TEICH, I.

Development of the production of Rumania's raw coal during the years 1927-1962. Rev min 15 no. 4:209-211 Mr '64.

LUBENESCU, D., conf. ing.; TEICH, I., aspirant

Aspects of the development of the mining industry in Rumania during the 20 years since the liberation, in the light of statistical data. Rev min 15 no.8:424-428 Ag '64.

TRICH, I.

Analytical determination of the influence of some specific factors on the increase of labor productivity in the coal industry. Rev min 15 no.10:496-498 O '64.

WEICH, M.

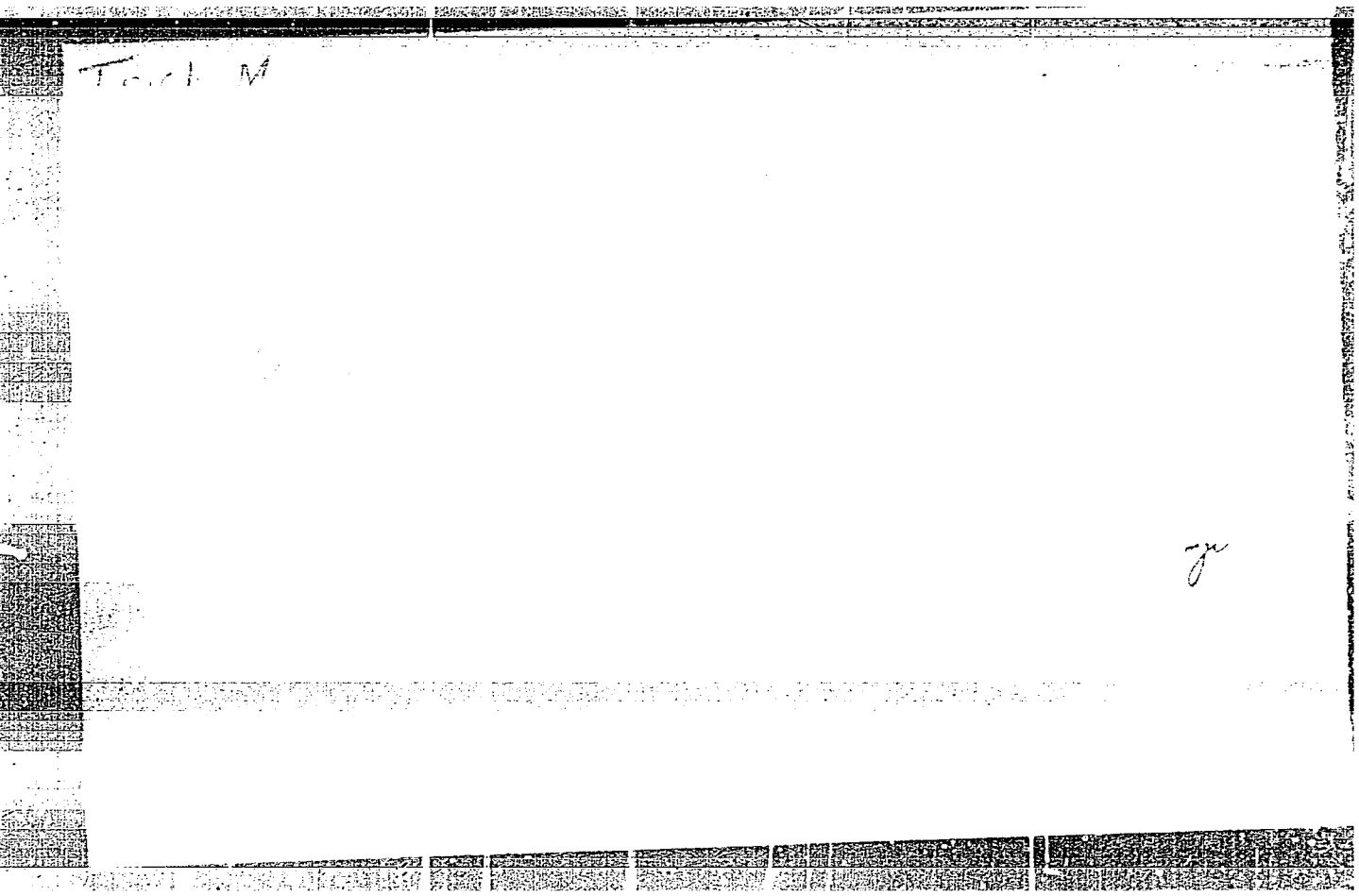
Biochemistry in Czechoslovakia. Cas.lek.cesk. 90 no.18:538-543 4 May 51.
(CIML 20:8)

1. Author is Assistant at the Second Institute of Medical Chemistry of Charles University.

TEICH, M.

History of the origin and development of Mendeleev's periodic law.
P. 192.
(SBORNIK PRO DEJINY PRIRODNICH VED A TECHNIKY, vol. 1954, Praha)

SO: Monthly List of East European Accession, (EEAL) LC, Vol. 4, No. 11, Nov. 1955, Uncl.



TEICH, S.

TEICH, S. Application of technical progress, a factor for increasing labor productivity in the ready-made clothing industry. Pt. 2 (Conclusion) P. 425.

Vol. 7, No. 9, September 1956
INDUSTRIA TEXTILA
TECHNOLOGY
Bucuresti

So: East European Accession, Vol. 6, No. 3, March 1957

TEICHEL, I.

RUMANIA/Lacquers, Paints, Lacquerpaint Covers. H.

Abs Jour : Ref Zhur - Khimiya, No 19, 1958, 66117

Author : Teichel, I., Philips, I., Secosan, E.
Inst :
Title : Extraction of Ferric Oxide Pigments. Theoretical Part.

Orig Pub : Bull. stiint. si tehn. Inst. politehn. Timisoara, 1956, 1, No 1, 361-373.

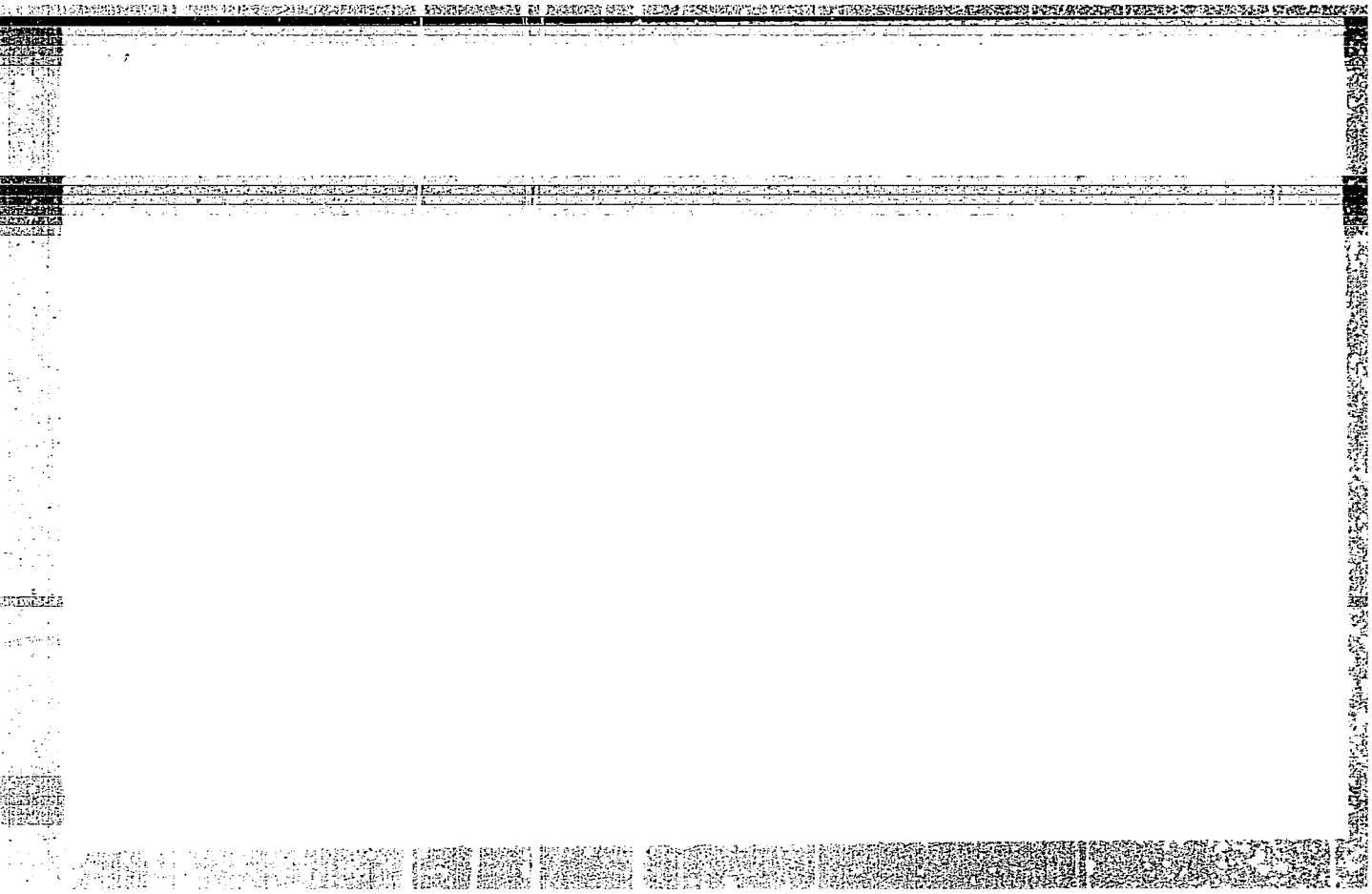
Abstract : Experiments are described for the extraction of pigments from pulp obtained as waste from the production of aniline.

Card 1/1

DOBROTA, S. DURATNY, K.; TEICHER, L.; DORNETZHUBER, Vl.; FINDOVA, V.

On surgical and some other problems of chemodectoma of the glomus caroticum. Bratisl. lek. listy 45 no.3:178-189 15 Ag '65.

1. Krajska nemocnica tuberkulozy a chorob plucnych v Bratislave-Podunajskych Biskupiciach (riaditel doc. MUDr. K. Virsik), Oddelenie hrudnej chirurgie (veduci MUDr. S. Dobrota) a Ustav tuberkulozy v Bratislave (riaditel MUDr. J. Markovic).



APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755130011-7"

6
2-may
2

Distr: 4E2c(j)/4E3d
5338

547.562.1:661.727.4:661.715.7

Teichert A., Leszczyński Z., Radoniewicz H. The Synthesis of Phenol and Acetone by the Cumene Method. Part V.

„Synteza fenolu i acetonu metodą kumenową". Cz. 5. Przemysł Chemiczny. No. 2, 1958, pp. 98—102, 6 figs., 5 tabs.

The decomposition of cumene hydroperoxide into phenol and acetone was performed, in static and dynamic systems, in the presence of sulphuric acid and ion exchangers as catalysts. It was found that the process of decomposition is best catalyzed by Wofatit P, the theoretical yield (95%) in presence of this catalyst being higher than with sulphuric acid. The method of acclimatization and the degree of swelling of this ion exchanger exerted a marked influence on the rate of the decomposition process. Experiments of long duration showed that the decrease in the exchange capacity of Wofatit P (in the range examined) did not change its catalytic properties in the process of decomposition of cumene hydroperoxide.

EW
111

GRZELEWSKI, Leszek; KRAWCZYK, Nadziej; TEICHNER, Andrzej

Determination of the specific surface of catalysts and carriers by adsorption form solutions. Przem chem 40 no.12:684-687 D '61.

1. Zaklad Syntezy Kontaktowej, Instytut Chemii Ogolnej, Warszawa.

TEICHERT, Andrzej; KEPA-LECZEW, Maria

Surface characteristics of vanadium catalysts based on kinetic measurements of oxygen chemisorption. Chemia stosow 7 no. 2:223-230 '63.

1. Instytut Chemii Ogolnej, Zaklad Radiochemii, Warszawa.

TEICHMAN, FARKAS

HUNGARY/Analytic Chemistry - Analysis of Organic Substances. F-3

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46478

Author : Pal Nanasi, Rezsö Bognar, Maria Puskas, Farkas Teichmann, Jenöne Ecsedi

Inst : Debrecen University.

Title : Study of Carbohydrate Derivatives by Paper Chromatography Method.

Orig Pub : Acta Univ. debrecen., 1956, (1957), 3, No 2, 95-103.

Abstract : The chromatographic separation of simple and complex sugars, primary aromatic amines, N-aryl derivatives of glucosylamines (I) and corresponding aglycones in the case of their simultaneous presence was carried out and the values of R_f-s were determined. 6 mixtures of solvents were tried, the mixture n-butanol - pyridine-

Card 1/2

28

L 01052-66

ACCESSION NR: AP5022334 HU/2502/64/041/003/0331/0336

AUTHOR: Teichmann, Bodo (Teykhmann, B.)(Doctor)(Berlin-Buch) B

TITLE: Reactions with brominated dicarboxylic acids. Part 1: On the synthesis of aliphatic alpha-bromo-dicarboxylic esters

SOURCE: Academiae scientiarum hungaricae. Acta chimica, v. 41, no. 3, 1964, 331-336

TOPIC TAGS: brominated organic compound, aliphatic carboxylic acid, ester, organic synthetic process

Abstract: [German article] The synthesis of diethyl bromomalonate, dimethyl-α-bromoglutarate, diethyl-α-bromoglutarate, dimethyl-α-bromoadipate, di-n-propyl-α-bromoadipate, di-n-butyl-α-bromoadipate, dimethyl-α-bromopimelinate, diethyl-α-bromopimelinate, dimethyl-α-bromosuberate, diethyl-α-bromosuberate, dimethyl-α-bromoazelainate, dimethyl-α-bromosebacate, and diethyl-α-bromosebacate was described. It was possible to avoid the formation of α,α'-dibrominated, α,α-dibrominated, and β-monobrominated products. The physical characteristics of the products and the methods of synthesis were described. Orig. art. has 1 table.

