

Overvoltage During Electrodeposition of Antimony

SC7/62-58-11-6/26

which is determined in relation to the steady potential (φ_{st}) will be highly different from the overvoltage quantity which is determined in relation to the equilibrium potential (φ_r). (φ_{st}) corresponds to the difference of the potentials between the auxiliary electrode and the stabilized value of the potential of the antimony electrode in the corresponding solution. (φ_r) corresponds to the potential value of the freshly deposited, active antimony surface. As may be seen (Fig 2) the beginning of the oxidation of antimony is not connected with the absolute value of the polarization quantity of the electrode. If, as could be observed in the experiments, the displacement of the equilibrium potential in the positive direction depends on the surface oxidation, oxidation in more acid solution would be bound to take place more slowly and consequently also the displacement of the equilibrium potential would be smaller. Figure 4 reveals the polarization curves in a more acid solution. Polarization curves in the case of electrodeposition of antimony from hydrochloric acid solutions were completely different (Fig 5). It can be seen from it that the rate of reduction of antimony in hydrochloric acid solutions is by

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some orders of magnitude higher than that in tartaric acid.
There are 5 figures and 3 references, 2 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR
(Institute of Physical Chemistry Academy of Sciences, USSR)

SUBMITTED: May 15, 1957

Card 3/3

VAGRAMYAN, A.T., prof.; KUDRYAVTSEV, N.T., prof.

Latest developments in electroplating. Khim. nauka i prom. 3
no.4:471-476 '58. (MIRA 11:10)
(Electroplating)

76-32-3-13, 37

TOPICS:
TITLE:

~~Topical~~ Mashev, V. N.
The Mechanism of the Electrode Position of Chromium (Mekhanizm
elektroosazhdeniya khroma)

ABSTRACT:

Zhurnal Fizicheskoy khimii, 1958, Vol. 32, Nr 8, pp. 1900-1906
(1958)

According to Gerischer (Gerischer) (Ref 4) the addition of SO_4^{2-} ions in the electrolysis of chromic acid prevents too great growth of the cathodic coating. Koltzoff (Koltzoff) et al. (Ref 5) assumed that it is a layer of monomolecular thickness. According to the polarograms two reactions take place during the electrolysis, which are of different character. The changes occurring at the phase boundary electrode - solution taking place according to these two reactions are investigated. The reaction $Cr^{3+} \rightarrow Cr^{4+}$

It has also in the presence of sulfuric acid at considerably higher positive potentials, and it depends to a great extent on the mixing of the electrolyte, as was shown by G. I. Shervaya. In this reaction no coating is formed on the electrode

and 1/2

AUTHORS: Vagramyan, A. T., Popkov, A. P.

SOV/76-32-9-5/46

TITLE: The Number of Crystals Formed in the Alternating Current
Deposition of Silver (Chislo kristallov, obrazuyushchikhsya pri
elektroosazhdenii serebra tokom peremennogo napravleniya)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32 , Nr 9,
pp 1963 - 1966 (USSR)

ABSTRACT: The authors studied the deposition of silver from solutions of $2n \text{ AgNO}_3$ and $2n \text{ KNO}_3$, and $4n \text{ AgNO}_3 + 2n \text{ KNO}_3$. The number of crystals which had formed on the surface of the electrodes was determined under the microscope. This number increases with the voltage; this direct relationship is represented in diagrams (Figs 1,2, and 3). Silver and Platinum electrodes were used. The preceding anodic polarization yielded many more crystals at the cathode than did the polarization of the cathode with direct current. This phenomenon did not occur at the insoluble platinum electrode. Probably the number of crystals increases by virtue of the fact that the number of active centers on the surface of the electrode increases, since sharp points and tiny crystals tend to be

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The Number of Crystals Formed in the Alternating
Current Deposition of Silver

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dissolved preferably. There are 4 figures and 6 references,
6 of which are Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut fizicheskoy khimii, Moskva
(AS USSR, Moscow, Institute of Physical Chemistry)

SUBMITTED: March 26, 1957

Card 2/2

5 (4)

AUTHORS:

Vagramyan, A. T., Usachev, D. N.

SOV/62-59-7-8/38

TITLE:

Three Anomalies of the Electric Precipitation of Chromium
(Tri anomalii pri elektroosazhdenii khroma)

PERIODICAL:

Izvestiya Akademii nauk SSSR. otdeleniye khimicheskikh nauk,
1959, Nr 7, pp 1207-1210 (USSR)

ABSTRACT:

In this paper the three anomalies arising on the electric reduction of chromic acid in the presence of sulphuric acid are demonstrated. They are the following: a) The reduction of the hexavalent chromium to the trivalent state runs very quickly at a low potential and is very sharply suppressed at high potentials. b) Stirring of the electrolytes decreases the cathode polarization sharply at low potentials and has no influence on that at high potentials. c) On increasing the electrode potential within a certain potential range the polarizing current decreases. The dependence of the current density on the cathode polarization at direct current, in the presence of H_2SO_4 and without it, on stirring and without stirring is represented in figures 1, 2, 3. It is supposed that the anomalies being noticed on the electric precipitation are combined with the appearance of a film on the

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Three Anomalies of the Electric Precipitation of
Chromium

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surface of the electrode. Since the film occurs only in the presence of H_2SO_4 this is indicative of the fact that the sulphuric acid influences the formation of a film positively in the range of the chromium precipitation potential and that it does not destroy the film as is generally supposed. There are 3 figures and 4 references, 3 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences, USSR)

SUBMITTED: October 30, 1957

Card 2/2

5(4)
AUTHORS: Vagranyan, A. T., Fatuyeva, T. A. SOV/78-4-6-11/44

TITLE: Investigation of the Ionic Discharge Rate in the Course of Conjugate Electrochemical Reactions (Issledovaniye skorosti razryada ionov pri protokanii sopryazhennykh elektrokhimicheskikh reaktsiy)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 6, pp 1281-1284 (USSR)

ABSTRACT: The mutual influence of the ions in the case of conjugate electrochemical reduction was investigated. The dependence of the discharge rate of nickel from 1 n NiSO₄ on the addition of CoSO₄ was investigated and is given in figures 2 and 3. The course of the discharge rate of nickel in dependence on the cobalt sulphate concentrations shows that the reduction process is to a considerable extent inhibited by an addition of 0.25 n CoSO₄. The dependence of the reduction rate of the ions in the case of joint reactions on the potential of the electrode was investigated and is given in figure 4. During the conjugate reduction and precipitation of the metals the

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SOV/78-4-6-11/44

Investigation of the Ionic Discharge Rate in the Course of Conjugate Electrochemical Reactions

reduction rate of the nickel- and cobalt ions is considerably inhibited during the electrolysis. The inhibition of the ionic discharge is due to the change of their concentrations as well as to the change of the ionic state in the solution and the different surface state of the electrode and its inclination to passivity. There are 4 figures and 14 Soviet references.

SUBMITTED: June 2, 1958

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5(2)

SOV/20-127-4-31/60

AUTHORS:

Usachev, D. N., Klimasenko, N. L., Vagramyan, A. T.

