CUREA, I.; MIHAILESCU, Dtr.; TORO, E.; CUREA, O., prof.; BERCEI, E.; GHEREGA, O.; JURA, C., conf.; OHANOVICI, N.; SINITEANU, D., asist.; LAMOTH, P., conf.; POLICEC, A., asist.; MARIENUT, U., asist.; STURZ, I.; OITA, V.; BAEA, R.; MUNTEANU, A.; SCHIFF, A., asist.

Total solar eclipse of February 15, 1961. Studii astron seismol 7 no.2:247-258 162.

1. Membru al Comitetului de redactie, "Studii si cercetari de astronomie si seismologie" (for I. Curea). 2. Studenti la Institutul Pedagogic Timisoara (for Bercei and Gherega).

CUREA, I.; MIHAILESCU, Dtr.; TORO, E.; CUREA, O., prof.; BERCEI, E.; GHEREGA, O.; JURA, C., conf.; OHANOVICI, N.; SINITEANU, D., asist.; LAMOTH, P., conf.; POLICEC, A., asist.; MARIENUT, U., asist.; STURZ, I.; OITA, V.; BAEA, R.; MUNTEANU, A.; SCHIFF, A., asist.

Total solar eclipse of February 15, 1961. Studii astron seismol 7 no.2:247-258 '62.

1. Membru al Comitetului de redactie, "Studii si cercetari de astronomie si seismologie" (for I. Curea). 2. Studenti la Institutul Pedagogic Timisoara (for Bercei and Gherega).

CUREIEA, S.
SURNAME, Given Names

Country: Rumania

Academic Degrees: -Engineer-

Affiliation: -not given-

Source: Bucharest, Stiinta si Tehnica, Vol XIII, No 12, Dec 1961, pp 20-21.

Data: "Solar Batteries."

GPO 981643

R/002/62/000/008/003/003
D272/D308

AUTHOR: Curelea, Sterie, Engineer

TITLE: Electric energy, cold, heat, by means of the thermo-elements

PERIODICAL: Ştiinţa şi tehnica, no. 8, 1962, 30 - 32

TEXT: After briefly presenting and discussing the Seebeck and Peltier effects, the more important - from the practical viewpoint - thermoelectric effects in semiconductors are described. Their application in the USSR in thermoelectrogenerators for supplying power for radio receivers is surveyed based on semiconductors heated by a customary paraffin lamp, or on vacuum tubes, with a small distance between cathode and anode (less than 10 μ) the cathode being heated to 2000 - 2500°C, resulting in several tens of watts per cm^2 cathode surface. More recent applications by A.F. Ioffe of the Peltier effect, in practical micro-semiconductor refrigerators and heaters (employing the alternate joints of the n and p couples), based on increase in efficiency, in utilizing the electric energy input for

Card 1/2

Electric energy, cold, heat, ... R/002/62/000/008/003/003
D272/D308

pumping heat from or into the surrounding medium, are finally presented, and their importance as well as possible future developments are discussed. There are 7 figures.

Card 2/2

CURELARU, A.

Preparation and burning of rough-granulated coal dust obtained by grinding low-quality Rumanian coal. p. 65.

ENERGETICA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din Rominia si Ministerul Energiei Electrice si Industriel Electrotehnice) Bucuresti, Rumania, Vol. 7, no. 2, Feb. 1959.

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

Uncl.

BURDUCEA, C., ing.; CURELARU, Al., ing.

Considerations on the pollution of the atmosphere by gas exhaust from the chimneys of electric power stations. Energetica Rum 9 no.9:339-350 S '61.

BURDUCEA, C., ing.; CURELARU, Al., ing.

Heat and electric power station, Craiova. Energetica Rum 12 no. 8:392-400 Ag '64.

1. Technical Director, Institute for Electric Power Study and Planning, Bucharest (for Burducea). 2. Director, Electric Thermification Power Station, Craiova (for Curelaru).

SIMIENESCU,N.; ABUREL,V.; CIOBANU,M.; CURELARU,I.; MARIN,I.

Arterial segments of the spleen in man, anatomical basis of controlled partial splenectomy. Rumanian M. Rev. 3 no.4:6-9 O-D '59.

1. Department of Pathological Anatomy of the "Gh. Marinescu" Hospital, Bucharest.
(SPLEEN,surgery)
(SPLENIC ARTERY,anat. & histology)

2

RUMANIA

MAXIMILIAN, V., MD; FILIPESCU, Z., MD; CURELARU, I., MD.

"I. C. Frimu"Emergency Clinical Hospital, Bucharest
(Spitalul clinic de urgenţa "I. C. Frimu", Bucuresti) -
(for all)

Bucharest, Viata Medicala, No 14, 15 Jul 63, pp 981-989

"The Emergency Functional Re-equilibration in Cases of Acute Complications and Accidents in the Course of Nephropathies."

ROMANIA

FILIPESCU, Z., MD.; CURELARU, I., MD.; ANAGNOSTE, MD.; CEAUSU, M., MD.; FAGARASANU, R., MD.

Surgical Clinic II of the Emergency Clinical Hospital "I. C. Frimu", Bucharest (Clinica a II-a de chirurgie a Spitalului clinic de urgenţa "I. C. Frimu", Bucuresti); Director: Professor I. ŢURAI - (for all)

Bucharest, Viata Medicala, No 15, 1 Aug 63, pp 1041-1045

"Acute Poisoning with Hydrazide."

CURELEA, Steric
SURNAME, Given Names

Country: Rumania

Academic Degrees: Engineer

Affiliation: -not given-

Source: Bucharest, Stiinta si Tehnica (Supplement), No 8, Aug 1961, pp

Data: "Automation in the Flights of the 'Vostok' Ships."

GPO 981643

R/002/61/000/012/004/006
D282/D304

AUTHOR: Curelea, S., Engineer

TITLE: Solar batteries

PERIODICAL: Stiinţă şi tehnică, no. 12, 1961, 20-21

TEXT: The article deals with the direct transformation of solar energy into electric power. The author briefly describes the principle of semiconductors and the application possibilities of solar batteries. Solar batteries may be used in transistorized radio receivers and telephone sets, in automatic meteorological stations, space vehicles, solar power plants, etc. Two Soviet portable solar power stations for geological purposes were presented at the Exhibition of Achievements of the National Economy in Moscow in 1959. A Soviet team headed by Professor B.A. Baum is designing at present a large power plant which will be built on Mount Ararat and will produce 2.2 million kwhr of electric power daily. According to Soviet Nobel-prize winner, Academician N. Semenov, 100,000 high capacity power stations could be powered by solar energy, if one-tenth

Card 1/2

R/002/61/000/012/004/006
D282/D304

Solar batteries

of all continents, except the Antarctic, were covered with solar batteries of a yield of approx. 15% each. According to latest information, solar batteries with an efficiency of 15% or even 20% have already been constructed. There are 4 figues.

Card 2/2

R/002/62/000/012/003/003
D272/D308

AUTHORS: Curelea, S. and Zăgănescu, Fl., Engineers

TITLE: The applications of cybernetics in space

PERIODICAL: Stiinţa şi Tehnica, no. 12, 1962, 40-41

TEXT: Starting with a brief summary of the points raised by Andrei Prokhorov, Member of the Presidium of the Scientific Council for Cybernetics of the USSR Academy of Sciences, on the applications of cybernetics in space technology, this problem is described in some detail. The application of electron computers to the design and launching of space ships, the training of astronauts in simulated flight patterns within cybernetically controlled model space ship cabins, and the prelaunching check program performed automatically by cybernetic circuits on each component and on all combinations within the actual rockets, as well as the control of the flight itself, are considered. There are 4 figures.

Card 1/1

CURELEA, Sterie, ing.

Agroautomatics. St si Teh Buc 14 no.6:10-11, Je '62.

CURELEA, S., ing.; ZAGANESCU, Fl., ing., candidat in stiinte tehnice

Cybernetics and cosmos applications. St si Teh Buc 14 no.12: 40-41 D'62.

CURELEA, Sterie, ing.

Electric power, cold, heat, through the agency of thermoelements.
St si Teh Buc 14 no. 8:30-32 Ag '62.

CURELEN, Sterie, Ing.

Medical electronics. St el Teh Rus 15 no.2 [illegible] F '63

CUREV, Atanas, inz.

Cleaning waste water from industrial discharge pipes. Vodni hosp 13 no.5:181-183 '63.

1. Vyzkumny ustav vodohospodarsky, Praha.

CUREV, At., inz.

Treatment of the underground waters containing iron and manganese. Vodni hosp 13 no.12:Suppl.:inset, '63.

CURI, Jozef
SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: [illegible]

Affiliation: Helmintological Institute, SAV /Slovenska akademia vied; Slovak Academy of Sciences/ Helmintologicky ustav SAV), Kosice

Source: Bratislava, Nasa Veda, Vol VIII, No 11, Nov 61, pp 671-675.

Data: "Diseases of Sugar Beets."

GPO 9[illegible]

CURI, Jozef

Contribution to data on the number of generations of the helminth Heterodera schachtii Schmidt, 1871 in Slovakia. Biologia 19 no.2:115-117 '64.

1. Helmintologicky ustav Slovenskej akademie vied v Kosiciach a UKSUP, Kosice.

*

CURIAC, S.

Results of some experiments in pickling thin steel sheets. p. 45.

METALURGIA SI CONSTRUCTIA DE MASINI

Vol. 8, no. 3, Mar. 1956

Rumania

Source: EAST EUROPEAN LISTS Vol. 5, no. 10 Oct. 1956

SARIC,M.; CURIC,R.

Influence of light on the intensity of phosphorus uptake in wheat. Zemljiste biljka 11 no.1/3:539-544 '62

1. Institut za ratarstvo, Novi Sad.

CURIEVICI, ION

HUNG.

Combining the manufacture of soda ash with the electrolysis of sodium chloride by the mercury cathode method. Constantin Calistru, Ion Curievici, and Cornelia Leonte. *Rev. Chim.* (Bucharest) 6, 67–71 (1955).—A process is proposed which would combine in one plant the electrolysis of NaCl from brine and the manuf. of Na_2CO_3 by a slightly modified Solvay process. The 2 units would operate approximately. A flow sheet is shown. Gerard Aufleger

CURIEVICI, I.

The problem of postuniversity courses for superior chemical cadres in the chemical industry.

P. 421 (REVISTA DE CHIMIE) (Bucuresti, Rumania) Vol. 8, no. 6, June 1957

SO: Monthly Index of East European Accessions (EEAI) LC Vol. 7, No. 5. 1958

B-14

COUNTRY : Rumania
CATEGORY :

ABS. JOUR. : RZKhim., No. 5 1960, No. 17272

AUTHOR : Curievici, I., Marinescu, M., and Valu, F.
INST. : Iasi Polytechnic Institute
TITLE : The Experimental Investigation of the Evaporation of Drops of Some Organic Solvents

ORIG. PUB. : Bul Inst Politechn Iasi, 4, No 3-4, 337-344 (1958)

ABSTRACT : The authors have measured the rate of evaporation of drops of toluene and ethanol of different sizes in a stream of air at different temperatures and flow rates. The equation of Ranz [?] and Marshall (Chem Eng Progress, 48, 141 (1952)) for the heat transfer from an evaporating drop is confirmed. The modification to this equation proposed by Radush (RZhKhim, 1956, No 22, 73791) could not be confirmed.

N. Fuks

CARD: 1/1

CURIEVICI, I.; PERETZ, D.

Research on cooling granulated ammonium nitrate in fluidized layer.
Rev chimie Min petr 13 no.7:401-404 Jl '62.

CURIK, BOHUMIL

SEEMAN, Jiri, MUDr; CURIK, Bohumil

Methods of inhibiting of growth of Proteus. Cesk. hyg. epidem. mikrob. 2 no.2:148-153 Apr '53.

1. Z Ustavu epidemiologie a mikrobiologie v Praze. (Reditel: Doc. Dr Karel Raska)

(PROTEUS,
growth inhib.)

ZIVKOVIC, B.; ZONJIC, S.; CURIN, H.

Hemagglutination reaction in epidemic hepatitis. Higijena 14 no.1: 11-20 '62.

(HEPATITIS INFECTIOUS diag) (HEMAGGLUTINATION)

CURIN, Jiri

Instruction of standardization employees organized by the Association of Machine Tool and Implement Factories. Normalizace 11 no. 12: 387 D '63.

1. Vyzkumny ustav obrabecich stroju a obrabeni, Praha.

CAVKA, V.; BOGOJEVIC, D.; GURKOVIC, E.

Action for control of trachoma in the People's Republic of Bosnia and Herzegovina. Med. arch., Sarajevo 9 no.4:203-217 July-Aug 55.

1. Ocna klinika Med. fak. u Sarajevu. (Sef: prof. dr. V. Cavka).
(TRACHOMA, prev. & control
in Yugosl., statist. (Ser))

CURKOVIC, Erzamo, dr

Effect of renamid, antidrazia and esidrex on the intra-ocular pressure in glaucoma. Med. arh. 16 no.5:51-62 S-O '62.

1. Ocna klinika Medicinskog fakulteta u Sarajevu (Upravnik:prof. dr Vladimir Cavka).
(GLAUCOMA) (HYDROCHLOROTHIAZIDE) (ACETAZOLAMIDE) (DICHLOROPHENAMIDE)

CURKOVIC, Ivan, ekonomista

Introduction of the 42-hour workweek in the Dalmtinka Enterprise, Sinj. Tekstil Zagreb 13 no.11:977-981 N '64.

1. Dalmatinka Spinning and Thread Mill, Sinj.

CURKOVIC, M.

Personal experiences in surgery of paranasal sinuses according to the Pietrantoni de Lima's method. Radovi Med. fak. Zagrebu Vol.3:185-190 1954.

1. Otolaringoloski odjel Balnice dr. J.Kajfesa u Zagrebu (predstojnik docent dr. Milovan Curkovic)
(PARANASAL SINUSES, surg.
technic)

CURKOVIC, Milovan
CURKOVIC, Milovan, dr.

Solitary extramedullary plasmocytoma. Lijec. vjes. 76 no.3-4: 123-127 Mar-Apr 54.

1. Iz Otolaringoloskog odjela dra J.Kajfesa u Zagrebu.
(MYELOMA, PLASMA CELL
ethmoid & maxillary sinus)
(ETHMOID SINUS, neoplasms
myeloma, plasma cell)
(MAXILLARY SINUS, neoplasms
myeloma, plasma cell)

CURKOVIC, Milovan, Dr.

Panlaringektomija. Lijec.vjes.77 no.1-2:34-41 Jan-Feb. '55.

1. Iz Bolnice dr. J. Kajfesa u Zagrebu.
(LARYNX, neoplasms
surg.,laryngectomy with block dissection of neck(Ser))

CURKOVIC, Milovan, Dr.

Rhinogenic cough. Lijec. vjes. 77 no.8-9:387-391 Aug-Sept 55.

1. Iz Usnog odjela Opce bolnice dr. J. Kajfesa u Zagrebu.
(COUGH, etiology and pathogenesis,
paranasal sinuses dis.)
(PARANASAL SINUSES, diseases,
causing cough)

YUGOSLAVIA/General Problems of Pathology - Comparative Oncology. U-3
Tumors of Man.

