"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER, I.

F. Grimm's book Local Automatic Telephone Exchanges; a review. p. 90. SLABOPROUDY OBZOR, Prague, Vol. 15, no. 2, Feb. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956, Uncl.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

BABUSKA, I.; PRAGER, M.

Reissnerian algorithms in the theory of elasticity. Bul Ac Pol Tech 8 no.8:411-417 '60. (EEAI 10:6)

1. Institute of Mathematics, Czechoslowak Academy of Sciences, Prague, VSSR, Presented by W.Olszak.
(Elasticity) (Plates)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

44813

S/044/63/000/001/022/053
A060/A000

AUTHORS: Babuška, I., Práger, M.

TITLE: Reissnerian algorithms in the theory of elasticity

PERIODICAL: Referativnyy zhurnal, Matematika, no. 1, 1963, 61, abstract 1B288 (Bull. Acad. polon. sci. Sér. sci. techn., 1960, v. 8, no. 8, 411 - 417, English)

TEXT: The authors consider the problem of plane deformation of a strip ($-1 \leq x \leq 1$, $-h \leq y \leq h$),

$$(\lambda + \mu)\frac{\partial\theta}{\partial x} + \mu\Delta u = 0,$$

$$(\lambda + \mu)\frac{\partial\theta}{\partial y} + \mu\Delta v = 0, \quad \theta = \frac{\partial u}{\partial x} + \frac{\partial u}{\partial y},$$

under the action of forces $f(x)$ and $-f(x)$ parallel to the y axis and distributed along the edges $y = \pm h$, respectively (the remaining forces on the sides of the rectangular strip are equal to zero), λ, μ are the Lamé constants. The authors

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER, M.

"Schwarz' algorithm for polyharmonic functions. p. 106"

P. 106 (Aplikace Matematiky, Vol. 3, no. 2, 1958, Praha, Czechoslovakia)

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

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER, M.

The Algorithm of Schwarz for Polyharmonic Functions

Prager, Milan, Schwarzscher Algorithmus für polyharmonische Funktionen, Apl. Mat. 3 (1958), 106-114. (Czech. Russian and German summaries)

The Schwarz algorithm is a method for solving the Dirichlet problem in the union and in the intersection of two regions whenever it can be solved in each region separately. This paper is concerned with the equation $\Delta^p u=0$ on regions with a piecewise smooth boundary in n-space. The author shows that the Schwarz algorithm leads to a sequence that converges (uniformly with arbitrarily many derivatives) to the solution. The proof uses Hilbert space methods.

I. I. Kohn (Waltham, Mass.)

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

MONORI, Sandor; PRAGER, Marta

Certain characteristic properties of emulsions prepared with various emulsifiers. Elelm ipar 17 no.9:274-279 S '63.

1. Budapesti Muszaki Egyetem Elelmiszerkemia Tanszek.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

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D231/D304

16.6500 16.3000

AUTHOR: Práger, Milan

TITLE: On a modification of the Kantorovich method

PERIODICAL: Aplikace matematiky, v. 5, no. 4, 1960, 305 - 316

TEXT: The author describes a modified method for the approximate solution of the first boundary-value problem for elliptic partial differential equations, with the object of facilitating the numerical solution to high orders. L.V. Kantorovich's method (Ref. 1: Priblizhennyye metody vysshego analiza (Approximate Methods of Higher Analysis) Moskva - Leningrad 1952), is based on a variational determination of a set of functions of one variable which involves the solution of a system of ordinary differential equations, practically difficult. The modification enables each successive approximation to be obtained by solving a single differential equation. The method is explained in terms of the problem of finding solutions of $\nabla^4 u(x, y) = p(x, y)$ in the region $a \leq x \leq b$, $g(x) \leq y$

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On a modification of the ...

$\leqslant h(x)$, on the boundary of which $u = \partial u/\partial n = 0$. It is shown that the n'th approximation u_n to the solution can be written as $u_n = u_{n-1} + \psi_n(x)\chi_n^i(x, y)$ where $\psi_n(x)$ is the solution to the equation:

$$a(x)f^{IV} + b(x)f''' + c(x)f'' + d(x)f' + e(x)f = H(x),$$

satisfying $f(a) = f'(a) = f(b) = f'(b) = 0$. The functions $a(x)$ etc. are defined by

$$a(x) = \int_{g(x)}^{h(x)} \chi^2\,dy, \quad b(x) = \int_{g(x)}^{h(x)} 4\chi\frac{\partial\chi}{\partial x}\,dy, \quad c(x) = \int_{g(x)}^{h(x)} \left(6\chi\frac{\partial^2\chi}{\partial x^2} + 2\chi\frac{\partial^2\chi}{\partial y^2}\right)dy,$$

$$d(x) = \int_{g(x)}^{h(x)} \left(4\chi\frac{\partial^3\chi}{\partial x^3} + 4\chi\frac{\partial^3\chi}{\partial x\,\partial y}\right)dy, \quad e(x) = \int_{g(x)}^{h(x)} \chi\Delta^2\chi\,dy,$$

$$H(x) = \int_{g(x)}^{h(x)} (h\,\Delta^2 u)\,\chi\,dy.$$

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On a modification of the ...

where χ represents $\chi_n(x, y)$, a member of the suitably chosen sequence of arbitrary functions, $\bar{u}$ represents u_{n-1}, the previous approximation, and $h(x,y)$ is continuous in the region, as are the other functions and their first four derivatives. It is also shown, making use of a theorem of the author's (Ref. 2: Ob odnom printsipe skhodimosti v prostranstve Gil'berta. Chekh. Mat. zhurnal, 10, (85), 1960, 271-282) that this sequence of approximation tends to the general solution, under suitable conditions of completeness. Two numerical examples are discussed, namely the solution of $\nabla^4 u = 1$ in the square $(\pm 1, \pm 1)$ with $u = \partial u/\partial n = 0$ on the boundary, and of $\nabla^2 u = f$ in the same square, with $u = 0$ on the boundary, and where $f = \nabla^2 \cos^3 5\pi r/8$ for $r \leqslant 0.8$ and $f = 0$ for $r \geqslant 0.8$, with $r^2 = x^2 + y^2$. In both cases the trend towards the known exact solution is satisfactory. There are 2 tables and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: September 19, 1959
Card 3/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

BRAYTSEVA, N.N.; PRAGER, R.L. (Moskva)

Gastric sarcoma. Klin.med. 40 no.6:51-58 Je '62.

(MIRA 15:9)

1. Iz pervoy kafedry rentgenologii i radiologii (zav. - zaslyzhennyy deyatel' nauki prof. S.A. Reynberg) TSentral'nogo instituta usovershenstvovaniya vrachey (dir. M.D. Kovrigina) na baze rentgenologicheskogo otdeleniya (zav. A.V. Kuteidi) Klinicheskoy bol'nitsy imeni S.P. Botkina (glavnyy vrach - dotsent Yu.G. Antonov).

(STOMACH—CANCER)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

BLAZHNOV, A.G., inzh.; VORONTSOV, A.V., inzh.; IZYUMOV, A.A., inzh.; LYSOV, I.V., inzh.; PRAGER, V.Kh., inzh.; RYASKOV, V.L., inzh.; DEROV, V.A., tekhnik; KOSTINA, V.P., red.; LUKASHEVICH, V.K., tekhn. red.