TITLE:

On the Mechanism of Electrolytic Reduction of the Ions MnO_4^{+} , SeO_4^{+} , ReO_4^{+} at Simultaneous Precipitation With Chromium

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, No 4, pp 832-839 (USSR)

ABSTRACT:

For the reduction of hexavalent chromium to metal it is necessary that the cathode is covered with a film preventing the reduction of hexavalent to trivalent chromium. For the formation of this film, the presence of foreign ions in the solution is necessary (Refs 1, 2, 3). The mechanism of chromium reduction under these conditions is assumed in such a way that the discharging chromium enters the film as an anion to the other film-producing anions, and that these foreign anions are reduced on the cathode together with chromium. The examination of this assumption is carried out in the present paper. For this purpose, the reduction of a number of anions in chromic-acid solution was investigated with the addition of sulphuric acid. The choice of metals was small, for they had to form anions in the chromic-acid medium. The substances mentioned in the title

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On the Mechanism of Electrolytic Reduction of the Ions MnO_4^- , SeO_4^{2-} , ReO_4^- at Simultaneous Precipitation With Chromium 307/20-127-4-31/60

Here this property. For instance, it was found that it was precipitated at 0.02 mole of H_2SO_4 and 0.05 mole of $Cr(III)$ in the form of a chromium alloy (10% Cr and 90% Se). It was precipitated at 0.02 mole of H_2SO_4 and 0.05 mole of $Cr(III)$ in the solution as a colloid, it is not precipitated at all. By electrolytic precipitation, Se with Cr formed an alloy with a content of 37% Se and 63% Cr. Re also permitted this precipitation. The experiment failed for cations such as $H(ArSO_4)$, and also for other anions. Only chromium was precipitated, i.e. simultaneous precipitation could not be carried out for all anions. There are 5 references, 2 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences, USSR)

PRESENTED: April 13, 1959, by P. A. Robinder, Academician

SUBMITTED: April 13, 1959

Card 2/2

5(4)
AUTHORS: Fatuyeva, T. A., Vagramyan, A. T. SOV/20-128-4-38/65

TITLE: An Investigation of the Rate of Conjugated Electrochemical Reactions

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 4, pp 773-776 (USSR)

ABSTRACT: In several papers (Refs 2,3) it was proved that a mutual influence of the ions occurs in the joint reduction of metal ions. In the joint reduction of the ions of Co and Ni, Fe and Co, or Fe and Ni, for instance, that ion is discharged more quickly which in the case of a more negative potential is separated alone. This process is complicated by the simultaneous discharge of hydrogen ions. The authors indicate their data for the precipitation of Fe, Ni, H₂ (Table 1, Fig 1) and Fe, Co, H₂ (Fig 2). In both cases, the separation of Fe is accelerated while that of Ni and Co, respectively, is inhibited. The following possible influences are discussed: (1) Alteration of the state of the cathode surface, (2) alteration of the structure of the Helmholtz layer, (3) alteration of the concentration and state of ions in the electrolyte.

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An Investigation of the Rate of Conjugated
Electrochemical Reactions

SOV/20-128-4-38/65

Neither the influence of (3) (e.g. alteration of ion hydration), nor that of (2) (alteration of ion concentration in the Helmholtz layer (A. N. Frumkin, Ref 5)) can clarify the phenomena observed. Yu. S. Petrova proved that the adsorption rate of hydrogen and hydroxides is different for the individual metals of the Fe-group. Ni adsorbs more H, Fe more hydroxide. If the layer adjacent to the electrode is alkalinized, the Ni-separation is inhibited due to the adsorption of hydroxides on the Ni-surface. V. N. Kuznetsova ascertained that the reduction of Fe increases with a decreasing simultaneous separation of H₂. A Ni-Fe alloy adsorbs less H₂ and delivers more Ni-hydroxides than Fe-hydroxides since the latter are only formed in a more acid medium. This explains the observed inhibition of the Ni-reduction, and acceleration of the Fe-reduction in the conjugated process. Thus, the state of the cathode surface, and the concentration of the components in its vicinity, are the cause of the phenomena described. There are 2 figures, 1 table, and 6 Soviet references.

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An Investigation of the Rate of Conjugated
Electrochemical Reactions

SOV/20-128-4-38/65

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute
of Physical Chemistry of the Academy of Sciences, USSR)

PRESENTED: May 25, 1959, by V. I. Spitsyn, Academician

SUBMITTED: May 22, 1959

Card 3/3

PHASE I BOOK EXPLOITATION

SOV/5123

Vagramyan, Ashot Tigranovich, and Yuliya Stepanovna Petrova

Fiziko-mekhanicheskiye svoystva elektroliticheskikh osadkov
(Physical and Mechanical Properties of Electrolytic Deposits)
Moscow, Izd-vo AN SSSR, 1960. 202 p. Errata slip inserted.
7,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut fizicheskoy
khimii.

Resp. Ed.: V. I. Likhtman, Doctor of Physical and Mathematical
Sciences; Ed. of Publishing House: S. I. Zhdanov; Tech. Ed.:
G. A. Astaf'yeva.

PURPOSE: This book is intended for specialists in physical
chemistry.

COVERAGE: The book is based on experiments carried out over a
number of years at the laboratory of electrolytic deposition

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1/2

Physical and Mechanical (Cont.)

SOV/5123

of the Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry AS USSR). The authors attempt to establish a connection between adsorption and the inclusion in the deposition of surfactants and hydrogen, and to study their influence on the structure and physicochemical properties of the deposits, as well as on the speed of the reduction of metal ions. No personalities are mentioned. References accompany most of the chapters.

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I. Information on the Process of the Electrical Crystallization of Metals	9

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1/2

GORBUNOVA, Kseniya Mikhaylovna; NIKIFOROVA, Anna Aleksandrovna; CHEMUTOV,
K.V., retsenzent; VAGRAMYAN, A.T., retsenzent; YEGOROV, N.G., red.
izd-va; SHIKIN, S.T., tekhn.red.

[Physicochemical basis of the chemical nickel plating process]
Fiziko-khimicheskie osnovy protsesssa khimicheskogo nikelirovaniia.
Moskva, Izd-vo Akad.nauk SSSR, 1960. 206 p. (MIRA 13:3)
(Nickel plating) (Hypophosphites)

PHASE I BOOK EXPLOITATION

SOV/4828

Vagranyan, Ashot. Tigranovich, and Zoya Alekseyevna Solov'yeva

Metody issledovaniya elektroosazhdeniya metallov (Methods of Investigating the Electrodeposition of Metals) 2d ed., rev. and enl. Moscow, Izd-vo AN SSSR, 1960. 447 p. Errata slip inserted. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut fizicheskoy khimii.

Ed. of Publishing House: N.G. Yegorov; Tech. Ed.: G. A. Astaf'yeva.

PURPOSE: This book is intended for metal scientists and persons working in the electroplating industry.

COVERAGE: The book deals with electrochemical, physical, and mechanical research methods used in the electrodeposition of metals from aqueous solutions. The methods considered are primarily those used or developed at the laboratoriya elektroosazhdeniya metallov (Laboratory for the Electrodeposition of Metals) of the Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry AS USSR). They include, among others, the method for studying electrode polarization.

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Methods of Investigating (Cont.)

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in the electrodeposition of metals that eliminates the effect of change in surface deposition and fixes the degree of surface activity; the method for studying the electrode surface passivation rate in the process of electrolysis; and the electrochemical method for measuring the adhesion of deposits to the strips. The book also includes data on the rate and mechanism of ion reduction, and on the properties of electrolytic deposits of metal. This is the second edition of a book published under the same title in 1955. The present edition has been enlarged by extensive revisions and includes a new chapter on porosity. The first edition was translated into French in 1958 and currently an English translation is being made in England. No personalities are mentioned. References accompany each chapter.

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Ch. I. Methods for Studying the Rate of Electrode Reactions	17
1. Studying the kinetics of electrode processes in electrode polarization by a direct current	17
Experimental setup	17

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VAGRAMYAN, A.T.; POPKOV, A.P.

Overvoltage arising during the electrodeposition and solution of
metals. Izv.AN SSSR Otd.khim.nauk no.5:816-820 My '60.
(MIRA 13:6)

1. Institut fizicheskoy khimii Akademii nauk SSSR.
(Overvoltage) (Electroplating)

SOLOV'YEVA, Z.A.; UVAROV, L.A.; VAGRAMYAN, A.T.

