RUMANIA/Analytical Chemistry - Organic Analysis. E

Abs Jour : Ref Zhur Khimiya, No 20, 1959, 71280

solution of I (0.1 - 0.3% I); III is added to a volume of 10 ml and the absorbancy is measured using Pulfrich's photometer with the filter S42, S43, or S47. The presence of m-aminophenol (an impurity in I) and the hydrazide of isonicotinic acid phthyvazide do not interfere with the determination of I. -- B. Manole

Card 2/2

E

Country : RUMANIA
Category: Analytical Chemistry. Analysis of Inorganic Substances

Abs Jour: RZhKhim., No 17, 1959, No. 60544

Author : Constantinescu, D.G.; Bajulescu, G.; Oteleanu R.
Inst : -
Title : New Photometrical Determination Method for the Trivalent Antimony in the Presence of Trivalent Arsenic

Orig Pub: Studii si cercetari chim. Acad. RPR, 1958, 6, No 3, 438-444

Abstract: It has been established that in the interaction of Sb^{3+} with quercetin in a methanol medium at pH of approx. 4.5 a yellow coloration is develo-

Card : 1/3

ped with the maximum intensity at 420 mμ. The Berg's law is followed at a Sb concentration of 1.37 - 10.98 γ /ml. The presence of As^{3+} in a solution up to a ratio of Sb:As = 1:6 does not interfere with the Sb determination. For the microdetermination of Sb^{3+}, to a volume of 0.5-4 ml of a methanol solution of $SbCl_3$(+$AsCl_3$) are added 1 ml of a buffer solution (150 gr CH_3COONa, 150 ml glacial CH_3COOH and 250 ml water) and 2 ml of 0.05% methanol solution of quercetin, diluted then with methanol up to 10ml and subjected to a photometric test using S 42

BAIULESCU, G.; NEGOIU, D.; POPA, G.

Colorimetric determination of Pd(II) in the presence of Pt(IV). p. 73.

STUDII SI CERCETARI DE CHIMIE. Bucresti, Rumania.
Vol. 7, no. 1, 1959.

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

Uncl.

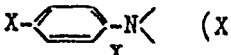
5(2) SOV/75-14-3-12/29

AUTHORS: Popa, G., Negoiu, D., Baiulescu, G.

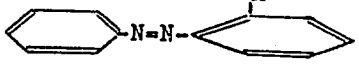
TITLE: On the Problem of Functional-analytical Grouping for Palladium (K voprosu o funktsional'no-analiticheskikh gruppirovkakh na palladiy)

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 3, pp 322-330 (USSR)

ABSTRACT: The purpose of the investigation was a) the detection of a more general functional group for Pd than that given by L. M. Kul'berg (Ref 3), and b) to devise a sensitive photometric method of palladium determination also in the presence of platinum. As functional groups the following are given (Table 1)



(X = -NO or -N=N-) and



(X = -OH or -COOH). For the photometric determination of palladium 22 organic dyes were investigated (Table 2) and from among them benzyl orange, methyl orange, "Magnezone 1" (2,4-oxy-4'-nitroazobenzene)

Card 1/2

On the Problem of Functional-analytical Grouping for Palladium

and methyl red were chosen (Table 3). Finally, by a comparison of the light absorption spectra methyl red was found to be the best reagent which was used for the determination of palladium in the presence of platinum at a ratio of Pd : Pt = 1 : 14. There are 3 figures, 7 tables, and 3 references, 1 of which is Soviet.

ASSOCIATION: Parhon State University, Bucharest, Rumania

SUBMITTED: March 18, 1958

BAIULESCU, Gh.

Tartrazine. A new selective reagent for zirconium. Gh. Baiulescu and L. Turcu (Univ. I. C. Parhon, Bucharest, Romania). *Anal. Chim. Acta* 21, 33–5(1959)(in English).—A method is proposed for Zr with tartrazine as the pptg. agent, filtering, drying and either igniting the ppt. to ZrO_2 and weighing, or weighing the complex directly. A 2% soln. of tartrazine in H_2O is added dropwise to an acid soln. of Zr(IV) until pptn. is complete. The factor given for conversion of the complex is 0.02653. The reagent appears to be very selective. R. B. Bradstreet.

COUNTRY : GDR E-2
CATEGORY : Analytical Chemistry--Analysis of Inorganic Substances.
ABS. JOUR. : RZKhim., No. 16 1959, No. 56870

AUTHOR : Baiulescu, C. and Ciurea, C. I.
INST. : Not given
TITLE : Contribution to the Study of Analytic Functional Groups for Uranium (VI)

ORIG. PUB. : Z analyt Chem, 166, No 1, 5-10 (1959)

ABSTRACT : The authors have investigated color reactions of UO_2^{2+} with Na salts of the following acids: p-aminosalicylic (I), p-nitrobenzeneazosalicylic (Alizarin Yellow P) (II), m-nitrobenzeneazosalicylic (Alizarin Yellow GG) (III), and azodisalicylic (IV). The latter reagent is synthesized by coupling diazotized I with salicylic acid. UO_2^{2+} gives orange yellow colors with I and II; with III a yellow color is obtained, whereas with IV the color is brown. I, II, and III can be used in

CARD: 1/4

E-2

COUNTRY :GDR
CATEGORY :

ABS. JOUR. : RZKhim., No. 16 1959, No. 56870

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT :the photometric determination of UO_2^{2+}; the complexes formed by UO_2^{2+} with all three reagents absorb in the same region of the spectrum (436-496 mμ). When I is used, the photometric determination is carried out at pH 5.5-6 and at 436-496 mμ ; when II and III are used, the determination is made at pH 5.2-7.5 and at 496-533 mμ (under selected conditions the absorption in the 436-496 mμ region is very strong [sic]). 34.5-414, 6.9-69, and 6.9-82.8 gammas/liter can

CARD: 2/4

E-2

COUNTRY : GDR
CATEGORY :

ABS. JOUR. : RZKhim., No. 16 1959, No. 56870

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : be determined with I, II, and III, respectively. The reaction is carried out in aqueous ethanol; 2 ml of 1% aqueous I and 3 ml each of 0.1% aqueous II and III are added to a total volume of 10 ml of solution to be analyzed. Tables and graphs of the absorption are given together with the corresponding calibration curves. The group $-(X)C-(C)_n-C(Y)-$, where X = OH, COH, =O (double bond outside the ring), and Y = OH, SH (N = 0 or 1) is noted as a functional group for UO_2^{2+}.

CARD: 3/4

COUNTRY : GDR
CATEGORY :

ABS. JOUR. : RZKhim., No. 16 1959, No. 56870

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : The substitution of SH for OH leads to an increase in the intensity of the color of the UO_2^{2+} complexes.

V. Luk'yanov

CARD: 4/4

07

BAIULESCU, Gh.

5

Colorimetric determination of cerium(IV) in the presence of iron(III) and lanthanum(III) with *o*-dianisidine. G. Popa, D. Negoiu, and Gh. Baiulescu (Univ. C. I. Parhon, Bucharest, Romania). ~~Z. anal. Chem.~~ 167, 329-31(1959). —To up to 8 ml. of 20% H_2SO_4 contg. up to 100 γ Ce^{++} add 2 ml. 0.05% alc. *o*-dianisidine, dil. to 10 ml. with 20% H_2SO_4, and measure at 469 mμ. If Fe^{+++} is present, include 1 ml. concd. H_3PO_4. La^{+++}, Pr^{+++}, Nd^{+++}, and Er^{+++} do not interfere. K. G. Stone

BAIULESCU, G.

1

"Study of the complexes formed by some flavones with gallium(III) and antimony(III) [illegible] P. Orcleanu, and G. Baiulescu. *Acad. rep. populare Romine, Filiala Iasi, Studii Cercetari stiint. Chim.* 8, 89-100(1957).--Compds. of [illegible] quercetol (II), 5-hydroxy-3',3,4'-tetramethylquercetol (III) and 3-hydroxy-5',7,3',4'-tetramethoxyquercetol (IV) were examd. Tervalent Ga, in weak HOAc soln., formed yellow complexes with flavones having a free OH group in the position ortho or para with respect to the CO group. The Ga complexes of the [illegible] were fluorescent and provided a sensitive test [illegible] their 3-glycosides [illegible] colored complexes only when the free OH group was in the 3-position, i.e., with flavonols. With the exception of the Ga-IV compd., these complexes obeyed the Beer-Lambert law. I, II, III, and IV were very sensitive reagents for the detection of Ga^{3+}, and II and IV for Sb^{3+}. From *Anal. Abstr.* 6, Abstr. No. 488(1959).

K

S/081/62/000/017/032/102
B162/B101

AUTHORS: Popa, Gr., Negoiu, D., Baiulescu, Gh., Lerch, R.