[Over-all automation at a bearing plant] Kompleksnaia avtomatizatsiia na podshipnikovom zavode. Saratov, Saratovskoe knizhnoe izd-vo, 1962. 53 p. (MIRA 16:4)

1. Saratovskiy podshipnikovyy zavod (for all except Kostina, Lukashevich).
(Saratov--Bearing industry) (Automation)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

BLAZHNOV, A.G., inzh.; LYSOV, I.V., inzh.; PRAGER, V.Ye., inzh.

Automatic feed of bearing races to machine tools. Mekh. i avtom. proizv. 18 no.7:1-2 Jl '64. (MIRA 17:9)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER, William; SMIRNOV, A.I. [translator]; GRIGOLYUK, Ye.I., red.

[Problems in the theory of plasticity] Problemy teorii plastichnosti. Pod red.E.I.Grigoliuka. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1958. 136 p.
(Plasticity) (MIRA 13:5)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

HANDELMAN, G. H.; PRAGER, W.

Handelman, G. H., and Prager, W. Stress-strain relations for incompressible plastic materials with strain hardening. Appl. Math. Mech. [Akad. Nauk SSSR. Prikl. Mat. Mech.] 11, 291–292 (1947). (English. Russian summary)

This note contains a brief presentation of the considerations involved in the paper reviewed above.

F. B. Hildebrand (Cambridge, Mass.).

Source: Mathematical Reviews, 1948, Vol 9, No. 2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

Plastic Flow
Failure
11

274. **G. H. Handelman and W. Prager, "Stress-strain relations for incompressible plastic materials with strain hardening"** (in English), *Appl. Math. Mech.* (*Prikl. Mat. i Mekh.*), Mar.–Apr. 1947, vol. 11, pp. 291–292.

The material is first assumed to be quasi-elastic, the deviatoric components of strain remaining proportional to the components of the stress deviation. If such a material undergoes changes of stress for which the octahedral shearing stress remains constant, the stress-strain relations for loading and unloading would yield different strains, which the authors consider as unlikely.

They show that this difficulty does not arise if a differential stress-strain relation is assumed, in which the increments of the components of plastic strain are proportional to the components of the stress deviation. P. P. Bijlaard, Holland

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PE GEL, S.

PE GEL, S. Construction of dwellings from prefabricated parts of reinforced ceramics. p. 279

Vol. 7, No. 5, May 1956
INDUSTRIA CONSTRUCTIILOR SI A MATERIALELOR DE CONSTRUCTII.
TECHNOLOGY
Bucuresti, Rumania

So: East European Accession, Vol. 6, No. 2, Feb. 1957

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER, E.

[illegible], E.

[illegible], [illegible]. [illegible] from [illegible]
History. [illegible].

No. 12, 1956.
[illegible]
[illegible]
[illegible]

[illegible]: [illegible], Vol. 6, No. [illegible], [illegible] 1957

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

RAMER, E.

Prefabricated industrial roof coverings from supporting frames.

P. 611 (DOCUMENTARE TEHNICA) (Bucuresti, Rumania) No. 11, 1957

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

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER

Interurban telephone network in Germany. p. 41.

Vol. 14, no. 1, Jan. 1953
SLABOPROUDY OBZOR
Praha, Czechoslovakia

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

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER, E., inz.

National Conference of the Czechoslovak Scientific and Technological Society on New Trends in Telecommunication Development. Slaboproudy obzor 25 no. 2: 109-110 F '64.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER, Emanuel, inz.; MALIK, Ladislav, inz.

Use of electronic elements in the control circuits of automatic telephone exchanges. Slaboproudy obzor 24 no.10:571-576 O '63.

1. Vyzkumny ustav telekomunikaci, Praha.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER, Emanuel, inz.

Exhibition "Ten Years of the Telecommunication Research Institute." Slaboproudy obzor 24 no.10:622-624 O '63.

1. Vyzkumny ustav telekomunikaci, Praha.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER.

PRAGER. Experimental long-distance automatic telephone traffic. Tr. from the English. p. 579.

Vol. 17, No. 10, Oct. 1956.
SLABOPROUDY OBZOR.
TECHNOLOGY
Praha, Czechoslovakia

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

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER

Theory of communication of information. p. 45.

Vol. 14, no. 1, Jan. 1953
SLABOPROUDY OBZOR
Praha, Czechoslovakia

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

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER.

F. Stadler's article "Characteristics of Telecommunication Systems" ; a contribution to a discussion. p. 48.

Vol. 14, no. 1, Jan. 1953
SLABOPROUDY OBZOR
Praha, Czechoslovakia

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

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGER

Teleprinter network in Germany. p. 41.

Vol. 14, no. 1, Jan. 1953
SLABOPROUDY OBZOR
Praha, Czechoslovakia

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

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

Prager, E.

Prager, E. New telephone equipment. p. 45.

Vol. 18, no. 1, Jan. 1957
SLABOPROUDY OBZOR
TECHNOLOGY
Czechoslovakia

So. East European Accessions, Vol. 6, May 1957
No. 5

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

BARONIN, V.N.; BETIN, Yu.P.; VERKHOVSKIY, B.I.; IVANOV, A.I.; PEREL'MAN, S.M.; PRAGER, I.A.; KHARLAKOV, V.A.; SHELKOV, L.S.

Crystalless X-ray spectrometer with stabilization of the position of the amplitude of the spectrum of a proportional counter. Zav. lab. 30 no.4:498-500 '64. (MIRA 17:4)

1. Konstruktorskoye byuro "TSvetmetavtomatika".

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

S/048/63/027/003/023/025
B106/B238

AUTHORS: Narbutt, K. I., Perel'man, S. M., Prager, I. A., and Kharlakov, V. A.

TITLE: An attempt to use proportional counter tubes for X-ray spectral analysis

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27, no. 3, 1963, 430-437

TEXT: Two types of proportional counter tubes were tested, type 1 with its entry window in the side, and type 2 with a window in the support of the counter. All the windows were made of hermetic beryllium 150 - 200 μ thick. Type 1 instruments were filled with either argon, krypton or xenon, and in every case 10 % isopentane was added as an extinguisher. The anode filaments in type 2 were fixed straight to the support in order to reduce the dead space and the action of boundary effects on the amplitude resolution of the counter. The filling is a krypton-isopentane mixture at a pressure of c. 400 mm Hg. The electronic counting device is made up of a

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B106/B238

An attempt to use ...

pre-amplifier and a standard CCA (SSD) diffractometer counter unit. The amplitude distribution for characteristic K lines of various energies was studied under various conditions using a type 1 counter filled with argon. The mean pulse height was found to depend linearly on the quantum energy of the exciting radiation. The way in which the energy resolution of the instruments depends on the energy of the radiation to be recorded was also determined. The amplitude distribution of the fluorescent X-radiation was measured for the elements K to Cs in the periodic table using the three sorts of type 1 tube. In argon, a small argon loss peak occurs even in the vanadium spectrum, but L series analysis is possible from silver onwards. In krypton, the K spectra of the elements up to selenium are free of irregularities, but from rubidium onwards a distinct krypton loss peak occurs. The xenon loss peak is very small in xenon filled tubes, which are therefore highly suitable for K series analyses on elements up to Cs, and L series analyses thereafter. The following were also determined for all the counter tubes: the dependence of the pulse height on the working voltage; the dependence of the duration of the pulse

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An attempt to use ...

on the load resistance; the dependence of the resolution on the working voltage, i. e. the gas amplification factor, and on the load resistance. The resolution is practically independent of the working voltage when this is near 400 v for type 1 counters or 150 v for type 2 counters. The characteristics of these counters does not change in course of two years operation. There are 13 figures.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

NARBUTT, K.I.; PEREL'MAN, S.M.; PRAGER, I.A.; KHARLAKOV, V.A.