Rate of exchange between cobalt and its ions in solution. Zhur.
neorg.khim. 5 no.6:1185-1188 Je '60. (MIRA 13:7)
(Cobalt)
(Reduction, Electrolytic)
(Ion exchange)

25056

S/080/60/033/012/011/024
D209/D305

5-1310

AUTHORS: Vagramyan, A.T., Kudryavtsev. V.N., and Kuznetsova,
V.N.

TITLE: On conditions for producing electrolytic powders of
metals

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 12, 1960,
2719 - 2724

TEXT: There are many references in literature to the mechanism and conditions for obtaining electrolytic powders. It is generally thought that low current densities give rise to compact, homogeneous deposits, while higher c.d. give soft, spongy deposits. But the critical current determined from the loop in the polarization c.d. curves has an indefinite value and depends on the slope of the polarization curve. The oscillograph MPO-2 was used to measure the polarization of the electrode, a closed glass cell and a film moving at the rate of 4 and 10 mm/sec for registering the change

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25656

S/080/60/033/012/011/024
D209/D305

On conditions for ...

in polarization with time serving as essential parts of the apparatus. The standard electrode was saturated calomel electrode, all experiments being conducted in a thermostat at 25°. A series of current efficiency tests was made. The cathode was a platinized disc of area 3 cm². examined graphically in the case of iron, the break in the curve occurs sharply and earlier as the current density is increased. With nickel there is much the same pattern but the break is considerably less sharp, indicating the smaller difference in reduction potentials for Ni and H₂. Comparing the shape of the

polarization curves with the structure of the deposit obtained shows that in the first section a compact homogeneous deposit results. Going over to the second section, the deposit becomes soft and powdery. When Fe and Ni are deposited by pulsed current whose time period does not exceed the value of the first section bright, homogeneous deposits are obtained. If the time exceeds the value of the first section, i.e. when the electrode potential passes over to a more negative value, a black powdery deposit is formed. The current efficiency in the first section approaches 100 % and that cor-

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On conditions for ...

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responding to the second section for the same c.d. about 70 %. It is concluded that study of the conditions for metallic powders appearing at the surface of the cathode shows that with one and the same c.d. bright and compact as well as powdery deposits can be obtained. Hence the size of the current density cannot by itself affect the quality of the deposit. The factor most characteristic in the change of structure of the electrolytic deposit is not the critical current, but the concentration of ions being discharged in the layer adjacent to the electrode, determined by the change of polarization with time. The boundary of transition from compact to powdery deposits has been established for different c.d. in relation to the electrolysis period and it is shown that the structure changes without any intermediate type of deposit being formed. There are 6 figures and 9 references: 6 Soviet-bloc and 3 non-Soviet-bloc. X

SUBMITTED: February 8, 1960

Card 3/3

USACHEV, D.N.; VAGRAMYAN, A.T.

Conditions for the electrolytic formation of alloys of chromium with other elements. Zhur.fiz.khim. 34 no.1:229-230
Ja '60. (MIRA 13:5)

1. Akademiya nauk SSSR. Institut fizicheskoy khimii, Moskva.
(Chromium-manganese alloys)
(Chromium-selenium alloys)
(Chromium-rhenium alloys)

SOLOV'YEVA, Z.A.; VAGRAMYAN, A.T., (Moscow)

Role of self-adjustment in polarization measurements during the
electrodeposition of metals. Zhur. fiz. khim. 34 no.4:754-758
Ap '60. (MIRA 14:5)
(Polarization (Electricity)) (Electroplating)

51572
S/076/60/034/06/16/040
B015/B061

18.7400
5.4600

AUTHORS: Vagranyan, A. T., Krasovskiy, A. L., Petrova, Yu. S.,
Solov'yeva, L. A. (Moscow)

TITLE: The Role of Passivation in the Electrodeposition¹⁸ of Metals

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 6,
pp. 1255-1259

TEXT: The action of the rate of passivation on the electrochemical reduction of metal ions in aqueous solutions was examined. A series of experiments took place in manganosulfate solutions with and without additions of ammonium sulfate at pH = 8 and at 25°C. The results show (Table) that the reduction of the manganese¹¹ ions takes place through an activation of the electrode surface by ammonium sulfate. In a further series of tests a common electrolytic depositing of molybdenum and nickel from ammonium citrate solutions was examined. The rate of depositing of the nickel² rises through the activation of the surface with increasing concentrations of ammonia. One of the main obstacles to the reduction of metal ions is the passivation of the surface. Metals with a great

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The Role of Passivation in the
Electrodeposition of Metals

⁸¹⁵⁷
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B015/B061

passivation tendency are hard to reduce on the cathode, and can be divided into three groups in this respect: 1) Metals which are deposited by relatively low overvoltage, such as Sn, Cd, Cu, Ag, etc., 2) Metals which are deposited at high overvoltage, such as Fe, Ni, Co, and Cr, Mn, etc., 3) Metals which cannot be deposited in pure form from aqueous electrolytes, such as Mo, W, U, Nb, Ti, Ta. In order to reduce metal ions, it is necessary to produce conditions which hinder passivation of the electrode surface, or at least strongly reduce it. R. I. Agladze is mentioned in the text. There are 4 figures, 1 table, and 4 references: 2 Soviet and 2 British.

ASSOCIATION: Akademiya nauk SSSR Institut fizicheskoy khimii Moskva
(Academy of Sciences of the USSR, Institute of Physical
Chemistry, Moscow)

SUBMITTED: August 6, 1958

Card 2/2

POPKOV, A.P.; KLIMASENKO, N.L.; VAGRAMYAN, A.T.

Polarization in the electrodeposition of nickel, cobalt, and iron
on a solid and liquid cathode. Zhur. fiz. khim. 34 no.8:1741-1744
Ag '60. (MIRA 13:9)

1. Akademiya nauk SSSR, Institut fizicheskoy khimii.
(Iron plating) (Nickel plating) (Cobalt)
(Polarization (Electricity))

87408

S/020/60/135/006/024/037
B004/B056

26.1620

AUTHORS: Vagranyan, A. T. and Fatuyeva, T. A.

TITLE: Joint Discharge of Metal Ions in Real Conjugate Systems

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 6,
pp. 1413 - 1416

TEXT: It is the purpose of the present investigation to prove that the joint discharge of metal ions of different kinds does not take an additive course but is a conjugate system. Therefore, not the overvoltage of the individual metal ions with respect to the electrode, but their overvoltage with respect to the alloy must be taken into account. From the fraction of polarization of each of the ions entering the electric double layer, from its capacity and its ability of penetrating into the double layer, the

following relation is obtained: $\varphi_1^0 + (RT/nF)\ln(\alpha_1 C_1 / \sum \alpha_i C_i) C_1 - \eta_1^{\text{alloy}}$
 $= \varphi_2^0 + (RT/nF)\ln(\alpha_2 C_2 / \sum \alpha_i C_i) C_2 - \eta_2^{\text{alloy}}$ (3). φ_1^0, φ_2^0 denote the normal potentials of two different ions, C_1, C_2 their concentration, C_1 the total

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Joint Discharge of Metal Ions in Real Conjugate Systems

