MALINOWSKI, Jerzy

The determination of sodium in telluric acid by neutron activation and gamma-spectrometry. Nukleonika 6 no. 3:211-213 '61.

1. Institut de Recherches Nucleaires, Warszawa.

RUTKOWSKI, Wladyslaw; MALINOWSKI, Jerzy

Determination of lithium, sodium, potassium in nickel oxide with the use of flame photometry. Chem anal 6 no.6:1065-1069 '61.

1. Department of Analytical Chemistry, Institute of Nuclear Research, Polish Academy of Sciences, Warsaw. Head of the Department: prof. dr. J. Minczewski.

FOLDZINSKA, Aleksandra; MALINOWSKI, Jerzy

Application of the Gutzeit method to radiochemical determination of arsenic. Pt. 1. Determination of arsenic in zinc "free from arsenic. Nukleonika 7 no.3:153-160 '62.

1. Polish Academy of Sciences, Institute of Nuclear Research, Warsaw Department of Analytical Chemistry.

MALINOWSKI, Jerzy; SZYMCZAK, Swietlana

Flame-photometric determination of lithium, natrium, kalium, calcium, and magnesium in uranyl nitrate. Chem anal 7 no.5:943-946 '62.

1. Institut fuer Kernforschung, Analytische Abteilung, Warszawa.

43388

P/046/62/007/011/003/005
D256/D308

AUTHORS: Sterliński, Slawomir and Malinowski, Jerzy

TITLE: Gamma-spectroscopic determination of trace amounts of cesium in sodium and potassium salts

PERIODICAL: Nukleonika, v. 7, no. 11, 1962, 693-701

TEXT: The feasibility of quantitative determination of Cs impurity in Na and K salts by means of gamma-ray spectroscopy was investigated to assess the consistency and accuracy of the method. The samples of the salts were irradiated with thermal neutrons in the EWA reactor over a period of 38 hours using the maximum neutron flux available of 10^{13} n/cm^2 sec to produce as high as possible activity of Cs over the background activity of the salts. The samples were given 2-3 weeks cooling-off period to bring the background activity of the shorter lived isotopes to a tolerable level. The activity of Cs^{134} ($T_{\frac{1}{2}}$ = 2.07 years) was measured with a 2" NaI (Tl) scintillation crystal mounted on an EMI 6097F photomultiplier tube: the gamma spectra were displayed on a 100-channel Hutchinson-Scarrot

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pulse-height analyzer. The two photoelectric peaks in the gamma spectrum corresponding to the 605 keV and 797 keV lines of Cs^{134} were used in the analysis; the identification of the lines was in addition verified by comparing the ratios of the areas under the peaks and measuring the rate of decay. The feasibility of the quantitative analysis was tested using samples of synthetic NaCl containing a known amount of CsCl, and the figure 2×10^{-3} ppm of Cs is quoted as the lowest amount which could be determined by this method under given conditions of activation and in the absence of any other long-lived impurity. It is pointed out that changes of the neutron flux in the reaction during the process of activation may produce an appreciable uncertainty of the results. There are 6 figures and 1 table.

ASSOCIATION: Instytut Badań Jądrowych PAN, Warszawa, Zakład Chemii Analitycznej (Institute of Nuclear Research, PAS Warsaw, Department of Analytical Chemistry)

SUBMITTED: August, 1962

FOLDZINSKA, Aleksandra; MALINOWSKI, Jerzy

Application of the Gutzeit method to radiochemical determination of arsenic. Pt. 2. Nukleonika 8 no.4:233-236 '63.

1. Institute of Nuclear Research, Department of Analytical Chemistry, Warsaw 9.

MALINOWSKI, Jerzy, mgr inz.

The J.Strzelczyk Mechanical Works in Lodz. Przegl mech 22 no.7/8:226-228 10-25 Ap '63.

1. Head, Factory Center of Technological and Economic Information, J.Strzelczyk Works, Lodz.

MALINOWSKI, Jerzy

A case of eosinophilic granuloma of the mandible and jaw in a 22-month-old girl. Czas. stomat. 18 no.2:145-150 F '65

1. Z Kliniki Chirurgii Stomatologicznej Pomorskiej Akademii Medycznej w Szczecinie (Kierownik: prof. dr. I. Semadeni-Konopacka).

MALINOWSKI, Jozef

PREGOWSKI, Wladyslaw; BRODA, Zbigniew; FRYCZ, Leszek; MALINOWSKI, Jozef

Treatment of 102 cases of tuberculosis with isonicotinic acid hydrazide. Gruzlica 22 no.4:273-281 Ap '54.

1. Z Panstwowego Sanatorium Prezeciwgruzliczego w Bystrej Slaskiej. Dyrektor: dr med. Wl.Pregowski.
(TUBERCULOSIS, PULMONARY, therapy,
*isoniazid)
(NICOTINIC ACID ISOMERS, therapeutic use,
*isoniazid in pulm. tuberc.)

CHYCKI, Andrzej, inz.; LASKOWSKI, Wladyslaw,; SOWA, Zbigniew, mgr inz.; KOSCIELNIAK, Adam, mgr inz.; MALINOWSKI, Kazimierz, mgr inz.; CYGAN, Ryszard, mgr inz.; DMITRENKO, Stefan, mgr inz.; LASKOWSKI, Wladyslaw, mgr inz.; BRONIKOWSKI, Adam; STASIKOWSKI, Henryk

Is the profession of a graduate engineer a creative one? Przegl techn 86 no.16:5[illegible] 18 Ap '65

1228 620.192.52 : 677.21.664

Malinowski L., Krylowiecki M. Shrinkage of Crude Cotton Fabrics.

„Skurcz surowych tkanin bawełnianych". Przemysł Włókienniczy. No. 4, 1955, pp. 136—138, 3 tabs.

Shrinkage of crude cotton fabrics causes difficulties in accounting between weaving and finishing departments. Investigations were carried out in a number of establishments of the cotton textile industry with a view to determining the degree of shrinkage and the time needed to complete it. It was established that the total error in measuring the length of fabrics is, in industrial conditions, ± 2.3 per cent; the total effective shrinkage of fabrics varies between 0.62 and 4.7 per cent. It follows that in most cases the effective shrinkage is less than the total error in measurements; consequently, short length in fabrics is probably caused by inexact measuring. Moreover, it has been demonstrated that total shrinkage of fabrics is mostly complete within seven days.

Matts

2

POLAND/Chemical Technology - Chemical Products and Their Application. Artificial and Synthetic Fibers. H-32

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 27226

Author : Malinowski Leon

Inst : Textile Institute.

Title : Investigation of the Strength of Domestic (Polish) Staple Fibers by the Method of Bundle Breaking.

Orig Pub : Prace Inst. wlokienn., 1956, 6, No 23, 1-20

Abstract : It is proposed to replace the pendulum dynamometer of Schopper, designed for testing an individual fiber, by a tension dymamometer DSZ-3, which can be used to test bundles of fibers. A detailed mathematical analysis of laboratory tests of the strength of staple fibers by means of both instruments, shows that DSZ-3 dynamometer yields fully reliable readily reproducible

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POLAND/Chemical Technology - Chemial Products and Their Application. Artificial and Synthetic Fibers. H-32

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 27226

results. Correction factor on computing strength of individual fiber of a straight bundle depends on number of fibers in bundle and is on the average 0.73. On testing strength of fibers in a loop this factor is 1.8. The method of breaking of a bundle (straight or looped) is less laborious and the equipment required is more readily available than in the case of breaking of individual fibers; maximum error does not exceed 3%.

Card 2/2

MALINOWSKI, L.

MALINOWSKI, L. Determination of the strength of viscose fibers of Polish production by the method of the nep tearing. Biuletyn Wlok. p.3.

Vol. 10, no. 6, June, 1956
PRZEMYSL SPOZYWCZY
TECHNOLOGY
Warsaw, Poland

So. East Accession Vol. 6, no. 2, Feb. 1957

POLAND / Chemical Technology. Chemical Products and Their Applications. Artificial and Synthetic Fibers. H-23

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 10378.

Author : Rozmarynowski, W., Malinowski, L.
Inst : Not given.
Title : Prospects for a Mixture of Crimped Viscose and Acetate Fibers.

Orig Pub: Techn. wlokienn., 1958, 7, No 5, 139-142.

Abstract: No abstract.

Card 1/1

226

KLOCEK, Tadeusz, mgr inz.; BALA, Stanislaw, mgr inz.; JUSZKIEWICZ, Zbigniew, mgr inz.;MALINOWSKI, Lucjan, mgr inz.; WYSIATYCKI, Kazimierz, mgr inz.

Measurements of the ship hull pressure on the bow cradle during launching. Bud okretowe Warszawa 9 no.10:346-350 '64

1. Technical University, Gdansk.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

MALINOWSKI, M.

MALINOWSKI, M. Cyclicism in the processing of fiber on roller cards. p. 59

Vol. 10, no. 2, 1956
PRZEMYSL WLOKIENNICZY
TECHNOLOGY
Lodz, Poland

So: East European Accession Vol. 6, no. 2, 1957

MALINOWSKI, M.; MACIEJEWSKI, J.

The production analysis of flax spinning frames in the 3rd and 4th quarters of 1958. p. 135.

PRZEGLAD WLOKIENNICZY. (Stowaryszenie Inzynierow i Technikow Praemyslu Wlokienniczego Lodz, Poland, Vol. 13, No. 3, Mar. 1959.

Monthly List of East European Accessions (EEAI), LC, VOL. 9, no. 2, Feb. 1959.

Uncl.

MALINOWSKI, Marian

Deduction of the optimum parameters of the feeding flax carding machines. Wlokiennictwo Lodz no.8:5-70 '61.