Card 1/2

L 01052-66

ACCESSION NR: AT5022534

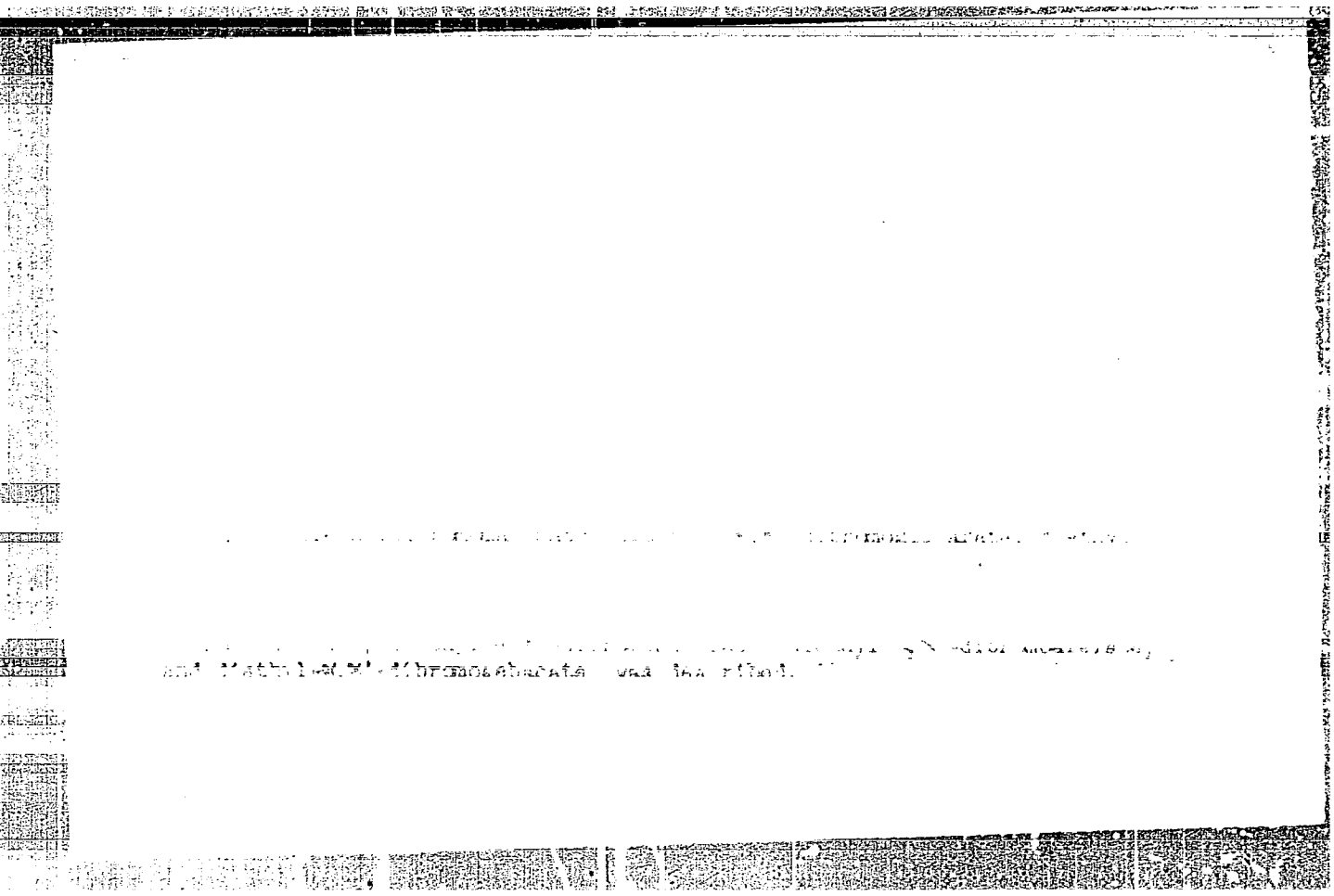
ASSOCIATION: Institut for Medizin und Biologie der Forschungsgemeinschaft der Deutschen Akademie der Wissenschaften, Berlin (Institutes for Medicine and Biology at the Research Community of the German Academy of Sciences)

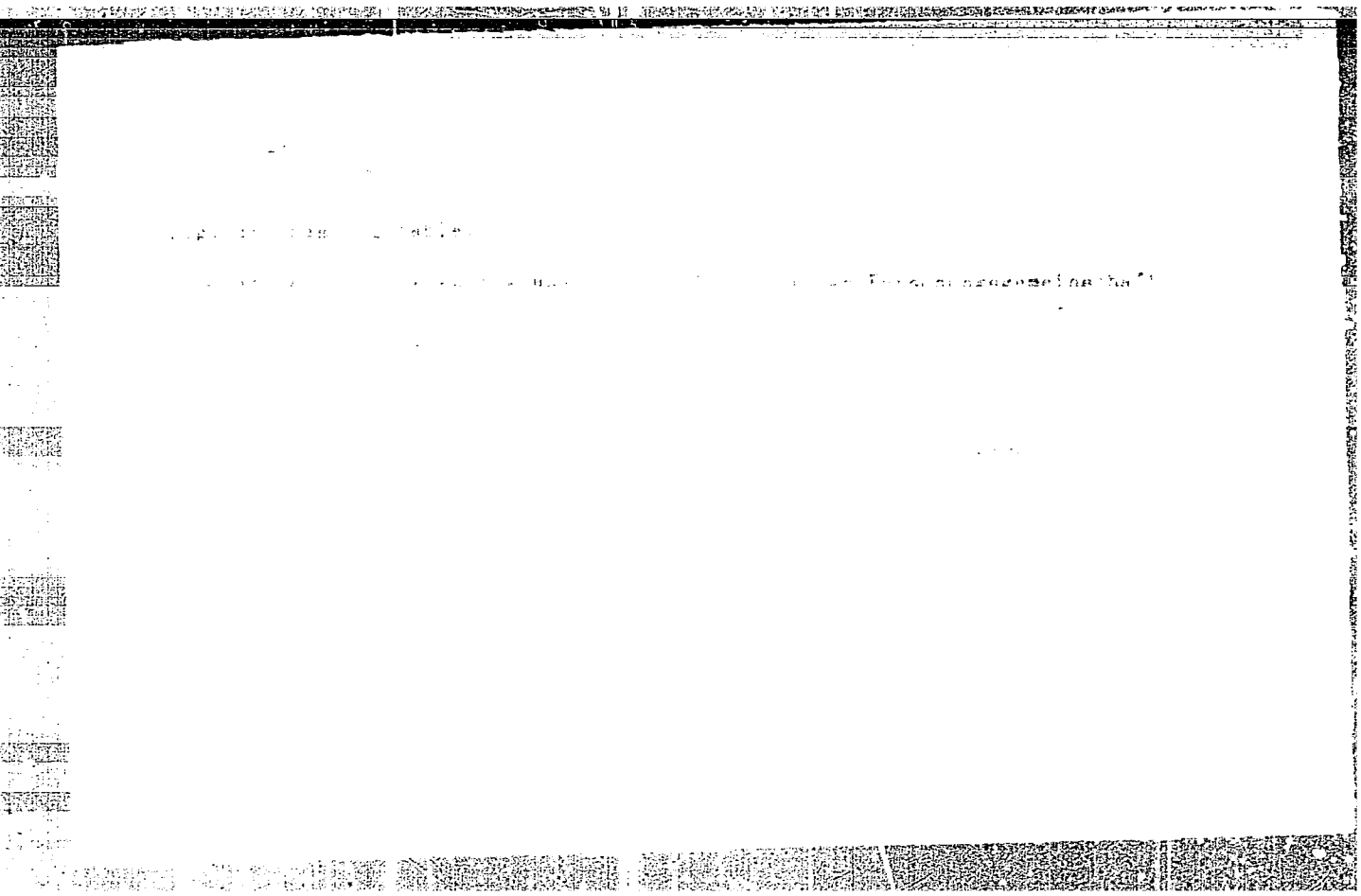
SUBMITTED: 10Feb64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 012 OTHER: 000 JPRS

mlr

Card 2/2





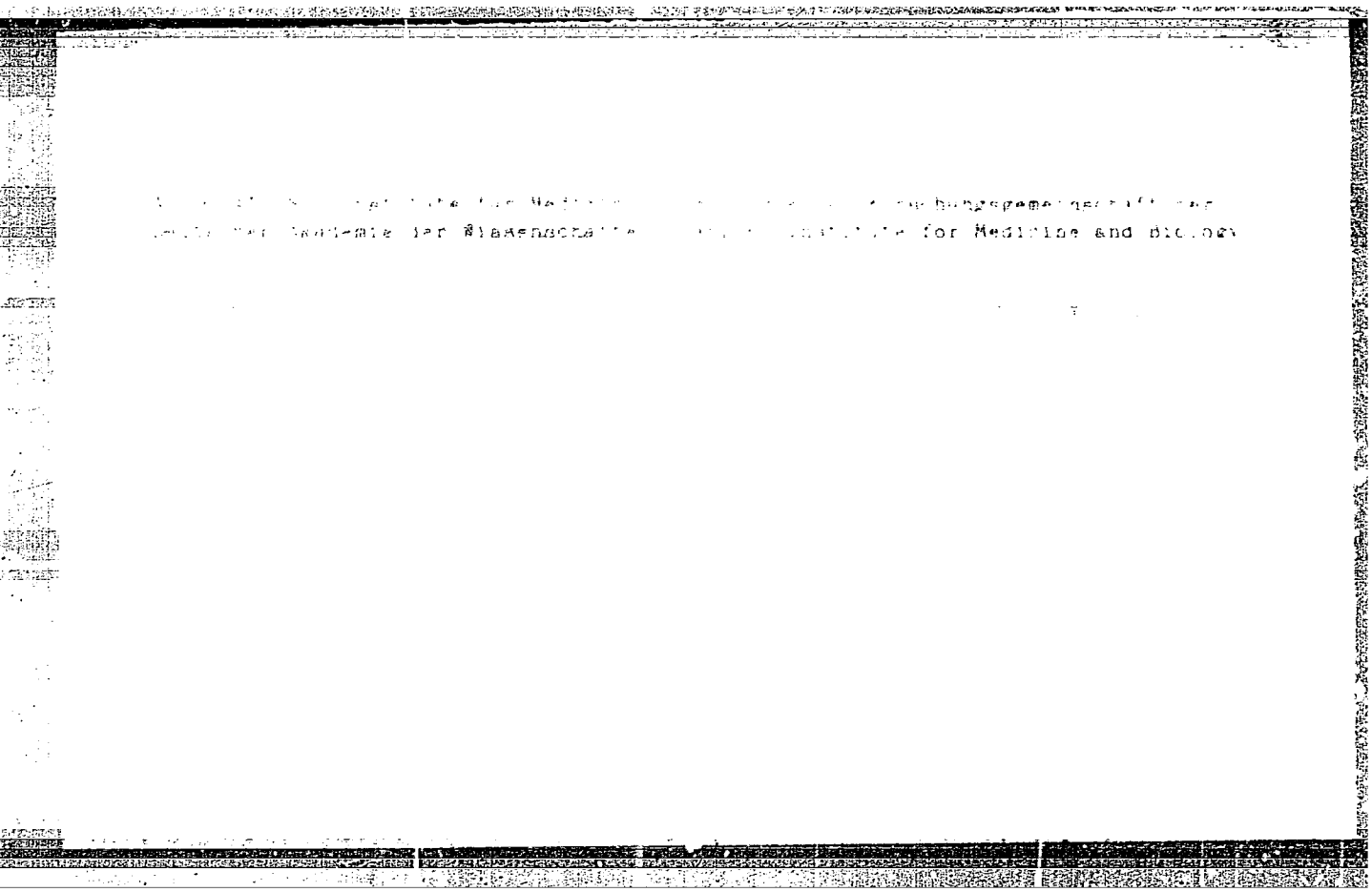
APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755130011-7"

AUTHOR: [illegible]

[illegible]

TOPIC TAGS: ester, aliphatic dicarboxylic acid, brominated organic compound

ABSTRACT: [illegible]



L 34721-66

ACC NR: AT6025199 SOURCE CODE: HU/2502/65/046/003/0241/0246

39

B+1

AUTHOR: Teichmann, Bodo--Teykhmann, B. (Doctor)

ORG: Institute for Cancer Research, Research Group, DAW, Berlin (Institut fur Krebsforschung der Forschungsgemeinschaft der DAW)

TITLE: Reactions with brominated dicarboxylic acids. Part 5. Behavior of alpha-mono- and alpha alpha'-debrominated aliphatic dicarboxylic acid esters toward organometallic compounds and LiAlH sub 4

SOURCE: Academia scientiarum hungaricae. Acta chemica, v. 46, no. 3, 1965, 241-246

TOPIC TAGS: brominated organic compound, aliphatic dicarboxylic acid, ester, organometallic compound, lithium compound, aluminum compound

ABSTRACT: Monobrominated esters yielded halogen-free linear products; dibrominated esters yielded cyclic tertiary diols and cyclic esters, when reacting with lithium phenylate, zinc diethylate, and lithium aluminum hydride. With the latter, dibrominated esters also yielded linear diols. [JPRS: 34,165]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 032

LS

TEICHMANN, G.; HEIDEL, W.; KUHLGATZ, G.

Simulated mitral stenosis in myocardial fibrosis. Cor vasa 4 no.4: 305-312 '62.

