KOVACS, Istvan; TASNADI, Emil; KES[illegible]RU, Janos

Calling for the registration for the innovators' and inventors' show at the 1962 National Agricultural Exhibition. Ujit lap 14 no.3:8 F '62.

1. Mezogazdasagi es Erdeszeti Dolgozok Szakszervezetenek fotitkara (for Kovacs). 2. Orszagos Talalmanyi Hivatal elnoke, es "Ujitok Lapja" foszerkesztoje (for Tasnadi) 3. Foldmuvelesugyi miniszterhelyettes (for Keseru).

KOVACS, Istvan

Agriculture has become part of socialism. Hungarian TU no.6:11-13 Je '61.

1. General Secretary of the Agricultural Workers Union.

KOVACS, Istvan

"Absorption spectra in the ultraviolet and visible region" edited by L.Lang. Reviewed by Istvan Kovacs. Magy fiz folyoir 10 no.3:249-250 '62.

1. "Magyar Fizikai Folyoirat" szerkeszto bizottsagi tagja.

KOVACS, Istvan

Quadrangular-wave generator for investigating basic phenomena of spark machining. Elektrotechnika 55 no.8:363-366 Ag '62.

1. Kozponti Fizikai Kutato Intezet.

KOVACS, Istvan

Direct-voltage generators of spark-machining installations. Elektrotechnika 55 no.4:165-171 Ap '62.

1. Altalanos Geptervezo Iroda.

KILB, Gyula, dr.; KOVACS, Istvan

Observation examination of foreign cucumber varieties. Konzerv paprika no.5:168-171 S-O '62.

1. Konzerv- es Paprikaipari Kutatointezet (for Kilb). 2. Keoskemeti Konzervgyar (for Kovacs).

KOVACS, Istvan

Dieselization in the field of navigation in Hungary. Kozleked kozl 18 no.50:913-917 16 D '62.

KARPATHY, Laszlo, dr.; KOVACS, Istvan, dr.

Unusual metastasis of bronchial cancer simulating gynecologic tumor. Magy. onkol. 7 no.1:33-35 Mr '63.

1. Baja Varosi Tanacs V.B. Korhaza Szuleszeti es Nogyogyaszati Osztaly.

(NEOPLASM METASTASIS) (BRONCHIAL NEOPLASMS) (ENDOMETRIOSIS)
(CARCINOMA, BRONCHIOLAR) (GYNECOLOGIC NEOPLASMS)

KOVACS, Istvan, a mezogazdasagi tudomanyok kandidatusa

"Maize growing experiments, 1958-1960", edited by [Dr] Istvan Iso. Reviewed by Istvan Kovacs. Magy tud 70 no.1:73-75 Ja '63.

1. Magyar Tudomanyos Akademia Mezogazdasagi Kutato Intezete, Martonvasar, tudomanyos fomunkatarsa.

KOVACS, Istvan

Closing address delivered at the Conference on Manufacturing Machines for the Food Industry. Elelm ipar 17 no.2:66 F '62.

1. Miniszterhelyettes, Koho- es Gepipari Miniszterium.

KOVACS, Istvan; BENKO, Lazar

Measurement of energy stored in plastically deformed metals by means of adiabatic calorimeter. Magy fiz folyoir 12 no.1:31-44 '64.

1. Chair of Experimental Physics, Lorand Eotvos University, Budapest.

1920 1805

L 45551-66 T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6033887 SOURCE CODE: HU/0014/65/098/010/0460/0465

AUTHOR: Kovacs, Istvanne 41

ORG: Research Institute of the Metallurgical Industry (Femipari Kutato Intezet) B

TITLE: Lattice defects in face-centered pure cubic metals 15 4

SOURCE: Kohaszati lapok, v. 98, no. 10, 1965, 460-465

TOPIC TAGS: plastic deformation, crystal lattice defect, tempering

ABSTRACT: A method of determining the physical lattice defects of face-centered cubic pure metals is presented. The creation of defect concentrations by plastic deformation, by radiation treatment and by refrigeration is discussed. Also treated are the influence of tempering on the variation of the physical properties of metals, and the explanation of metallographical phenomena by means of physical metallurgy. Orig. art. has: 5 figures and 1 table. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 13, 20 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 040

Card 1/1 fv UDC: 620.18:548.31

R/004/60/000/009/001/001
D244/D306

AUTHORS: Marcus, Bruno; Ciontea, Ion; Kovacs, Iuliu; Visoiu, Violeta; Diaconu, Lucia; and Soltuz, Constantin, Engineers (Bucharest)

TITLE: Ceramic capacitors for radio engineering

PERIODICAL: Electrotehnica, no. 9, 1960, 321 - 327

TEXT: The article presents some studies conducted by ICET on producing dielectric ceramic materials from domestic raw materials for P 100 and N 750 capacitors. The material for the P 100 capacitors was developed by ICET on the basis of steatite from the Hunedoara region. For the N 750 capacitors, the ICET developed a material consisting of titanium dioxide, zinc oxide and zirconium oxide. The main components of this material called "Ti 11", (N 750) are TiO_2, ZnO, with additions of ZrO_2, Al_2O_3, and SiO_2. The main properties vary as follows: tg δ : with an increase of TiO_2 the losses drop to tg $\delta = 4 \cdot 10^{-4}$; with an increase of TiO_2 the constant increases to above 80, in case

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Ceramic capacitors for... R/004/60/000/009/001/001
D244/D306

of a TiO_2 content of over 80%. TK ε: varies from +180 to -710, in a zone of 33 to 90% of TiO_2. At temperatures above 1,100°C the crystalline phases are TiO_2 and $ZnO \cdot TiO_2$. Reducing the temperature to 800°C, the latter enters into a solid solution with TiO_2. The titanium dioxide was of foreign origin. The determination of dielectric losses carried out with 50 capacitors in dry and humid states is given in Fig. 9. 1. number of capacitors 2. tangent of the loss angle 3. in dry state $tg\delta_{med} = 2.53 \times 10^{-4}$ 4. after moistening $tg\delta_{med} = 3.6 \times 10^{-4}$. The loss values are included in a narrow range, the "Gauss bell" having a pointed shape. After having moistened the capacitors for 24 hrs in distilled water the losses slightly increased, the shape of the curve, however, remaining the same. The loss values were maintained within the limits admitted by international standards. The distribution of the values of the dielectric losses was measured with a group of 400 capacitors, again resulting in a pointed curve. It is concluded that the manufacturing of ceramic capacitors from domestic raw materials

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R/004/60/000/009/001/001
D244/D306

Ceramic capacitors for...

is in accordance with the need for a rapid development of Rumanian industry. The results obtained correspond to those of foreign products, proving the possibility of manufacturing these capacitors in Rumania. There are 10 figures, 4 tables and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: M.E. Levin: Phase diagrams for ceramics, Ohio, 1956.

ASSOCIATION: ICET

SUBMITTED: April 8, 1960

Card 3/4

ALMASSY, Gyorgy, dr.; BOROMISZA, Gyula; FERENCZY, Jeno; HAAS, Andras; JUHASZ, Endre; KEMENY, Tamas; KOVACS, Ivan; LESETAR, Jozsef; LUKACS, Gyula, dr.; PETIK, Ferenc; SZLAVIK, Ferenc; SZOMBATHY, Emil, dr.; TARNAY, Kalman, dr.

Lectures delivered at the 3d International Measurement Conference. Meres automat 12 no.9:270-292 '64.

1. Editorial board member, "Meres es Automatika" (for Almassy, Boromisza, Juhasz, Kemeny, Lukacs and Tarnay).

KOVACS, E. N.

272. NEW APPROACH[illegible] TO PETROLEUM REFINING PROCESSES. IV. MANUFACTURE OF MEDICINAL WHITE OILS THROUGH CYCLIC ADSORPTION REFINING. [illegible], E. and Kovács, I. (Mag. Tud. Akad. Kém. Tud. Osztályának Közleményei, 195[illegible], vol. 7, [illegible]-107; abstr. in Chem. Abstr., 1956, vol. 50, 153[illegible]). In order to replace the costly and slow preparation of white oils by refining with sulphuric acid, a chromatographic method, with silica gel and a propane-butane mixture was developed. The product can be used directly for cosmetic purposes or can be sulphonated to yield 1-1.5% naphthene sulphonic acids and medicinal white oils.

KOVACS, J.

Change in size of map paper. p. 159, GEODEZIA ES KARTOGRAFIA. (Allami Foldmeresi es Terkepeszeti Hivatal) Budapest. Vol. 8, No. 2, 1956

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 5, No. 11, November 1956

HUNGARY / Human and Animal Physiology. Action of Physical Agents. T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41839.

Author : Kovacs~~, J.~~
Inst : Not Given.
Title : Wounds Caused by Radioactive Irradiation.

Orig Pub: Magyar allatorv. lapja, 1956, 11, No 10-12, 370-373.

Abstract: No Abstract.

Card 1/1

KOVACS, J. ; SZENTPALY, T.

Determination of the grade of desizing by means of a photometer. p. 404.

MAGYAR TEXTILTECHNIKA. (Textilipari Muszaki es Tudomanyos Egyesulet)
Budapest, Hungary, Vol. 10, no. 11/12, Dec. 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

KOVACS, J.; BAROS, L.; SZENTPALY, T.

The measurement of wettability. p. 478.

MAGYAR TEXTILTECHNIKA. (Textilipari Muszake es Tudomanyos Egyesulet)
Budapest, Hungary. Vol. 11, no. 12, Dec. 1959.

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

KOVACS, J.

The classification of movements of solid bodies. Pt. 2. (Conclusion)

P. 432. (STROJNOELEKTROTECHNICKY CASOPIS) (Bratislava, Czechoslovakia) Vol. 8, no. 6, 1957

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

KOVACS, J.

"The classification of movements of solid bodies. (To be contd.)"

p. 361 (Strojnoelektrotechnicky Casopis) Vol. 8, no. 5, 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

All Western references.
1/1

KOVACS, J. Sandor

"Doklady Akademii pedagogicheskikh nauk RSFSR," no.3, 1962. Reviewed by Sandor J. Kovacs. Magy pszichol szemle 21 no.3: 498-500 '64.