1. Katedra Technologii Wlokien Lykowych, Politechnika, Lodz.

MALINOWSKI, Marian

Feeding flax cards with continuous flow of fibers supplied by a pinned lattice. II. Przegl wlokien 16 no.5:282-286 My '62.

1. Politechnika, Lodz.

MALINOWSKI, Marian

Feeding flax cards with a continuous and an interrupted flow of fibers passing through the open scale pan of the card. III. Przegl wlokien 16 no.6:317-324 Je '62.

1. Politechnika, Lodz.

MALINOWSKI, Marian

Feeding the flax carding machine by an interrupted flow done by dropping fiber from periodically opened scale pan. Przegl wlokien 16 no.9:461-465 S '62.

1. Politechnika, Lodz.

MALINOWSKI, Marian

Speed of worker rollers and its influence on the efficiency of a flax carding machine. Przegl włokien 18 no.10:457-459 O '64.

HALAWA, Bogumil; MALINOWSKI, Miron

Effect of the treatment with Swieradow radon water on the excretion of adrenal steroids. Pol. tyg. lek. 19 no.22:817-819
25 My'64

1. Z III Kliniki Chorob Wewnetrznych Akademii Medycznej we Wroclawiu (kierownik: prof. dr. Edward Szczeklik) i z Osrodka Naukowo-Leczniczego w Swieradowie III Kliniki Chorob Wewnetrznych Akademii Medycznej we Wroclawiu (kierownik: prof. dr. Edward Szczeklik).

NORSKI, Tadeusz; MALINOWSKI, Miron; GOLA, Alfred

Evaluation of results of treatment of some respiratory diseases, based on mathematical analysis. Arch. immun. ther. exp. 11 no.3:479-488 '63.

1. The Therapy Research Center in Swieradow, III Clinic of Internal Diseases, School of Medicine, Wroclaw.
(RESPIRATORY DISEASES) (BALNEOLOGY)
(STATISTICS) (RADIUM)

MALINOWSKI, R.

Polish Technical Abst.
No. 1 1954
Building Industry and
Architecture

D

2680

Malinowski R. The Corrugated Insert — a New Method of Anchoring Wires in Prestressed Concrete. 666.982.3

„Wkładka falowana — nowy sposob kotwienia strun w betonie wstępnie sprężonym". Inżynieria i Budownictwo. No. 1, 1953, pp. 11—12, 2 figs., 1 tab.

Production of wires with rough, corrugated or profiled surfaces involves certain difficulties. The anchorage of wires on both ends of an element has certain advantages, but, nevertheless, some defects in construction and installation have been found. The corrugated insert eliminates the defects of both methods. The corrugated insert, tested in railway sleepers, showed many advantages, particularly as regards elements of greater length.

MALINOWSKI, R.; [illegible]

"Determining the Amount of Water for Concrete by Professor [illegible] Mironov's Method", p. 303, (MATERIALY BUDOWLANE, Vol. [illegible], No. 11, November [illegible], Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. [illegible], No. [illegible], March [illegible], Uncl.

[illegible]I, R.

"Abridged Method for Steaming Concrete; A 3-shift 24-hour Cycle of Curing for Concrete Materials While the Low-Pressure Chamber Is Working 8 Hours" p. [illegible], (PRZEGLAD BUDOWLANY, Vol. 2[illegible], No. [illegible], August 1954, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. [illegible], No. [illegible], March 1955, Uncl.

MALINOWSKI, ROMAN.

Betoniarnie budowlane. (Dlainzynierow i technikow budowlanych oraz personalu technicznego wytworni. Wyd. 1) Warszawa, Budownictwo i Architektura (1955) 96 p. (Building cement plants; for engineers and building technicians and technical personnel of a plant. 1st ed. illus., bibl., diagrs., tables)

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

MALINOWSKI R

MALINOWSKI, R.

Selected problems in heat treatment of concrete.

p. 28(Budownictwo Przemyslowe) Vol. 4, No. 9, Sept. 1955, Warszawa, Polan

S : MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

MALINOWSKI, R.

Possible endurance of concrete and cement based on endurance tests of 3 and 7 days. (To be contd.) p.277
MATERIALY BUDOWLANE (Naczelna Organizacja Techniczna) Warszawa
Vol. 10, no. 10, Oct. 1955

So. East European Accessions List Vol. 5, No. 1 Jan. 1956

MALINOWSKI, R.

Expected stresses of concrete and cement based on stress tests of 3 and 7 days. (Conclusion) p. 311. Vol. 10, no. 11, Nov. 1955. MATERIALY BUDOWLANE. Warszawa.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956.

MALINOWSKI, E.

"Soviet methods of concrete." p. 343. (INZNIERIA I BUDOWNICTWO
Vol. 11, No. 11, Nov. 1955. Warszawa, Poland)

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

Heat evolution during setting of cement vs. steam curing of concrete. Roman Malinowski. *Cement-Wapno-Gips* 11(20), 174–80(1955).—M. corroborated previous findings, especially those of Mironov, that heat-treatment of freshly prepd. concrete decreases its strength; however, when the heat-treatment is applied after 6 hrs. of preliminary maturing it increases the one-day strength of concrete by 50%. The reason for delaying the heat-treatment for 6 hrs. is that during the first 6 hrs. exothermic reactions in concrete proceed rapidly and hence a great amt. of heat is evolved. The optimum temp. of the heat-treatment is 60–90° and depends on the activity coeff. of the given cement. Activity coeff., which depends on the chem. compn. of the cement and its heat evolution during setting, is for Polish cements as follows: for rapidly setting cements is 1–2 (e.g., cement from Groszowice no. 400 with a setting temp. of 54°), for normally setting cements is 2–3 (e.g., cement from Saturn no. 350 with a setting temp. of 30.5°), and for slow-setting cements is above 3 (e.g., cement from Wysoka no. 250 with a setting temp. of 25°). The optimum temp. of heat-treatment for the cement no. 400 is 55–60°, for cement no. 350 (from Saturn) is 75–85°, and for the cement no. 250 is 85–95°. M. finds that the optimum temp. of heat-treatment plus the setting temp. of the cement is const. ≅ 115° ± 10°. The manufg. cycle of concrete pieces should be as follows: mixing, storing, vibrating, and keeping the concrete pieces on trucks is carried out within the first 8 hrs. The trucks with the pieces are then placed in a heat-treating chamber and heated to the required temp. for approx. 6 hrs.; the temp. is then decreased to 50° within approx. 2 hrs. The trucks are then pushed into a cooling chamber where they are cooled to 20° within 6–8 hrs. by spraying with water. Thus the whole cycle requires 24 hrs.

F. J. Hendel

Poland/Chemical Technology -- Chemical Products and Their Application. Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1731

Author: Malinowski, R.

Institution: None

Title: Formulation of Optimum Sand Content in Aggregate Mixtures Used in Concrete Based on Fineness Modulus

Original Periodical: Inz-ia i budown., 1955, Vol 12, No 10, 333-337; Polish

Abstract: A method is proposed for the formulation of the optimum sand content in aggregate mixtures using concrete; the method is based on the work of the Swedish researcher Nils Odemark and of the English researcher H. Smith. The method uses generally accepted and specified fineness modulus values and correlates the optimum sand content with the type of concrete, its strength, and the consistency of the concrete mass.

Card 1/1

MALINOWSKI, R., MILINSKI, J.

"Betoniarnie budowlane" (Construction concrete mixing plants), by R. Malinowski, J. Milinski. Reported in New Books (Nowe Ksiazki), No. 14, July 15, 1955

MALINOWSKI, R.

4040 666.971 : 666.942

Malinowski R. A Quick Method for Steam Curing of Concrete.

„Skrócona metoda naparzania betonu". Przegląd Budowlany. No. 8, 1954; pp. 239—243, 1 tab.

With the present method of manufacturing prefabricated concrete elements, a fully industrialized production cycle based on three shifts is impossible, since the low-pressure chamber stage of the process lasts nearly 12 hours. This difficulty has, however, been overcome by dividing the production cycle into three individual operations lasting not more that 8 hours and carried out on separate stations. These operations are: 1) casting and setting of concrete; 2) steam curing, and 3) cooling. For steam curing, Portland cements brand 250 or 350 should be used. When possible the cements should be low-caloric. It is advisable to add to the mixture 2% by cement weight of calcium chloride.

MALINOWSKI, ROMAN

Activity of granulated acidic blast-furnace slags used for the production of hydraulic cements. Roman Malinowski. *Cement-Wapno-Gips* 12(21), 00-5(1956).—The evaluation of blast-furnace slags is discussed. For the production of cements, basic or acidic slags can be used; however, for the production of cements from slags and gypsum the acidic slags are much more suitable. In general, Polish standards do not favor the use of acidic slags, contrary to Russian standards "GOST 3476-52" and to Budnikov (B. and Znachko-Yavorskii, *Granulated Blast Furnace Slag and Slag Cement*, Moscow 1953, 224 pp(*C.A.* 48, 11756c)). 23 references.