Abs Jour : Ref Zhur - Biol., No 16, 1958, 75616

Author : Curkovic, M.
Inst :
Title : Tumor of the Glomus Jugulare.

Orig Pub : Acta chirurg.jugosl., 1956, 3, No 1, 76-79

Abstract : No abstract.

Card 1/1

CURLIN, A.

"Why We Need To Construct A Railroad Track Between Foca And Bilece" p. 230. (Zeleznice, Vol, 9, no. 7, July, 1953, Beograd.)

SO: Monthly List of East European Accessions, Vol. 2, No. 9, Library of Congress, September 1953, Uncl.

GURMAN, V.I. (Moskva)

Method for studying a class of optimal sliding modes. Avtom. i telem. 26 no.7:1160-1162 Jl '65. (MIRA 18:8)

POPESCU, G.F., ing.; CURPAN, C., ing.

Timbering methods of mining works studied and applied in the Maramures mining basin. Rev min 14 no.11:477-484 N'63.

SECHEL, Vasile, ing.; CAZACU, Iulian; MORARU, Nicolae, ing.; ACHIM, Stelian, ing.; MIHAI, Dumitru, ing.; ANDREI, I.; CURPAN, V.; BOT, Iosif; STROHLI, Ignat; LUPSE, O., ing.; PELICALA, Gh., ing.; TEODORESCU, Dumitru, ing.

Modern technological proceedings in mechanical engineering. Probleme econ 18 no.1:154-163 Ja '65.

1. Technical Director, "Tractorul" Plant, Brasov (for Sechel). 2. Chief Planning Engineer, "Tractorul" Plant, Brasov (for Cazacu) 3. Technical Director, "Independenta" Plant, Sibiu (for Moraru). 4. Chief Technologist, "Independenta" Plant, Sibiu (for Achim). 5. Director. Colibasi Plant for Automobile Parts (for Mihai). 6. Director. Metallurgic Plant, Bacau (for Andrei). 7. Chief Engineer, Metallurgic Plant, Bacau (for Curpan). 8. Director, "Unirea" Metallurgic Plant, Cluj (for Bot). 9. Chief Engineer, "Unirea" Metallurgic Plant, Cluj (for Strohli). 10. Chief Metallurgist, "Unirea" Metallurgic Plant, Cluj (for Lupse). 11. Director, "Feroemail" Plant Technical and Sanitary Products and Installations, Ploiesti (for Pelicala). 12. Head of Technical Services, "Feroemail" Plant for Technical and Sanitary Products and Installations, Ploiesti (for Teodorescu).

L 30740-66

ACC NR: AP6022114 SOURCE CODE: RU/0018/65/000/010/0581/0586

10
B

AUTHOR: Voicu, Victor; Cursaru, Ion

ORG: none

TITLE: Study of the behavior of cyclones in ventilation installations

SOURCE: Constructia de masini, no. 10, 1965, 581-586

TOPIC TAGS: ventilation engineering, air conditioning equipment

ABSTRACT: After a discussion of the calculation method of cyclones in ventilation plants, the authors summarize the results of experimental studies on the subject carried out by the Labor Hygiene and Protection Institute. Orig. art. has: 6 figures and 23 formulas. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 13 / SUBM DATE: none

Card 1/1 FV

UDC: 621.928.6:628.83

0916 0027

CURTEANU, C.; VICASIU, A.; PAPILIAN, V.V.

An anatomic & clinical study of rheumatic diseases in children. Rumanian M. Rev. 1 no.4:43-44 Oct-Dec 57.
(RHEUMATIC HEART DISEASE, pathol.
arterial changes)

VLAD, I.; CURTEANU, G.

Serious associations of the hematopoietic system in septicemia with staphylococci. Microbiologia (Bucur) 6 no.1:25 Ja-F '61.

MINCULESCU,M.; TARCHILA,D.; KENDE,D.; CURTEANU,G.; VLAD,I.

Anti-influenza vaccination with an autochthonous vaccine in a group of children (under 3 years of age) in an urban community. Stud. cercet. inframicrobiol.,Bucur. 10 no.4:455-457 '59.

1. Comunicare prezentata la Simpozionul asupra epidemiei de gripa din 1957-1958, Bucuresti,4-5 decembrie 1958.
(INFLUENZA, immunology)
(VACCINATION)

TARCHILA, D.; MEDESAN, F.; CURTEANU, G.; VLAD, N.; VICASIU, L.

Investigations on influenza antibody titres during the first months of life. Rumanian M Rev. no.4:19-20 O-D '60.
(INFLUENZA immunology) (INFANT, NEWBORN immunology)

CURTEANU, G., dr.; PAPILIAN, V.V., dr.

Embolizing rheumatic carditis and plurivisceral thromboangitis with multiple infarcts. Pediatria (Bucur) 14 no.1:25-32 Ja-F'65

1. Lucrare efectuata in Spitalul unificat "Nucet", Regiunea Crisana (ector:dr. Gh. Matescu) si Spitalul clinic de adulti nr.2 Cluj--Prosectura (medic primar, dr. V.V. Papilian).

VLAD,I., dr.; CURTEANU, G., dr.; BOZSODI, I., dr.; BOERIU, E., dr.; TAUTU, M., dr.

Peritonitis in infants. (Medico-surgical observations on 33 cases. Pediatria (Bucur) 14 no.2:133-142 Mr-Ap'65.

1. Lucrare efectuata in Spitalul de copii Oradea; partea medicala; partea chirurgicala (director: dr. L. Kende).

CHIRILEI, H.; STEFAN, V.; DOROBANTU, N.; BOTI, D.; CURTICAPEANU, Georgeta; BOTEA, M.

Influence of various fertilizers on the phosphorus absorption and physiological processes in sugar beet plants, as studied by the method of radioactive isotopes. Studii cerc biol veget 14 no.3:277-286 '62.

1. Comunicare prezentata de N. Salageanu, membru corespondent al Academiei R.P.R., membru al Comitetului de redactie si redactor responsabil, "Studii si cercetari de biologie; Seria biologie vegetala."

CHIRILEI, H.; DOROBANTU,N.; CURTICAPEANU, Georgeta

Influence of magnesium, potasium phosphorus, and nitrogen fertilizers on the physiological processes of maize plants (Zea mays). Studii cerc biol veget 15 no.4:469-477 '63.

1. Comunicare presentata de academician N. Salageanu.

CHIRILEI, H.; STEFAN, V.; DOROHANTU, N.; CURTICAPEANU, Georgeta

Influence of organic and bacterial mineral fertilizers on some physiological processes of corn (Zea mays). Studii cerc biol s. bot 16 no. 4:281-287 '64.

1. Chair of Plant Physilogy, "Nicolae Balcescu" Agricultural Institute.

CURTOV, Victor, ing.; BALTATEANU, M.; MICU, Gh., ing.; BARBUCEANU, Dumitru, ing.

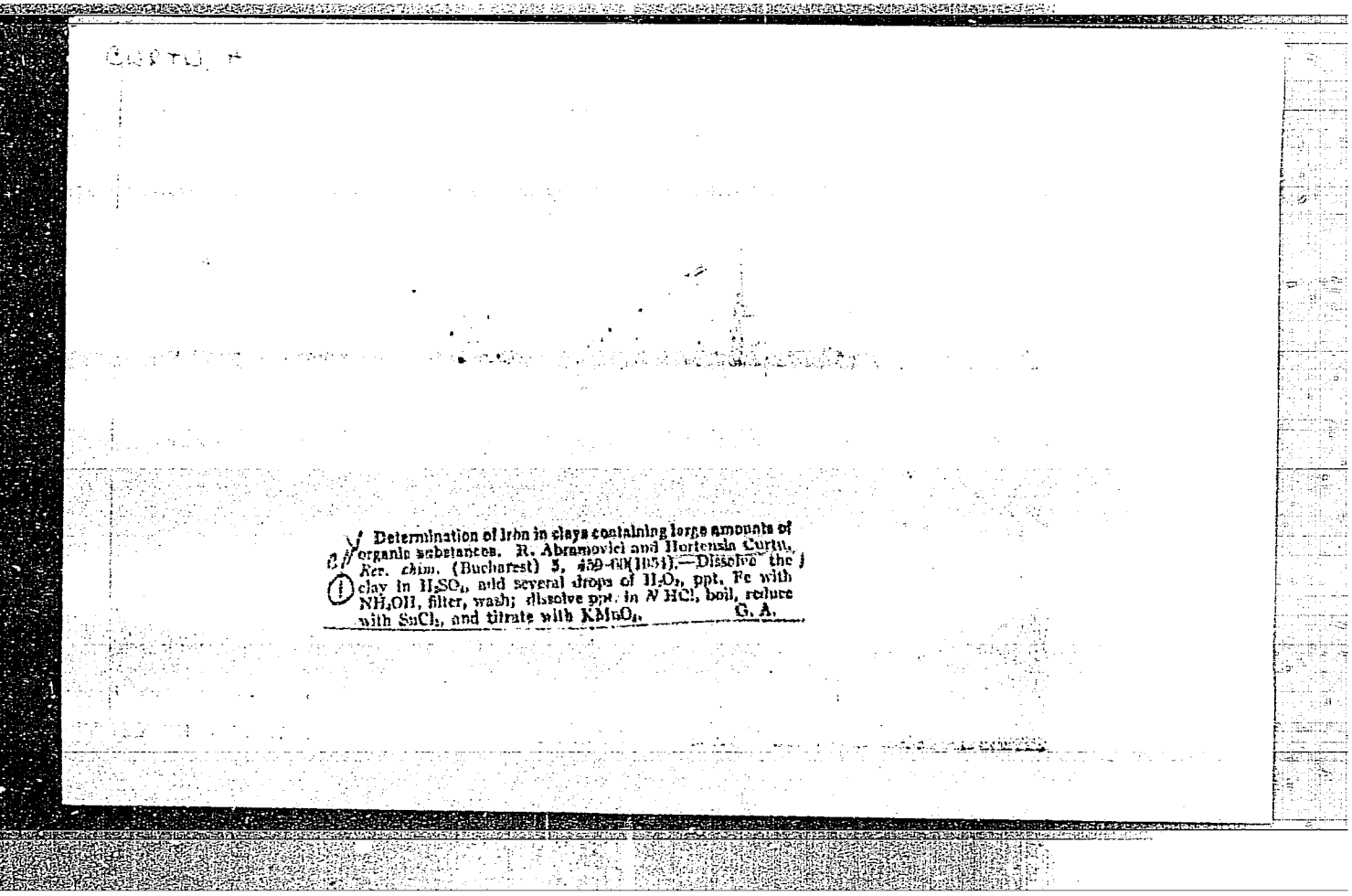
The "critical road" method. Constr Buc 17 no.802:4 22 My '65.

1. Institute of Building Research and Construction Economics (for Curtov). 2. Assistant Chief Engineer, Bucharest Construction and Assembling Enterprise (for Baltateanu). 3. Planning Workshop of the Bucharest Construction and Assembling Enterprise (for Micu). 4. Chair of Organizing, Planning, and Construction Economics, Institute of Constructions, Bucharest (for Barbuceanu).

CURTOVIC, H.

"Determining the best time for reverberation." p. 20, (TELEKOMUNIKACIJE, Vol. 2, No. 4, Oct. 1953, Beograd, Yugoslavia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.



Determination of iron in clays containing large amounts of organic substances. R. Abramovici and Hortensia Curtu. *Rev. chim.* (Bucharest) 3, 459-68(1951).—Dissolve the clay in H_2SO_4, add several drops of H_2O_2, ppt. Fe with NH_4OH, filter, wash; dissolve ppt. in *N* HCl, boil, reduce with $SnCl_2$, and titrate with $KMnO_4$. G. A.

CURTU, P.

CURTU, P. The country-wide competition in gliding. P. 4.

Vol. 2, no. 10, October 1956
ARIPILE PATRIET
TECHNOLOGY
Bucuresti

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

CURYLO, J.

POLAND/ Farm Animals. Honeybees. Q-6

Abs Jour : Ref Zhur - Biol.. No 10, 1958, No 45327

Author : Curylo, Jan
Inst : Not given
Title : Honey From Honeydew.

Orig Pub : Pszczelarstwo, 1957, 8, No. 7, 201-205.

Abstract : About one half of Polish honeys contain greater or smaller amounts of honeydew. In Poland the honeybees winter mainly on sugar feed. However, in forest apiaries the honeybees use large amounts of honeydew without harm to their health; it may be probably explained by the adaptation of bees to such food. With the aid of paper chromatography, German researchers found in the honeydew a number of sugars lacking in flower honey, namely: melezitose, erlose, dextrantiose and 4-glycoside-dextrantiose. Dextrins and melezitose are harmless for honeybees; the honeybees suffer from galactose, nitrogenous substances, and especially from the excessive content of mineral substances in the honeydew.

Card 1/1

CURZYTEK, Jan, mgr inz.

Industrial safety in moving the working platform with crew by using the crane. Bud okretowe Warszawa 9 no.1:16-18 Ja '64.

1. Katedra Maszyn Dzwigowych i Podnosnikow, Politechnika, Gdansk.

CURZYTEK, Jan, mgr inż., st. asystent

Present state and significance of the Polish production of hand-operated hoists. Przegl mech 22 no.10:312-313 25 My '63.

1. Katedra Maszyn Dźwigowych i Przenośnikowych, Politechnika, Gdańsk.

Investigation on centrifugal casting and the heat treatment of sleeves of spheroidal graphite cast iron. M. Curyłek. *Przegląd Odlewnictwa* 8, 295-301(1958).—Expts. on gravity and centrifugal casting of spheroidal graphite cast-iron sleeves for machine parts were described. The metal for gravity casting was melted in a cupola, and poured at 1380° into the ladle, where the process of desulfurization by $NaCO_3$ and CaC_2, and modification by introducing Mg and Si compds. were done. The product contained C 3.25, Si 2.3, Mn 0.45, P 0.25, S 0.005, and Mg 0.09%, and was characterized by a pearlitic structure with spheroidal graphite. The inspection of sleeve quality revealed the existence of internal defects, which rejected this type of casting technology for the production of sleeves. Four melts contg. C 3.10–3.35, Mn 0.48–0.65, Si 2.3–2.6, P 0.12–0.20, S 0.003–0.010, and Mg 0.09–0.12 were prepd. by centrifugal casting. After the heat-treatment the tensile strength and hardness were detd. Centrifugal casting was more economical than gravity casting, because of saving on metal, cost of molding, and diminishing of rejections. The production cost of sleeves was reduced by 1/3, the high temp. of casting was no more a crit. factor, the mech. properties of sleeves as cast or heat-treated were better, and more uniform through the whole length, and the time of heating during the thermal treatment could be greatly reduced. The product is recommended for use in diesel motors, and the most suitable isothermal heat-treatment is indicated. W. T.

Distr: 4E2c

CURZYTEK, Mieczyslaw, mgr inz.

Properties and use of toughened T-1 steel for welded structures.
Przegl spaw 17 no.1:6-9 Ja '65.

CURZYTEK, Mieczyslaw, mgr inz.