KOVAC, J.

"Tamping Earth in the Construction of a Dirt Dam at Pelanka", P. 291.
(TECHNICKA. PRACA, Vol. 6, No. 5, May 1954, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1,
Jan. 1955, Uncl.

KOVAC, J.

"National Congress on Water Economy in 1954; Hydrology and the Regulation of Flow," P. 294. (TECHNICKA PRACA, Vol. 6, No. 5, May 1954, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955, Uncl.

KOVAC, J.

"Lowering the Level of Underground Water in the Brown Coal Area of Southern Slovakia", P. 388, (TECHNICKA PRACA, Vol. 6, No. 7, July 1954, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955, Uncl.

Kovac, J.

Measurement of soil resistance to shear using a three-axle apparatus in our laboratories for soil mechanics. p. 59. INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha. Vol. 4, no. 2, Feb. 1956.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

SZENTPALY, Tiborne; KOVACS, Janos

Mercerization of fabrics made of a mixture of cotton and viscose.
Magy textil 13 no.5:195-197 My '61.

1. Textilipari Kutato Intezet.

RUSZNAK, Istvan, dr.; SZENTPALY, Tiborne; KOVACS, Janos

Properties and finishing methods of mixture fabrics made of cotton and viscose. Magy textil 13 no.6:225-229 Je '61.

1. Textilipari Kutato Intezet munkatarsai.

GECZY, I., dr.; BERCSENYI, [illegible].Gy.; KOVACS, J.

Testing the factors influencing the pigment fixation.
Magy textil 16 no.10:462-465 O '64.

KOVACS, Janos (Budapest)

The second track of the Kisujszallas-Apafa railroad line. Vasut 15 no.2:3-4 F '65.

1. Hungarian State Railways.

KOVACS, Janos

Reviewing the 65-year-old bridge shoes. Koh lap 97 no.7:Suppl: Ontode 15 no.7:162-163 Jl '64.

1. Ganz-MAVAG.

KOVACS, J.; PECZELY, P.

Electron microscopic examination of the effect of neutral red on the epithelial cells of the seminal vesicle of the mouse. Acta biol. acad. sci. Hung. 16 no.3:275-283 '66.

1. Institute of General Zoology, Eotvos Lorand University, Budapest (Head: G. Modlinger). Submitted May 14, 1965.

KOVACS, J.; HAFIEK, Barbara

Effect of neutral red on mouse liver cells. Acta biol. Acad. sci. Hung. 15 no.2:191-201 '64

1. Department of General Zoology, Eotvos Lorand University, Budapest (Head: G.Mcdlinger).

KOVACS, Janos

Twenty free years in the cultural life of railroad workers. Vasut 15 no.3:18-22 Mr '65.

1. Trade Union of Railroad Workers.

KOVACS, Janos

For the success of the railroad traffic in the winter. Kozleked kozl 21 no.2:34-36 10 Ja '65.

1. Ministry of Transportation and Postal Affairs, Budapest.

SZABO, Margit; KOVACS, Janosne

Corrosion of brass pipes of the sugar factory evaporator. Cukor 18 no.3:77-84 Mr '65.

1. Central Research Institute of Food Industry, Budapest.

KOVACS, Janos

Conference of socialist brigade leaders of the Budapest Railraod Directorate. Magy vasut 8 no. 11:2 4 Je '64.

KOVACS, Janos

Some experience with the work of trade-union stewards in Budapest. Magy vasut 7 no.12:2 17 Je '63.

KOVACS, Janos, szaktanar

A rare collection of carburetors. Auto motor 16 no.6:11
21 Mr '63.

1. Munkaugyi Miniszterium 208-as Intezete.

KOVACS, Janos

"The Party counts on the diligence of railroaders"; Comrade Janos Brutyo's visit to the Ferencvaros railroad station. Magy vasut 7 no.221 16 N'63.

KOVACS, Janos

Polish senior championship for the "Skrydlata Polska" cup. Repules 16 no.12:16 D '63.

KOVACS, Janos

Disciplinary punishment or service interest? Magy vasut 7 no.23:
2 2 D '63.

KCVACS, Janos

Cytophysiological studies on the Leydig cells of the mouse testis.
Acta biol Hung 11 no.1:7-14 '60. (EEAI 10:4)

1. Institute of General Zoology, Eotvos Lorand University of Sciences, Budapest (Head: G.Modlinger)
(CELLS)
(TESTICLE)

KOVACS, Janos

Railroad timetable and return of locomotives. Vasut 12 no.12:1-2 D '62.

1. MAV Vezerigazgatosag I/8A osztaly helyettes vezetoje.

KOVACS, Janos

[redacted]

Cultural weeks of railroadmen; a mass movement. Munka 12 no.8:27 Ag '62.

1. Vasutas Szakszervezet budapesti kulturalis bizottsaganak vezetoje.

KOVACS, Janos

[redacted]

Running passenger trains as scheduled in the timetable.
Vasut 13 no.4:1-2 Ap '63.

1. I/8 A osztaly helyettes vezetoje.

PROCESSES AND PROPERTIES INDEX

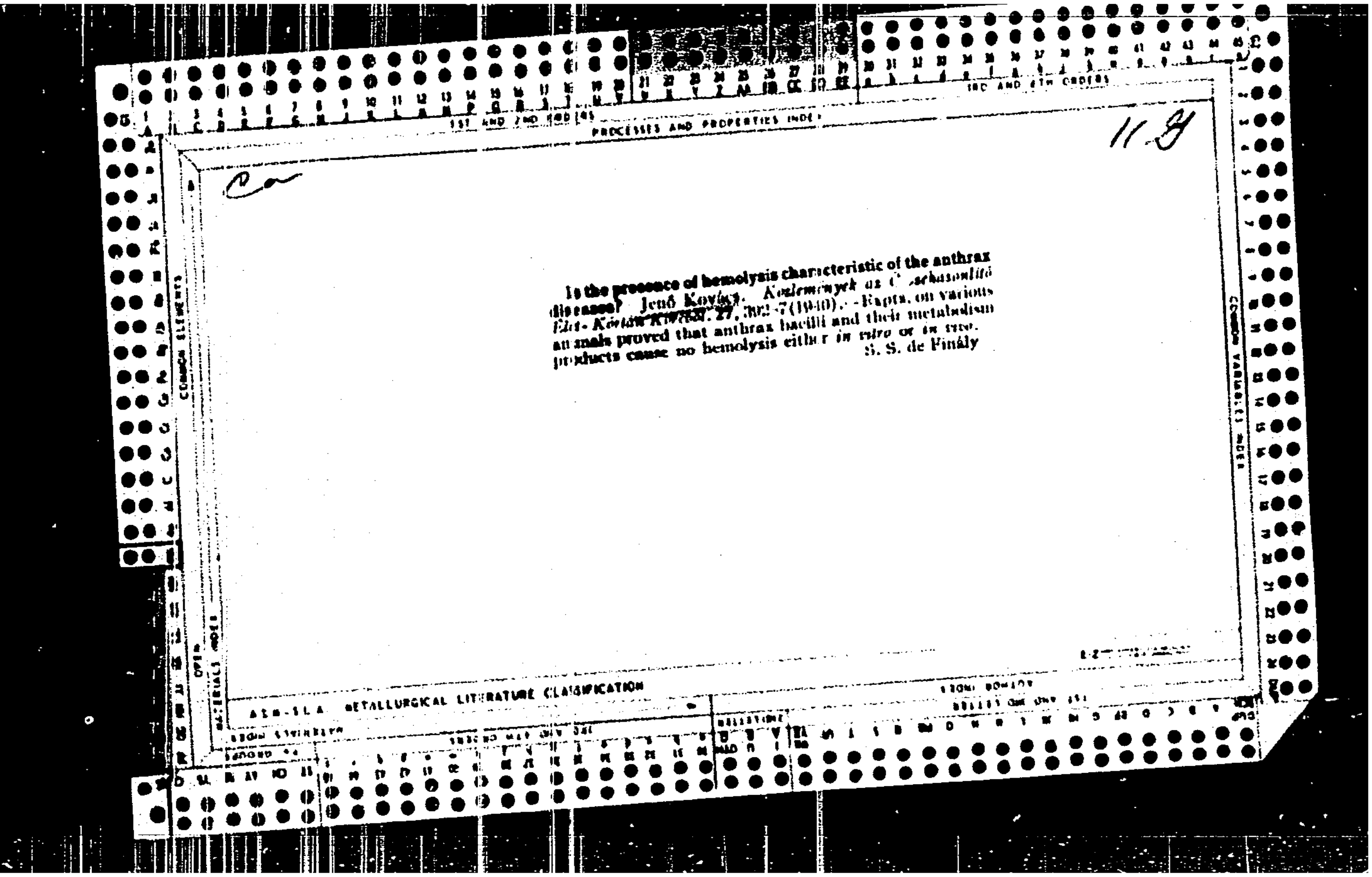
OA

11B

Bromatometric determination of *l*-ascorbic acid (vitamin C). Elemér Schulek and Jenő Kovács. *Ber. ungar. pharm. Ges.* **16**, 331-8(1940).—Place as much of the substance into a 100-cc. Erlenmeyer flask as contains 1-200 mg. ascorbic acid and dil. with water to a vol. of about 10 cc. Dissolve 0.5 g. KBr and add 5-10 cc. 10% HCl. Add 1 drop of a 0.2% alc. soln. of *p*-ethoxychrysoidine-HCl and introduce as much of a 0.1 or 0.01 *N* soln. of $KBrO_3$ as is needed to remove the red color. Each cc. of a 0.01 *N* $KBrO_3$ soln. equals 0.8805 mg. *l*-ascorbic acid. The procedure is suitable for the investigation of drug prepns. contg. condensed milk, sugar and cacao butter as sources of *l*-ascorbic acid.

