MATYS, Z.

Determination of total urinary 17-ketosteroids. Cas.lek.cesk. 90
no.19:588-591 11 May 51.   (CLML 20:8)

1. Of the Central Endocrinological Institute (Head—Docent K. Silink,
M.D.) and of the Internal Department of the State Regional Hospital
in Havlicknv Brod (Head—L. Labohy, M.D.).

SONKA,J.; GREGOROVA, I.; JIRANEK,M.; KOLBEL,F.; MATYS, Z.

Dehydroepiandrosterone deficiency - a new syndrome? Cas. lek. cesk. 104 no.10:266-270 12 Mr'65.

1. Laborator pro endokrinologii a metabolismus fakulty vseobecneho lekarstvi Karlovy University v Praze (reditel: akademik J.Charvat); III. interni klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta: akademik J. Charvat).

CZECHOSLOVAKIA

Z. MATYS, Third Internal Medicine Clinic of Faculty of General Medicine, Charles University (III. interni klinika fakulty vseobecneho lekarstvi Karlove University), Prague.

"Contraceptive Steroids."

Abstract [English summary modified]: A general treatment of the theory underlying the action of the ovulation-inhibitory steroids including estrogens, progesterone analogs and 19-norsteroids; review of the US reports by Pincus and his group as well as other known investigators. Ten structural formulae, 16 Western and 5 Czech references.

KUCHEL, O.; MATYS, Z.

Urological aspects of adrenocortical hyperfunction. Rozhl. chir.
44 no.6:361-367 Je '65.

1. III. interni klinika fakulty vseobecneho lekarstvi Karlovy
University v Praze (prednosta akademik J. Charvat).

CZECHOSLOVAKIA

MATYS, Zd., NOHEL, B., VOJTISEK, Vl., KUDRMANN, J., and
STARKA, L., Research Institute for Endocrinology (Vyzkumny
ustav endokrinologicky), Prague, Docent Dr K. SILINK, di-
rector; First Department of Internal Medicine (I. interni
oddeleni), Hospital at Bulovka, L. SYMON, MD, director;
Surgical Clinic (Chirurgicka klinika), Faculty of Medicine
(Lekarska fakulta) Charles University, Prague, Prof. Dr. E.
POLAK, director; Institute of Pathological Anatomy (Patolo-
gickoanatomicky ustav), Faculty of Medical Hygiene (Lekarska
fakulta hygienicka), Charles University, Prague, Docent Dr
J. STOLZ, director, [individual affiliations cannot be de-
termined]
"Benign Adenoma of the Left Adrenal With Tuberculosis of the
Right Adrenal in a Patient Suffering from Cushing's syn-
drome and Adenocarcinoma of the Large Intestine"

Abstract [Authors English summary, modified]: Object of
1/2

— 2 —

MATYS, Zd.; NOHEL, B.; VOJTISEK, Vl.; KUDRMANN, J.; STARKA, L.

Benign adenoma of the left adrenal gland with tuberculosis of
the right adrenal in a patient with Cushing's syndrome and
adenocarcinoma of the large intestine. Cas. lek. cesk. 102 no.23:
636-640 & Je '63.

1. Vyzkumny ustav endokrinologicky v Praze, reditel doc. dr.
K. Silink I interni oddeleni nemocnice na Bulovce, vedouce
MUDr. L. Symon Chirurgicka klinika lekarske fakulty hygienicke
KU v Praze, prednosta prof. dr. E. Polak Patologickaanatomicky
ustav lekarske fakulty hygienicke KU v Praze, prednosta doc. dr.
J. Stolz.

NOZICKA, Zdenek; MATYS, Zdenek; SILINKOVA-MALKOVA, Eva; PANOS, J.; FELT, V.

Cushing's syndrome in mixed, fascicular hypophyseal adenoma.
Sborn. ved. prac. lek. fak. Karlov. Univ. 8 no.4:489-494 ' 65.

1. Patologicko-anatomicky ustav (prednosta: prof. MDr. A. Finger-
land, DrSc.); III. interni klinika vseob. lekar. Karlovy Univer-
sity, Praha (prednosta: akad. J. Charvat); II. interni klinika
detskeho lekarstvi, Praha (prednosta: prof. MUDr. R. Folt, DrSc.)
a Vyzkumny ustav endokrinologicky, Praha (prednosta: doc. MUDr.
K. Silink).

MATYSEK, G.V.

ABOVSKIY, V.P., inzhener; VEKSMAN, A.M., inzhener; VOLKOV, V.M., inzhener; MATYSEK, G.V., inzhener.

Unsolved problems in designing industrial buildings for regions with intensive snowfall. Stroi.prom.32 no.11:30-31. N '54.
    (Siberia--Factories--Design and construction) (MIRA 7:11)

KRIVITSKIY, M.Ya., starshiy nauchyy sotrudnik; MATYSEK, G.V.

Mastering the production of aerated concrete panels in
Novosibirsk. Bet. i zhel.-bet. no.2:55-58 F '60.
(MIRA 13:6)

1. Institut betona i zhelezobetcna Akademii stroitel'stva
i arkhitektury Krivitskiy). 2. Glavnyy inzhener Upravleniya
Promstroymaterialov Novosibirskogo sovnarkhoza (for Matysek).
(Novosibirsk--Concrete slabs)

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their   H-13
                    Application. Ceramics. Glass. Binding Materials.
                    Concrete.

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5428.

Author : Matysek, J.J.
Inst   :
Title   : Concerning the Question of Prevention of "Dutiks" in
           Bricks.

Orig Pub: Stavivo, 1958, 36, No 5, 197.

Abstract: The rationalization of the preliminary treatment of
           clay for bricks at the pit of the Hanacke brick fac-
           tories at Pzedmost (Moravia) is described. The clay
           of that pit contains a considerable amount of inclusions
           of hard limestone and soft marl, and that pit supplies
           clay to 3 brick factories, in the finished products of

Card   : 1/3

                                   50

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their   H-13
        Application. Ceramics. Glass. Binding Materials.
        Concrete.

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5428.

      which "dutiks" have been abundant. With a view to
      prevent dutiks, a centralized preparation of clay
      was proposed and arranged at the pit. The preparation
      is carried out according to the scheme excavator -
      tilting cars - feeder - conveyer - ball mill - con-
      veyer - rolls (1000 mm in diameter, with a gap 5 mm
      wide) - high-speed rolls (700 mm in diameter, with a
      gap 1 to 2 mm wide) - conveyer - store for aging,
      capacity 1200 cub.m (6 to 8 days' supply for the 3
      factories), where clay is moistened with hot water.
      The described preparation of clay stopped the spoilage
      of bricks due to "dutiks" at all the 3 factories.
      A premium was awarded for this work at a competition

Card   : 2/3

MATYSEK, Karel, inz.

Basic methods of face mining without permanent attendance
and prospects of using such methods in the Ostrava-Karvina
coalfield. Uhli 7 no.1:20-26 '65.

1. Zavod automatizace a mechanizace, Ostrava.

KRUPEN', A.I., kand. tekhn. nauk; MATYSEK, V.G.

Practices in building engineering structures during the construction of the Karaganda-Karagayly line. Transp. stroi. 15 no.3:15-17 Mr '65.   (MIRA 18:11)

1. Nachal'nik mostopoyezda No.431 (for Matysek).

MATYSHEV, A.A.

Possibility of a traumatic amputation (avulsions) of parts
of the body in automobile injuries. Sud.-med. ekspert. 6
no.4:40-41 O-D'63   (MIRA 16:12)

1. Kafedra sudebnoy meditsiny (nach. - prof. I.F.Ogarkov)
Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova

MATYSHEV, A.A.

Terminology and classification of automobile traumas. Sud.-med.
ekspert. 7 no.3:11-14 Jl-S '64.

(MIRA 17:10)

1. Kafedra sudebnoy meditsiny Voyenno-meditsinskoy ordena Lenina
akademii imeni Kirova (nachal'nik - prof. I.F. Ogarkov), Leningrad.