TITLE: Gravimetric determination of trivalent indium by means of quinaldic acid

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 127, abstract 17D49 (An. Univ. "C.I. Parhon". Ser. ştiinţ. natur., v. 9, no. 26, 1960, 85-88 [Rum.; summaries in Rus. and Ger.])

TEXT: It is established, that quinaldic acid (I) precipitates quantitatively In^{3+} in the form of a white crystalline sediment of the composition $In(C_{10}H_6O_2N)_2OH$, which is suitable for gravimetric determination of In. The sample analyzed (0.0011-0.0112 In) is dissolved in HNO_3, the solution is evaporated to dryness, 2.5 ml HNO_3 is added to the residue, diluted with water to 250 ml and in an aliquot batch of the solution obtained, In^{3+} is precipitated at 80-100°C with an 1% aqueous solution of I after adding a small quantity of CH_3COONa. The precipitate is filtered off, washed with

Card 1/2

Gravimetric determination of...

warm water and dried at 110°C. The conversion factor is 0.2410. Error ≤1.5%. The method is also applicable to microdetection of In. Based on the investigation of the solubility of In and Zn quinaldates, it is concluded, that the change in H^+ concentration does not permit separation of these two elements by means of I. [Abstracter's note: Complete translation.]

S/081/62/000/017/031/102
B162/B101

AUTHORS: Popa, Gr., Negoiu, D., Baiulescu, G.

TITLE: Photometric detection of trivalent gold by means of anthranilic acid

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 125, abstract 17D39 (An. Univ. "C.I. Parhon". Ser. stiint. natur., v. 9, no. 26, 1960, 99-102 [Rum.; summaries in Rus. and Ger.])

TEXT: Investigations are made of color reactions of Au^{3+} with anthranilic acid (I) and with two of its derivatives: dibromo anthranilic (II) and 4-nitroanthranilic acids (III). The best results are obtained by using I. II and III are less sensitive and the colored solutions obtained are insufficiently stable. The maximum light absorption of the Au^{3+} complex with I is found at 533 mμ (filter S_{53}), the optimum pH value is 3-4.5. The Beer rule is valid at Au concentrations from 6.84 to 82.12 γ/ml. Addition of pyridine does not much affect the absorption. To determine Au, 2 ml of 1% ethanolic solution of I, containing 1% by volume pyridine,

Card 1/2

Photometric detection of trivalent...

is added to the solution analyzed which is then diluted by ethanol to 10 ml and photometrically measured, using the solution of the checking experiment as a reference solution. [Abstracter's note: Complete translation.]

Card 2/2

BAIULESCU, Gh.; KRIZA, A.

Gravimetric determination of Zr(IV) with Orange II. Studii cerc chim 8 no.3:541-543 '60. (EEAI 10:9)

1. Laboratorul de chimie anorganica si analitica al Facultatii de chimie, Universitatea "C. I. Parhon", Bucuresti.

(Zirconium) (Hydroxynaphthylazobenzenesulfonic acid sodium salt)

POPA, Gr.; NEGOIU, D.; LUCA, C.; BAIULESCU, Gh.

Spectrophotometric study of the complex combination of Ga(III) with quercitin (i.e., quercetin). Rev chimie 6 no.1:87-94 '61.

1. Analytical Chemistry Laboratory, Section of Chemistry, "C. I. Parhon" University, Bucharest.

POPA, Gr.; PARALESCU, I.; BAIULESCU, Gh.

Spectrophotometric studies on the complex Pd(II) with chromotrope 2R. Studii cerc chim 9 no.1:85-92 '61. (EEAI 10:9)

1. Laboratorul de chimie analitica, Facultatea de chimie, Universitatea "C. I. Parhon", Bucuresti.

(Spectrophotometry) (Palladium) (Chromotrope 2R)

POPA, Gr.; BAIULESCU, Gh.; CRUCERU, D.; LERCH, R.

Gravimetric determination of Zr (IV) with flavazine L. Studii cerc chim 9 no.4:625-628 '61.

1. Universitatea "C.I.Parhon", Facultatea de chimie, Laboratorul de chimie analitica, Bucuresti.

POPA, Gr.; BAIULESCU, Gh.; COSTACHE, D.

Gravimetric determination of zirconium (IV) with ponceau R. Studii cer chim 10 no.1:113-116 '62.

1. Catedra de chimie analitica, Facultatea de chimie, Universitatea din Bucuresti.

POPA, Gr.; BAIULESCU, Gh.; ILIESCU, V.

Gravimetric determination of Th (IV) with Orange II. Studii cerc chim 10 no.3/4:367-370 '62.

1. Laboratorul de chimie analitica al Facultatii de chimie Universitatea din Bucuresti.

POPA, Gr.; BAIULESCU, Gh.; BARBULESCU, N.; ILIE, V.A..

The Be (II) colorimetric determination. Studii cerc chim 11 no.2: 291-296 '63.

1. Catedra de chimie analitica a Facultatii de chimie a Universitatii din Bucuresti.

POPA, Gr.; BAIULESCU, Gh.; MOLDOVEANU, S.

Amperemetric determination of the Hf(IV) with tartrazine and flavazine L (free acid). Studii cerc chim 11 no.2:287-290 '63.

1. Catedra de chimie analitica a Facultatii de chimie a Universitatii din Bucuresti.

POPA, Gr.; BAIULESCU, Gh.; MOLDOVEANU, S.

Gravimetric analysis of Zr (IV) with p-nitrobenzol-azosalicylic acid (PNBAS). Rev chimie 7 no. 1: 375-380 '62.

1. Lehrstuhl fur analytische Chemie, Fakultat fur Chemie, Universitat Bukarest.

POPA, Gr.; RAIUL SCU, Gh.; STOICHITOIU, Lucia

Colorimetric determination of Pd (II) in the presence of Pt (IV). Studii cerc chim 13 no.8/9:601-605 Ag-S '64.

1. Chair of Analytical Chemistry of the Faculty of Chemistry of the University of Bucharest, 89 Splaiul Independentei.

L 38294-66 EWP(j) RM/DS

ACC NR: AP6029172 SOURCE CODE: RU/0003/66/017/002/0103/0103

AUTHOR: Popa, Gr.; Baiulescu, Gh.; Moldoveanu, S.

ORG: none

TITLE: Zirconyl hexahydroxoantimoniate - a new inorganic ion exchanger

SOURCE: Revista de chimie, v. 17, no. 2, 1966, 103

TOPIC TAGS: ion exchange, heat resistance, irradiation resistance

ABSTRACT: The authors describe a new inorganic ion exchanger with a marked stability in regard to high temperature and radioactive radiations. The exchange capacity of zirconyl hexahydroxoantimoniate was found to be 0.36 mval of Rb per gram and 0.3 mval of Cs per gram; the rubidium and cesium were eluted from the column by a hydrochloric acid solution at a pH of 2.5. Orig. art. has: 3 figures. [Based on authors' Eng. abst.] [JPRS: 36,556]