S. S. de Finály

METALLURGICAL LITERATURE CLASSIFICATION



Ca

11-B

Is the presence of hemolysis characteristic of the anthrax disease? Jenő Kovács. *Közlemények az Összehasonlító Élet- Kórtan Köréből* 27, 302-7(1940).—Expts. on various animals proved that anthrax bacilli and their metabolism products cause no hemolysis either *in vitro* or *in vivo*.

S. S. de Finály

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

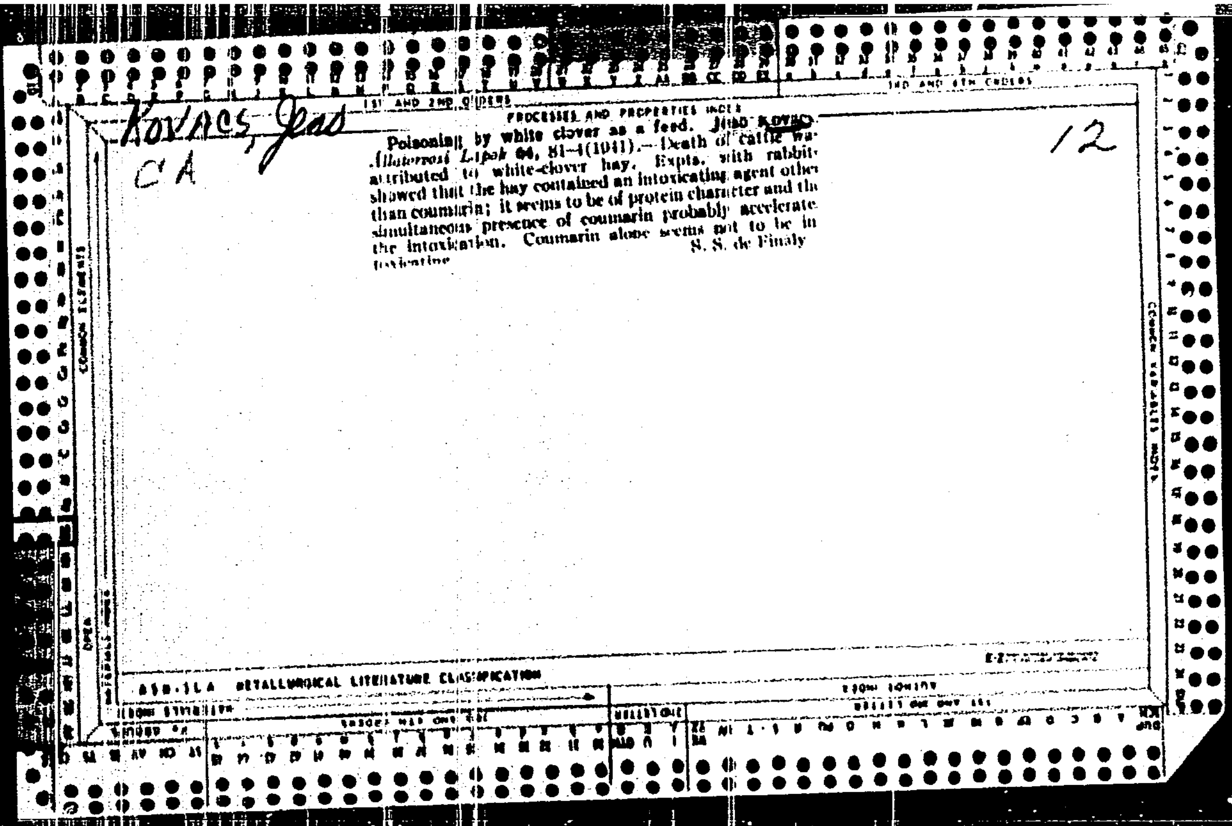
CA

12

Comparative physicochemical investigations on the caseins of various domestic animals. Jenő Kovács. *Kisdemlnych Összehasonlító Fiz.- Kémiai Kozlobl* 27, 412-15(1940).—Casein was prepd. from the milk of cows, sheep, goat, horse and ass by dropping 0.05 *N* HCl into the milk with continuous mixing until casein pptd. in form of fine floccules. The ppt. was rubbed with much 1% NaCl soln. and decanted with 5 l. distd. water 4 times. After sedimentation the ppt. was centrifuged and treated with ten times as much 96% alc., sedimented and centrifuged again, and finally filtered and washed with 96% alc., then abs. alc. and abs. ether. The product was powd., extd. in a Soxhlet app. 8 hrs. with ether, and dried *in vacuo* over concd. H_2SO_4. The casein yield from 3 l. milk was 108 g. for sheep milk, 76 g. for cow milk, 28.5 g. for horse milk, 65 g. for goat milk and 20 g. for ass milk. The ΔE values (distance in mm. of the max. and min. values of the absorption curves) were 4.85 (cow), 3.61 (sheep), 3.10 (goat), 2.65 (horse) and 2.60 (ass). The α_D^{20} values were 104.5°, 114.7°, 107.52°, 98.7° and 110.4°; tyrosine contents 5.90, 5.39, 4.82, 5.36 and 4.63%; tryptophan contents 1.63, 1.51, 1.39, 1.18 and 0.87%; P contents 0.84, 0.89, 0.81, 0.92 and 0.93%; S contents 0.82, 0.73 and 0.88% (not detd. in horse- and ass-milk caseins). The actual differences in the properties of the caseins of the milk of various domestic animals are large enough to det. the origin of pure casein prepns.; they do not give a reliable basis for judging the amount of various caseins in mixed casein prepns. (e. g., in cheese). Casein investigation seems not to be suitable for food-control service.

S. S. de Finály

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Kovacs, Jeno

CA

12

PROCESSES AND PROPERTIES INDEX

Poisoning by white clover as a feed. Jenő Kovács. *Állatorvosi Lapok* **64**, 81-4(1941).—Death of cattle was attributed to white-clover hay. Expts. with rabbits showed that the hay contained an intoxicating agent other than coumarin; it seems to be of protein character and the simultaneous presence of coumarin probably accelerate the intoxication. Coumarin alone seems not to be intoxicating. S. S. de Finaly

C.4.

12

Suitability for human consumption of the meat of cattle killed by arsenic intoxication. Jenö Kovács (Univ. Agr. Sci., Vet. Faculty, Budapest, Hung.). *Magyar Állatorvosok Lapja* 4, 277-9(1949).—The meat of cattle killed by Ca arsenate intoxication contained 1.0-26.0 mg./kg., their tallow 1.0 mg./kg. As_2O_3. Meat below 5 mg./kg. As_2O_3 content is judged to be suitable for human consumption. Meat with higher As content was processed to powd. meat, the product contained 0.66-10.6 mg./kg. As_2O_3 at a 10-11% moisture content. It can be mixed to feed in amts. up to 10%.

István Finály

KOVACS, J.

Kertesz, F.; Kovacs, J. "The Latest Hungarian Findings Relative to Increasing the Fertility of Mangalica Sows through Feeding" p. 341 (Agrartudomany, Vol. 5 No. 11, November, 1953, Budapest)

SO: Monthly List of ~~Russian~~ East European Accessions, Vol. 3, No. 3, Library of Congress, March ~~195~~ 1954, Uncl.

KOVACS, J.

Temperature and humidity conditions in open and closed pigpens during winter for farrowing swine. p. 21. (Magyar Mezogazdasag, Vol. 11, no. 3, Feb. 1956 Budapest)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

KOVACS, J.

KOVACS, J. How to increase the fecundity of sows. p. 19

Vol. 11, no. 8, Apr. 1956
MAGYAR MEZOGAZDASAG
AGRICULTURE
Budapest, Hungary

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

KOVACS, J.

kovacs, J. Results of breeding white meat pigs in 1955 at
Keszthely. p. 24

Vol. 11, No. 10, May 1956
MAGYAR MEZAGAZDASAG
AGRICULTURE
Budapest, Hungary

SO: EAST EUROPEAN ACCESSIONS, VOL. 6, No. 3, March 1957

KOVACS, J.

KOVACS, J. Mechanization of farms for hog breeding and feeding. p. 20.
Remembering Imre Ujhelyi. p. 21.
Vol. 11, no. 15/16, Aug. 1956
MAGYAR MEZOGAZDASAG
AGRICULTURE
Budapest, Hungary

So: East European Accession, Vol. 6, No. 5, May 1957

KOVACS, J.; KOVACS, G.

Important game diseases in the Tukk Mountains. p. 68. (Az Erdo, Vol. 6, No. 2, Feb 1957, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

KOVACS, J.

Diurnal changes in the interstitial cells of the testicles of albino mice. In English, p. 69

ACTA BIOLOGICA Budapest, Hungary Vol. 10, No. 1, 1959

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

KOVACS, J.

What veterinary hygiene expects from the Hungarian pharmaceutical industry.
p. 151.

MAGYAR KEMIKUSOK LAPJA. (Magyar Kemikusok Egyesulete) Budapest, Hungary
Vol. 14, no. 4, Apr. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

HUNGARY

KOVACS, Jeno, Dr; University of Veterinary Medicine, Department of Pharmacology (Allatorvostudomanyi Egyetem Gyogyszertani Tanszeke) (chairman: KOVACS, Jeno, Dr, professor, Dr of Veterinary Sciences)

"Experiences with the Insecticide Containing Trichloro-Dimethyl-Oxyethyl-Phosphonate."

Budapest, Magyar Allatorvosok Lapja, Vol 17, No 12, Dec 62, pp 444-446.

Abstract: [Author's English summary modified] In Hungary the fly population is becoming resistant to contact insecticides on an increasing scale. The author reports his studies on a domestically produced insecticide of a new molecular structure, trichloro-dimethyl-oxyethyl-phosphonate. A combination of active substance, surface material and attractive substance gave immediate good effects and its residual activity lasted 1-6 weeks. On recently whitewashed surfaces the compound is rapidly inactivated. The death of the flies is caused by exsiccosis caused by the organic ester of phosphonic acid.