E. J. Hendel

PM — 22B

MALINOWSKI, ROMAN

2

Selected technological problems of production of plastic slag cements. Roman Malinowski. *Cement-Wapno-Gips* 13(22), 65-78(1957). M. suggests dividing all types of slags into 3 categories depending on their true activity. (*1*) Active slag requires an addn. of cement as activator in the amt. of 30, 50, and 70%, resp., in order to obtain a strength of the mixt. equal to 70-80, 80-95, and over 95%, resp., of the cement used as activator. (*2*) Slag of medium activity requires an addn. of activator (cement) in the amt. of 30, 50, and 70%, resp., in order to obtain a strength of the mixt. equal to 50-70, 65-80, and 80-90%, resp., of the cement used as activator. (*3*) Slag of low activity requires an addn. of activator (cement) in the amt. of 30, 50, and 70%, resp., in order to obtain a strength of the mixt. equal to 30-50, 50-65, and 70-80%, resp., of the cement used as activator. The following equation can be used in order to predict the strength of the mixt. contg. either 70 or 30% of the activator (cement): $R_x = R_{30} + m(R_{70}-R_{30})$, where R_x = strength of activator (cement), R_{70} = strength of the mixt. contg. 70% of the activator, R_{30} = strength of the mixt. contg. 70% of the activator, and m = a coeff. $\cong 2$. All strengths (in kg./sq. cm.) were measured after 28 days. M. found that aging of a granulated slag stored under water proceeds much slower than when it is stored in the air, where CO_2 reacts slowly with the constituents of the slag. High temp. during storing of the granulated slag for up to 24 hrs. after the grinding operation does not cause any deterioration of the slag. F. J. Hendel

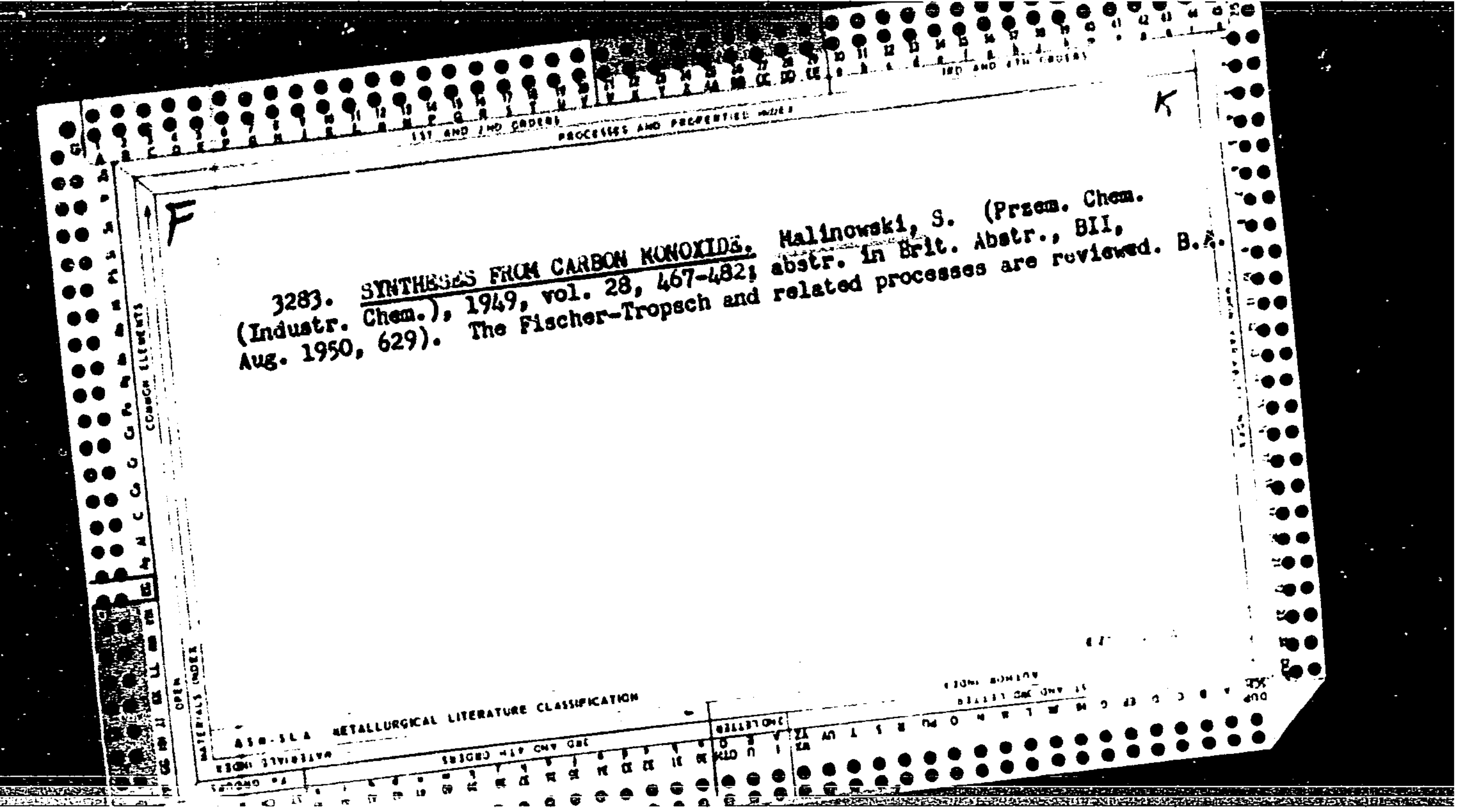
CIESIELSKI, Wieslaw, mgr., inz.; BORENNTAEDT, Wladyslaw, mgr., inz.,
MALINOWSKI, Ryszard, mgr., inz.

One of the planned summit pump power stations in Poland. Gosp wodna 22 no. 3:97-100. Mr '62

URBANSKI, T.;SERAFINOWA, B.;MALINOWSKI, S.;SLOPEK, S. KAMIENSKA I.;VENULET, J.;
JAKIMOWSKA, K.

Research on new drugs in the treatment of tuberculosis; thiosemicarbazones. Gruzlica, Warsz. 20 no.3:292-302; concl. May-June 1952.
(CIML 23:2)

1. Of the Chemical Laboratory of the Institute of Tuberculosis (Director --Prof. J. Misiewicz, M.D.), Warsaw.

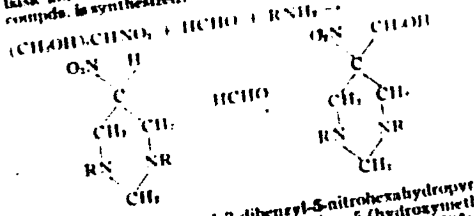


3283. SYNTHESES FROM CARBON MONOXIDE. Malinowski, S. (Przem. Chem. (Industr. Chem.), 1949, vol. 28, 467-482; abstr. in Brit. Abstr., BII, Aug. 1950, 629). The Fischer-Tropsch and related processes are reviewed. B.A.

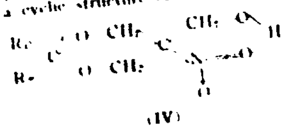
CA

Reactions of nitroparaffins. IV. Reaction of nitromethane with formaldehyde and amines. Stanisław Malinowski and Tadeusz Urbański (Politech., Warsaw, Poland). *Roczniki Chem.* 25, 183-212(1951); cf. *C.A.* 42, 1766; 44, 4876i.—The reactions between $MeNO_2$, HCHO, and NH_3, even in dil. soln. and 0° lead to polymers of basic character. Replacing $MeNO_2$ by its di- or trihydroxymethyl derivative, or NH_3 by $MeNH_2$ gives the same results. However, from a substituted nitromethane and less basic amines, a series of hexahydropyrimidine and *m*-dioxane compds. is synthesized:

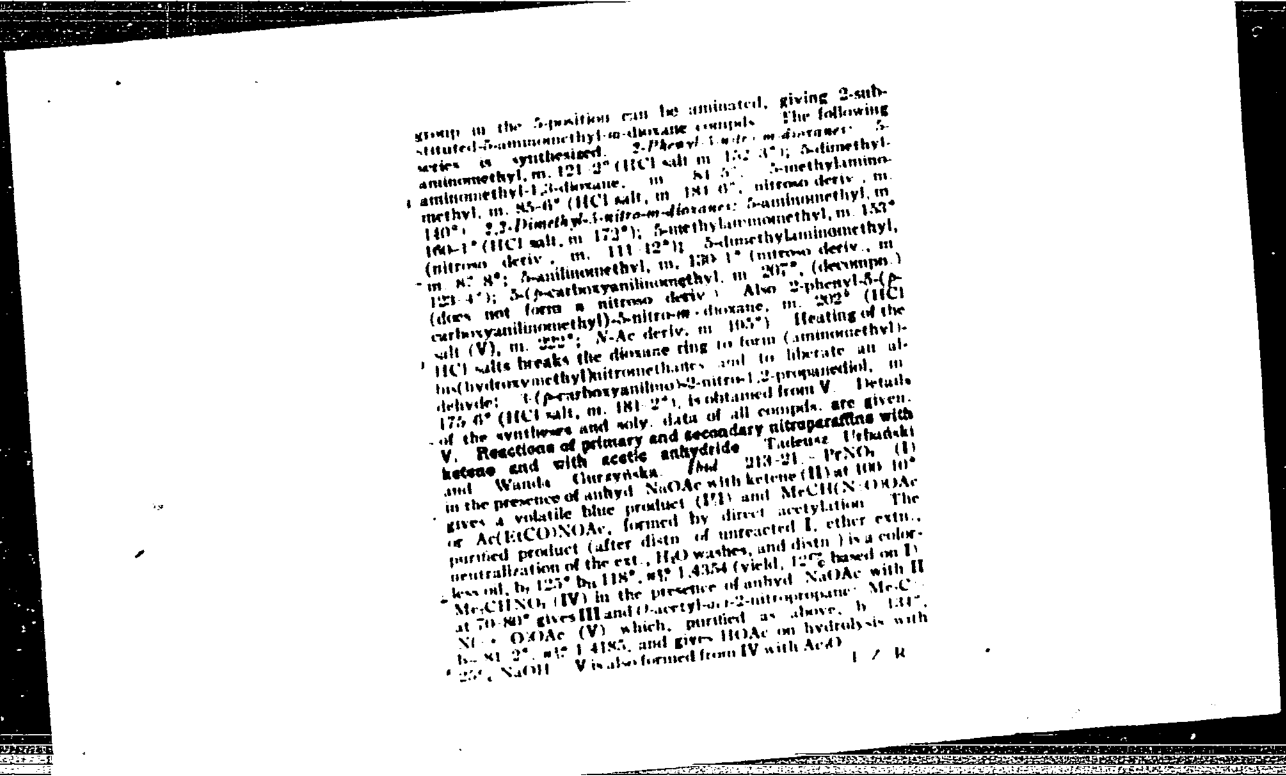
$(CH_2OH)_2CHNO_2 + HCHO + RNH_2 \rightarrow$