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concentration, α the coefficients expressing the capability of penetrating into the electric double layer, γ_1^{alloy} , γ_2^{alloy} the overvoltage in deposition on the alloy. In such conjugate systems it is possible, owing to the different effects of the electrodes upon the overvoltage of the various ions, that both the reduction rate of the more positive metal ions and that of the more negative ions changes. This was proved by the joint discharge of nickel and iron ions. The discharge rate of Ni ions was lower in a joint discharge with Fe, although its reduction potential is more positive in the absence of Fe. The effect of temperature upon the discharge rate is represented in Fig.3. The discharge rate of nickel ions increases with a rise of temperature, while that of iron ions decreases, so that above 90°C the electrodeposited alloy contains more nickel than iron. A. N. Frumkin and A. I. Krasovskiy are mentioned. There are 3 figures and 4 Soviet references.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences USSR)

PRESENTED: June 20, 1960, by V. I. Spitsyn, Academician

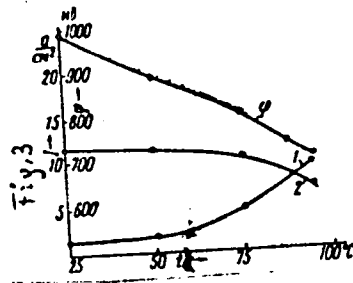
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Joint Discharge of Metal Ions in Real Conjugate Systems

S/020/60/135/006/024/037
B004/B056

SUBMITTED: June 15, 1960



Text to Fig. 3: Discharge Rate of Ni²⁺ (1) and Fe²⁺ Ions (2) and the Electrode Potential φ as a Function of Temperature.

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S/137/62/000/004/007/201
A006/A101

AUTHOR: Vagramyan, A. T.

TITLE: Regularities in the joint reduction of metal ions

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 17, abstract #A88
(V sb. "Elektrolit. osazhdeniye splavov", Moscow, Mashgiz, 1961,
3 - 30)

TEXT: The importance is stressed of clearing up basic problems on the joint discharge of metal ions for the electrolytic preparation of alloys. The author investigates the theory on the joint discharge of metal ions in ideal non-conjugated and natural conjugated systems. In the latter case, the effect of various factors on the rate of the electrochemical process is analyzed. Conditions of joint discharge in natural conjugated systems are discussed. On the basis of experimental data submitted by a number of scientists, changes in the rate of ion discharge in joint reduction are analyzed. The following factors are discussed: depolarizing and passivating effects of the backing; the effect of surface-active substances and surface films and the effect of the composition of

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Regularities in the joint reduction of metal ions

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A006/A101

a double layer. Regularities of the separate ion discharge do not reveal the sequence of their joint discharge, for in joint reduction there is a mutual effect of discharging ions and changes in the discharge kinetics. The author recommends the demarcation of the joint discharge theory for non-conjugated and natural conjugated systems. There are 43 references.

L. Povedskaya

[abstracter's note: Complete translation]

Card 2/2

VAGZHANOVA, V. A., AND TRAVCHENKO, A. T.

"The Interrelation of the Cellular Immunity of Smooth Muscle and the Immunity
from Antibodies," ZHNEI, 7, 29-33, 1948

VAGZHANOVA, V. A.

USSR/Biology - Plant pathology

Card 1/1

Pub. 22 - 40/47

Authors : Ryzhkov, V. L.; Kabachnik, M. I., Memb. Corresp. of Acad. of Sc. USSR; Tarasevich, L. M.; Medved', T. Ya.; Zeytlenok, N. A.; Marchenko, N. K.; Vagzhanova, V. A.; Ulanova, E. F.; and Cheburkina, N. V.

Title : Biological activity of alpha-aminophosphinic acids

Periodical : Dok. AN SSSR 98/5, 849-852, Oct 11, 1954

Abstract : The biological activity of alpha-aminophosphinic acids (toxic when in large concentrations), is discussed. The biological activity of these acids is best expressed in the inhibition of virus multiplication in the mosaic disease of tobacco. The effect of these acids and glycol on the titer of influenza virus in growing chicken embryos was investigated and the results are described. Eleven references: 7-USSR; 2-USA; 1-French and 1-German (1930-1953). Tables.

Institution : Acad. of Sc. USSR, Institute of Elementary-Organic Compounds and the Academy of Medical Sciences USSR, The D. I. Ivanov Institute of Virology

Submitted : July 7, 1954

KRAVCHENKO, A.T.; VAGZHANOVA, V.A.

The role of the nervous system in antibody formation. Zhur.mikrobiol.
epid. i immun. 27 no.6:67-74 Je '56. (MLRA 9:8)

(ANTIGENS AND ANTIBODIES
antibody form., role of NS)
(NERVOUS SYSTEM, physiol.
role in antibody form.)

EXCERPTA MEDICA Sec.5 Vol.11/4 General Pathology Apr 58
VAGZHANOVA

1059. INTERACTION OF TUMORS AND VIRUSES (Russian text) - Vagzhanova
V. A. - VOP. VIRUS. 1957/3 (179-181) Tables 2

The purpose of the present studies was to establish a reciprocal interaction of Ehrlich carcinoma cells and various viruses. To 2 ml. of aseptically taken ascites fluid were added 2 ml. of virus suspension at the dilution of 10^{-1} to 10^{-7} and after mixing the specimen was allowed to stand for one hour at 0° or room temperature. To test the viability of cancer cells mice were administered i.p. the mixture of ascites fluid and viruses. Control animals received ascites fluid diluted with physiological saline solution in 1:2 ratio, kept for 1 hour at the same temperature as in the case of experimental mice. In order to determine the virus virulence mice were given the virus-ascites mixture intracerebral, intranasal or intraplantar. The following viruses were used: herpes simplex (strain L), fixed rabies (Moscow strain), tick-borne encephalitis (strain JaM-3) encephalomyelitis (strain SW), encephalomyocarditis (strain MM), influenza A (strain PR-8), extromelia (strain Gajdamowicz) and fowl plague (strain Ukraina). Results: after intracerebral administration of either ascites fluid or ascites-virus mixture it was found that the highest mortality rate was due first to the mixture, next to the transplantation of the neoplasm and finally to the administration of viruses. Therefore, neither oncolytic action of viruses nor any interaction of cancer cells and viruses could be established. Whereas 80% of mice succumbed 12 days after i.p. inoculation of the neoplasm, those inoculated with the neoplasm and virus mixture showed a mortality rate amounting to 50-97% depending on the species of virus used. Similar results were obtained with intranasal or intraplantar inoculation of the experimental material. The above results regarded by the author as preliminary, are not consistent with those of other investigators who have established an oncolytic action of viruses.

Albert - Wroclaw (V, 4, 16)

EXCERPTA MEDICA Sec 16 Vol 7/12 Cancer Dec 59

5108. **The effect of tick-borne spring-summer encephalitis virus on development of Ehrlich's ascitic carcinoma (Preliminary Report).** VAGZHANOVA V. A. Ivanovsky Inst. of Virol., U.S.S.R. Acad. of Med. Sci., Moscow *Acta Virol. (Bratislava)* 1959, 3/2 (101-104) Tables 3

Tick-borne encephalitis virus strain Yam-S and Ukh-10, administered intraperitoneally to mice in a mixture with Ehrlich's ascitic carcinoma, inhibited the development of the latter. Experiments in chick embryos did not reveal the oncolytic activity of viruses, because of the high mortality of embryos resulting from normal tumour development and prolonged virus incubation.

VAGZHANOVA, V.A.

Effect of attenuated fowl plague virus on the development of Ehrlich ascites carcinoma in mice. Vop.virus. 4 no.3:343-345 My-Je '59. (MIRA 12:8)

1. Laboratoriya polisezonnykh entsefalitov (zav. - prof.A.K. Shubladze) Instituta virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva.

(NEOPLASMS, exper.

eff. of attenuated fowl plague virus on Ehrlich ascites carcinoma (Rus))

(VIRUSES,

same)

GAYDAMOVICH, S.Ya.; VAGZHANOVA, V.A.