Proportional X-ray quantum counters and their use for X-ray spectrum analysis. Izv.AN SSSR.Ser.fiz. 27 no.3:430-437 Mr '63. (MIRA 16:2)

(X-ray spectroscopy)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

05439
SOV/120-59-3-10/46

AUTHORS: Shelkov, L. S., Prager, I. A. and Kostin, A. G.

TITLE: Photon Counters for Accurate Measurements of Ultraviolet Radiation (Schetchiki fotonov dlya tochnykh izmereniy ul'trafioletovogo izlucheniya)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 3, pp 50-56 (USSR)

ABSTRACT: Photon counters have long been used in the detection of weak ultraviolet radiation (Refs 1-11). They have also been used in spectral analysis (Refs 12 and 13). In all this work photon counters were used either in qualitative or semi-qualitative studies or in measurements which do not require high accuracy. However, in spectral analysis the required accuracy should be at least 1-2% and the exposure time is usually limited to 30-60 sec. In such measurements photon counters have to be used with relatively large loads. Under such conditions, the counters are not sufficiently stable (Ref 14). However, these counters have very high absolute sensitivity they are simple in construction and relatively cheap. The authors have, therefore, carried out some additional studies of photon counters under various working conditions including high loads. Electrical and photometric

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Photon Counters for Accurate Measurements of Ultraviolet Radiation

characteristics have been obtained for self-quenching photon counters with photo-cathodes of various materials. Relatively large counting rates were used to ensure low statistical errors. A photon counter has been developed which has a Cu-Be photo-cathode and a tungsten grid screen. Such a construction considerably improves the constancy of the photo-cathode sensitivity. Experiments showed that Cu-Mg and Cu-Be photo-cathodes have very noticeable advantages. Fig 11 shows the construction of a photon counter developed by the authors which has a low dark current and low probability of formation of spurious pulses. In Fig 11, 1 is the stainless steel cathode cylinder, 2 is a tungsten screen grid, 3 is a Cu-Be photo-cathode, 4 are quartz to glass seals, 5 is a fused quartz window, 6 are kovar discs, 7 is a quartz tube and 8 is the anode wire. The area of the photo-cathode was made as small as possible. The quartz window has an 80% transmission for λ = 1900 Å. Fig 8 shows the variation in the sensitivity of a photon counter with a Cu-Be photo-cathode (curve 1) and a counter with an identical photo-cathode

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Photon Counters for Accurate Measurements of Ultraviolet Radiation

but with an additional screen grid (curve 2). The measurements were carried out consecutively with a light source of constant intensity. The counting rate is plotted along the vertical axis and the number of the observation along the horizontal axis. Fig 9 shows the sensitivity of the above two counters as a function of the total number of counts. The counting rate is plotted on the vertical axis and the total number of recorded pulses on the horizontal axis. Fig 10 shows the absolute spectral characteristics of Cu-Be photo-cathode counters at the beginning of their work (curve 1 refers to a counter without the grid and curve 3 with the screen grid) and after 10^6 recorded counts (curve 2 refers to the counter without the grid and curve 4 to the counter with the screen grid). All this work has shown that counters using the screen grid have more stable photometric characteristics. The main working parameters of an experimental set of counters with Cu-Be photo-cathodes and screen grids are given in Table 1. The maximum background is 35 pulses/min, the length of the plateau is 150-250 V and the plateau slope is between 0.06%-0.2% per V,

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Photon Counters for Accurate Measurements of Ultraviolet Radiation

The working voltage is between 1100 and 1200 V and the maximum counting rate is 40 000 pulses/min. All these results show that these counters may be used as highly sensitive detectors of ultraviolet radiation in the range 1900-3000 Å. The mechanism of the effect of the screen grid will be investigated later.
There are 11 figures, 2 tables and 18 references, 9 of which are Soviet, 2 French, 1 German and 6 English.

ASSOCIATIONS: Fizicheskiy institut AN SSSR (Physical Institute of the Ac.Sc., USSR) and Moskovskiy elektrolampovyy zavod (Moscow Electronic Tube Plant)

SUBMITTED: April 19, 1958

Card 4/4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

TYURIN, K.M., inzh.; SYCHEV, A.S., inzh.; PRAGER, V.A., inzh.; BABADZHAN, D.M., inzh.

Investigation and development of a lining for a shaft sunk under particularly difficult hydrogeological conditions. Trudy VNIIOMSHSa no.15:94-114 '64.

(MIRA 18:2)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

SLANSKY, J.; PRAGEROVA, V.

Late manifestations of traumatic cyst of the CNS in an 11-year-old girl. Cesk. pediat. 16 no.12:1105-1107 D '61.

1. Detske interni oddeleni Thomayerovy nemocnice v Praze 4, prednosta dr. E. Kratkova Neurologicke oddeleni Thomayerovy nemocnice v Praze 4, prednosta doc. dr. J. Simek.

(CENTRAL NERVOUS SYSTEM wds & inj)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGEROVA, V.; WAELSCH, J. H.

Experiences with vitamin B_{12} in neurological diseases, especially herpes zoster. Cas.lek.cesk 100 no.41:1284-1289 13 O '61.

1. Neurologicke oddeleni v Praze-Krci, prednosta doc. MUDr. J. Simek. Ustredni hematologicka laborator v Praze-Krci, prednosta MUDr. RNDr. J. H. Waelsch.

(VITAMIN B_{12} ther) (HERPES ZOSTER ther)
(NEUROLOGY ther)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGI, Antonin

Results of the Improvement Movement in ore mines in the mining year 1963-1964. Rudy 12 no.9:359 S '64.

1. Central Committee of the Metallurgical Industry and Ore Mines Trade Union, Prague.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGLOWSKI, Jan

Proportions between the total area of plowing, area under field vegetable crops, and area of greenhouses as seen from an example of the Warsaw District. Biul warzyw 7:113-130 '63.

Comparative analysis of two state farm greenhouses. Ibid.:173-197

1. Economic Laboratory, Department of Vegetables, Institute of Cultivation, Fertilization, and Soil Science, Pulawy.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGLOWSKI, Tadeusz

Histopathological changes in individual organs and their role in electrical injuries. Postepy hig. med. dosw. 16 no.3:433-530 '62.

1. Z Zakladu Medycyny Sadowej Slaskiej AM w Zabrzu-Rokitnicy Kierownik: zast. prof. dr T. Praglowski.
(ELECTRIC INJURY)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGLOWSKI, Tadeusz; NASILOWSKI, Wladyslaw

3 cases of fatal alcohol poisoning in small children. Polski tygod. lek. 16 no.15:559-561 10 Ap '61.