SUB CODE: 07 / SUBM DATE: none / OTH REF: 003

Card 1/1 UDC: 661.183.12:546.856-33.831.4

BALASZ, EORS

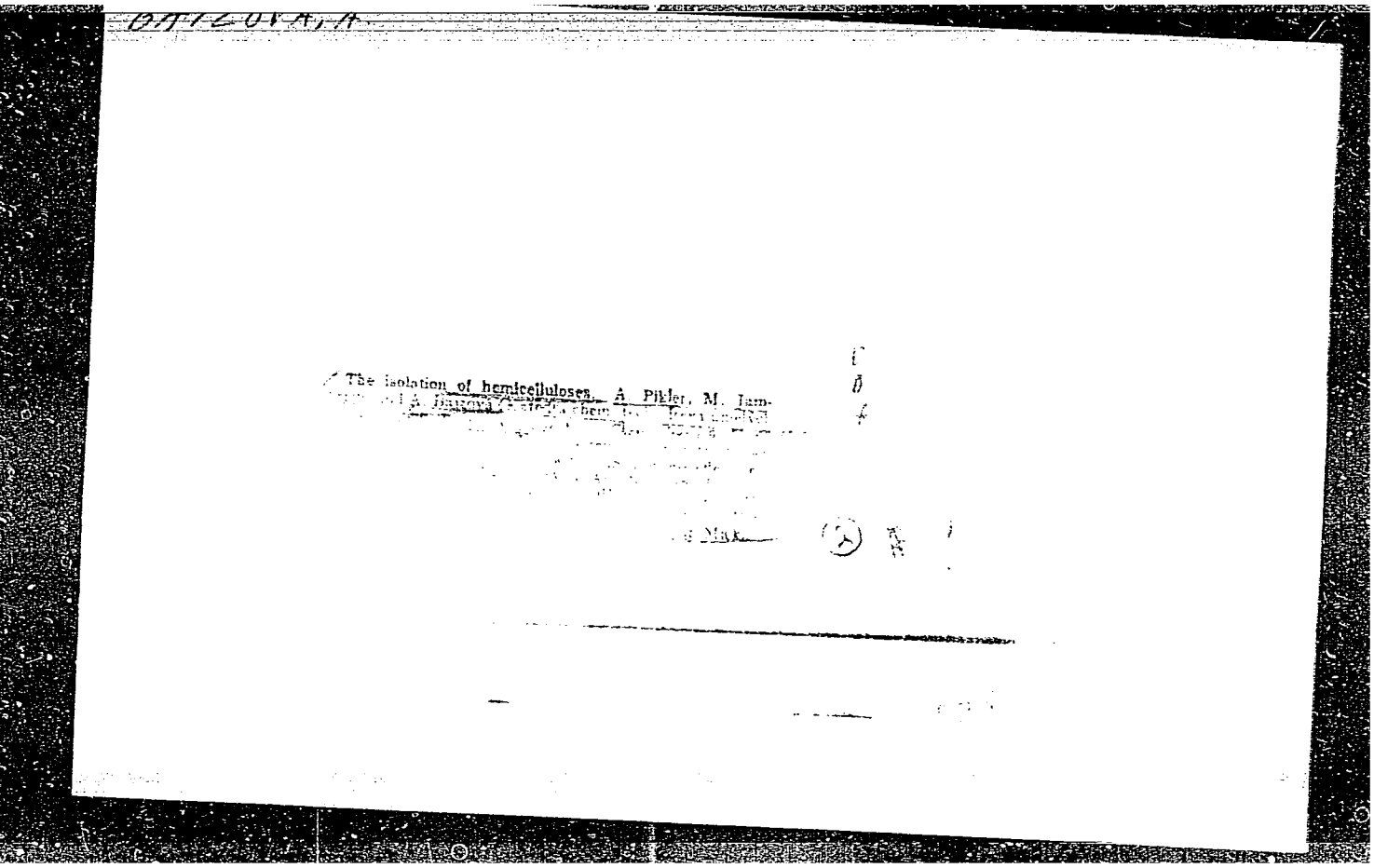
New biological method for determining posthypophyseal antidiuretic hormone Eörs Balász (Lab. Fachartzlich. Inst., Budapest: *Folia Endocrinol.* (Pisa) [illegible] (in German). The technique is based on the fact that animals can be made sensitive to small hormone doses by repeated water administration by mouth. The hormone is administered intravenously, and its effect is revealed better by the increase of Cl concn. in urine than by diuresis decrease. Amts. as low as [illegible] milliunit [illegible] can be detd. — [illegible]

BAIYASNYY, M.M.

Characteristics of brachial arterial pressure in hypertension and in various patients with hemiplegia; problem of regional hypertension. Sov. med. 20 no.3:37-41 Mr. '56 (MLRA 9:6)

1. Iz klinicheskogo otdeleniya nervnykh bolezney (zav.-prof. G.D. Leshchenko) Khar'kovskoy oblastnoy klinicheskoy bol'nitsy (glavnyy vrach M.F. Shevchenko)

(HEMIPLEGIA, physiology,
brachial arterial pressure in hypertension & hemiplegia (Rus))
(HYPERTENSION, physiology,
same)
(BLOOD PRESSURE,
brachial arterial in hemiplegia & hypertension (Rus))



The isolation of hemicelluloses. A. Pikler, M. Jam-

BAJ, Kazimierz; JAGODZINSKI, Janusz; MIERZWINSKI, Tadeusz; NAUMAN, Aleksander

Physical exercise as a factor in the rehabilitation of patients with pulmonary tuberculosis. (Preliminary communication). Gruzlica 29 no.4: 373-380 Ap '61.

1. Z Sanatorium Rehabilitacyjnego im. H. Sawickiej w Otwocku Dyrektor doc. dr med. A. Nauman.

(TUBERCULOSIS PULMONARY rehabil)
(EXERCISE THERAPY)

SZYMEZYK, Wislawa; KOLODZIEJSKA, Hanna; BAJ, Mieczyslaw

Interstitial radium therapy of labial cancer. Nowotwory 13 no.1:75-81 '63.

1. Z Instytutu Onkologii w Krakowie Dyrektor: doc. dr med. H. Kolodziejska.
(LIP NEOPLASMS) (RADIUM)
(NEOPLASM RADIOTHERAPY)

8(6)

YUG/3-59-1-16/26

AUTHOR: Bajagić, Mirko, Engineer

TITLE: In Memoriam

PERIODICAL: Elektroprivreda, 1959, Nr 1, p 40 (YUG)

ABSTRACT: This is an obituary of Vladimir Kubal, mechanic and Director of the Termoelektrana (Thermal Power Plant) in Pljevlja. There is 1 photo.

Card 1/1

Country : HUNGARY
Category: Cultivated Plants. Fodders. M

Abs Jour: RZhBiol., No 11, 1958, No 48994

Author : Bajai, Jenő
Inst : Sci. Res. Inst. of Agriculture, AS Hungary
Title : Data on Growing Common and Sweet Sudan Grass.

Orig Pub: Növenytermeles, 1956, 5, No 4, 349-354

Abstract: The Scientific Research Institute of Agriculture of the Academy of Sciences of Hungary (Martonvasar) discovered during 1955-1956 that the productivity of the common Sudan grass at mowing time before the appearance of awns was 10% less than the productivity of the sweet Sudan grass, and it was 15% less after the appearance of awns. In both varieties the yield was higher with mowing before the appearance

Card : 1/2

Country : HUNGARY
Category: Cultivated Plants. Fodders. M

Abs Jour: RZhBiol., No 11, 1958, No 48964

of awns than with mowing after the appearance of awns. With row method of sowing in narrow rows, the productivity of the aftermath with early mowing was 173.5% of the productivity of the first cutting, and with wide-row sowing its productivity was 221% of the first mowing. With mowing after the appearance of awns the productivity of the aftermath comprised respectively 46.6 and 62.7% of the productivity of the first mowing. For green feed, it is recommended that one mow before the appearance of awns and for ensilage - immediately after the appearance of awns.
I.K. Fortunatov

Card : 2/2

BAJAI, J.; BELAK, S.; MIHALYIL.

When should we reap rough fodder? p. 435
(Magyar Mezogazdasag. Vol. 9, no. 4, 1957. Hungary)

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

HUNGARY/Cultivated Plants - Grains. II-4

Abs Jour : Ref Zhur - Biol., No 9, 1958, 39194

Author : Bajai, J., Kukedi, E.
Inst :
Title : Spring Care and Fertilization of Winter Wheat.

Orig Pub : Magyar mezogozd., 1957, 12, No 3, 8-9.

Abstract : No abstract.

Card 1/1

HUNGARY / Cultivated Plants. Fodder Crops. M-5

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58635

Author : Bajai, Jeno
Inst : Not given
Title : Cultivation of Fodder Sorghum and Other Native Fodder Crops (II)

Orig Pub : Magyar mezögazd., 1957, 12, No 7, 12-13

Abstract : No abstract given

Card 1/1

HUNGARY/Cultivated Plants - Fodders. M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82411

Author : Bajai, Jeno
Inst :
Title : Growing Fodder Sorgo and Other Native Fodder Crops (III).

Orig Pub : Magyar mezogazd., 1957, 12, No 10, 14-15

Abstract : Detailed agrotechniques of growing sugar and grain sorghum and also their utilization are set forth.

Card 1/1

BAJAI, J.

Growing and feeding experiments with sweet Sudan grass on the state farms in Tolna County (Fornad, Alsopel) in 1958. Acta agronom Hung 10 no.1/2:1-40 '60. (EEAI 9:12)

1. Sel'skokhozyaystvennyy issledovatel'skiy institut Akademii nauk Vengrii, Martonvashar.
(Sudan grass)

BAJAI, J.