Neutralization reaction for Venezuelan equine encephalomyelitis virus
based on the hemagglutination phenomenon. Vop. virus. 10 no.3:271-275
My-Je '65. (MIRA 18:7)

1. Institut virusologii imeni Ivanovskogo AMN SSSR, Moskva.

GAYDAMOVICH, S.Ya.; VAGZHANOVA, V.A.

Early detection of arboviruses in tissue culture using the
hemagglutination method. Vop. virus. 9 no.6:712-714. M-D '64.
(MIRA 18:11)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR,
Moskva.

ZHDANOV, V.M.; GAIDAMOVICH, S.Ya.; VAGZHANCVA, V.A.

Acceleration of reproduction of Venezuelan equine encephalitis virus by actinomycin D. Acta virol. (Praha) [Eng.] 8 no.4:378-379 J1 '64.

1. The Ivanovsky Institute of Virology, U.S.S.R. Academy of Medical Sciences, Moscow.

YERCHOV, F.I.; VAGZHININA, V.A.

Dynamics of the reproduction of viruses of Japanese encephalitis in tissue culture. Vop. Virus. 1965. No. 1. P. 1-10.

1. Institut virusologii imeni D.I. Ivanovskogo, Moskva.

VAGZHANOVA, Ye. F.

Biological activity of α -aminophosphonic acids. V. L. Ryzhkov, M. I. Kabachnik, L. M. Tarasevich, V. A. Vagzhanova, Ye. F. Ulanova, and N. V. Cheburkiha (Inst. Heter-org., compds., Acad. Sci. U.S.S.R. and D. I. Ivanovskiy Virol. Inst., Acad. Med. Sci. U.S.S.R., Moscow). Doklady Akad. Nauk S.S.S.R. 98, 249-52, 1954.

α -Aminophosphonic acids show some biol. activity, At high concns, they are toxic, as shown by retardation of development of the silkworm, and death of chick embryos in high concns of $\text{PhCH}(\text{NH}_2)\text{PO}_3\text{H}_2$. They retard somewhat the propagation of tobacco mosaic virus and repress growth of tobacco rootlets. Studies made with $\text{H}_2\text{NCH}_2\text{PO}_3\text{H}_2$, $\text{Me}_2\text{C}(\text{NH}_2)\text{PO}_3\text{H}_2$, iso- $\text{PrCH}(\text{NH}_2)\text{PO}_3\text{H}_2$, iso- $\text{BuCH}(\text{NH}_2)\text{PO}_3\text{H}_2$, iso- $\text{AmCH}(\text{NH}_2)\text{PO}_3\text{H}_2$, and $\text{PhCH}(\text{NH}_2)\text{PO}_3\text{H}_2$ on tobacco plant roots tobacco virus, silkworm, grippe virus (in chick embryos) indicated that these compete with the latter in metabolism, no incorporation of them into silk was established in nutrition expts, with the silkworm. Liver, kidney and plant tissues failed to show the ability to transform the C-P linked P into inorg. phosphate.

G. M. Koselapoff

VAGZHANOVA, Ye. F.

3246* Biological Activity of α -Aminophosphinic Acids. Biologicheskaya aktivnost' α -aminofosfinovykh kislot. (Russian.) V. L. Ryzhkov, M. I. Kabachnik, L. M. Tarasevich, T. Ya. Medved', N. A. Zeitlenok, N. K. Marchenko, V. A. Vagzhanova, Ye. F. Ulanova, and N. V. Sheburkina. Doklady Akademii Nauk SSSR, v. 98, no. 5, Oct. 11, 1954, p. 849-852.

Influence of various acids on the reproduction of tobacco mosaic virus, the development of silkworms, the destruction of embryos, and the depression of growth of tobacco rootlets. Tables. 11 ref.

VAFALA, E.

Examples of modern mounting of steel constructions and bridges. p. 211.
INZINYRSKE STAVEB". (ministerstvo stavebnictvi) Praha. Vol. 4. no. 2,
August 1956.

SOURCE: East European Accessions List, (EEAL), Library of Congress
Vol. 5, no. 12, December 1956

VAHALA, Frantisek, dr.

The style of technical literature. Strojirenstvi 13
no.4:216-217 '63.

CA

15

The orientation experiments with a new fertilizer from tannery wastes. Josef Váhala. *Průmysl Čechoslovenské Republiky* 26, 560 (1960). The tannery waste (containing approx 40% H₂O) is composed of: ash 11.43; total N 2.25; ammoniacal N 0.5; total org. matter 45.0; CaO 3.0; MgO 0.078; K₂O 0.45; SO₃ 1.94; and P₂O₅ 0.09%. This tannery waste compares favorably with the fertilizers of similar chem. compn.

Jan Mícha

197

CA

Rhus typhina as a potential source of domestic tannins.
Josef Váhala. *Sborník Českoslov. Akad. Zemědělsk 26.*
377-382(1931).—Results of cultivation of *Rhus typhina*
in various parts of Europe are reviewed. Some samples
contained over 30% tannin. Exptl. cultivation on a
small scale has been done for several past years in Czecho-
slovakia. Small-scale tanning expts. with exts. from leaves
were inconclusive; better results were obtained for upper
leather than for sole leather. In both cases a combination with
other tanning materials is recommended. Tannins from
Rhus typhina are cheaper than those from spruce bark and
much cheaper than synthetic tanning materials. Cf C.A.
46, 2830x. L. A. Helwich

Vahala, J.

Czechoslovakia/Physical Chemistry - Kinetics. Combustion. Explosives. Topo-chemistry. Catalysis, B-9

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 454

Author: Vahala, J., and Jakubicek, J.

Institution: None

Title: The Effect of Water Vapor on the Dehydrogenation of Ethylbenzene

Original Periodical: Chem. listy, 1956, Vol 50, No 1, 11-22

Abstract: The effect of water vapor on the dehydrogenation of ethylbenzene (I) to styrene has been investigated. A zinc oxide catalyst or porcelain chips were used, and the flow of I was varied; reaction temperatures of 500-700° and different H₂O:I ratios were used. It is shown that in the presence of H₂O vapor, the catalytic dehydrogenation of I is slowed down at temperatures below 600° and accelerated at higher temperatures. Dealkylation and cracking are inhibited in the presence of H₂O vapor. It is indicated that because of side reactions, the equilibrium constant for the dehydrogenation of I could not be established experimentally.

Card 1/1

CZECHOSLOVAKIA / Physical Chemistry. Thermodynamics. B
Thermochemistry. Equilibria. Physico-
Chemical Analysis. Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 17, 1958, 56746.

Author : Jakubicek Josef, Fried Vojtech, Vahala Josef.

Inst : Not given.

Title : Phase Equilibria in the Systems 2-Methoxyethan-
ole - Ethyl-Benzene - Styrene and 2-Methoxy-
ethanole - Aqua.

Orig Pub: Chem. listy, 1957, 51, No 8, 1422 - 1428.

Abstract: Attempting to separate styrene and ethylbenzene,
occurring in a liquid dehydrogenation product,
the authors investigated the liquid - vapor
equilibrium at a pressure of 62 millimeters of
the mercury column by applying 2-methoxyethan-
ole (methylcellosolve, I) as a third component.

Card 1/5

12

CZECHOSLOVAKIA / Physical Chemistry. Thermodynamics. ^B
Thermochemistry. Equilibria. Physico-
Chemical Analysis. Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 17, 1958, 56746.