Progress in the production and use of heat treated steels for welded structures. Wiad hut 21 no.1:7-10 Ja '65.

CURZYTEK, Mieczyslaw, mgr inz.

Use of heat treated low-carbon steels for welded structures.
Przegl spaw 17 no.4:94-97 Ap '65.

CURZYTEK, Mieczyslaw, mgr inz.

Installation for mass heat treatment of rolled products. Wiad hut 21 no.2:48-54 F '65.

CUS, M.

Segmental arterial vascularization of the lower pole of kidney in man. Bul sc Youg 8 no. 1/2:17 F-Ap '63.

1. Anatomski institut Medicinskog fakulteta, Univerzitet, Sarajevo.

CUS, Vinko; POZLEP, Stefan, inz.

Electromagnetic braces and brakes made in Yugoslavia. Stroj vest 9 no.1/2:55-56 Ap '63.

1. Tovarna avtomobilov in motorjev, Maribor.

ROSOVIC, Aleksandar, prof. dr; CUSIC, Marija, asist.

Electrophoresis of isonicotinic acid hydrazide. Srpski arh.celok. lek. 77 no.12:1590-1593 Dec.54

1. Institut za fizikalnu terapiju Medicinskog fakulteta u Beogradu. Upravnik: prof. dr Aleksandar Rosovic.

(ELECTROPHORESIS,
of isoniazid)
(NICOTINIC ACID ISOMERS, determination,
isoniazid, electrophoresis)

CUSKE, Ferdynand

A modernized passenger car in the German Democratic Republic.
Przegl kolej mechan 14 no.6:184-188 Je '62.

1. Zaklady Naprawy Taboru Kolejowego, Ostrow Wlkp.

CUSKE, Ferdynand

Central Designing Office of the Railroad Rolling Stock Repair Shops in Ostrow Wielkopolski as a new form of technical progress. Przegl kolej mechan 13 no.9:287-286 S '61.

BONDARENKO, V.D.; CUS'KOV, Yu.K.; PASHCHENKO, V.P.

Determining the thermionic constants of metallic film cathodes of converters. Izv. AN SSSR. Ser. fiz. 28 no.9:1545-1547 S '64.
(MIRA 17:10)

ZARKOVIC, Grujica, profesor d-r; CUSTOVIC, Fatima, asistenti dipl.hemicar; PETROVIC, Zivana, dipl.hemicar

Radioactivity of the air and rain measured during 15 months in 1958 and 1959 in Serajevo. Voj.san.pregl., Beogr. 17 no.9:888-894 S '60.

1. Medicinski fakultet u Sarajevu, Institut za higijenu i preventivnu medicinu

(RADIOACTIVE FALLOUT)

CUSTOVIC,I.; MILETIC,D.; HADZIMUSIC, N.; MARKOVIC,D.

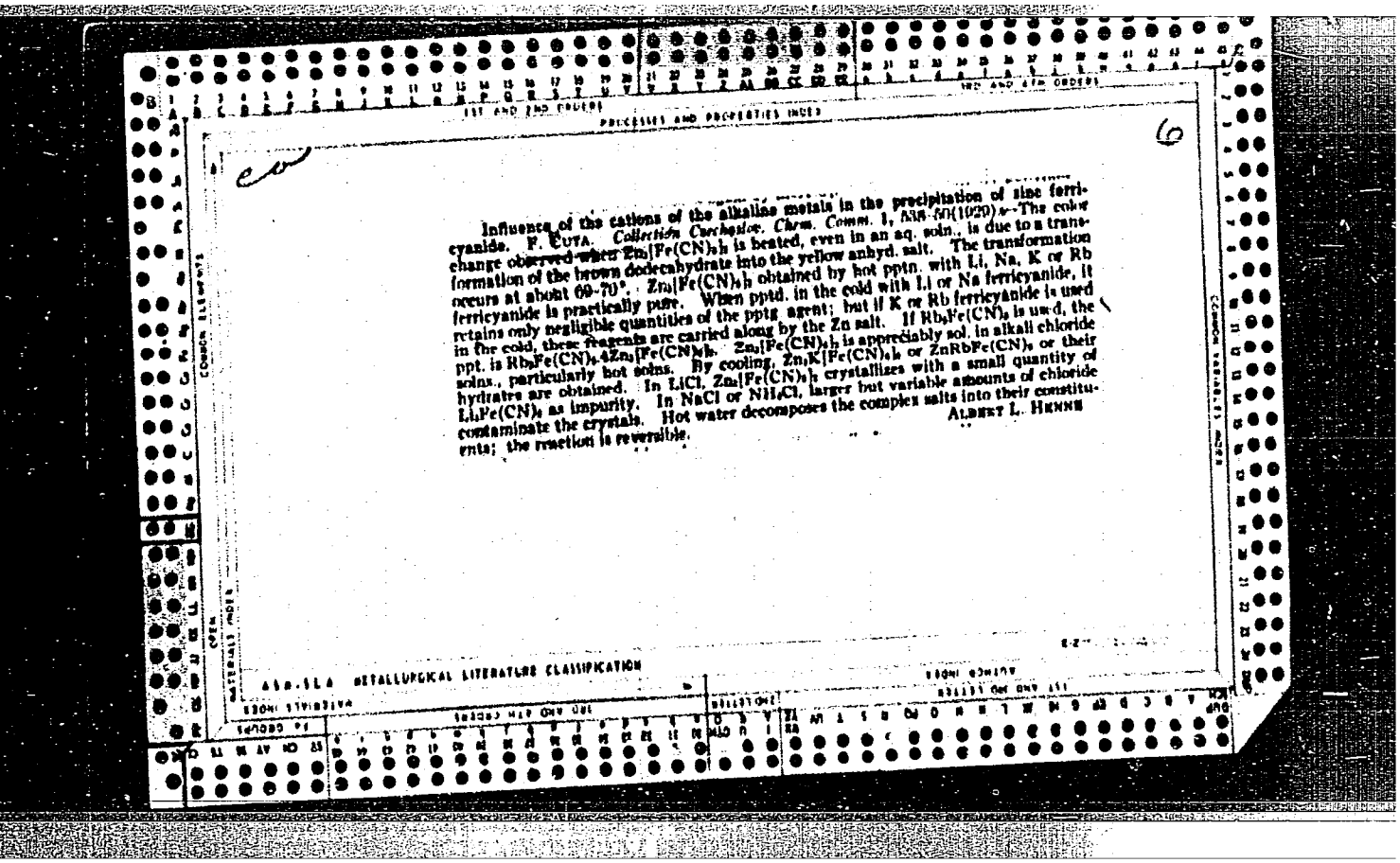
Congenital hyperplasia of the adrenal cortex. Med. arh. 18 no.6: 69-75 N-D'64.

1. Klinika za djecje bolesti Medicinskog fakulteta u Sarajevu (Sef: Prof. dr. M. Sarvan).

OBRADOV,S., doc. dr.; DJUGUMOVIC, Z., dr.; TOMIC, S., doc. dr.; SELAK, I., dr.; CUSTOVIC, K., dr.

Cushing's syndrome in a rheumatoid arthritis patient following prolonged corticotherapy. Med. Glas. 18 no.11:364-366 N '64

1. Interna klinika (I) Medicinskog fakulteta u Sarajevu (Sef: prof. dr. B. Zimonjic); Institut za patolosku anatomiju Medicinskog fakulteta u Sarajevu (Sef: doc. dr. A. Nikulin).



Influence of the cations of the alkaline metals in the precipitation of zinc ferricyanide. F. Cuta. *Collection Czechoslov. Chem. Comms.* 1, 538-50(1929).—The color change observed when $Zn_3[Fe(CN)_6]_2$ is heated, even in an aq. soln., is due to a transformation of the brown dodecahydrate into the yellow anhyd. salt. The transformation occurs at about 69-70°. $Zn_3[Fe(CN)_6]_2$ obtained by hot pptn. with Li, Na, K or Rb ferricyanide is practically pure. When pptd. in the cold with Li or Na ferricyanide, it retains only negligible quantities of the pptg. agent; but if K or Rb ferricyanide is used in the cold, these reagents are carried along by the Zn salt. If $Rb_3Fe(CN)_6$ is used, the ppt. is $Rb_2Fe(CN)_6 \cdot 4Zn_3[Fe(CN)_6]_2$. $Zn_3[Fe(CN)_6]_2$ is appreciably sol. in alkali chloride solns., particularly hot solns. By cooling, $Zn_3K[Fe(CN)_6]_2$ or $ZnRbFe(CN)_6$ or their hydrates are obtained. In LiCl, $Zn_3[Fe(CN)_6]_2$ crystallizes with a small quantity of $Li_4Fe(CN)_6$ as impurity. In NaCl or NH_4Cl, larger but variable amounts of chloride contaminate the crystals. Hot water decomposes the complex salts into their constituents; the reaction is reversible.

ALBERT L. HENNE

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

BC

A-1

Double salts of cadmium ferrocyanide. F. [illegible] (Coll. Czech. Chem. Comm., 1932, 4, 400—411; cf. A., 1930, 1397).—The solubility of $Zn_2[Fe(CN)_6]$ and $Cd_2[Fe(CN)_6]$ in solutions of alkali chlorides is explained by supposing that the less dissociated $ZnCl_2$ and $CdCl_2$ liberated by double decomp. are held as complexes by the Cl'. The following compounds are described: [illegible];
[illegible];
[illegible];
[illegible] H_2O; [illegible] $Cd_2[Fe(CN)_6]_3, 20H_2O$;
[illegible] H_2O. J. W. S.