The importance of sorghums grown for stock food in the forage production of Hungary. Acta agronom Hung 10 no.3/4:345-408 '60.
(EEAI 10:6)

1. Agricultural Research Institute of the Hungarian Academy of Sciences, Martonvasar.
(Hungary--Feeds) (Hungary--Sorghum)

BAJAKI, Laszlo, tudomanyos fomunkatars

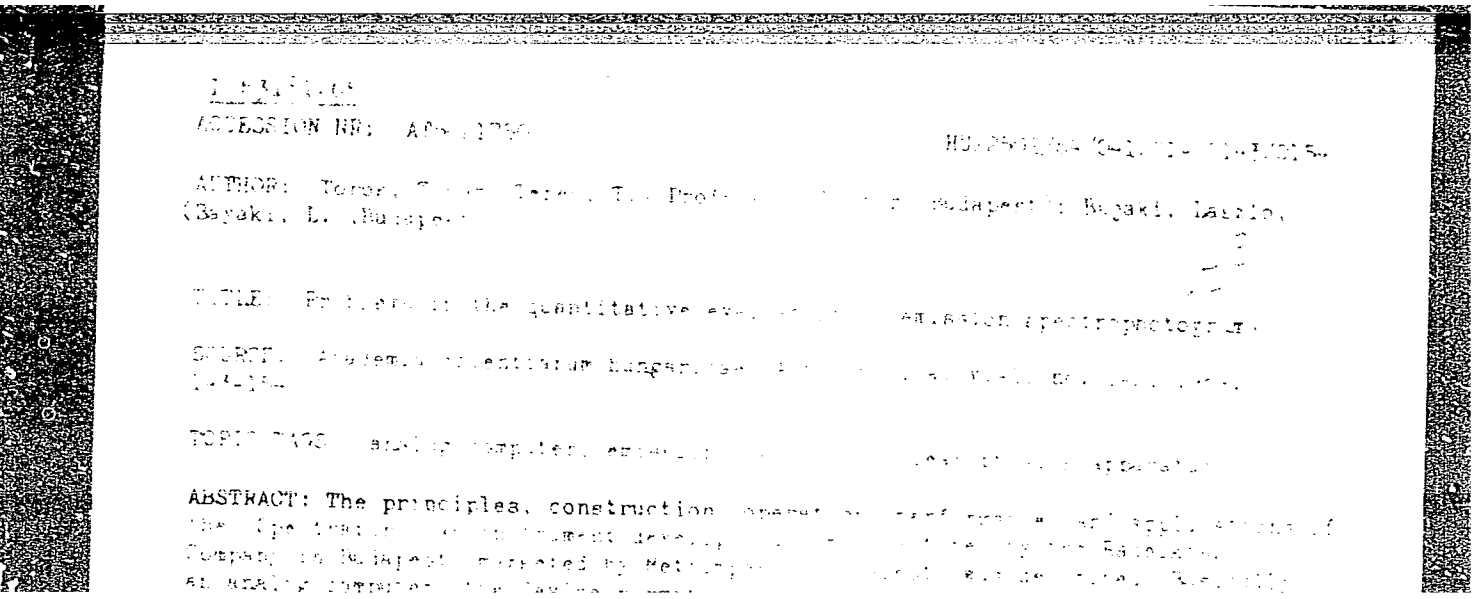
Expediency in the selection of automation installations.
Meres automat 11 no.11:331-335 '63.

1. Magyar Tudomanyos Akademia Automatizalasi Kutato Laboratoriuma.

BAJAKI, Laszlo, elektromernok

Switching operation of transistors. Meres automat 8 no.4:117-123 '60.

1. A Magyar Tudomanyos Akademia Autako Laborratorium tudomanyos munkatarsa.



ACCESSION NR:

AUTHOR: (Bayaki, L.

TITLE:

SOURCE:

TOPIC TAGS:

ABSTRACT: The principles, construction

Eotvos University, Forschungslaboratorium fur Automatisierung der Ungarischen Akademie der Wissenschaften, Budapest

BAJALICA, D.

Yugoslavia (430)

Agriculture - Plant and Animal Industry

Five years of working peasant cooperatives.
p. 1. SOCIALISTICKA POLJOPRIVREDA, Vol. 2,
no. 2, February 1951.

East European Accessions List, Library of Congress,
Vol. 1, no. 14, Dec. 1952. UNCLASSIFIED

BAJALICA, D.

Yugoslavia (430)

Agriculture - Plant and Animal Industry

Some problems hindering further strengething of agricultural cooperatives. p. 1. SOCIALISTICKA POLJOPRIVREDA, Vol. 2, no. 5, May 1951.

East European Accessions List, Library of Congress Vol. 1, no. 14, Dec. 1952. UNCLASSIFIED

BAJALICA, D.

"Crediting of agricultural cooperatives," p. 36 (SOCIALISTICKA POLJOPRIVREDA, VOL. 4, no. 2/3, Feb./Mar. 1953 Beograd, Yugoslavia)

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

BAJALOVIC, I.

6
2

V 1065. **Coulometric determination of quinol with iodine.** I. Bajalović and K. Nikolić (Inst. Phys. Chem., Belgrade, Yugoslavia). *Bull. Soc. Chim. Belgrade*, 1955, 20 (5), 329–333.—Quinol is determined coulometrically with electrolytically generated iodine. The iodine is liberated at a platinum anode immersed in a stirred 1 per cent. soln. of KI, containing a phosphate buffer to maintain a pH of 8. The cathodic compartment, containing aq. KCl, is separated from the anolyte by an agar - KCl plug. Voltages of ≃ 3 V and currents of ≃ 15 mA are used.

A. B. DENSHAM

BAJALOVIC, I. ; NIKOLIC, K.

BAJALOVIC, I. ; NIKOLIC, K. Colorimetric determination of hydroquinone with iodine. p. 329.

Vol. 20, no. 5, 1955
GLASNIK
Beograd, Yugoslavia

So: Eastern European Accession Vol. 5 No. 4 April 1956

BAJALOVIC, I.

1

3

The equation of a nonlinear potential distribution in electrolytes during electrolysis. Ivan Bajalović (Inst. Phys. Chem. Beograd, Yugoslavia). *Glasnik Shumarskog Fak., Univ. Beogradu* 22, 423-30(1957)(in English).—Assuming that the establishment of an elec. field for reversible electrolytic systems is essentially the case of an ideal conductive system without polarization caused by the operating conditions, the equation of potential distribution becomes: $E_m = C + A \ln(l_1/l_2) + V_p$, where E_m is the potential at any point between the electrodes, l_1 and l_2 are the distances of the point from the electrodes, and V_p is a polarization term depending on the nature of the electrode system and the c.d. at the electrodes, but not on geometrical factors; A and C are consts. For a point at a distance x from the midpoint between the electrodes separated by the distance L, $E_m = C + A \ln (L + 2x)/(L - 2x)$ and $V_p = ax + c$, where a and c are consts., and by letting $x = 0$, C = e.m.f./2. Since the potential gradient decreases as L increases and as the e.m.f. decreases, $A = B$(e.m.f.), so that $E_m = (\text{e.m.f.})\{1/2 + B \log(l_1/l_2)\} + V_p$, enabling the polarization to be detd. by measuring potential at one point if the applied e.m.f. is known. The value of A was detd. by measuring potentials at various locations in a thin Ag layer on a glass mirror of 500 mm. diam., with a Ag wire probing electrode, the cathode being considered at zero potential. An e.m.f. of 1243 mv. was applied through electrodes attached at diametrically opposite locations. At the midpoint, $A = 196.2$, $B = 0.1578$. A was also detd. in 0.01 M $AgNO_3$ soln. between unpolarized electrodes with a Ag wire probe along a line across which an e.m.f. of 1095 mv. was applied. Thirteen detns. yielded an av. value of $A = 175.4$.

Thomas A. Wilson

BAJALOVIC, Ivan; PAJEVIC, Milan

Distribution of potentials in galvanic-cell electrolytes. Gl.hem.dr. 23/24 no.1/2:7-10 '58/59. (EEAI 9:5)

1. Faculty of Pharmacy, Institute for Physical Chemistry, Beograd.
(Electrolytes) (Electric batteries) (Electric potential)

BAJAN, A.

1096. AN EPIDEMIC OF GASTROENTERITIS CAUSED BY SALMONELLA BRANDENBURG - Infekčné ochorenia v priebehu detskej tuberkulózy - Bajan A. and Thurzová M. Detského Tbc Odd. DFN, Bratislava - LEK. OBZOR 1957, 6/1(48-52) Tables 3

The epidemic (55 cases) was caused by smoked mackerel. The first signs appeared 4-18 hr. after the meal. A child aged 20 months suffered a double intestinal perforation (sigmoid colon and coecum) followed by peritonitis and death. Another child (6 yr.) also died after a long illness from adrenal insufficiency. The infection may have come from the fish (caught in coastal waters) or from the ice in which they were packed. An important feature was the long period of illness and the occurrence of relapses as long as 6-8 weeks after the first attack.

Prochazka - Prague (L, 7, 17)

[redacted], Given Names

Country: Czechoslovakia

Academic Degrees:

Affiliation: Chair of Phthisiology (Ftiseologicka katedra) of the SUDL [Slovensky ustav pre doskolovania lekarov; Slovak Institute for Postgraduate Medical Training] in Podunajske Biskupice. Chief: K. VIRSIK, MD.

