VITYUGIN, V. M.; PROKHOROVICH, V. A.; BOGMA, A. S.

Nodulizing iron ore concentrates with cast iron filings.
Izv. vys. ucheb. zav.; chern. met. 7 no.6:26-28 '64.(MIRA 17:7)

1. Tomskiy politekhnicheskiy institut.

EWT(m)/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/HW

ACC NR: AP5018865 SOURCE CODE: UR/0126/65/020/001/0135/0138

AUTHOR: Bogma, K. K.; Zubov, V. V. 44, 55 44, 55 4/6 B

ORG: Rostov-on-the-Don Institute of Agricultural Machine Building (Rostovskiy-na-Donu. Institut cel'khozmashinostroyeniya) 44, 55

TITLE: Galvanomagnetic effect in cobalt in the transformation region $\varepsilon \rightleftarrows \gamma$ 55, 27

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 1, 1965, 135-138

TOPIC TAGS: magnetic effect, magnetic hysteresis, metal rolling, cobalt, cobalt base alloy 44,55 18

ABSTRACT: Cylindrical specimens (l = 100 mm, d = 5 mm) were prepared from rolled cobalt of not less than 99.25% Co, 0.35% Ni, 0.20% Fe, and 0.05% Cu. Annealing in hydrogen at 1000°C for 10 hrs removed internal stresses and inhomogeneity and lessened the degree of inclusion in the γ phase. Specimens were "furnace cooled" through the $\gamma \rightarrow \varepsilon$ transformation range and subsequent slower cooling through the $\gamma \rightarrow \varepsilon$ (500°C--300°C) range did not influence the results. Silver wires and thermocouples were soldered to the ends of the specimen. For the measurement of $\Delta R/R$ a P-KL-48 potentiometer and low resistance galvanometer (sensitivity 10^{-7} v/div.) were used. Magnetization was measured ballistically. The maximum value of $\Delta R/R$ (H) was taken as the magnitude of practical saturation $(\Delta R/R)_s$. Dilatometric measurements were carried out

Card 1/3 UDC: 539.292 : 538.63

ACC NR: AP5018865

on a Shevenar differential optical dilatometer. $\Delta R/R$ vs H isotherms were measured at 12 temperatures between 170° and 605°C for heating and 13 temperatures between 100° and 605°C for cooling in the transformation vicinity. Specimens approach the practical saturation at lower field strengths upon heating at temperatures up to 270°C. This is explained by the approach of the anisotropic constant to zero over the temperature range making magnetization easier. Upon further increase in temperature from 300-450°C, the accompanying heterogeneity caused by γ nucleation and $\varepsilon \rightarrow \gamma$ transformation makes magnetization more difficult and saturation is not reached even at $H = 2000$ oersted. After $\varepsilon \rightarrow \gamma$ transformation (455-605°C) the susceptibility S_0 increases and saturation of $(\Delta R/R)$ is reached at approximately 500 oersteds; $(\Delta R/R)$ vs (H) isotherms for cooling exhibit a similar character. $(\Delta R/R)_g$ vs (T) hysteresis curves show the difference between heating and cooling (see fig. 1.). Point B represents two opposing processes contributing to the change in magnitude of $(\Delta R/R)_g$ with increasing temperature; a decrease in $(\Delta R/R)_g$ due to the presence of ε phase and an increase due to the growth of γ crystals. The latter is at first negligible and then leads to an abrupt increase in $(\Delta R/R)_g$ (part BC). CD represents disappearance of the remaining ε phase. The change of $(\Delta R/R)_g$ upon cooling is explained in similar fashion. Regions on the curve where transformation has not yet begun or has just been completed appear linear. Dilatometer measurements establish these temperature regions (390-320°C and 400-470°C) as the transformation range. The equation

$$\frac{\Delta R}{R} = aJ^2,$$

ACC NR: AP5018865

where (J is the intensity of magnetization), was studied for heating and cooling by

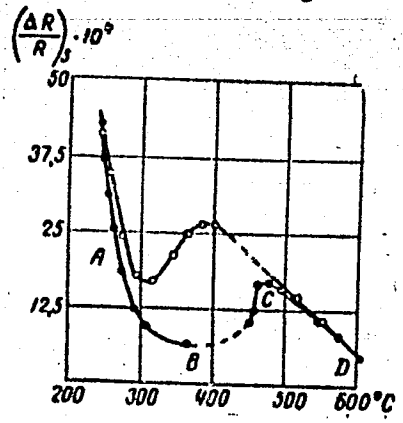


Fig. 1. Dependence of the saturation magnitude of the galvano-magnetic effect in cobalt on temperature during heating (lower curve) and cooling (upper curve).

plotting $\frac{\Delta R}{R}$ vs J^2 and was found to apply both to the cubic and post transformation hexagonal structures. Orig. art. has: 4 figures, 1 formula.

SUB CODE: MM/ SUBM DATE: 24Jul64/ ORIG REF: 004/ OTH REF: 002

Card 3/3

L 36107-66 EWT(l)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6017313 SOURCE CODE: UR/0126/66/021/005/0795/0797

AUTHOR: Borgma, K. K.

ORG: Rostov-on-Don Institute of Agricultural Engineering (Rostovskiy-na-Donu institut sel'skokhozyaystvennogo mashinostroyeniya)

TITLE: Hall effect in Fe-Co alloy

SOURCE: Fizika metallov i metallovedeniye, v. 21, no. 5, 1966, 795-797

TOPIC TAGS: Hall effect, cobalt iron, Nernst effect, thermal emf

ABSTRACT: The Hall effect was investigated in Fe-Co alloy (49% Fe and 51% Co) at temperatures ~ 200--1000C, which includes the region of superstructural conversions. To measure internal potentials and for partial homogenization, the sample was pre-annealed at 1000C for 10 hours in hydrogen. Random state was obtained by tempering at 900C, the orderly state--by annealing at 575C for 20 hours. The Hall emf was measured on a potentiometer having a sensitivity of 10^{-7} v/div, the intensity of magnetization--by the ballistic method. Isotherms of the Hall effect (produced during heating from the orderly state) are shown in Fig. 1. Those obtained from random state have analogous character.

Card 1/2 UDC: 539.292:538:537.3

L 36107-66

ACC NR: AP6017313

6

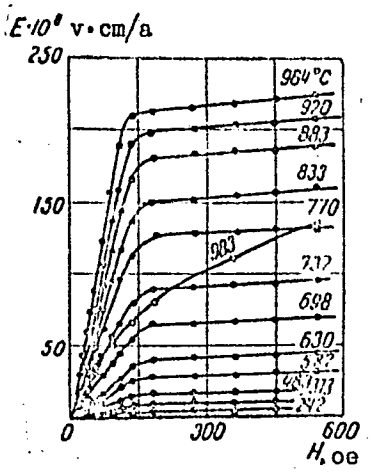


Fig. 1. Fe-Co Hall effect as function of the field during heating from orderly state.

Orig. art. has: 3 figures and 1 equation.

SUB CODE: 20/11 SUBM DATE: 13Jul65/ ORIG REF: 003/ OTH REF: 001

LS

Card 2/2

L 09366-67 EWT(l)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW
ACC NR: AP6023425 SOURCE CODE: UR/0139/66/000/003/0176/0177

AUTHOR: Bogma, K. K.; Zubov, V. V.

ORG: Rostov-on-Don Institute of Agricultural Machinery Building (Rostovskiy-na-Dony institut sel'skokhozyaystvennogo mashinostroyeniya)

TITLE: Dependence of the Hall effect of the ε and λ phases of cobalt on the magnetization

SOURCE: IVUZ. Fizika, no. 3, 1966, 176-177

TOPIC TAGS: cobalt, phase transition, crystal lattice structure, magnetized structure, magnetization, Hall effect

ABSTRACT: The purpose of the investigation was to determine the effect of the ε → λ transformation on the magnetization dependence of the Hall emf. A forged cobalt sample was prepared in accord with a procedure described by N. V. Volkenshteyn and G. V. Fedorov (FMM v. 2, 2, 377, 1965). The sample dimensions and the arrangement of the leads were such as to ensure homogeneous current distribution through the sample section. Plots of the Hall emf against magnetization were experimentally obtained at temperatures ranging from 210 to 605C, which includes the ε → λ transition temperature and turned out to be strongly nonlinear, in spite of published statements to the contrary. The shapes of the curves are similar above and below the transition tempera-

Card 1/2

L 09366-67

ACC NR: AP6023425 /

ture, in spite of the fact that the hexagonal lattice of the cobalt becomes cubic, and both the magnetization and the Hall effect, taken separately, experience changes on going through this point. Orig. art. has: 1 figure and 1 formula

SUB CODE: 20/ SUBM DATE: 18Jan65/ ORIG REF: 007/ OTH REF: 001

magnetic materials 18

Card 2/2 gd

BOGMOLOV, L. D.

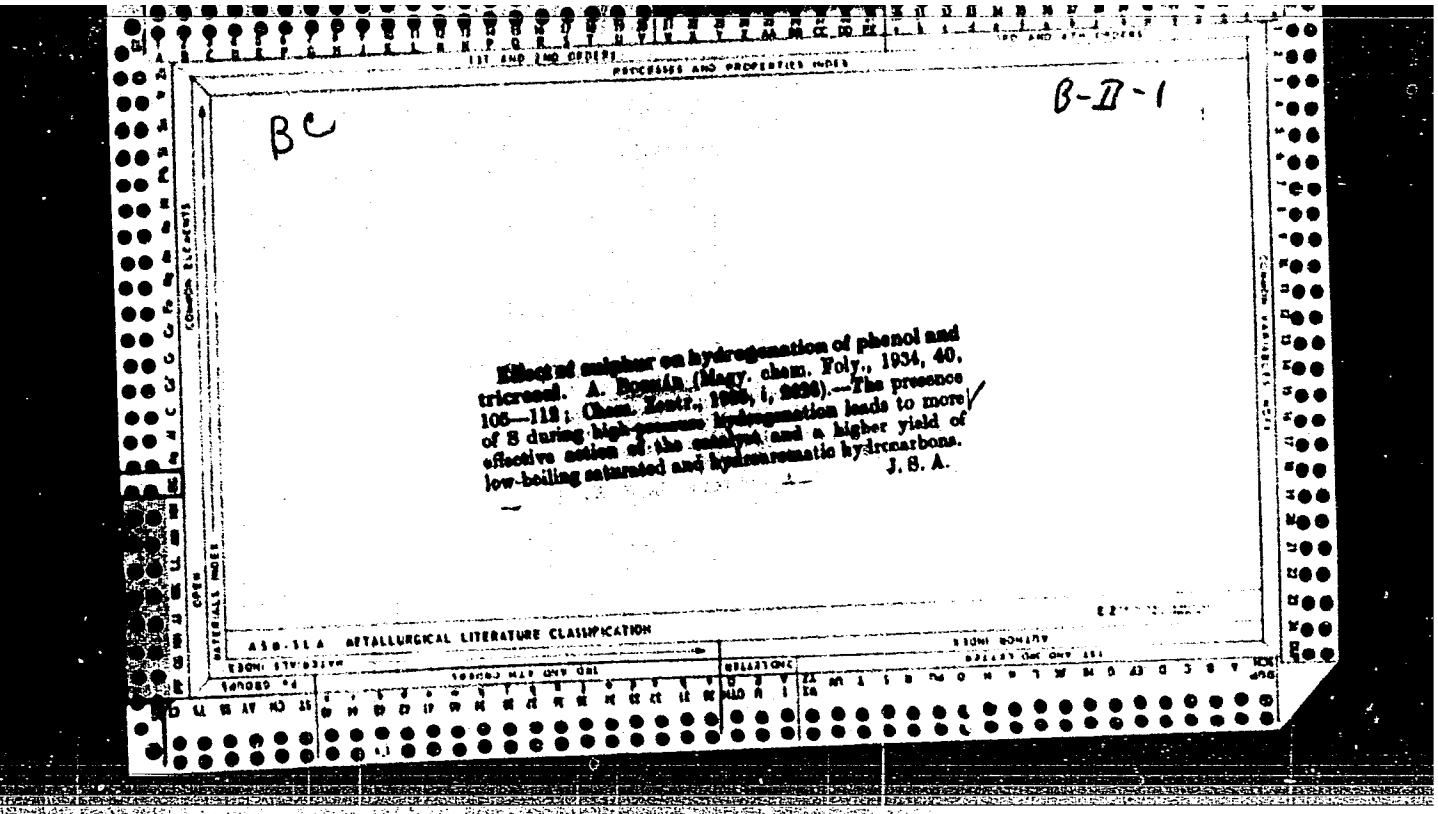
Sokolova, A. A. and Bogmolov, L. D. "Investigation and refining of sulphate turpentine", Sbornik nauch.-issled. rabot (Arkhang. lesotekhn. in-t im. Kuybysheva), 11, 1948, p. 91-105, - Bibliog: 12 items.