1. Kardiologische Arbeitsgemeinschaft der Medizinischen Poliklinik und Chirurgische Klinik der Universitat Rostok.
(MITRAL STENOSIS) (MYOCARDIUM) (HEART DISEASES)
(ELECTROCARDIOGRAPHY)

L 15500-66

ACC NR: AT6007446 SOURCE CODE: HU/2505/65/026/000/0049/0049

AUTHOR: Rohlich, P.; Vigh, B.; Teichmann, Ingeborg; Aros, B.

ORG: Medical University of Budapest, Institute of Histology and Embryology (Budapesti Orvostudomanyi Egyetem, Szovettani es Fejlodestani Intezet)

TITLE: Electron-microscopic studies of the medial eminence in the rat [This paper was presented at the 29th Meeting of the Hungarian Physiological Society held in Szeged from 2 to 4 July 1964]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, Supplement, 1965, 49

TOPIC TAGS: electron microscopy, rat, brain, histology, neurology

ABSTRACT: The ultrastructure of the layers of the medial eminence is described. The surface of the brain is covered by a basal membrane. The endothelium of the portal vascular loops which penetrate into the medial eminence is very thin and fenestrated, like that of blood vessels which transport large volumes of fluid. In the palisade layer, especially near the vascular loops, large numbers of nerve fiber endings are present. The endings are characterized by two types of vesicles: a) those of small size with a thin content, similar to the synaptic vesicles in their order of magnitude, b) larger ones containing a denser material

Card 1/2

L 15500-66

ACC NR: AT6007446

and similar to the neurosecretory vesicles. In the lateral and anterior parts of the medial eminence, there are few nerve endings and they give way to glial and ependymal soles. In this area and in the hypendyma, the vascular epithelium is not fenestrated. These ultrastructural properties support the view that a substantial transport of substances between blood vessels and nerve endings takes place in the area of the medial eminence. [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 2/2

TEICHMANN, Ingeborg; VIGH, B.; ARGS, B.

Histochemical studies on gomori-positive substances. I. Examination of the gomori-positive substance in the endolymphatic sac of the rat. Acta biol. acad. sci. Hung. 14 no.4:293-300 '64.

1. Department of histology and embryology, Medical University, Budapest (Head: I. Toro).

VIGH, B.; AROS, B.; KORITSANSZKY, Sara; WENGER, T.; TEICHMANN, Ingeborg

Ependymosecretion (ependymal neurosecretion). V. The correlation between glial cells containing gomori-positive substance and ependymosecretion in different vertebrates. Acta biol. acad. sci. Hung. 14 no.2:131-142 '63.

1. Department of Histology and Embryology, Medical University, Budapest (Head: I. Toro).

(NEUROGLIA) (EPENDYMA) (STAINS AND STAINING)
(BIRDS) (HYPOTHALAMUS) (HISTOCHEMISTRY)
(RATS)

RÖHLICH, P.; VIGH, B.; TEICHMANN, Ingeborg; AROS, B.

Electron microscopy of the median eminence of the rat. Acta biol. acad. sci. Hung. 15 no.4:431-457 '65.

1. Institute of Histology and Embryology, Medical University, Budapest (Head: I. Törö). Submitted September 20, 1964.

AUTHOR: Teichman, Jiří

CZECH/37-59-3-15/29

TITLE: An Accelerator with a Helical Field (Letter to the Editor)

PERIODICAL: Československý časopis pro fysiku, 1959, Nr 3, pp 318-319

ABSTRACT: No satisfactory cyclotron for ultra-relativistic electrons has yet been constructed. T. Ohkawa has suggested (discussion at Geneva conference, 1956) a cyclotron with a vertically increasing field. This solution is unsuitable for cyclotrons with small diameter. The author (Ref 5) has suggested the following accelerator. The guiding magnetic field is continuous and is azimuthally modulated by magnetic inhomogeneities, which follow a cylindrical screw (Figure 1) or helical spirals on a different plane of rotation. Thereby, an azimuthal periodical dependence of the field components is achieved and the orientations of the gradients of the field alternate along the equilibrium path sufficiently to focus the particles. The exponential increase of the field in the vertical direction assumes the constant frequency of the betatron oscillations. An expression for the vertical component of the magnetic field is given in this letter.

Card1/2

CZECH/37-59-3-15/29

An Accelerator with a Helical Field (Letter to the Editor)

The author has shown elsewhere (Ref 5) that the motion of particles in such a field is stable over a wide range of parameters. A cyclotron of this type with a constant magnetic field and a high-frequency accelerating field would mainly be suitable for ultra-relativistic electrons. A modification of this arrangement for semi-relativistic particles is suggested. Further work is in progress. This is an abridged translation. There are 1 figure and 5 references, of which 3 are Czech and 2 English.

ASSOCIATION: Výzkumný ústav pro vakuovou elektrotechniku, Praha (Research Institute for Vacuum Electrical Technology, Prague)

SUBMITTED: October 15, 1958

Card 2/2

Influence of fringing on betatron oscillations in an accelerator with a sectioned magnet. I. Jiří Teichman (Research Inst. Vacuum Electronics, Prague). *Czechoslov. J. Phys.* 9, 47-68(1959)(in Russian).—A study is made of betatron oscillations in stray fields at the edges of magnets of an accelerator having a small radius. Two approxns. of the course of stray fields, chosen on the basis of measurements, help in the construction of nonlinear equations of motion of the particle. Transformation matrices of the boundary regions are derived. The case when an equil. trajectory encloses a general angle with the edge of the magnet is also treated. 15 references. A. Krembeller

Accelerator with a helical field. [illegible] (Research Inst. Vacuum Electronics, Prague). *Československ. J. Phys.* 9, 262-3(1959)(in English).—T. discusses the feasibility of constructing a helical field accelerator; he indicates that a satisfactory solu. for an electron cyclotron has not yet been found.
A. Krembeller

TEICHMANN, J.

19 3

Influence of fringing on betatron oscillations in an accelerator with a sectioned magnet. II. Jiří Teichmann (Research Inst. Vacuum Electronics, Prague). *Czechoslov. J. Phys.* 9, 388–91 (1959) (in Russian); cf. *C.A.* 53, 15705*d*.—The influence of stray fields at the edges of pole pieces on the deformation of equil. trajectory and betatron oscillations is studied. A new definition of the effective length of segments for the approx. solution is given. A. Kreisheller

2-4E 3c

P.M.R

65979

Z/037/60/000/02/012/018
E073/E335

24.6700

AUTHORS: Teichman, Jiří and Podskalský, Emil

TITLE: Mass Spectrometer with a Straight or Wavy Trajectory and a Periodically Variable Field

PERIODICAL: Československý časopis pro fysiku, 1960, Nr 2, pp 181 - 182

ABSTRACT: In current spectrometers with a straight trajectory the particles move in a homogeneous electric and magnetic field with mutually perpendicular vectors of the intensities if the following equation is satisfied:

$$v_s(t) = - \frac{E_{ox}(t)}{B_{oz}(t)}$$

where v_s is the speed of the particles in the direction of the axis s ,
e_{ox} is the horizontal component of the vector of the electric field and
B_{oz} is the vertical component of the magnetic induction.

The condition is fulfilled for every value t only

Card1/8

65979
Z/037/60/000/02/012/018
E073/E335

Mass Spectrometer with a Straight or Wavy Trajectory and a Periodically Variable Field

for ions of a given speed $v_s(t)$ and thus also of a given specific charge e/m. Other particles with a differing speed $v_s(t)$ have curved trajectories and they do not pass through the slit into the recording equipment. The resolution in such spectrometers is limited by the lack of focusing forces in the homogeneous field. The scattering of particles caused by the input divergences of the beam and by the space charge is not compensated in such a field. For the purpose of improving the resolution the authors propose a spectrometer, Ref 1, which consists of a combined non-homogeneous electric and magnetic field, utilising the principle of "strong focusing" by means of the magnetic field proposed earlier for particle accelerators (Refs 2,3). In the spectrometer (Ref 1), the combined field is so formed that the vertical component of the magnetic induction and the horizontal component of the vector of the electrical field are

Card2/8

65979

Z/037/60/000/02/012/018
E073/E335

Mass Spectrometer with a Straight or Wavy Trajectory and a Periodically Variable Field

periodically modulated along the s axis:

$$B_z(x, s, z) = B_z(x, s + D, z) ,$$
$$E_x(x, s, z) = E_x(x, s + D, z)$$

where $2\pi/D$ is the frequency of waviness of the field along the central trajectory. The vectors of both fields are mutually perpendicular and at each point of the central trajectory, which can either be a straight line identical with the s-axis or a wavy curve, the following conditions will again be fulfilled:

$$-\frac{E_{ox}(t,z)_{z=0}}{B_{oz}(t,z)_{z=0}} = v_s(t) .$$

Periodic modulation of the vertical component of the magnetic field is a source of field gradients which change in direction along the central trajectory.

Card3/8

4

65979

Z/037/60/000/02/012/018
E073/E335

Mass Spectrometer with a Straight or Wavy Trajectory and a Periodically Variable Field

The gradients act on the particles as focusing forces which compensate the divergence of the beam, thereby improving considerably the resolution of the spectrometer. The particles oscillate around the central trajectory. If the initial conditions are satisfactory along the central trajectory, several nodes will form, in which the horizontal or the vertical dimension of the beam will be the smallest. The entry slit of the ion source can be placed into these nodal points, using one or several limiting slits and an entry slit to an ion-collector or other recording equipment. The length of the trajectories can be made much greater than is done in current designs of straight spectrometers, which also enables improving the resolution. The electric or magnetic field can be made variable with time and this enables time scanning of the analysis. Furthermore, the analysis can be carried out based on e/m, for beams of high current densities which can be used advantageously for ion separation. For instance,

Card4/8

65979
Z/037/60/000/02/012/018
E073/E335

Mass Spectrometer with a Straight or Wavy Trajectory and a Periodically Variable Field

for a spectrometer with a straight (central) trajectory and a continuous characteristic of the components, $B_z(s)$ and $E_x(s)$, the following relation can be chosen for both components in the neighbourhood of the s-axis:

$$B_z(s,x) = B_o(1 + nx)\cos \omega s \quad , \qquad (1)$$
$$E_x(s,x) = E_o \cos kx \cos \omega s$$

where k and n are constants and $\omega = 2\pi/D$. The straight central trajectory will exist only if

$$-\frac{E_o}{B_o} = \sqrt{2\frac{e}{m}V_o} \quad ,$$ where V_o as the potential deflects the particle in the ion source. The equations of motion (Ref 4) of the particles in the field, Eq (1), lead to the Mathieu equation. In its linear approximation, disregarding the space charge, the condition of stability of the

Card5/8

Z/037/60/000/02/012/018
E073/E335

Mass Spectrometer with a Straight or Wavy Trajectory and a Periodically Variable Field

vertical and horizontal oscillations of particles about the central trajectory can be expressed by:

$$\frac{\sqrt{\frac{e}{m}(2-nB_o)}}{\omega^2\sqrt{V_o}} \leqq 0.88 .$$

The frequencies of the horizontal and vertical oscillations $\nu_{x,z}$ are within the limits:

$$0 \leqq \nu_{x,z} \leqq \frac{\omega}{2} .$$

Another variant of the spectrometer with a straight trajectory can be formed (Ref 1) by using sector-type magnetic pole shoes, as shown in Figure 1. The direction of the gradient, between adjacent pole shoes, reverses. The electrodes are straight-line ones. A further increase

4

Card6/8

65979
Z/037/60/000/02/012/018
E073/E335

Mass Spectrometer with a Straight or Wavy Trajectory and a Periodically Variable Field

of the focusing forces in this type of spectrometer is achieved by the effect of the leakage fields at the transverse edges of the individual sectors which generally do not have to form a rightangle with the central trajectory. If in the design shown in Figure 1 the electrodes are wavy, the central trajectory will be a wavy curve which does not change the basic properties of the spectrometer. A detailed study of this new spectrometer will be published in a separate paper. Figure 1 shows a diagrammatic sketch of this new mass spectrometer, with the following main elements: 1 - magnet yoke; 2 - pole shoe; 3 - vacuum chamber; 4 - electrodes; 5 - central trajectory; 6 - ion source; 7 - entry slit; 8 - exit slit; 9 - collector.
(This is a complete translation)
There are 1 figure and 4 references, of which 2 are Czech and 2 are English.

Card7/8

65979

Z/037/60/000/02/012/018
E073/E335

Mass Spectrometer with a Straight or Wavy Trajectory and a Periodically Variable Field

ASSOCIATIONS: Ústav vakuové elektroniky ČSAV, Praha (Institute for Vacuum Electronics, ČSAV, Prague)
Výzkumný ústav pro vakuovou elektrotechniku, Praha (Research Institute for Vacuum Electrical Engineering, Prague)

SUBMITTED: September 8, 1959

Card 8/8

Z/037/60/000/005/043/056
E192/E382

26.2320

AUTHOR: Teichman, J.

TITLE: Some Problems in the Focusing of Particles in an Accelerator

PERIODICAL: Československý časopis pro fysiku, 1960, No. 5, p. 484

TEXT: In modern particle accelerators, where the focusing field has a planar symmetry, it is generally impossible to obtain a constant rotation frequency for the particles or a constant frequency for betatron oscillations if the field does not change with time. Recently, therefore, new structures for the focusing field have been devised, which eliminate the above difficulties in the region of ultrarelativistic energies (Ohkawa, Teichman). However, the problem of whether there exists a structure which maintains the above quantities constant over the whole energy spectrum has not been clarified. Consequently, a theory of an accelerator with a generalized magnetostatic or adiabatically time-varying field was developed; it is assumed that the field is periodically dependent on the

VB

Card 1/3

Z/037/60/000/005/043/056
E192/E382

Some Problems in the Focusing of Particles in an Accelerator

azimuth and that its components are defined on a generalized rotating plane. Such a field is general enough for various types of accelerators. The particle dynamics in the generalized field were analysed and the dissipative forces due to the radiation were taken into account. The conditions for a single-parameter system of equivalent paths were derived, it being assumed that these are stable in the Lyapunov sense. It is shown that these conditions can be met in an accelerator with an azimuthally continuous field as well as in the sector-type accelerators. During the acceleration the position and the shape of the equivalent particles is usually changed. The rotation frequency of the particles is in general a function of energy. An optimum accelerator with an accurately constant rotation frequency and a stable betatron frequency is in general not physically realizable over the whole energy spectrum. Optimum accelerators can only be realized in the ultra-relativistic energy region for a symmetrical field which

VB

Card 2/3

Z/037/60/000/005/043/056
E192/E382

Some Problems in the Focusing of Particles in an Accelerator

increases exponentially along the axis of the accelerator. The conditions for the linear and nonlinear resonance were derived and the influence of the perturbation of the focusing components of the generalized field was investigated.