Source: Bratislava, Lekarsky Obzor, No 5, 61, pp 289-293

Data: "The Present State and Problems of Tuberculin Tests"

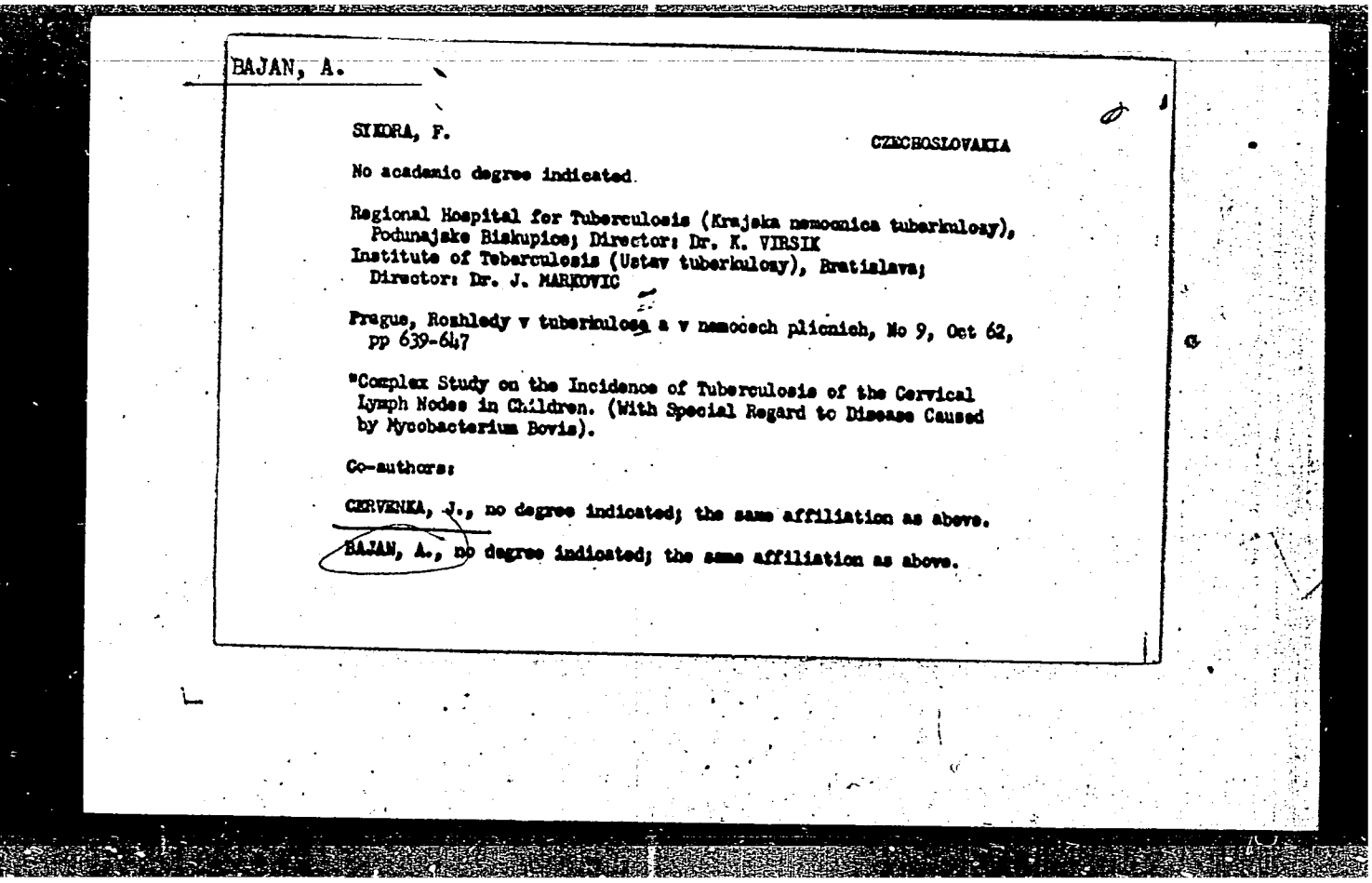
BAJAN, A.; SCHWARTZ, E. CSSR

Phtisiological dept. of the Slovak Institute for Graduate Medicine (Fisiologicka katedra Slovenskeho ustavu pre doskolovanie lekarov), Podunajske Biskupcie; director: K. Virsik, MD

Bratislava, Bratislavske Lekarske Listy, No 5, 1963, pp 276-281

"The Importance of the Haemagglutination and Haemolysis Reaction of Middlebrook-Dubos for the Diagnosis of Infantile Tuberculosis"

(2)



BAJAN, A.

SIKORA, F. CZECHOSLOVAKIA

No academic degree indicated.

Regional Hospital for Tuberculosis (Krajska nemocnica tuberkulozy), Podunajske Biskupice; Director: Dr. K. VIRSIK
Institute of Teberculosis (Ustav tuberkulozy), Bratislava; Director: Dr. J. MARKOVIC

Prague, Rozhledy v tuberkulose a v nemocech plicnich, No 9, Oct 62, pp 639-647

"Complex Study on the Incidence of Tuberculosis of the Cervical Lymph Nodes in Children. (With Special Regard to Disease Caused by Mycobacterium Bovis).

Co-authors:

CERVENKA, J., no degree indicated; the same affiliation as above.

BAJAN, A., no degree indicated; the same affiliation as above.

BAJAN, A; SÝKORA, F; NEVICKÁ, E.

(2)

Czechoslovakia

Phthiseological Chair of SUDL and the Kraj Tuberculosis Hospital -- Podunajski Biskupici (Ftizeologicki katedra SUDL a nemocnice tuberkulózy v Podunajských Biskupiciach); Director: K. VIRSÍK, MD. - (for all)

Bratislava
~~Prague~~, Lekársky Obzor, No 11, 1962, pp 623-625

"Chemoprophylaxis of Tuberculosis."

CZECHOSLOVAKIA

BAJAN, A; POZDECHOVA, E; SCHWARTZ, E.

Phthisiological Chair of SUDL (Ftizeologicka katedra SUDL), Pod. Biskupici (for all)

Prague, Rozhledy v tuberkulose, No 10, 1963, pp 691-696

"The Value of Some Laboratory Investigations Used in the Diagnosis of Childhood Tuberculosis."

BAJAN, A.; SCHWARTZ, E.

Importance of the Middlebrook-Dubos hemagglutination and hemolysis reaction in the diagnosis of tuberculosis in childhood. Bratisl. lek. listy 43 Pt. 1 no.5:276-281 '63.

1. Ftizeologicka katedra Slovenskeho ustavu pre doskolovanie lekarov v Podunajskych Biskupiciach, veduci MUDr. K. Virsik.
(TUBERCULOSIS IN CHILDHOOD) (BCG VACCINATION)
(TUBERCULOSIS, PULMONARY) (HEMAGGLUTINATION)
(HEMOLYSIS) (DIAGNOSIS, DIFFERENTIAL)
(CHILD) (INFANT)

VIRSIK, K.; BAJAN, A.; LIBIK, D.; LITOMERICKY, S.; VAGAC, M.; KOKOLEVSKA, A.

Results of tuberculin screening tests in pregnant women. Bratisl. lek. listy 43 Pt. 2 no.6:313-317 '63.

1. Ftizeologicka katedra SUDL v Pod. Biskupiciach, riaditel MUDr. K. Virsik.

(TUBERCULIN REACTION) (TUBERCULOSIS)
(PREGNANCY COMPL, INFECTIOUS)

MAAR, D.; SCHWARTZ, E.; BAJAN, A.

Experiences with the Middlebrook-Dubos reaction in the diagnosis of osteoarticular tuberculosis. Bratisl. lek. list. 43 Pt. 2 no.6:343-346 '63.

1. Krajska nemocnica tuberkulozy a chorob plucnych v Pod. Biskupiciach, riaditel MUDr. K. Virsik.
(TUBERCULOSIS, OSTEOARTICULAR) (HEMAGGLUTINATION)
(MYCOBACTERIUM TUBERCULOSIS) (DIAGNOSIS, DIFFERENTIAL)

BAJAN, A.; SYKORA, F.

The role of Mycobacterium bovis in extrapulmonary child tuberculosis in West Slovakia. Cesk. epidem. 14 no.2:73-80 Mr '65

1. Podunajske Biskupice; Krajska nemocnica tuberkulozy a chorob pluecnych; Ftizeologicka katedra Ustavu pre dalsie vzdelavanie lekarov a farmaceutov, Podunajske Biskupice.

VAGAC, M.; BAJAN, A.; SCHWARTZ, E.; LITOMERICKY, S.; POLASKOVA, O.

On the immunobiological problems of sarcoidosis. Bratisl. lek. listy 45 no.3:129-134 15 Ag '65.

1. Katedra ftizeologie Ustavu pre dalsie vzdelavanie lekarov a farmaceutov v Bratislave-Podunajskych Biskupiciach (veduci doc. MUDr. K. Virsik) Krajska nemocnica tuberkulozy a chorob plucnych v Bratislave-Podunajskych Biskupiciach (riaditel doc. MUDr. K. Virsik).

DORNETZHUBER, V.; VAGAC, M.; DOBROTA, S.; BAJAN, A.; STOJANOVA, E.

Morphogenesis of the Kveim-Nickerson skin reaction in sarcoidosis. Bratisl. lek. listy 45 no.3:135-143 15 Ag '65.