1. Z Zakladu Medycyny Sadowej Sl. A. M. w Zabrzu; kierownik: z-ca prof. dr med. Tadeusz Praglowski.

(ALCOHOLIC INTOXICATION in inf & child)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

VRBOVA, K.; PRAGROVA, V.

Van Bogaert's subacute sclerosing leukoencephalitis. Cas. lek. cesk. 103 no.37:1031-1032 11 S '64.

1. Detske interni oddeleni Thomayerovy nemocnice, Praha - Krc (vedouci MUDr. E. Kratkova, CSc.) a Neurologicke oddeleni Thomayerovy nemocnice, Praha - Krc (vedouci doc. dr. J. Simek, CSc.).

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGST, W.

Pragst, W.

Depositing a Ni mirror by glass or other nonconductor.

German Patnet 717,547, Jan. 29, 1942

Chem. Abst., Vol. 38:2463[6]

The Ni is deposited from an aq. ammoniacal soln. of a Ni salt. A certain quantity of 2 N NaOH, a noble metal to act as catalyst and 1/5 by vol. of an org. liquid is added to the soln. The ppton. of the Ni is effected by reduction with a hydrazine compd.

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PRAGUE

CESKE VYSOKE UCENI TECHNICKE. Fakulta inzenyrskeho stavitelstvi. Proti kosmopolitizmu a objektivizmu v stavitel'stve; sbornik prejavov z ideologickej konferencie Fakulty inzinierskeho stavitel'stva CVUT v Prahe. Pre tlac upravili T. Jezdik a V. Madera. [Z ceskeho oritinalu prel. Tatiana Mihalova. Vyd. 1.] Bratislava, Statne nakl. technickej literatury, 1954. 115 p. [Against cosmopolitism and objectivism in building; a collection of reports delivered at the ideologic conference of the Faculty of Construction Engineering of the Technical University in Prague. 1st ed.]

SO: Monthly List of East European Accession (EEAL) LC, Vol. 4, No. 11, Nov. 1955, Uncl.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGUE. VYSOKA SKOLA EKONOMICKA.

Prague. Vysoka Skola Ekonomicka. Katedra ekonomiky zemedelstvo. Sbornik otazek z organisace a planovani socialistickych zemedelskych zavodu. (Vyd. 1.) Praha, Statni pedagogicke nakl. (Collection of problems concerning the organization and planning of socialist agricultural enterprises. 1st ed. bibl., graphs (part foll. in pocket), tables) Vol. 1. 1954. 119 p.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 11, Nov. 1955, Uncl.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGUE, VYSOKA SKOLA ZEMEDELSKA.

Fakulta mechanisacni. Zemedelske stroje. Praha, Statni pedagogicke nakl., 1955. 384 p. (Ucebni texty vysokych skol)

SOURCES: EEAL LC Vol. 5 No. 10 Oct. 1956

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGUE, FRANTIŠEK

CZECH

CH

1

/ Preparation of gaseous mixtures of hydrogen with traces of hydrogen sulfide for use in gas analysis. Colorimetric determination of traces of hydrogen sulfide. František Čuta and Zdeněk Burianec (Vysoká škola chem. technol., Praque). *Chem. Listy* 49, 55-9(1955).—An app. is described for the prepn. of mixts. of H with low content of H_2S based on desorption of H_2S-water flowing at a const. rate and temp. in a film against a stream of H. The vol. of H_2S-water is directed by a thermostated capillary. The compn. of the mixt. was controlled colorimetrically after abs rption of H_2S from the gas mixt. with an ammoniacal soln. of $Pb(OAc)_2$. A special absorption vessel was devised. The deviations in the H_2S content are within the errors of the colorimetric method. M. Hudlický

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAGUE, Gallik

6

CZECH

Synthesis of 1-azaadamantane. Rudolf Lukeš, Vlastimil Galík and Jaroslav Bauer (Vysoká škola chem., Prague). *Chem. Listy* 48, 858-64; *Collection Czechoslov. Chem. Communs.* 19, 712-15 (1954) (in English).—Mesitylene (I) was oxidized to trimesic acid (II), the Et ester of which (III) was hydrogenated to *tri-Et hexahydrotrimesate* (IV). Reduction of IV with $LiAlH_4$ yielded *1,3,5-trimethylolcyclohexane* (V) which was transformed to *1,3,5-tris(bromoethyl)cyclohexane* (VI). The action of VI with NH_3 gave *1-azaadamantane* (VII). Adding with efficient stirring during 30 min. at 98° a hot soln. of 100 g. $KMnO_4$ in 500 ml. H_2O to 12 ml. I and 20 ml. H_2O, refluxing the mixt. 2 hrs., destroying the excess $KMnO_4$ with MeOH, filtering the MnO_2, and acidifying the filtrate to Congo red with HCl gave 10 g. (48%) II, m. 280° (from H_2O). Refluxing 1 hr. a soln. of 10 g. II in 150 ml. abs. with HCl, evapg. the soln. *in vacuo*, and dilg. the residue with equal vol. H_2O gave 10.3 g. (73.6%) III, m. 135° (from EtOH). Hydrogenating 2 g. III in 10 ml. AcOH 20 hrs. over 0.4 g. PtO_2 gave, after vacuum evapn., 1.8 g. (91.8%) IV, m. 36.7°, b_{10} 217-18°, b_1 151°. Refluxing IV 3 hrs. with 13% HCl gave 97.5% *hexahydrotrimesic acid*, m. 216° (from H_2O). Adding a soln. of 1.5 g. IV in 15 ml. Et_2O to 0.8 g. $LiAlH_4$ in 100 ml. Et_2O, refluxing the mixt. 30 min., and decompg. the mixt. with 1 ml. water and 6 ml. 10% H_2SO_4, pouring off the ether layer, extg. the ppt. in the aq. layer with EtOH, evapg. the EtOH, and distg. the residue *in vacuo* gave 0.6 g. (69%) V, m. 102-3° (from dioxane), $b_{0.5}$ 175°. Heating 0.9 g. V 10 hrs. with 16 ml. 27% HBr in AcOH in a sealed tube on the steam-bath, dilg. the

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RODOLFO LUNES

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mixt. with H_2O, and extg. with $CHCl_3$ yielded 1.6 g. (85.5%) VI, m. 56–7°. Heating 1.5 g. VI with 12 ml. 20% NH_3 in MeOH in a sealed tube at 145°, neutralizing the mixt. to Me orange, filtering the soln. with C, evapg. to dryness, extg. the residue with abs. EtOH to remove NH_4Cl, evapg. the alc. ext. to dryness, dissolving the residue in 2 ml. H_2O, treating the soln. with 5 g. p-$MeC_6H_4SO_3Cl$ and, at 80°, with 30 ml. 15% NaOH, steam distg. the soln., titrating the distillate with 2N HCl, and evapg. the soln. of the salt to dryness gave 14.2% HCl salt which was transformed to the *picrate* of VII, m. 300–1° (from H_2O). Decompg. the picrate with HCl, and liberating the base with NaOH yielded VII, m. 257–8° (sealed capillary) (purified by sublimation). A crystallographic investigation of VII was carried out by J. B.

M. Hudlický

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PORTOCALA, R.; SAMUEL, I.; POPA, L.; PRAHOVEANU, E.; BILLER, S.; HORER, O.