When R is $PhCH_2$, 1,3-dibenzyl-5-nitrohexahydropyrimidine, m. 57°, and 1,3-dibenzyl-5-nitro-5-(hydroxymethyl)hexahydropyrimidine, m. 124° (HCl salt, m. 159°; dioxalate, m. 162°), are formed in an exothermic reaction. When R is iso-Pr, 1,3-diisopropyl-5-nitro-5-(hydroxymethyl)hexahydropyrimidine, m. 140° (HCl salt, m. 145°; dioxalate, m. 139°), is isolated, and when R is cyclohexyl, 1,3-dicyclohexyl-5-nitro-5-(hydroxymethyl)hexahydropyrimidine, m. 104°, is formed. The monoesters of tris(hydroxymethyl)nitromethane (I) react slower than the above compds., requiring heating to 60°, and their hydrolysis during the reaction leads to the same products as from the bis(hydroxymethyl) derivs. (II). I are synthesized by conversion of $(CH_2OH)_3CNO_2$ (III) to acetals or ketals; these are esterified and hydrolyzed (dil. HCl/EtOH). III reacts with BzH (steam-bath, trace of concd. H_2SO_4) to give 2-phenyl-5-(hydroxymethyl)-5-nitro-*m*-dioxane, m. 125.6°, and is esterified to the acetate, m. 80°, and benzoate, m. 116-17°. III with anhyd. Me_2O in the presence of anhyd. $CuSO_4$ at room temp. produces 2,2-dimethyl-5-(hydroxymethyl)-5-nitro-*m*-dioxane, m. 133-4°; acetate, m. 64°; or benzoate, m. 117-18°. $PhCH_2CHO$ and III (steam bath, trace of concd. H_2SO_4) form (2-phenylethyl)-5-hydroxymethyl-5-nitro-*m*-dioxane, m. 137-8°. Acetals and ketals are resistant to alk. hydrolysis (boiling with 15% KOH or NaOH) while acid hydrolysis (5% HCl at 60°) is complete in 5 min.; they are neither methylated by Me_2SO_4, nor oxidized by alk. $KMnO_4$ or H_2O_2; on heating with MeONa no HCHO is released. Also no acetals are formed from II. The ab Therefore a cyclic structure (IV) is suggested.



(IV)



group in the 5-position can be aminated, giving 2-sub-
stituted-5-aminomethyl-m-dioxane compds. The following
series is synthesized. *2-Phenyl-5-nitro-m-dioxanes*: 5-
aminomethyl, m. 121-2° (HCl salt m. 152-3°); 5-dimethyl-
aminomethyl-1,3-dioxane, m. 81-5°; 5-methylamino-
methyl, m. 85-6° (HCl salt, m. 181-6°, nitroso deriv., m.
140°). *2,2-Dimethyl-5-nitro-m-dioxanes*: 5-aminomethyl, m. 153°
160-1° (HCl salt, m. 172°); 5-methylaminomethyl,
(nitroso deriv., m. 111-12°); 5-dimethylaminomethyl, m.
m. 87-8°; 5-anilinomethyl, m. 130-1° (nitroso deriv., m. 207°, (decompn.)
123-4°); 5-(*p*-carboxyanilinomethyl), m. Also 2-phenyl-5-(*p*-
(does not form a nitroso deriv.) -5-nitro-*m*-dioxane, m. 202° (HCl
carboxyanilinomethyl)-5-nitro-*m*-dioxane, m. 105°). Heating of the
salt (V), m. 222°; *N*-Ac deriv., m. 105°). Heating of the
HCl salts breaks the dioxane ring to form (aminomethyl)-
bis(hydroxymethyl)nitromethanes and to liberate an al-
dehyde; 1-(*p*-carboxyanilino)-2-nitro-1,2-propanediol, m.
175-6° (HCl salt, m. 181-2°), is obtained from V. Details
of the syntheses and soly. data of all compds. are given.

V. Reactions of primary and secondary nitroparaffins with ketene and with acetic anhydride. Tadeusz Urbański and Wanda Gurzyńska. *Ibid.* 213-21.—PrNO$_2$ (I) in the presence of anhyd. NaOAc with ketene (II) at 100-10° gives a volatile blue product (III) and MeCH(N:O)OAc or Ac(EtCO)NOAc, formed by direct acetylation. The purified product (after distn. of unreacted I, ether extn., neutralization of the ext., H$_2$O washes, and distn.) is a colorless oil, b$_4$ 125° b$_{11}$ 118°, n_D^{20} 1.4354 (yield, 12% based on I). Me$_2$CHNO$_2$ (IV) in the presence of anhyd. NaOAc with II at 70-80° gives III and O-acetyl-aci-2-nitropropane, Me$_2$C:N(:O)OAc (V) which, purified as above, b. 131°, b$_{12}$ 81-2°, n_D^{20} 1.4185, and gives HOAc on hydrolysis with 25% NaOH. V is also formed from IV with Ac$_2$O.

I. Z. R.

URBANSKI, T.; MALINOWSKI, S.

Synthesis of antituberculous drugs at the Institute of Tuberculosis. Gruzlica 20:6 Suppl. 2:81-91 1952. (CLML 24:2)

1. Of the Laboratory of the Syntheses of Therapeutics of the Institute of Tuberculosis, Warsaw.

MALINOWSKI, S

UEBANSKI, T;SERAFINOWA, B;MALINOWSKI, S;SLOPEK, S; KAMIENSKA, I; VENULET, J;
JAKIMOWSKA, K.

Research on new drugs for the treatment of tuberculosis. Gruzlica, Warsz. 20 no.2:157-170;contd. Mar-Apr 1952. (CLML 22:3)

1. Of the Department of Chemotherapy of the Institute of Tuberculosis (Director--Prof. J. Misiewicz, M. D.).

MALINOWSKI, Stanislaw

Chem Abs
v.48 25 Jan 54

Organic Chem

Reactions of diazo compounds with unsaturated compounds. Stanislaw Malinowski (Inst. Technol., and Inst. Tuberculos, Warsaw, Poland). *Roczniki Chem.* 26, 85–97 (1952).—*o*-$O_2NC_6H_4N_2Cl$ (Ia) and *o*-$HO_2CC_6H_4N_2Cl$ (Ib) with $CH_2:CHCN$ (I) in strongly acid soln. contg. Me_2CO, HCl, and Cu salts gave *o*-$O_2NC_6H_4CH_2CHClCN$ (II) and *o*-$HO_2CC_6H_4CH_2CHClCN$ (III). I with Ia gave a sirupy product which could not be purified either through crystn. or distn. but (*a*) on HCl hydrolysis yielded *o*-$O_2NC_6H_4CH_2CHClCO_2H$ (IV), yellow crystals, m. 109–10°, sol. in C_6H_6, $CHCl_3$, AcOEt, EtOH, AcOH, and NaOH soln., and giving *o*-$O_2NC_6H_4CH:CHCO_2H$ (V), m. 240–1°, with Na_2CO_3; (*b*) the sirup heated with EtOH and NaOAc yielded the nitrile of V, bright yellow crystals, m. 93–4°; (*c*) with concd. H_2SO_4, the sirup gave the amide of IV, pink needles, m. 100.5–1.5°. *p*-$O_2NC_6H_4CH_2CHClCN$ with 20% HCl, was hydrolyzed to the acid, bright yellow needles, m. 123°, sol. in alc., $CHCl_3$, NaOH soln., slightly sol. in AcOEt, and almost insol. in hot H_2O. I with Ib in a soln. contg. Me_2CO, HCl, and $CuCl_2$ gave III, colorless needles, m. 121–2°, sol. in hot C_6H_6, PhMe, and $CHCl_3$. *p*-$HO_2CC_6H_4CH_2CH_2CHClCO_2H$ with alc., NaOAc, and HCl, gave *p*-$HO_2CC_6H_4CH:CHCO_2H$ (VI), m. 250–60°, identical with the compd. obtained by hydrolysis of the nitrile of VI. *p*-$HO_2CC_6H_4CH_2CHClCN$ with EtOH, NaOAc, and HCl gave the nitrile of VI, m. 144–5°, sol. in alc., AcOEt, AcOH, and NaOH soln., slightly sol. in $CHCl_3$ and C_6H_6. 4,2-$O_2N(H_2N)C_6H_3CO_2H$ with HCl, $NaNO_2$, I, and Me_2CO gave 5,2-$O_2N(HO_2C)C_6H_3CH_2CHClCN$, yellow crystals, m. 137°, somewhat sol. in hot C_6H_6, $CHCl_3$, and Me_2CO. III with metallic Na in anhyd. C_6H_6 and PhMe yielded the nitrile of 3,4-dihydro-3-isocoumarincarboxylic acid, colorless crystals, with m. 65–6°, sol. in alc., C_6H_6, $CHCl_3$, AcOEt, and somewhat sol. in ether, $CHCl:CCl_2$ and H_2O. Hydrolysis of III with 20% HCl gave 3,4-dihydro-3-isocoumarincarboxylic acid (VII) colorless crystals, m. 152–3°, sol. in alc., AcOEt, and somewhat sol. in H_2O and C_6H_6. VIII treated with Na_2CO_3 and then with AcOH gave a mixt. of probably a lactone and *o*-$HO_2CC_6H_4CH:CHCO_2H$, m. 151–3°. III with concd. H_2SO_4 gave the amide of VII, colorless platelets, m. 160–1°, easily sol. in EtOH, hot H_2O, and slightly sol. in hot C_6H_6. L. J. Piotrowski

Hydroxamic Acids. III. Analogs of salicylohydroxamic acid. Tadeusz Urbański, Stanisław Malinowski, Lech Zakrzewski, and Hanna Piotrowska ([illegible] Warsaw, Poland). *Roczniki Chem.* 27, 47-53(1953)(English summary); cf. *ibid.*, 26, 505(1952); *C.A.* 44, 10912*i*.—The following new hydroxamic acids all possess low oral toxicity and bacteriostatic action on mycobacteria, particularly compds. no. T106 and T139. *Salicylohydroxamic acids:* *3-Me* (T95), m. 149-50°; *4-Me* (T97), m. 190-2°; *5-Me* (T100), 185°; *3,5-di-me* (T112), m. 154-6°; *3-Me* (T143), m. 144°. *3-Hydroxy-3-naphthohydroxamic acid* (T151), 163°; *1-hydroxy-2-naphthohydroxamic acid* (T106), m. 188-93°; *8-hydroxy-7-quinolinehydroxamic acid* (T139), m. 208-9°. Products T95, T97, T100, T112, and T143 were synthesized according to Jean Renaud [*Ber.* 22, 1270(1889)]; yields for the salicylo derivs. ranged from 35 to 60%. Yields averaged 25% for T106 and T139. Products T151, T106, and T139 were synthesized from NH_2OH in alc. KOH with the Me esters of the corresponding CO_2H acids.