ASSOCIATION: Ústav vakuové elektroniky ČSAV, Praha
(Institute for Vacuum Electronics of the ČSAV, Prague)

VB

Card 3/3

S/089/62/012/006/004/019
B102/B104

24.6730

AUTHOR: Teichmann, J.

TITLE: Accelerator with vertically growing field

PERIODICAL: Atomnaya energiya, v. 12, no. 6, 1962, 475-482

TEXT: A theoretical description is given of the most important properties of accelerators with vertically growing field (Fig. 1) along with a discussion of the conditions for obtaining optimum operation, of problems associated with the presence of equilibrium orbits, of the stability of betatron oscillations, and of particle acceleration. Control and focusing under conditions of continuous stable operation must satisfy the so-called conditions of isochronism: (1) steady controlling and focusing fields; (2) energy independence of betatron oscillations; and (3) energy independence of the revolution frequency. Calculations were made for an accelerator (cross-sectional view in Fig. 1), the axis of which coincides with the z-direction and for which the revolution surface $r_0(z_0) = 0$ was so chosen that the conditions of isochronism are approximately fulfilled. The field components on the surface $r_0(z_0) = 0$ are given by

Card 1/4

Accelerator with vertically growing ...

$$\left.\begin{aligned}(B_q)_{r_0,z_0} &= R_{mq}(r_0)\,Z_{mq}(z_0)\,F_{mq}(\theta);\\ (\mathscr{E}_q)_{r_0,z_0} &= R_{eq}(r_0)\,Z_{eq}(z_0)\,F_{eq}(\theta),\end{aligned}\right\}. \qquad (1),$$

where $F_q(\varphi)$ are periodic, bounded functions (period $2\pi/N$); $\varphi = \vartheta(N\gamma, r, z)$; the functions R,Z,F are solutions of the Laplace equation. With

$$b_q = r_0 c e \frac{(B_q)_{r_0,z_0}}{\beta E} \text{ и } e_q = r_0 e \frac{(\mathscr{E}_q)_{r_0,z_0}}{\beta^2 E} \quad (q = r,\ \varphi,\ z),$$

and

$$\left.\begin{aligned}&\langle b_z - e_r\rangle = 1;\\ &\langle b_r + e_z\rangle = 0;\\ &\langle(\overline{b}_r + \widetilde{e}_z)\,b_\varphi + (\overline{b}_z - \widetilde{e}_r)\,e_\varphi\rangle = 0;\\ &\langle(\overline{b}_z - \widetilde{e}_r)\,b_\varphi - (\overline{b}_r + \widetilde{e}_z)\,e_\varphi\rangle = 0.\end{aligned}\right\} \qquad (5)$$

the relation

Card 2/4

Accelerator with vertically growing ...

$$r_r = r_0\{1 + N^{-2}(\widetilde{\widetilde{e}}_r - \widetilde{\widetilde{b}}_z + K_2^{\Phi}) + N^{-3}[(\overbrace{\overbrace{b_r + e_z}}) b_\varphi + (\overbrace{\overbrace{b_z - e_r}}) e_\varphi + K_3^{\Phi}] + 0(N^{-4})\};$$

$$z_r = z_0 + r_0\{N^{-2}(\widetilde{\widetilde{b}}_r + \widetilde{\widetilde{e}}_z + K_2^{\Psi}) + N^{-3}[(\overbrace{\overbrace{b_z - e_r}}) b_\varphi - (\overbrace{\overbrace{b_r + e_z}}) e_\varphi + K_3^{\Psi}] + 0(N^{-4})\}. \quad (6)$$

is obtained for the equilibrium orbits. For the constants K_n^{Φ} and K_n^{Ψ}, see J. Zeichmann, Czech. J. Phys. B10, 144 (1960). As can be seen from (5), equilibrium orbits may exist in magnetic, electric, and combined fields. In systems with $B_z \simeq \exp(\alpha z)$, α = const, the equilibrium orbits shift upward at the velocity

$$\frac{dz_r}{d\theta} = \alpha^{-1}\exp[\alpha(z_{rn} - z_r)]\, p_n^{-1}\frac{dp}{d\theta}. \quad (8).$$

The conditions of isochronism require a geometric similarity of the equilibrium orbits for all energies. The deformation of the stability ranges $|\cos\bar{\varphi}_i| \leq 1$ is given by the phase condition in a system with rectilinear intervals (length l_o): $\cos\bar{\varphi}_i = \cos\varphi_i - l_o \sin\varphi_i/2(1+l_o)$,

Card 3/4

Accelerator with vertically growing ...

where l is the sector length. Hence the stability range becomes smaller as l_0 increases. The phase motion in the neighborhood of the stable phase ψ_s is given by

$$\frac{d}{dt}\left(\frac{\tau}{E}\frac{d\psi}{dt}\right)+\frac{\partial\tau}{\partial E}\frac{eV_m}{\tau}(\sin\psi-\sin\psi_s)=0.$$

There are 2 figures.

ASSOCIATION: Institut vakuumnoy elektroniki, ChSAN, Praga
(Institute of Vacuum Electronics, Czechoslovakian AS, Prague)

SUBMITTED: June 17, 1961

Card 4/4

TEICHMANN, Jiri, inz., CSc.

Remark on the geometry of pick-up arms. Sdel tech 11 no.10: 388-389 O '63.

Z/055/63/013/001/003/013
E010/E420

AUTHORS: Klíma, R., Teichmann, J.

TITLE: The damping of oscillations of particles in a general field with a periodic structure

PERIODICAL: Czechoslovak Journal of Physics, Section B, v.13, no.1, 1963, 14-22

TEXT: The article is a continuation of part I of the study by the same authors (Czech. J. Phys. B 11 (1961), 307). A study is made of the linear theory of the damping of vibrations of particles in a general electromagnetic field, forming a periodic structure from the point of view of deriving the damping exponents of the vibrations. In the first approximation the damping exponents are given by means of the coefficients of the Floquet solution of a system with zero damping. The formulae derived permit the determination of the planes of oscillation (in phase space). Damping due to radiation is mainly determined by the radiation reaction forces and the form of the guiding and focusing fields. The presence of an external electromagnetic field which is relatively weak in comparison with the guiding field has little effect. When considering separate particles,

Card 1/2

The damping of oscillations ... Z/055/63/013/001/003/013
E010/E420

the field due to the remaining particles is considered to be identical with an external field. Hence it is expected that this field will only have a significant effect when it is comparable in strength with the guiding and focusing fields.

ASSOCIATION: Ústav vakuové elektroniky ČSAV, Praha
(Institute of Vacuum Electronics, Czechoslovak AS, Prague)

SUBMITTED: January 29, 1962

Card 2/2

ACCESSION NR: AP4041974 Z/0055/64/014/007/0485/0500

AUTHOR: Petrzilka, V. A.; Teichmann, J.

TITLE: One possibility of HF sealing of magnetic trap with cusped field

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 7, 1964, 485-500

TOPIC TAGS: magnetic trap, magnetic trap sealing, plasma field interaction, plasma field equilibrium, plasma field interface stability

ABSTRACT: The behavior of plasma in a region of cusped fields where the magnetostatic field near the plane of symmetry can be regarded as homogeneous has been investigated. A case was taken wherein the motion of the plasma along the lines of magnetostatic field force is limited by the effect of the high-frequency field of a simple mode. The investigation of the dynamics of electron and ion gas in a one-particle linear approximation shows that in the neighborhood of the plasma-vacuum interface, the plasma particles oscillate with a limited amplitude only at some values of plasma parameters and external fields.

Card 1/2

ACCESSION NR: AP4041974

When the gradients of the HF field are large, these regions of stationary plasma oscillations are relatively narrow and the interaction between the HF field and the plasma results in a nonstationary acceleration of plasma. The investigation of the stability of a plasma-vacuum interface for the case of stationary equilibrium between the plasma and the HF field, based on an MHD approximation, shows that the interface is a place and the lines of force of magnetostatic field are perpendicular to the plasma boundary, the stability conditions in the first approximation agree with those when the magnetostatic field is parallel to the boundary. The dispersion relation, obtained by linearization of MHD equations for a plasma boundary of a form of an infinitely long cylinder has also been investigated. Orig. art. has: 5 figures and 32 formulas.

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

SUBMITTED: 12Mar63 ATD PRESS: 3067 ENCL: 00

SUB CODE: ME NO REF SOV: 001 OTHER: 009

Card 2/2

TEICHMANN, V.

"Aims and methods of the improvement of potato plants." p. 305
(TERMESZET ES TECHNIKA, Vol. 112, no. 5, May, 1953, Budapest.)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress, Aug. 1953, Uncl.

SKOP, Vaclav, MUDr; TEICHMANN, Vladimir, MUDr

Aortographic picture of Grawitz tumor of the kidney. Cesk. rentg. 9 no.4:148-151 Nov 55.

1. Z IV. interni kliniky KU. Prednosta prof. MUDr Boh. Prusik. Z. II. interni kliniky KU, prednosta prof. MUDr A.Vancura.

(AORTA, radiography,
in kidney Grawitz tumor)
(ANGIOGRAPHY,
aortography in kidney Grawitz tumor)
(KIDNEYS, neoplasms,
grawitz tumor, aortography in)

TRICHMANN, Vladimir, dr.

Pneumoperitoneum in differential diagnosis of kidney tumor. Cesk. rentg. 9 no.4:151-157 Nov 55.

1. Z I. int. kliniky lek. fak. KU, prednosta prof. Dr A.Vancura.
(KIDNEYS, neoplasms,
differ. diag., pneumoperitoneum)
(PNEUMOPERITONEUM, ARTIFICIAL, in various diseases,
kidney tumor, differ. diag.)

EXCERPTA MEDICA Sec 14 Vol.10/12 Radiology Dec 56

2080. TEICHMANN V. II. Vnitr. Klin. Lék. Fak. KU, Praha. *Příspěvek k vyšetření koarktace aorty metodou pneumomediastina. Contribution to the investigation of aortic coarctation by means of pneumomediastinum VNITR. LÉK. 1956, 2/4 (327-329)

The author discusses the employment of oblique tomography combined with the pneumomediastinum in the investigation of aortic coarctation. Two casuistic cases are reported.

TEICHMANN, V., MUDr.; BOREK, Z., MUDr.

The newest pneumo-diagnostic methods in roentgenology. Cas. lek. cesk. 96 no.47:Lek. veda zahr:145-147 22 Nov 57.

1. V.T., Z.B., Praha II, U nemocnice 499.
(PNEUMOMEDIASTINUM, artificial,
review (Cz))

Teichmann, Vladimir

BOREK, Zoltan, MUDr.; TEICHMANN, Vladimir, MUDr.; CHMEL, Karel, MUDr.

Pneumomediastinum in the diagnosis of anterior mediastinal tumors. Neoplasma, Bratisl. 4 no.1:30-40 1957.

1. II. Chirurgische und II. Innere Klinik der Karls-Universitat, Praha. 2. Anschrift der Verfasser: Praha II, II. Chirurgicka klinika Karlovy University (for Borek and Chmel) Praha II, II. Interni klinika Karlovy University (for Teichmann).

(PNEUMOMEDIASTINUM, artif.
diag. of anterior mediastinal tumors (Ger))
(MEDIASTINUM, neoplasms
of anterior mediastinum, diag., pneumomediastinum (Ger))

TEICHMANN, V.; DONNER, L.

Changes in the joints in hemophilia A & B. Sborn. lek. 59 no.11:343-346 Nov 57.

1. II. interni klinika fakulty vseobecneho lekarstvi university Karlovy v Praze prednosta prof. Dr. Frantisek Herles. V. T., Praha 2, u nemocnice 2.

(HEMOPHILIA, manifest.
joints in hemophilia A & B (Cz))
(JOINTS, in var. dis.
hemophilia A & B (Cz))

FRIED, K.; MARX, F.; TEICHMANN, V.

X-ray diagnosis of multiple myeloma. Cas. lek. cesk. 96 no.31:989-993 26 July 57.

1. Rtg. odd. OUNZ v Kladne, prednosta MUDr. K. Fried. Rtg. odd. fakultni polikliniky v Praze, prednosta MUDr. F. Marx, Rtg. odd. II. interni kliniky v Praze, prednosta prof. MUDr. F. Herles. Dr. K. Fried, Kladno, Cs. armady 1179.
(MYELOMA, PLASMA CELL, diag.
x-ray (Cz))

TEICHMANN, V.; BOREK, Z.

Newer pneumodiagnostic methods in roentgenology. I. Pneumoretroperitoneum. Cas. lek. cesk. 96 no.42:141-144 18 Oct 57.

1. V. T.: Praha 2, U nemocnice 499.
(PNEUMOPERITONEUM, ARTIFICIAL
review (Cz))

KRALOVA, Libuse; TEICHMANN, Vladimir; JOHANOVSKA, Kveta; MANDAKOVA, Tamara; VALENTOVA, Vlasta

Gastric secretion and motility on stimulation of the mechanical and chemical receptors in the stomach. Sborn. lek. 60 no.2:37-43 Feb 58.