Comparative biological and physico-chemical studies of some nucleic acids exposed to the action of heat. Stud. cercet. inframicrobiol. 15 no.5:433-440 '64.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PORTOCOLA, R.; POPA, L.; SAMUEL, I.; PRAHOVEANU, E.

The action of some physical and chemical agents on the infectivity of nucleic acids isolated from viruses. IV. Chromatographic and spectrophotometric investigations of some ribonucleic acids extracted from the MM virus and exposed to the action of heat. Stud. cercet. inframicrobiol. 15 no.1:21-29 '64.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

SARATEANU, D.; BILLER, Sigrid; PRAHOVEANU, Elena; BOTIS, S.; GHEORGHIU, V.; BABOS, Aurelia.

Study of virus-host cell relations in vitro by determination of some enzyme activities. Stud. cercet. inframicrobiol. 16 no.1: 17-25 '65.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

CAJAL, N.; BOERU, Vera; POPESCU, Georgeta; PRAHOVEANU, Elena; DEMETRESCU, R.

The study of nucleic acids in the liver of mice inoculated with murine hepatitis virus of the strain MHV 3. Stud. cercet. infra-microbiol. 16 no.1:3-9 '65.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAHOVEANU, Elena

Mutagenic mechanism of some chemical substances. Studii cercet. inframicrobiol. 15 no.6:575-585 '64

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

12

CA

Milk and vitamin C in Rumania. R. Vladescu and H. Prahoveanu. *Lait* 19, 708-805(1939).—The relation of vitamin C to health is discussed. The milk produced under the feeding conditions in the Bucharest region varied between 8.07 and 29.24 mg. of ascorbic acid per l., the av. being 16.32 mg. per l. As most of this milk is boiled before use, the ascorbic acid is much reduced, on the av. to about 5 mg. per l. By heating to 60° for 30 min. in Al equipment the ascorbic acid content was reduced 20 to 40% and in Cu equipment 80 to 100%. A. H. J.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

B-2-6

DYEING OF TEXTILES. VII. DYEING OF WOOL AND COTTON WITH INDIGO. A. N. Prei-Koschits (J. Appl. Chem. Russ., 1934, 7, 359—368).—Wool and cotton fibres were dipped in leucoindigo (I) lake with $Ba(OH)_2$, excess of solution was wrung out, the (I) was allowed to oxidise in air, and the additional alkalinity was determined. The results indicate that wool combines with only the anion of (I), whilst cotton combines with its Ba salt.

R. T.

COMMON ELEMENTS

MATERIALS INDEX

OPER.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

G-2

POLAND / Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77611.

Author : Prajer, L.
Inst : Not given.
Title : The Utilization of the Fries Rearrangement in the Synthesis of C-acyl-2,3-dihydroxynaphthalenes.

Orig Pub: Roczniki Chem, 30, No 2, 637-639 (1956) (in Polish with a German summary).

Abstract: The Fries rearrangement (FR) was applied to the synthesis of a number of acyl-2,3-dihydroxynaphthalenes (I) with a view towards the synthesis of new dye intermediates. The Friedel-Crafts reaction when applied to 2,3-dihydroxynaphthalene leads to a mixture of products which are hard to separate; the FR of 2,3-diacetoxynaphtha-

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Card 1/2

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

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77611.

Abstract: lene (II) in CS_2, C_6H_5Cl, C_6H_5Br, or $C_6H_5NO_2$ (III) yields chiefly I, acyl = 1-CH_3CO (Ia), mp 96-97°, semicarbazone mp 216.5-217.5° (decomp), oxime mp 141-142.5°. In III a substance melting at 212-213° is obtained in addition to Ia. The FR of II in the absence of a solvent leads to a mixture of products which cannot be separated by recrystallization and which has an mp of 150-190°. The RF of 2,3-dibenzoylhydroxynaphthalene gives good yields of I, acyl = 1-C_6H_5CO, mp 182-183°. -- V. Skorodumov.

Card 2/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

POLAND / Organic Chemistry. Organic Synthesis. G-2

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 1244.

Author : Prajer, L.
Inst : ~~Not given.~~
Title : New Esters of 2,3-Dihydroxynaphthalene.

Orig Pub: Roczn. chem., 1957, 31, No 3, 1067-1068.

Abstract: In a further search for dyes, pharmaceuticals, etc., (R Zh. Khim., 1954, 41167; 1956, 22427; 1958, 77611) in a series of 2,3-dihydroxynaphthalene (I), a series of esters of I has been synthesized. By the action of 2.5 to 3 moles of $ClCH_2COOH$ on one mole of I, the dicarboxymethyl ester is synthesized, m. p. 242-242.5°C. From $BrCH_2CH = CH_2$ and I, depending on the reaction conditions, one obtains the monoallyl ether of I,

Card 1/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

POLAND / Organic Chemistry. Organic Synthesis. G-2

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 1244.

Abstract: m. p. 43-43.5°C. or the diallyl ether of I, m. p. 61.5-62°C. In the same way $C_6H_5CH_2Cl$ with I forms the monobenzyl ether, m. p. 95-95.5°C. and the dibenzyl ether of I, m. p. 135.5-136°C. and 2,4-$(NO_2)_2C_6H_3Cl$ produces the dinitrophenyl ether of I, m. p. 173-174°C. -- V. Skorodumov.

Card 2/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAJIR, LIDIA

Application of the Fries rearrangement for the synthesis of C-acyl-2,3-dihydroxynaphthalenes. Lidia Prajer (Univ. [illegible], Poland). Roczniki Chem. 40, 637-[illegible] (1956) (Ger-[illegible]). [illegible] rearrangement of 2,3-diacetoxy-[illegible] gives a uniform [illegible] 2,3-dihydroxynaphthalene [illegible] decomp. [illegible] m. 141-2.5° [illegible] whereas without a solvent it gives a product m. 150-[illegible] after several recrystns. 2,3-Dihydroxynaphthalene dibenzoate gives a good yield of 1-benzoyl-2,3-dihydroxynaphthalene m. 182-3°. R. Dowbenko.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

Prajer, Aldia

Mechanism of the Free transformation [illegible]
(Univ. Wrocław, Poland) Wiadomości Chem. 11, 177-[illegible]
[illegible] A. Kręglewski

1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAJER, L.; SUSZKO, J.

"Studies on phenolic epi-alka-loids of cinchona bark. I. Epihydrocupreidine and epihydrocupreine. II. Epicupreidine. III. Epicupreine. In English."

p. 53 (Bulletin. Serie B: Sciences Mathematiques Et Natu-relles.)
No. 13, 1954/55 (published 1956)
Poznan, Poland

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

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAJER, L.

PRAJER, L.

The mechanism of Fries' rearrangement.

p. 177 (Wiadomosci Chemiczne) Vol. 11, no. 3, Mar. 1957, Wroclaw, Poland

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

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAJER, Lidia

Lidia Prajer: "Die Anwendung der Freisschen Umlagerung zur Synthese von C-Acyl-2,3,-Dioxynaphthalin-Verbindungen," Roczniki Chemii, Vol 30, No 2, Warsaw, 1956. Published from the Research Laboratory of Organic Chemistry, Poznan University, 28 Apr 55.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

POL.

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3164 547.539.1 : 547.176.3

Prajer L. Investigations on Hydronaphthalene Derivatives.