Clayton F. Holoway

MALINOWSKI, S.

Purification and applications of Polish peppermint oil. Z. Rybakow and St. Malinowski. *Prace Glownego Inst. Przemyslu Rolnego i Spozywczego* 3, No. 2, 18-24(1953).—Phys. and chem. properties of Polish peppermint oil were detd. by fractional distn. of compds. such as acids, alcs., ketones, hydrocarbons, etc.; each of these compds. was then analyzed individually. The analysis showed the presence of *dl*- and *l*-menthol in the alc. fraction; a mixt. of *dl*- and *l*-menthone in the ketone fraction; and the presence of *d*-isomenthone which is probably the product of inversion of *l*-menthone. Cineole has been found in the hydrocarbon fraction; pulegone was not present. The sepn. of menthol from the peppermint oil can be carried out by freezing the fraction contg. menthol. The purification of the oil can be carried out by steam or vacuum distn. The final product was of good quality and could be applied to food and cosmetic products.

Richard Ehrlich

CH

MALINOWSKI, S.

Reactions of diazo compounds with unsaturated compounds. II. Arylation of furfural. Stanislaw Malinowski (Inst. Technol. and Tuberculosis, Warsaw). [illegible] 27, 54-64(1953)(English summary); cf. C.A. 48, 620i; Müller, C.A. 44, 1428f.—PhN_2Cl, with NO_2, Cl, or CO_2H in the p-position, can be condensed with furfural in aq. Me_2CO contg. HCl and $CuCl_2$ to give, with evolution of N, the corresponding 5-arylfurfurals, identical with authentic samples (thiosemicarbazones and dinitrophenylhydrazones). The corresponding 5-aryl-2-furancarboxylic acids were obtained by heating with 30% NaOH. When heated with quinoline and Cu_2O, 5-(p-nitrophenyl)furancarboxylic acid is decarboxylated to 2-(p-nitrophenyl)furan. 2-Furancarboxylic acids arylated in the 5-position resulted from condensation of p-nitro- and p-chlorobenzenediazonium chlorides with 2-furancarboxylic acid in aq. Me_2CO in the presence of HCl and $CuCl_2$.

Clayton F. Holoway

[illegible] collected), and the residue recrystallized from 5 l. MeOH, giving 18 g. of $1,4\text{-}C_6H_4[NC(Cl)CHCl_2]_2$ (II), m. 184° (hexanol). II, 24 g., refluxed in 400 ml. C_5H_5N, results *1,4-bis-(2'-cyanovinyl)benzene* (III), (95%). Hydrolysis of 2.5 g. II in 25 ml. H_2SO_4 and 35 ml. H_2O yields 1.8 g. of the $1,4\text{-}C_6H_4(CHClCO_2H)_2$ m. 109-7°. Reducing 25 g. II with 55 g. $CuCl_2$ and 150 ml. HOAc for 15 hrs. gives *1,4-bis(2-cyanoethyl)benzene*, m. 255-6° (11.4%), which hydrolyzes in 50% H_2SO_4 to the $1,4\text{-}C_6H_4(CH_2CH_2CO_2H)_2$, m. 228-30° (62%). Similar hydrolysis of III gives 50% of $1,4\text{-}C_6H_4(CH{:}CHCO_2H)_2$ subliming at 220-30° and darkening at 320-70°.

Chester Placek

ALI[illegible]KI, S.

"How to Order and Accept Timber in Sawmills and Lumberyards", P. [illegible],
(BUD[illegible]NICTWO [illegible], Vol. [illegible], No. 6, Nov./Dec. 19[illegible], Warsaw, Poland

SO: Monthly List of East European Accessions ([illegible], LC, Vol. [illegible], No. [illegible],
March 1955, Uncl.

Malinowski, S

5000

547.583.1-261.07

3823

Przylycka R., Malinowski S., Wirecka E. Synthesis ~~of 2-Methoxy-5-~~ ~~-Chlorobenzoic Acid and its~~ Ester.

„Otrzymywanie kwasu 2-metoksy-5-chlorobenzoesowego oraz jego estru". Roczniki Chemii (PAN). No. 4, 1954, pp. 663—666.

2-methoxy-5-chlorobenzoic acid was synthetised as follows: by reduction of 2-nitro-4-chloroanisole with iron and hydrochloric acid, 2-amine-4-chloroanisole was obtained. This compound by the Sandmeyer reaction was transformed to 2-methoxy-5-chlorobenzonitrile, which was further hydrolized by heating in a water-alcohol solution of sodium hydroxide giving 2-methoxy-5-chlorobenzoic acid. By heating this acid in an excess of ethanol in the presence of sulphuric acid the corresponding ester was obtained.

②

URBANSKI, Tadeusz; MALINOWSKI, Stanislaw; SKOWRONSKA-SERAFINOWA, Barbara; CHECHELSKA, Bozenna; DABROWSKA, Halina; FALECKI, Jerzy; GURNE, Daniela; HALSKI, Leszek; SLOPEK, Stefan; KAMIENSKA, Irena; VENULET, Jan; JAKIMOWSKA, Krystyna; URBANSKA, Alicja

Search for new antituberculous agents. Gruzlica 22 no.10:681-690 Oct 54.

1. Z Oddzialu Syntezy Lekow Instytutu Gruzlicy; kierownik prof. dr. T.Urbanski, dyrektor: prof. dr. J.Misiewicz.

(CHEMOTHERAPY, in various diseases
tuberc., progr.)
(TUBERCULOSIS, therapy
antituberc. agents, research)

MALINOWSKI, STANISLAW

Synthesis of 2-methoxy-5-chlorobenzoic acid and its ethyl ester. Róża Kierycka, Stanisław Malinowski, and Elżbieta Więcka (Inst. Technol., Warsaw). *Roczniki Chem.* 28, 663-6(1954) (English summary).—Reduction of 2,4-$O_2N(Cl)C_6H_3OMe$ with Fe and HCl gave 71% 2,4-H_2N-$(Cl)C_6H_3OMe$, which treated with $NaNO_2$ and HCl, and then with $Cu_2(CN)_2$ gave 82% *2,5-MeO(Cl)C₆H₃CN* (I), m. 99-100° (from alc.). Heating I in a water-alc. soln. of NaOH gave 51% *2,5-MeO(Cl)C₆H₃CO₂H*, m. 77-9° (from alc.), which heated in an excess of EtOH in the presence of H_2SO_4 gave 58.8% *2,5-MeO(Cl)C₆H₃CO₂Et*, m. 98-100° (from EtOAc).

P. Dreyfuss

CH

②

MALINOWSKI S.

547.556.7 : 547.384 : 547.572.1-113.07

3653

Malinowski S. Concerning Certain Reactions of Diazo-Compounds with Unsaturated Compounds. Reactions with α, β-Unsaturated Ketones.

„O pewnych reakcjach związków dwuazowych ze związkami nienasyconymi. O reakcjach z α, β-nienasyconymi ketonami", Roczniki Chemii (PAN), No. 1, 1955, pp. 37—46, 2 tabs.

CH

Condensation of certain benzenediazonium chlorides with methylvinyl ketone in a solution containing acetone, hydrochloric acid and cupric chloride gives the respective 4-phenyl-3-chlorobutanone-2 derivatives. Derivatives containing Cl, NO_2, COOH groups substituted in the para-position were obtained in this way. The author did not succeed in obtaining homogeneous derivation products having COOH and $COOCH_3$ groups in ortho-position. The 4-phenyl-3-chlorobutanone-2 derivatives obtained do not form oximes or dinitriphenylhydrazones. Is was found that the compounds heated with pyridine split off hydrogen chloride and transform into the respective benzal-acetonic derivatives. Heating with alcohol or water-alcohol solution of sodium or potassium hydroxides causes the formation of resins and small quantities of unidentified products.

MALINOWSKI S.

3653 547.655.6 : 615.724.8

Malinowski S. Concerning Certain Derivatives of 1.4-Naphthoquinone. CH'

„O pewnych pochodnych 1.4-naftochinonu". Roczniki Chemii (PAN). No. 1, 1955, pp. 47—54, 2 tabs.