1. Ustav tuberkulozy v Bratislave (riaditel MUDr. J. Markovic) Katedra ftizeologie Ustavu pre dalsie vzdelavanie lekarov a farmaceutov v Bratislave-Podunajskych Biskupiciach (veduci doc. MUDr. K. Virsik) a Krajska nemocnica tuberkulozy a chorob plucnych v Bratislave-Podunajskych Biskupiciach (riaditel doc. MUDr. K. Virsik), Oddelenie hrudnej chirurgie (veduci MUDr. S. Dobrota).

KOCHMAN, J., prof. dr; BAJAN, C.

Observations on overwintering perithecia of apple powder mildew Podosphaera leucotricha (Ell. et Ev.) Salm. Acta agrobot 12: 5-12 '62.

1. Pracownia Fitopatologiczna, Zaklad Ekologii, Polska Akademia Nauk, Warszawa, Kierownik: prof. dr J. Kochman.

5.5220

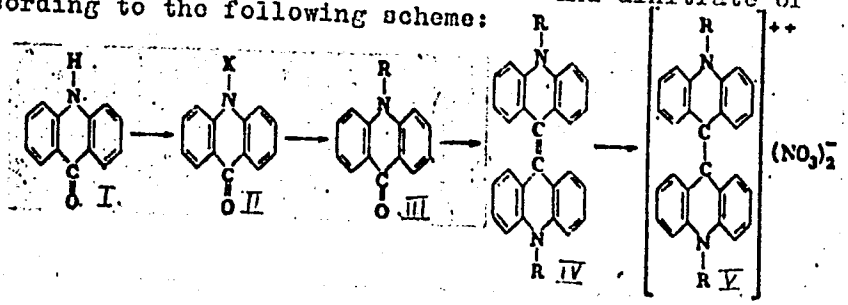
23277
P/012/60/006/000/001/001
A221/A126

AUTHOR: Chrząszczewska, A.; Kirkor, W.; Bajan, J., and Nowaczyk, M.

TITLE: Dinitrates of N,N'-dipropyldiacridine and N,N'-diallyldiacridine and intermediate products

PERIODICAL: Societatis Scientiarum Lodziensis Acta Chimica, v. 6, 1960, 49 - 54

TEXT: Looking for new compounds of lucigenine type with chemiluminescent properties, which could be used as indicators in volumetric analyses, the authors synthesized dinitrate of dipropyldiacridine and dinitrate of diallyldiacridine according to the following scheme:



Card 1/6

P/012/60/006/000/001/001
A221/A126

Dinitrates of N,N'-dipropyldiacridine and...

R = CH_3-CH_2-CH_2-, or CH_2-CH-CH_2-

The synthesis of acridone (I) and its potassium salt (II) were prepared exactly as described by A. Chrzaszczewska (Ref. 1: A. Chrzaszczewska, A. Braun, M. Nowaczyk - Soc. Sci. Lodz Acta Chim. 3, 93, 1950). This potassium salt was treated with propyl iodate and as a result the N-propylacridone (III) was obtained in the form of yellow crystals, melting at 129 - 130°C. The compound III was then reduced by means of zinc dust in alcoholic solution of HCl and the N,N'dipropyldiacridine (IV) was obtained and recrystallized from the cyclohexanone; it did not melt when heated to 300°C. This compound, in turn, was brought to boil with 2n HNO_3 - and the dinitrate of N,N'-dipropyldiacridine was obtained crystallizing in the form of yellow scale. It is easily soluble in water, and when treated with hydrogen peroxide it showed blueish-green chemiluminescence. In the course of the second product synthesis, the acridone potassium salt was treated with allybromide and N-allylacridone was obtained. This compound is easily soluble in alcohol, benzene and acetone and shows strong blue fluorescence; recrystallized from diluted alcohol it melts at 136 - 137°C. This product, reduced in the same way as described above, yields the N,N'-diallyldiacridine, melting at 253 -

Card 2/6

Dinitrates of N,N'-dipropyldiacridine and...

254°C(with decomposition). Brought to boil with 3n HNO_3, the dinitrate of N,N'-dipropyldiacridine in the form of yellow needles was obtained. This compound is easily soluble in water and, treated with alcaline hydrogen peroxide, shows blueish-green chemiluminescence. Neither of these compounds (I, II, III, IV, and V) were described yet in chemical literature. Larger quantities of these lucigenine compounds necessary for further investigations were obtained by A. Braun and A. Witkowski. Identity of products and their purity was confirmed through elemental analysis and physico-chemical investigations made by J. Kroh (Ref. 7: Soc. Sci. Lodz, Acta Chim. 5, 1960). Experimental part: N-propylacridone - In a three-necked 200 ml flask, fitted with reflux-cooler, thermometer and mechanical stirrer, 20 g of acridone potassium salt and 40 g (0.23M) of n-propyl iodate were placed. The reaction was carried out for five hours at 125°C under vigorous stirring. After completion KJ sediment was filtered out and from the filtrate the N-propylacridine was precipitated by means of water. After recrystallization from water-alcohol 2:1 solution, the product was obtained in the form of long needles, melting at 129 - 130°C. Results of two elemental analyses for C, H and N were in fairly close agreement with theoretical figures, calculated

Dinitrates of N,N'-dipropyldiacridine and...

for the compound $C_{16}H_{15}NO$. N,N'-dipropyldiacridine - In a 200 ml round flask 4.3 g (0.017 M) N-propylacridone, 17.2 g zinc dust and 129 ml 2n HCl dissolved in alcohol were placed and the flask was heated for one hour on a water bath. Green sediment which had formed was filtered out and recrystallized from cyclohexanone. The yield was 1.4 g of product, which did not melt when heated to 300°C. Results of two elemental analyses of this product for C, H and N, were in fairly close agreement with theoretical figures calculated for the compound $C_{32}H_{30}N_2$. Dinitrate of N,N'-dipropyldiacridine - In a 50 ml beaker the mixture of 1 g of N,N'-dipropyldiacridine was brought to boil with 20 ml of 2n HNO_3 and was filtered. From the filtrate 0.34 g of the dinitrate of N,N'-dipropyldiacridine was obtained in the form of yellow scales. This compound is soluble in water and, treated with caustic soda and hydrogenperoxide, shows blueish-green chemiluminescence. Results of two elemental analyses of this product for C, H and N were in fairly close agreement with theoretical figures, calculated for the compound $C_{32}H_{30}N_4O_6$. N-allylacridone - In a three-necked, 200 ml flask, fitted with reflux cooler, thermometer and stirrer, a mixture of 25 g (0.1 m) of acridone potassium salt and 80 g (0.66 m) of allyl bromide were warmed up on a water

Card 4/6

bath. The reaction took two hours at 90°C under vigorous stirring. During this process KBr settled on the flask wall and was subsequently filtered out. From the filtrate the N-allylacridone was precipitated by means of water and was recrystallized from water-alcohol 2:1 solution. The product was yellow and melted at 136 - 137°C. The result of two elemental analyses of this product for C, H and N were in fair agreement with theoretical figures calculated for the compound $C_{16}H_{13}ON$. The double link was confirmed by a conventional method. N,N'-diallyldiacridine - In a 200 ml flask fitted with reflux cooler the mixture of 4.7 g of N-allylacridone, 18.8 g of zinc dust and 141 ml of HCl dissolved in alcohol was heated on a water bath for 1 hour at 60°C. The pale-green sediment which resulted was filtered out and was treated in a beaker with 50 ml of hot cyclohexanone. The N,N'-diallylacridine was dissolved and filtered from zinc dust. From the filtrate it crystallized into fine crystals melting at 251 - 252°C (with decomposition). Results of two elemental analyses of this product for C, H and N, were in a fair agreement with theoretical figures calculated for the compound $C_{32}H_{26}N_2$. Dinitrate of N,N'-diallyldiacridine - In a 50 ml beaker the mixture of 1.5 g of N,N'-diallyldiacridine and 30 ml of 3n HNO_3 was brought to boil. From the cold solution the dinitrate of N,N'-diallyldiacridine crystallized into

Dinitrates of N,N'-dipropyldiacridine and...

small yellow needles. The yield was 0.7 g. Again the results of two elemental analyses of this product for C, H, N and O were in a fair agreement with theoretical figures, calculated for the compound $C_{32}H_{26}N_4O_6$. There are 7 Soviet-bloc references.

ASSOCIATION: Zakład Chemii Organicznej Uniwersytetu Łódzkiego (Łódź University, Organic Chemistry Department) in Łódź

PRESENTED: December 12, 1959

Card 6/6

54. Mechanical features of the twelve-channel carrier cable equipment — T. Balan. *Mechanika* — Vol. 5, 1956, No. 11–12, pp. 261–[illegible], 5 figs.)