So: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

BOGMOLOV, G. V.

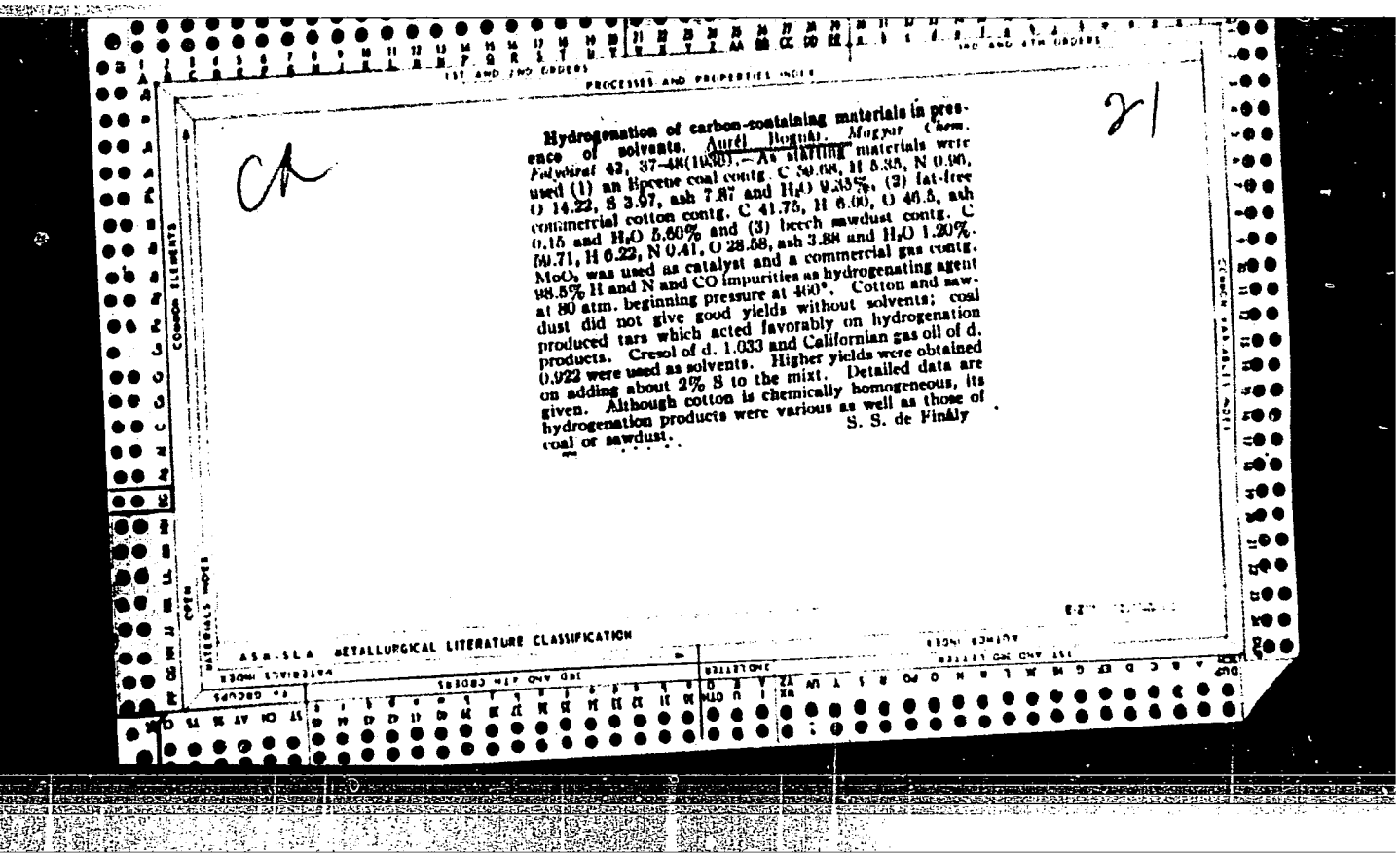
BOGMOLOV, G. V. "For the further study of the geology of the BSSR", In the collection: Materialy noyabr'skoy sessii Akad, nauk BSSR, 1947, Minsk, 1949, p. 99-106

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).



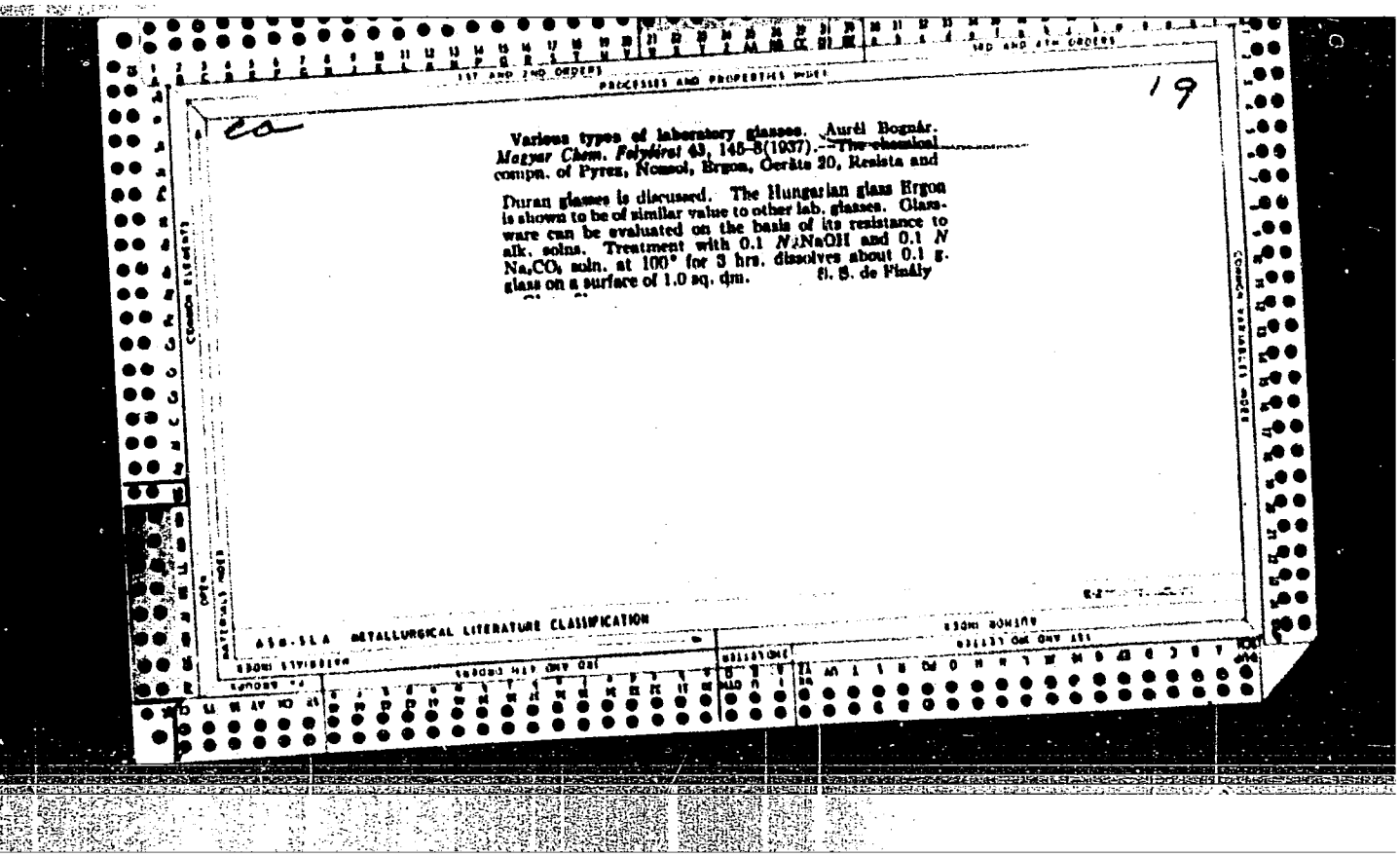
B-II-1

Effect of sulphur on hydrogenation of phenol and tricresol. A. Bognár (Magy. chem. Foly., 1934, 40, 106—113; Chem. Zentr., 1935, i, 2026).—The presence of S during high-pressure hydrogenation leads to more effective action of the catalyst and a higher yield of low-boiling saturated and hydroaromatic hydrocarbons.
J. S. A.



Hydrogenation of carbon-containing materials in presence of solvents. Aurél Hoguth. *Magyar Chem. Folyóirat* 42, 37–48(1936).—As starting materials were used (1) an Eocene coal contg. C 50.08, H 5.35, N 0.90, O 14.22, S 3.97, ash 7.87 and H_2O 9.35%, (2) fat-free commercial cotton contg. C 41.75, H 6.00, O 46.5, ash 0.15 and H_2O 5.60% and (3) beech sawdust contg. C 49.71, H 6.22, N 0.41, O 28.58, ash 3.88 and H_2O 1.20%. MoO_3 was used as catalyst and a commercial gas contg. 98.5% H and N and CO impurities as hydrogenating agent at 80 atm. beginning pressure at 460°. Cotton and sawdust did not give good yields without solvents; coal produced tars which acted favorably on hydrogenation products. Cresol of d. 1.033 and Californian gas oil of d. 0.922 were used as solvents. Higher yields were obtained on adding about 2% S to the mixt. Detailed data are given. Although cotton is chemically homogeneous, its hydrogenation products were various as well as those of coal or sawdust.

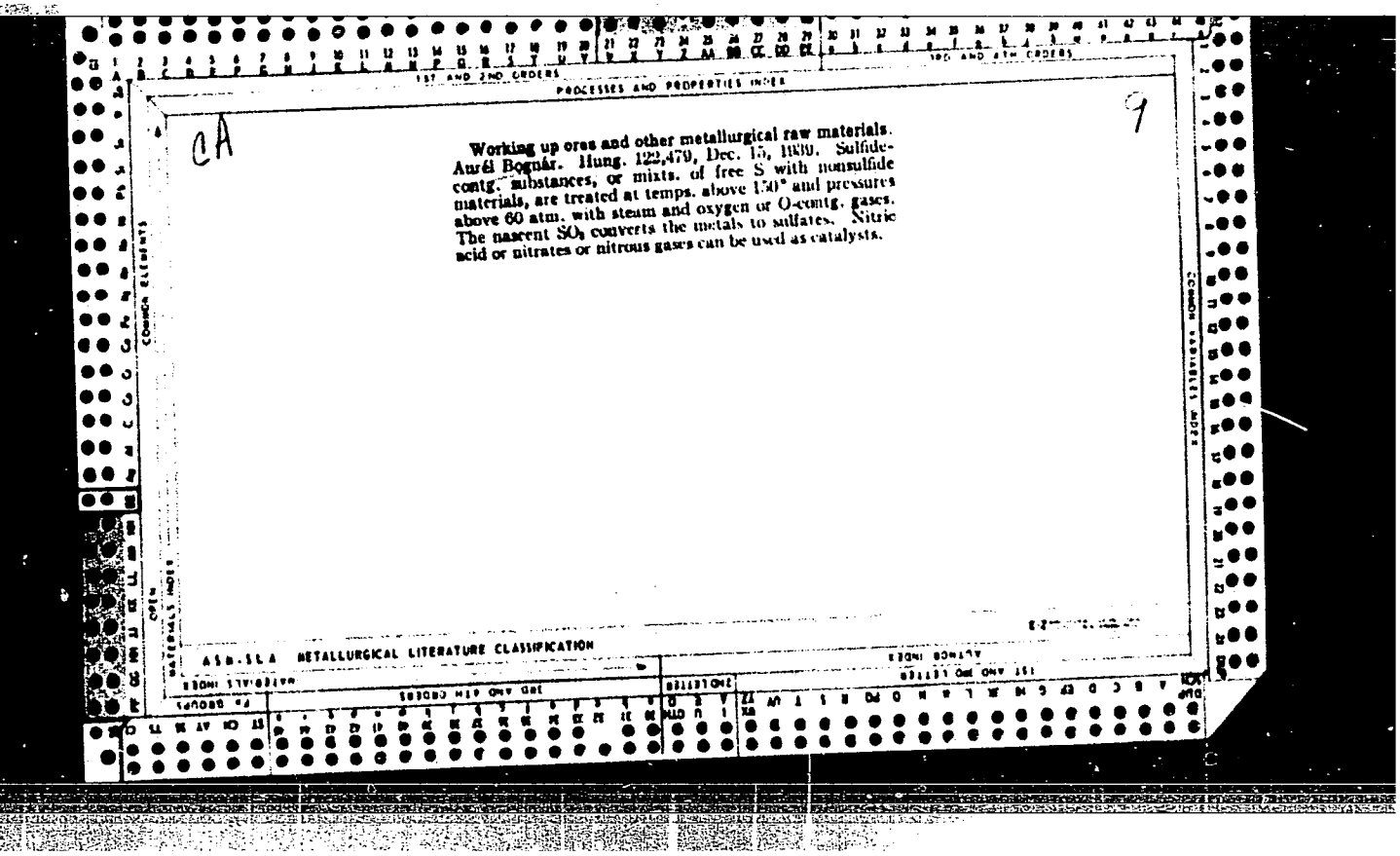
S. S. de Finály



19

Various types of laboratory glasses. Aurél Bognár. *Magyar Chem. Folyóirat* 43, 145–8(1937).—The chemical compn. of Pyrex, Nemosil, Ergon, Cerâte 20, Resista and Duran glasses is discussed. The Hungarian glass Ergon is shown to be of similar value to other lab. glasses. Glassware can be evaluated on the basis of its resistance to alk. solns. Treatment with 0.1 *N* NaOH and 0.1 *N* Na_2CO_3 soln. at 100° for 3 hrs. dissolves about 0.1 g. glass on a surface of 1.0 sq. dm. S. S. de Finály