TRESHCHEV, V.S.; MATYSHEV, A.A.

Course of spreading of hematomas following closed fractures
of the pelvis. Vest. khir. no.10:59-64 '64.

(MIRA 19:1)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii
(nachal'nik - prof. A.N. Maksimenkov) i kafedry sudebnoy meditsiny
(nachal'nik - prof. I.F. Ogarkov) Voyenno-meditsinskoy ordena Lenina
akademii imeni Kirova.

MATYSHEVSKAYA, M.S. [MATYSHEVS'KA, M.S.]

Some biochemical changes in tomato shoots during artificial
infection with Xanthomanas vesicatoria. Mikrobiol.zhur. 20
no.1:8-13 '58   (MIRA 11:6)

1. Z Institutu mikrobiologii AN URSR.
        (XANTHOMANS, infection,
            vesicatoria, of tomato plants, biochem. aspects (Uk))
        (TOMATOES,
            Xanthomonas vesicatoria infect., biochem. aspects (Uk))

MATYSHEVSKAYA, M.S. [Matyshevs'ka, M.S.]

Effect of conditions of the external environment on the formation of parasitism in phytopathogenic bacteria. Mikrobiol.zhur. 21 no.5:58-65 '59.   (MIRA 13:2)

(BACTERIA)

MATYSHEVSKAYA, M.S. [Matyshavs'ka, M.S.]

Changes produced by the infection with Xanthomonas vesicatoria in
the intensity of respiration and activity of oxidizing enzymes in
tomato varieties differing with regard to their disease resistance.
Mikrobiol. zhur. 22 no. 5:38-44 '60.   (MIRA 13:10)

1. Institut mikrobiologii AN USSR.
        (TOMATOES—DISEASE AND PEST RESISTANCE)
                (OXIDATION, PHYSIOLOGICAL)

MATYSHEVSKAYA, M.S. [Matyshevs'ka, M.S.]

Biology of the pathogen of bacterial black spot in tomatoes —
Xanthomonas vesicatoria. Report No.1: Growth and toxin production
of X. vesicatoria in some culture media. Mikrobiol. zhur. 23 no.6:
27-32 '61.   (MIRA 15:4)

1. Institut mikrobiologii AN USSR.
             (TOMATOES—DISEASES AND PESTS)   (XANTHOMONAS VESICATORIA)

MATYSHEVSKAYA, M. S.[Matyshevs'ka, M. S.]

Biology of the pathogen of black bacterial spot in tomatoes.
Report No. 5 Effect of a filtrate of X. vesicatoria culture
medium liquid on the intensity of respiration and on some oxi-
dative enzymes in tomato sprouts. Mikrobiol. zhur. 24 no.1:
25-30 '62.   (MIRA 15:7)

1. Institut mikrobiologii AN UkrSSR.

        (XANTHOMONAS)   (OXIDASES)
        (TOMATOES—DISEASES AND PESTS)

BEL'TYUKOVA, Klavdiya Ignat'yevna; RASHBA, Yelena Yakovlevna;
        KULIKOVSKAYA, Mariya Dmitriyevna; MATYSHEVSKAYA, Mariya
        Stepanovna; GVOZDYAK, Rostislav~~~~~~; ~~~~~~~~, V.G.,
        akademik, otv. red.; SKUTSKAYA, N.P., red.izd-va;
        KADASHEVICH, O.A., tekhn. red.

        [Arenarin and its use in plant growing] Arenarin i ego pri-
        menenie v rastenievodstve. Kiev, Izd-vo AN USSR, 1963. 1
        163 p.   (MIRA 16:8)
                    (Arenarin) (Plant diseases)

BEL'TYUKOVA, K.I. [Bel'tiukova, K.H.]; MATYSHEVSKAYA, M.S.
        [Matyshevs'ka, M.S.]

    Effect of gibberellin on the resistance of plants to diseases.
    Mikrobiol. zhur. 25 no.3:64-70 '63.   (MIRA 17:1)

    1. Institut mikrobiologii AN UkrSSR.

RASHBA, Ye.Ya. [Rashb., O.IA.]; KOLCHINSKAYA, I.D. [Kolchyns'ka, I.D.];
ZAKHAROVA, I.Ya.; MATYSHEVSKAYA, M.S. [Matyshevs'ka, M.S.]

First All-Union Biochemical Congress. Mikrobiol. zhur. 26
no.3:94-100 '64.   (MIRA 18:5)

BEL'TYUKOVA, K.I. [Bel'tiukova, K.H.]; MATYSHEVSKAYA, M.S. [Matyshava'ka, M.S.]

Use of microelements in controlling alfalfa and clover bacteriosis.
Mikrobiol.zhur. 26 no.4:66-70 '64.

(MIRA 18:10)

1. Institut mikrobiologii i virusologii AN UkrSSR.

MATYSHEVSKAYA, M.S. [Matyshevs'ka, M.S.]

Effect of phytopathogenic bacteria on the host plant and the modern theory of immunity. Mikrobiol. zhur. 26 no.5:79-87 '64. (MIRA 18:7)

1. Institut mikrobiologii i virusologii AN UkrSSR.

DROBOT'KO, V.G., otv. red.; AYZENMAN, B.Ye., red.;MANDRIK,T.P.,red.;
        BEL'TYUKOVA, K.I., red.; ZELEPUKHA, S.I., red.; NEGRASH,
        A.K., red.; KULIKOVSKAYA, M.D., red.; MATYSHEVSKAYA, M.S.,
        red.; POCHINOK, P.Ya., red.; SHVAYGER, M.O., red.;
        KUZNETSOVA, A.S., red.

[Phytoncides in the national economy] Fitontsidy v narodnom
khoziaistve. Kiev, Naukova dumka, 1964. 350 p.
                                              (MIRA 17:11)
1. Akademiya nauk URSR, Kiev. Instytut mikrobiologii i vi-
rusologii. 2. Institut mikrobiologii AN Ukr.SSR (for
Zelepukha, Pochinok, Negrash, Kulikovskaya).

PALLADIN, Aleksandr Vladimirovich, akademik; KUZNETSOVA, A.S.,
    red.; MATYASHEVSKAYA, T.I., red.

[Problems of the biochemistry of the nervous system]
Voprosy biokhimii nervnoi sistemy. Kiev, Naukova dumka,
1965. 183 p.   (MIRA 18:9)

MATYSHIN, V.M., dotsent, kandidat tekhnicheskikh nauk.

Comparing the forming and template methods in gear cutting.
Vest.mash. 34 no.6:46-49 Je '54.   (MLRA 7:7)
    (Gear-cutting machines)

MATYSHKIN, D.P.

Reflex aftereffect (afterstimulus) of nerve centers of the spinal cord. Fiziol.zhur. 39 no.6:689-698 N-D '53.   (MLRA 6:12)

1. Kafedra normal'noy fiziologii I Leningradskogo meditsinskogo instituta im. I.P.Pavlova.
        (Nervous system) (Spinal cord) (Reflexes)

MATYSHUK, I.V.

Effect of plowing depth on the fertility of light Chestnut soils
and root systems of spring wheat. Izv.AN Kazakh.SSR.Ser bot.i
pochv. no.2:85-114 '58.

(MIRA 14:4)

(Plowing)
(Soil fertility)
(Wheat)

MATYSHUK, I.V.; TIMOSHIN, P.I.; CHULAKOV, Sh.A.

Fertility of virgin soils tilled by different methods and the root systems of spring wheat [with summary in English]. Izv. AN SSSR Ser.biol. 24 no.1:87-102 Ja-F '59.   (MIRA 12:2)

1. Institut pochvovedeniya AN Kazakhskoy SSR.
   (YESIL' DISTRICT--TILLAGE) (ROOTS (BOTANY)) (WHEAT)

MATYSHUK, I.V.