COMMON ELEMENTS

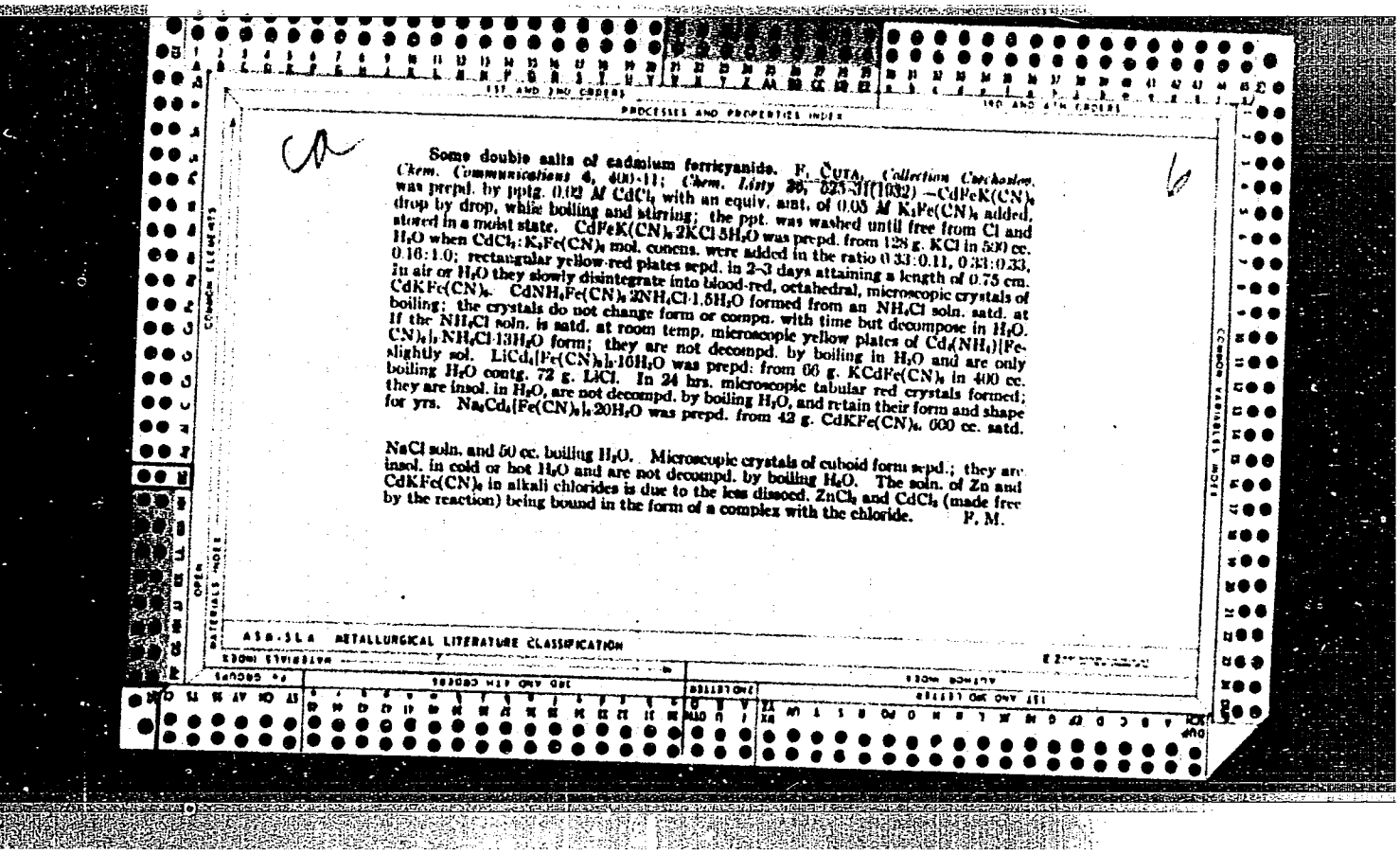
COMMON VARIABLES INDEX

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

AUTHOR INDEX

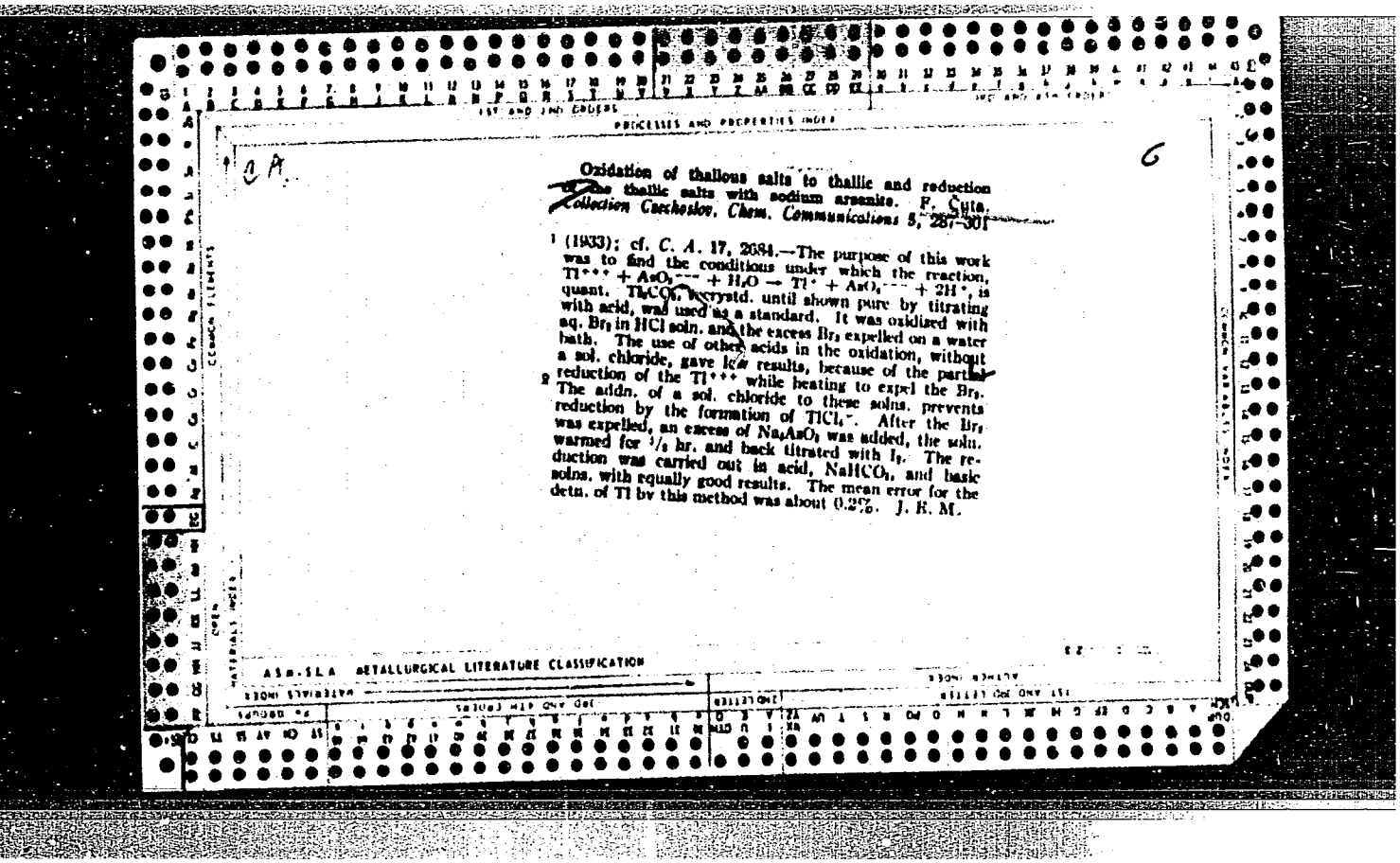
1ST AND 2ND LETTER



PROCESSES AND PROPERTIES INDEX

Some double salts of cadmium ferricyanide. F. Cuta. *Collection Czechoslov. Chem. Communications* 4, 400-11; *Chem. Listy* 26, 625-31(1932).—$CdFeK(CN)_6$ was prepd. by ppta. 0.02 *M* $CdCl_2$ with an equiv. amt. of 0.05 *M* $K_3Fe(CN)_6$ added, drop by drop, while boiling and stirring; the ppt. was washed until free from Cl and stored in a moist state. $CdFeK(CN)_6 \cdot 2KCl \cdot 5H_2O$ was prepd. from 128 g. KCl in 500 cc. H_2O when $CdCl_2$:$K_3Fe(CN)_6$ mol. concns. were added in the ratio 0.33:0.11, 0.33:0.33, 0.16:1.0; rectangular yellow-red plates sepd. in 2-3 days attaining a length of 0.75 cm. In air or H_2O they slowly disintegrate into blood-red, octahedral, microscopic crystals of $CdKFe(CN)_6$. $CdNH_4Fe(CN)_6 \cdot 2NH_4Cl \cdot 1.5H_2O$ formed from an NH_4Cl soln. satd. at boiling; the crystals do not change form or compn. with time but decompose in H_2O. If the NH_4Cl soln. is satd. at room temp. microscopic yellow plates of $Cd_4(NH_4)[Fe(CN)_6]_3 \cdot NH_4Cl \cdot 13H_2O$ form; they are not decompd. by boiling in H_2O and are only slightly sol. $LiCd_4[Fe(CN)_6]_3 \cdot 16H_2O$ was prepd. from 66 g. $KCdFe(CN)_6$ in 400 cc. boiling H_2O contg. 72 g. LiCl. In 24 hrs. microscopic tabular red crystals formed; they are insol. in H_2O, are not decompd. by boiling H_2O, and retain their form and shape for yrs. $Na_3Cd_4[Fe(CN)_6]_3 \cdot 20H_2O$ was prepd. from 42 g. $CdKFe(CN)_6$, 600 cc. satd. NaCl soln. and 50 cc. boiling H_2O. Microscopic crystals of cuboid form sepd.; they are insol. in cold or hot H_2O and are not decompd. by boiling H_2O. The soln. of Zn and $CdKFe(CN)_6$ in alkali chlorides is due to the less dissocd. $ZnCl_2$ and $CdCl_2$ (made free by the reaction) being bound in the form of a complex with the chloride. F. M.

A58-5L4 METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

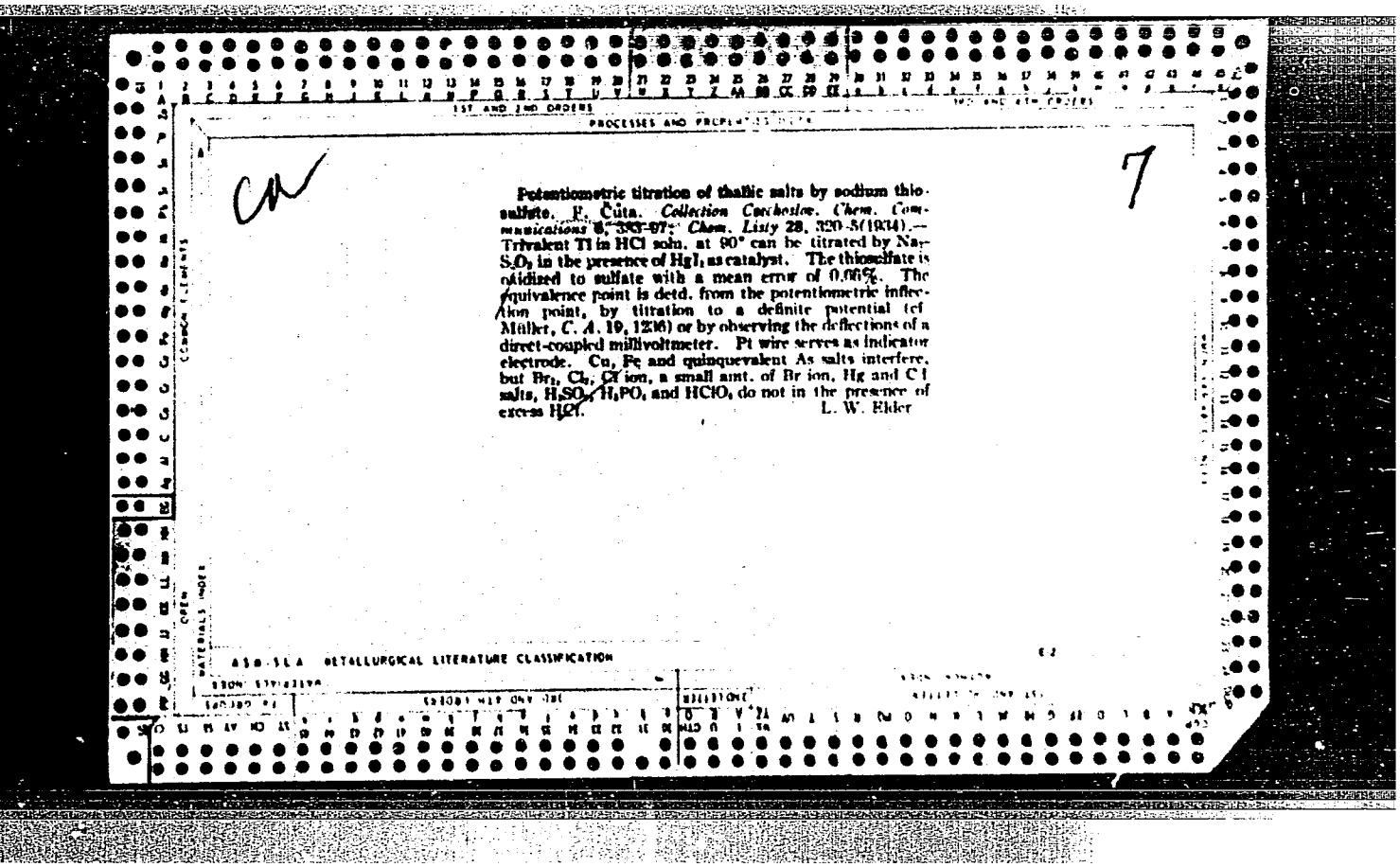
1 A

6

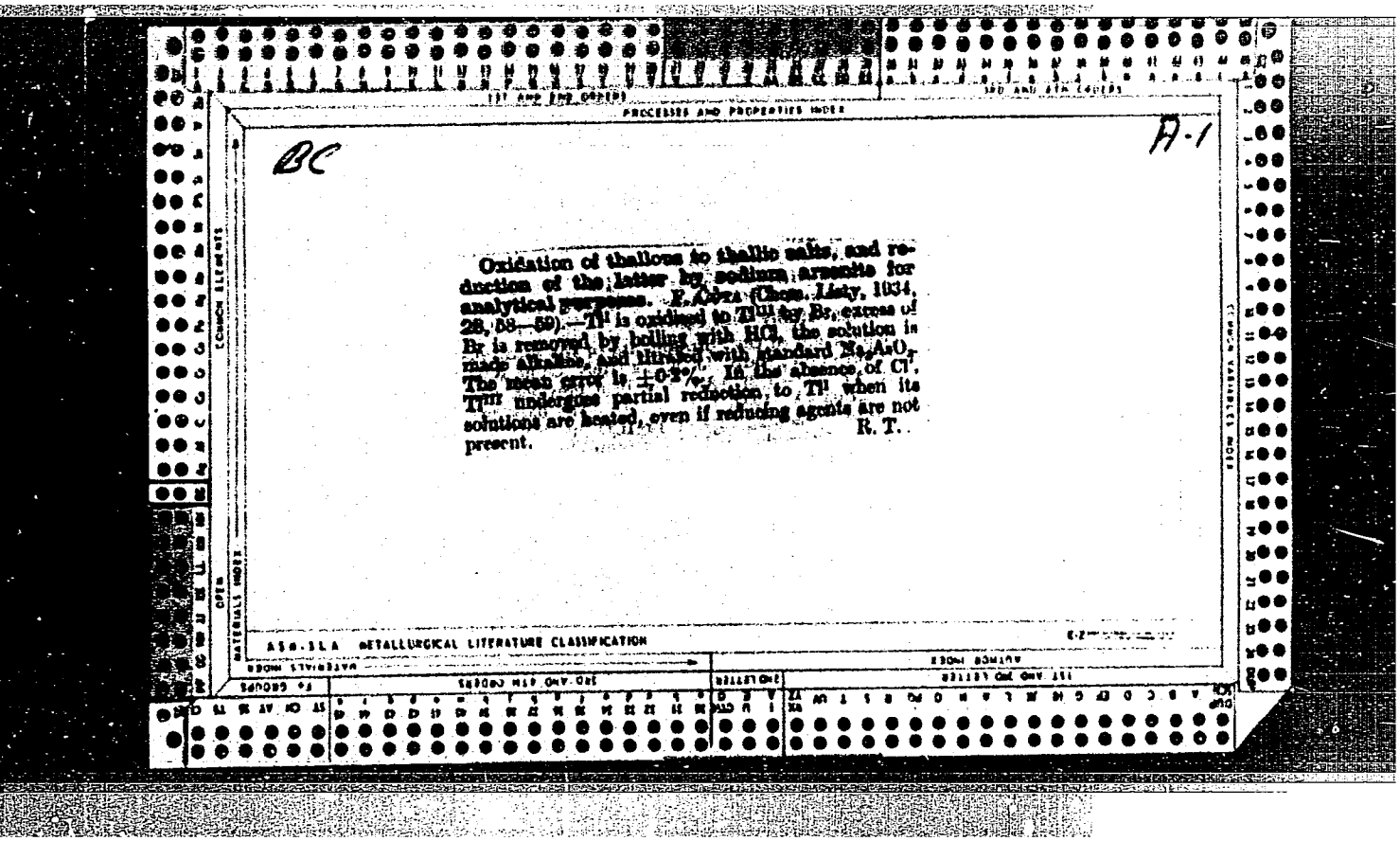
Oxidation of thallous salts to thallic and reduction of the thallic salts with sodium arsenite. F. Šuta. *Collection Czechoslov. Chem. Communications* 5, 287–301

(1933); cf. *C. A.* 17, 2084.—The purpose of this work was to find the conditions under which the reaction, $Tl^{+++} + AsO_3^{---} + H_2O \rightarrow Tl^{+} + AsO_4^{---} + 2H^{+}$, is quant. Tl_2CO_3, recrystd. until shown pure by titrating with acid, was used as a standard. It was oxidized with aq. Br_2 in HCl soln. and the excess Br_2 expelled on a water bath. The use of other acids in the oxidation, without a sol. chloride, gave low results, because of the partial reduction of the Tl^{+++} while heating to expel the Br_2. The addn. of a sol. chloride to these solns. prevents reduction by the formation of $TlCl_4^-$. After the Br_2 was expelled, an excess of Na_3AsO_3 was added, the soln. warmed for 1/2 hr. and back titrated with I_2. The reduction was carried out in acid, $NaHCO_3$, and basic solns. with equally good results. The mean error for the detn. of Tl by this method was about 0.2%. J. R. M.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Potentiometric titration of thallic salts by sodium thiosulfate. F. Čúta. *Collection Czechoslov. Chem. Communications* 6, 383-97; *Chem. Listy* 28, 320-5(1934).—Trivalent Tl in HCl soln. at 90° can be titrated by $Na_2S_2O_3$ in the presence of HgI, as catalyst. The thiosulfate is oxidized to sulfate with a mean error of 0.06%. The equivalence point is detd. from the potentiometric inflection point, by titration to a definite potential (cf Müller, *C. A.* 19, 1236) or by observing the deflections of a direct-coupled millivoltmeter. Pt wire serves as indicator electrode. Cu, Fe and quinquevalent As salts interfere, but Br_2, Cl_2, Cl' ion, a small amt. of Br ion, Hg and Cl salts, H_2SO_4, H_3PO_4 and $HClO_4$ do not in the presence of excess HCl. L. W. Elder