A56-51A METALLURGICAL LITERATURE CLASSIFICATION



CA

9

Working up ores and other metallurgical raw materials. Aurél Bognár. Hung. 122,479, Dec. 15, 1939. Sulfide-contg. substances, or mixts. of free S with nonsulfide materials, are treated at temps. above 150° and pressures above 60 atm. with steam and oxygen or O-contg. gases. The nascent SO_3 converts the metals to sulfates. Nitric acid or nitrates or nitrous gases can be used as catalysts.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

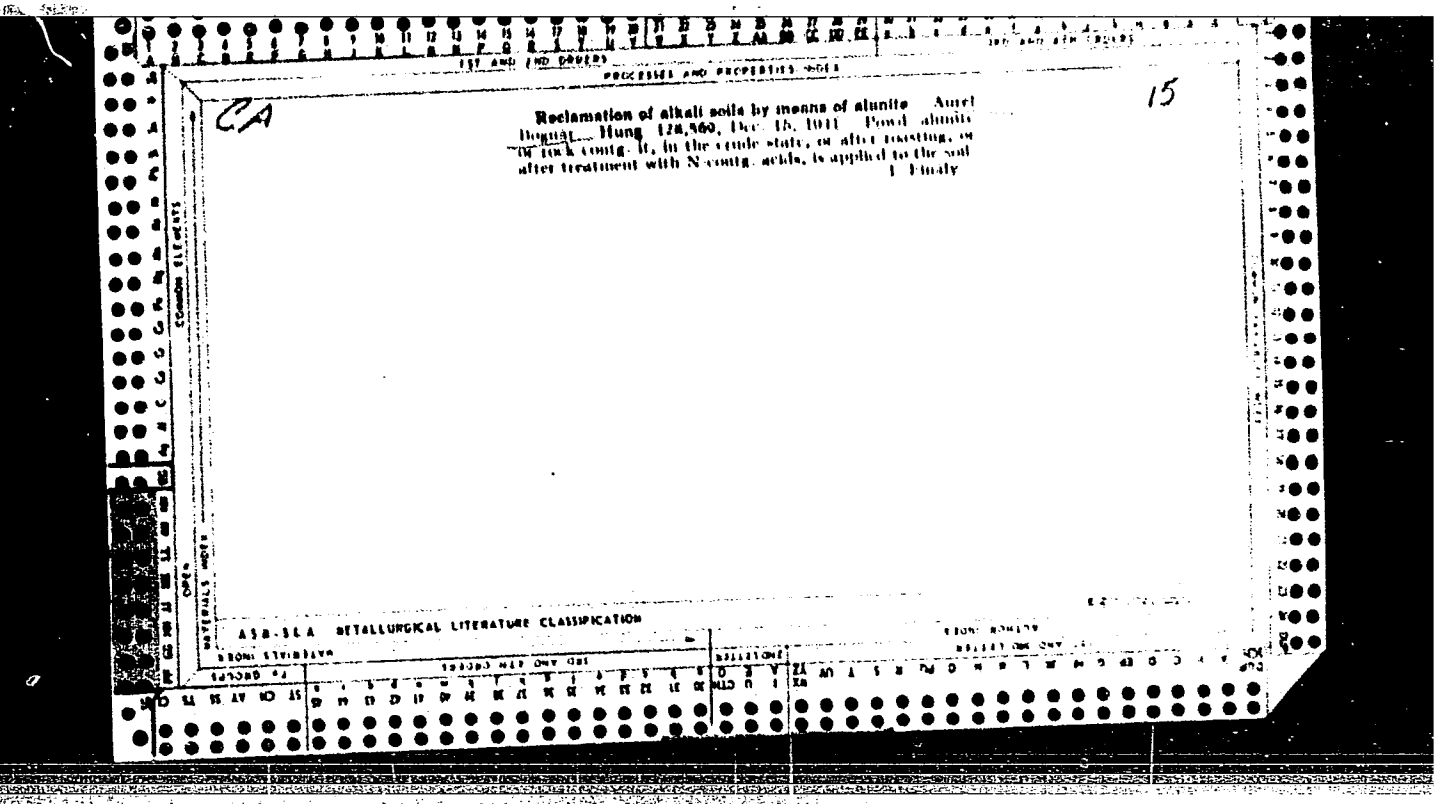
1ST AND 2ND ORDERS

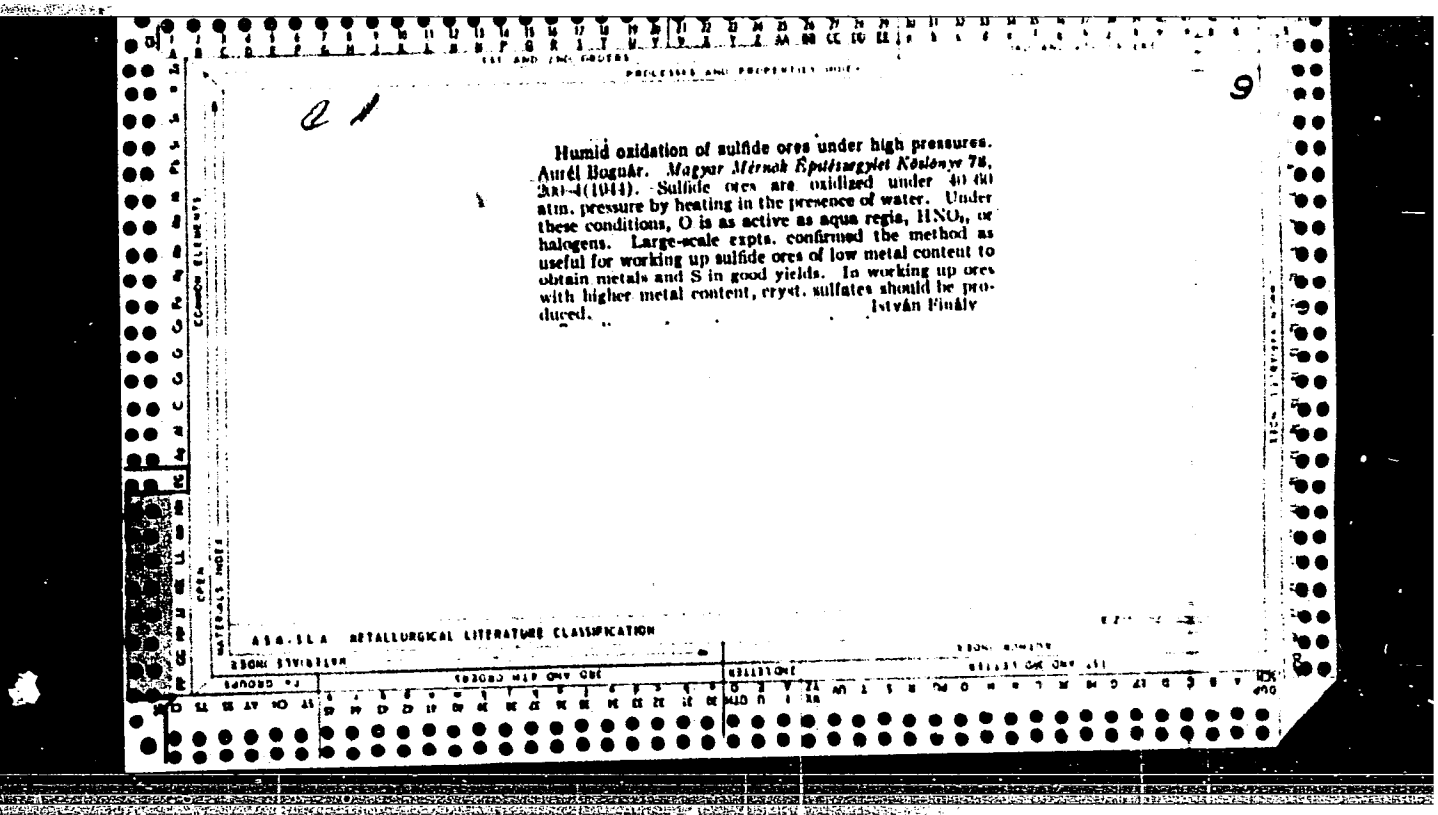
PROCESSES AND PROPERTIES INDEX

Antiknock gasolines. Antal Hegnar. Technika (Budapest) 20, 45-7(1940). Gasolines of high octane no. can be obtained directly by distn. from aromatic crude oils, by extn. from gasolines contg. aromatic hydrocarbons, by cracking, by thermal treatment from natural gas, and by hydrogenation from oils and coal. Gasolines of low octane no. can be improved by addn. of isopentanes, alcs., ethers and ketones. The cracking methods and hydrogenation seem to be suitable under Hungarian conditions. The gases of the deep well at [illegible] contain 3 [illegible] of gaseous compds., consisting of hydrocarbons higher than methane. These compds. after sepn. could well be polymerized to antiknock gasoline. The gasoline obtained by the hydrogenation of brown coals of Tata consists of 70% aromatic hydrocarbons. The tar oils obtained at [illegible], high in cresols, could also well be hydrogenated.

S. S. de Finaly

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





Humid oxidation of sulfide ores under high pressures. Aurél Bognár. *Magyar Mérnök Épitészegylet Közlönye* 78, 2R1-4(1944). Sulfide ores are oxidized under 40-60 atm. pressure by heating in the presence of water. Under these conditions, O is as active as aqua regia, HNO_3, or halogens. Large-scale expts. confirmed the method as useful for working up sulfide ores of low metal content to obtain metals and S in good yields. In working up ores with higher metal content, cryst. sulfates should be produced.

István Finály

BOGNAR, A.

HUNGARY/Chemical Technology - Chemical Products and Their Application. Ceramics. Glass. Binders. Concrete. H-13

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 25912

Author : Bognar Aurel
Inst :
Title : Classification of Hungarian Glass on the Basis of Its Viscosity.

Orig Pub : Epitoanyag, 1957, 9, No 3, 150-153.

Abstract : For determining the properties of glass (G) use can be made of the value of its absolute or relative viscosity (V). On the basis of the performed tests of V the Hungarian G has been subdivided in groups. 1st -- lead G of low softening point, low V and relatively high thermal expansion coefficient; 2nd -- calcium-sodium G; 3rd -- resistant and green G; 4th -- laboratory, thermostable G and one variety of experimental G;

Card 1/2

HUNGARY/Chemical Technology - Chemical Products and Their Application. Ceramics. Glass. Binders. Concrete. H-13

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 25912

5th -~~G~~ of great hardness and containing no alkalies, some of this G is characterized by high electric resistance, and the remainder by a high softening point.

Card 2/2

Country : Hungary
Category : II-22

Abs. Jour. : 33974

Author : Takacs, P. and Bognar, A.
Institut. : Not given
Title : Experiments on the Reduction of the Sulfur and Ash Content of Coke Produced from Borshod Brown Coal by Chemical Methods

Orig. Pub. : Nehezvegyipari Kutato Int Koezl, 1, No 1-2, 93-98 (1958)

Abstract : Coke obtained from Borshod brown coal contains 1.9-4% S notwithstanding the washing of the coal to an ash content of 8-10%. The application of chlorine treatment to the coal at 950° permits a reduction in the ash content from 17.7 to 8% and the reduction of the S content from 3.16 to 1.92%. However, the procedure results in a large residual Cl content in the coal. The treatment of the coal with CO and NH_3 at 650° gave negative results.

S. Rosenfel'd

Card: 1/1

II-54

BOGNAR, A.

TECHNOLOGY

PERIODICAL: MAGYAR KEMIKUSOK LAPJA. Vol. 13, no. 9, Sept. 1958

Bognar, A. High-pressure catalytic reactions in a glass-lined autoclave. p. 321.

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

BOGNAR,A.; HAMAR,N.; MOLNAR,B.; TISZAVOLGYI,Gy

A simple method for theprediction of theeight- and four-hour sweat rate in hot shifts. Acta med.hung. 16 no.1:19-23 '60.