Characteristics of light-colored Chestnut soils in the experiment
field of the Karaganda Agricultural Experiment Station. Izv.AN
Kazakh.SSR.Ser.Bot.i pochv. no.2:71-96 '60.   (MIRA 13:8)
              (Karaganda region—Soils)

MATYSHUK, I.V.; KUZNETSOVA, N.K.

Microchrome method of determining total nitrogen in plant
specimens.   Izv.AN Kazakh.SSR.Ser.bot.i pochv.   no.3:48-50
'60.   (MIRA 13:7)
          (Plants—Chemical analysis) (Nitrogen)

MATYSHUK, Igor' Vladimirovich; ZYKOV, D.A., akademik, otv. red.;
    KOROTKOVA, Ye.A., red.; KHUDYAKOV, A.G., tekhn. red.

[Tillage and fertility of Chestnut soils in central Kazakhstan]
Obrabotka i plodorodie kashtanovykh pochv TSentral'nogo Kazakh-
stana Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR, 1962. 164 p.
                                            (MIRA 15:12)
1. Akademiya nauk Kazakhskoy SSR (for Zykov).
        (Kazakhstan—Soils)

MATYSHUK, I.V.; YEMEL'YANOV, I.I.; TIMOSHIN, P.I.; CHULAKOV, Sh.A.

Tillage of dark Chestnut calcareous soils of the Virgin Territory and plant nutrition. Izv. AN SSSR Ser. biol. no.2:244-256 Mr-Ap'64   (MIRA 17:3)

1. Institut pochvovedeniya AN KazSSR, Alma-Ata.

MATYSHUK, N.F.

Growing green fodder in water-mineral solutions. Inform. biul.
VINKH no.11:23 N '63   (MIRA 18:1)

1. Starshiy ekskursovod pavil'ona "Korma" na Vystavke dostizheniy
narodnogo khozyaystva SSSR.

MATYSHUK, V. K.

MATYSHUK, V. K.

Equations - Numerical Solutions

Solving problems in equation analysis in the 10th
grade. V. K. Matyshuk., Mat.v. shkole, no. 1, 1952.

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(MATYSIAK, A. (Lodz)

On approximate limits. In French. Fund mat 48 no.3:363-366 '60.
(EEAI 10:8)
(Aggregates)   (Functions)   (Calculus of variations)

MATYSIAK, FRANCISZEK

GOLDSCHMID, Aleksander; MEISSNER, Jerzy; WLODARCZYK-ROKICKA, Danuta;
MATYSIAK, Franciszek; KANADYS, Michalina

Investigations on cup test in diagnosis of peptic ulcer. Ann.Univ.
Lublin; sec. D 7 no.11-21:315-330 1952.

1. Z I Kliniki Chorob Wewnetrznych Akademii Medycznej w Lublinie.
Kierownik: prof. dr med. Aleksander Goldschmied.
        (PEPTIC ULCER, diagnosis,
            Waldman's cup test, comparison of blood collected from
            finger with blood collected by suction in cup)

KOCIERZ, Stanislaw; MATYSIAK, Jerzy

Mutual reaction of nitroso-compound gases and solutions of
ammonium nitrate under industrial conditions. Przem chem 41
no.10:565-569 O '62.

1. Zaklady Azotowe, Kedzierzyn.

MATYSIAK, Kazimierz (Lodz)

Leeches Hirudinea) of the Bialowieza Forest. Przegl zool 8 no.2:
154-156 '64.

BLAZEJEWSKA, Aleksandra; LEJA, Stanislaw; MATYSIAK, Tadeusz

Observations on the frequency of bumblebees (Bombus Latr.)
in the red clover fields near the city of Torun. Nauki matem
przyrod Torun no.8:51-60 '61.

1. Katedra Zoologii Systematyczmej, Uniwersytet im. M.Kopernika,
Torun.

BLAZEJEWSKI, Franciszek; MATYSIAK, Tadeusz

Carabus hortensis L. with an elytron anomaly. Przegl zoolog 6 no.3:240
'62.

1. Katedra Zoologii Systematycznej, Uniwersytet im. Mikolaja Kopernjka
Torun.

MATYSIAK, W.

Przeg. Weterynaryjna, Vol 18, No 4, April 1962.
(Continued)

MATYSIAK

8. "Determination of the Global Artificial Radioactivity Beta in the Ebes of Slaughter Animals in 1959 and 1960," Marcin JURAC of the Chair for Hygiene of Animal Products (Katedra Higieny Produktow Zwierzecych) of the Faculty of Veterinary Science at SGGV at Warsaw (Director: Prof. Dr. Jan RAY?); pp 212-215 (English Summary)

9. "The Wilson Periodic Triboluscope 'W. Tr' for Field Work," Wacaw MATYSIAK; pp 216.

10. "Selected Problems of Diseases of Calves," Marian MIELCCH; pp 216-219.

11. "A Case of Parturient Paresis in a Cow in the Eighth Month of Pregnancy," Jan KRZYZAJOLSKI; pp 219-220.

12. "Two Cases of Corpus Haemorrages Rerum," Antoni CHOLEWA, MICHYNERT of the FM: (Panstwowy Zaklad Leczniczy dla Zwierzat, State Animal Hospital) at Niresno; p220.

13. "Dermoidegenic Cyst in a Dog," Ryszard CLUOTKA and Bogdan MICHALSKI of the Chair of Surgery (Katedra Chirurgii) of the Faculty of Veterinary Science at the Higher School of Agriculture (WSR) at Wroclaw (Director: Docent Dr. Ryszard BANCHA) and of the Chair of Pathological Anatomy (Katedra Anatomii Patologicznej) of the Faculty of Veterinary Science at the WSR at Wroclaw (Director: Prof. Dr. Aleksander KARRIEWSKI); pp 221-224.

14. "Inoculation in Fowl," Franciszka OLSZCZYTOWAJ; pp 224-227.

15. "Effect of Penecil on the Sexual Cycle of Female Rabbits," O. GIERNIER, I. ALEKSANDROVSKA, I. CLADKI, A. KOTIK, J. PLOSUCHWE, ???; I. ?, I. BUDIN, I. BUDIN, I. STARINSKY, I. KIROS, and students of the faculty of Veterinary Medicine and members of the Science Club (Kolo Naukowe) of the Chair of Obstetrics (Katedra Polozmctwa) of the WSR at Wroclaw (Director: Prof. Dr. A ?); pp 227-229.

16. "Attempts to Feed Horses with Surrogates," Zbigniew HEJMSZ; pp 229-231.

2/3

32

DANIELEWICZOWA, Kazimiera; MATYSIAK-SMOLEN, Zofia

Sensitivity of the bacterial flora to antibiotics in the diseases
of the oral cavity and teeth. Czas. stomat. 18 no.4:403-406
Ap'65.

1. Z Kliniki Chirurgii Stomatologicznej Akademii Medycznej
w Warszawie (Kierownik: prof. dr. med. M. Gorski).

MATYSIK, Antoni, mgr.,inz.; GALEK, Jan, mgr.,inz.

New solutions in dirt packing. Przegl gorn 18 no.1:52-55 '62.

MATYSIK, G. P

MATYSIK, G. P.

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Title tr.: Topography and revetting of airfields.

NCF

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of
Congress, 1955.