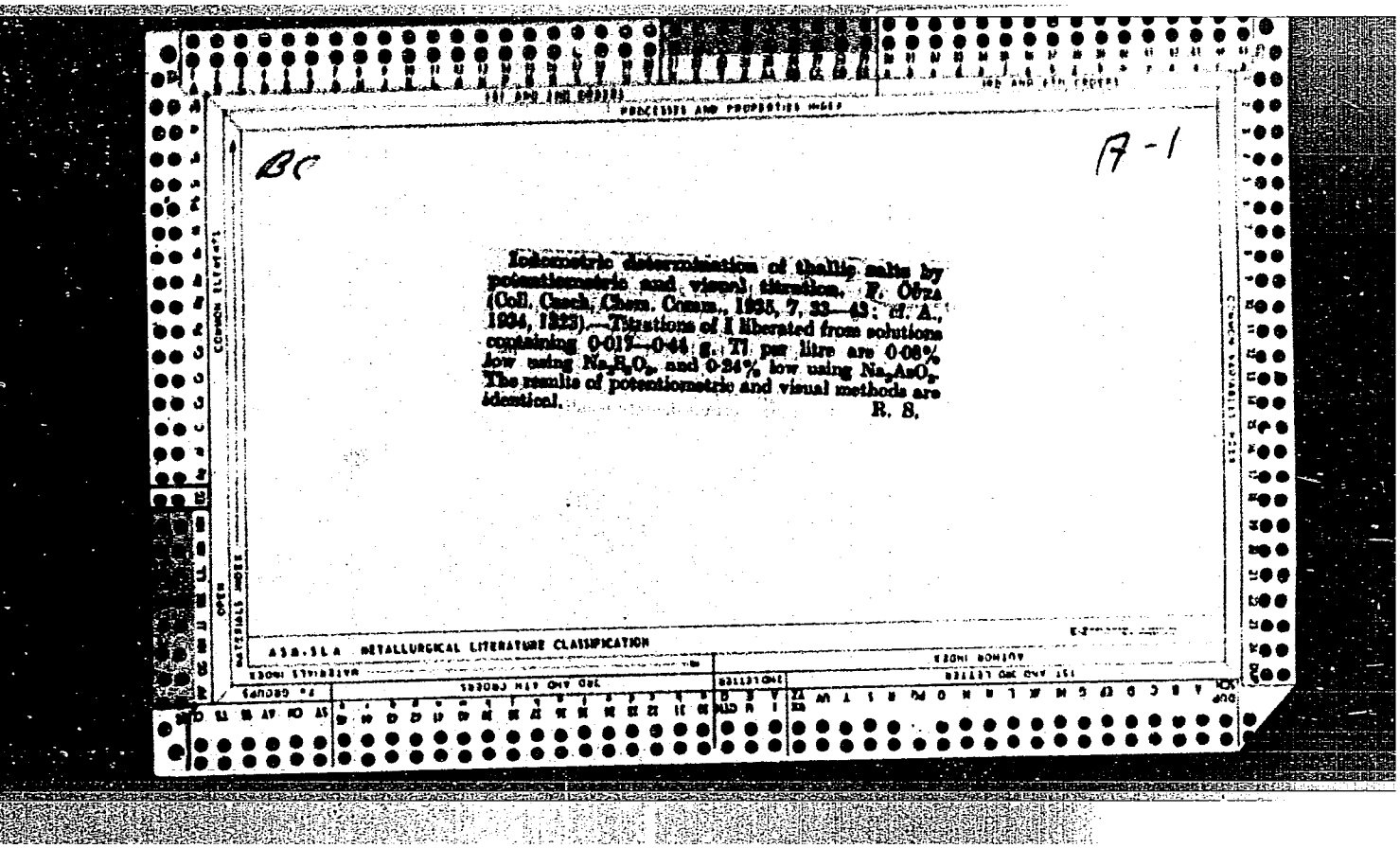


BC

A-1

Oxidation of thallous to thallic salts, and reduction of the latter by sodium arsenite for analytical purposes. F. Cobra (Chem. Listy, 1934, 28, 58—59).—Tl^{I} is oxidised to Tl^{III} by Br, excess of Br is removed by boiling with HCl, the solution is made alkaline, and titrated with standard Na_3AsO_3. The mean error is $\pm 0{\cdot}2\%$. In the absence of Cl', Tl^{III} undergoes partial reduction to Tl^{I} when its solutions are heated, even if reducing agents are not present. R. T.

A58-3LA METALLURGICAL LITERATURE CLASSIFICATION



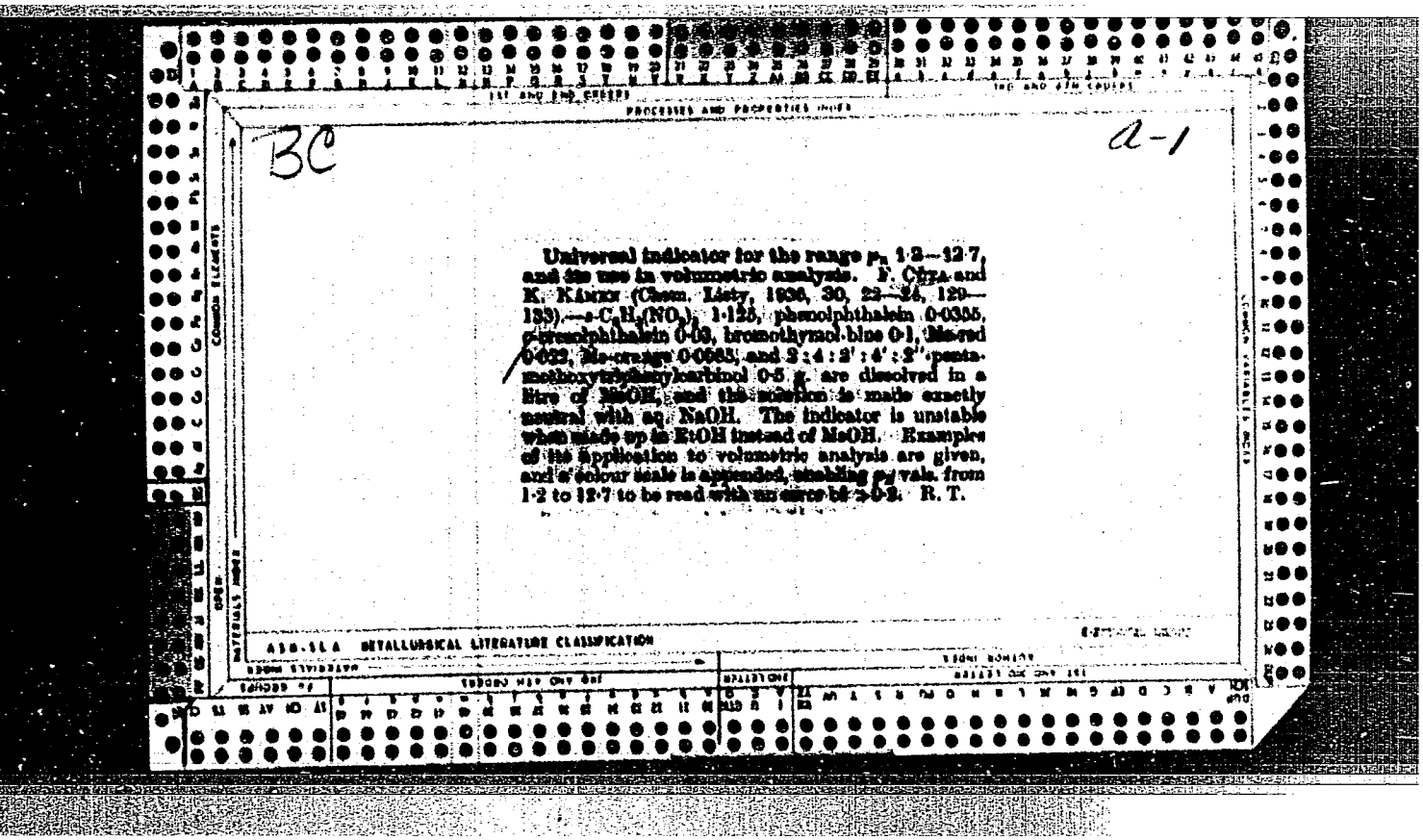
Bc

A-1

Iodometric determination of thallic salts by potentiometric and visual titration. R. Obža (Coll. Czech. Chem. Comm., 1935, 7, 33—49; cf. A., 1934, 1323).—Titrations of I liberated from solutions containing 0·017—0·44 g. Tl per litre are 0·08% low using $Na_2S_2O_3$ and 0·24% low using Na_3AsO_3. The results of potentiometric and visual methods are identical.

R. S.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

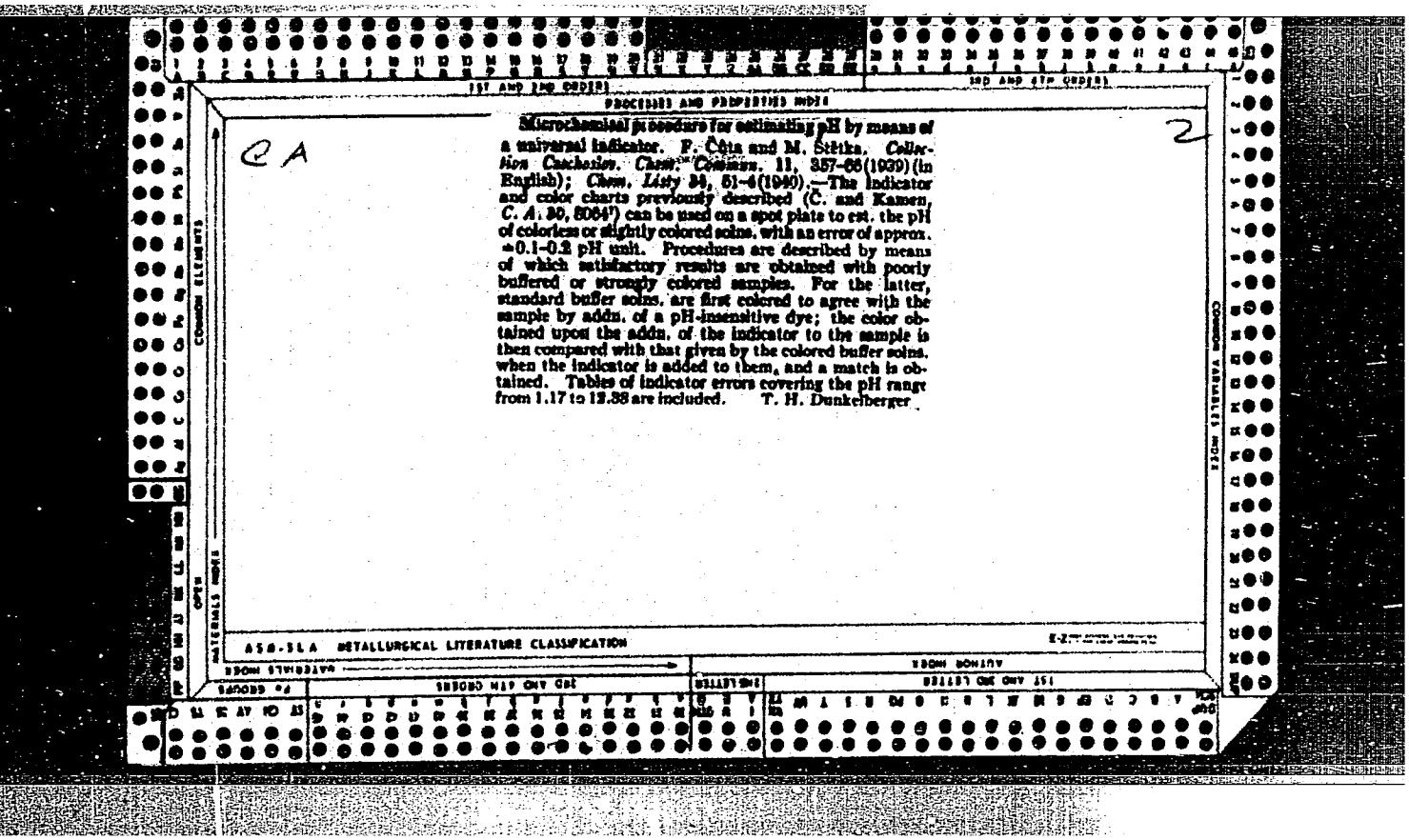


BC

a-1

Universal indicator for the range p_H 1·2—12·7, and its use in volumetric analysis. F. Cíha and K. Kámen (Chem. Listy, 1936, 30, 22—24, 129—133).—s-$C_6H_3(NO_2)_3$ 1·125, phenolphthalein 0·0355, *p*-cresolphthalein 0·03, bromothymol-blue 0·1, Me-red 0·022, Me-orange 0·0665, and 2 : 4 : 2' : 4' : 2''-pentamethoxytriphenylcarbinol 0·5 g. are dissolved in a litre of MeOH, and the mixture is made exactly neutral with aq. NaOH. The indicator is unstable when made up in EtOH instead of MeOH. Examples of its application to volumetric analysis are given, and a colour scale is appended, enabling p_H vals. from 1·2 to 12·7 to be read with an error of ±0·2. R. T.

A36-11A METALLURGICAL LITERATURE CLASSIFICATION

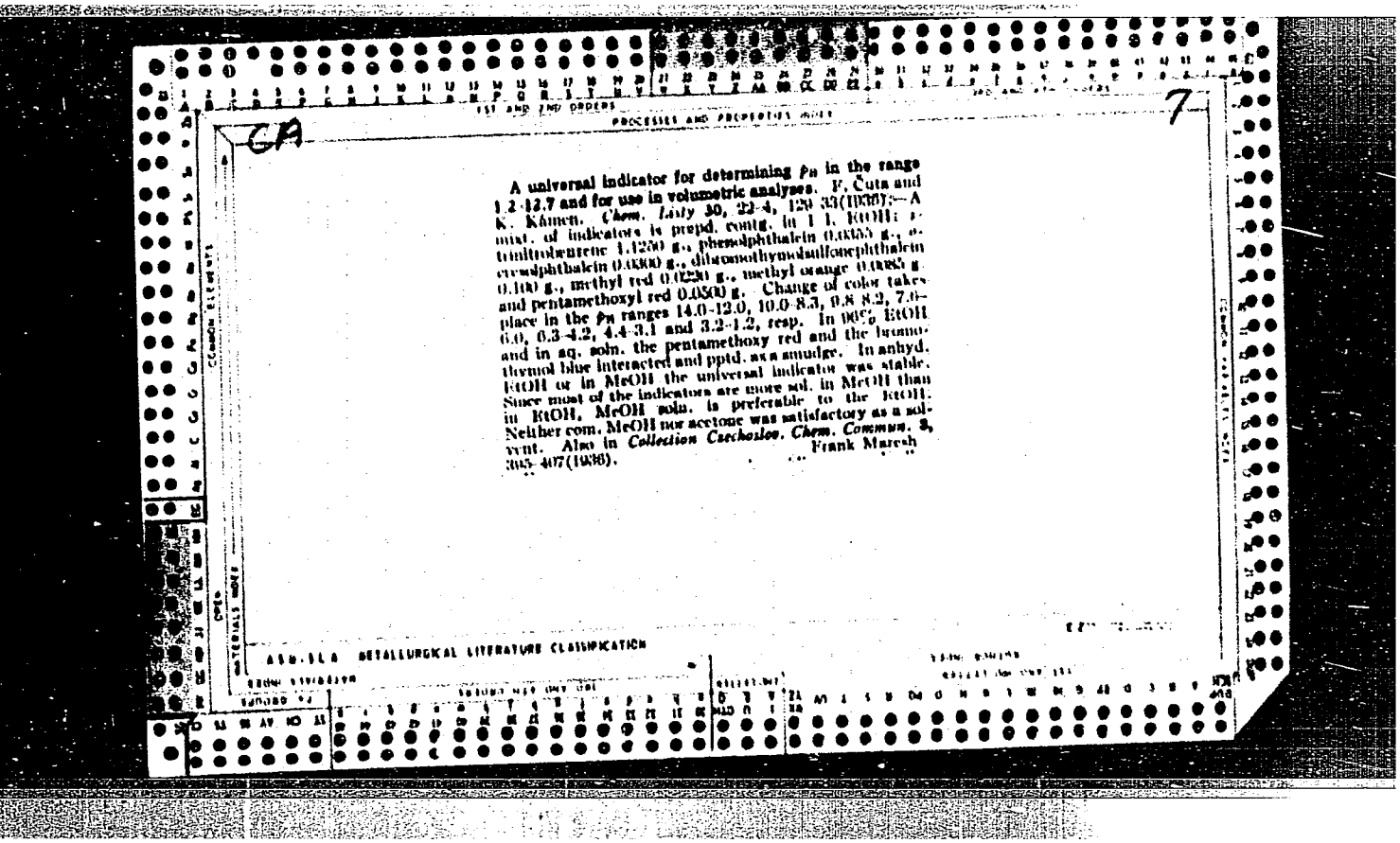


QA

2

Microchemical procedure for estimating pH by means of a universal indicator. F. Cota and M. Stika. *Collection Czechoslov. Chem. Communs.* 11, 357-66 (1939) (in English); *Chem. Listy* 34, 61-4 (1940).—The indicator and color charts previously described (C. and Kamen, *C. A.* 30, 8064[1]) can be used on a spot plate to est. the pH of colorless or slightly colored solns. with an error of approx. ±0.1–0.2 pH unit. Procedures are described by means of which satisfactory results are obtained with poorly buffered or strongly colored samples. For the latter, standard buffer solns. are first colored to agree with the sample by addn. of a pH-insensitive dye; the color obtained upon the addn. of the indicator to the sample is then compared with that given by the colored buffer solns. when the indicator is added to them, and a match is obtained. Tables of indicator errors covering the pH range from 1.17 to 12.58 are included. T. H. Dunkelberger