[no references]

1/1

KOVACS, Jeno

Ophthalmological aspects of infectious diseases of animal origin.
Szemeszet 99 no. 1: 31-36 Mr '63

1. Budapesti Husipari Allatorvos Ellenorzo Szolgalat. (Igazgato: Mehes Gyorgy dr. foallatorvos)

(OPHTHALMOLOGY) (BRUCELLOSIS) (LEPTOSPIROSIS) (LISTERIA INFECTIONS)
(TOXOPLASMOSIS, OCULAR) (ECHINOCOCCOSIS) (FOOT-AND-MOUTH DESEASE)
(AVIAN LEUKOSIS) (ZOONOSES)
(PLEUROPNEUMONIA-LIKE ORGANISMS)

KOVACS, Jeno, dr., megyei vezeto foallatorvos (Szekszard); MAGYARI, Jeno, dr.; NYIREDY, Istvan, dr., az allatorvostudomanyok doktora (Budapest)

Protecting dairy cattle against Streptococcus mastitidis. Magy allatorv lap 19 no.5:209-210 My '64

1. Head, State Animal Hospital, Szekszard (for Magyari).

KOVACS, Jeno, fomernok

Specialization of foresters in the service of technical development. Erdo 13 no.9:402-406 S '64.

1. Western Bukk State Forestry, Eger.

SZABO, Pal Zoltan; JONAS, Klara, dr.; VARADI, Gyorgy; BIRO, Antal; UPOR, Endre; RADO, Aladar; CZIRJAK, Imre; KOVACS, Jeno; VALKO, Endre, dr.; ADONYI, Ivan; FODOR, Gyorgy; OSZETZKY, Egon; KALMAR, Pal; DANYI, Dezso; GYORGY, Karoly; OVARI, Antal; PHILIP, Miklos; BAKAI, Laszlo; JOO, Oszkarne; SZITAS, Lajos; HELLENYI, Miksa; KOLTA, Janos.

Formation of an uniform country organization for the Federation of Technical and Scientific Associations. Pecsi musz szeml 8 no.4:19-23 O-D'63.

1. "Pecsi Muszaki Szemle" foszerkesztoje (for Fodor).
2. "Pecsi Muszaki Szemle" szerkesztoje (for Hellenyi, Kolta and Oszetzky).

ADAMKO, Jozsef; KOVACS, Jeno, fomernok; V. SZABO, Ferenc

A well developed technology requires a new management in the forest districts. Erdo 12 no.5:199-203 My '63.

1. Nyugatbukki Allami Erdogazdasag igazgatoja, Eger. (for Adamko).
2. Nyugatbukki Allami Erdogazdasag erdeszetvezetoje, Eger(for V. Szabo).
3. Nyugatbukki Allami Erdogazdasag, Eger. (for Kovacs).

KOVACS, Jenone [translator]

An exhibition on nuclear fission in the United States; Geneva, 1948.
Atom taj 2 no.2:8/A-48/A Ap '59.

BICKERTON, R.J.; JUKES, J.D.; KOVACS, Jenone [translator]

Direct conversion of thermonuclear energy to electrical power.
Atom taj 2 no.2:83-96 Ap '59.

GYOKOS, Imre; KOVACS, Jolan; KARVAZY, Dezso

New method for planning the costs of machine building. Magy ep ipar 12 no.9:425-430 '63.

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

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 25986

Author : Kovacs Jozsef, Naray-Szabo Istvan, Novak Andras

Inst : -

Title : Production of Acid-Resistant Concrete by Means of a Gas Treatment.

Orig Pub : Magyar Epitoipar, 1957, 6, No 3-4, 139-142.

Abstract : Description of a method of treatment of concrete articles with SiF_4 under pressure, to increase the resistance of such articles to the action of acids and salts.

Card 1/1

KOVACS, Jozsef

Concrete ocratizing in Hungary. p. 259.

STAVIVO. (Ministerstvo stavebnictvi) Praha, Czechoslovakia. Vol. 37, no. 8, Aug. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 10, Oct. 1959. Uncl.

KOVACS, Jozsef

Conference on concrete corrosion. Epites szemle 5 no.7:223-225 '61.

KOVACS, Jozef

Mathematical Review
June 1954
Mechanics

10-4-54 1

②

Kováč, Jozef. Contribution to the proof of Hartmann's theorem. Mat.-Fyz. Sborník Slovensk. Akad. Vied Umení 1, 51–58 (1951). (Slovak. Russian summary)

In this paper the method of vector analysis is applied to prove Hartmann's theorem which is used for a simple construction of the center of curvature of the trajectory of a point of a rigid system in its motion in the plane.

Author's summary.

KOVACŠ, JOZEF

"Kinematika. Bratislava, Vydavatel'stvo Slovenskej vysokej skily technickej, 1951. 135 p. (Kinematics; a textbook)"

SO: East European, L. C. Vol. 2, No. 12, Dec. 1953

SO: Monthly List of Russian Accessions, Library of Congress, ______________1953, Uncl.

KOVACS, JOZEF

Teoreticka kinematika. Schvalene ako pomocna kniha pre vysoke skoly. (Vyd. 1.) Bratislava, Slovenske vydavatelstvo technickej literatury, 1955. 243 p. (Theoretical kinematics; approved as a manual for schools of higher education. 1st ed. bibl., diagrs., index)

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

HUNGARY / Farm Animals. General Problems. Q

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 7283

Author : Kallai, Laszlo; Mühlrad, Andras; Zoldy, Miklos;
Kovacs, Joszef; Bernus, Janos

Inst : Not given

Title : The American Artichoke (Melianthus tuberosus L.) as a Feeding Agent. 3. The Effect of the Carbohydrates of Artichoke Tubers on the in vitro Function of Intestinal Microorganisms

Orig Pub : Allattenyesztes, 1957, 6, No 2, 169-176

Abstract : As a result of biochemical investigations in which the method of an "artificial rumen" was applied, the authors established that the carbohydrates of the American artichoke (inulin and fructose) influence the vital activity of the microorganisms of the rumen more

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 7283

favorably, represent more abundant sources for energy in the synthesis of carbamide /urea7 and decomposition of cellulose than carbohydrates which are predominant in potatoes or in forage feeds (starch, glucose). -- B. A. Kanzyuba

Card 2/2

KOVACS, Jossef, dr.

JANCSO, Janos; KOVACS, Jozsef

Mechanization and assembly line system in the fur industry. Bor cipo 12 no.5/6:169-172 O '62. (MIRA 15:8)

1. Pannonia Szormekikeszito es Konfekcionalo Vallalat. 2. "Bor- es Cipotechnika" szerkeszto bizottsagi tagja (for Jancso).

KOVACS, Jozsef

Snow barricades along the tracks. Magy vasut 7 no.4:3 18 [illegible] '63.

KOVACS, Jozsef

Our woman delegate has done an excellent job; the portrait of a delegate to the Party Congress. Magy vasut 7 no.2:5 17 Ja '63.

KOVACS, Jozsef

First experiences of the reorganization in the Small Motor and Machine Factory. Munka 13 no.6:22-23 Je '63.

1."Nepszabadsag" munkatarsa.

KOVACS, Jozsef

Let us increase the level of the special mechanical trades.
Magy ep ipar 12 no.4:145-147 '63.

1. Orszagos Epitoipari Igazgatosag vezetoje.

KOVACS, Jozsef, (Budapest); BARTHAZI, Istvan, uzemvezeto (Gyongyos)

Motorists' letters. Auto motor 16 no.14:5 21 Jl '63.

KOVACS, Jozsef

Protection of reinforced concrete basins by SiF_4 gas treatment. Magy ep ipar 12 no.5:219-220 '63.

KOVACS, Jozsef

Operation of No.520 locomotives. Magy vasut 7 no.12:1 17 Je '63.

KOVACS, Jozsef

What is new in Nyiregyhaza? Magy vasut 7 no.13:6 2 Jl '63.

Ca

Availability of safrole for the synthesis of 1-substituted 3-methyl-6,7-diethoxyisoquinolines. József Kovács (Univ. Szeged, Hungary). *Acta Univ. Szegediensis, Acta Chem. et Phys.* [N.S.] 1, 109-44(1943).—A cheap method for the production of 3,4-diethoxy-1-propenylbenzene using safrole (I) as the basic substance was sought. The best procedure found was treating I under pressure with KOH in EtOH or MeOH, thus obtaining a mixt. of methoxyisoeugenol and methoxyisochavibetol. This mixt. in abs. alc. was treated with small amts. of concd. H_2SO_4 and 4-propenylpyrocatechol added, and, in the presence of K_2CO_3 and EtI or EtBr, ethylated to 3,4-diethoxy-1-propenylbenzene (II), m. 64°, in 85% yield. The following were also obtained: 3,4-diethoxy-1-propenylbenzene pseudonitrosite (III), m. 124.5-5.5° (decompn.), 53% yield calcd. on the amt. of the II used; 1-(3,4-diethoxyphenyl)-2-nitropropyl acetate (IV), colorless large prisms, m. 75°, prepd. in 80% yield from III; 3,4-diethoxy-1-(2-nitropropenyl)benzene, prepd. from IV, large prisms or fine needles or shiny thin sheets according to the alc. content of solvent, m. 50.5°; 1-(3,4-diethoxyphenyl)-2-acetamido-1-propanol (V), prepd. from IV in 65.8% yield, white crystals, m. 128°; 1-(3,4-diethoxyphenyl)-2-aminopropyl acetate-HCl, from V, m. 162°; 1-(3,4-diethoxyphenyl)-2-(N-acetylhydroxamino)-1-propanol (VI), from IV in 80% yield, m. 140.5° (its alc. soln. gives a violet color with $FeCl_3$ soln.); 1-(3,4-diethoxyphenyl)-2-hydroxaminopropyl acetate-HCl, prepd. from VI, m. 138.5-9.5° (decompn.); 1-(3,4-diethoxyphenyl)-2-amino-1-propanol, prepd. from V in 52% yield, m. 116-20° (HCl salt, m. 176-7°); 1,3-dimethyl-6,7-diethoxyisoquinoline, prepd. from V in 74% yield, m. 96-7°; 1-(3,4-diethoxyphenyl)-2-benzamido-1-propanol (VII), 81% from V, m. 128.5-9°. 1-Phenyl-3-methyl-6,7-diethoxyisoquinoline (prepd. from VII with $POCl_3$ to obtain the cryst. hydrochloride, m. 230° (decompn.), which was filtered off and alkalized), fine needles, m. 125-6° (82% combined yield of free base plus HCl salt). 1-(3,4-Diethoxyphenyl)-2-(3,4-diethoxybenzamido)-1-propanol (VIII), prepd. from V in 81.8% yield, fine needles, m. 168.5°. 1-(3,4-Diethoxyphenyl)-3-methyl-6,7-diethoxyisoquinoline-HCl, 80% from VIII, yellowish green prisms, m. 214-16°; free base m. 96-7°. 1-(3,4-Diethoxyphenyl)-2-phenylacetamidopropyl phenylacetate (IX), prepd. from V in 60% yield, fine needles, m. 132°. 1-Benzyl-3-methyl-6,7-diethoxyisoquinoline-HCl (obtained from IX), long needles, m. 213-15° (decompn.); alkali yields the free base, colorless octahedrons, m. 85-6°. 1-(3,4-Diethoxyphenyl)-2-veratroylamino-1-propanol, 81% from V, white crystals, m. 149-51°. 1-(3,4-Dimethoxyphenyl)-3-methyl-6,7-diethoxyisoquinoline-HCl (X) m. 221.5°; free base m. 111-12°. 1-(3,4-Diethoxyphenyl)-2-(3,4-diethoxyphenylacetamido)-1-propanol, 41% from X, m. 98-9°. 1-(3,4-Diethoxybenzyl)-3-methyl-6,7-diethoxyisoquinoline, fine needles, m. 117-18°; HCl salt m. 201-2°. 3,4-Diethoxyphenylacetic acid (XI), prepd. by distg. its ester under a vacuum, hexagonal crystals, m. 82°. 3,4-Diethoxy-α-toluyl chloride was a yellow oil. 3,4-Diethoxybenzoyl chloride, a white cryst. mass, was prepd. in 94.7% yield by treating XI with $SOCl_2$.