Abstract: The data on the systems ethylbenzene - styrene, I - ethylbenzene and I - styrene were submitted. The constants in the Van Laar equations were calculated for all the systems. The behavior of the system ethylbenzene - styrene is practically ideal. The constant C for the tertiary system has been calculated from the binary system constants by applying the Vol Law: $C = 0.5(0.591 - 0.755 / 0.475 - 0.685) - 0.187$. The relative volatility values have been calculated from the activity coefficient, and from the former — the equilibrium composition of the liquid and vapor phases of the tertiary system. The calculations have been verified by measurements.

Card 2/5

CZECHOSLOVAKIA / Physical Chemistry. Thermodynamics. B
Thermochemistry. Equilibria. Physico-
Chemical Analysis. Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 17, 1958, 56746.

Abstract: The experimental and calculated data do not coincide well due to the inaccurate method of the analysis. The liquid-vapor equilibrium in the $H_2O(4) - I(1)$ system at a pressure of 100 and 752 millimeters of the mercury column, which was measured for the purpose of dehydrogenating I, can be described by the van Laar equation of the third order; The constant values for 752 millimeters of the mercury column are $A(1-4) = 0.5920$, $A(4-1) = 0.3021$; for 100 millimeters of the mercury column - $A(1'-4') = 0.264$, $A(4' - 1') = 0.054$. The obtained data shows that the system

Card 3/5

13

CZECHOSLOVAKIA / Physical Chemistry. Thermodynamics. ^B
Thermochemistry. Equilibria. Physico-
Chemical Analysis. Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 17, 1958, 56746.

Abstract: I - ethylbenzene possesses an azeotropic point:
The composition of the azeotropic mixture at
62 millimeters of the mercury column is 42.1
mole percent I, and the boiling point 51.9°C.
The system I - styrene forms an azeotrope with
a composition of 57.9 mole percent I and a
boiling point 56.8°C, at the same pressure. No
tertiary azeotrope was observed. The azeotropic
mixture I - ethylbenzene was obtained on a test
column (25 theoretical plates) by continuous
vacuum purification; the I - styrene mixture
was taken from the hot-water boiler. The sys-
tem H₂O - I forms an azeotropic mixture with

Card 4/5

CZECHOSLOVAKIA / Physical Chemistry. Thermodynamics. B
Thermochemistry. Equilibria. Physico-
Chemical Analysis. Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 17, 1958, 56746.

Abstract: 94.5 mole percent H₂O, boiling point 99.2°C
at 752 millimeters of the mercury column,
98.7 mole percent H₂O and boiling point 51.5°C
at 100 millimeters of the mercury column. The
application of I as a third component permits
the reduction of the number of plates, neces-
sary for the separation of styrene, which is
reduced from 36 to 20, but which however,
complicates the separation process.

Card 5/5

14

VAHAJA, J.; VYROUBAL, C.

Zinc oxide in the catalytic hydrogenation of ethylbenzene.


p. 1593 (Chemické listy) Vol. 51, no. 9, Sept. 1957. Praha, Czechoslovakia.

SO: Monthly Index of East European Accessions (EEAI) IC, Vol. 7, no. 1, Jan. 1958

S/081/62/000/024/060/073
B166/B186AUTHOR: Váhala, JosefTITLE: Preparation of the acicular modification of γ ferric oxide for magnetic recording tapes

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 553, abstract 24K103 (Czechoslovak Patent 101099, Sept. 15, 1961)

TEXT: Yellow $\text{Fe}(\text{OH})_3$, produced by precipitating FeSO_4 by adding Na_2CO_3 and oxidizing the suspension with air, or yellow $\text{Fe}(\text{OH})_3$ pigment, or brown $\text{Fe}(\text{OH})_3$ are heated for 1 - 2 hrs at $250 - 300^\circ\text{C}$; the α Fe_2O_3 which is formed is reduced in a stream of H_2 (gas), illuminating gas or incomplete combustion products of household gas for 1 - 1.5 hrs at $280 - 350^\circ\text{C}$. The reduced black product is cooled in a reducing medium and oxidized with heated air at $< 150^\circ\text{C}$ for 2 hrs. When this is done the powder becomes brown. The product is suitable for making varnish and for application to magnetic recording tapes. [Abstracter's note: Complete translation.]
Card 1/1



VAHALA, Josef; VYROUBAL, Cestmir

Preparation of iron oxide by precipitation of iron sulfates. Chem
prum 11 no.11:568-573 N '61.

1. Spolek pro chemickou a hutni vyrobu, n.p., Usti nad Labem (for
Vahala). 2. Vyzkumny ustav syntetického kaučuku, Gottwaldov (for
Vyroubal)

VAHALA, Josef; SPONAR, Jiri; WEIGNER, Jaromir

Condensation of the monochloroacetic acid with phenol and its derivatives. Chem prum 13 no.1:6-12 Ja '63.

1. Spolek pro chemickou a hutni výrobu, n.p., Usti nad Labem.

VAHALA, Josef; SPICAR, Jiri; WEIGNER, Jaromir

Sulfation of synthetic higher fatty alcohols. Chem prum 13
no.5:236-241 My '63.

1. Spolek pro chemickou a hutni vyroby, Usti nad Labem.

VAHALA, Josef; SPONAR, Jiri; MALEK, Jaroslav; HENDRYCHOVA, Jirina

Dechlorination of 1,1,2-trifluoro-2-chloro-ethane and 1,2-dichloro-tetrafluoro-ethane. Chem prum 14 no.12:634-638 D '64.

1. Research Institute of Chemical Technology, Spolek pro chemickou a hutni výrobu National Enterprise, Usti nad Labem.

VAHALA, Miroslav

Blanensko a Vyskovsko. Moravsky kras. (Blansko and Vyskov Areas, Moravian Karst; a tourist guide. 1st ed. illus., bibl.) Authors: Miroslav Vahala, in cooperation with Josef Pridal, Vladimir Panos, Nina Dvorakova, Alena Vahalova. Prague, Sportovni a turisticke nakl., 1957. 131 p.

Bibliograficky katalog, CSR, Ceske knihy, No. 34. 1 Oct 57. p. 739.

VAHALA, Zdenek, MUDr.; BILEK, Frantisek, MUDr.; NAJEMNIK, Jan, MUDr.

Postcholecystectomy syndrome; studies on etiology, diagnosis,
clinical aspects and treatment. Sborn. lek. 58 no. 6: 125-148
June 56

J. Z chirurgické kliniky nemocnice v Praze i Pod Petřínem,
Prednosta primar MUDr. Zdenek Vahala-Z rtg oddeleni polikliniky
UNZ 13

(GALLBLADDER, surg.
cholecystectomy, postop. compl. (Cz))

VAHALA, Zdenek; PUZANOVA, Ludmila

On the problem of the orifice of Wirsung's duct and its relation to the biliary pathways. Rozhl. chir. 40 no.9:624-629 S '61.

1. Klinika chirurgie dospelych fakulty detskeho lekarstvi KU v Praze, prednosta doc. MUDr. Zd. Vahala Anatomicky ustav fakulty vseobecneho lekarstvi KU v Praze, prednosta prof. MUDr. Lad. Borevansky.

(PANCREATIC DUCTS anat. & histol.)
(BILE DUCTS anat. & histol.)

VAHALA, Zdenek; KOTAS, Jaroslav

Syndrome of intestinal resorption disorders in some surgical diseases.
Cas.lek.cesk 100 no.36:1127-1133 8 S '61.

1. Klinika chirurgie dospelych fakulty detskeho lekarstvi KU v Praze,
prednosta doc. dr. Z. Vahala. Ustredni laborator fakultni nemocnice
pod Petrinem, prednosta MUDr. J. Kotas.

(GASTROINTESTINAL SYSTEM surg) (INTESTINES dis)

SVOBODA, Zd. MUDr.; VAHALA, Zd. MUDr.