„Z badań nad pochodnymi hydronaftalenu". Roczniki Chemii (PAN), No. 1, 1954, pp. 55—60.

New methods of synthesis of 2,3-dihydroxy-1,2,3,4-tetrahydronaphthalene are described together with attempts to aromatize this compound. The influence was investigated of d-tartaric acid on the formation of optically active 2,3-dihydroxy-tetrahydronaphthalene.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

BULG.

Synthesis and properties of naphthalenesulfonic acids. Replacement of the sulfonic acid group with halogens. M. Janczewskj and L. Prajer. *Roczniki Chem.* 28, 681-2 (1954)(French summary).—The following diiodonaphthalene derivs. are listed (no exptl. details are given): *1,4*, m. 110-11°; *2,6*, m.203-4°; *2,7*, m. 185.5-6.5°. C. P.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAJEN, L.

Wanczewski, M. Studies of the synthesis and properties of naphthalene-disulfinic acids. II. Bis-dihydroxyphenylsulfonyl-naphthalenes and their derivatives. p. 343. ROCZNIKI CHEMII, Warszawa, Vol. 29, no. 2/3, 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAJER, L.

Reactions of naphthalenedisulfinic acids with *p*-benzoquinone. M. Tanczewski and L. Prajer. *Roczniki Chem.* 28, 152-3(1954)(French summary) — x,y-$C_{10}H_6(SO_2H)_2$ with *p*-benzoquinone form the corresponding *x,y-bis(1,4-dihydroxyphenylsulfonyl)naphthalenes* [*x*, *y*, and m.p. (decompn.) given]: *2,6*, 309°; *2,7*, 297°; *1,6*, 234°; *1,7*, 232°; and *1,4*, 260°. L. M. Barakan

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAJER, Lidia

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//Hydronaphthalene derivatives. Lidia Prajer. *Roczniki Chem.* 28, 55-63(1954)(English summary).—Attempts to obtain 2,3-$C_{10}H_6(OH)_2$ (I) by aromatization of 2,3-dihydroxy-1,2,3,4-tetrahydronaphthalene (II) or keto-enol tautomerization of 2,3-dioxo-1,2,3,4-tetrahydronaphthalene led to the discovery of certain new derivs. of *trans*-II. Several new reactions were brought about. *trans-2,3-Bis(p-toluenesulfonyloxy)-1,2,3,4-tetrahydronaphthalene*, obtained by treating 1.64 g. *trans*-II in 3 ml. pyridine with 4.5 g. *p*-$MeC_6H_4SO_2Cl$ (yield, 3.85 g.), m. 140-1° (from alc.), sol. in $CHCl_3$, C_6H_6, and acetone, not sapond. by tartaric acid soln., gives $C_{10}H_8$ with KOH. *Bis(H phthalate)* of *trans*-II, obtained by heating 4.9 g. *trans*-II with 9 g. *o*-$C_6H_4(CO)_2O$ in 12 ml. pyridine, acidifying the cooled soln. with dil. HCl, and crystg. the product from concd. AcOH (yield 4.14 g.), m. 221°, sol. in NaOH. An unknown carbonyl compd. was obtained by treating II with $(Me_2CHO)_3Al$ (semicarbazone, m. 194-5°; oxime, m. 158-8°). *1,4-Dihydronaphthalene* (III) was oxidized by peroxyphthalic acid to 2,3-epoxytetrahydronaphthalene, by H_2O_2 in AcOH to *trans*-II. III with SeO_2 gives mainly $C_{10}H_8$. II aromatized with Se gives $C_{10}H_8$; with Cu_2O it gives I.

M. Barnikan

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Phenolic epialkaloids of cinchona bark. I. Epihydrocupreidine and epihydrocupreine. Lidia Prajer and Jerzy Suszko (Univ. Poznań, Poland).—*Roczniki Chem.* 26, 531–43(1952)(English summary); cf. *C.A.* 31, 1816[3].—Epimerization of *hydroquinidine* (I) and *hydroquinine* (II) is described. *p*-$MeC_6H_4SO_2Cl$ (5 moles) added in 0.5-mole portions to 1 mole I in C_6H_6 and shaken with 50% NaOH gave 80% *p-toluenesulfonylhydroquinidine* (III), $EtC_7H_{11}NCH(OSO_2C_6H_4Me\text{-}p)C_9H_5N(OMe)$, m. 103–4°, $[\alpha]^{18}_D$ 37°; *di-HCl salt*, m. 186–7° (decompn.), $[\alpha]^{18}_D$ 97.3° (alc.), −27° (water). III with aq. tartaric acid gave *epihydroquinidine* (IV), m. 120–1°, $[\alpha]^{18}_D$ 70.4° (alc.). IV with *p*-$MeC_6H_4SO_2Cl$ gave *p-toluenesulfonylepihydroquinidine*, m. 118°, $[\alpha]^{18}_D$ 90.5°, which, boiled 3.5 hrs. with 4 times its wt. of 50% HBr gave *epihydrocupreidine* (V), $EtC_7H_{11}NCH(OH)C_9H_5N(OH)$, pptd. as the HBr salt by diln. with 4 vols. of water. Treatment with excess 50% NaOH gave the cryst. Na salt which with CO_2 yielded V, m. 218–20° (decompn.), plates from MeOH or EtOH, needles from $CHCl_3$, EtOAc or Me_2CO, $[\alpha]^{18}_D$ 54°. V with an equal amt. of HBr gave V.*HBr*, m. 289–90° (decompn.), $[\alpha]^{18}_D$ 27° (1:1 aq. alc.); with excess HBr it gave V.2*HBr*, m. 273–5° (decompn.), $[\alpha]^{18}_D$ 30° (water); *dipicrate*, yellow rods from dil. alc., m. 237–9° (decompn.); *picrolonate*, yellow needles, m. 190° (decompn.); *methiodide*, prisms from MeOH, m. 239–40° (decompn.), $[\alpha]^{18}_D$ 25.8°; *dimethiodide*, grains from alc., m. 253–5° (decompn.); *dibenzoylepihydrocupreidine*, rods from ligroine (b. 60–70°), m. 174–6°, $[\alpha]^{18}_D$ 154° (Me_2CO); decompd. in alc. soln., and racemized slowly at room temp. II with *p*-$MeC_6H_4SO_2Cl$ gave *p-toluenesulfonylhydroquinine* (VI), $EtC_7H_{11}NCH(OSO_2C_6H_4Me\text{-}p)C_9H_5N(OMe)$, purified through its di-HCl salt. VI crystd. from ether or aq. alc. in prisms, m. 108–10°, $[\alpha]^{18}_D$ 29° (alc.); VI.2*HCl*, needles from 2% HCl, m. 182–3° (decompn.), $[\alpha]^{18}_D$ 30° (alc.). VI gave *epihydroquinine* (VII), $EtC_7H_{11}NCH(OH)C_9H_5N(OMe)$ upon hydrolysis with tartaric acid. VII was purified through its HCl salt but could not be crystd.; *HCl salt*, prisms, m. 230–1° (decompn.), $[\alpha]^{18}_D$ 41° (water); *HI salt*, prisms from water, m. 118–20°, $[\alpha]^{18}_D$ 26° (alc.). The mother liquor from the HI salt yielded an oily base, $[\alpha]^{18}_D$ −18.9° (alc.). VII (11 g.) heated with 54 cc. 40% HBr to boiling (125°) and then refluxed 4 hrs.; addn. of 50% NaOH pptd. needles, decompd. with CO_2 to give resinous *epihydrocupreine* (VIII), $EtC_7H_{11}NCH(OH)C_9H_5N(OH)$, prisms from Me_2CO, m. 243–4°, $[\alpha]^{18}_D$ 73.7° (alc.); *HBr salt*, prisms from alc., m. 245–6° (decompn.), $[\alpha]^{18}_D$ 62.5° (alc.); *HI salt*, plates from water or alc., m. 256° (decompn.), $[\alpha]^{18}_D$ 51.7°; *picrolonate*, m. 220° (decompn.); *dipicrate*, yellow rods from alc., m. 222–6° (decompn.); *methiodide*, crystals from alc., m. 236–8° (decompn.), $[\alpha]^{18}_D$ 64.6°; *dimethiodide*, yellow prisms from MeOH, m. 130° (decompn.); *dibenzoylepihydrocupreine*, oil, $[\alpha]^{18}_D$ −82° (Me_2CO), decomp. in alc. soln. Methylation of V and of VIII with CH_2N_2 gave IV and VII, resp., confirming their structure. II. Epicupreidine. *Ibid.* 544–54.—*Epicupreidine* (I), $CH_2{:}CHC_7H_{11}NCH(OH)C_9H_5N(OH)$, was obtained by brominating *epiquinidine* (II) and demethoxylating the resulting stereoisomeric dibromides. II (10 g.) in 20 cc. 80% AcOH was treated with 9 cc. 40% HBr and 16 cc. 10% Br in glacial AcOH, the excess Br removed with $NaHSO_3$, the mixt. poured into 10% NH_4OH, cooled with ice, and quickly shaken with an equal vol. of ether; the ether exts. gave a cryst. fraction of *α-dibromodihydroepiquinidine* (III), $CH_2BrCHBrC_7H_{11}NCH(OH)C_9H_5N(OMe)$,