In contradistinction to 2-hydroxy-1.4-naphthoquinone, 2-methoxy-1.4-naphthoquinone was shown to possess a strong antitubercular activity in vitro 1). The synthesis of derivatives of 2-methoxy-1.4-naphthoquinone arylated in position 3 was accomplished. A number of phenyldiazonium chlorides was condensed in an acetonic aqueous solution containing hydrochloric acid and cupric chloride with 2-methoxy-1.4-naphthoquinone and corresponding derivatives of 2-methoxy-3-phenyl-1.4-naphthoquinine were obtained. The reactions were conducted with phenyldiazonium chlorides containing the groups: NO_2, Cl, COOH, OCH_3, in the para-position, p-COOH, m-OH and with tetrazotized benzidine. The author did not succeed in obtaining condensation products with: phenyldiazonic-, p-methoxy-phenyldiazonic-, benzidienetetrazonic chlorides. By heating 2-methoxy-3-phenyl-1.4-naphthoquinone with a 5% aqueous solution of NaOH, corresponding derivatives of 2-hydroxy-phenyl-1.4-naphthoquinone were obtained. The derivatives of 2-methoxy-3-phenyl-1.4-naphthoquinone obtained were, as compared to the unarylated compounds, weaker in antitubercular activity in vitro.

MALINOWSKI, STANISLAW

Investigations of aldol reactions in gas phase. I. Reaction between acetic aldehyde and formaldehyde. Stanisław Malinowski, Hanna Jędrzejewska, Stanisław Basiński, Zbigniew Lipski, and Janina Moszczeńska (Zakład Technol. Organicznej I, Politech., Warsaw). *Roczniki Chem.* 30, 1129-38(1956)(English summary).—The reaction in the gaseous phase between AcH and HCHO (38% soln.) in the ratio 1:1 was studied at 250°, 275°, 300°, 325°, and 350°. Na, K, Rb, and Cs hydroxides (1% aq. solns.) (I) and Ca, Sr, and Ba hydroxides (8% aq. solns.) (II) adsorbed on silica gel were used as catalysts. The reaction products contained acrolein (III), H_2O, unreacted substrates, and small quantities of polymerized compds. The yield of III on I varied from 27% with NaOH to 62% with CsOH. The max. yields of III on II (all 26-27%) were found at 275°, 287°, and 325°, resp. A. Kręglewski

Chem

MALINOWSKI, S.

POLAND/Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11251

Author : Malinowski, S. and Benbenek, S.
Inst :
Title " Some Reactions of Diazonium Salts with Unsaturated Compounds. V. Reactions with α, β-unsaturated Aldehydes.

Orig Pub: Roczniki Chem, 30, No 4, 1121-1127 (1956) (in Polish with an English summary)

Abstract: The condensation of diazonium chlorides with acrolein (I), methylacrolein, and ethylacrolein in water-acetone solution in the presence of HCl and $CuCl_2$ gives derives of 2-chloro-3-phenylpropionic aldehyde, containing Cl or NO_2 in the benzene ring according to the mechanism : $3\text{-Y-}4\text{-XC}_6H_3N_2Cl + CH_2{=}CRCHO \longrightarrow 3\text{-Y-}4\text{-XC}_6H_3CH_2CR(Cl)CHO + N_2$, where X = H, Cl, or NO_2; Y = H, Cl; R = H, CH_3, or C_2H_5. It has been estab-

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POLAND/Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11251.

lished that these compounds when subjected to the action of piperidine eliminate HCl and are converted to the derivatives of cinnamic aldehyde. Peracetic acid in acetic acid solution oxidizes the above reaction products to the corresponding derivatives of 3-chloropropionic acid. Preparation: 76.5 gms p-chloroaniline in 225 gms 20% HCl with 50 gms ice are diazotized with a solution of 123 gms 33% $NaNO_2$, 33 gms I in 150 gms acetone and 5 gms $CuCl_2$ are added to the reaction mixture, and after 24 hrs the organic layer is dissolved in 200 gms C_6H_6 and distilled; 3-(p-chlorophenyl)-2-chloropropionaldehyde (II) is obtained, yield 37.6%, bp 136-137°/7 mm. 4 gms II and 25 gms piperidine are heated for 20 hrs and 300 ml of the reaction mixture steam distilled; the residue gives p-chlorocinnamic aldehyde, yield 34%, mp 61-62° (from CH_3OH + ether). 10.1

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POLAND/Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11251.

gms II and 50 gms of peracetic acid solution (prepared by the addition of 100 gms 28% H_2O_2 to 450 gms acetic anhydride and allowing the solution to stand for 24 hrs) are allowed to stand for 24 hrs and the oil is separated; 500 ml of the latter are steam distilled;the residue gives 2-chloro-3-(p-chlorophenyl)-propionic acid (III), yield 52%, mp 98.5-99.5°. Similarly 12.75 gms p-chloroaniline in 25 ml 30% HCl, 10 ml water, 30 gms ice, 20 ml 33% $NaNO_2$, 7 gms acrylonitrile in 50 ml acetone, and 2 gms $CuCl_2$ give the nitrile of III (IV), yield 53%, bp 162°/16 mm. 2 gms IV, 30 gms 15% HCl, and 10 gms glacial CH_3COOH are heated for 20 hrs and 200 ml of the reaction mixture are steam distilled; the residue gives III, yield 39%. For Communication IV see RZhKhim, 1955, 40111.

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MALINOWSKI S.

Aldol reactions in gas phase. I. Reaction between acetaldehyde and formaldehyde. [illegible] [illegible] [illegible] and [illegible] Chem. 1956 30 1129 [illegible]

[illegible]

alkaline earth and [illegible] on silica gel carriers give [illegible] optimum [illegible]

237° and for Ea 325°. M. H. SAWISTOWSKI.

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MALINOWSKI S

MALINOWSKI, S, AND OTHERS.

INVESTIGATIONS OF ALDOL REACTIONS IN THE GASEOUS PHASE. III.

P. 123 (Roczniki Chemii) Vol. 31, No. 1, 1957, Warszawa, Poland.

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. VOL. 7, NO. 1, JAN. 1958

MALINOWSKI, S

MALINOWSKI, S. AND OTHERS.

Investigations of aldol reactions in the gaseous phase. II. Reaction of formaldehyde with acetaldehyde.

P. 81 (Roczniki Chemii) Vol. 7, No. 1, 1957, Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. VOL. 7, NO. 1, JAN. 1958

POLAND/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64358.

Author : Malinowski, Stanislaw, Jedrzejewska Hanna, Basinski, Stanislaw, Lipski Zbigniew.

Inst :

Title : Investigations into Aldol Reactions in the Gaseous Phase. II. Concerning Reactions Between Formaldehyde and Acetaldehyde.

Orig Pub: Roczn. Chem., 1957, 31, No 1, 71-79.

Abstract: As a continuation of recent work (see Report I, RZhKhim, 1958, 1204), there was investigated the reaction producing acrolein (I) out of formaldehyde and acetaldehyde by passing the vaporized mixture over SiO_2 (silica gel) saturated to 7% with Na_2WO_4, K_2WO_4, Na_2TiO_3 or K_2TiO_3. The ratio of Na_2O to SiO_2 changed from 1:1 to 1:3.18.

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POLAND/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64358.

The relation between the yield of (I), the temperature of reaction and the volume of catalyst was established for each catalyst. For constant volumes of catalyst (42.7 g. of aldehyde per 1 g. of catalyst per hour), optimum reaction conditions are as follows (type of catalyst, temperature of reaction in °C, yield of (I) in %): $Na_2O \cdot 2SiO_2$, 300, 38.7; $K_2O \cdot 3.44\ SiO_2$, 275, 42; SiO_2-Na_2WO_4, 250, ~33; SiO_2-K_2WO_4, 250, ~35; SiO_2-Na_2TiO_3, 250, ~48; SiO_2=K_2TiO_3, 225, 56.5.

Card : 2/2

POLAND/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64359.

Author : Malinowski Stanislaw, Basinski Stanislaw, Olszewska Maria, Zieleniewska Hanna.

Inst :

Title : Investigations into Aldol Reactions in the Gaseous Phase. III.

Orig Pub: Roczn. chem., 1957, 31, No 1, 123-129.

Abstract: By passing the mixed vapors of eq-'molar columns of formaldehyde and propione, n-butyric or n-valeric aldehydes at temperatures of 250-325° over silica gel saturated with liquid glass consisting of Na_2O : 3.18 SiO_2 to the concentration of 7%, the corresponding alpha-methyl (I), alpha-ethyl (II) and alpha-(n propyl)-acroleins (III) are produced. The reactions are carried

Card : 1/2

4

MALINOWSKI, S.

POLAND/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64358.

Author : Malinowski, Stanislaw, Jedrzejewska Hanna, Basinski, Stanislaw, Lipski Zbigniew.

Inst :

Title : Investigations into Aldol Reactions in the Gaseous Phase. II. Concerning Reactions Between Formaldehyde and Acetaldehyde.

Orig Pub: Roczn. Chem., 1957, 31, No 1, 71-79.

Abstract: As a continuation of recent work (see Report I, RZhKhim, 1958, 1204), there was investigated the reaction producing acrolein (I) out of formaldehyde and acetaldehyde by passing the vaporized mixture over SiO_2 (silica gel) saturated to 7% with Na_2WO_4, K_2WO_4, Na_2TiO_3 or K_2TiO_3. The ratio of Na_2O to SiO_2 changed from 1:1 to 1:3.18.

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3

POLAND/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64358.

The relation between the yield of (I), the temperature of reaction and the volume of catalyst was established for each catalyst. For constant volumes of catalyst (42.7 g. of aldehyde per 1 g. of catalyst per hour), optimum reaction conditions are as follows (type of catalyst, temperature of reaction in °C, yield of (I) in %): $Na_2O \cdot 2SiO_2$, 300, 38.7; $K_2O \cdot 3.44\ SiO_2$, 275, 42; Sio_2-Na_2WO_4, 250, ~33; SiO_2-K_2WO_4, 250, ~35; SiO_2-Na_2TiO_3, 250, ~48; SiO_2=K_2TiO_3, 225, 56.5.