Effect of surgery of the biliary tract on the course of diabetes mellitus. Vnitřni lek. 11 no.9:908 S '65.

1. II. vnitřni klinika FDL pod Petrinem (prednosta prof. R. Foit)
a chirurgická klinika tamtéž (prednosta doc. Z. Vahala).

VAHENOMM, K.; PAJOMA, A.

Some peculiarities in the cultivation of improved vegetable varieties.
p. 134.

SOTSIALISTLIK POLLUMAJANDUS. (Pollumajanduse Ministeerium) Tallinn,
Estonia. Vol. 13, no. 3, March 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 11,
November 1959.

Uncl.

VAHENOM, K.

Let us produce kitchen vegetables cheaper. p.508

SOTSIALISTLIK PÖLLUMAJANDUS. Tallinn, Estonia. Vol. 14, no. 11, June, 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959
Uncl.

AAMISEPP, I.; EICHENBAUM, E.; HALLER, E.; KAARLI, K.; KIIK, H.;
KIVI, V.; KOTKAS, H.; KORJUS, H.; LEIVATEGIJA, L.; LIIV, J.;
LÄNTS, L.; MÄLKSOO, A.; PEDAJA, V.; POLNA, E.; RANDALL, I.;
RUUGE, J.; SEKSEL, H.; TOOMRE, R.; TUPITS, H.; TUUL, S.;
TÕNISSON, H.; TÄAGER, A.; VIIRAND, M.; VAHENÕMM, K.; ARAK, A.,
red.

[Plant breeding] Taimakasvatus. Tallinn, Eesti Raamat, 1964.
813 p. [In Estonian] (MIRA 18:1)

RAUD, A.; VAHER, A.; VOOL, K., red.; SEPP, A., tekhn. red.

[Catalog of typer of regionalized and promising agricultural
crops of the Estonian S.S.R.] Eesti NSV-s rajoonitad ja
perspektiivsete pollumajanduskultuuride kortide Kataloog.
Tallinn, Eesti Riiklik Kirjastus, 1960. 25 p. (MIRA 15:1)
(Estonia—Field crops)

VAHER, I.

Statics for artificial insemination. p. 356

GAZ, WODA I TECHNIKA SANITARNA (Stowarzyszenie Naukowo-Techniczne
Inzynierow i Technikow Sanitarnych, Ogrzewnictwa i Gazownictwa)
Warszawa, Poland, Vol. 13, no. 8, Aug. 1958.

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

Uncl.

VAHER, L.

[Breeds of cattle in the Estonian S.S.R.] Porody krupnogo
rogatogo skota Estonskoi SSR. Tallin, Estonskoe gos.izd-vo,
1956. 14 p. (MIRA 16:8)
(Estonia—Cattle)

VAHI, G.

Regional adaptation of field crop varieties for 1958. p. 139.

SOTSIALISTLIK POLLUMAJANDUS. (Pollumajanduse Ministeerium) Tallinn,
Estonia. Vol. 13, no. 3, March 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 11,
November 1959.

Uncl.

VAHL, F.

Problem of practical use of scientific works and outlines for engineering diplomas.
p. 36. MAGYAR TEXTILTECHNIKA (Textilipari Muszaki es Tudomanyos Egyesulet) Budapest.
No. 1, Jan 1956

SOURCE: EEAL, Vol 5, no. 7, July 1956.

VAHTRAE, J.

Feed cabbage guarantees a high milk production in the fall. p. 161.

SOTSIALISTLIK POLLOMAJANDUS. Tallinn, Hungary. Vol. 13, no. 4, Apr. 1959.

Monthly List of East European Accessions (EEAI), LC, No. 1, July 1959.
Uncl.

VAHUR, J.

The new grain dryer SZS-2. p. 375.

GAZ, WODA I TECHNIKA SANITARNA (Stowarzyszenie Naukowo-Techniczne
Inzynierow i Technikow Sanitarnych, Ogrzewnictwa i Gazownictwa)
Warszawa, Poland, Vol. 13, no. 8, Aug. 1958.

Monthly list of East European Accession (EEAI) IC, Vol. 9, no. 2, Feb. 1960

Uncl.

VAICENAS, A.

Results of ascariasis control. Sveik. apsaug. 8 no.9: 20-22
8'63.

1. Kelmes rajono Tytuvėnu apylinkės ligoninė.

*

Vaicenbacher V.

KRECEK, J.; KRECKOVA, J.; VAICENBACHER, V.

Effect of antihistamine substances on metabolism of pyruvic acid.
Biol. listy Suppl. 1:54-61 1950. (CLML 20:5)

1. Of the Research and Control Institute of the United Pharmaceutical Works and of the Department of General Physiology (Head--Prof. F. Karasek, M.D.) of the Institute of Physiology (Head--Prof. V. Laufberger, M.D.), Prague.

Vaicenbacher, V.

9
 The mechanism of the action of antihistamines. I. The effect of antihistamines on bacterial decarboxylation of histidine. J. Křeček, J. Sterzl, J. Křečková, and V. Vaicenbacher (Výzkumný a kontrolní ústav Spofa, Prague). *Časopis Lékařů Českých* 89, 2-3(1950).—The presence of histidine (I) decarboxylase in *Escherichia coli*, *Aerobacter aerogenes*, and *Pseudomonas aeruginosa* strains has been demonstrated. The organisms were grown on media containing (1) I, (2) I + antihistamines (II) in concns. 1:500 and 1:5000, (3) glucose (III) + I. The same inhibition of growth by II was observed in organisms growing on media containing I which is utilized by decarboxylation, as in those growing on media with III. The selective inhibition of II on decarboxylation of I was thus not demonstrated. III. The effect of antihistamines on the metabolism of glucides. Olga Benčová, Jiří Křeček, Jarmila Křečková, Jaroslav Sterzl, Vladimír Vaicenbacher, and Emil Zikmund (Výzkumný a kontrolní ústav Spofa, Prague). *Ibid.* 70:9-11.—Antihistamines (I), Neosintergan, Pyribenzamine, and Antihistamine Spofa (benzhydriypiperidine ethyl ether), increase, in doses of 10-50 mg./kg., the level of glucose (II) and pyruvic acid (III) in the blood of rabbits. The increase of II is proportional to the pharmacological activity of these I. Simultaneous administration of histamine in doses of 0.1-10 mg./kg. interferes with hyperglycemia, but does not affect the III level. It is suggested that I play a role in the catabolism of II which can be correlated with the pharmacological action of I. A. Zentšek

VAICENBACHER, V.

BENESOVA, O.; KRECEK, J.; KRECKOVA, J.; STERZL, J.; VAICENBACHER, V.;
ZIKMUND, E.

Effect of antihistaminic substances on the metabolism of glucides;
study of the mechanism of the effect of antihistaminic substances.
Cas.lek.cesk. 89 no.25:709-711 23 June 50. (CLML 19:4)

1. Of the Institute for Control and Research SPOFA, of the Department
for General Physiology (Head--Prof. F.Karasek, M.D.) of the Physio-
logical Insitute of the Medical Faculty at Charles University (Head--
Prof. V.Laufberger, M.D.), and of the Institute for Medical Micro-
biology and Immunology at Charles University (Head--Prof. F.Patocka,
M.D.)

VAICENBACHEROVA, V.

Comparison of long-term administration of pelentan and
1,1-bis(4-hydroxy-3-coumarinyl)propanone to rats. I. M.
Vaicenbacherova

VAICIUVENAS, V.

Use of agar gel in microelectrophoresis of proteins. Sveik.
apsaug. 8 no.12:44-50 D²63.

1. Kauno Valstybinio medicinos instituto patologines fiziolo-
gijos katedra. Rektorius - prof. Z. Januskevicius, katedros
vedejas - doc. A. Vileisis.