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

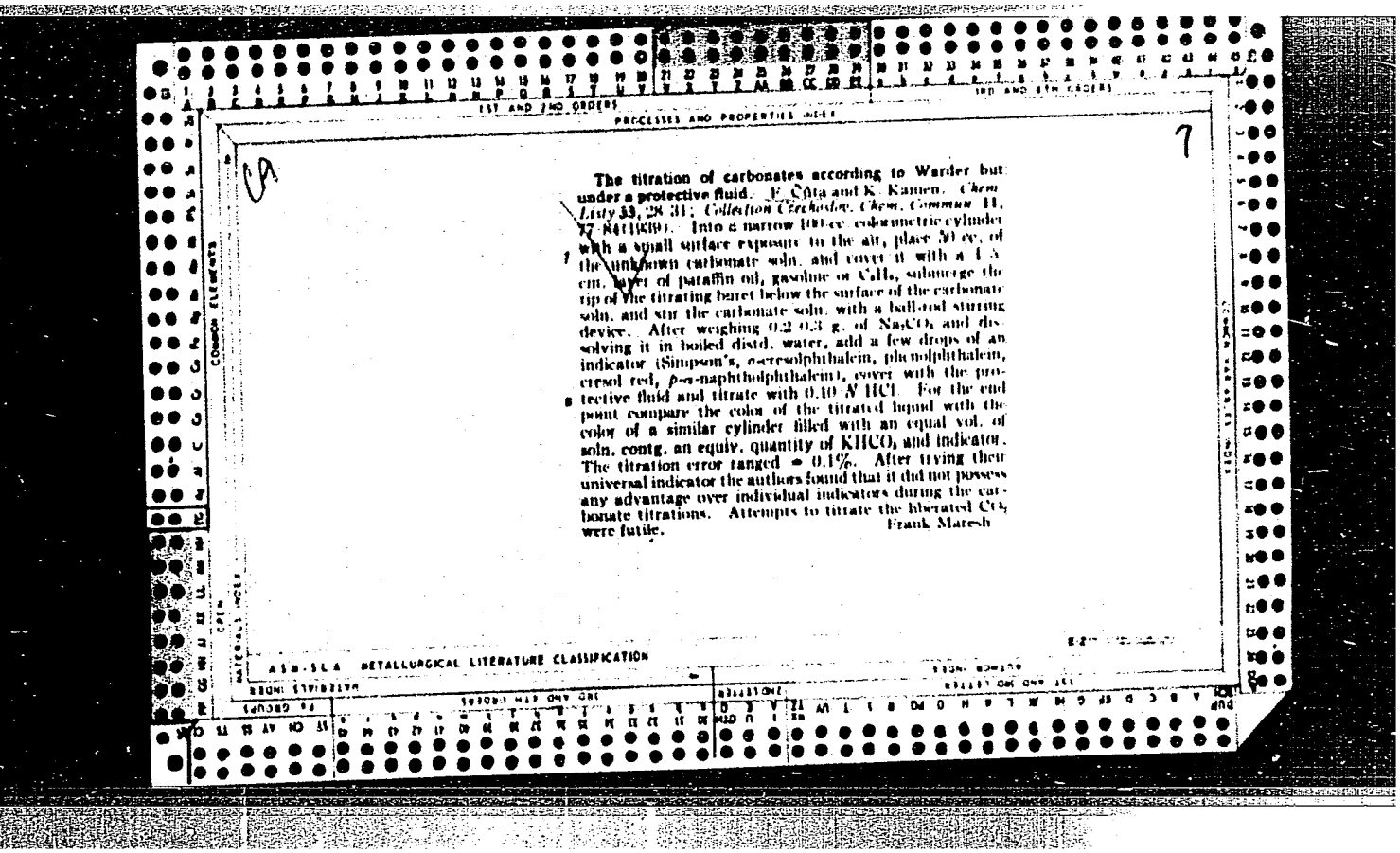


CA

7

A universal indicator for determining *p*H in the range 1.2-12.7 and for use in volumetric analyses. F. Cuta and K. Kámen. *Chem. Listy* 30, 22-4, 129-35(1936).—A mixt. of indicators is prepd. contg. in 1 l. EtOH: trinitrobenzene 1.1250 g., phenolphthalein 0.0355 g., o-cresolphthalein 0.0380 g., dibromothymolsulfonephthalein 0.100 g., methyl red 0.0220 g., methyl orange 0.0385 g. and pentamethoxyl red 0.0350 g. Change of color takes place in the *p*H ranges 14.0-12.0, 10.0-8.3, 9.8-8.2, 7.0-6.0, 6.3-4.2, 4.4-3.1 and 3.2-1.2, resp. In 90% EtOH and in aq. soln. the pentamethoxy red and the bromothymol blue interacted and pptd. as a smudge. In anhyd. EtOH or in MeOH the universal indicator was stable. Since most of the indicators are more sol. in MeOH than in EtOH, MeOH soln. is preferable to the EtOH. Neither com. MeOH nor acetone was satisfactory as a solvent. Also in *Collection Czechoslov. Chem. Commun.* 8, 395-407(1936). Frank Maresh

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



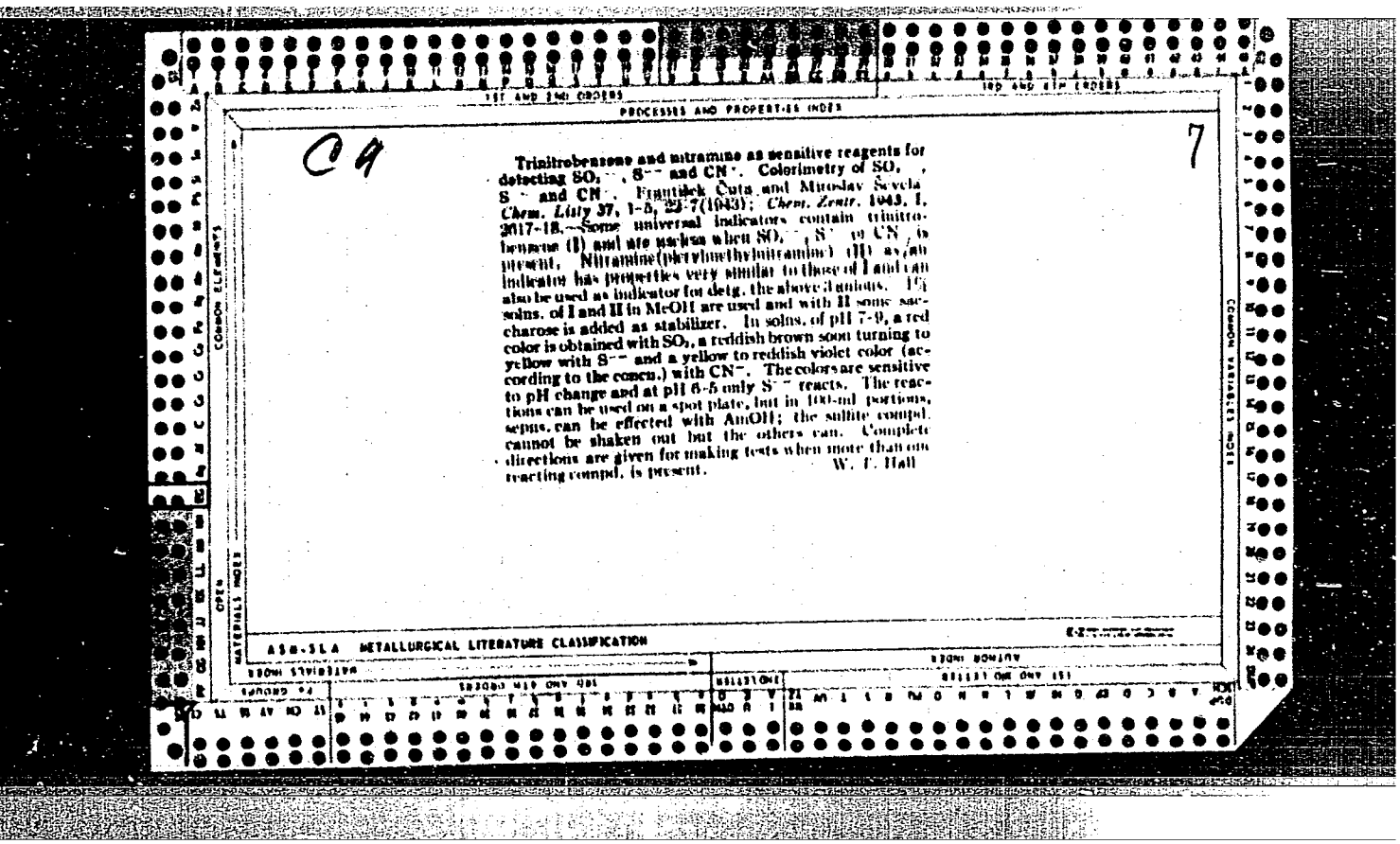
PROCESSES AND PROPERTIES INDEX

7

The titration of carbonates according to Warder but under a protective fluid. E. Ohta and K. Kamen. *Chem. Listy* **33**, 28-31; *Collection Czechoslov. Chem. Communs* **11**, 77-84 (1939). Into a narrow 100-cc. colorimetric cylinder with a small surface exposure to the air, place 50 cc. of the unknown carbonate soln. and cover it with a 1.5 cm. layer of paraffin oil, gasoline or CCl_4, submerge the tip of the titrating buret below the surface of the carbonate soln. and stir the carbonate soln. with a ball-rod stirring device. After weighing 0.2-0.3 g. of Na_2CO_3 and dissolving it in boiled distd. water, add a few drops of an indicator (Simpson's, *o*-cresolphthalein, phenolphthalein, cresol red, *p*-*o*-naphtholphthalein), cover with the protective fluid and titrate with 0.10 *N* HCl. For the end point compare the color of the titrated liquid with the color of a similar cylinder filled with an equal vol. of soln. contg. an equiv. quantity of $KHCO_3$ and indicator. The titration error ranged ± 0.1%. After trying their universal indicator the authors found that it did not possess any advantage over individual indicators during the carbonate titrations. Attempts to titrate the liberated CO_2 were futile.

Frank Maresh

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



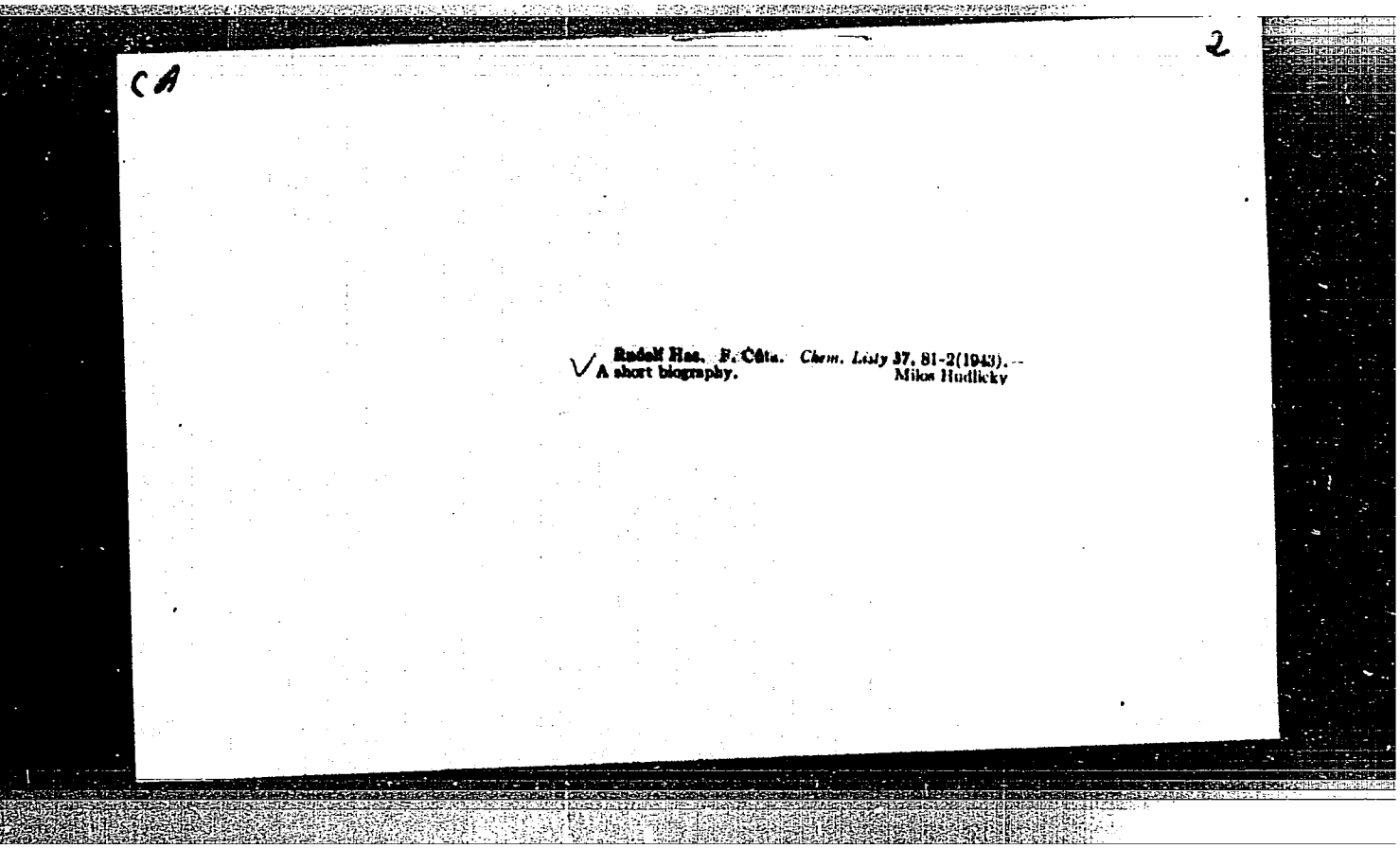
PROCESSES AND PROPERTIES INDEX

C4

7

Trinitrobenzene and nitramine as sensitive reagents for detecting SO_3^{--}, S^{--} and CN^-. Colorimetry of SO_3^{--}, S^{--} and CN^-. František Čuta and Miroslav Ševela *Chem. Listy* 37, 1-5, 22-7(1943); *Chem. Zentr.* 1943, I, 3017-18.—Some universal indicators contain trinitrobenzene (I) and are useless when SO_3^{--}, S^{--} or CN^- is present. Nitramine (picrylmethylnitramine) (II) as an indicator has properties very similar to those of I and can also be used as indicator for detg. the above 3 anions. Its solns. of I and II in MeOH are used and with II some saccharose is added as stabilizer. In solns. of pH 7-9, a red color is obtained with SO_3^{--}, a reddish brown soon turning to yellow with S^{--} and a yellow to reddish violet color (according to the concn.) with CN^-. The colors are sensitive to pH change and at pH 6-5 only S^{--} reacts. The reactions can be used on a spot plate, but in 100-ml portions, seps. can be effected with AmOH; the sulfite compd. cannot be shaken out but the others can. Complete directions are given for making tests when more than one reacting compd. is present. W. T. Hall