István Finály

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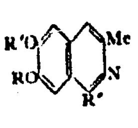
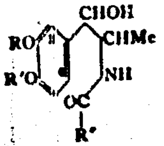
Determination of the constitution of some synthetic isoquinolines. Closure of the isoquinoline ring. Viktor Bruckner, Josef Kovács, and Koloman Kovács (Univ. Szeged, Ungarn). *Ber.* 77B, 610-17(1944).—Pfeiffer, Breitbach, and Scholl (*C.A.* 34, 2383⁹), by processes involving many steps, converted brasilin and hematoxylin into what they considered to be 3-methyl-1-aryl-6,7-dimethoxyisoquinolines (I, R = R' = Me, R'' = 2,4-HO(MeO)C_6H_3 and 2,3,4-HO(MeO)$_2C_6H_2$, resp.). They attempted to prove the structures of their compds., which gave m-hemipinic acid, 4,5,1,2-$(MeO)_2C_6H_2(CO_2H)_2$ (II), with $KMnO_4$, by synthesizing the corresponding ethers (R'' = $(MeO)_2C_6H_3$ and $(MeO)_3C_6H_2$) from RO(R'O)


(I)


(IV)

$C_6H_3CH{:}CHMe$ by the method of B. and v. Fodor (*C.A.* 32, 3000⁹), which consists in subjecting the side chain to the series of reactions $-CH{:}CHMe + N_2O_3 \rightarrow -CH(NO)CH(NO_2)Me + Ac_2O \rightarrow -CH(OAc)CH(NO_2)Me$ + electrolytic reduction, then $Na_2CO_3 \rightarrow -CH(OH)CH(NHAc)Me$ (III) + dil. $H_2SO_4 \rightarrow -CH(OH)CH(NH_2)Me + R''COCl + NaOH \rightarrow$ IV, and closing the ring by treating IV with $POCl_3$. As the products thus obtained were not identical with those from brasilin and hematoxylin, P., B., and S. concluded that the ring closure had taken place at the 2-, not the 6-C atom of IV. It therefore seemed desirable to check the structure or the direction of ring closure of all the isoquinolines which had been prepd. by the above method, especially as Sugasawa and Shigehara (*C.A.* 35, 5113⁴) had pointed out that the direction of ring closure in the prepn. of the isoquinoline neopaverine required verification. It was first of all undertaken to det. the influence of the ether groupings (RO and R'O) on the direction of the ring closure, and the 1,3-dimethylisoquinolines (I, R'' = Me), with R,R' = Me, Me (V), Et, Et (VI), Me, Et (VII), Me, $PhCH_2$ (VIII), and $PhCH_2$, $PhCH_2$ (IX), all of which were readily obtained from the acetylamines of type III, were investigated. Since all are genetically related (see below) it was necessary to det. the structure of only 1 of them (V). This was accomplished by exhaustive methylation and $KMnO_4$ oxidation of the end degradation product through the following series of reactions:

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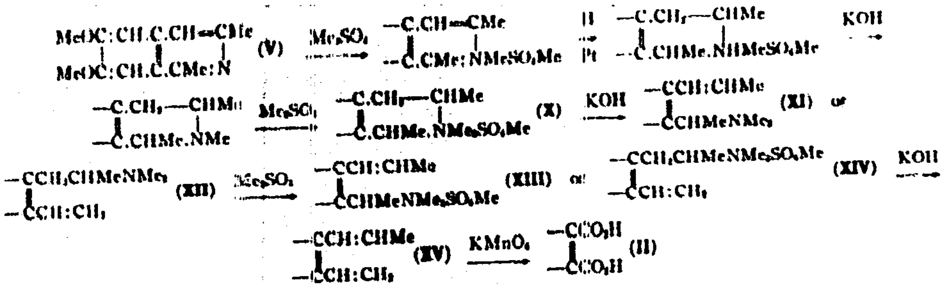

No attempt was made to det. the point at which the ring 6
in X opens to give XI or XII, which is immaterial for detg.
the structure of V. The N-free end product XV, ob-
tained, with copious evolution of NMe_3, from XIII or
XIV with KOH, was apparently not homogeneous; it was
an almost colorless oil, of faint camphorlike odor, perme-
ated with crystals; the oily part was very easily sol. in
cold petr. ether while the solid part crystd. from much
petr. ether in needles. These crystals (0.5 g. from 4.2
g. XIII or XIV), m. 111°, on titration with Br took up 7
only about 1 mol. Br, indicating, as did their analysis also,
that they were not XV. Because of lack of sufficient mate-
rial, this cryst. product was not further studied, and the
crude oily degradation product, contg. only a few of the
crystals, was oxidized with $KMnO_4$ without further puri-
fication. The formation of II, m. 184-6° (ethylimide, m.
230-2°), showed that ring closure of compds. of type III
led to compds. of type I, irrespective of the nature of R
and R', in every case investigated. The genetic relation-
ship between V-IX was proved as follows: VIII, obtained
from isoeugenol Me ether (v. Fodor, C.A. 30, 280^1),
R' = OH) and

when debenzylated to I (R = R'' = Me, [illegible]
ethylated with Et_2SO_4, gave a product identical with VII
prepd. from isoeugenol Et ether through III (R, R' = Me,
Et). IX had already been converted by v. F. through
I (R = R'' = Me, R' = H) into V, identical with that
obtained from isoeugenol Me ether through III (B.,
C.A. 29, 8825^6). IX, obtained from 3,4-$(PhCH_2O)_2$-
$C_6H_3CH{:}CHMe$ through III (R = R' = $PhCH_2$), was
debenzylated to I (R = R' = H, R'' = Me) which with
Me_2SO_4 yielded V and with Et_2SO_4 a VI identical with that
obtained from III (R = R' = Et) by ring closure. *1,3-*
Dimethyl-6,7-dimethoxyisoquinoline·Me_2SO_4 (XVI) (35 g.
from 26.5 g. V in 200 cc. warm benzene with 25 cc. Me_2-
SO_4), needles from EtOH-AcOEt, m. 222-3° (decompn.);

m. 275-8°, sol. in dil. NaOH and H_2SO_4, was obtained in
1-g. yield by hydrogenating 2.4 g. IX in 250 cc. aldehyde-
free alc. with 0.1 g. of 22% Pd-charcoal (prereduced in
20 cc. alc.) (3 mols. H was absorbed in a few min.), filter-
ing, concg. to 80 cc., allowing to stand 12 hrs. in ice, and
washing the resulting crystals with MeOH; treated with-
out further purification in 10% NaOH with Me_2SO_4, it
gave V, isolated as the HCl salt, needles from MeOH-Et_2O,

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m. 207-9° (decompn.), and with Et_2SO_4 it yielded VI (HCl salt, m. 236-8° from alc.-ether). VII, from 1,3-dimethyl-6-methoxy-7-hydroxyisoquinoline and Et_2SO_4, needles from aq. alc., changing to minute prisms at 100° *in vacuo*, m. 128-30°. VII was also prepd. from isoeugenol Et ether, 16 g. of which, in 100 cc. ether, added to 30 g. $NaNO_2$ under 40 cc. water, layered, treated dropwise in the course of 4 hrs. with 60 cc. of 20% H_2SO_4, and the resulting product thoroughly washed with water, alc., and ether, and dried at room temp. gave 14 g. of the *pseudo-nitrosite*, m. 110° (decompn.), after rubbing with much alc. and washing repeatedly with ether; 24.5 g. of the crude product suspended in 75 cc. of Ac_2O was treated with a few drops of concd. H_2SO_4, and after it had dissolved, with vigorous evolution of nitrous gases, the soln. was vigorously stirred with much water until the excess of Ac_2O had been destroyed, and the yellow cryst. product was thoroughly washed with water, dried, and crystd. from MeOH after treatment with charcoal, giving 20 g. *1-(3-methoxy-4-ethoxyphenyl)-2-nitropropyl acetate*, prisms from MeOH, m. 85-6°; 20 g. of this was reduced electrolytically (*C.A.* **37**, 6650^4) (catholyte, 75 cc. glacial AcOH + 150 cc. alc. + 85 cc. alc. H_2SO_4 (100:56 by vol.); anolyte, 20% H_2SO_4; Hg cathode; peroxidized Pb plate anode; cathodic c.d., 0.07 amp./sq. cm.; temp., 25-30°; current used, 2 times the calcd.), then treated with a concd. aq. soln. of 40 g. crystd. NaOAc, filtered from the Na_2SO_4,