JERZY, MATYSIK

Category: Poland / Analytical Chemistry - Analysis of inorganic   G-2
          substances

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30991

Author   : Hubicki Wlodzimierz, Matysik Jerzy
Inst   : M. Curie-Sklodowska University
Title   : Polarographic Determination of Lead in Liquid Ammoniate of
           Ammonium Nitrate

Orig Pub: Ann. Univ. M. Curie-Sklodowska, 1954 (1956), AA9, No 1-9, 1-7

Abstract: For a quantitative determination of lead salts ($PbSO_4$, PbI_2,
          $PbCl_2$, $Pb(NO_3)_2$ and $PbCrO_4$) they are dissolved in NH_4NO_3 ammon-
          iate (I) and are polarographed at $0°$, the half-wave potential
          of Pb^{2+}, in relation to the Hg-electrode, being -0.35 v. To
          prepare I the NH_4NO_3 is dried first at $120°$, then for several
          days over concentrated H_2SO_4, after which it is saturated, at
          $0°$, with gaseous ammonia dried over KOH. On carrying out the
          analysis Pb salts are dissolved (0.18-3.37 g Pb^{2+} per liter)
          in I and about 7 ml of the resulting solution are polarographed
          by means of V 301 Heyrovski polarograph. Air is removed from

Card   : 1/2   -26-

MATYSIK, J

Distr: 4E3d

Polarographic determination of iodate anions in the liquid ammoniate of NH_4NO_3. Wlodzimierz Hubicki and Jerzy Matysik (Univ., Lublin, Poland). *Ann. univ. Mariae Curie-Sklodowska, Lublin-Polon.*, Sect. AA 11, 30-45 (1958)(in German, Russian summary).—KIO_3 in NH_4NO_3.-$(NH_3)_x$ (Divers liquid) is reduced polarographically at —0.75 v. (with reference to Hg electrode). Wave height varied linearly with concn. P.d. would be higher if 6-electron reduction occurred; thus, formation of some compds. of I with N, such as $I_2.3NH_3$, is suggested.   J. Steele

HUBICKI, W.; MATYSIK, J.

Oscillopolarographic behavic of platinum metals in the anhydrous NH_4NO_3 . nNH_3 medium Chem zvesti 18 no.5/6:403-406 '64.

1. Institute of Inorganic Chemistry, M. Curie-Sklodowska University, Lublin.

MATYSIK, J.

Oscillopolarographic detection of some metals in the presence of pyrocatechol in the base electrolyte. Chem zvesti 18 no.5/6: 407-409 '64.

1. Institute of Inorganic Chemistry, M. Curie-Sklodowska University, Lublin.

OSTROVSKIY, Yu.M.; LUKASHIK, N.K.; RAZUMOVICH, A.N.; BALAKLEYEVSKIY, A.I.;
    DOSTA, G.A.; TREBUKHINA, R.V.; LARIN, R.S.; KARPUT', S.N.;
    KOMAROVA, B.P.; NEPOCHELOVICH, N.S.; DVORYANINOVICH, L.N.;
    MOYSEYENOK, A.G.; MANDRIK, K.A.; GALITSKIY, E.A.; MATYSIK, M.S.;
    PODOEED, V.G.; MAKARINA-KIBAK, L.Ya.

Differentiation of specific and nonspecific metabolic shifts
in an acute avitaminosis B_1 caused by oxythiamine. Vop.pit.
24 no.4:41-48 Jl-Ag '65.   (MIRA 18:12)

METYTSIN, A.N. (Leningrad, prospekt Engel'sa, d.28, kv.93)

Prescalene biopsy in bronchial cancer. Vest. khir. 91 no.9:
43-51 S'63.   (MIRA 17:4)

1. Iz 2-go khirurgicheskogo otdeleniya (zav. - prof. A.I. Rakov)
Instituta onkologii AMN SSSR.

MATYTSIN, A.N. (Leningrad, K-156, prospekt Engel'sa, 28, kv. 98)

Use of the polyamide thread "zhilka" for skin sutures in oncological operations. Vop onk. 8 no. 10:100-103 '62.
(MIRA 17:7)

1. Iz 2-go khirurgicheskogo otdeleniya (zav. - chlen-korrespondent AMN SSSR, prof. A.I.Rakov) Instituta onkologii AMN SSSR (direktor-deystvitel'nyy chlen AMN SSSR, prof. A.I. Serebrov).

MATYSINA, Z. A.

MATYSINA, Z. A. - "On the theory of electrical resistance of alloys". Acad Sci
    Ukrainian SSR, Inst of Metallophysics. (Dissertation for the Degree of
    Candidate of Physicomathematical Sciences.)

SO: Knizhnaya Letopis'   No. 46, 12 November 1955. Moscow

MATYSINA, Z. A., KRIVOGLAZ, M. A.

" On the Theory of Regulating Ternary Alloys"

an article in the book "Questions in the Physics of Metals and Metal
Science", AS Ukr. SSR, Kiev, 1955, 151 pp.

So: Sum, No. 1102, 19 Oct 56

MATYSINA, Z. A.

G-4

Category : USSR/Electricity - Conductors

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 1620

Author   : Krivoglaz, M.A., Matysina, Z.A., Smirnov, A.A.
Title   : Theory of Residual Electric Resistivity of Trinary Disordered Alloys

Orig Pub : Fiz. metallov i metallovedeniye, 1955, 1, No 3, 385-392

Abstract : The residual electric resistivity of trinary disordered alloys is calculated
            within the framework of the multi-electron theory of metals as a function
            of the concentration and of the annealing temperature, taking into account
            the correlation in all the coordination spheres.

inst metallophysics, AS Ukr SSR

Card   : 1/1

MATYSINA, Z.A.

USSR/Physics - Resistance of alloys   FD-1888

Card 1/1   Pub. 146-8/21

Author   : Krivoglaz, M. A., and Matysina, Z. A.

Title   : Theory of electrical resistance of ordered alloys

Periodical : Zhur. eksp. i teor. fiz. 28, 61-69, January 1955

Abstract   : The authors discuss the residual electrical resistance of binary ordered
               alloys in the framework of the poly-electron theory. He shows that the
               dependence of resistance upon the composition of an alloy and degree of
               distance ordering is obtained in the same way as in the mono-electron
               approximation. He takes into account correlation in alloys. He thanks
               Prof. A. A. Smirnov. Six references: e.g. A. A. Smirnov, ibid., 17,
               743, 1947; S. V. Vonsovskiy, Usp. fiz. nauk, 48, 289, 1952; A. V. Sokolov,
               ZhETF, 25, 341, 1953.

Institution: Laboratory of Metal Physics, Academy of Sciences Ukrainian SSR

Submitted   : February 16, 1954

Matysina, Z.A.

126-2-4/35

AUTHORS: Dykhne, A.M., Matysina, Z.A., and Smirnov, A.A.

TITLE: Theory of residual electric resistance of multi-component ordering alloys. (Teoriya ostatochnogo elektrosoprotivleniya mnogokomponentnykh uporyadochivayu-shchikhsya splavov).

ABSTRACT: The theory of residual electric resistance of alloys has so far been developed only for certain particular cases. Nordheim (Ref.1) evolved such a theory with single electron approximation, without taking into consideration correlations for disordered multi-component alloys and Smirnov, A.A. (Ref.2) evolved such a theory for ordering alloys with any lattice of the Bravais type in the disordered state. Ryzhanov, S. (Ref.3) has taken into consideration correlation for ordering alloys with a simple cubic lattice. In all the here mentioned work the usual assumptions of the single electron approximation have been made which are unjustified and are associated with introducing the length of free travel, the character of the energy spectrum of the conductivity electrons, etc., which are not really required for deriving relations

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Theory of residual electric resistance of multi-component
ordering alloys.

expressing the dependence of the residual electric
resistance on the composition, the parameter of the long range
order and the correlation parameters (see Krivoglaz and
Smirnov (Ref.4)). Within the framework of the multi-
electron theory of metals, the residual electric
resistance was calculated in earlier work (Ref.5) for
binary ordering alloys, taking into consideration the
correlation in the first coordinate sphere and in other
work (Ref.6) for ternary disordered alloys, taking into
consideration the correlation along all the coordinate
spheres. The aim of this paper is to evolve a more
general multi-electron theory of the residual electric
resistance of multi-component ordering substitution
alloys with any Bravais type crystal lattice in the
disordered state,which,in the ordered state, have any
number of types of nodes, taking into consideration
correlations in all the coordinate spheres. The authors
did not aim to determine the numerical values of the
electric resistance and they limited themselves to
Card 2/4 deriving relations expressing the dependence of the

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Theory of residual electric resistance of multi-component
ordering alloys.

residual electric resistance on the composition and
also on the parameters characterizing the distant order
and the correlation in the alloy. Therefore, in the same
way as in the earlier work (Refs.5,6), the authors
succeeded in carrying out their calculations with a
minimum number of model conceptions. In addition to
taking into consideration the properties of the
translatory symmetry, it was assumed that the potential
energies of the conductivity electrons in the field of
ions of a different type differ little from each other
and that the potential of the electric field in the
metal is so small that the Ohm law applies. Thereby,
the calculation of the residual electric resistance
can be carried to finality only if the atom concentrations
of all the components except two are small. The
subject matter is dealt with under the following
headings: Calculation of the probability of transition
of the system of electrons from one state to the other;
determination of the dependence of the residual electric
resistance of an alloy on its composition, the distant

Card 3/4   order parameters and the correlation parameters

126-2-4/35

Theory of residual electric resistance of multi-component ordering alloys.