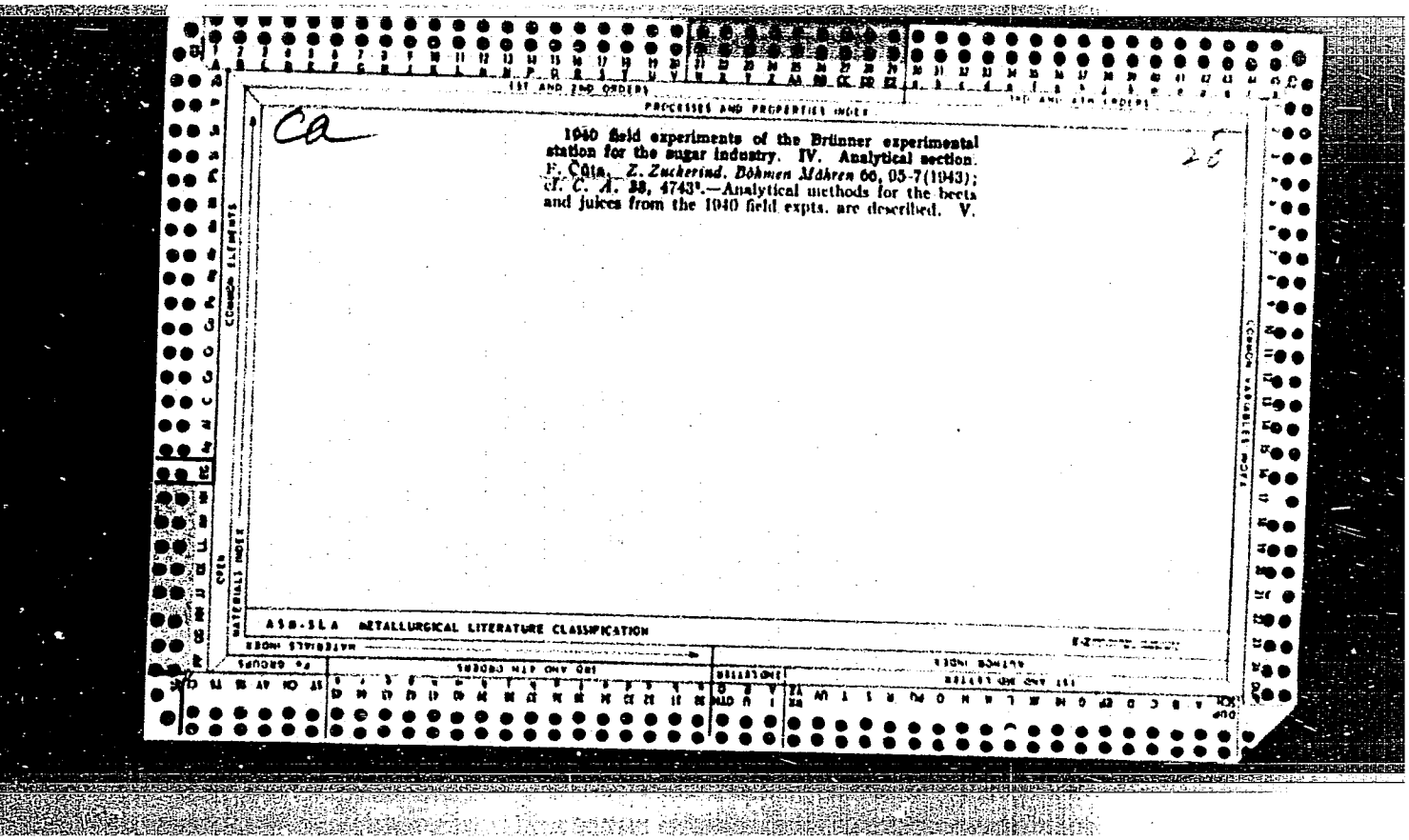
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

2

Rudolf Hss, F. Côte. *Chem. Listy* 37, 81-2(1943). -- A short biography. Milos Hudlicky



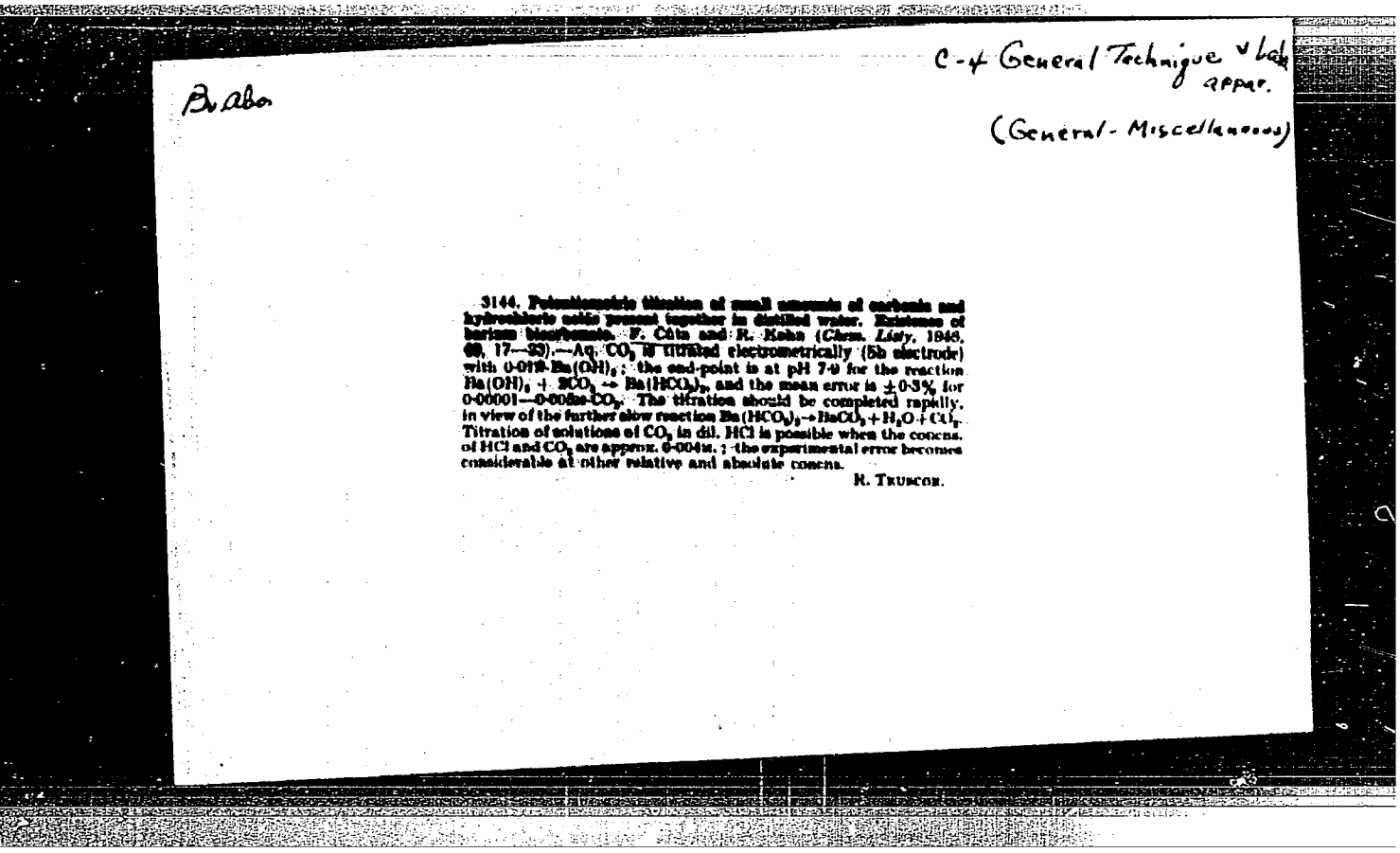
1940 field experiments of the Brünner experimental station for the sugar industry. IV. Analytical section. F. Čáta. *Z. Zuckerind. Böhmen Mähren* 66, 95-7(1943); *C. C. A.* **38**, 4743⁹.—Analytical methods for the beets and juices from the 1940 field expts. are described. V.

CA

28

An attempt to estimate the activity of calcium ions in the beet sugar juices. Prantiŝek Čáta and Miroslav Ševela. *Chem. Listy* **38**, 198-208(1944).— The activity of Ca^{++} in sucrose solns., sugar juices, and molasses contg. 15% of sucrose was estd. by means of Harnapp's electrode (*C.A.* **33**, 2169) (Hg|$Hg_2(COO)_2$|$Ca(COO)_2$|Ca^{++}). The activity of Ca ions decreases in the series: sucrose soln. > H_2O > light juice > heavy juice > molasses. The juices act as Ca regulators, their pH being important. The substance responsible for lowering the activity of Ca ions was not discovered.

Miloš Hudlický

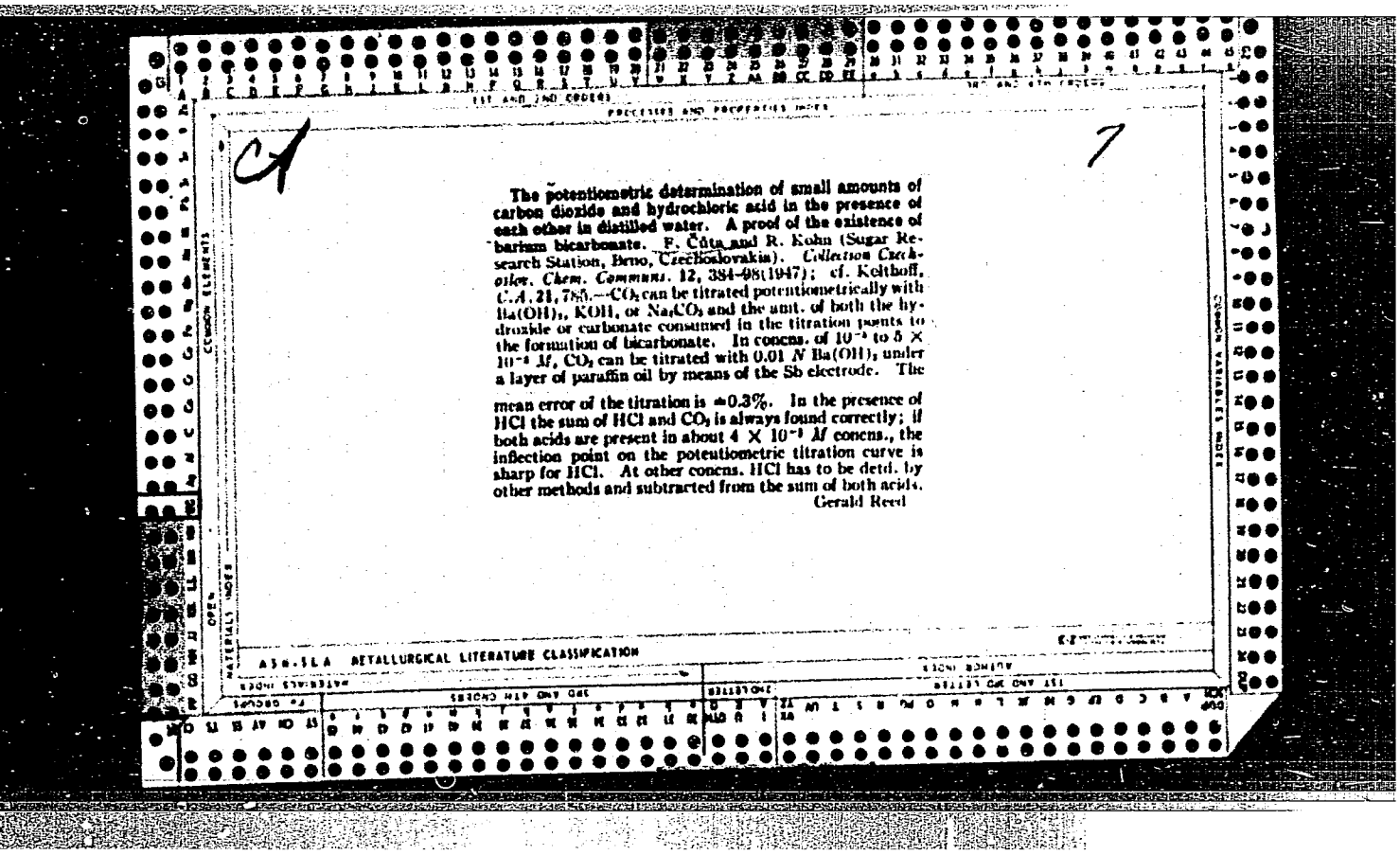


C-4 General Technique ✓ Lab appar.

(General - Miscellaneous)

3144. Potentiometric titration of small amounts of carbonic and hydrochloric acids present together in distilled water. Existence of barium bicarbonate. F. Cáin and R. Kahn (*Chem. Listy*, 1948, **42**, 17—23).—Aq. CO_2 is titrated electrometrically (Sb electrode) with 0·01*N*-$Ba(OH)_2$; the end-point is at pH 7·9 for the reaction $Ba(OH)_2 + 2CO_2 \rightarrow Ba(HCO_3)_2$, and the mean error is ±0·3% for 0·00001—0·0025*M*-CO_2. The titration should be completed rapidly, in view of the further slow reaction $Ba(HCO_3)_2 \rightarrow BaCO_3 + H_2O + CO_2$. Titration of solutions of CO_2 in dil. HCl is possible when the concns. of HCl and CO_2 are approx. 0·004*M*.; the experimental error becomes considerable at other relative and absolute concns.