30 g. in 300 cc. of 80% alc. hydrogenated with 0.5 g. Pt oxide took up 2 mols. H in 2 hrs., and evapn. *in vacuo* gave a yellowish oil yielding from acetone-ether 18.5 g. of the *1,2,3,4-tetrahydro deriv.* of XVI, prisms from abs. MeOH, m. 176-9°; 18 g. of this in 40 cc. water with 35 cc. of 20% KOH gave an oil which was shaken out portionwise with benzene, the benzene ext. dried with Na_2SO_4, heated 0.5 hr. on the water bath with 15 cc. Me_2SO_4, cooled, and decanted from the oily ppt., which was repeatedly washed with ether and treated with a little acetone, whereupon it crystd., giving 6 g. (+5 g. more from the mother liquors after addn. of ether) of *1,2,3-trimethyl-6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline-Me_2SO_4*, X, m. 220° (from abs. MeOH-Me_2CO). When 6 g. X was heated on the water bath with 50% KOH and the oil which sepd. on cooling was taken up in ether, there was obtained 3.6 g. of the open-chain *base* (XI or XII) as a thick colorless oil which eagerly absorbed Br in $CHCl_3$; *picrate*, $C_{21}H_{26}N_4O_9$, yellow needles from water, m. 145°; *HCl salt*, needles from alc.-ether, m. 105-6° (decompn.). The base (3.4 g.) in 13 cc. anhyd. benzene, heated 0.5 hr. on the water bath with 5 cc. Me_2SO_4 and, after cooling, treated with 150 cc. abs. ether, yielded 4.5 g. of the *compd.* XIII or XIV, hygroscopic needles from MeOH-Et_2O, sinters 110°, m. 110-20°, after drying *in vacuo* over P_2O_5. *1,3-Dimethyl-6,7-dihydroxyisoquinoline*, pale greenish yellow,

evapd. *in vacuo*, treated with excess of concd. Na_2CO_3 soln., and the solid product washed with water, dried, and crystd. from MeOH-AcOEt, giving 14 g. *1-(3-methoxy-4-ethoxyphenyl)-2-acetamido-1-propanol* (III), needles, m. 108-9°; 2 g. of this in 25 cc. toluene stable to $POCl_3$ (*C.A.* **32**, 3400^9), gently boiled [illegible] min. with 2 cc. $POCl_3$, yielded on cooling 1.3 g. of the *HCl salt*, needles from alc.-AcOEt, m. 200°, of VII.

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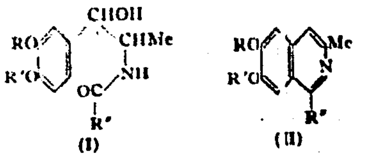
Determination of the constitution of some synthetic isoquinolines. Isoquinoline ring closure. II. G. Bruckner, Jr., Josef Kovács, and Johanna Nagy (Univ. Szeged, Hungary). *Ber.* 77B, 710-14(1944); cf. *C.A.* 40, 6080'. —In Part I it was shown that the intramol. condensation of 1-(3,4-dialkoxyphenyl)-2-acetamido-1-propanols (I, R,R' = Me, Et, or PhCH$_2$, R" = Me) always gives 6,7-dialkoxy-1,3-dimethylisoquinolines (II), regardless of the nature of R and R'. It has been found that this is also true of 1-(3,4-methylenedioxyphenyl)-2-phenylacetamido)-1-propanol, thus confirming the structure (II, R + R' = CH$_2$O$_2$, R" = PhCH$_2$) previously assigned (*C.A.* 30, 5990') to the condensation product (III). The structure of III was established by oxidative degradation to hydrastic acid (IV) of the N-free product (V) obtained by exhaustive methylation of III. III.*Me$_2$SO$_4$* (45 g. from 39 g. III in 300 cc. benzene heated 1 hr. on the water bath with 24 g. Me$_2$SO$_4$), m. 187-9° from alc.-ether; 00 g. in 600 cc. 50% alc. with 0.5 g. Pt oxide absorbed 2 mols. H in 10 hrs., giving 45.3 g. of the *1,2,3,4-tetrahydro compd.*, needles from alc.-ether, m. 142° (decompn.); 40 g. of this in 70 cc. warm water, converted with 105 cc. of 10% KOH into the free quaternary base, shaken out with 300 cc. benzene, dried with Na$_2$SO$_4$, and heated 0.5 hr. on the water bath with 40 cc. Me$_2$SO$_4$ gave 40.1 g. *2,3-dimethyl-1-benzyl-6,7-methylenedioxy-1,2,3,4-tetrahydroisoquinoline-Me$_2$SO$_4$*, prisms from abs. alc.-ether, m. 170-80°; 20 g. of this, converted into the free quaternary base (VI) by treatment with 120 cc. cold satd. KOH, then refluxed 4 hrs., extd. with ether, evapd. to dryness, and distd., yielded *2-(2-dimethylaminopropyl)-4,5-methylenedioxystilbene* (VII), yellowish viscous oil, b$_9$ 230-45° (*acid sulfate*, C$_{20}$H$_{25}$O$_6$NS, needles, m. 169° (decompn.), 0.1 g. of which in water immediately decolorizes 3 drops of 0.1 *N* KMnO$_4$, giving a distinct odor of BzH); 8 g. of the crude undistd. VII in 50 cc. benzene, allowed to stand 1 hr. with 10 cc. Me$_2$SO$_4$, then treated with 100 cc. acetone and 50 cc. anhyd. ether (incipient turbidity), and allowed to stand 3 days, gave 9.1 g. of VII.*Me$_2$SO$_4$*, m. 203-3°, 8 g. of which, boiled in 150 cc. of 50% KOH until the vigorous evolution of NMe$_3$ subsided (15 min.), yielded 4.5 g. crude (3.3 g. recrystd.) *2-propenyl-4,5-methylenedioxystilbene* (?) (V), prisms with violet fluorescence from ligroin, m. 135-7°. III.Me$_2$SO$_4$ is also degraded by KMnO$_4$ to IV, along with BzOH. Rupture of the ring of the quaternary cyclic base (VI) probably occurs between C atom 1 and the N, since very small amts. of KMnO$_4$ split off BzH from the opened base (VII) even in the cold. Only



(I) (II)

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the structure of V remains in doubt: it absorbs only 2 atoms of Br in $CHCl_3$ in the cold and hence there is a possibility that the side chains have formed a ring.

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The possibility of the existence of aliphatic nitroso compounds. J. Kovács. *Acta Univ. Szeged, Chem. et Phys.* 2, 54-60(1948).—To 10 g. ArCH(OAc)CH(NO$_2$)Me (I) (Ar = *p*-MeOC$_6$H$_4$) (Bruckner and Krámli, *C.A.* 30, 5990^9) in 100 ml. EtOH and 50 ml. glacial AcOH was added 15 ml. HNO$_3$ (d. 1.42) and the I reduced electrolytically at a c.d. of 0.07 amp./sq. cm.; the filtered catholyte yielded 2 g. *1-(p-methoxyphenyl)-2-nitrosopropyl acetate* (II), m. 145-7°, also obtained by oxidation of ArCH(OAc)CH(NHOH)Me.HCl (III) with Br water. Similar electrolytic reduction of I (Ar = 3,4-CH$_2$O$_2$C$_6$H$_3$) gave the corresponding II, m. 169-71° (decompn.), also obtained from the 3,4-CH$_2$O$_2$C$_6$H$_3$ analog of III. The 3,4-(MeO)$_2$C$_6$H$_3$ analog of III gives the corresponding II, m. 151-2° (decompn.). *1-(3,4-Diethoxyphenyl) analog* of II, from I (Ar = 3,4-(EtO)$_2$C$_6$H$_3$), m. 140-2° (decompn.). 13 references