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Lidia PRAJER

rods from alc., m. 214–16° (decompn.), $[\alpha]^{23}_{D}$ 123° (alc.) [*dinitrate*, needles from water, m. 137–8° (decompn.), $[\alpha]^{23}_{D}$ 77° (water)]; and an oily fraction contg. *β-dibromodihydroepiquinidine* (IV). The oily fraction dissolved in dil. HCl and poured into cooled 10% NH_4OH gave a ppt. of III. The mother liquor from III dild. with water yielded crystals of IV, prisms, m. 101–5° (from alc.), $[\alpha]^{23}_{D}$ 68°. III (2 g.) and 8 cc. 66% HBr heated in a closed vessel 53 hrs. at 50–60° (until all of the mixt. was sol. in alkali) gave *α-dibromodihydroepicupreidine*, $CH_2BrCHBrC_7H_{11}NCH(OH)C_6H_4N(OH)$, isolated by adding the reaction mixt. to 40 cc. water, as the *di-HBr salt*, (V), prisms from water, m. 194–7° (decompn.), $[\alpha]^{23}_{D}$ 74°. V, m. 195–8° (decompn.), $[\alpha]^{23}_{D}$ 69°, was also prepd. by refluxing the same mixt. 4 hrs. in 48% HBr. V (1 g.) in 10 cc. hot water with 0.2 g. NaOAc in 2 cc. water gave the V.*HBr* (VI), rectangular plates from water, m. 204–6° (decompn.), $[\alpha]^{23}_{D}$ 82°. IV upon the same treatment as its α-isomer gave the *di-HBr salt of the β-isomer* (VII), yellowish grains from water, m. 195° (decompn.), $[\alpha]^{23}_{D}$ 80° (water). The mother liquor from the pptn. of VII upon neutralization with $NaHCO_3$ gave the *HBr salt*, rods from water, m. 123–4° (decompn.), $[\alpha]^{23}_{D}$ 13°. VI (5 g.) in 50 cc. EtOH and 5 g. NaI in 25 cc. EtOH refluxed 40 hrs., the soln. acidified, the iodine removed with $NaHSO_3$ and the alc. with steam, the residue decolorized with activated C, treated with alkali, extd. with ether, the ether-insol. material satd. with CO_2 and the oily ppt. which solidified on standing crystd. from alc. gave a product, m. 239–40° (decompn.), $[\alpha]^{23}_{D}$ 40° (alc.). This product, which gave a ppt. with $AgNO_3$, was also obtained from V and from VII with NaI and from V with LiI. The Br still contained in the product was in ionic form. The crude product from the debromination of V dissolved in NaOH and excess alkali added gave a ppt. of I which was dissolved in water, repptd. with CO_2, and recrystd. from Me_2CO, giving prisms, m. 207–10° (decompn.), $[\alpha]^{23}_{D}$ 87° (alc.). The same base prepd. by debromination of VII, m. 208–10°, $[\alpha]^{23}_{D}$ 88°. Deriva. of I: *HBr salt*, prisms, from water, m. 248–9° (decompn.), $[\alpha]^{23}_{D}$ 47.1° (alc.); *picrolonate*, needles from alc., m. 189–91° (decompn.); *dipicrate*, lumps from alc., m. 231–3° (decompn.); *methiodide*, square plates from water, m. 222–3° (decompn.), $[\alpha]^{23}_{D}$ 38.3° (alc.); *dimethio-*

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dide, plates from alc., m. 208–10° (decompn.); *dibenzoylepicupreidine*, rods from petr. ether, m. 137–9°, $[\alpha]^{22}_{D}$ 160° (Me_2CO). I methylated with CH_2N_2 gave II, m. 111°. III. Epicupreine. *Ibid.* 555–64.—By the method described in the preceding abstrs., the authors prepd. *epicupreine* (I), $CH_2{:}CHC_7H_{11}NCH(OH)C_9H_6N(OH)$, from quinine (II). II (52 g.) and 5.5 moles *p*-$MeC_6H_4SO_2Cl$ gave 55 g. *p-toluenesulfonylquinine* (III), prisms from petr. ether, m. 88°, $[\alpha]^{22}_{D}$ 14° (alc.). III with aq. tartaric acid gave an oil which, purified through the dibenzoyl-*d*-tartrate and the HCl salt, gave *epiquinine* (IV), $[\alpha]^{22}_{D}$ 43° (abs. alc.); *HCl salt*, rods from Me_2CO, m. 125–7°, $[\alpha]^{22}_{D}$ 22° (alc.). IV in HOAc and HBr gave the 2 isomers of $CH_2BrCHBrC_7H_{11}N$-$CH(OH)C_9H_6N(OMe)$: *α-dibromodihydroepiquinine* (V), cryst. lumps from alc., m. 142–3° (decompn.), $[\alpha]^{22}_{D}$ 107° [*di-HBr salt*, rods from alc., m. 227° (decompn.), $[\alpha]^{22}_{D}$ 85° (water); *HBr salt*, prisms from alc., m. 233–4° (decompn.), $[\alpha]^{22}_{D}$ 68° (alc.)], and the *β-isomer* (VI), isolated as the *HBr salt*, rods from alc., m. 218–24° (decompn.), $[\alpha]^{22}_{D}$ −12.5°. The di-HBr salts of V and VI were converted with 67% HBr to *α-dibromodihydroepicupreine-2HBr* (VII), prisms from water, m. 235–7° (decompn.), $[\alpha]^{22}_{D}$ 82° (water), and the *β-isomer* (VIII) of VII, prisms from water, m. 212–14° (decompn.), $[\alpha]^{22}_{D}$ 19.20°, resp. Both VII and VIII with NaI gave I, prisms from alc., m. 242° (decompn., foaming at 130°), $[\alpha]^{22}_{D}$ 89° (from the *α*-isomer) and 85° (from the *β*-isomer). Derivs. of I: *HBr salt*, prisms from water, m. 238° (decompn.), $[\alpha]^{22}_{D}$ 45° (alc.); *picrolonate*, needles from alc., m. 218–20° (decompn.); *dipicrate*, flat shafts from alc., m. 225–7° (decompn.); *methiodide*, rods from alc., m. 226–7° (decompn.), $[\alpha]^{22}_{D}$ 68° (alc.); *dimethiodide*, long prisms, m. 191–200° (decompn.); *dibenzoylepicupreine*, amorphous, $[\alpha]^{22}_{D}$ −79.2° (Me_2CO), easily alcoholyzed. I methylated with CH_2N_2 gave IV. The basicity of all the known phenolic alkaloids of the quinine group was measured electrometrically. The pH of 0.01*N* solns. of the alkaloids in 90% EtOH were as follows: *hydrocupreine* 9.3, *hydrocupreidine* 9.4, *cupreidine* 9.2, *cupreine* 9.1, *epihydrocupreine* 9.8, *epihydrocupreidine* 9.8, *epicupreidine* 9.55, *epicupreine* 9.5, *quinine* 9.47, *epiquinidine* 10.12.