1. II interni klinika fakulty vseobecneho lekarstvi university Karlovy v Praze, prednosta prof. Dr. Frantisek Herles. L. K. II. interni klinika, U. nemocnice 2, Praha 2.

(STOMACH, physiology
stimulation of mechanical & chem. receptors in measurement of secretion & motility in various dis. (Cz))

(GASTRIC JUICE,
secretion, measurement in various dis. by stimulation of mechanical & chem. receptors of stomach (Cz))

VALENTOVA, Vlasta; TEICHMANN, Vladimir; JOHANOVSKA, Kveta; KRALOVA, Libuse; MANDAKOVA, Tamara

Hemodynamic changes during mechanical stimulation of the stomach. Sborn. lek. 60 no.2:44-49 Feb 58.

1. II. interni klinika fakulty vseobecneho lekarstvi university Karlovy v Praze, prednosta prof. Dr. Frantisek Herles. VI. V., II. interni klinika, U nemocnice 2, Praha 2.

(BLOOD PRESSURE, physiology
changes caused by mechanical stimulation of stomach in hypertensive patients (Cz))
(STOMACH, physiology
mechanical stimulation causing blood pressure changes in hypertensive patients (Cz))
(HYPERTENSION, physiology
mechanical stimulation of stomach causing blood pressure changes (Cz))

KOJANOVSKA, Kveta; TEICHMANN, Vladimir; KRALOVA, Libuse; MANDAKOVA, Tamara; VELENTOVA, Vlasta

The influence of mechanical stimulation of the stomach on the bile ducts. Sborn. lek. 60 no.2:50-59 Feb 58.

1. II. interni klinika fakulty vseobecneho lekarstvi university Karlovy v Praze, prednosta prof. Dr. Frantisek Herles. K. J. II. interni klinika, U nemocnice 2, Praha 2.

(STOMACH, physiology
mechanical stimulation, eff. on bile ducts (Cz))
(BILE DUCTS, physiology
eff. of mechanical stimulation of stomach on bile ducts (Cz))

FEIX, C.; TEICHMAN, V.

Roentgenographic diagnosis of adrenal hyperfunction syndrome. Cas. lek. cesk. 97 no. 29:889-893 11 July 58.

1. II. vnitrni klinika fakulty vseobec. lekarstvi v Praze, prednosta prof. Dr F. Herles. C. F. Praha 2, U nemocnice 2.
(ADRENAL CORTEX, dis.
hyperfunct., x-ray diag. (Cz))

TEICHMANN, Vladimir; CHYTIL, Mirko

Roentgenodiagnosis of renal changes in anuric conditions. Acta Universitatis Carolinae - Medica 6:363-371 1959

1. II. interni klinika fakulty vseobecneho lekarstvi v Praze, prednosta prof. MUDr. F. Herles.
(ANURIA, radiogr.)

TEICHMAN', Vladimir; VALKO, Petr.

Significance of parietographic investigations in cicatricial strictures of the esophagus. Acta Universitatis Carolinae - Medica 6:373-383 1959.

1. II. interni klinika fakulty vseobecneho lekarstvi v Praze, prednosta prof. MUDr. F. Herles Otorinolaryngologicka klinika fakulty vseobecneho lekarstvi v Praze, prednosta akademik A. Precechtel.
(ESOPHAGEAL STENOSIS, radiogr.)

TEICHMANN, V.; BOHEK, Z.; STASEK, V.; VALKO, P.

Parietography of the esophagus, A contribution to the differential diagnosis of primary and secondary tumors of the mediastinum. Neoplasma, Bratisl.7 no.2:193-201 '60.

1. II. Interne Klinik, II. Chirurgische Klinik, Radiologische Klinik und Oto-Rhino-Laryngologische Klinik der Karls-Universitat, Prag, CSR.

(MEDIASTINUM neopl)
(ESOPHAGUS neopl)

RIPKA, O.; MALIS, F.; TEICHMANN, V.

Dimecamin - a new peroral hypotensive drug. Rev. Czech. med. 7 no.4: 241-262 '61.

1. Second Internal Clinic, Charles University Medical School, Prague. Director: Prof. F. Herles, M.D. Central Laboratory, Charles University Policlinic, Prague. Director: Doc. J. Homolka, M. D.

(ANTIHYPERTENSIVE AGENTS ther)

TEICHMANN, V.; DRAB, K.; DAUM, Sl.; OUREDNIK, A.

Roentgen diagnosis of chronic cor pulmonale in chronic bronchitis and pulmonary emphysema. Sborn. lek. 63 no.5/6:158-165 My '61.

1. II Interni klinika Fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta prof. dr F.Herles.

(PULMONARY HEART DISEASE radiog)
(BRONCHITIS radiog) (PULMONARY EMPHYSEMA radiog)

TEICHMANN, V.; DRAB, K.

Roentgen picture of chronic pulmonary heart disease in transitory and chronic heart insufficiency. Acta Univ. Carol.[med.] (Praha) 10: suppl. 17:95-101 '63

1. II. interni klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. F.Herles, DrSc).

TEICHMANN, V.; DRAB, K.

Roentgenography of cor pulmonale in temporary and permanent cardiac insufficiency. Cesk. rentgen. 17 no.1:43-49 Ja '63.

1. II. interni klinika fakulty vseobecneho lekarstvi KU v Praze, prednosta prof. dr. F. Herles.
(HEART FAILURE CONGESTIVE) (THORACIC RADIOGRAPHY)

JEZEK, V.; KRALOVA, L.; TEICHMANN, V.

Left heart insufficiency and its treatment with strophanthin, studied by graphic recording of cardiac contractions. Sborn. lek. 67 no.11:321-326 N '65.

1. Kardiologicka laborator a II. interni klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta - prof. dr. F. Herles, DrSc.).

Internal Medicine

CZECHOSLOVAKIA UDC 616.24-005.98:616.153.495

JANOTA, M.; VALEK, A.; BALCAR, V.; TEICHMANN, V.; 2nd Internal Clinic Faculty of General Medicine, Charles University (II. Interni Klinika Fak. Vseob. Lek. KU), Prague, Head (Prednosta) Prof Dr F. HERLES; Radiological Clinic Faculty of Gen. Med. Charles University (Radiologicka Klinika Fak. Vseb. Lek. KU), Prague, Head (Prednosta) Prof Dr V. SVAB.

"Pulmonary Edema in Uremia."

Prague, Casopis Lekaru Ceskych, Vol 105, No 27-28, 4 Jul 66, pp 738 - 743

Abstract [Authors' English summary modified]: An account of the clinical picture of pulmonary edema in uromic patients is presented. 393 anuric patients, of whom 35 were examined thoroughly, were studied. It is recommended that interstitial and alveolar pulmonary edema be differentiated; clinical, X-ray and necroptic means of differentiation are described. The two have a common genesis, but the extent of affection, the prognosis, and the best therapeutic methods are different. X-ray pictures are particularly valuable in the diagnosis of latent interstitial pulmonary edema. Latent changes can also be detected by examination of pulmonary fuctions. 4 Figures, 6 Tables, 43 Western, 10 Czech, 2 Russian references. (Ms. rec. Sep 65).

CZECHOSLOVAKIA

UDC 616.24-008.47-073.75

TEICHMANN, V.; Radiological Clinic, Faculty of General Medicine, Charles University (Radiologicka Klinika Fakulty Vseobecneho Lekarstvi KU), Prague, Head (Prednosta) Prof Dr V. SVAB.

"The Role of X-ray in the Diagnoses of Dyspnea Causes."

Prague, Casopis Lekaru Ceskych, Vol 105, No 35, 2 Sep 66, pp 948 - 950

Abstract: Correlation between the X-ray and clinical findings in dyspnea are discussed. X-ray findings and clinical observations in patients suffering from serious nephropathies are compared. Cardiac insufficiency occurs frequently in such conditions. Interstitial edema and mechanism of breathing are discussed. Cases where nephropathies are combined with vitium cordis are described. Relationship between dyspnea, mitral defects and X-ray findings are described. Importance of X-ray findings in the blood circulation system is evaluated. Changes in the blood circulation system combined with chronic obstructions of respiratiry channels are discussed. 2 Tables, no references. (Manuscript received Mar 66).
1/1

TEPLY, J.; STULIK, V.; TEICHMANOVA, M.; MORAVEC, J.

Radiation chemical formation of uranium peroxide in ketone solutions of uranyl nitrate. Coll Cz Chem 30 no.1:1-9 Ja '65.

1. Institute of Nuclear Research of the Czechoslovak Academy of Sciences, Rez near Prague (for Teply, Teichmanova and Moravec). 2. Department of Technical and Nuclear Physics of the Czech Institute of Technology, Prague (for Stulik). Submitted February 19, 1963.

VYROSTEK, J.; LUKAN, J.; TEICHNER, F.

Relation of scleroma and ozena from a clinical viewpoint.
Cesk. otolaryng. 14 no.1:37-39 F'65.

1. Otolaryngologicka klinika Lekarskej fakulty University P.J. Safarika v Kosiciach (prednosta: prof. dr. M. Suster, DrSc.).

VYROSTEK, J.; LUKAN, J.; LUKANOVA, K.; BERES, M.; TEICHNER, F.

Surgical therapy of laryngeal cancer in the Otorhinolaryngological Clinic in Kosice. Cesk. otolaryng. 14 no.5:268-271 O '65.

1. Otolaryngologicka klinika Lekarskej fakulty University P.J. Safarika v Kosiciach (prednosta: prof. dr. M. Suster, DrSc.).

TEIDOSIU, T.

RUMANIA/Pharmacology and Toxicology. Hormonal Preparations. V

Abs Jour: Ref Zhur-Biol., No 19, 1958, 89961.

Author : Longhin, S.; Teidosiu T.; Dumitrescu, A., Rosu, P.
Inst : -
Title : Treatment of Skin Tuberculosis with Corticosteroids (ACTH).

Orig Pub: Dermato-venerol., 1958, 3, No 1, 59-63.

Abstract: No abstract.

Card : 1/1

TEIGE, Charles

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Analytical Chemistry

The chromatographic qualitative analysis of halogen ions in solutions. Charles Teige (Charles Univ., Prague). *Věstník Králov. České Společnosti Nauk, Třída Mat.-Přírod.* (Mém. soc. roy. lettres et sci. Bohême, Classe sci.) 1949, No. 5, 13 pp. (1950) (in French).—A method is described for detg. halogen ions in solns., based on the exchange of halogen ions for other anions in Ag salts and the concept of varying solubilities. Thus, immerse a filter paper first in a $AgNO_3$ soln., then in a warm $K_2Cr_2O_7$ soln., to obtain on the paper a fine dispersion of Ag_2CrO_4. Place the impregnated filter paper in a small box and apply the unknown soln. to the center of the paper by a capillary tube. As the soln. infiltrates the paper radially, individual circles form, representing the halogen ions by sol. The central circle, nearly white, represents the least sol. halide, AgI; it is surrounded by a greenish circle of AgBr, next by a brighter circle of AgCl, and finally on the outside by a rosy circle of Ag_2CrO_4. No AgF will ppt., as it is completely sol. In place of $AgNO_3$, the phosphate or antimonate can be used.

Helen P. Fool

9-2-54

TEIGE, K.

Biological significance of interpolarity with special reference to renal physiology. Biol. listy 31 no. 2 59-65 July 1950
(CLML 21:1)

TEIMEN, M.S.

Tumors of the mammary glands. Med.sestra, Moskva No.8:13-18 1951.
(CLML 21:1)

1. Of the Oncological Center of Leningradskiy Rayon, Moscow.

TEIMAN, M.S.; ZABUGINA, G.F.

Chondroma of the pelvis. Vest.Khir. 84 no.6:118-119 Je '60.
(MIRA 13:12)

(PELVIS—TUMORS)

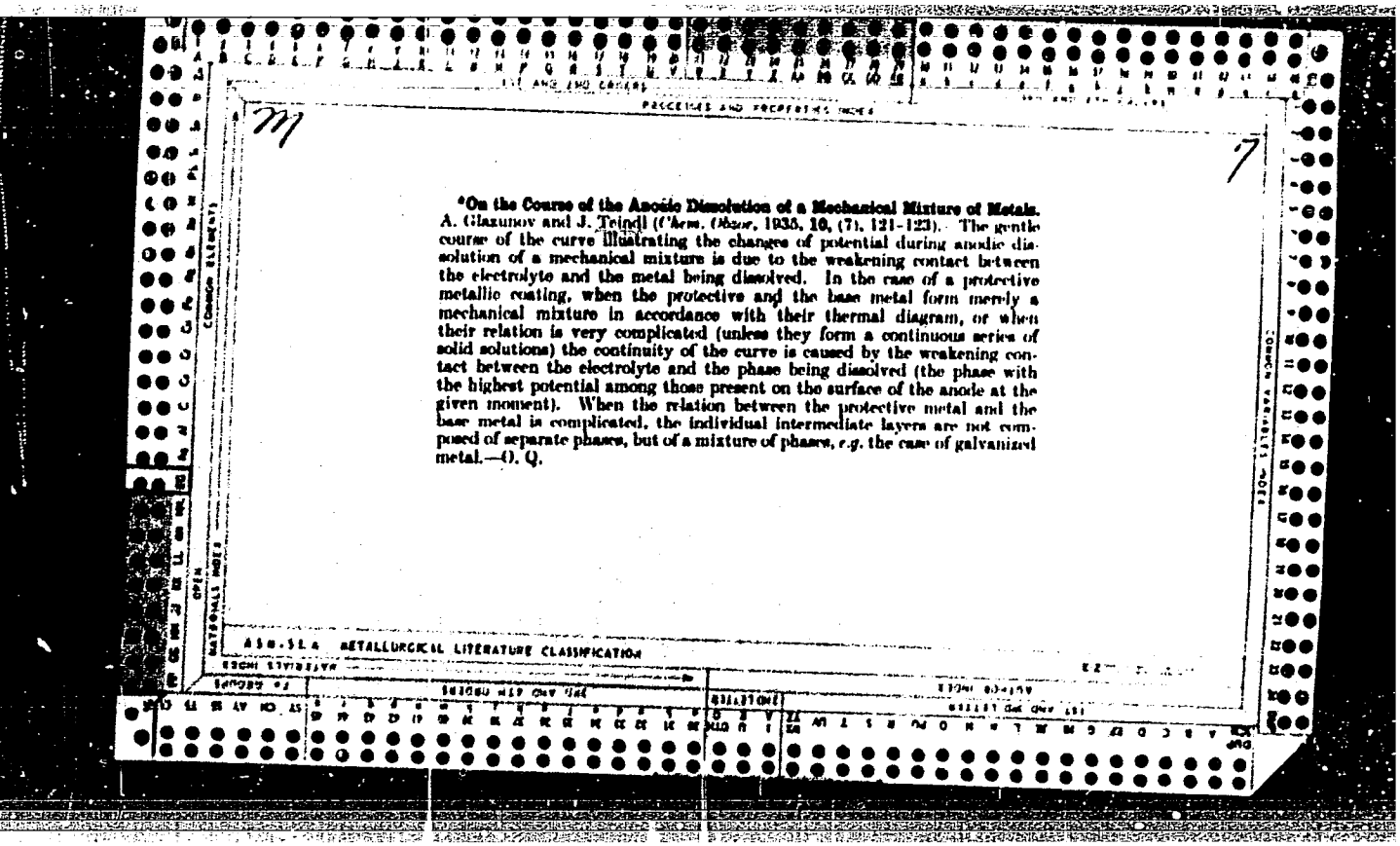
BALS, M., prof.; SERBANESCU, Florica; CARUNTU, F.; TEINDEL, Cl.; JIPA, Gh.