R. TRUSCOTT.



C1 7

The potentiometric determination of small amounts of carbon dioxide and hydrochloric acid in the presence of each other in distilled water. A proof of the existence of barium bicarbonate. F. Čůta and R. Kohn (Sugar Research Station, Brno, Czechoslovakia). *Collection Czechoslov. Chem. Communs.* 12, 384-98(1947); cf. Kolthoff, *C.A.* 21, 785.—CO_2 can be titrated potentiometrically with $Ba(OH)_2$, KOH, or Na_2CO_3 and the amt. of both the hydroxide or carbonate consumed in the titration points to the formation of bicarbonate. In concns. of 10^{-3} to 5×10^{-4} *M*, CO_2 can be titrated with 0.01 *N* $Ba(OH)_2$ under a layer of paraffin oil by means of the Sb electrode. The mean error of the titration is ±0.3%. In the presence of HCl the sum of HCl and CO_2 is always found correctly; if both acids are present in about 4×10^{-3} *M* concns., the inflection point on the potentiometric titration curve is sharp for HCl. At other concns. HCl has to be detd. by other methods and subtracted from the sum of both acids.

Gerald Reed

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1540. Distillation method for direct determination of carbon dioxide. F. Cuta and K. Kastra (*Coll. Czech. Chem. Commun.*, 1948, 13, 332—338).—Apparatus is described for the determination of CO_2 by decomposing the sample with a non-volatile acid. The CO_2 is boiled off and absorbed in NaOH or $Ba(OH)_2$ solution by shaking in a eudiometer. Excess of hydroxide is titrated, the solution being protected from atm. CO_2 by paraffin oil layer. Sources of error are discussed, and the accuracy is illustrated by blank tests and by tests on known samples. From these results, an average accuracy of ±0·03% is claimed for samples containing 0·03—0·10 g. of CO_2. R. R. BALDWIN.

2616. [Use of] trinitrobenzene and notramine as sensitive reagents for detection, and colorimetric estimation, of sulphites, sulphides, and cyanides. F. Čůta and M. Ševela (Coll. Trav. chim. Tchécosl., 1948, 13, 267-288 [in English]). At pH 8 ± 1, 1:3:5-trinitrobenzene and methylpicrylnitramine give, in each case, a sensitive colour test for SO_3^{--} (reddish), S^{--} (brownish-yellow, later turning to yellow), and CN^- (yellowish, becoming violet at higher concn. of cyanide). The reagents are used as 1% solutions in methanol. In aq. NH_4-acetic acid buffers, photometric determinations give the min. dilution limits for detection and SO_3^{--}, 1 in 400,000; S^{--}, 1 in 70,000; CN^-, 1 in 40,000 with trinitrobenzene and higher dilutions with nitramine. Spot tests are less sensitive. The substance produced with CN^- can be extracted with aq. NH_3 to form a purple solution. This enables the components of the binary mixtures CN^-/SO_3^{--} and CN^-/S^{--} to be detected. The substance formed by SO_3^{--} remains in the aq. layer, but that formed by S^{--} changes to a yellow colour after 5—10 min. and can then be extracted. For separation it is therefore important to carry out extraction immediately after addition of the reagent to CN^-/S^{--} mixtures. Detection of the components of SO_3^{--}/S^{--} mixtures is done by extraction with aq. NH_3 15 min. after addition of the reagent. A suspected ternary mixture is shaken with Sb_2O_3 (1 g. to 10 ml. of solution) for 5—8 min., filtered, treated with the reagent, and immediately extracted 5 times with amyl alcohol. Presence of CN^- is shown by an orange colour in the alcohol, SO_3^{--} by a red-violet colour in the aq. layer, and S^{--} by a yellow colour on the Sb_2O_3. Zn, Cd, Hg, Ag, and CNS^- interfere. The reagents can also be used for colorimetric determination of SO_3^{--}, S^{--}, and CN^- provided the method is carried out rapidly and a photoelectric colorimeter or a Pulfrich photometer is used. Accuracy is about ±2% for SO_3^{--} and CN^-, and about ±5% for S^{--}.

J. J. KIPLING.

CA

11-2

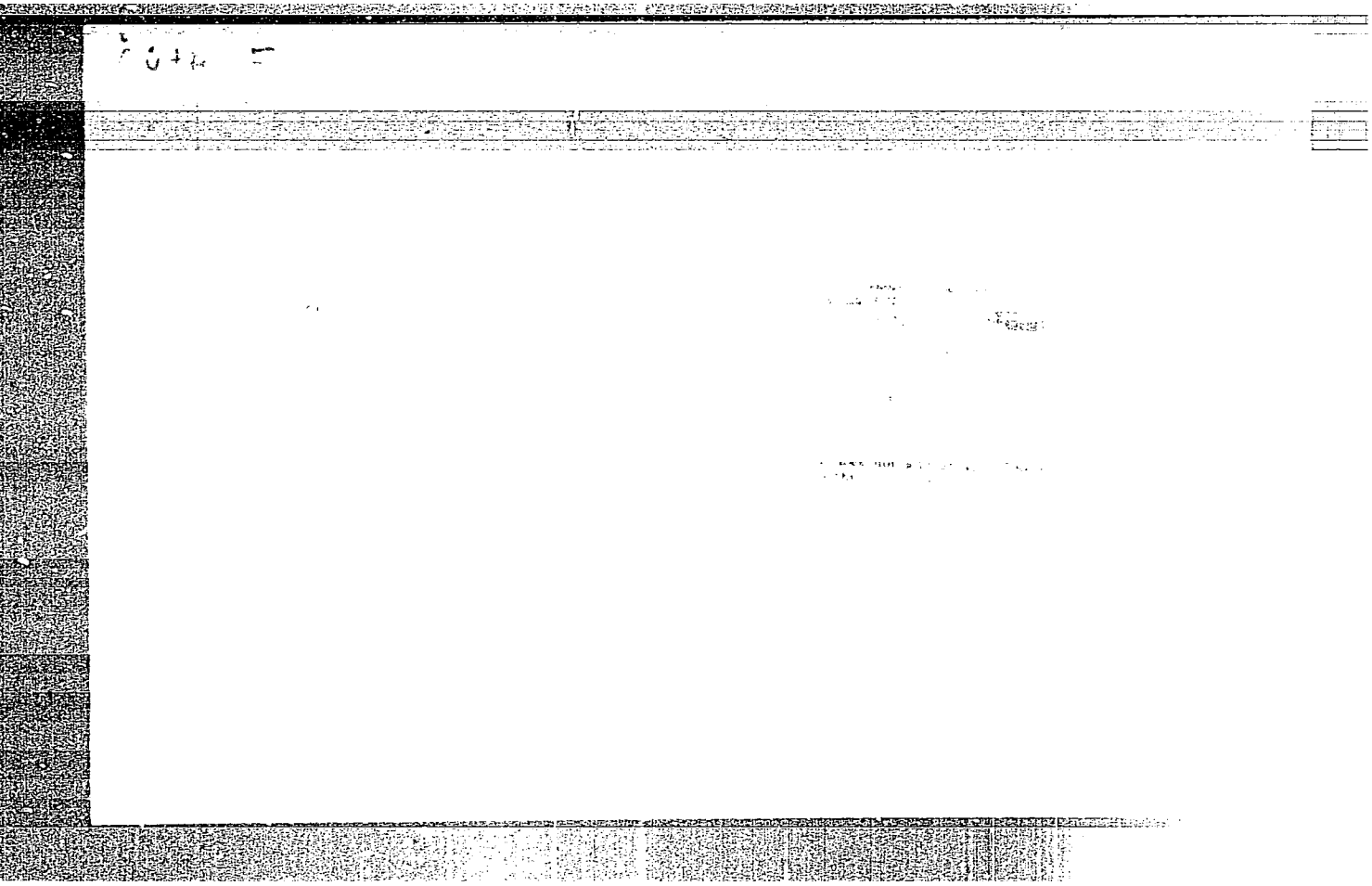
Estimation of vitamin B_{12} and related factors. W. F. J. Cuthbertson. *Abstracts Communs. 1st Intern. Congr. Biochem.* 1949, 79-81; cf. *C.A.* 45, 2558d.—The plate assay method (cf. *C.A.* 42, 7308a) was adapted to the detn. of vitamin B_{12} activity, by using the medium of Roberts and Snell (*C.A.* 40, 4410e) in *Lactobacillus lactis*. Colonies of *L. lactis* grown on this medium form "zones of exhibition," the diams. of which are proportional to the vitamin B_{12} concn. Two red substances from liver exts. which are active against pernicious anemia (one is identical with vitamin B_{12}) were obtained in partition chromatography with BuOH. If the developed paper was applied to the surface of a vitamin B_{12}-deficient agar medium contg. *L. lactis*, the substances with the vitamin B_{12} activity produced zones of growth. This technique could detect 0.005 to 0.1 γ of the red factors. Liver exts. showed 2 elliptical growth zones corresponding to the two red factors; one was close to the origin and the other farther away. Still further from the origin there was an attenuated faint growth in 1 or 2 zones; of these, the first was due to an unidentified substance and the second to thymidine. Animal protein factor caused 2 zones of strong growth and 1 or 2 of faint growth in the same relative positions as the zones from the liver ext. Prepns. from 3 different bacteria showed pink bands on silica partition chromatograms; microbiol. activity was concd. at these sites. These bacteria elaborate vitamin B_{12}, the 2nd red factor, and thymidine. A combination of partition chromatography and plate assay can be used to eliminate interference from substances similar to thymidine. The plate method permits vitamin B_{12} to be readily distinguished from thymidine because of the difference in the growth zones.

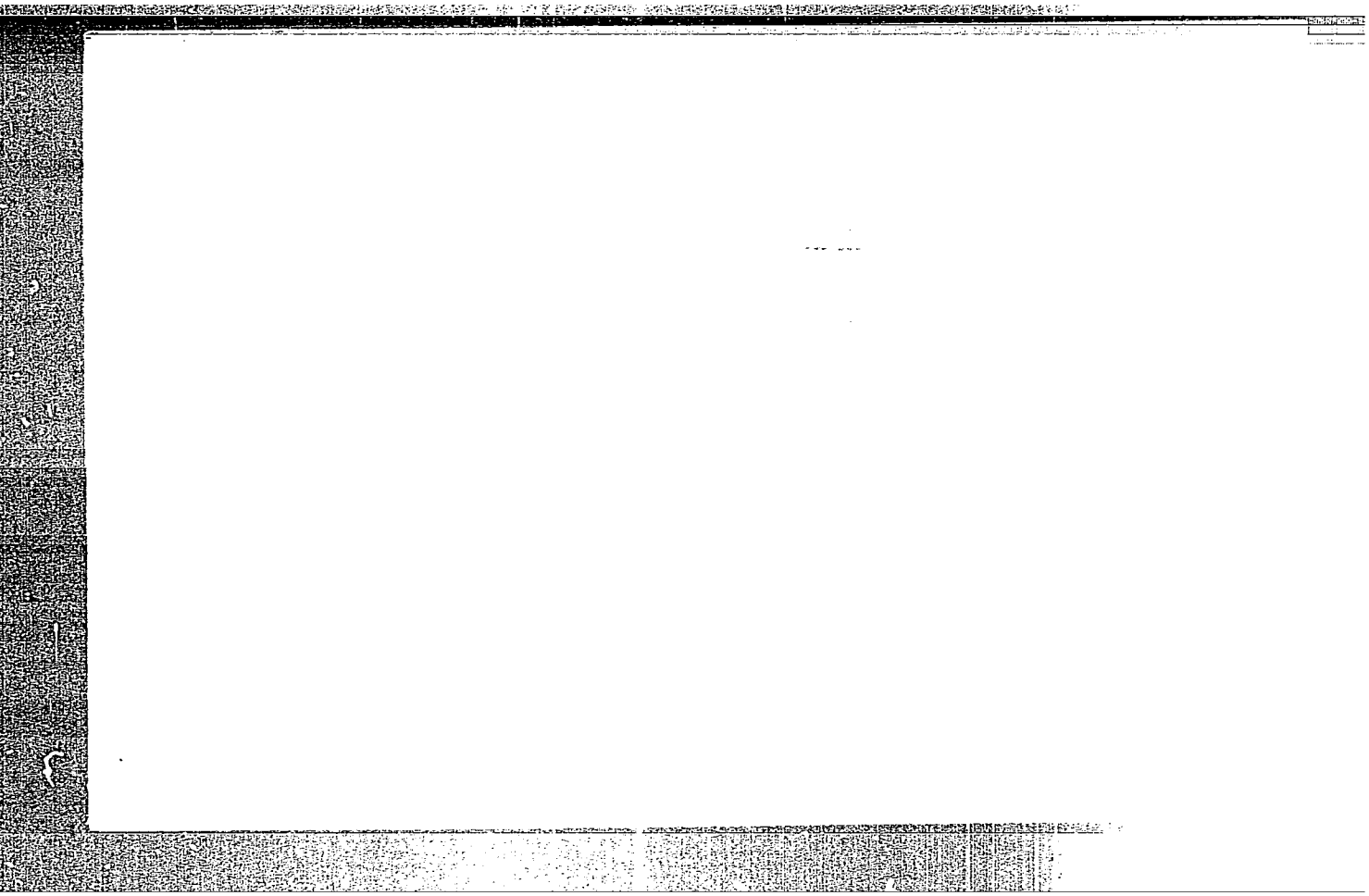
Theresa McKee

CA

1

Potentiometric determination of hydroxide or bicarbonate in sodium carbonate by Winkler's method. F. Čůta and Z. Velebil (Tech. Univ., Prague). *Chem. Listy* 44, 103-8 (1950).—Winkler's method was modified for potentiometric titration. By elimination of atm. CO_2 and efficient stirring the titration of the hydroxide remaining after the pptn. with $BaCl_2$ is quant. Adsorption of the hydroxide on $BaCO_3$ or formation of acidic or basic Ba carbonates was not observed. By this method no Na_2O or $NaHCO_3$ was found in the assay of Na_2CO_3 prepd. according to Lunge (*Z. angew. Chem.* 17, 195, 225, 265 (1904)) as an analytical standard. M. Hudlický





SORM, Frantisek, akademik; MASTOVSKY, Otakar; KASPAR, Jan; SIRACKY, Andrej; VANA, Josef; ZACHOVAL, Ladislav; RASKA, Karel; BLASKOVIC, Dionyz, akademik; WICHTERLE, Otto, akademik; PRANTL, Ferdinand; CUTA, Frantisek; JERIE, Jan; HENNER, Kamil, akademik; CAPEK, Ladislav; LINK, Frantisek; STRNAD, Julius

Report on the activities of the Czechoslovak Academy of Sciences made at its 12th General Assembly, and the discussion. Vestnik CSAV 70 no.1: 26-34 '61.

1. Namestek presidenta Ceskoslovenska akademie ved (for Sorm).
2. Clen korespondent Ceskoslovenske akademie ved (for Mastovsky, Kaspar, Siracky, Vana, Zachoval, Raska, Prantl, Cuta, Jerie, Capek, Link and Strnad). 3. Predseda Slovenskej akademie vied (for Siracky).