1. State Institute of Industrial Hygiene (Director: M.Timar), Budapest.

(SWEATING)
(EXERTION)
(HEAT)

HUNGARY

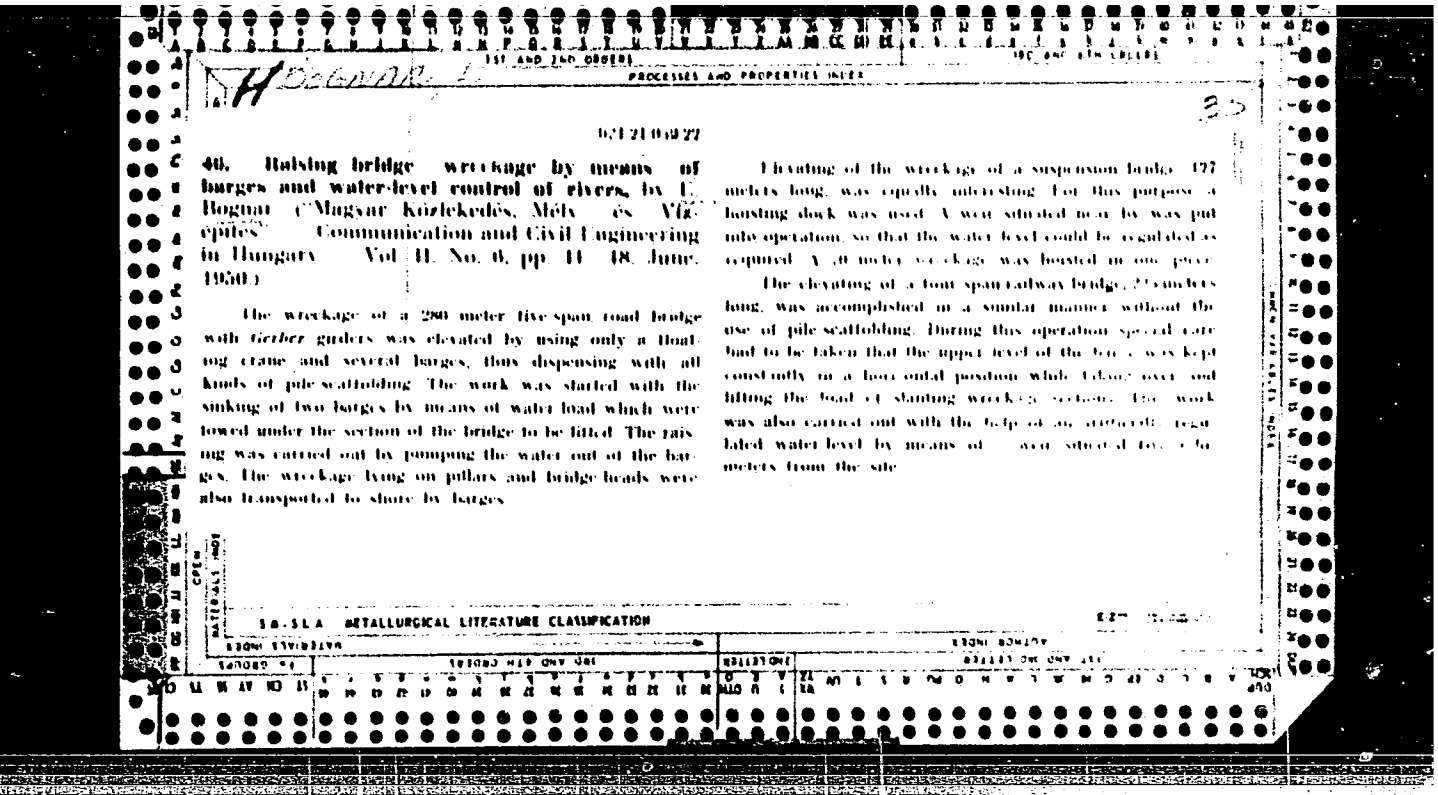
TAKATS, Laszlo, Dr, BOGNAR, Benedek, Dr, BLAHO, Gyorgy, Dr; City Council of Szeged, Hospital, Radiological Laboratory (Szegedi Varosi Tanacs Korhaza, Rontgenlaboratorium).

"X-Ray Table for Mammography."

Budapest, Magyar Radiologia, Vol XVIII, No 4, Jul 66, pages 247-248.

Abstract: [Authors' Hungarian summary] A simple X-ray table is described which can easily be constructed and can be used for the native visualization of the breast. The advantages of the table, in comparison to the generally used routine X-ray procedures,are obvious. A picture of the table is also presented in the article. 1 Hungarian, 1 Western references.

1/1



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3D

671.210.9.27

40. Raising bridge wreckage by means of barges and water-level control of rivers. by L. Bognar (Magyar Közlekedés, Mély- és Vízépítés Communication and Civil Engineering in Hungary Vol II, No. 6, pp. 11–18, June, 1950.)

The wreckage of a 280 meter five-span road bridge with *Gerber* girders was elevated by using only a floating crane and several barges, thus dispensing with all kinds of pile scaffolding. The work was started with the sinking of two barges by means of water load which were towed under the section of the bridge to be lifted. The raising was carried out by pumping the water out of the barges. The wreckage lying on pillars and bridge heads were also transported to shore by barges.

Elevating of the wreckage of a suspension bridge 177 meters long, was equally interesting. For this purpose a hoisting dock was used. A weir situated near by was put into operation, so that the water level could be regulated as required. A 40 meter wreckage was hoisted in one piece.

The elevating of a four span railway bridge, 2[illegible] meters long, was accomplished in a similar manner without the use of pile scaffolding. During this operation special care had to be taken that the upper level of the [illegible] was kept constantly in a horizontal position while taking over and lifting the load of slanting wreckage sections. The work was also carried out with the help of an artificially regulated water level by means of [illegible] weirs situated five to six meters from the site.

S.I.L.A. METALLURGICAL LITERATURE CLASSIFICATION

BOGNAR, Emil, dr.

Changes in tuberculosis morbidity according to a prophylactic survey of school children. Nepegeszsegugy 42 no.2:43-47 F '61.

1. Kozlemeny a Fovarosi IV. ker. Iskolaszakorvosi Rendelointezetbol (igazgato-foorvos: Bognar Emil dr.).
(TUBERCULOSIS in inf & child)

JULESZ, M.; CZEIZEL, E.; BOGNAR, E.; HANCSOK, M.; ZOLTAI, N.; ZOLTAI, L.; JANKO, M.

Toxoplasmosis as a cause of adiposogenital dystrophy. Orv. hetil. 105 no.36:1723 6 S '64.

BOGNAR, Ferenc

Difficult days for the AFL-CIO. Munka 11 no.8:32-33 Ag '61.

1. Szakszervezetek Orszagos Tanacsa nemzetkozi kapcsolatok osztalyanak munkatarsa.

(United States—Trade unions)

BOGNAR, Ferenc

Trade union movement on the Philippine Islands. Munka 11 no.3:34 Mr '61.

1. Szakszervezetek Orszagos Tanacsa nemzetkozi osztalyanak munkatarsa.

(Philippine Islands—Trade unions)

BOGNAR, Ferenc

In nutshell: Indonesia, India, Burma, Afganistan. Munka 10 no.2: 33 F '60.

BOGNAR, Ferenc

New situation in the British trade union movement. Munka 10 no.6: 33 Je '60.

1. Szakszervezetek Orszagos Tanacsa nemzetkozi osztalyanak munkatarsa.

BOCNAR, G.

BOCNAR, G. Radio amateurs for development of the telecommunication system. p. 217.

Vol. 5, No. 10, Oct. 1955.
RADIOTECHNIKA.
TECHNOLOGY
Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956

BOGNAR, G.

BOGNAR, G. Demand for electron tubes in microwave radio communication. p. 17.

Vol. 16, No. 1, 1955.
KOZLEMENYEI
TECHNOLOGY
Budapest, Hungary

Sc: East European Accession, Vol. 5, No. 5, May 1956

BOCNAR, G.

"The effect of noise sources on the performance of a multichannel FM radio link." In English, p. 375

PERIODICA POLYTHECHNICA. (Budapesti Muszaki Egyetem) Budapest, Hungary
Vol. 2, No. 4, 1958

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

BOGNAR, Geza; CSIBI, Sandor; PRIBELSZKY, Gyorgy

Hungarian research results in the field of wide-band microwave radio connections; also, remarks by S.Csibi and Gy.Pribelszky. Muszaki kozl MTA 26 no.1/4:9-24 '60. (EEAI 9:10)

1. A Magyar Tudomanyos Akademia tagja, Tavkozlesi Kutato Intezet (for Bognar)
(Hungary--Radio)
(Microwaves)

GELEJI, Sandor, akademikus, osztalytitkar; BOGNAR, Geza, akademikus; BENEDIKT, Otto, akademikus; MAJOR, Mate, lev.tag.; SZIGETI, Gyorgy, akademikus; BAN, Tamas; HEVASI, BYULA, Elnok; BAZSO, Imre, lev. tag.

1. Report on the work of the Section of Technical Sciences to the 1960 General Meeting of the Hungarian Academy of Sciences; also, remarks by G.Bognar and others. Muszaki kozl MTA 27 no.1/2:1-34 '60. (EEAI 10:4)

1. Magyar Tudomanyos Akademia, Muszaki Tudomanyok Osztalya (for Geleji, Bognar, Genedikt, Major Szigeti, Hevesi)
(Hungarian Academy of Sciences)
(Hungary--Technology)

BOGNAR, Geza

Introduction. Muszaki kozl MTA 27 no.1/2:69 '60. (EEAI 10:4)
(Hungarian Academy of Sciences)

MILLNER, Tivadar, lev.tag.; BOGNAR, Geza, elnok

National economic importance of technical physical reaearch in the past and its prospects in the field of the vacuum engineering industry. III. Also, remarks by G.Bognar. Muszaki kozl MTA 27 no.1/2:111-132 '60.
(EEAI 10:4)

1. Magyar Todumanyos Akademia, Muszaki Tudomanyok Osztalya.
(Electron tubes)

BOGNAR, G., member of the Hungarian Academy of Sciences.

Colloquium on microwave communications. Acta techn Hung 32 no.3/4: 441-444 '61. (EEAI 10:6)
(Hungary--Microwaves)

FOLDES, Janos, gepeszmernok (Budapest); BOGNAR, Geza, dr., akademikus (Budapest)

A letter to Comrad Mrs. Jozsef Nagy, Minister of Light Industry. Term tud kozl 6 no.8:359 Ag '62.

1. Tudomanyos Ismeretterjeszto Tarsulat, Muszaki Valasztmany titkara (for Foldes). 2. Tudomanyos Ismeretterjeszto Tarsulat Muszaki Valasztmany elnoke (for Bognar).

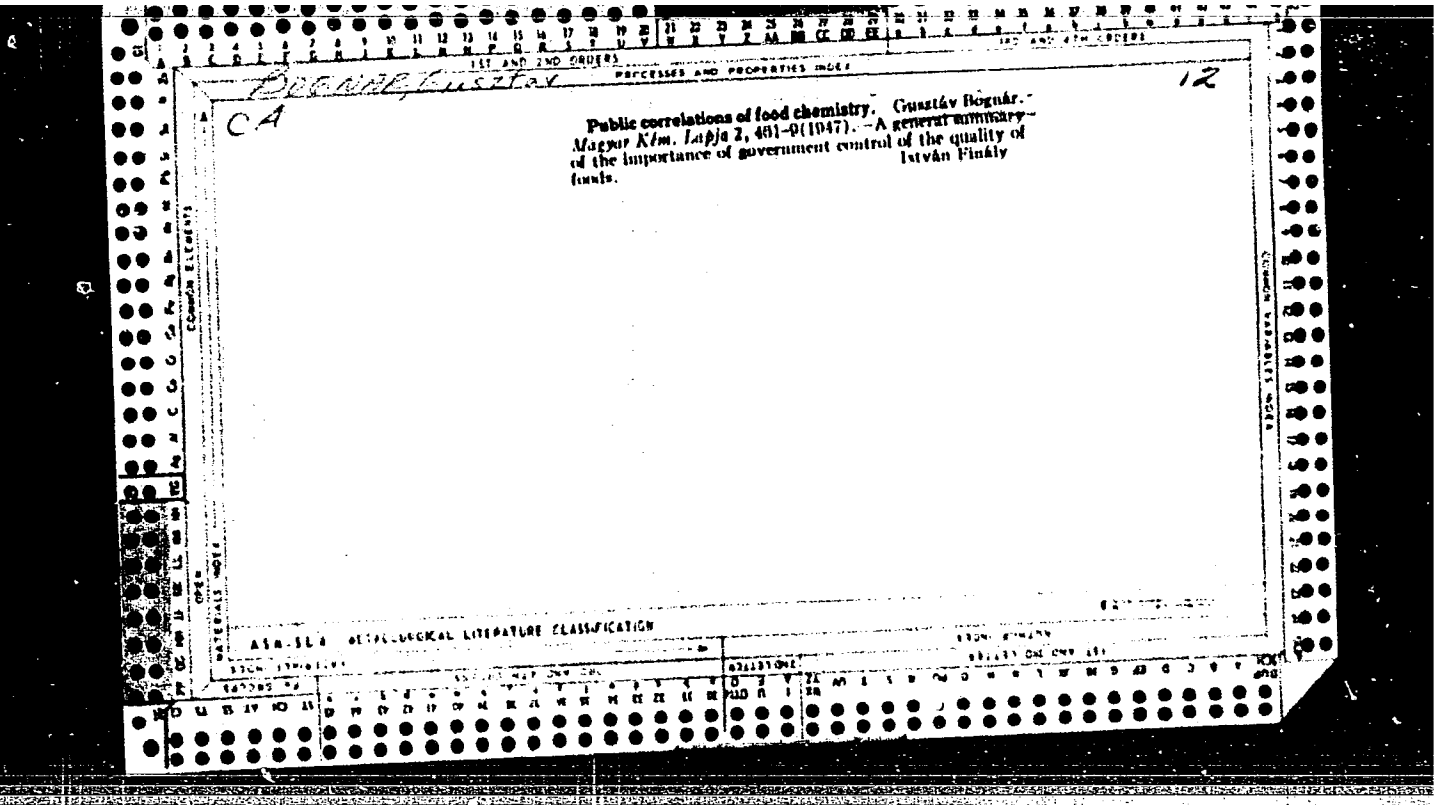
BOGNAR, G.