The incidence of specific allergy to histoplasmin in the patients admitted to the 2nd Clinic of Communicable Diseases, Bucharest. Rumanian M Rev. no.3:17-18 '61.
(HISTOPLASMOSIS statistics)

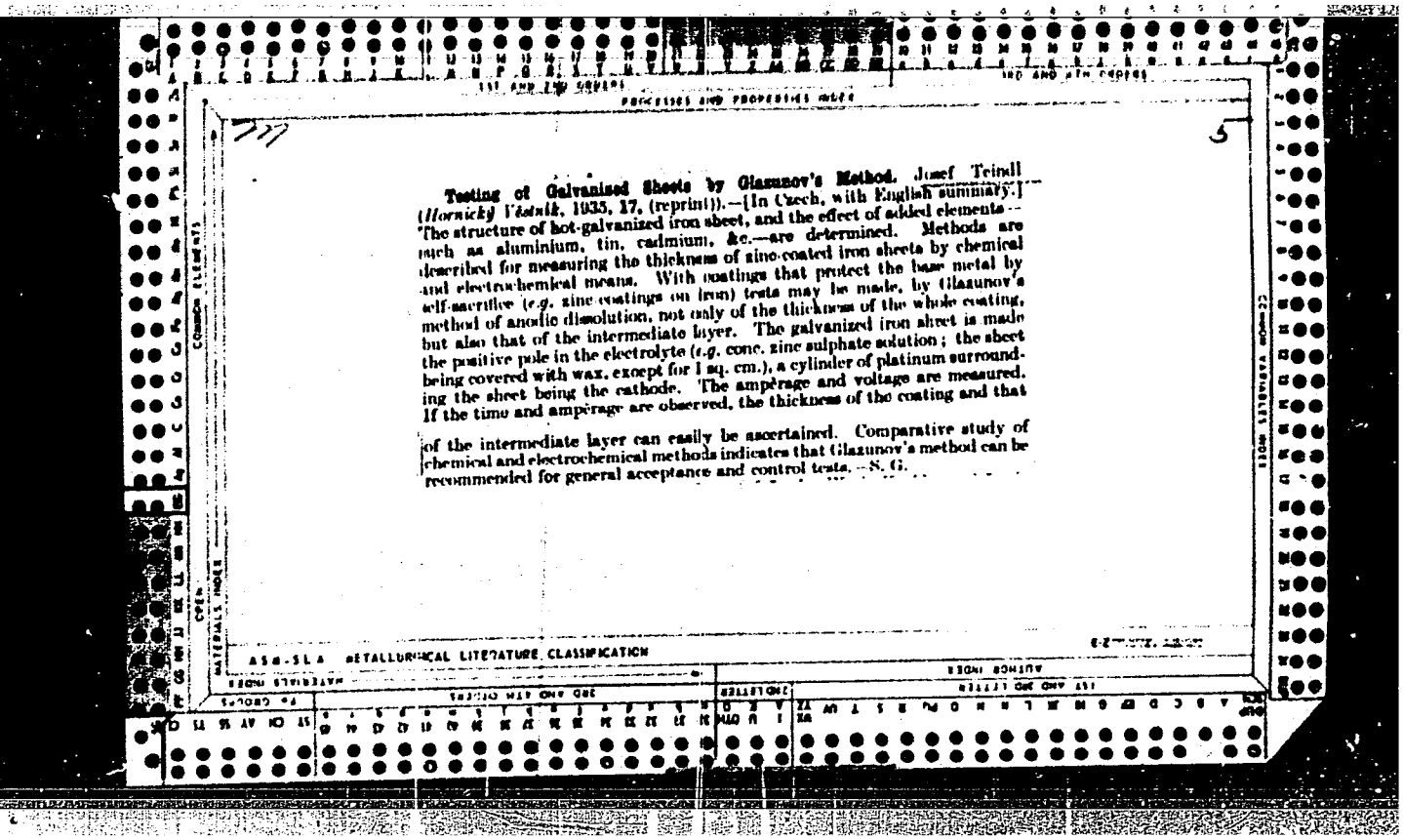
MARINESKU, G. [Marinescu, G.]; SHTARK, M. [Stark, M.]; TEYNDEL', K. [Teindel, K.]; KUCHURYANU, S. [Cuciureanu, S.]; STROYESKU, K. [Stroescu, C.]; SANDULESKU, T. [Sandulescu, T.]

Case of acute myopathy in influenza; recovery. Vop.virus. 7 no.6:739 N-D '62. (MIRA 16:4)

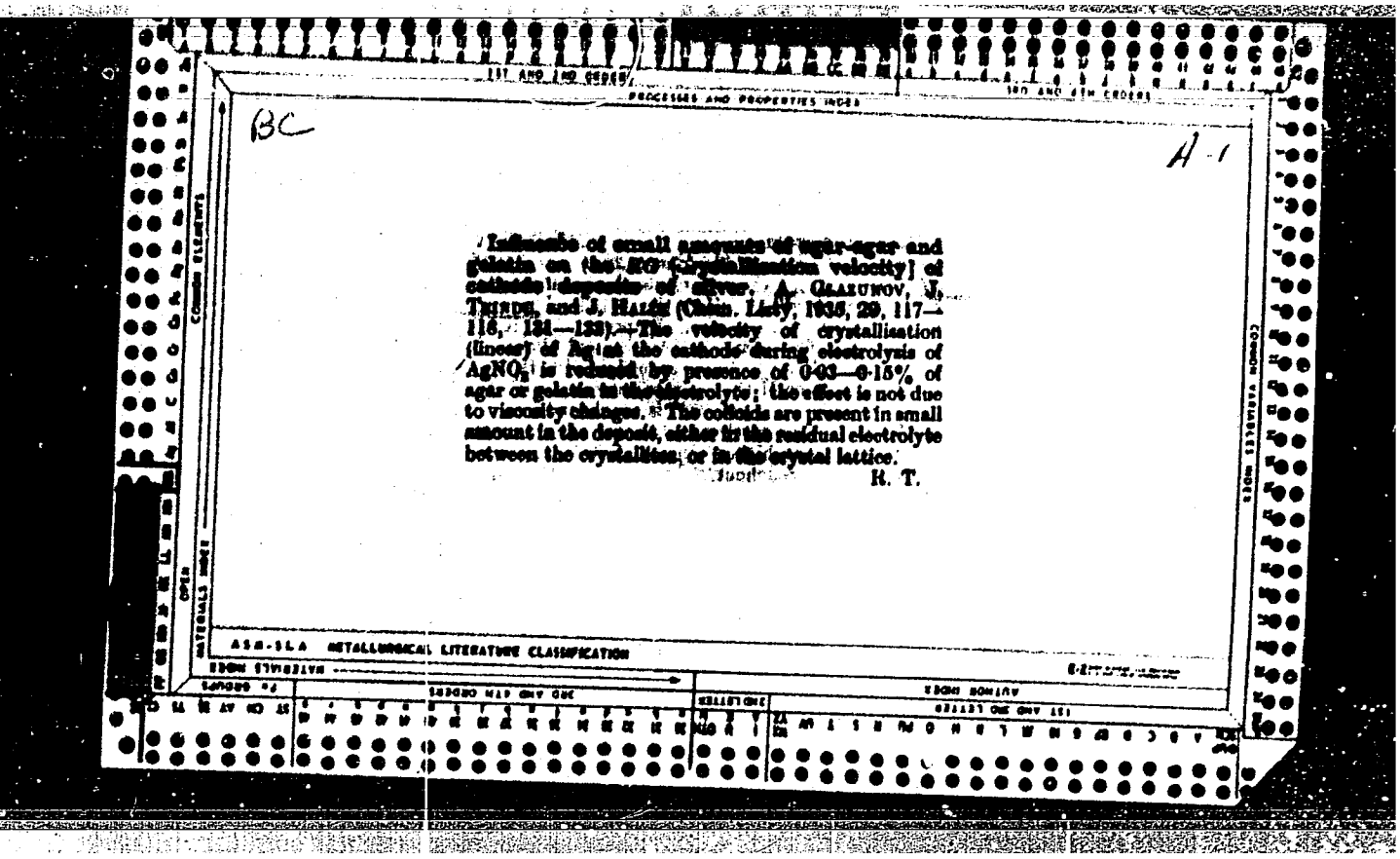
1. Virusologicheskiy institut Akademii nauk Rumynskoy Narodnoy Respubliki i Bukharestskaya klinika infektsionnykh bolezney.
(MUSCLES—DISEASES) (INFLUENZA)



On the Course of the Anodic Dissolution of a Mechanical Mixture of Metals. A. Glazunov and J. Teindl (*Chem. Obzor*, 1935, **10**, (7), 121–123). The gentle course of the curve illustrating the changes of potential during anodic dissolution of a mechanical mixture is due to the weakening contact between the electrolyte and the metal being dissolved. In the case of a protective metallic coating, when the protective and the base metal form merely a mechanical mixture in accordance with their thermal diagram, or when their relation is very complicated (unless they form a continuous series of solid solutions) the continuity of the curve is caused by the weakening contact between the electrolyte and the phase being dissolved (the phase with the highest potential among those present on the surface of the anode at the given moment). When the relation between the protective metal and the base metal is complicated, the individual intermediate layers are not composed of separate phases, but of a mixture of phases, *e.g.* the case of galvanized metal.—O. Q.



Testing of Galvanised Sheets by Glazunov's Method. Josef Teindl (*Hornický Věstník*, 1935, **17**, (reprint)).—[In Czech, with English summary.] The structure of hot-galvanized iron sheet, and the effect of added elements—such as aluminium, tin, cadmium, &c.—are determined. Methods are described for measuring the thickness of zinc-coated iron sheets by chemical and electrochemical means. With coatings that protect the base metal by self-sacrifice (*e.g.* zinc coatings on iron) tests may be made, by Glazunov's method of anodic dissolution, not only of the thickness of the whole coating, but also that of the intermediate layer. The galvanized iron sheet is made the positive pole in the electrolyte (*e.g.* conc. zinc sulphate solution; the sheet being covered with wax, except for 1 sq. cm.), a cylinder of platinum surrounding the sheet being the cathode. The ampèrage and voltage are measured. If the time and ampèrage are observed, the thickness of the coating and that of the intermediate layer can easily be ascertained. Comparative study of chemical and electrochemical methods indicates that Glazunov's method can be recommended for general acceptance and control tests.—S. G.