     (determination of the residual electric resistance of an alloy without taking correlation into consideration; determination of the residual electric resistance of an alloy taking correlation into consideration).
There are 7 references, 6 of which are Slavic.

SUBMITTED: May 3, 1956.

ASSOCIATION: Institute of Metal Physics, Ac. Sc. Ukrainian SSR
     (Institut Metallofiziki AN USSR)

AVAILABLE: Library of Congress.

Card 4/4

DANILENKO, V.M.; KRIVOGLAZ, M.A.; MATYSINA, Z.A.; SMIRNOV, A.A.

Theory of slow neutron scattering in alloys.. Issl. po zharopr.
splav. 3:150-160 '58.   (MIRA 11:11)
    (Neutrons--Scattering) (Alloys)

AUTHOR: Matysina, Z. A.   78-3 3-18/47

TITLE: Discussion of Lectures   (Obsuzhdeniye dokladov)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3 Nr 3 pp 654-655
             (USSR)

ABSTRACT: Z. A. Matysina discussed the lectures by D. S. Kamenetskaya
             and B. Ya. Pines. She reports the results of the investigations
             obtained in the Theoretical Department of the Institute for
             Metal Physics of the AS USSR in the field of phase diagrams
             of regulating and decomposing ternary alloys. She especially
             points out the influence of the third component on the phase
             diagrams. Phase diagrams of regulating ternary substitution
             alloys were investigated. The calculations can only be carried
             out when taking into account the distance order according to
             Bregg and Vil'yams the correlation, e.g. by means of the quasi-
             chemical method. The free energy was computed taking into
             account the interaction between adjacent atoms. In the
             investigation of ternary alloys with volume centered cubic
Card 1/3   lattice it turned out that the influence of the admixture of a

third component to binary alloys on the phase diagrams can be
quite important. The agreement of theoretical and experimental
values can be regarded satisfactory. The admixture of a third
element can also influence the kinetics of the decomposition
of the alloy. Thus it can happen that with certain interactions
present between the energetic constants the admixed atoms can be
predominatly surrounded by A- and B-atoms which leads to the
formation of a new phase and accelerates the decomposition.
Also regulating inculcation alloys were investigated. The
dependence of the phase transition order-disorder was calculated.
The curve of this dependence with the admixture of atoms of the
third element will take an higher course than that for binary
alloys (fig. 1). Matysina continues the investigations of the
regulation within the alloys with hexagonal closely packed
lattice. These computations are made by means of electronic
computers at the Computation Center of the Institute for
Mathematics of the AS USSR. The computations which do not take
into account the correlation are finished. At present

Card 2/3   calculations by means of the quasi-chemical method are carried

, Discussion of Lectures   78-3 3-18/47

out. This makes it possible to take into account the
correlation between the filling of the lattice nodes with
different atoms. The calculation of the correlation can
change the type of the transition order-disorder just as well
as in the case Au-Cu. Phase diagrams of decomposing
substitution alloys were investigated. It was found that a
small amount of inculcated atoms can strongly influence the
decomposition of the alloy. Finally the decomposition of the
alloy was investigated besides the separation of chemical
compounds. These investigations were carried out by means of
the thermodynamic method by Finkel'shteyn and Fastov. These
investigations explain the strong influence which can be
exercized by a small amount of admixtures on the regulation
and the decomposition of alloys.
There are 3 figures,

ASSOCIATION: Institut metallofiziki Akademii nauk USSR, Kiyev
                (Kiyev, Institute for Metal Physics, AS Ukrainian SSR)

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DANILENKO, V.M. [Danylenko, V.M.]; MATYSINA, Z.A.

Theory of nuclear scattering of slow neutrons in alloys [with summary in English]. Ukr. fiz., zhur. 3 no.6:743-750 N-D '58.
(MIRA 12:6)

1.Institut metalofiziki AN USSR.
(Neutrons—Scattering) (Alloys)

24(7)   SOV/48-23-5-21/31
AUTHORS: Geychenko, V. V.,   Danilenko, V. M.,   Krivoglaz, M. A.,
               Matysina, Z. A.,   Smirnov, A. A.

TITLE: On the Theory of the Diffused Dispersion of an X-Ray and Slow
               Neutrons in Multicomponent Alloys (K teorii diffuznogo ras-
               seyaniya rentgenovykh luchey i medlennykh neytronov mnogo-
               komponentnymi splavami)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,
               Vol 23, Nr 5, pp 637-639 (USSR)

ABSTRACT: The study of the diffused dispersion of various types of waves
               in the crystal lattice of alloys offers the possibility of
               investigating the arrangement of the various atoms in the
               crystal lattice and the influence exerted by microinhomogenei-
               ties upon alloy properties. A formula must be developed and
               expanded , permitting the computation of dispersion for the
               cases of X-rays and slow neutrons by the application of
               "factors of atomic dispersion". Such a formula (1) is written
               down in the form of a finite sum and the factors for the
               computation of the dispersion of an X-ray and of slow neutrons
               are described. This finite sum may be decomposed into two
               partial sums which consist of the diagonal or non-diagonal
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On the Theory of the Diffused Dispersion of an X-Ray and Slow Neutrons   SOV/48-23-5-21/31
in Multicomponent Alloys

members, respectively. These two partial sums are then computed,
namely, for the disordered state in the Brave type lattice.
For an exemplification, these two formulas are written down
for a binary alloy with the hexagon systems AB and AB_3. Final-
ly, a wide space is devoted to the correlation parameters
characterizing the state of the crystal. There are 4 ref-
erences, 3 of which are Soviet.

ASSOCIATION: Institut metallofiziki Akademii nauk USSR
(Institute of Metal Physics of the Academy of Sciences, UkrSSR)

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27946
S/185/60/005/004/004/021
D274/D306

18 1000   1418, 1530, 1413

AUTHORS: Matysina, Z.A. and Smyrnov, A.A.