István Finály

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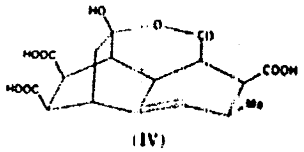
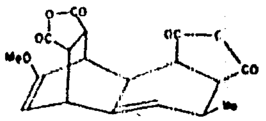
Addition of maleic anhydride to anethole. I. V. Bruckner and J. Kovács (Univ. Szeged, Hung.). *J. Org. Chem.* 13, 641-51 (1948).—Exptl. details of a preliminary report (*C.A.* 43, 2900*i*) are given. Maleic anhydride (I) (500 g.), 300 g. anethole (II), and 8 g. PhNMe$_2$, stirred 4 hrs. in a bath at 80°, and the crystals filtered from the cooled mixt., washed until colorless with EtOAc, and vacuum-dried at 100°, gave 310 g. (44.5%) colorless homogeneous condensation product (III), m. 241° (decompn. began at 230°), after crystg. from EtOAc and vacuum-drying 10 hrs. at 100°. Concg. the filtrate from the reaction mixt., steam-distg. the viscous residue (385 g.) to yield 17 g. II, concg. the remaining aq. soln. to 500 ml., cooling, acidifying, washing the crystals with 200 ml. cold H$_2$O, and drying as before afforded 132 g. (16.5%) IV (total yield of condensation products 61%). Assuming *endo-cis addn.* to *trans*-II, 4 stereoisomers, i.e. 2 racemic pairs (V and VI being arbitrarily chosen members of each), are possible. The following evidence indicates III has the structure VI, but the presence and location of the double bond not in the enol ether group was not established. VI (4 g.) on vacuum distn. gave 3.3 g. oily distillate from which I, m.p. (after recrystn. from EtOAc and then C$_6$H$_6$) and mixed m.p. 54-5°, crystd., and then II, m. and mixed m.p. 21-2°, distd. with steam. VI (1 g.) and 0.35 g. S, heated 0.25 hr. at 230-5° until H$_2$S evolution ceased, the residue extd. with hot EtOAc, and the clarified (charcoal) soln. concd. to 3 ml. and cooled, gave, after 2 recrystns. from EtOAc, *3-methyl-7-methoxy-1,2-naphthalenedicarboxylic anhydride*, yellow needles (greenish fluorescence in soln.), m. 214-17°, identical with that prepd. earlier (B., *C.A.* 38, 1228^8). The sparingly sol. (1:100 in hot H$_2$O), crude, colorless, air-dried VII (6 g.), prepd. by shaking 6.9 g. powd. VI 5 min. with 10 ml. 5 *N* NaOH, acidifying the cooled mixt. with 2 *N* HCl, and washing the crystals with 80 ml. ice-cold H$_2$O, changed mostly to the readily sol. IV on crystn. from H$_2$O, only 1/10 sepg. again as a *trihydrate* (3 CO$_2$H, 1 lactone, and 1 OMe group), which on vacuum-drying at 100° formed anhyd. VIII, m. 270-3° (decompn.). VIII reverted to VI, m.p. (from EtOAc) and mixed m.p. 241° (decompn.), on boiling with 4 parts Ac$_2$O and dilg. the cooled soln. with Et$_2$O. VI (6.9 g.), boiled 10 min. in 20 ml. 5 *N* NaOH, the mixt. acidified with 10 ml. 10 *N* HCl, clarified (charcoal), and cooled, gave a mixt. (6 g.) of VII and IV from which 20 ml. boiling H$_2$O extd. the more sol. (1:1.8) IV, leaving 1 g. VII; cooling produced 2.8 g. colorless prisms of the *tetrahydrate*, which dried as above to anhyd. IV.



(IV)



(V)

(VI)

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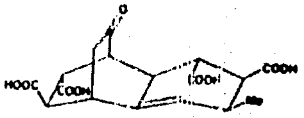
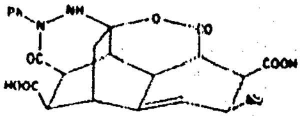
from Ac_2O even after long boiling. With H_2NOH **XII** gave a regular *oxime* (4 CO_2H groups), m. 234-5°. The *bis(phenylimide)* (no OMe group), m. 280-5° (decompn.) (colorless prisms from AcOH or $PhNO_2$), corresponding to **VIII** was prepd. either by slowly heating 3.6 g. **VI** with 8 ml. freshly-distd. aniline and washing the crystals with hot EtOAc, or from **VIII** (prepd. from **IV**) and aniline. **IV** (3.7 g.) and 0.5 g. $PhNHNH_2.HCl$, boiled 5 min. in 12 ml. H_2O, afforded colorless needles of the *dihydropyridazinone deriv.* (**XIII**), m. 180° after crystg. from H_2O and



(**XII**)



(**XIII**)

vacuum-drying at 100°, which could not be titrated sharply as a dibasic acid but, on treating 0.1 g. in 25 ml. dry MeOH with CH_2N_2 in Et_2O, gave the *di-Me ester*, colorless needles from xylene, m. 295-300° (decompn.). An aq. soln. of 2 g. **IV** and 2 g. H_2NOH in 5 ml. H_2O, heated (steam bath) 1 hr., gave, on air-drying the recrystd. (from H_2O) product, a *tetrahydrate* which, on vacuum-drying 10 hrs. at 100° or recrystg. from MeOH, formed an anhyd. *dibasic acid* (**XIV**), m. 210-11° (decompn.), having the empirical formula, $C_{11}H_{13}NO_6$, of a regular oxime. With boiling Ac_2O **XIV** gave neutral colorless prisms, $C_{10}H_{11}NO_5$, m. 270-2° (decompn.), probably the *acetylated oxime* of **VIII**. The melt from **XIV**, treated with Me_2CO, gave a colorless *dibasic acid*, $C_{11}H_{13}NO_4$, m. 274-5° (decompn.). With CH_2N_2 and Me_2SO_4, **XIV** gave colorless products, m. 200-8° and 105°, resp., both of which contained more N than calcd. for a regular ester. Ultraviolet spectra are given for **IV**, **VII**, and **XII** in aq. soln. and for **XI** and the tetra-Me ester of **XII** in $CHCl_3$ soln. **XI**, **XII**, and the tetra-Me ester of **XII** show ketone bands that are absent in **IV** and **VII**.

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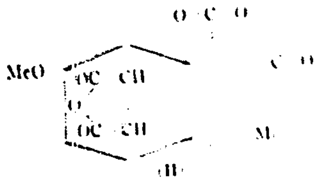
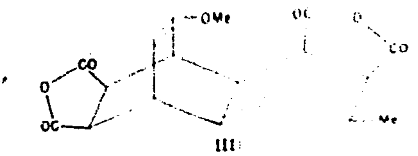
Application of the diene synthesis to aromatic systems. V. Bruckner and József Kovács. *Magyar Kém. Lapja* **4,** 458-66(1949). The discovery and development of the diene syntheses is summarized, then the possibility of application to aromatic ring systems emphasized. Expts. confirmed that styrene derivs. also behave in principle as conjugated dienes. One olefinic double bond of a conjugated diene is replaceable by a double bond of a mononuclear aromatic system. The transformation of anethole with maleic anhydride was studied. Besides the heteropolymeric product obtained by Hudson and Robinson (C.A. **36,** 1312^{5}), a well crystd. substance (I) could be sepd.; the mol. ratio anethole:maleic anhydride was 1:2 in this addn. product, for which was suggested the formula II. Detailed further investigations proved that II is quite right and that I has the configuration shown in formula III. By the original method the yield of I was only 8%; the addn. of PhNMe$_2$ inhibited the heteropolymeric transformation so effectively that the yield of I was increased to 6[illegible]% and I could easily be sepd. in pure form, m. 242°. Arguments are listed against the possibility of the structural formula proposed by Lora Tamayo and coworkers (*C.A.* **43,** 2070*d*). The initial mechanism of the diene synthetic transformation of styrene derivs. is briefly discussed. István Finály


(II)


III

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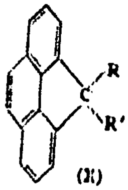
Addition of maleic anhydride to anethole. II. V.
Bruckner and J. Kovács (Univ. Szeged, Hung.). *J. Org.*
Chem. 14, 65-70(1949); cf. *C.A.* 44, 1924c.—Although I
resisted catalytic hydrogenation (Pt or Pd) at atm. pres-
sure, the existence of the double bond not in the enol ether
group of II and III (prepd. from I) was demonstrated by
bromination and oxidation with H_2O_2. This completed
the proof of structure for I. II (3.64 g.) in 200 ml. 2%
KOH, added to 6.3 g. Br in 60 ml. 10% KOH, the soln.
filtered after 2 days, treated with Na_2SO_3, acidified (pH
1-2) with 2 *N* HCl, and evapd. *in vacuo* to dryness, the
combined solns. from boiling the residue twice with dry
MeOH evapd. (reduced pressure), and the oily residue
crystd. several times (once with charcoal) from H_2O, gave
1.6 g. *partly esterified mono-Br deriv.* of II, colorless needles,
m. 196°, 0.4 g. of which in dry MeOH with CH_2N_2 gave
the *4-Br deriv.* (IV) of III, colorless needles, m. 217-8°
(after recrystn. from MeOH and then EtOAc). Adding
35 ml. of 6% soln. of Br in dry MeOH to 4 g. III in 15 ml.
dry MeOH, evapg. after the Br color disappeared (several
min.), triturating the yellowish oil with 12 ml. H_2O, boiling
the resulting oily crystals a few min. with 100 ml. H_2O,
and concg. the filtered soln. to 80 ml. also gave 1.1 g.

gives *1-(β-cyanoethyl)-2,2,4-trimethyl-1,2-dihydrofluoran-*
thene, viscous oil, $b_{0.1}$ 185-94°, which is sapond. to the
corresponding *propionic acid* (VIII), m. 144-5°. Treat-
ment of 80 g. *acid chloride* of VIII in CS_2 with 80 g. $SnCl_4$
gives *1,1'-[2,2,4-trimethyl-4'-keto-1,2,1',2',3',4'-hexa-*
hydro-8,8'-binaphthyl]spiran, $b_{0.1}$ 188-91°, crystals from
$CHCl_3$-ligroin, m. 136-8°. Dropwise addn. of 345 g.
$SnCl_4$ to 200 g. β,β'-(9-fluorenylidene)dipropionyl chlo-
ride at 0°, stirring the mixt. 4 hrs., and refluxing it 16 hrs.
give *1,1'-[4,4'-diketo-1,2,3,4,1',2',3',4'-octahydro-8,8'-*
binaphthyl]spiran (IX), $b_{0.03}$ 180-5° (mol. still), crystals
from $CHCl_3$-ligroin, m. 207-8° (*dioxime*, m. 224-5°).
The acid portion from this expt. (20.8 g.) was refluxed
with 2% EtOH-HCl, giving *Et 4-keto-1,2,3,4-tetrahydro-*
1-fluoranthenepropionate, $b_{0.03}$ 189-93°, which, sapond.,
gives the *free acid*, m. 183-5° (*oxime*, m. 210-13°). Re-
duction of 13.7 g. IX in 200 cc. AcOH at 20° in the presence
of PtO_2 16 hrs. gives *1,1'-[4,4'-dihydroxy-1,2,3,4,1',2',-*
3',4'-octahydro-8,8'-binaphthyl]spiran, m. 200-1° (*di-Ac*
deriv., prepd. with Ac_2O-C_5H_5N 12 hrs. at 20°, m. 150-3°,
subliming at 150° in a high vacuum). 4,5-Methylene-
phenanthrene (X, R = R' = H) (47.5 g.) with 30 g.
CH_2:CHCN gives the *dinitrile* (X, R = R' = CH_2-
CH_2CN) which, sapond., gives the *dicarboxylic acid*
(X, R = R' = $CH_2CH_2CO_2H$); the latter, with $SOCl_2$
gives the *acid chloride* (XI) (X, R = R' CH_2CH_2COCl).