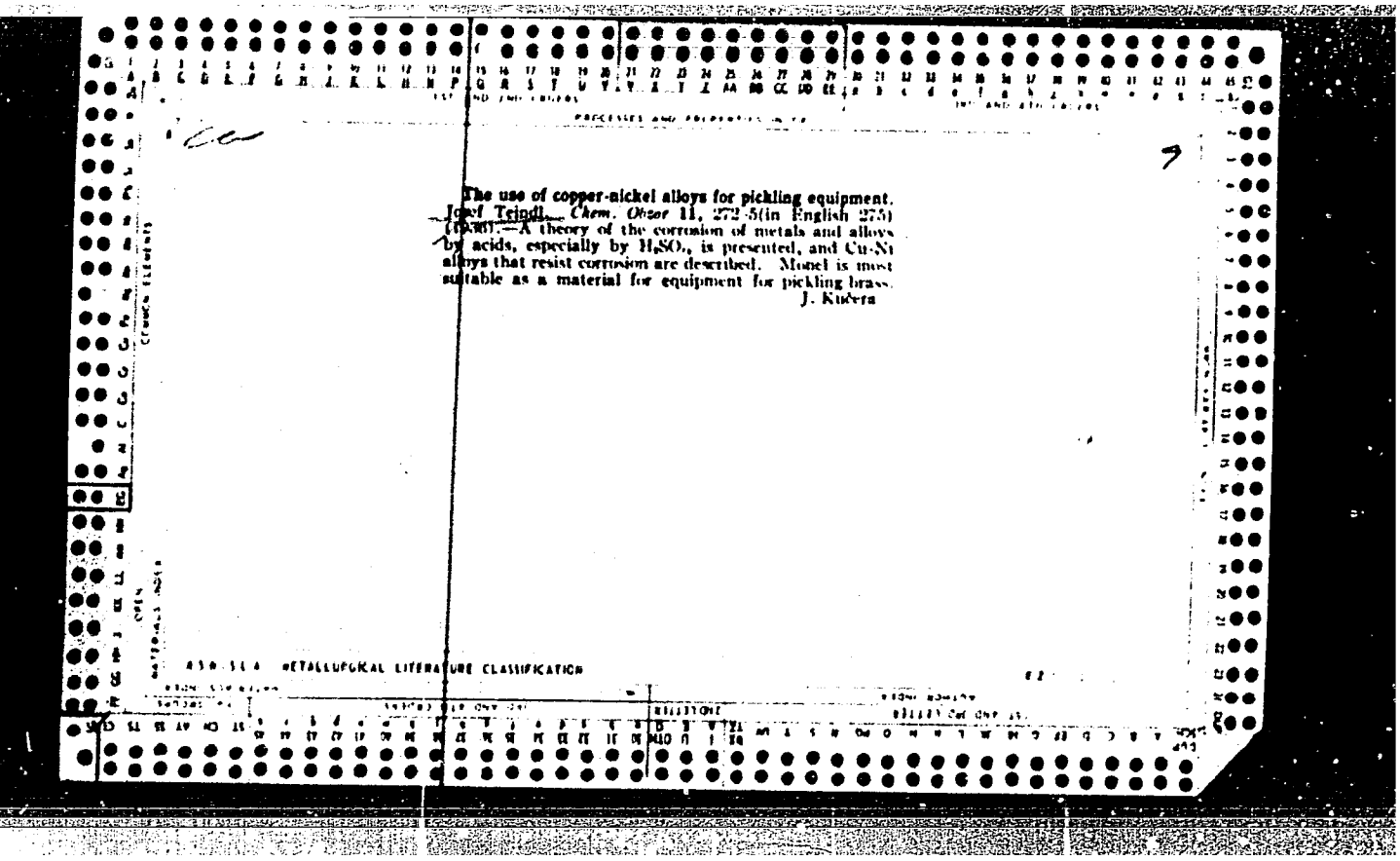


BC

A-1

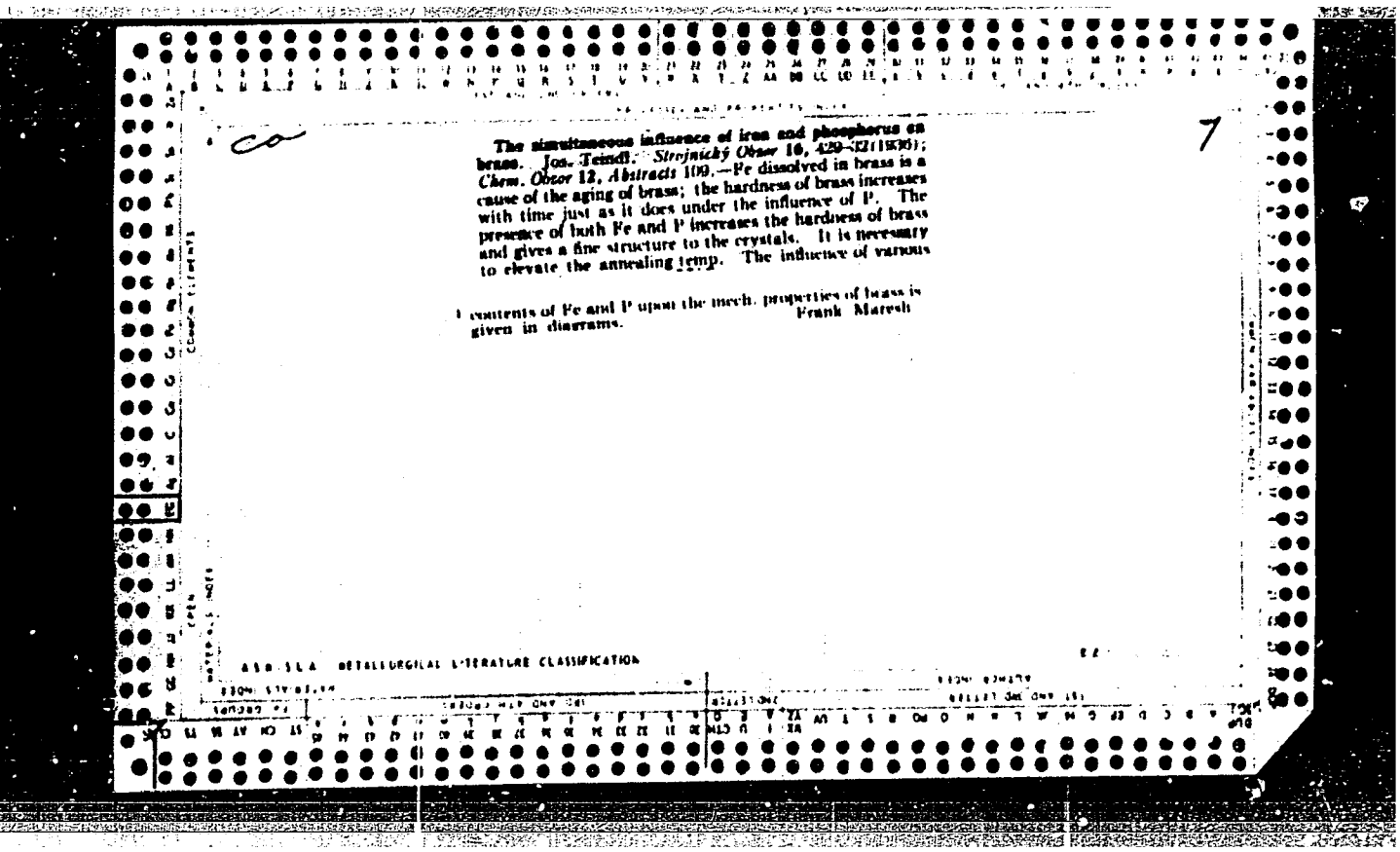
Influence of small amounts of agar-agar and gelatin on the [IG (crystallisation velocity)] of cathodic deposits of silver. A. GLAZUNOV, J. THIELE, and J. HALLER (Chim. Ind., 1935, 29, 117—118, 121—123).—The velocity of crystallisation (linear) of Ag at the cathode during electrolysis of $AgNO_3$ is reduced by presence of 0·03—0·15% of agar or gelatin in the electrolyte; the effect is not due to viscosity changes. The colloids are present in small amount in the deposit, either in the residual electrolyte between the crystallites, or in the crystal lattice.

R. T.



The use of copper-nickel alloys for pickling equipment. Josef Tříndl. *Chem. Obzor* 11, 272-5(in English 275) (1936).—A theory of the corrosion of metals and alloys by acids, especially by H_2SO_4, is presented, and Cu-Ni alloys that resist corrosion are described. Monel is most suitable as a material for equipment for pickling brass.
J. Kuděra

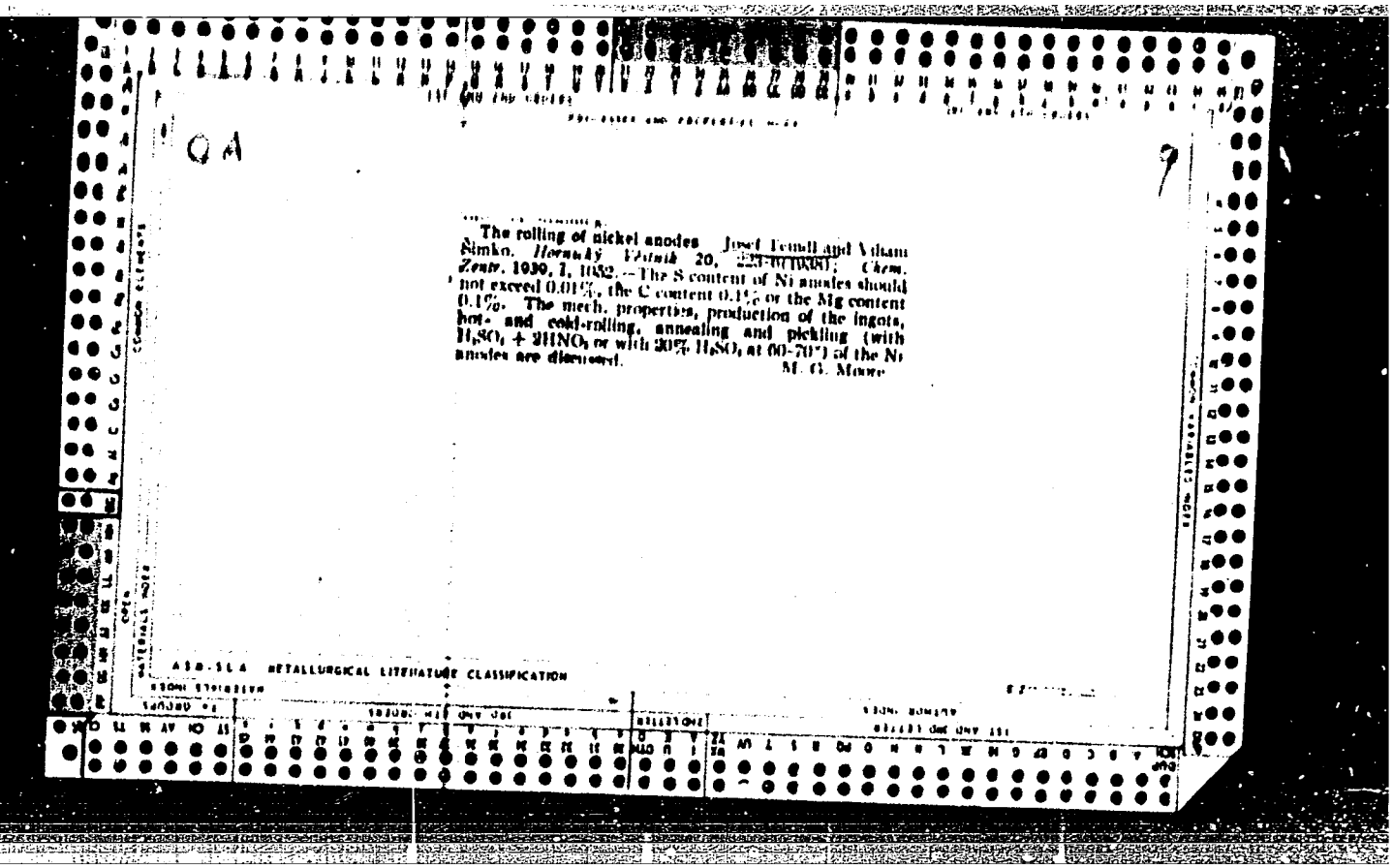
A S M E METALLURGICAL LITERATURE CLASSIFICATION



The simultaneous influence of iron and phosphorus on brass. Jos. Teindl. *Strojnický Obzor* **10**, 429–32 (1930); *Chem. Obzor* **12**, *Abstracts* 109.—Fe dissolved in brass is a cause of the aging of brass; the hardness of brass increases with time just as it does under the influence of P. The presence of both Fe and P increases the hardness of brass and gives a fine structure to the crystals. It is necessary to elevate the annealing temp. The influence of various contents of Fe and P upon the mech. properties of brass is given in diagrams.

Frank Marsh

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



QA

7

The rolling of nickel anodes. Josef Tenzl and Vilam Šimko. *Hutnické Listy* 20, [illegible]; *Chem. Zentr.* 1930, I, 1052.—The S content of Ni anodes should not exceed 0.01%, the C content 0.1% or the Mg content 0.1%. The mech. properties, production of the ingots, hot- and cold-rolling, annealing and pickling (with $H_2SO_4 + 2HNO_3$ or with 30% H_2SO_4 at 60-70°) of the Ni anodes are discussed.