TITLE: On the theory of ordering of alloys having a close-packed hexagonal lattice

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 4, 1960, 458-470

TEXT: Binary ordered alloys are considered with close-packed hexagonal lattice of type AB and AB_3. Long-range and short-range order are taken into account (the latter being characterized by the correlation between lattice points occupied by different kinds of atoms). First, ordered alloys are considered without taking into account correlation. In that case, the free energy of the alloy can be calculated by the Gors'kiy-Bragg-Williams method (Ref. 2: V.S. Gors'kiy, Z. Phys., 50, 64, 1928), (Ref. 3: W.L. Bragg, E.J. Williams, Proc. Roy. Soc., 145, 699, 1934; E. Williams, Proc. Roy. Soc., 152, 231, 1935). The expression for the degree of long-range order   is

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given for AB-type lattices. Thereupon the free energy is found:

$$F(\eta) = E(0) - \frac{3}{2} N_0 (w - w') \eta^2 +$$

$$+ kTN_0 \left[\left(c_A + \frac{1}{2}\eta \right) \ln \left(c_A + \frac{1}{2}\eta \right) + \left(c_A - \frac{1}{2}\eta \right) \ln \left(c_A - \frac{1}{2}\eta \right) + \right.$$

$$\left. + \left(c_B - \frac{1}{2}\eta \right) \ln \left(c_B - \frac{1}{2}\eta \right) + \left(c_B + \frac{1}{2}\eta \right) \ln \left(c_B + \frac{1}{2}\eta \right) \right];$$

(9)

here E is the configurational energy, w and w' - ordering energies, $c_A = N_A/N$, $c_B = N_B/N$ (N_A, N_B being the number of atoms A and B respectively). Formulas are derived for the equilibrium value of the degree of long-range order, and for the temperature T_0 of order-disorder transition. Alloys having AB_3-type lattice yield analogous formulas. Thus, the free energy is

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$$F(\eta) = E(0) - \frac{\beta}{2} N_0 (w + w') \eta^2 +$$
$$+ 2kTN_0 \left[\left(c_A + \frac{3}{4}\eta \right) \ln \left(c_A + \frac{3}{4}\eta \right) + \left(c_B - \frac{3}{4}\eta \right) \ln \left(c_B - \frac{3}{4}\eta \right) + \right.$$
$$\left. + 3 \left(c_A - \frac{11}{4}\eta \right) \ln \left(c_A - \frac{1}{4}\eta \right) + 3 \left(c_B + \frac{1}{4}\eta \right) \ln \left(c_B + \frac{1}{4}\eta \right) \right] .$$

(13)

For the equilibrium value of η one obtains

$$\frac{2(w + w')}{kT} \eta = \ln \frac{\left(c_A + \frac{3}{4}\eta \right) \left(c_B + \frac{1}{4}\eta \right)}{\left(c_A - \frac{1}{4}\eta \right) \left(c_B - \frac{3}{4}\eta \right)} .$$

(14)

The order-disorder transition is a phase transition of the first order. This was experimentally confirmed by K. Jonemitsu and T. Sato (Ref. 4: J. Phys. Soc. Japan, 13, 15, 1958). Theory of order-

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On the theory of ordering...

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ing, correlation being taken into account. From the correlation parameters, the interatomic coupling constants can be found, as well as the microinhomogeneities in alloy-composition related to short-range order; (additional qualitative results can be obtained). The ordering is considered by a quasichemical method, adopted from the references. Formulas are derived for the probabilities of the lattice points being occupied by different kinds of atoms. The free energy is expressed in terms of these probabilities. From the minimum condition of free energy, the equilibrium value of η can be found; the relationships involved are rather cumbersome; they can best be solved by electronic computers or by graphic methods. If w/kT and w'/kT are small in comparison with unity, i.e. the correlation is insignificant, the computations lead to a formula for η similar to that without correlation. The correlation parameters

$$\mathcal{E}^{(ij)}_{\alpha\beta} = p^{(ij)}_{\alpha\beta} - p^{(i)}_{\alpha} p^{(j)}_{\beta}$$ which characterize the short-range

order, are determined by

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$$e^{(12)} = e_{AB}^{(12)} = e_{BA}^{(12)} = - e_{AA}^{(12)} = - e_{BB}^{(12)} =$$

$$= \frac{2 p_A^{(1)} p_A^{(2)} p_B^{(1)} p_B^{(2)} \left(e^{\frac{w}{kT}} - 1 \right)}{\gamma_1 + (p_A^{(1)} p_A^{(2)} + p_B^{(1)} p_B^{(2)}) e^{\frac{w}{kT}} + p_A^{(1)} p_B^{(2)} + p_A^{(2)} p_B^{(1)}} \; ; \qquad (63)$$

$$e^{(11)} = e_{AB}^{(11)} = - e_{AA}^{(11)} = e_{BB}^{(11)} =$$

$$= \frac{2 p_A^{(1)} p_B^{(1)} \left(e^{\frac{w'}{kT}} - 1 \right)}{\gamma_2 + (p_A^{(1)} + p_B^{(1)}) e^{\frac{w'}{kT}} + 2 p_A^{(1)} p_B^{(1)}} \; ; \qquad (64)$$

$$e^{(22)} = e_{AB}^{(22)} = - e_{AA}^{(22)} = - e_{BB}^{(22)} =$$

$$= \frac{2 p_A^{(2)} p_B^{(2)} \left(e^{\frac{w'}{kT}} - 1 \right)}{\gamma_3 + (p_A^{(2)} + p_B^{(2)}) e^{\frac{w'}{kT}} + 2 p_A^{(2)} p_B^{(2)}} \; , \qquad (65)$$

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where

$$\Upsilon_0 = \left[(p_A^{(2)} - p_B^{(2)})^2 e^{\frac{2w'}{kT}} + 4 p_A^{(2)} p_B^{(2)} e^{\frac{w'}{kT}} \right]^{1/2}. \qquad (62)$$

Formulas (63)-(65) can be directly used for calculating the electrical resistance of the alloys, the intensity of diffuse X-ray scattering, neutron-scattering intensity, etc. In such calculations, the apriori probability in terms of degree of long-range order and component-concentration, has to be introduced in the formulas. It is noted that the equilibrium value of η (or $p_x^{(1)}$) can be experimentally determined, e.g. by X-ray analysis. By such analysis the correlation parameters $\varepsilon^{(ij)}$ can be determined, introduced in formulas (63)-(65), and then the parameters w and w' found. Further, formulas are found for the correlation parameters of disordered alloys. The kind of order-disorder transition can be ascertained by investigating the dependence of the free energy on η at various temperatures. This can be graphically done; thereby, the transition temperature can be found too. A graph is shown with the dependence of the free energy on the degree η of long-range order for the case

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$w' = -w$, (stoichiometric composition being assumed). The temperature T_0 of order-disorder transition is found from the graph: $w/kT_0 = 0.372$; this is compared with the case without correlation, for which $w/kT = 0.333$. From the graph it also follows that for hexagonal AB-type lattices, the order-disorder transition is a phase transition of the second order. For certain other values of w, e.g. $w' = 2w$, no ordering takes place in the alloy. Further, AB_3-type lattices are investigated. The expression for the free energy is

$$\frac{F}{kTN_0} = -6\left[4\sum_a c_a \frac{v_{aa}+v'_{aa}}{kT} + \frac{w}{kT}\sum_i \sum_{a \neq \beta} p_{a\beta}^{(12)} + \frac{w'}{kT}\sum_i \sum_{a \neq \beta} p_{a\beta}^{(12)'}\right] -$$
$$- 22\sum_a (p_a^{(1)} \ln p_a^{(1)} + 3p_a^{(2)} \ln p_a^{(2)}) + 12 \sum_i \sum_{a\beta} (p_{a\beta}^{(12)} \ln p_{a\beta}^{(12)} + p_{a\beta}^{(12)'} \ln p_{a\beta}^{(12)'}). \tag{75}$$

As in the case of AB-type lattices, experimentally determined correlation parameters are used for finding w. A graphical investigation of the dependence of free energy on η yielded, in the particular cases $w' = w$, $w' = 2w$, $w' = -w$, no order-disorder transition.

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This is apparently due to the limitations of the quasichemical method of investigation used, especially in determining the long-range order. Hence further, more complex, investigations by the same method are not worthwhile in the case of lattices of AB_3-type. There are 3 figures and 10 references: 2 Soviet-bloc and 8 non-Soviet-bloc. The 4 most recent references to English-language publications read as follows: K. Jonemitsu, T. Sato, J. Phys. Soc. Japan., 13, 15, 1958; Y.Y. Li, Journ. Chem. Phys., 17, 447, 1949; Y.Y. Li, Phys. Rev., 76, 972, 1949; E.A. Guggenheim, Mixtures, Oxford, 7, 1952.