The construction and the components of the universal transmission equipment [illegible] are dealt with. The arrangement [illegible] on the framework enables the mounting [illegible] 12 channel equipments. Illustrations [illegible] ment of the coil frame and of a new tap switch are published. Since the faults and noises in the equipment are usually due to the bad contact of [illegible] these have been eliminated by the [illegible] new tap switch with pressure [illegible] contacts. The paper also deals with the measuring [illegible] of the man-made thin, varnished, fabric [illegible] in the equipment, and with the [illegible] cables and resistances. The midget [illegible] is also illustrated.

BAJAN, Tibor

New methods for constructing transmission equipment. Hir techn 16 no.3:83-86 Mr '65.

1. Beloiannisz Telecommunication Engineering Factory, Budapest.

BAJANE, J.; NEDELKU, E.

"Calculations and records of the output in coal mining."

TEKNIKA., Tirane, Albania., Vol. 5, No. 6, Nov./Dec. 1958

Monthly list of EAST EUROPEAN ACCESSIONS (EEAI), LC, Vol. 8, No. 7, July 1959, Unclas

BAJANESCU, T.I., ing.

A new trend in the construction of analogue computers. Automatica electronica 8 no.3&126-131 My-Je '64

BAJARSKI, Wlodzimierz, okleveles mernok; FILIPOWICZ, Jerzy, okleveles mernok; ROSADA, Janusz, mernok

Choice of energy carriers in city economy. Energia es atom 16 no.2:49-59 F '63.

BAJAY, Jeno, dr.

In commemoration of Kalman Kerpely on the 100th anniversary of his birth. Elovilag 10 no.1:36-37 '65.

BAJER, M.

The coal industry in the United States. Przegl gorn 18 no.5:299-303 My '62.

BAJER, M.

Main technical indicators characterizing the operation of the nationalized French mines under the management of "Charbonnages de France" in 1960. Przegl gorn 18 no.6:371-374 Je '62.

WALSZTEIN, Z., inz. gornik; HAN, F., inz. gorn.; BAJER, Michal, mgr., inz.

Abutment support in the collieries of the Karaganda Coal Basin.
Przegl gorn 17 no.11:588-594 N '61.

1. Redaktor Wydawnictwa "Przeglad Gorniczy" (for Bajer).

OTASEK, Frantisek, dr., inz.; BAJER, Miroslav, dr.

Sealing off fire areas in the mines of Ostrava-Karvina coal basin.
Uhli 4 no.8:269-271 Ag '62.

1. Vedeckovyzkumny uhelny ustav, Radvanice (for Otasek).
2. Vysoka skola banska, Ostrava (for Bajer).

BAJARI, E.

Revision of the Hungarian Cerceris fauna (Hymenoptera, Sphecidae.)
(Magyar Nemzeti Muzeum Termezettudomanyi Muzeum Evkonyve, Vol. 7, 1956,
Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 9, Sept. 1957. Uncl.

HUNGARY / General and Special Zoology. Insects. System- P
atics and Faunistics.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 63953.

Author : Bajari, N.
Inst : Not given.
Title : A Catalog of the Genus Carcoris Latr. (Catalog of Hymenoptera VIII).

Orig Pub: Rovart. kozl., 1956, 9, No 1-12, 79-88.

Abstract: Revising Hungarian data on the genus Carcoris of about 3000 specimens, the author includes in the list 25 species, one subspecies and one variety. Two species are new for Hungary, one is new for science. Data on the collection sites are given.

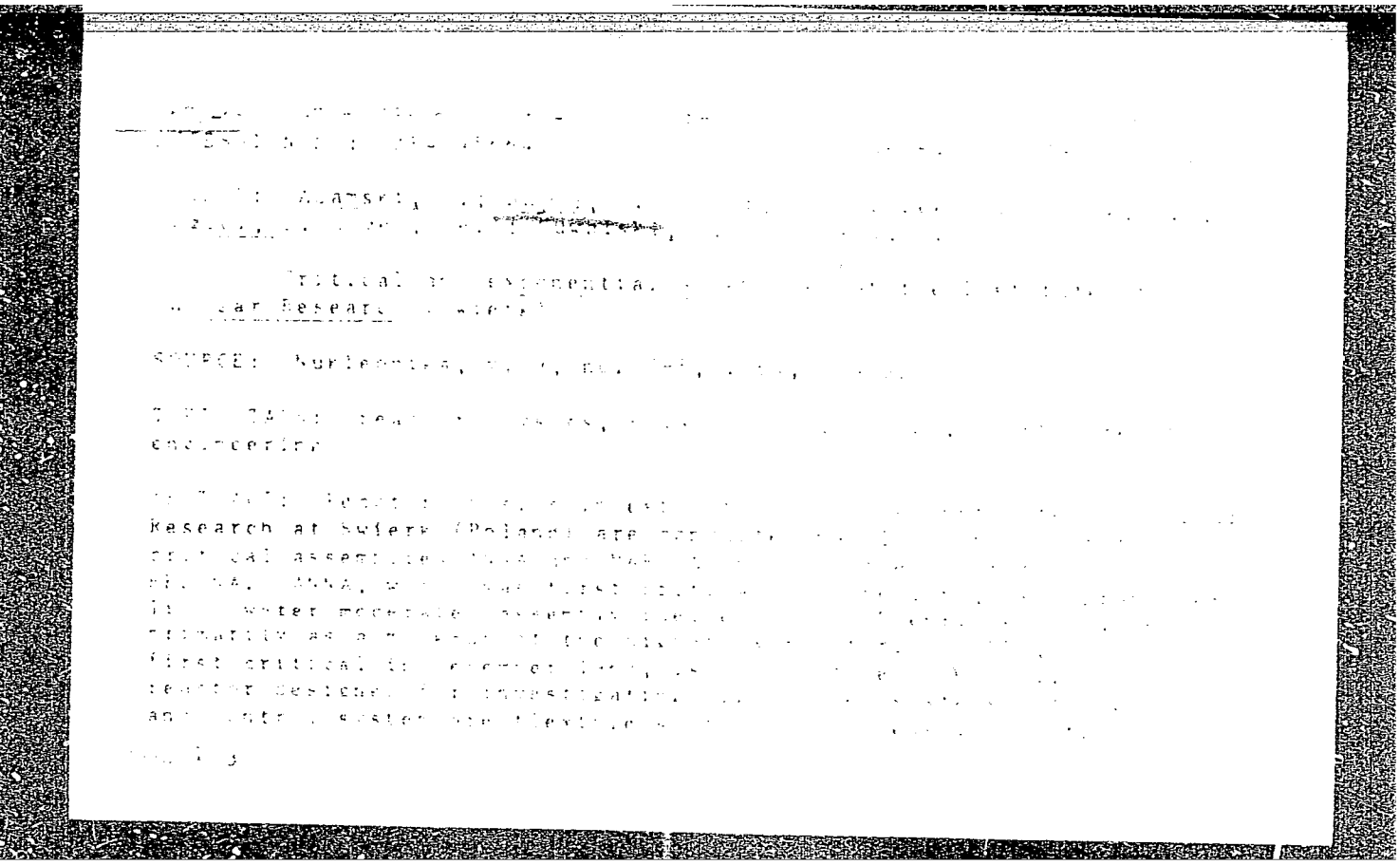
Card 1/1

BAJARI, N.

A revision of the Ichneumonidae types by Kiss an Szepligeti I. Hymenoptera. In German. p. 235.

Orszagos Magyar Termeszettudomanyi Muzeum. MAGYAR NEMZETO MUZEUM TERMESZET-TUDOMANYI MUZEUM EVKONYVE. ANNALES HISTORICO-NATURALES MUSEI NATIONALIS HUNGARICI. Budapest, Hungary. vol. 9, 1958.