Opening address delivered at the 2d Conference on Microwave Communication, Budapest, June 12-15, 1962. Acta techn Hung 42 no.1/3:3-6 '63.

1. Member of the Hungarian Academy of Sciences.

BOGNAR, Geza; GEHER, Karoly

International Conference on Microwaves, Circuit Theory and Information Theory in Tokyo. Hir techn 16 no.1:25-26 Ja '65.



Bognár, Gusztáv

CA

12

Public correlations of food chemistry. Gusztáv Bognár. *Magyar Kém. Lapja* 2, 481–9 (1947). —A general summary of the importance of government control of the quality of foods. István Finály

LOVEI, Elemer, dr.,; BOGNAR, Gusztav, dr. nehai,; KORITSANSZKY, Denes, dr.

Therapy of urticaria with simultaneous administration of 25 per cent magnesiumthiosulfate and citrate, and lobeline injections. Borgyogy. vener. szemle 10 no.1:22-25 Jan 56

1. A Budapesti Orvostudomanyi Egyetem II. sz. Gelklinikaja (igazgato: Haynal Imre dr. egyetemi tanar) es Egyetemi Gyogyszertar (igazgato: Csipke Zoltan dr. egyetemi tanar) kozl.

(URTICARIA, ther.
lobeline with magnesium thiosulfate & citrate solution, results (Hun))
(MAGNESIUM,
citrate & thiosulfate solution, ther. use in urticaria with lobeline (Hun))

BOGNAR, Gyula

Common interest - individual interest. Munka 10 no.9: 4-5 S '60.

1. Magyar Szocialista Munkaspart Kozponti Bizottsaganak munkatarsa.

ZSOLDOS, I.; DUBSKY, M.; BOGNAR, G.

Application of methane carbon of Lovass for purification of urine in sugar content determination. Orv. hetil. 93 no.51:1465-1466 21 Dec 1952. (CLML 24:2)

1. Doctors. 2. First Internal Clinic (Director -- Prof. Dr. Istvan Russnyak), Budapest Medical University.

BOGNAR, Gyula

Blood donation and traffic accidents. Auto motor 17 no.18:25 21 S '64.

1. Blood Donor Work Group of the District No.9, Hungarian Red Cross, Budapest.

POPOVIC, Miroslav, dr.; BOGNAR, Ilona, dr.; MAGDIC, Svetislav, dr.; ANDAL, Nandor, dr.

Mass histamine poisoning after the consumption of sardines. Glas. hig. inst. 9 no.3/4:43-49 J1-D '60.

(HISTAMINE toxicol) (FOOD POISONING)

BOGNAR, Imre; LOMB, Frigyes

Appearance of professional standards. Szabvany kozl 14 no.8: 177-180 Ag '62.

1. Kozlekedes- es Postaugyi Miniszterium I.Vasuti Foosztaly, I/1 Tervgazdasagi es Muszaki Fejlesztesi szakosztaly vezetoje (for Bognar). 2. Koho- es Gepipari Miniszterium Erosaramu Berendezesi Igazgatosag 2.sz. Szabvanyositasi Kozpont vezetoje (for Lomb).

BOGNAR, Imre; PAPP, Karoly; TOLGYES, Lajos; BERKE, Bela; RICHTER, Ervin

Appearance of professional standards. Szabvany kozl 14 no.9:202-204 S '62.

1. Kozlekedesi- es Postaugyi Miniszterium, Tervgazdasagi es Muszaki Fejlesztesi szakosztaly vezetoje (for Bognar). 2. Kozlekedes- es Postaugyi Miniszterium Epitesi es Palyafenntartasi szakosztaly vezetoje (for Papp). 3. Kozlekedes- es Postaugyi Miniszterium Gepeszeti Szakosztaly vezetoje (for Tolgyes). 4. Kozlekedes- es Postaugyi Miniszterium Forgalmi es Kereskedelmi szakosztaly vezetoje (for Berke). 5. Kohaszati es Gepipari Miniszterium 3. sz. Erosaramu Szabvanyositasi Dozpont vezetoje (for Richter).

BOGNAR, Imre; TOLGYES, Lajos; URBAN, Sandor; BENCSIK, Elemerne; VADNAI, Geza; KOPASZ, Karoly; PAJZS, Andras; SZOBEL, J.

Issuance of trade standards. Szabvany kozl 15 no.10: 217-218 O '63.

1. Kozlekedes- es Postaugyi Miniszterium I/1. Tervgazdasagi es Muszaki Fejlesztesi Szakosztaly vezetoje (for Bognar).
2. Kozlekedes- es Postaugyi Miniszterium I/7. Gepeszeti Szakosztaly vezetoje (for Tolgyes).
3. Kozlekedes- es Postaugyi Miniszterium I/9. Tavkozlo- es Biztositoberendezesi Szakosztaly vezetoje (for Urban).
4. MAV Szabvanyosito Fonokseg, Budapest, VI., Nepkoztarsasag utja 73-75., III. em 304. sz. (for Bencsik).
5. Kcho- es Gepipari Miniszterium Szerszamgepipari Szabvanyositasi Kozpont (for Vadnai.).
6. Koho- es Gepipari Miniszterium [illegible] Szabványositasi Kozpontja (for Kopasz).
7. Koho- es Gepipari Miniszterium Mezogepipari Szabvanyositasi Kozpont, Mezogep- es Malomfejleszto Intezet, Budapest, I., Krisztina korut 55 (for Pajzs).
8. Konnyuipari Miniszterium Iparfejlesztesi Foosztaly, Altalanos Muszaki es Szervezesi Osztaly (for Szobel).

BOGNAR, Imre; PAPP, Karoly; TOLGYES, Lajos; BERKE, Bela; URBAN, Sandor

Issuance of professional standards. Szabuany kozl. 16 no. 2:H22-H23 F '64.

1. Head, No. I/1 Division of Economic Planning and Technical Development, Ministry of Transportation and Postal Affairs, Budapest (for Bognar). 2. Head, No. I/6 Division of Construction and Track Maintenance, Ministry of Transportation and Postal Affairs, Budapest (for Papp). 3. Head, No. I/7 Division of Mechanical Engineering, Ministry of Transportation and Postal Affairs, Budapest (for Tolgyes). 4. Head, No. I/8 Division of Traffic and Trade, Ministry of Transportation and Postal Affairs, Budapest (for Berke). 5. Head, No. I/9 Division of Telecommunication and Safety Appliances, Ministry of Transportation and Posts, Budapest (for Urban).

BOGNAR, Imre; PAPP, Karoly; TOLGYES, Lajos; URBAN, Sandor; SZODENYI NAGY, Kalman

Issuance of professional standards. Szabvany kozl 16 no. 4:H52-H53 Ap '64.

1. Head, No.I/1 Division of Economic Planning and Technical Development, Ministry of Transportation and Postal Affiars, Budapest (for Bognar). 2. Head, No.I/6 Division of Construction and Track Maintenance, Ministry of Transportation and Postal Affairs, Budapest (for Papp). 3. Head, No. I/7 Division of Mechanical Engineering, Ministry of Transportation and Postal Affairs, Budapest (for Tolgyes). 4. Head, No.I/9 Division of Telecommunication and Safety Appliances, Ministry of Transportation and Postal Affairs, Budapest (for Urban). 5. Head, Instrument Standardization Center, Ministry of Metallurgy and Machine Industry, Budapest (for Szodenyi Nagy).

BOGNAR, Imre; TOLGYES, Lajos; BERKE, Bela; URBAN, Sandor

Issuance of professional standards. Szabvany kozl 16 no.9:H113-H114 S '64.

1. Chief, No.I/1 Division of Economic Planning and Technical Development, Ministry of Transportation and Postal Affairs, Budapest (for Bognar). 2. Chief, No.I/7 Division of Mechanical Engineering, Ministry of Transportation and Postal Affairs, Budapest (for Tolgyes). 3. Chief, No.I/8 Division of Traffic and Trade, Ministry of Transportation and Postal Affairs, Budapest (for Berke). 4. Chief, No.I/9 Division of Telecommunication and Safety appliances, Ministry of Transportation and Postal Affairs, Budapest (for Urban).

BOGNAR, Imre; TOLGYES, Lajos; URBAN, Sandor

Issuance of professional standards. Szabvany kozl 16 no.11:H146-H147 N '64.

1. Head, Division of Economic Planning and Technical Development, Ministry of Transportation and Postal Affairs, Budapest (for Bognar). 2. Division of Mechanical Engineering, Ministry of Transportation and Postal Affairs, Budapest (for Tolgyes). 3. Head, Division of Telecommunication and Safety Appliances, Ministry of Transportation and Postal Affairs, Budapest (for Urban).

BOGNAR, Istvan; FOLDIAK, Gabor, dr.

Transformer oils and their classification. Elektrotechnika 58 no.1: 33-36 Ja '65.

1. Research Institute of the Electric Industry, Budapest (for Bognar).
2. Isotope Institute of the National Atomic Energy Commission, Budapest (for Foldiak).

BOGNAR, Istvan, okleveles gepeszmernok

The state and problems of city transportation. Jarmu mezo gep 10 no.2:52-54 F '63.

1. Fovarosi Villamosvasut Muszaki Fejlesztesi Osztaly vezetoje.

BOGNAR, Istvan, okleveles mernok

Investigating the streetcar line system in connection with the new Elisabeth bridge. Kozl tud sz 13 no.1:11-19 Ja '63.

1. Fovarosi Villamosvasut V.osztalyvezetoje.

BOGNAR, Istvan, okleveles mernok

Situation and problems of city transportation. Kozl tud sz 13 no.10:443-445 O '63.

1. Fovarosi Villamosvasut V. osztalyanak vezetoje.

FOLDIAK, Gabor, dr., okleveles vegyeszmernok, a kemiai tudomanyok kandidatusa, kulso munkatars; BOGNAR, Istvan, okleveles gepeszmernok, tudomanyos munkatars

The method of the In ernational Electrotechnical Commission for the aging of transformer oils. Elektrotechnika 56 no.10:444-448 O '63.

1. Villamosipari Kutato Intezet, Budapest, XIII., Lehel ut 23.

BOGNAR, Istvan

Investigation of the A-B stopping place system. Musz elet 18 no.23:15 7 M '63.

BOGNAR, Istvan, okleveles gepeszmernok

Investigation of the A-B stopping place system on the streetcar line 61 in Budapest. Kozl tud sz 13 no.9: 415-419 S '63.

1. Fovarosi Villamosvasut Vallalat osztalyvezetoje.

BOGNAR, Janos

Data on the existence of square roots from operators, self-adjoint in relation to an indefinite metric. Mat kut kozl MTA 6 no.3:351-363 '61.

BOGNAR, J.

Analytic-chemical investigations in ultraviolet light. III. Mechanism of fluorescent adsorption indicators.

ACTA CHIMICA. (Magyar Tudomanyos Akademia) Budapest, Hungary. Vol. 20 No. 2, 1950

Monthly Lists of East European Accessions, (EEAI) LC, Vol. 9, No. 1, 1960

Uncl

BOGNAR, J.

Hungarian Technical Abst.
Vol. 6 No. 1
1954

8-31-54

546.73.001.4 : 545.83

9. **Micro-method for the determination of cobalt by the catalytic acceleration of the oxidation of alizaria derivatives with perborate compounds** -- *A kobalt mikroanalitikai kimutatása alizarinszármazékok perboráttos oxidációjának meggyorsításával* — J. Bognár. (Hungarian Journal of Chemistry — *Magyar Kémiai Folyóirat* — Vol. 59, 1953, No. 1, pp. 24—29, 2 tabs.)