ASSOCIATION: Instytut metalofizyky AN USSR (Institute of Metal-
                physics AS UkrSSR)

SUBMITTED: December 8, 1959

Card 8/8

MATYSINA, Z.A.; SMIRNOV, A.A.

Ordered alloys with a hexagonal closely-packed crystal lattice.
Issl. po zharopr. splav 6:146-157 '60.   (MIRA 13:9)
    (Alloys—Metallography)   (Crystal lattices)

42433

s/849/62/000/000/009/016
A006/A101

AUTHORS: Matysina, Z. A., Smirnov, A. A.

TITLE: On the theory of electric resistivity of ordering alloys of
             transition with non-transition metals

SOURCE: Vysokotemperaturnyye metallokoeramicheskiye materialy, Inst.
             metalloker. i spets. spl. AN Ukr.SSR., Kiev, Izd-vo AN. Ukr.SSR., 1962
             84 - 86

TEXT: To complete N. Mott's and H. Jones' studies (1936) on residual
electric resistivity of disordered alloys composed of transition and non-transi-
tion metals, the authors developed a theory which can also be applied to alloys
in ordered state. An analysis is made of an alloy of transition metal A with
relative atomic concentration C_A, and non-transition metal B with C_B concentra-
tion, having in disordered state a Brave crystal lattice and two sorts of lattice
points in ordered state. The potential energies of conductivity electrons V_A and
V_B in fields of A and B ions, forming the crystal lattice of the alloy, are close.
The following two formulae are derived: for determining the specific resistivity
ϱ o of the alloy:

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On the theory of electric resistivity of...

$$\rho_0 = [C_0 + c^1(P - c_B)^2]^2 \, [c_B(1 - c_B) - \frac{\nu}{1 - \nu}\gamma^2\eta^2] \tag{5}$$

for $c_B \leqslant P$ and

$$\rho_0 = c^2 \left[c_B(1 - c_B) - \frac{\nu}{1 - \nu}\gamma^2\eta^2 \right] \tag{6}$$

for $c_B \geqslant P$. Here η is the degree of the long-range order; γ is the relative concentration of lattice points of the first kind, $\gamma = \frac{1 - \nu}{\nu} c_A$ for $c_A \leqslant \nu$ and $\gamma = c_B$ for $c_A \geqslant \nu$. The values C, C' and P do not depend upon c_B and η. These formulae explain qualitatively the peculiarities of electric resistivity in alloys of transition with non-transition metals, which were experimentally observed. The theoretical data are compared with experimental results obtained for Pd-Cu, Pd-Ag and Pd-Au. The dependence curves of ρ_0 versus the composition of disordered alloys are asymmetrical with a maximum shifted toward the side of higher concentrations of the transition metal. For ordered alloys the formula

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A006/A101

obtained yields also an additional increase of Qo in the range of high concen-
trations of the transition metal, as compared with the resistivity of non-transi-
tion metal alloys. These conclusions are in a qualitative agreement with experi-
mental data.

Card 3/3

MATYSINA, Z.A.; NOSAR', A.I.; SMIRNOV, A.A.

Electric resistance of ordered alloys with a close-packed
hexagonal crystal lattice. Sbor. nauch. rab. Inst. metallofiz.
AN URSR no.14:121-125 '62.   (MIRA 15:6)
    (Crystal lattices) (Alloys--Electric properties)

MATYSINA, Z.A.

Theory of diffusion in ordered Au-Cu alloys. Ukr. fiz. zhur. 8
no.2:190-195 F '63.
(MIRA 16:2)

1. Institut metallofiziki AN UkrSSR, Kiyev.
(Diffusion)
(Gold-copper alloys)

MATYSINA, Z.A.; SMIRNOV. A.A.

Theory of the ordering of alloys with a lattice parameter depending on the composition and degree of order. Sbor.nauch.trud. Inst. metallofiz. AN URSR no.19:136-147 '64. (MIRA 18:5)

Use of complexones in chemical analysis. XII. Polarometric determination of bismuth and other metals. R. Přibil and B. Matyska (Charles Univ., Pragur). *Chem. Listy* 44, 303-10(1950); cf. *C.A.* 45, 3220g.—Bi was titrated with 0.02 M soln. of di-Na salt of *Complexon III* (*ethylenediaminetetraacetic acid*) (I) at pH 1–2 and potentials (HgCl2 electrode) −160 to −200 mv., Fe^III at pH 3–5 and +20 to 100 mv., Ni at pH 2–10 and −1220 to −1300 mv., Pb at pH 8 and −600 to 720 mv., Zn and Cd in weakly acidic, neutral, or ammoniacal medium, and potentials of −1200 to 1450 and −700 to 1120 mv., resp. Bi can be titrated in the presence of most ions with I at pH 1–2 and potential −180 mv. In the presence of Sb^III, Fe^III, and Ni^II, addn. of Na tartrate or citrate is necessary. Not more than 5 times as much Fe or Ni should be present. Ag and Cu should not exceed 10 times the amt. of Bi. Sn interferes unless it is oxidized with HNO3. Detn. of Bi in lead. Dissolve the sample in concd. HNO3, cool to 20°, add Na tartrate or citrate to the final concn. of 0.3–5 M, dissolve any ppt. in HNO3, and adjust the pH to 2 with NH4OH and NaOAc. Titrate an aliquot with I at −180 to 220 mv.

M. Hnidlick

1

Complexones in chemical analysis. XVa. Amperometric determination of bismuth and certain other metals H. Přibil and D. Matrska (Charles Univ., Prague). Collection Czechoslov. Chem. Communs. 16, 139-5X(1951)(in English); cf. C.A. 45, 3760r, 10123d; 45, 1389g. K. G. Stone

1952

MATYSKA, B.

KOSSLER, I.; MATYSKA, B. "Application of powder analysis in the quantitative infrared
spectroscope."
Chemicke Zvesti, Bratislava, Vol 6, No 2, Feb 1952, p. 99

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

Matyska, B.

CZECH

Note on the polarographic behavior of ethylenediamine-tetraacetic acid and 1,2-diaminocyclohexane-N,N,N',N'-tetraacetic acid. B. Matyska, J. Doležal, and D. Rouba-lová (Czav. tys. chem. ČSAV, Prague). *Chem. Listy* 49, 1012–16(1955).—The reaction displayed at the dropping Hg electrode during reduction or forming of ethylene-diaminetetraacetic acid (I) complexes with Hg^{++} is perfectly reversible. In case of 1,2-diaminocyclohexane-N,N,N',N'-tetraacetic acid (II), the reaction is irreversible. The complexity const. of I is detd. from the shift of the half-wave potential and its dependence on pH, as log $K_{HgY} = 21.0$. The const. of II obtained in the same manner, is assumed to be log $K_{HgY} = 24.3$. Direct measurements of the potentials of the dropping Hg electrode against an auxiliary reference electrode shows the half-wave potentials of anodic waves obtained by the common polarographic method to be erroneous because of polarization of the reference electrode. P. Strafelda

MATYSKA, B.

Czechoslovakia

Neuere Entwicklung auf dem Gebiet der Theorie und Praxis der Hochpolymeren

(Hauptjahrestagung 1956 der Chemischen Gesellschaft in der Deutschen Demokratischen Republik).

Aus dem Tagungsprogramm - Nachmittags: Gruppe C:

Dr. B. Matyska, I. KOSSLER und V. SRAIER (vorgetr. von B. Matyska), Prag, "Polymerization von Methakrylsaurebutylester in Substanz."

SOURCE: Plaste u KAUTSCHUK, October 1956, Unclassified.

MATYSKA, B.

MATYSKA, B.   Remarks about the polarographic behavior of ethylenedia-
              mineteraacetic acid and 1, 2-diaminocyclohexane- N, N, N',
              N'-tetraacetic acid, In German. p. 107. Vol. 21, No. 1,
              Feb. 1956. SBORNIK CHEKHOSLOVATSKIKH KHIMICHESKIKH RABOT.
              COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. Praha,
              CZECHOSLOVAKIA.