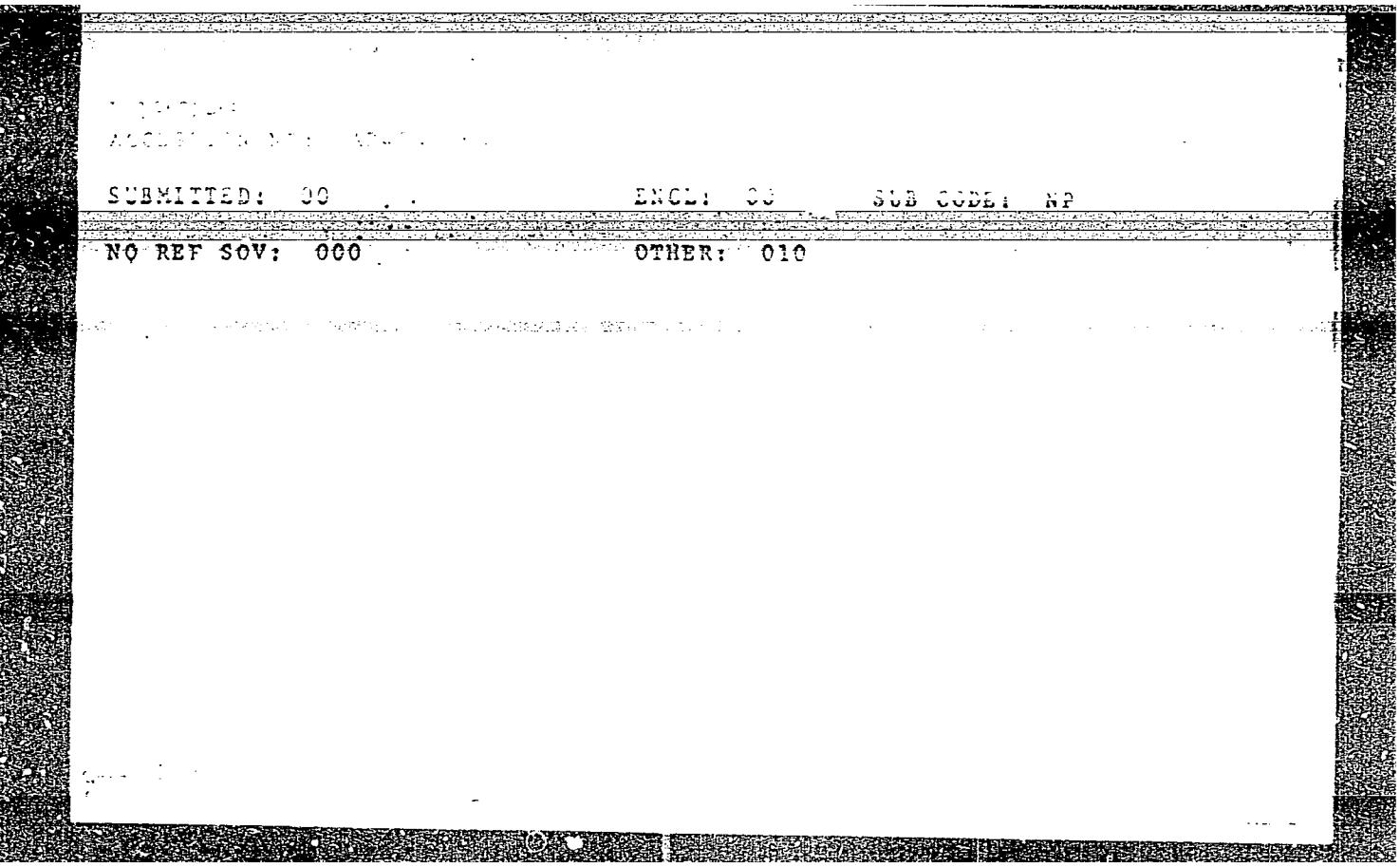
Monthly List of East European Accessions (EEAI) LC, vol. 9, no. 2, Feb. 1960 Uncl.



be the main facilities for developing fundamental reactor

fluence of assembly dimensions on the accuracy of buckling determinations are to be studied in HELENA. The reactors are also to be used in the cooperative NPY Project. Orig. art. has: 11 figures.

ASSOCIATION: Institute of Nuclear Research, Warszawa-Swierk



BAJC, Oton, sef dr.

Surgery of the bile ducts. Zdrav. vest., Ljubljana 23 no.9-10: 198-202 1954.

1. Kirurgicni oddelek Splosne bolnice v Novem mestu.
(BILE DUCTS, surg.)
(BILE DUCTS, radiography
cholangiography, preoperative

BAJC, O.

Surgery of the veins. Acta chir.iugosl. 7(8) no.3:173-184 '60.

1. Kirursko odjeljenje Splosne bolnice u Novom Mestu (Predstojnik rpim. dr. Oton Bajc)
(VEINS surg)

BAJC, Oton

On thyroid surgery. Zdrav. vestn. 33 no.1:3-7 '64

1. Kirurski oddelek splosne bolnisnice v Novem Mestu (Predstojnik: prim. dr. Oton Bajc).

BAJCAR, R.

"Some notes on Mira variables." p. 52. "Photographic irradiation." P. 55.
(RISE HVEZD, Vol. 34, no. 3, 1953, Praha.)

SO: Monthly List of East European Accessions, Vol. 2, #10 Library of Congress
October 1953, Uncl.

BAJCAR, R.

"Light curves of long-period variables." (p.171). RISE HVEZD. (Ceskoslovenska spolecnost astronomicka) Praha. Vol. 34, No. 8, Nov. 1953.

SO: East European Accessions List, Vol. 3, No. 8, Aug 1954.

K

CZECHOSLOVAKIA/Optics - Optical Technology.

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28371

Author : Bajcar, Robert
Inst :
Title : Remarks on Astrophotometric Properties of Photographic Lenses

Orig Pub : Rise hvezd, 1959, 40, No 2, 31-35

Abstract : An experimental investigation was made of the change of the aperture ratio over the field in photographic objectives of the Tessar and Belar type with focal distance of 500 mm, relative aperture 1:4.5, and a frame size 18 x 24 cm. The curve of the distribution of the light intensity over the field was obtained by processing 17 negatives with photographs of stars in the north polar row. The density of the images of the star were measured with a microphotometer. It is concluded that a Tessar type objective is more

Card 1/2

CZECHOSLOVAKIA/Optics - Optical Technology - K

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28371

suitable for astrophotometric work, since its light intensity diminishes more slowly with distance from the optical axis. -- Ye. Yakhontov

Card 2/2

BAJCAROVA, I.; ANTAL, M.

"A photometric study of NGC 3587."

p. 72, (Prace. Contributions, Vol. 2, 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 9, September 1958

BAJCETIC, B.

Mountain pasture farming in lower Hercegovina. Bul sc Youg 9 no.3:80-81 Je '64.

1. Agricultural Faculty, University of Sarajevo, Sarajevo.

BAJCSAY, P

2

70. **A new method of applying hypermatrices in the theory of multiphase systems.** (In English) P. Bajcsay, V. Lovass—Nagy. *Acta Technica Academiae Scientiarum Hungaricae*, Vol. 21, 1958, No. 3—4, pp. 363—386, 2 figs.

It is known that with the aid of the matrix calculus clear relations for the determination of the stationary voltages and current intensities of monophase systems composed of quadripoles may be derived from the four-terminal theory. D. W. C. Shen established the matrix formulae describing the stationary phenomena of single-phase uniform transmission lines by means of these relations. In an earlier study the authors elaborated a general application of D. W. C. Shen's results to multiphase uniform transmission lines. Using the method of hypermatrices, the present paper investigates the stationary voltage and current intensities of multiphase systems composed of cyclically symmetrical, cascade-connected different $2(n+1)$-poles with given voltage at the points of supply and given current intensities at the points of consumption; the paper also analyzes the stationary and transient voltages and current intensities of multiphase systems composed of cyclically symmetrical, cascade-connected, identically built $2(m+1)$-poles, likewise with given voltages at the points of supply and given current-intensities at the points of consumption. The relations thus obtained may — at the same time — be regarded as approximate formulae for the determination of cyclically symmetrical multiphase uniform transmission systems with given voltages at the points of supply and given current intensities at the points of consumption.

BAJCSAY, P. (Budapest, XI., Sztoczek, u 2-4)

The use of matrix calculation in the solution of a simple, linear differential equation system with variable coefficient. Periodica polytechn electr 3 no.3:217-231 '59. (EEAI 10:1)

1. Lehrstuhl fur Mathematik der Fakultat fur Maschineningenieure (V) an der Technischen Universitat, Budapest.
(Differential equations)

An Interpolation Process for the Approximate Solution of Matrix-Differentiable Equations

7390:

Bajcsay, P.; und Lovass-Nagy, V. Ein Iterationsverfahren zur näherungsweisen Lösung von Matrizendifferentialgleichungen. Z. Angew. Math. Mech. 39 (1959), 8–13. (English, French and Russian summaries)

A method is proposed for solving the system of differential equations $(d/dt)y=Ky$, $y(0)=y_0$ ($y(t)$, y_0 column vectors of dimension n and K a constant matrix) without transforming K to canonical form. K is decomposed into a sum $A+B$ with the matrix A having a known canonical representation (e.g., A a diagonal matrix), and the following iteration is set up: $(d/dt)y_1=Ay_1$, $(d/dt)y_m=Ay_m+By_{m-1}$ ($m=2, 3, \cdots$), $y_m(0)=y_0$ ($m\geqq 1$). An explicit expression

$$y_m(t)=\sum_{\nu=1}^{n}\beta_{m\nu}(t)\exp(\lambda_\nu t)u_\nu$$

is obtained, where λ_ν are the eigenvalues of A, u_ν corresponding eigenvectors, and $\beta_{m\nu}(t)$ scalar functions (too lengthy to be quoted here) formed with the help of the matrix B and the right and left-hand eigenvectors of A. An analogous method is stated for inhomogeneous systems, and convergence is proved as $m\to\infty$.

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