M. G. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

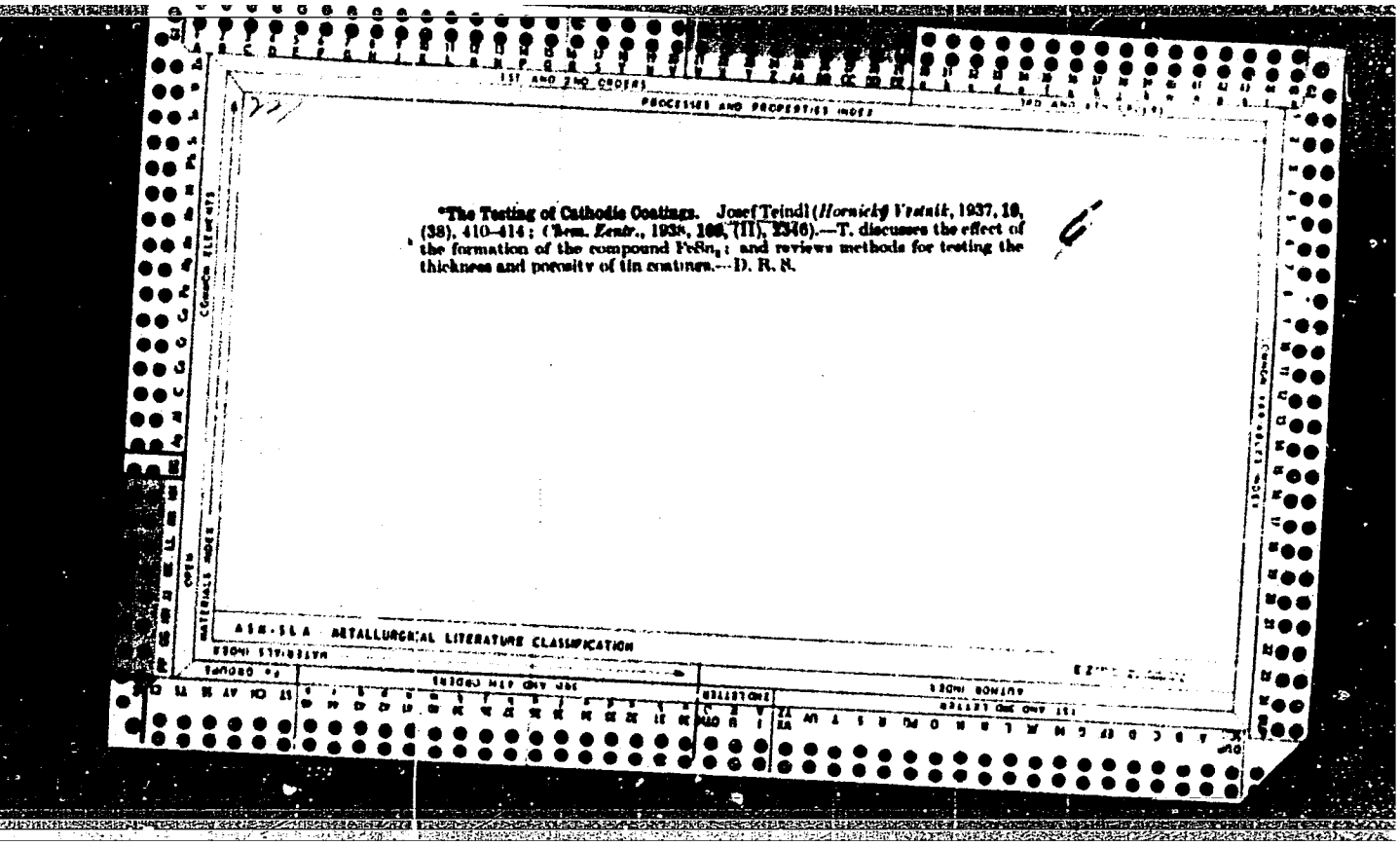
1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

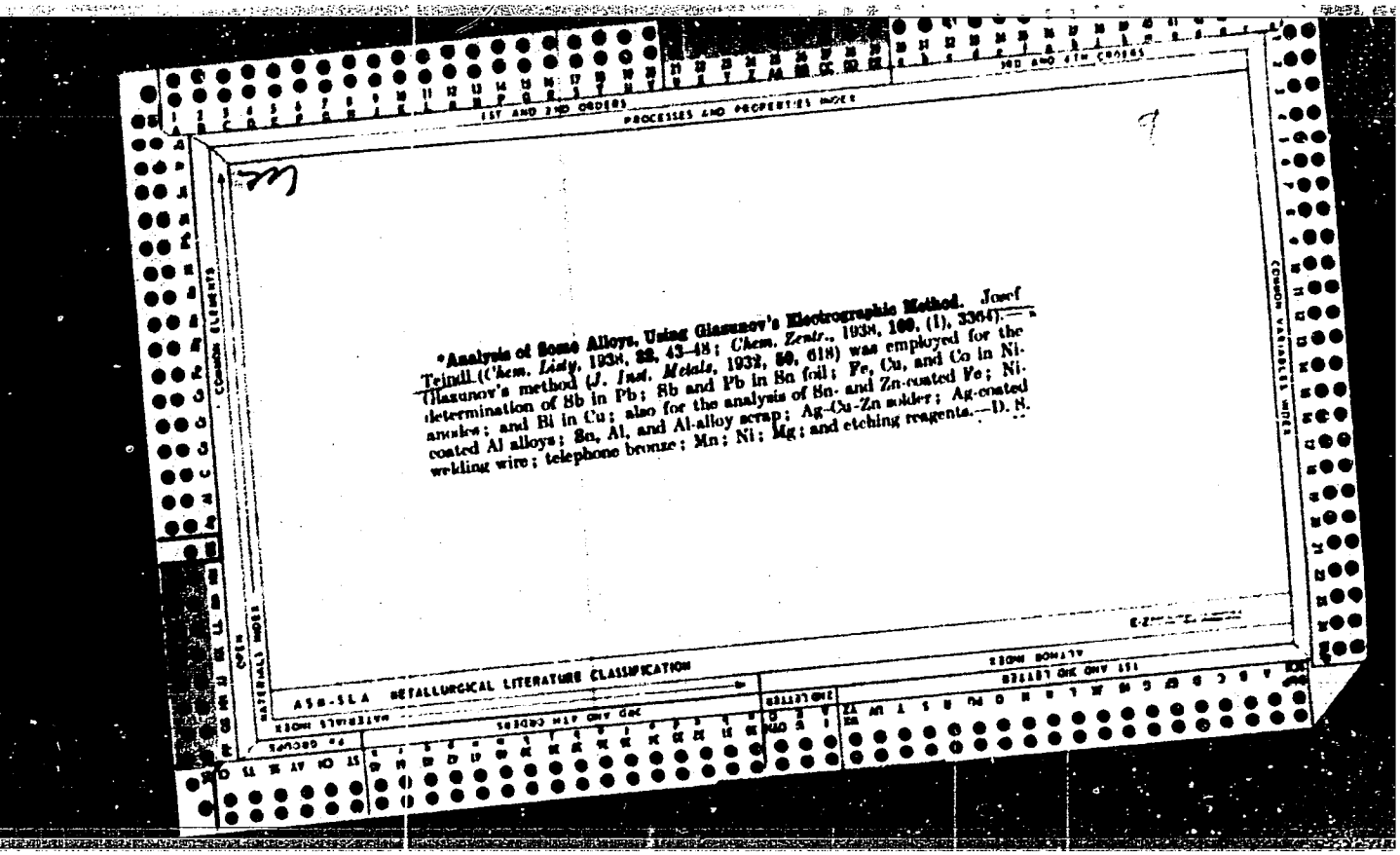
PROCESSES AND PROPERTIES INDEX

Monel Metal in the Mining Industry. Josef Teindl (*Báňský Svět*, 1937, **16**, 108-114; *Chem. Zentr.*, 1938, **109**, (I), 2247).—A review of the properties of Monel metal and of its application in the mining industry.—D. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



"The Testing of Cathodic Coatings. Josef Teindl (*Hornictví Vestník*, 1937, 16, (38), 410–414; (*Chem. Zentr.*, 1938, 109, (II), 2346).—T. discusses the effect of the formation of the compound $FeSn_2$; and reviews methods for testing the thickness and porosity of tin coatings.—D. R. S.



•**Analysis of Some Alloys, Using Glazunov's Electrographic Method.** Josef Trindl (*Chem. Listy*, 1938, **32**, 43–48; *Chem. Zentr.*, 1938, **109**, (1), 3364).—Glazunov's method (*J. Inst. Metals*, 1932, **50**, 618) was employed for the determination of Sb in Pb; Sb and Pb in Sn foil; Fe, Cu, and Co in Ni-anodes; and Bi in Cu; also for the analysis of Sn- and Zn-coated Fe; Ni-coated Al alloys; Sn, Al, and Al-alloy scrap; Ag-Cu-Zn solder; Ag-coated welding wire; telephone bronze; Mn; Ni; Mg; and etching reagents.—D. R.

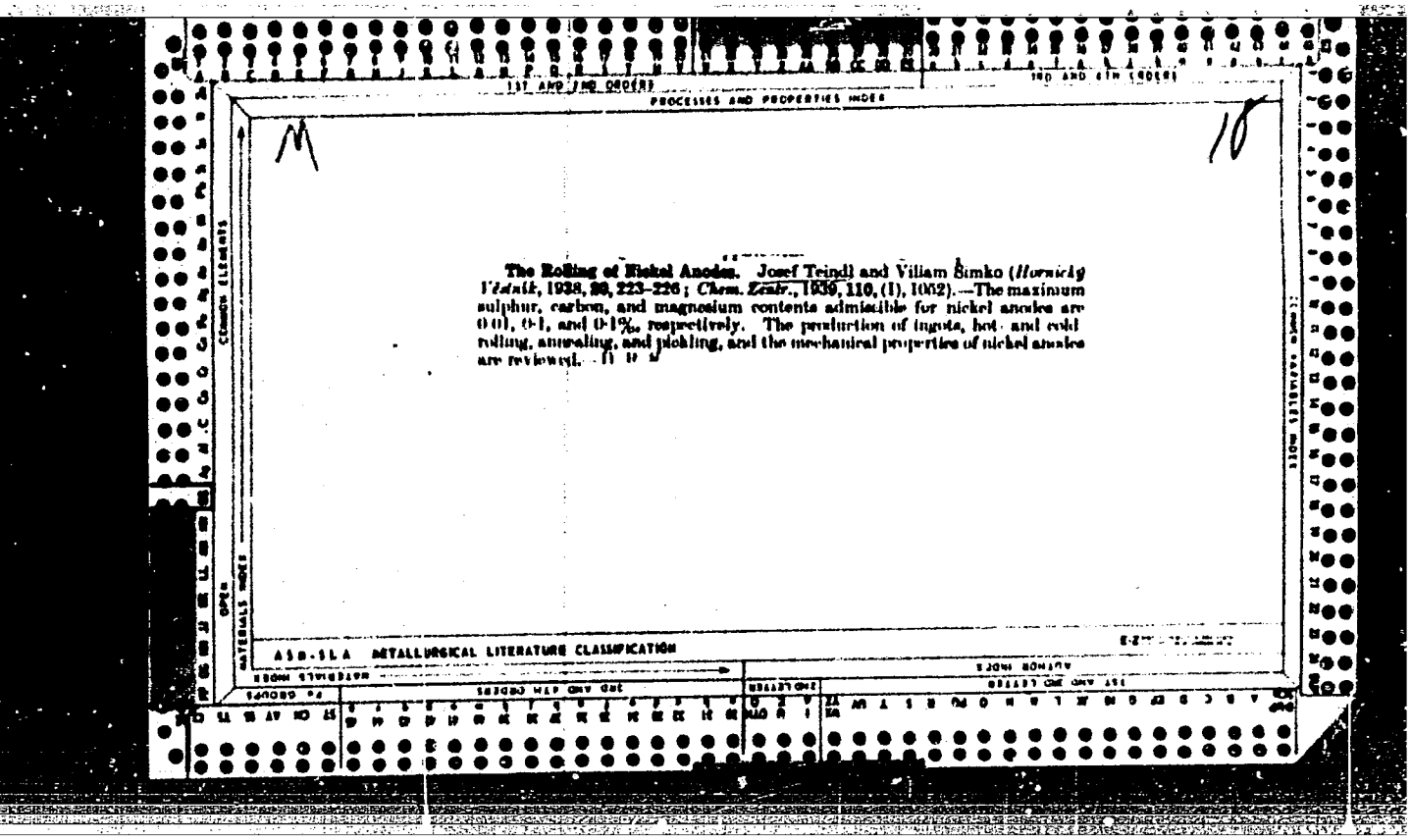
1ST AND 2ND ORDERS — PROCESSES AND PROPERTIES INDEX — 3RD AND 4TH ORDERS

M

18

The Rolling of Phosphor-Bronze Strips. Josef Trinll (*Hornický Věstník*, 1938, 20, (39), 323–326; *Chem. Zentr.*, 1939, 110, (I), 785).—The properties of phosphor-bronze used for springs are discussed. The alloy is produced from brass scrap (Ms 72), the quality of which is not of great importance. The method of casting is important, however, particularly the casting temperature and the surface of the mould used. To produce a homogeneous product of high mechanical strength, an anneal for 2½–3½ hrs. at 650°–670° C. before rolling is recommended. For pickling, 10% sulphuric acid is used. Hot-rolling is carried out in several stages at 200° C.—D. R. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



The Rolling of Nickel Anodes. Josef Teindl and Viliam Šimko (*Hutnické Listy*, 1938, **20**, 223–226; *Chem. Zentr.*, 1939, **110**, (I), 1052).—The maximum sulphur, carbon, and magnesium contents admissible for nickel anodes are 0·01, 0·1, and 0·1%, respectively. The production of ingots, hot- and cold-rolling, annealing, and pickling, and the mechanical properties of nickel anodes are reviewed.

MA

13

Important Factors in the Casting of Non-Ferrous Ingots. Josef Tenzl. *Hutnické Listy*, 1940, **22**, (41), 113–116; *Chem. Zentr.*, 1940, **111**, (II), 3060.—T. investigated the effects of the composition of the charge, method of melting, temperature, furnace atmosphere, deoxidation, fluxes, method of pouring, cooling of the ingots, the coating of the mould, and of the mould itself.

1943

MA

1?

Drawing of Resistance Wires. Josef Tuindl (*Hornický Věstník*, 1939, 21, (40), 243-245; *Chem. Zentr.*, 1940, 111, (I), 783).—T. presents data on the composition and electrical properties of Alpaca A, B, Nickelin, Constantan, Rheotan, &c., and discusses methods for the right pre-treatment of each of these alloys. Special reference is made to heat-treatment furnaces and temperatures, drawing machines, and acid-treatment in drawing of Constantan and Manganin wires.

1943

Up-to-Date Hot-Tinning of Sheets. J. Toull (*Hutnické Listy*, 1939, 21, (10), 253-257; *Chem. Zentr.*, 1940, 111, (I), [illegible]).—After an historical survey of hot tinning since the year 1240, the modern methods of production, polishing, and packing of tin sheets, and the tinning and cleaning plant, are reviewed.

MA

15

The Anisotropy of Sheets. Josef Tejnář. (*Hornický Věstník*, 1940, 23, (41), 37–40; *Chem. Zentr.*, 1940, 111, (I), 3447).—General discussion on the mechanical anisotropy caused by rolling and its elimination.

1943