SOURCE: EAST EUROPEAN ACCESSIONS LIST   (EEAL) VOL 6,   no. 4--APRIL 1957

MATYSKA, Dushkova

• CZECHOSLOVAKIA/Physical Chemistry - Electrochemistry.   D.

Abs Jour   : Ref Zhur - Khimiya, No 12, 1958, 39068

Author   : Matyska; Dushkova

Inst   : —

Title   : A Polarographic Reduction of Ferric Ions in the
               Presence of EDTA /Ethylenediamine Tetraacetic Acid/
               (I) and hydrogen Peroxide. I. Pseudo Molecular Reac-
               tion in Aqueous Solution, II. Bimolecular Reaction
               in Aqueous Solution.

Orig Pub   : Chem. listy, 1957, 51, No 5, 839-847; 848-853

Abstract   : I. The reduction wave of the $Fe(3^+)$ complex with
               EDTA (I) in the presence of H_2O_2 is increased due to
               the kinetic current which corresponds to the $Fe(2^+)$
               oxidation (formed as result of the electroreduction
               by H_2O_2 or by OH and HO_2 radicals). The relation-
               ship between the maximum current, i_d, and the concen-
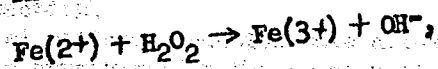   tration of I in an acid medium is attributed to the

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B.

CZECHOSLOVAKIA/Physical Chemistry - Electrochemistry.

Abs Jour : Ref Zhur - Khimiya, No 12, 1958, 39068

increase in the amount of the complexed $Fe(2^+)$ that
reacts faster with H_2O_2 than do the free Fe^{2+} ions.
The relationship between i_d and H_2O_2 concentration
varies with the pH. The deviations from theoretical
are due to the side reactions that cause catalytic
decomposition of H_2O_2 with the formation of oxygen,
the reduction of which effects the height of the ca-
talytical wave. The assumption is verified by the
results obtained by reacting compounds with free ra-
dicals (monomers, inhibitors) that prevent the forma-
tion of competing chain reactions. In the presence
of those compounds, the relationship between $1/i_d$ and
$1/H_2O_2$ is linear, and is in agreement with the theory.
The velocity constant was calculated for the reaction:

$$Fe(2^+) + H_2O_2 \rightarrow Fe(3^+) + OH^-,$$

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MATYSKA, B.

CZECHOSLOVAKIA / Physical Chemistry. Electrochemistry.   B

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60369.

Author : B. Matyska, F. P. Dousek.
Inst   : -
Title : Polarographic Reduction of Iron (3+) Ions in Pres-
         ence of Ethylenediaminetetraacetic Acid and Hydro-
         gen Peroxide. III. Interaction of Hydrogen Peroxide
         with Ethyl Alcohol.

Orig Pub: Chem. listy, 1957, 51, No 10, 1791-1797.

Abstract: The effect of C_2H_5OH (I) in aqueous-alcohol solu-
          tions on the interaction of the $Fe(3+)$ complex with
          ethylenediaminetetraacetic acid and H_2O_2 was studied.
          Two waves are observed on the polarographic curves
          in the presence of I, if H_2O_2 was also present, as
          well as in aqueous solutions. The first of the
          waves (-0.1 v according to the normal calomel elec-

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CZECHOSLOVAKIA / Physical Chemistry. Electrochemistry.   B

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60369.

Abstract: trode) is attributed to the reduction of the Fe(3+) complex, and the other, a more negative one, is attributed to the reduction of H_2O_2. The shapes and heights of both the waves obtained in aqueous and alcohol media are different. The limiting catalytic current decreases considerably with the rise of the I concentration, as well as in the presence of other alcohols (methyl-, n-propyl-alcohols, glycol). Other organic substances (for example, acetone, tertiary buthyl alcohol) or easily oxidizing inorganic substances decreases the catalytic current much less. The height of the catalytic wave rises with the rise of the con-

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CZECHOSLOVAKIA / High Polymer Chemistry .

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 80112.

Author   : Matyska, B., Kossler, I., Srajer, V.
Inst   : Not given.
Title   : The Kinetics of Polymerization of n-Butyl Metha-
           crylate.

Orig Pub: Chem. listy, 1957, 51, No 12, 2287-2294.

Abstract: The kinetics of block polymerization of n-butyl
          methacrylate (I) was investigated. The polymer-
          ization was initiated by a thermal decomposition
          of benzoyl peroxide. The rate constants of in-
          dividual processes were determined. The values
          found for the block polymerization of I differ
          insignificantly from the corresponding values
          for methyl methacrylate. The presence of a

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123

CZECHOSLOVAKIA / Physical Chemistry. Electrochemistry. B-12

Abs Jour: Ref Zhur-Khimiya, No 2, 1959, 4024.

Author : Matyska, B. and Dousek, F. P.
Inst   : Not given.
Title : The Polarographic Reduction of Ferric Ions in
         the Presence of Ethylenediaminetetraacetic Acid
         and Hydrogen Peroxide. III. The Reaction of
         Hydrogen Peroxide with Ethyl Alcohol.

Orig Pub: Collection Czechoslov Chem Commun, 23, No 6, 1044-
         1051 (1958) (in German with an English summary).

Abstract: See RZhKhim, 1958, 60369.

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MATYSKA, B.

Influence of several monomers on the polarographic stages of iron(III) ions in the presence of hydrogen peroxide. B. Matyska and F. P. Dousek (Tschechoslowakische Akad. Wiss., Prague). J. Polymer Sci. 29, 541-7(1958)(in German). cf. C.A. 52, 2615h.—In the polarographic reduction of Fe(III) to Fe(II) in 30% aq. EtOH in the presence of H_2O_2, the following reactions take place: (1) $Fe(II) + H_2O_2 \rightarrow Fe(III) + OH + OH^-$; (2) $OH + EtOH \rightarrow (C_2H_4OH) + H_2O$; (3) $Fe(III) + (C_2H_4OH) \rightarrow Fe(II) + A_2H + H^+$. When sufficient monomer is added to eliminate (2) and (3) as detd. by a rise in catalytic limiting current to a max., $k_i[Fe(II)][H_2O_2] = k'[OH][M']$. From this relation, the relative values of the reaction rates of monomers M', with OH are calcd. ($CH_2:CHCN = 1.00$) (monomer and relative rate listed): $CH_2:CHCO_2Et$, 0.63; $CH_2:CHCO_2Bu-n$, 0.62; $CH_2:C(Me)CO_2Me$, 0.57; $C_4H:C(Me)CO_2Bu-n$, 0.36; $CH_2:C(Me)CO_2H$, 0.13; $CH_2:CHC(Cl):CH_2$, 0.068; $PhCH:CH_2$, 0.045; $CH_2:CHCO_2Me$, 0.01.

Chester B. Claff, Jr.

Z/009/60/000/011/001/001
E112/E153

AUTHORS: Dolejšek, Z, Grubner, O, Hanuš, V, Kössler, I,
             Matyska.B, and Vodehnal, J.

TITLE: Analytical Control of Isoprene Rectification

PERIODICAL: Chemický průmysl, 1960, No. 11, pp. 571 - 575

TEXT: For the stereoscopic polymerization of isoprene,
monomers of sufficiently high quality are essential. Purification
of isoprene on a large scale is carried out by distillation
processes. Technical isoprene contains various saturated and
unsaturated hydrocarbons with 4, 5 or 6 carbons. Separation
is accomplished by azeotropic distillation, adding acetaldehyde,
propylene oxide, methyl formate, methanol, isopentane,
isopropylamine, acetone, water or aqueous acetone as azeotropic
agent. As the literature does not contain sufficient data about
the boiling points of the different mixtures the authors have
undertaken a study of the normal rectification of isoprene on
efficient columns and have followed the concentrations of the
different components in the various cuts. The effect of water
and methyl alcohol as azeotropic agents was also considered.
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