:

TUNARU, C., -Dr.-

CHIRU, Gh., -Dr.-

MARCU, R., -Dr.-

CIJU, A., -Dr.-

DELEANU, L., -Dr.-

CORNATEANU, I., -Dr.-

MUSAT, S., -Dr.-

*) Work performed at the Regional Sanepid (Sanepidul Regional), Dobrogea

GPO 981643

PERVAT, M. KAROL, I.

Utilization of extruding machines as rheometers. Rev. Inst.
Politeh 25 no.4665.77 Cl. Ag 143.

1. Bucharest: Works of Plastic Masses.

MARCU, S.

TECHNOLOGY

Periodicals: ENERGETICA. Vol. 6, no. 8, Aug. 1958

MARCU, S. On the possibility of simplifying protection of means of relay.
BY engineer S. Marcu, p. 373

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

MARCU, S. ; COLUMBEANU, P.

Simplified diagram for self-engaging reserve. p. 83.

ENERGETICA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din
Romania si Ministerul Energiei Electrice si Industrii Electrotehnice)
Bucuresti, Rumania, Vol. 7, no. 2, Feb. 1959.

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

Uncl.

NISTOR, M., ing.; ~~BADEA~~, I.A., ing.; ~~MARCU~~, S., ing.; MIREA, N., ing.
NENITA, E., ing.; SIMIAN, E., ing.

Development of automation and telemechanics in the electric power
industry in Rumania. Automatica electronica 8 no.4:155-165 J1-Ag '64.

MARCU, V.

Studies of some characteristics of platinum obtained by electrometallization.

P. 465 (Academia Republicii Populare Romine. Institutul de Mecanica Aplicata. STUDII SI CERCETARI DE MECANICA APLICATA. Vol. 7, no. 2, Apr./June 1956. Bucuresti, Romania)

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

RUMINL/Chemical Technology. Chemical Products and Their
Application. Corrosion. Corrosion Control.

H

Abs Jour: Ref Zhur-Khim., No 8, 1959, 27822.

Author : Marcu, V., Zelingher, N., and Freund, P.

Inst :

Title : Corrosion Protection by the Applications of Sprayed
Metal Coatings.

Orig Pub: Studii si Cercetari Mec Apl Acad RPR, 9, No 2,
457-470 (1958) (in Rumanian with French and Russian
summaries)

Abstract: The results from corrosion tests on samples coated
with sprayed steel coatings (I) and on nonmetallized
samples (II) are described. It has been established
that the resistance of I under conditions of electro-
chemical corrosion is satisfactory; II show sufficient

Card :1/2

145

MARCU, V.

Behav or of metallic por us surfaces in lubrication and wear. p.852

METALURGIA SI CONSTRUCTIA DE MASINI. (Ministerul Industriei Metelurgice si Constructiilor de Masins si Asociatia Stiintifica a Inginerilor si Technicienilor din Rominia) Bucuresti, Rumania
Vol.11, no.10 Oct. 1959

Monthly list of East European Accessions (EPAI) LC, Vol.9, no.2, Feb. 1960

Uncl.

84651

18.7400 only 1087, 1497, 1454

R/008/60/000/002/005/007
A125/A026

AUTHORS: Marcu, V., and Freund, P.

TITLE: On the Adherence of Sprayed Metal Layers on Plane Surfaces

PERIODICAL: Studii și Cercetări de Mecanică Aplicată, 1960, No. 2, pp. 491-500

TEXT: After a brief introduction into the method of metal spraying in general, the authors examine the adherence of the sprayed metal layers on plane surfaces, as well as the mechanical and thermal phenomena leading to a straining of the sprayed layer and producing its exfoliation. They admit the following hypotheses: 1) The δ thickness of the sprayed layer is reduced; 2) The plane dimensions of the sprayed layer are infinite; 3) The temperature is constant on the δ thickness of the layer; 4) The sprayed layer is stressed, due to the prevented dilatation; and 5) The layer is normally stressed on the separation surface, due to the normal adherence power. On the basis of these hypotheses, the problem is reduced to the case of plane deformations. The authors use the generalized law of Hooke, taking also the thermal deformations into consideration, which have the same expressions for all three coordinate axes. They establish the relation of ϵ_z , the specific elongation in the direction z (2.2) and derive the relation of σ_z , the normal unitary power in the direction z (2.2). Thus, the

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84651

R/008/60/000/002/005/007

A125/A026

On the Adherence of Sprayed Metal Layers on Plane Surfaces

prevented dilatations produce a normal unitary power σ_z . The exfoliation of the layer takes place if σ_z added to the normal adherence (f_n) supplies a zero or negative resultant. To have an adherence between the base metal and the sprayed layer, the following condition has to be respected: $f_n + \sigma_z > 0$, (2.6). The relations (2.7) and (2.8) determine the temperature conditions for achieving the adherence on the plane surface. By knowing the mechanical and thermal characteristics of both materials, the authors determine the relation (2.9), which has to exist between T_a (temperature difference producing the dilatation in the sprayed layer) and T_b (temperature difference producing the dilatation in the base material). The results mentioned above have been established for an infinitely long sprayed layer. For practical use they have to be corrected taking the marginal zones of the layer into consideration. The influence of the marginal zone is analyzed under two aspects: 1) The influence of the margin appears at small surfaces. The exfoliation angle is finally determined by the relation of $\tan \alpha$ (3.2). 2) At the influence of the corners, the exfoliation angle $\tan \alpha$ is determined by the relation (3.3). In case of metal spraying on plane surfaces, it is recommended to preheat the base surface in order to improve the adherence.

Card 2/3

84651

R/008/60/000/002/005/007
A125/A026

On the Adherence of Sprayed Metal Layers on Plane Surfaces

Results of experiments are presented in Table 1. A calculation example closes this report. There are 12 figures, 2 tables and 7 references: 2 Rumanian, 2 Soviet, 1 English and 2 German.

SUBMITTED: November 23, 1959

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Card 3/3

MARCU, Vasile, ing.; PASCU, Nicolae, ing.; VASILESCU, Mircea, ing.

Bearings obtained through metalization. Metalurgia constr mas 13
no.9:759-767 S '61.

(Bearings(Machinery)) (Metal spraying)

MARCU, V.

Modern methods and application of powder metallurgy and the metal spraying by pulverization in the construction of machines and installations. Studii cerc mec apl 13 no.5:1309-1331 '62.

MAKHU, V., ing.; VILAN, M., ing.

T

Possibilities of applying metallization by pulverization in
electric power work. Energetika Rum 12 no. 4:226-230 61 rum.

SECRET

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