*

Vaccinium, Lydia

3

✓ The action of salts on the turbidity produced during the diffusion of acetic acid from toluene in water. *Lydia*
~~Vaccinium. Commun. Acad. Rep. Populare Romine 3, 1906~~
 Over an aq. salt solu. toluene contg. glacial AcOH was carefully layered. The appearance and development of the turbidity was studied by a millivoltmeter and photoelec. cell. After the turbidity had reached its max., it gradually declined, and finally the soln. became clear. The compds. used were: KCl, NaCl, CaCl₂·6H₂O, Na₂SO₄·10H₂O, MgSO₄·7H₂O, and glucose. The factors that affected the development of the turbidity are: nature of ions, osmotic pressure, concn., but the most important one is the d. The viscosity of the solu. had little if any effect.

Handwritten mark

Handwritten signature

Emanuel Merlinger

Category: Rumania/Analytical Chemistry - Analysis of inorganic substances.

G-2

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 31043

Author : Vaicum Lydia

Inst : not given

Title : Photoelectric Method for the Determination of Water in Concentrated Acetic Acid

Orig Pub: An. Univ. "C.J. Parhon". Ser. stiint. natur., 1956, No 10, 133-137

Abstract: On diffusion of CH_3COOH from toluene into water, the toluene layer at the interface becomes turbid due to the formation therein of an emulsion of water. The degree of turbidity (TD) and rate of turbidity of water (up to 2%) in CH_3COOH , use is made of an apparatus consisting of a 6W electric bulb, a biconvex lens, a cell for the liquid and a photoelectric cell connected to a millivoltmeter. The bulb is placed at the focal point of the lens and the beam of parallel rays is directed, through a slot and the cell

Card : 1/2

-65-

ROMANIA / Chemical Technology. Chemical Products and Their Application. Ceramics. Glass. Binding Materials. Concrete. - Binding Materials. Concrete and Other Silicate Building Materials. H-13d

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 78495.

Author : Vaicum, Lidia.
Inst : Bucharest Polytechnical Institute.
Title : Effect of Saccharose on Properties of Cement Paste and Mixes.

Orig Pub: Bul. Inst. Politehn. Bucuresti, 1957, 19,
No 1-2, 151-159.

Abstract: The effect of saccharose added to the water in the mix on the setting of cement, the volume of the precipitate, and the amount of free

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RUMANIA / Chemical Technology. Chemical products H-13d
and Their Application. Ceramics. Glass.
Binding Materials. Concrete. - Binding
Materials. Concrete and Other Silicate
Building Materials.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 78495.

Abstract: CaO was studied. It is noted that insignificant amounts of saccharose increase the time necessary for setting, and that great amounts reduce it sharply. The amount of free CaO rises with the rise of the content of saccharose. -- From the author's summary.

Card 2/2

VAICUM, I., candidat in stiinta chimice; GUTU, B.; GOMANU, S.

Preliminary laboratory research on biological purification of
reed pulp factory waste waters. Studii prot spur apelor 5:113-
160 '64.

VAICOM, L., candidat in stiinta chimice

Deslating, a present problem. St si Ten Buc 16 no.12.10-13 1964.

VAICUM, L., candidat in stiinta chimice; CUTE, E.

Preliminary physicochemical research on sulfuric acid and super-phosphate factory waste waters discharged into the Black Sea.
Studii prot epur apelor 5:95-112 '64.

ANTONIU, R.; MIHAIL, M.; VAICUM, L.; MURGOCI, C.; CUTE, E.; HINCU, S.; BUSNITA, Th.; TALAU, V.; ARDELEANU, I.; RUSU-PANDELESCU, M.; PARASCHIVESCU, A.

Studies on the possibility of improving the sanitary conditions of the lakes surroundin; Bucharest. Studii prot epur apelor 5:263-332 '64.

VAICUM, L.; GRUIA, E.; GODEANU, S.

Determination of some enzymatic activities as a method of research of active mud. Studii cerc biochimie 8 no.1:97-107 '65.

1. Section of Water Protection and Purification, Hydrotechnical Research and Study Institute, Bucharest. Submitted August 6, 1964.

VAIDA, A.; LENGYEL, E., RUSU, L.

Morphofunctional aspect of the lymphatic intramural system of the large intestine; lymphatic periglandular spaces. p. 961.

COMUNICARILE. Bucuresti, Rumania. Vol. 8, no. 9, Sept. 1958

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

Uncl.

RUSSU, I.G.; VAIDA, Al; BAREELIUC, N.; POP, E.

The terminal nerve apparatus of the vascular reflexogenic
zones in experimental hypertension. Rumanian med. rev. 7
no.4:9-12 0-D'63

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HOLICSKA, D., dr.; DECA, A., dr.; VAIDA, A., dr.

Contribution to the etiopathogenesis of septal otomtritis
in infants. Otorinolaringologie (Bucur) 10 no.1:5/-61
Ja-Mr'65.

1. Lucrare efectuata in cadrul Policlinicii de intreprinderi,
Cluj.

Vaida, Dragos

Vaida, Dragos. Extension du théorème d'approximation de K. Weierstrass aux fonctions hyperboliques-continues à deux variables. Com. Acad. R. P. Roum. 6 (1956): 1173-1178. (Romanian Russian and French summaries)

7-11/11

The theorem referred to in the title is that of the approximation by polynomials of continuous functions $f(x)$, defined on the interval $0 \leq x \leq 1$.

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Let Q be a square in the plane Oxy , O being the origin and Q being hyperbolically continuous, then to each $\epsilon > 0$ there corresponds a generalized pseudo-hyperbolic polynomial $h_\epsilon(x, y)$ such that $|f(x, y) - h_\epsilon(x, y)| < \epsilon$ on the given square. The method of proof is an adaptation of S. Bernstein's [Sobsc. Har'kov. Mat. Obsc. (2) 13 (1912), 1-2] proof of Weierstrass' theorem, the essential modification arising from the fact that here, unlike in the one variable case, boundedness in absolute value of the function f is not implied by its continuity.

B. Diaz.

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VAIDA, D.

VAIDA, D. The application of Galois'imaginary numbers in the theory of automatic mechanisms. VI. Classification of evolutions of schemes with two intermediary elements. p.21.

Vol. 8, no. 1, Jan./Mar. 1956
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So: East European Accession, Vol. 6, No.5, May 1957

Determination of the Modular Structure by Means of a System of Independent Axioms

Vaida, Dragoş. Détermination des structures modulaires par des systèmes à axiomes indépendants. Acad. R. P. Roum. Stud. Cerc. Mat. 8 (1957), 457-466. (Romanian. Russian and French summaries)

Consider for a set S binary operations which satisfy: (I_1) $x[(x+y)+z]=x$; (I_2) If $x=y$ or if, for some w , we have one of the relations $x=wz$, $x=xw$, or $x=w+x$, then $x(y+z)=x+yz$.

The author as one of his two main theorems (the other concerns operations on partly ordered sets) shows S is a modular lattice if and only if (I_1) and (I_2) hold. This characterization compares, in compactness, with that of Kolibiar [Czechoslovak Math. J. 6 (81) (1956), 381-386; MR 21 #1278]. M. Sholander (Pittsburgh, Pa.)

1-F/W

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VAIDA D.
ROMANIA/Optics - Physical Optics

K-5

Abs Jour : Ref Zhur - Fizika, No 2, 1958, No 4470

Author : Vaida Dragos

Inst : Not Given

Title : Demonstration of the Stefan Law

Orig Pub : Gaz. mat. si fiz., 1957, A9, No 5, 242-245

Abstract : No abstract

Card : 1/1