Several anthraquinone derivatives were investigated and it was found that the catalytic effect of cobalt was observable only in the case of derivatives which contained free hydroxyl groups in the 1,2-ortho position. Alizarin and its derivatives (e. g. diacetyl alizarin, alizarin sulfonic acid, 1,2,5-trioxy-anthraquinone, 1,2,7-trioxy-anthraquinone, 1,2,8-trioxy-anthraquinone, 1,2,5,6 and 1,2,5,8-tetraoxy-anthraquinone, etc.) were the most susceptible to this catalytic effect, i. e. they showed a pronounced increase in the rate of oxidation. Several methods were elaborated for the determination of cobalt with a sensitivity of 10^{-6} % *Co* in a 5 ml solution based on the above effect. Salts of silver, copper, tin, zinc, calcium, magnesium, beryllium, thorium, zirconium and the cyanides interfere with the determination. Methods are described for the elimination of these compounds either by precipitation or by complexing. D. K.

BOGNAR, J.

HUNG.

Brilliant yellow, a new argentimetric absorption indicator. J. Bognár and J. Vereskői (*Acta chim. hung.*, 1954, 5, 91–96). Brilliant yellow is an excellent adsorption indicator for the argentimetric titration of halide or thiocyanate ions at concn. down to 0·0015 N. The colour change is from lemon yellow to orange red. Chloride, bromide and thiocyanate can be titrated in neutral or slightly acid solution (pH >2), iodide in neutral or ammoniacal solution (pH<11). Alcohol or acetone must be added in the case of chloride, but the indicator then fails to function in the presence of salts of other metals. Silver can only be determined by back-titration.

A. B. DENSHAM.

BOGNAR, J.

HUNG.

✓ **Argentimetric titration of the chlorides ion using eosin as indicator.** J. Bognár and J. Vereskói (*Acta chim. Hung.*, 1954, 5, 105—109).—Eosin can be used as an absorption indicator for the accurate titration of chloride, provided that an equal vol. of alcohol or acetone is added to lower the dielectric constant, and that acetic acid is present in concn. >0·2 N. If dioxan (having a smaller dielectric constant) is used instead of alcohol the titration can be made in neutral solution. Small amounts of salts of other metals do not interfere. The optimum concn. range for chloride is 0·001 to 0·01 N.

A. B. DENSHAM.

BOGNÁR UA No 5

The use of Methanyl Yellow as an adsorption indicator. János Bognár and Klára Mingaly (Rákosi Mátyás Nehézvegyipari Kutatóintézet, Miskolc, Hung.). *Magyar Kém. Folyóirat* 60, 45–8 (1954). — The behavior of Methanyl Yellow (I), the Na salt of *p*-anilinoazobenzene-*m*-sulfonic acid, as an adsorption indicator in argentometric titrations, was studied. It was found that it is suitable for halogen and SCN^- ion titrations provided that the AcOH concn. does not exceed 2*N*. I is not suitable for the titration of chloride ions, and no more suitable than fluorescein for bromide ions. It is quite sensitive in the detn. of Ag^+ with KBr measuring solns. in a strong HNO_3 medium. In the detn. of iodide ions it is less sensitive than fluorescein. It also enables the detn. of total halogens.

L. G. Aryal

BOGNÁR, J.

3

15341* (New Argentometric Adsorption Indicator: Brilliant Yellow.) Új argentometriás adszorpciós indikátor: a brillantsárga. János Bognár and János Veszkáli, *Magyar Kémiai Folyóirat*, v. [illegible], no. 7, July 1951, p. 197-199.

Use as an indicator for chloride, bromide, iodide, and rodanide ions; accuracy is discussed. Tables, 3 ref.

BOGNAR, J.; SAROSI, SZ.

BOGNAR, J.; SAROSI, SZ. Influence of organic solvents on adsorption indicator processes. In English. p. 361.

Vol. 7, no. 3/4, 1955
ACTA CHIMICA
SCIENCE
HUNGARY

So: East Europeon Accessions, Vol. 5, No. 9, Sept. 1956

BOGNAR, JANOS

HUNG.

10119* The Effect of Organic Solvents on Adsorptive Indication Processes. **Adszorpciós indikálási folyamatok befolyásolása szerves oldószerekkel.** (Hungarian.) János Bognár and Szilvia Sárosi. *Magyar Kémiai Folyóirat*, v. 61, no. 5, May 1955, p. 149-154.

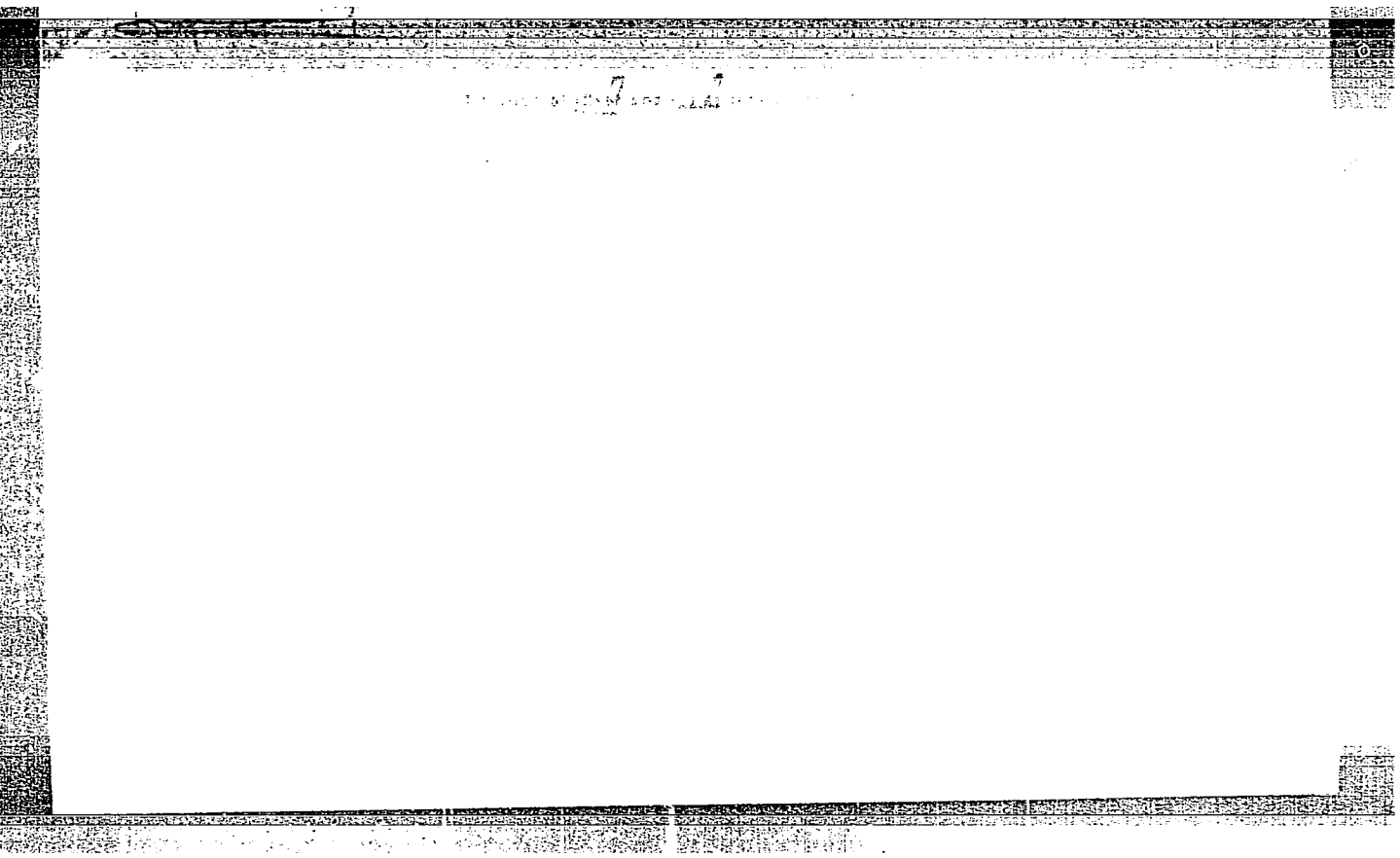
Considerable expansion of application of the derivatives of fluorescine in the argentometric titration of halides by means of organic solvents of small dielectric constant. Tables. 5 ref.

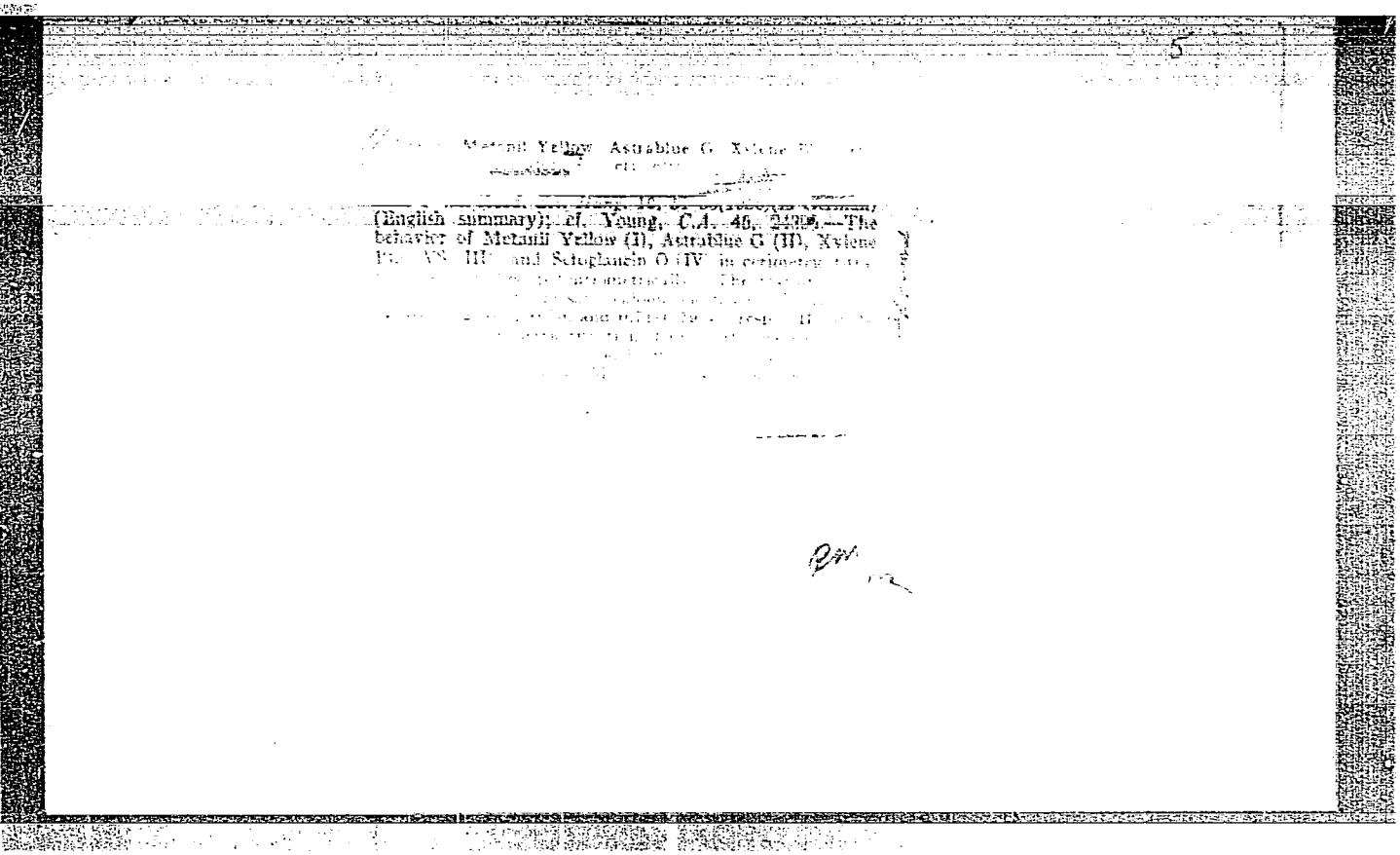
AI

BOGNAR, J.