Card : 2/2

MALINOWSKI, S., AND OTHERS

"Investigations of aldol reactions in the gaseous phase. I. Reaction between acetaldehyde and formaldehyde."

p. 1129 (Roczniki Chemii) Vol. 30, no. 4, 1956
Warsaw, Poland

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

MALINOWSKI, S.; BENEBENEK, S.

"Some reactions of diazo compounds with unsaturated compounds. V. Reactions with α, β-unsaturated aldehydes."

p. 1121 (Roczniki Chemii) Vol. 30, no. 4, 1956
Warsaw, Poland

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

POLAND/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khim., No 2, 1959, 4608.

Author : Malinowski, S., Jedrzejewska, H., Basinski, S., and
Lipski, Z.
Inst :
Title : The Investigation of Aldol Reactions in the Gas
Phase. IV.

Orig Pub: Roczniki Chem, 32, No 2, 203-211 (1958) (in Polish
with summaries in English and Russian)

Abstract: Continuing their study of the gas phase synthesis of CH_2 =CHCHO (I) by the aldol condensation of CH_3CHO and CH_2O on silica gel (II), the authors have found that the yield of I depends on the following factors: (1) the amount of Na adsorbed on or present in II; (2) the method of preparation of II (to a small

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POLAND/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khim., No 2, 1959, 4608.

degree); (3) the amount of NaOH used in the preparation of II [sic]; and (4) on the surface characteristics of II. The largest yields (40-50%) are obtained at ∿ 300°. The methods used in the preparation of various types of II are described. For Communication III see RZhKhim, 1958, 64359. V. Skorodumov.

Card : 2/2

URBANSK, Tadeusz; BELZECKI, Czeslaw; CHECHELSKA, Bozena; CHYLINSKA, Barbara;
DABROWSKA, Halina; FALECKI, Jerzy; GURNE, Daniela; HAISKI, Leszek;
MALINOWSKI, Stanislaw; SERAFINOWA, Barbara; ZYLOWSKI, Jerzy; SLOPEK,
Stefan; KAMIENSKA, Irena; VENULET, Jan; JANOWIEC, Mieczyslaw; JAKIMOWSKA,
Krystyna; URBANSKA, Alicja; KUZNIEWICOW, Anatol

Searching for new anti-tuberculosis drugs. Gruzlica 26 no.11:889-917 Nov 58.

1. Z Zakladu Syntezy Lekow Instytutu Gruzlicy Kierownik Zakladu: prof. dr T. Urbanski Dyrektor Instytutu: prof. dr J. Misiewicz Pracownia Synt. Lekow Przeciwgruzlicych, Warszawa, ul. Koszykowa 75.
(TUBERCULOSIS, therapy,
investigation of 300 cpds. for anti-tuberc. eff. (Pol))

G

Country : POLAND
Category: Organic Chemistry. Organic Synthesis

Abs Jour: RZhKhim., No 17, 1959, No. 60759

Author : Malinowski, S.; Benbenek, S.; Pasynkiewicz, J.;
Wojciechowski, E.
Inst : -
Title : Study of the Aldol Reactions in Gaseous Phase. V.

Orig Pub: Roczn. chem., 1958, 32, No 5, 1089-1096

Abstract: Investigated are effects of temperature, nature and dosage of catalyst (silica gel precipitated from a water solution of water glass by means of H_2SO_4 at pH of 8-9, or silica gel, containing 1% NaOH, KOH or RbOH, obtained by mixing of 135 gr of silica gel and 135 ml of 1% caustic solution with the consequent drying in vacuum at approx.

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G-3

Country : POLAND

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Category: Organic Chemistry. Organic Synthesis

Abs Jour: RZhKhim., No 17, 1959, No. 60759

100°), on the yield of alkylvilylmethylketons when condensing in the gaseous HCHO phase with acetone (I), methylethylketone (II) and methyl-n-propylketone (III). The maximum yield of methylvinylketone (39.1%) derived from the condensation of HCHO with I (molar ratio of 1:3, rate of mixture flow of 41-42 ml/hr.) is obtained with the use of silica gel containing 1% RbOH at 280° and at a loading not > 19.7 gr HCHO per 1 liter of catalyst per hour. The maximum yield of α-methylvinylmethylketone (30.5%) derived from HCHO and II is obtained at 280° on the silica gel at a loading not > 25.7 gr HCHO

Card : 2/3

MALINOWSKI, S.

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Preparation of acrolein. Stanislaw Basinski and Stanislaw Malinowski. *Przemysl Chem.* 38, 104-8(1959); cf. C.A. 52, 10917c(1958).—The prepn. of acrolein from a mixt. of AcH and HCHO was described. The starting materials were prepd. and the methods of testing described in the previous publications. The app. consisted of an acid-resistant steel contact oven of ellipsoid cross section, electrically heated, placed vertically. The reaction substrates were introduced dropwise through a metal heater at the top of the pipe, the products cooled in a glass condenser, and collected in a 1-l. flask. As catalyst silica gel was used. The best conditions for the process were: a mixt. of 1300 g. HCHO and 694 g. AcH passed in during 10 hrs. Under these conditions the yield of acrolein was 44%, the yield based on AcH 81.6%, that based on HCHO 70.8%, and the amt. of by-products 2%. Similar results were obtained using as catalyst diatomaceous earth satd. with NaOH.

L. G. Manitius

TA

MALINOWSKI, S.

reports to be presented at the 2nd Intl Congress on Catalysis, Paris, France, 4-9-Jul '60.

Poland

BARANOWSKI, B., SMIALOWSKI, M., and SZKLARSKA-SMIALOWSKA, Z. - "Properties of nickel layers electrolytically hydrogenated in the presence of poisons" (Section II)

BIELANSKI, A., DEREN, J., HABER, J., and SLOCZYNSKI, J. - "Electronic processes accompanying the catalytic dehydrogenation of alcohols on semiconducting oxide catalysts" (Section II)

PRZEZNAJDER, S. - "On the process of catalytic reaction of sulfur dioxide with acids in iron sulfate solution" (Section III)

KRAUZE, A. - "On trace catalysis" (Section II)

LIPKA, B., TRESZCZANOWICZ, E., and BUSZYNSKA, B. - "The gaseous phase transformation of a mixture of 3-picoline and 4-picoline in the presence of ammonia and air in a mixture of corresponding nitriles" (Section III)

MALINOWSKI, S., and KOBYLINSKI, T. - "Hydrogen transfer in gaseous phase between alcohols and compounds containing carbonyl groups" (Section I)

OTWINOWSKA, H., TRESZCZANOWICZ, E., and CIBOROWSKI, St. - "Studies on electric conductivity and catalytic activity of promoted zinc oxide during isopropanol dehydrogenation" (Section III)

SZNAJDER, J. - "Study of selectivity and activity of copper catalyzers in dehydrogenation reaction" (Section III)

SWINARSKI, A., and SIEDLEWSKI, J. - "Influence of dimensions of pores on the catalytic power of active carbon in the oxidation of sulfur hydrogen by oxygen" (Section II)

MALINOWSKI, S.; BASINSKI, S.

Research on the preparation of acrolein. p. 164.

PRZEMYSL CHEMICZNY. (Ministerstwo Przemyslu Chemicznego i Stowarzyszenie Naukowo-Techniczne Inzynierow i Technikow Przemyslu Chemicznego) Warszawa, Poland. Vol. 38, no. 3, Mar. 1959.

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

Uncl.

MALINOWSKI, S., AND OTHERS

Investigations of aldol reactions in the gaseous phase. V. p. 1089.

[illegible]

ROCZNIKI CHEMII. (Polska Akademia Nauk) Warszawa. Vol. 32, no. 5, 1958.

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

Uncl.

KRZYZANOWSKI, Stanislaw; MALINOWSKI, Stanislaw

Investigation of aldol reactions in gaseous phase. VII. Reactions between aliphatic nitriles and aldehydes. Pt.1. Rocz chemii 33 no.4/5:993-1013 '59.
(EEAI 9:9)

1. Zaklad Tecnologii Organicznej I Politechniki, Warszawa i Zaklad Syntezy Organicznej Polskiej Akademii Nauk, Warszawa.
(Aldols) (Aldehydes) (Nitriles)
(Aliphatic compounds)

Distr: 4E2c(j)

Investigations on aldol reactions in gaseous phase. VI. Hanna Jabłczyńska-Jedrzejewska, Stanisław Malinowski, and Stefan Przybysz (Politechnika, Warsaw). *Roczniki Chem.* 33, 965-73(1959)(English summary); cf. *C.A.* 53, 7974c.—The yields of acrolein (I) from acetaldehyde (II) and formaldehyde (III) on the previously described catalyst (*C.A.* 52, 19917c) at 300° were detd. for different lengths of catalysts layer and linear flow rates *u* of II and III. The crit. active length and the value of *u* were found to be important factors but not the vol. of sp. surface of the catalyst or the charge of the reagents. The errors committed by using the vol. parameters for detn. of the rate of reaction are discussed, and the possible importance of the crit. length and of *u* are emphasized. VII. On reactions between aliphatic nitriles and aldehydes. 1. Stanisław Krzyżanowski and Stanisław Malinowski. *Ibid.* 993-1013.—The yield of acrylonitrile (I) in the reaction of acetonitrile (II) with formaldehyde (III) (trade mixt. contg. 35.2% III and 7% MeOH) on silica gel catalyst (*C.A.* 51, 8650d) was studied, by changing the temp., the ratio of II to III and the rate of flow. The max. yield (32%) of I was obtained at 284-8°, mol. ratio II/III = 1/1 and the rate of 0.5 moles II/hr./l. catalyst. The influence of possible by-products and impurities on the results of detn. of I by the method of Beesing, *et al.* (*C.A.* 43, 8976c), was extensively studied.