(X)

Dropwise addn. of 75 g. SnCl$_4$ to 47 g. XI in 200 cc. CS$_2$
and stirring the mixt. 72 hrs. at 20° give 1,1'-[4,4'-di-
keto-7,7'-vinylene-1,2,3,4,1',2',3',4'-octahydro-8,8'-bi-
naphthyl]spiran, b$_{0.5}$ 200°, crystals from AcOEt-ligroin,
m. 182-5°. Refluxing a mixt. (prepd. in the order given) of
12 g. amalgamated Zn filings, 7.5 cc. H$_2$O, 17.5 cc. concd.-
HCl, 10 cc. PhMe, 2 drops AcOH, and 1 g. IX (or II) 24
hrs. with 3 addns. of 5 cc. concd. HCl after each 6 hrs.
gives 1,1'-[1,2,3,4,1',2',3',4'-octahydro-8,8'-binaphthyl]-
spiran (XII), colorless oil with bluish fluorescence, b$_{0.5}$
130°, b$_{0.5}$ 140°. Attempts to dehydrogenate XII by heat-
ing 1 g. with 1 g. Pd-charcoal in 50 cc. abs. Me$_2$CO 8 hrs.
at 240-60° or 3.4 g. with 0.9 g. powd. S 3 hrs. at 210-20°
in a slight vacuum failed. Attempts to dehydrogenate IX
with chloranil or by heating 2.75 g. with 1.0 g. Se 12 hrs.
at 280-90° also failed (cf. v. Braun and Rath, *C.A.* 22,
3748).

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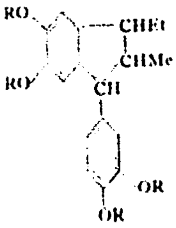
The reaction of propenylphenol ether dibromides with sodium iodide. J. Kovács (Univ. Szeged, Hung.). *J. Org. Chem.* 15, 15-18(1950).—The reaction of 3,4-(RO)$_2$C$_6$H$_3$CHBrCHBrMe (I) with NaI is studied. Keeping 3.4 g. I (R = Me) in 15 cc. Me$_2$CO with 3 g. NaI in 30 cc. Me$_2$CO 24 hrs. at room temp., decolorizing the mixt. with NaHSO$_3$, dilg. it with H$_2$O, and extg. with ether give 0.4 g. diisoeugenol di-Me ether (II) (IIa, R = Me), needles, m. 99-100°. Treating 8 g. 3,4-(EtO)$_2$C$_6$H$_3$CH:CHMe (III) in 20 cc. CHCl$_3$ with 6.2 g. Br at 0° gives I (R = Et) (IV), plates, m. 116°. IV and NaI give 53.3% *1-(3,4-diethoxyphenyl)-2-methyl-3-ethyl-5,6-diethoxyindan* (V) (IIa, R = Et), m. 90°. Satg. a soln. of 1 g. III in 5 cc. ether with HCl and keeping the mixt. overnight give V. Keeping V in abs. ether with an excess of Br overnight gives a *mono-Br deriv.*, C$_{24}$H$_{31}$O$_4$Br, long needles, m. 114°. Treating 4.5 g. I (R = PhCH$_2$) (VI) 2 days with NaI in Me$_2$CO gives 0.5 g. IIa (R = PhCH$_2$) (VII), needles, m. 114-16°. In some cases 3,4-(PhCH$_2$O)$_2$C$_6$H$_3$CH:CHMe, needles, m. 70-1°, is obtained; with Br it gives VI, m. 120°. Hydrogenation of 0.08 g. VII in 50 cc. EtOH with Pd-charcoal 15 min. gives *1-(3,4-dihydroxyphenyl)-2-methyl-3-ethyl-5,6-dihydroxyindan* (IIa, R = H), needles, m. 106°. Bromination of VII gives a *mono-Br deriv.*, C$_{48}$H$_{47}$O$_4$Br, m. 141°. Refluxing 3 hrs. 4.5 g. 3,4-HO(EtO)C$_6$H$_3$CH:CHMe in 25 cc. EtOH contg. 0.6 g. Na with 3.3 cc. PhCH$_2$Cl gives 5 g. *3,4-PhCH$_2$O(EtO)C$_6$H$_3$CH:CHMe* (VIII), long flat needles, m. 75°, *dibromide* (IX), m. 114°. Treating IX with NaI gives VIII, m. 75°. Treating 3,4-MeO(PhCH$_2$O)C$_6$H$_3$CHBrCHBrMe (X) with NaI gives isoeugenol benzyl ether, m. 58°, which with Br again gives X, m. 122°. 4-MeOC$_6$H$_4$CHBrCHBrMe and NaI give anethole, m. 21°.

F. E. Brauns



(IIa)

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The structure of the anethole-maleic anhydride bis-adduct. Gyozo Bruckner, József Kovács, and Péter Huhn (Univ., Szeged, Hung.). *Magyar Kém. Folyóirat* **56**, 73-4 (1950).—Further studies were made to support the structure previously proposed (*C.A.* **43**, 2600i) for the bis-adduct (I) of anethole and maleic anhydride as opposed to the structure of Lora-Tamayo (*C.A.* **43**, 2970c). When I was boiled with HI and glacial AcOH and the products were methylated, various compds., including di-Me fumarate and cis-3-methyl-7-methoxy-1,2,3,4-tetrahydro-1,2-naphthalenedicarboxylic acid (II) were identified in the mixt. obtained. The formation of both compds. is easily explained by the proposed structural formula but not by that of L.-T. Further support is offered by the fact that the anhydride of II did not react with maleic acid anhydride at 80° (the temp at which I is formed) but only at 180° and gave a product, m. 200°, against 243° for the original I. István Finály

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The reaction of the dibromides of styrene and stilbene derivatives with sodium iodide. *József Kovács* (Univ. Budapest). *Magyar Kém. Folyóirat* 56, 3[illegible]-6 (1950); cf. *C.A.* 44, 4416e.—The general procedure for treating dibromides with NaI was as follows: The dibromide and NaI in abs. Me_2CO were kept at room temp. 1-2 days, the soln. dild. with water, and the iodine absorbed by aq. $NaHSO_3$ or $Na_2S_2O_3$. Dimeric isoeugenol Me ether [1-(3,4-dimethoxyphenyl)-2-methyl-3-ethyl-5,6-dimethoxyindan], m. 99-100°, was obtained in 0.4-g. yield, by treating 3.4 g. $3,4\text{-}(MeO)_2C_6H_3CHBrCHBrMe$ in 15 ml. abs. Me_2CO with 3 g. NaI in 30 ml. abs. Me_2CO, keeping 24 hrs. at room temp., absorbing the free iodine, taking up the oily product in ether, washing with water, drying, and recrystg. from MeOH. 1-(3,4-Diethoxyphenyl)-1,2-dibromopropane, m. 116°, was obtained in 10-g. yield by adding 6.2 g. Br in 10 ml. dry $CHCl_3$ to 8 g. $3,4\text{-}(EtO)_2C_6H_3CH{:}CHMe$ (I) in 30 ml. dry $CHCl_3$ at −8°, filtering, and recrystg. from ligroine. Dimeric I Et ether [1-(3,4-diethoxyphenyl)-2-methyl-3-ethyl-5,6-diethoxyindan] (II), m. 90° (from EtOH), was similarly obtained in 0.3-g. yield (33.3%). II was also prepd. by satn. with HCl of 1 g. I in 5 ml. ether, removal of the solvent by vacuum distn., and recrystn. from MeOH. The Br deriv., m. 114°, mol. wt. 471.5, of I was obtained by keeping an Et_2O soln. of II with excess Br overnight. Dimeric $3,4\text{-}(PhCH_2O)_2C_6H_3CH{:}CHMe$ [1-(3,4-dibenzyloxyphenyl)-2-methyl-3-ethyl-5,6-dibenzyloxyindan], m. 114-16° (from EtOH), mono-Br deriv., m. 141°, and diasarone [1-(2,4,5-trimethoxy)-2-methyl-3-ethyl-4,6,7-trimethoxyindan], m. 68-9° (from MeOH), were also prepd. 3-Benzyloxy-4-ethoxy-1-propenylbenzene, m. 75°, was obtained in 5.0-g. yield by adding to 0.6 g. Na in 25 ml. abs. EtOH 4.5 g. $3,4\text{-}HO(EtO)C_6H_3CH{:}CHMe$ and 3.3 ml. $PhCH_2Cl$, refluxing 3 hrs., and recrystg. from EtOH. 1-(3-Benzyloxy-4-ethoxyphenyl)-1,2-dibromopropane m. 114° (from ligroine). Isoeugenol benzyl ether, m. 58°, and anethole, m. 21°, were also prepd. It was thus shown that the dibromides of 3,4-dibenzyloxy-, 3,4-diethoxy-, 2,4,5-trimethoxy-, and 3,4-dimethoxy-*x*-propenylbenzene formed dimeric compds. as well as the Br-free monomeric compds. The dibromides of styrene, stilbene, cinnamyl alc., $PhCH{:}CHCH_2OMe$, anethole, isosafrole, isoeugenol benzyl ether, and cinnamic acid, however, yielded only Br-free monomeric compds. István Finály

KARADY, I.; KOVACS, B.; KOVACS, J.; SZERDAHELYI, M.; VAJDA, P.

Investigation on the isolation, identification and chemical determination of an organism-formed and hitherto unknown antihistaminic substance. Magy. belorv. Arch. 4 no.4:150-155 1951. (CLML 21:4)

1. Institute of Pharmacology (Director--Prof. Dr. Miklos Jancso) and Institute of Pathology (Director--Prof. Dr. Istvan Karady) of Szeged Medical University and the Institute of Organic Chemistry (Director--Prof. Dr. Gyozo Bruckner) of Budapest University.