2385. The use of Metanil yellow, Astral blue, Xylene blue and Setoglaucin in cerimetry. J. Bognár and Z. Nádler (Nehézipari Műszaki Egyetem, Ásvány- és Kőolajtechnológiai Tanszék, Heavy Industries Univ., Miskolc, Hungary). *Magyar Kém. Folyóirat*, 1955, 61 (11), 372-376. (In Hungarian)

The use of Metanil yellow (I) [4-(3-sulphobenzeneazo)diphenylamine, sodium salt] and Astral blue G (II) (an ethyl or ethoxy derivative of triaminotriphenylmethane) in cerimetric titrations is described. II has a colour change at + 0·72 V (vs. the S.C.E.), which is about equal to the equiv. potential of the Fe^{III}-ceric sulphate reaction. II can be used in the cerimetric determination of Fe^{II} (also in the presence of HgCl and $HgCl_2$), ferrocyanide, As, Ti and quinol. In addition to these, I can be used for the titration of Mo^{V}, U and ascorbic acid. Tervalent Sb can be titrated in conc. HCl soln., in the presence of I, but As needs HCl as catalyst and thus their mixture can be determined. The colour change of I, which was used, is irreversible (carmine red to greenish blue); the colour change of I in its oxidised form is reversible, but less intense and less contrasting. Neither indicator can be used for the cerimetric titration of I, H_2O_2, Ta, NO_2', V^{IV} and oxalate, with any of the procedures attempted. Xylene blue VS and Setoglaucin O behave similarly to II. A. G. Paro





(English summary); cf. Young, C.A. 46, 2439i.—The behavior of Metanil Yellow (I), Astrablue G (II), Xylene

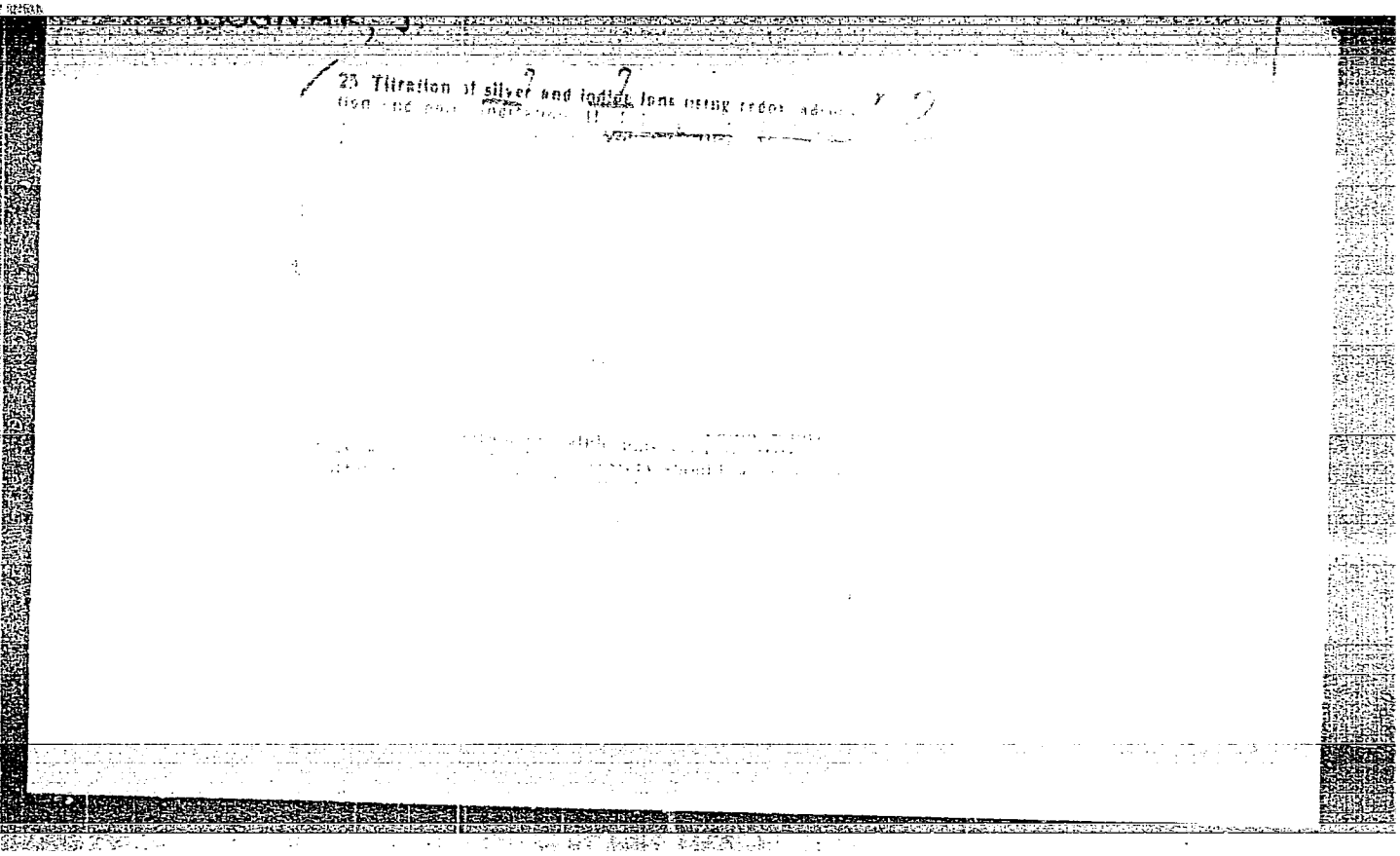
BOGNAR, J.; NADLER, ZS.

Use of Metanil Yellow, Astrazon Blue G, Xylene Blue VS and Setoglaucine as indicators in ceriometry. In German. p. 51. ACTA CHEMICA. (Magyar Tudomanyos Akademia) Budapest. Vol. 10, no. 1/3, 1956.

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

Titration of silver and iodide ions, respectively, with an end-point indication by reversible redox adsorption. I [illegible] J. Bognár and O. Jelinek (Tech. Univ., M. Rákosi Heavy Ind. Min., Miskolc). *Acta Chim. Acad. Sci. Hung.* 10, 125–[illegible] (1956) (in English).—In the titration of I^- with $AgNO_3$, Azure Blue VS is adsorbed by the ppt. and acts as an acid-base indicator. The adsorption of excess Ag^+ at the end point causes the dye to shift toward its base color as a result of charge in the charge of the adsorption layer. HOAc, more present in any concn., but 0.05 *N* is the max. for strong acid. In titrations in the presence of minute amts. of iodide the dye acts as a reversible oxidation-reduction sorption indicator. By action of I^+ or IOH formed by iodine hydrolysis in the presence of Ag^+, the adsorbed dye is converted to the oxidized form. The end point error is less if the iodine is generated by use of iodate, but in the reverse titration an EtOH soln. of iodine gives less error than use of iodate. Good results are obtained with oxidation.-reduction sorption indicators at H_2SO_4 concns. from 0.01 to 10.0 *N*. H_3PO_4, $HClO_4$, and HNO_3 do not interfere over a wide concn. range, nor does HOAc at any concn. Considerable quantities of Na, K, Cd, Mg, Mn, or Al salts do not interfere, but even minute amts. of Br^- or Cl^- are harmful. Kinetic studies of the hydrolysis and autoxidation of iodine in the presence of Ag[illegible] the mechanism [illegible] (rate) (2) $I^+ + H_2O \rightarrow IOH + H^+$ (rapid); (3) $2I^- + H_2O \rightarrow HIO + H^+ + I^-$ the rate-detg. step, catalyzed by Ag^+; (4) [illegible] $IOH + OH^- + IO_3^- + I^-$. Increased H^+ concn. also hastens the conversion to iodate. H. J. Bognár and I. Nagy. *Ibid* 259–65.—Patent Blue V and Azurblue

S-Cu... are proposed as reversible oxidation-reduction adsorption indicators for titrating Ag with halide or vice versa, in the presence of minute amts. of free I_2. Solns. as dil. as 0.005 N can be used. The end point is not shifted by H_2SO_4 concns. from 0.01 to 10 N. Even minute amts. of [illegible] but large concns. of H_3PO_4 [illegible] Mg [illegible] indicators, including [illegible] the [illegible] group, show no activity or do not give a sharp end point. Richard H. [illegible]



23 Titration of silver and iodide ions using redox ad...

BOGNAR, JANOS

USSR/Analysis of Inorganic Substances. G-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19542.

Author : Janos Bognar, Lajos Nagy.
Inst : -
Title : Volumetric Determination of Zinc by Potassium Ferrocyanide in the Presence of Reversible Oxidizing-Reducing Adsorption Indicators.

Orig Pub: Magyar Kem. Folyoirat, 1956, 62, No 7, 217 - 220.

Abstract: For the titration of Zn^{2+} with the solution of $K_4Fe(CN)_6$, xylene blue VS and the patented blue V (azure blue) are recommended. The indicators are adsorbed on the precipitate surface during titration and indicate the end of titration in

Card 1/2 - 22 -

USSR/Analysis of Inorganic Substances. G-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19542.

presence of $K_3Fe(CN)_6$. Solutions of $ZnSo_4$ or $ZnCl_2$ can be titrated directly, or reversed titration can be carried out. In the first case, the solution is heated to 100°; in the second case, the determination of the excessive solution is carried out at 50 - 60°. Only the second method is applicable in presence of NH_4^+ salts. The indicators act in neutral and weakly acid solutions.

Card 2/2

HUNGARY / Analytical Chemistry. General Problems. E

Abs Jour: Ref Zhur-Khim, No 12, 1959, 42032.

Author : Bognar, J.
Inst : Not given.
Title : Ultramicroanalytic Detection and Determination of Metals by Catalytic Methods.

Orig Pub: Nehezipari müsz. egyet. közl., 1957, No 1, 7-12.

Abstract: The importance and examples of application of catalytic methods in analytical chemistry are discussed. Oxidizing - reducing color reactions of organic substances, catalyzed by metals, are particularly recommended for analytical purposes. A table with 13 reactions for V, Cu, Mn, Mo, Co, Ti, Se, and W is given. It contains detailed data on the conditions of reactions, activators and sensitivity (in some cases the sensitivity of reactions attains

Card 1/2

HUNGARY / Analytical Chemistry. General Problems. E

Abs Jour: Ref Zhur-Khim, No 12, 1959, 42032.

Abstract: 0.0001 mcg. of the metal in 5 ml. of solution). The use of catalysis in quantitative analysis is studied in detail using as an example the determining of V according to the catalytic reaction of oxidation of p-phenetidine chloride by $KBrO_3$ (with pyrocatechin as an activator). This catalytic reaction has already been described (Szebelledy Z., Ajtai M., Microchem., 1939, 26, 87). -- I. Krishtofori.

Card 2/2

BOGNAR, J. SAROSI, SZ.

Kinetic reaxtion data on the autooxidation of iodine in mercury (II) salt solutions; data on the potentiometric titration of arsenic and antimony by means of the iodate volumetric method. p. 46.

(Magyar Kemiai Folyoirat. Vol. 63, no. 2/3, Feb./Mar. 1957. Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

BOGNAR, JANOS

HUNGARY/Analytic Chemistry - Analysis of Inorganic Substances E-2

Abs Jour : Ref Zhur - Khimiya, No 10, 1958, 32163

Author : Janos Bognar, Alga Jellinek
Inst : -
Title : Mercurimetric Titration with Oxidation-Reduction Indicators. I. Determination of Bivalent Mercury Halides.

Orig Pub : Magyar kem. folyoirat, 1957, 63, No 11, 309-313

Abstract : It was established that the oxidation potential of the $Fe(CN)_6^{3-}$ ion rose extremely high in the presence of little amounts of Hg^{2+} and reached the oxidation potential of MnO_4^- or Ce^{4+}. In the opinion of the authors, this is explained by the fact that $Fe(CN)_6^{4-}$ present in a low concentration produces an insoluble Hg ferrocyanide, which, in its turn, results in a rise of the potential of $Fe(CN)_6^{3-}$. The authors used this phenomenon

Card 1/3

Abs Jour : Ref Zhur - Khimiya, No 10, 1958. 32163

blue G (0.3 mlit of 0.1%-ual solution) is suitable for the titration of Cl^-. The amount of the introduced $Fe(CN)_6^{3-}$ is 1 drop of 1/30 M solution. The determination error is 0.2%. Any of the above mentioned indicators is suitable for Br^- determination. The titration of I^- is carried out only in dilute solutions using diphenylaminesulfo acids as the indicator. Cu^{2+}, Co^{2+}, Ni^{2+}, Cr^{3+}, Fe^{2+}, NO_2^-, Ce^{4+}, MnO_4^-, V^{5+} and BrO_3^- interfere with the determination of Cl^-, Br^- and I^-. The possibility of the determination of Hg^{2+} by the reverse titration of excessive Br^- is noted; the direct titration of Hg^{2+} is impossible.

HUNGARY/Analytical Chemistry - General Questions. E-1

Abs Jour : Ref Zhur - Khimiya, No 2, 1959, 4253

Author : Bognar, J.
Inst : -
Title : Detection and Determination of Methyl Ions by Catalytic Methods. Microanalytic Application of the Catalytic Action of Methyl Ions on Oxidation-Reduction Reactions of Organic Compounds.