A. Kręglewski

MALINOWSKI, Stanislaw; KEHL, Jerzy; TYRLIK, Stanislaw

Research on the condensation of formaldehyde. I. Rocz chemii 34 no.2: 391-400 '60. (EEAI 10:1)

1. Zaklad Technologii Organicznej I Politechniki, Warszawa.
(Formaldehyde)

MALINOWSKI, Stanislaw; KOBYLINSKI, Tadeusz

Investigations on the reactions of hydrogen exchange in a gaseous phase. I. The reaction between isovaleric aldehyde and ethyl alcohol. Rocz chemii 34 no.3/4:863-870 '60. (EEAI 10:3)

1. Zaklad Technologii Organicznej I Politechniki, Warszawa i Zaklad Syntezy Organicznej Polskiej Akademii Nauk, Warszawa
(Hydrogen) (Isovalevaldehyde) (Ethyl alcohol)

89661

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P/016/60/000/004/001/001
B135/B205

AUTHOR: Malinowski, Stanisław, Professor, Doctor of Technical Sciences, Head of the Department (see Association)

TITLE: Polymerization of ethylene as a source of organic intermediates

PERIODICAL: Wiadomości chemiczne, no. 4, 1960, 199 - 214

TEXT: This is the reproduction of a report made at the VI Jubileuszowy Zjezd Polskiego Towarzystwa Chiemiczuego, Sekeja Technologii Organicznej (VI Anniversary Congress of the Polish Chemical Society, Section of Organic Technology). The report presents a review on processes of ethylene polymerization including A) polymerization by free radicals: 1) thermal polymerization by heating up to 450°C, accompanied by the formation of butene-1; 2) polymerization by ultraviolet radiation; 3) polymerization by silent discharge; 4) polymerization by means of a cobalt catalyst; 5) polymerization with benzoyl peroxide; B) anionic polymerization with: 1) aluminum hydride. Addition of a titanium catalyst at low temperature

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89661

Polymerization of ethylene ...

S/016/60/000/004/001/001
B135/B205

and pressure yields high-molecular polymers, whereas at 100 - 200°C and high pressure, saturated hydrocarbons with a molecular weight of 5000 are obtained; 2) lithium or sodium alkyls. C) Telomerization. If ethylene is polymerized in the presence of compounds that allow light molecules to be easily split off, these molecules can be incorporated by the polymer. In this connection, the forming tetrachloroalkanes and trichloroalkanes are of special importance as starting materials. Telomerization of ethylene with alcohols and esters yields higher alcohols and higher esters, respectively. These compounds are used as artificial waxes. The simplicity of the telomerization reaction and the high yield of reaction products have made telomerization a convenient method for the synthesis of organic intermediates. These are usually highly reactive and may therefore be used for obtaining valuable chemical products. This is illustrated by the telomerization products of ethylene and carbon tetrachloride. Hydrogen chloride can be easily split from $\alpha,\alpha,\alpha,\omega$ - tetrachloroalkanes in the presence of small amounts of aluminum chloride or iron chloride at a temperature of 40-60°C. The reactive radical $-CH=CCl_2$ is thus formed.

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89661

Polymerization of ethylene ... P/016/60/000/004/001/001
B135/B205

The synthesis of carboxylic and amino acids by telomerization is mentioned. There are 45 references: 12 Soviet-bloc and 27 non-Soviet-bloc.

ASSOCIATION: Kafedra Technologii Organicznoy I Politekhniki Warszawskiej (Department of Organic Technology of the First Warsaw Polytechnicum)

X

Card 3/3

MALINOWSKI, STANISLAW.

Distr: 4E2c(j)/4E3d

✓ Formaldehyde condensation. I. Stanislaw Malinowski, Jerzy Kehl, and Stanislaw Tyrlik (Politechnika, Warsaw). *Roczniki Chem.* 34, 391-400(1960)(English summary).—Condensation of HCHO (I) to polyalc. aldehydes was studied in presence of various catalysts. PbO (II), obtained by decompn. of Pb oxalate at low temps., was found to form an active complex with I, whereas II prepd. at high temps. was inactive. Oxides of other common metals (except CaO and MgO) were inactive as well as organolead compds. contg. the Pb(OH) group, or complexes of II with glycol or glyceraldehyde, acetylacetone, or acetoacetates.

A. Kreglewski

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1-BW(BW)
1-SAS(NB)
2

MALINOWSKI, S.; JEDRZEJEWSKA, H.; BASINSKI, S.; BENBENEK, S.

Studies on aldolic reactions in gaseous state. Rev chimie 6 no.1
5-19 '61.

1. Academie Polonaise des Sciences, Varsovie.

MALINOWSKI, Stanislav

Chemical science in the People's Republic of Poland. Studii cerc chim 9 no.1:9-26 '61. (EEAI 10:9)

1. Institutul de chimie organica al Academiei R. P. Polone, Varsovia.

(Chemistry)

MALINOWSKI, Stanislaw; KOBYLINSKI, Tadeusz

Investigations on hydrogen exchange reactions in gaseous phase. III. Rocz chemii 35 no.4:916-930 '61.

1. Department of Organic Technology I, Institute of Technology, Warsaw and Institute of Organic Synthesis, Polish Academy of Sciences, Warsaw.

MALINOWSKI, Stanislaw; BASINSKI, Stanislaw

Studies on aldol reactions in the gaseous phase. IX. Rocz chemii 36 no.5:821-826 '62.

1. Department of Organic Technology I, Institute of Technology, Warsaw, and Institute of Organic Synthesis, Polish Academy of Sciences, Warsaw.

S/081/63/000/002/052/088
B171/B102

AUTHORS: Malinowski, Stanisław, Basiński, Stanisław

TITLE: Preparation of acrolein

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1963, 401, abstract 2N25 (Polish patent 45675, April 16, 1962)

TEXT: Acrolein (I) is prepared by gaseous-phase condensation of CH_3CHO with CH_2O over a catalyst (CT) containing oxygen compounds of Ti with alkali and alkaline earth metals. CT is prepared either by deposition of suitable metal hydroxides from an aqueous solution on TiO_2, or by fusing together solid hydroxides of these metals with TiO_2. CT are used with or without support, such as silica gel. When these CT are used, good yields are obtained at 200-250°C. CT are not affected by changes of temperature. An example: 24 g of TiO_2 and 37 g of KOH are heated for 1 hour to red-heat in a Ni crucible. The resulting cake is crushed and dissolved in 800 g of a hot solution, containing 76 g of $(HOOC)_2$. After cooling, the precipitate

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Preparation of acrolein

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B171/B102

composed of large crystals is washed with 50%-alcohol and dried at 150°C. Silica gel is then impregnated with the solution of potassium titane oxalate until it contains 7% of the salt by weight. When the mixture of CH_3CHO and CH_2O vapors at 225°C pass over the CT at the rate of 30 g/hr per 1 l of the CT, the yield of I is 57% by weight. If the rate of flow of the vapor mixture is 45 g/hr per 1 l of the CT, the yield of I is 54% by weight. [Abstracter's note: Complete translation.]

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P/014/62/041/003/002/003
D204/D301

AUTHORS: Malinowski, Stanisław, and Kobyliński, Tadeusz

TITLE: Hydrogen exchange between aldehydes and alcohols as a technological method

PERIODICAL: Przemysł chemiczny, v. 41, no. 3, 1962, 148-151

TEXT: Vapor phase transhydrogenation between acrolein and ethyl and isopropyl alcohols on solid catalysts was studied. The method consisted essentially of passing the reagents through a tubular glass reactor filled with the catalyst. The products, chiefly allyl alcohol and acetaldehyde or acetone, were collected and analyzed. Cu, Ag, CdO and ZnO on pumice and MgO prepared by various methods were used as catalysts and optimum temperatures for each were determined on the basis of the degree of conversion and yield of allyl alcohol produced. MgO was studied most extensively, since highest degrees of conversion and selectivity were obtained with this catalyst, between $\sim$ 350-400°C. Activity of the MgO was undiminished after a twofold regeneration by heating in air. In further experiments, using MgO, other reaction parameters, such as thickness of the
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Hydrogen exchange between ... P/014/62/041/003/002/003
D204/D301

catalyst bed and the molar ratios and flow rates of the reagents were investigated. The results are shown graphically. It is concluded that reduction of the carbonyl group in unsaturated aldehydes is best catalyzed by MgO. For acrolein the degree of conversion is 50% at 350°C and the yield of allyl alcohol, on the basis of acrolein reacted, is 85%. The process, is, therefore, thought suitable for large scale production of allyl alcohol, important in the manufacture of synthetic glycerine. There are 9 figures, 1 table and 15 references: 3 Soviet-bloc and 12 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: W. Doering and R. Young, J. Am. Chem. Soc. 77, 631, (1950); D. Ebenezer and E. Williams, ibid., 75, 2404, (1953); Brit. Pat. 619,014 (1949); K. Satake, Ann. Rept.Sci.Works Fac.Sci.Osaka Univ.,7, 17, (1954).

ASSOCIATION: Katedra technologii organicznej i politechniki Warszawskiej (Department of Organic Technology I of the Warsaw Polytechnic Institute); Zakład syntezy organicznej PAN, Warszawa (Organic Synthesis Institute PAS, Warsaw)

SUBMITTED: October 24, 1961

Card 2/2

MALINOWSKI, Stanislaw; BASINSKI, Stanislaw

Aldol reactions in the gas phase as a method of obtaining organic intermediates. Przem chem 41 no.4:202-205 Ap '62.

1. Zaklad Syntezy Organicznej, Polska Akademia Nauk, Warszawa i Zaklad Technologii Organicznej I, Politechnika, Warszawa.