Orig Pub : Magyar Tud Akad Chem Tud Oszt Koezl, 9, No 4, 335-351 (1958) (in Hungarian)

Abstract : The author has presented a detailed review of the literature on the utilization of catalysis in analytical chemistry. Special attention is given to oxidation-reduction reactions catalyzed by metal ions and suitable for the detection of these ions. A general treatment of the theory of the mechanisms of these processes is given, and it is pointed out that in many cases the catalyst exhibits its

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Abs Jour : Ref Zhur - Khimiya, No 2, 1959, 4253

activity or shows a marked increase in activity when complexed with organic compounds; hence the sensitivity of detection of metals by catalytic reactions is increased many times by the addition of organic activators. Data published by a number of authors are summarized in table form; the tables give the reactions catalyzed by the ions of the various metals, optimum conditions for carrying out the reactions, the sensitivity of the latter, the activators used, and the effect of foreign ions. The following metals are discussed: V (12 reactions), Cu (10 reactions). Mn (6 reactions), Mo (7 reactions), and Co (15 reactions). The sensitivity of the reactions discussed varies between the limits 0.01-0.000001% of the metal to be detected per 5 ml solution. The author also lists a number of reactions which can be used for the detection of Sn and Pb which act as negative catalysts [inhibitors] in these reaction; reactions for the reduction of a number of

Abs Jour : Ref Zhur - Khimiya, No 2, 1959, 4253

of organic dyes in the presence of metal ion catalysts are also given. The author discusses in detail a limited number of examples of the application of the catalytic method to the quantitative determination (from reaction rate measurements) of metal ions, such as V. The bibliography lists 39 articles. -- I. Krishtofori

BOGNAR, J.; JELLINEK, O.

Modern processes of technical water analysis..p.508

KOHASZATI LAPOK. (Magyar Banyaszati es Kohaszati Egyesult)
Budapest, Hungary
Vol. 13, no.10/11, Oct./Nov. 1958

Monthly List of East European Accessions (EEAI) LC., Vol. 8, no. 7, July 1959
Uncl.

Volumetric Determination of Zinc by Potassium Iron(II) Cyanide With the Use of Reversible Redoxy-Adsorption Indicators

J. Bognár and L. Nagy (Institute of Chemistry II, Technical University of the Heavy Industries, Miskolc)

Received July 18, 1955

Acta Chimica-Academiae Scientiarum Hungaricae
1958, Vol 16, Nr 1, p 1

Distr: 4E4j

SUMMARY

The authors suggest the use of two triarylmethane dyes, xyleneblue VS and patentblue V (azurblue S, respectively), as indicators at the titration of zinc with potassium iron(II) cyanide. These indicators are adsorbed by the surface of precipitates during titration, and reliably indicate end points as redoxy indicators, in the presence of potassium iron(III) cyanide. Iron(III) cyanide, as a solute, proved to be incapable of oxidizing the dyes. Solutions of zinc sulphate or zinc chloride can be titrated directly or by back titration. In the first case, the test solution is heated to 100°, prior to attaining the end point, whereas in the second case a slight excess of standard solution is back titrated at 50—60°. In the presence of ammonium salts, only the latter technique is applicable. Both studied indicators act solely in neutral or slightly acidic solutions.

BOGNAR, J

HUNGARY/Analytical Chemistry. Analysis of Inorganic Substances. E

Abs Jour: Ref Zhur-Khim., No 9, 1959, 31038.

Author : Bognar, J., Sarosi, Sz.
Inst :
Title : The Kinetics of Auto-Oxidation of Iodine in Solutions of Divalent Mercury Salts.

Orig Pub: Acta chim. Acad. scient. hung., 1958, 17, No 1, 1-15.

Abstract: No abstract.

Card : 1/1

103

Distr: 4E2c

3
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22. Mercurimetric Titrations With Oxidation-Reduction Indicators, (1) The Determination of Haloids and Mercury (II) Ions, (2) The Determination of Thiocyanate, Cyanide and Mercury (II) Ions. (In English) J. Bognár, O. Jellinek. Acta Chimica Academiae Scientiarum Hungaricae, Vol. 17, 1958, No. 1, pp. 17-34, 2 figs., 4 tabs.

A new principle is applied for indicating the end point of mercurimetric titrations. The oxidation potential of $[Fe(CN)_6]^{3-}$ ions greatly increases in the presence of mercury (II) ions, thus the end point becomes detectable also by oxidation-reduction indicators, primarily by triaryl methane derivatives. Astra Blue G may be used for titrating chlorides, and the following indicators are suitable bromides: Xylene Blue VS, Patent Blue V, Azure Blue S, Erioglaucine A, p-Xylenolsulphonephthalein, Cyanine B, Eriogreen B, Cyanolecht Green, Brillantfirn Blue, Setopalin concd., Setoglaucine O, Astra Blue G, Xylenecyanol FF and Formyl Violet. The colour changes are distinct even in the presence of very small amounts of potassium-iron (III) cyanide. The new method may also be applied with strongly acidic solutions. Higher concentrations of copper, cobalt, nickel and chromium interfere with the indication of the end point. Titrations may be carried out with 0.1, 0.025 and 0.01—N solutions. Diphenylaminesulphonic acid is recommended for the titration of iodine. Mercury is determined by an indirect method since colour changes of the indicators are less sharp when mercury (II) ions are titrated with

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Mercurimetric Titrations With Oxidation-Reduction Indicators, (1) The Determination of Haloids and Mercury (II) Ions, (2) The Determination of Thiocyanate, Cyanide and Mercury (II) Ions 3/1

thiocyanates. Thus an excess of thiocyanate is added to the solution to be titrated and the excess is back-titrated by a mercury (II) salt solution.

(retyped clipped abstract)
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BOGNAR, J.

HUNGARY / Analytic Chemistry. Analysis of Inorganic Substances. E

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60583.

Author : Janos Bognar.
Inst : -
Title : Mercurymetric Titration with Redox Indicators. II. Determination of Rhodan, Cyan and Bivalent Mercury.

Orig Pub: Magyar kem. folyoirat, 1958, 64, No 1, 37-40.

Abstract: The method of establishing the final point of mercurimetric titration developed in the report I (RZhKhim, 1958, 32163) was applied to the determination of SCN^-, CN^- and Hg^{2+}. For the determination of SCN^-, the indicator (1 drop of 0.02 M

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HUNGARY / Analytic Chemistry. Analysis of Inorganic Substances. E

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60583.

Abstract: $K_3Fe(CN)_6$ + 0.2 ml of 0.1%-ual Xylene Blue VS) is added to 50 ml of the acid (4 to 12 n. according to H_2SO_4) solution to be analyzed, and the solution is titrated with a 0.02 to 0.1 n. $Hg(NO_3)_2$ solution at 20°. At the H_2SO_4 concentration of 4 n., more $K_3Fe(CN)$ should be taken. Co^{2+} (above 450 mg per liter), Ni^{2+} (above 300 mg per liter), NO_3 (above 0.5 n.) and Cu^{2+} interfere. For the determination of Hg^{2+}, and excess of SCN^- is added to the solution to be analyzed, and the excess is determined by reversed titration with $Hg(NO_3)_2$ solution after that. Cyan is determined in the same way as rhodan. The determination error in all these titrations is about 0.2%.

Card 2/2

Distr: 4E3d

Determination of fluorine in cryolite and aluminum fluoride. I. János Hegnár and Lajos Nagy. *Kohászati Lapok* 91, [illegible]. An argentometric method with potentiometric titration was developed to enable detns. which were accurate to within ±0.1% and gave parallel results within 0.3%. Mix a 0.25 g. sample thoroughly with 1 g. quartz powder and 4 g. $KNa(CO_3)_2$ and fuse in a Pt crucible at <700°. When no more CO_2 develops (15–30 min.), cool and suspend in a 300-ml. beaker with 100 ml. hot water. Allow to stand 2 hrs. and filter the suspension into a 250-ml. volumetric flask and fill to the mark. Dil. 50 ml. of the soln. to 100 ml., add *N* HCl until the soln. is red with methyl orange, heat to 70°, and, with stirring, slowly add 100 ml. 1% $PbCl_2$ soln. heated to 70°. Neutralize the soln. contg. the ppt. with 0.2*N* NaOH until the yellow color appears. Let stand 24 hrs., collect the ppt. on a G-3 glass filter, wash 3 times with satd. PbClF soln. (I), and twice with 50% EtOH. Dissolve in 10 ml. 25% HNO_3 in a 200-ml. beaker and titrate potentiometrically with 0.1*N* $AgNO_3$. Prep. I by dilg. 20–5 ml. 1% NaF soln., adding 2.5 g. NaCl, neutralising with *N* HCl, pptg. PbClF with $PbCl_2$, and satg. water with the washed ppt. Electrodes used are AgCl (on a Pt wire sealed in a glass tube deposit Ag from a 5% K Ag cyanide soln. at 5 ma./sq. cm., then, used as an anode, chlorinate it in a *N* HCl soln. at 2 ma./sq. cm.) and a calomel or Cu amalgam (rub the polished end of Cu wire under the surface of dil. HNO_3 with Hg by using absorbent cotton fastened to the end of a glass rod and place it into a glass tube filled with agar jelly made with a 0.1*N* KNO_3 soln.). L. G. Arval

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Determination of fluorine in cryolite and aluminum fluoride. II. János Bognár and Lajos Nagy (Nehézipari Műszaki Egyetem, Miskolc, Hung.). *Kohászati Lapok* 91, 338–40(1958); cf. *CA*, 52, 18073c.—A semimicromethod was developed. Thoroughly mix 0.1 g. sample with 0.3 g. quartz powder and 1.5 g. $KNa(CO_3)$ and fuse in a Pt crucible at 700°. After 15 min., cool and disperse in a 200-ml. beaker in 50 ml. hot H_2O. After standing 2 hrs., filter the suspension into a 250-ml. volumetric flask and fill to the mark. Neutralize 50 ml. of the filtrate in a 200-ml. beaker with HCl until red with methyl orange indicator. Heat to 70° and, under stirring, slowly add 50 ml. 1% $PbCl_2$ soln. heated to 70°. Neutralize the soln. contg. the ppt. with 0.2*N* NaOH until the yellow color appears. Allow to stand 24 hrs., collect the ppt. on a G-3 glass filter, wash 3 times with 10 ml. each satd. $PbCl_2$ soln. and twice with 10 ml. each 50% EtOH. Dissolve in 5 ml. hot 25% HNO_3 and titrate potentiometrically with 0.1*N* $AgNO_3$ soln. with a calomel electrode. This method is accurate to within 0.07% with a standard deviation of ±0.011 ml. An alternative procedure with mercurimetric titration was also developed. Ppt. the PbClF and wash it as in the 1st method. Dissolve the ppt. in 5 ml. hot 4.0*N* NaOH soln. (owing to the formation of a basic Pb salt the soln. will assume a temporary brown-red color at this stage). Under cooling add 10 ml. 1.84 sp. gr. H_2SO_4, 1 drop $K_4Fe(CN)_6$ soln., and 0.3 ml. indicator (0.1% Setoglaucine O or 0.1% Astra Blue G soln.). Titrate with a 0.1*N* $Hg(NO_3)_2$ soln. until the greenish yellow color changes to a carnation red shade. As the color change is slow, although very sharp, the last drops must be added slowly. Undue dilu. of the soln. (rinsing of the filter, etc.) must be avoided. One ml. 0.1*N* $Hg(NO_3)_2$ soln. equals 0.0019 g. F. L. G. Arvai

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BOGNÁR J

25. Indirect mercurimetric determination of cadmium, cobalt, nickel and zinc with the use of their pyridine-thiocyanate complexes. (In German.) J. Bognár, Sz. Sárosi. *Acta Chimica Academiae Scientiarum Hungaricae*, Vol. IV, 1959, No. 1, pp. 41–49

The mercurimetric method of determining thiocyanates by Bognár's method evolved some time ago has been applied for the indirect determination of cadmium, cobalt, nickel and zinc making use of the pyridine-thiocyanate complexes of the metals. The general composition of the precipitate formed may be described by formula $[Me(Py)_{2-4}(SCN)_2]$. This precipitate is dissolved in sulphuric acid and the thiocyanate ions are titrated by means of standard mercury(II) nitrate solution in the presence of potassium iron(II)cyanide and a suitable oxidation-reduction indicator (such as Xylene Blue VS). The method is simple and rapid, a determination taking 20–25 min.

BOGNAR, J.

Analytic-chemical investigations in ultra-violet light. II. Some new fluorescent-adsorption indicators. In German, p. 103

ACTA CHIMICA. Budapest, Hungary, Vol. 20, No. 4, 1959

Monthly List of East European Accessiosn (EEAI) LC, Vol. 9, No. 2, Feb. 1960
Uncl.

BOGNAR, Janos; SAROSI, Szilvia

Mercurimetric indirect determination of cadmium, cobalt, nickel and zinc by means of their pyridine-rhodanide complexes. Magy kem folyoir 65 no.1:28-30 Ja '59.

1. Nehezipari Muszaki Egyetem II. szamu Kemiai Tanszeke, Miskolc.