Janina R. Spencer

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PRAJER, LIDIA

6

Synthesis of bis(dihydroxynaphthyl sulfonyl)naphthalenes and their acetates. Marian Janczewski and Lidia Prajer (Univ. Poznan, Poland). *Roczniki Chem.* ~~29, 1(1955)~~ (1955)(English summary).—*1,4-Bis(1,4-dihydroxy-2-naphthylsulfonyl)naphthalene*, m. 216-17° (from alc.), the *1,7-isomer*, m. 143° (decompn.), and the *2,6-isomer*, m. 242° (decompn.) (from pyridine + alc.), were prepd. by heating to the b.p. and keeping several hrs. at room temp. of an alc. soln. of the corresponding naphthalenedisulfinic acid and 1,4-naphthoquinone. The corresponding diacetates m. 252-3°, 230-30.5° (decompn.), and 258° (decompn.).

A. Sementsov

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3RD AND 4TH ORDERS

a-1

Polarographic studies with the dropping mercury cathode. XXIII. Simultaneous determination in the groups iron, chromium, aluminium and nickel, cobalt, zinc, manganese. J. Prajsler (Coll. Czech. Chem. Comm., 1931, 3, 406—417).—The height of the "wave" in the current-voltage curve, obtained in the electrolysis, with a dropping Hg cathode, of solutions containing elements of the $(NH_4)_2S$ analytical group in the presence of indifferent salts may be taken as a measure of the concentration of the element and a method for the detection and determination of mixtures is based on it. In the sub-group Fe, Cr, and Al the three metals may be simultaneously determined in solution. The solution must be diluted to 10^{-4}—$10^{-5}M$ and be only slightly acidic. In the sub-group Zn, Ni, Co, and Mn, under similar conditions, Co and Mn may be determined directly, but Zn and Ni deposit together. After the addition of $(NH_4)_2C_2O_4$, however, Ni, Co, and Mn form more stable complexes than Zn. The Zn, in these circumstances, gives an easily measurable wave on the polarographic curve, and can thus be determined directly, Ni being found subsequently by difference. The degree of accuracy depends on the constancy of the height of a wave and the precision of measurement. It is within 5%, the precision remaining the same down to a concentration of $10^{-5}M$.

M. S. Burr.

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PRAJER-JANCZEWSKA, Lidia

Bromonaphthyl esters. Pt.8. Rocz chemii 36 no.4:645-652 '62.

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PRAJER-JANCZEWSKA, Lidia; POSTAWKA, Anna

Bromonaphthyl esters. Pt. 10. Rocz chemii 37 no.5:597-600 '63.

1. Department of Organic Chemistry, University, Wroclaw.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAJER-JANCZEWSKA, Lidia

Influence of the benzoyl group upon the bromination of 2-naphthyl benzoate. Rocz chemii 36 no.2:223-226 '62.

1. Department of Organic Chemistry, University, Wroclaw.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

S/081/62/000/024/044/073
B106/B186

AUTHOR: Prajer-Janczewska, Lidia

TITLE: Bromo-naphthyl esters. VIII. Reactivity of 2,3-diacyloxy- and 2,3-diarylsulfonyl-oxy-naphthalenes with bromine

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 349 - 350, abstract 24Zh248 (Roczn. chem., v. 36, no. 4, 1962, 645 - 652 [Pol.; summaries in Russ., Eng., and Ger.])

TEXT: Bromination of 2,3-diacetoxy-naphthalene (I) gives 1,4-dibromo-I (II), 1,4-dibromo-2,3-dihydroxy-naphthalene (III), and 1,4-dibromo-2-hydroxy-3-acetoxy-naphthalene (IV). 5-bromo-V (VI) and x,y(5,8?)-dibromo-V (VII) are obtained in the same way from 2,3-dibenzoyloxy-naphthalene (V); the product of hydrolysis of VII differs from 6,7-dibromo-2,3-dihydroxy-naphthalene (VIII), which was obtained by reduction of 1,4,6,7-tetrabromo-2,3-dihydroxy-naphthalene (IX). The structure of VI was confirmed by hydrolysis to 5-bromo-2,3-dihydroxy-naphthalene (X) and oxidation of X to 3-bromo phthalic acid (XI). Bromination of 2,3-ditosyloxy-naphthalene (XII) and 2,3-dibenzene-sulfonyl-oxy-naphthalene was not possible; bromine derivatives of XII were obtained by reaction of

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B106/B186

Bromo-naphthyl esters. VIII. ...

$p\text{-}CH_3C_6H_4SO_2Cl$ with bromine derivatives of 2,3-dihydroxy-naphthalene. 9.6 g Br_2 is added dropwise to a hot solution of 7.2 g I in 30 ml CH_3COOH. After boiling for 10 min it is cooled, water is added, extracted with ether, and the extract is washed with 10 % NaOH. Evaporation of the ether gives 4 g II, m.p. 173 - 174°C (from CH_3COOH and benzene). By acidifying the alkaline solution IV, $C_{12}H_8O_3Br_2$, m.p. 142 - 143°C (from CH_3COOH), and III can be separated. 3.2 g Br_2 is added dropwise to a solution of 3.7 g V in 15 ml of hot CH_3COOH, heated for 40 - 70 min, poured into water, and the precipitate is washed with dilute NaOH. One obtains 0.5 g VI, $C_{24}H_{15}O_4Br$, m.p. 121 - 122°C (from alcohol), and 0.1 g VIII, $C_{24}H_{14}O_4Br_2$, m.p. 186 - 187°C (from methanol). A mixture of 4 g VI in 20 ml CH_3OH and 2 g KOH in 10 ml water is boiled for 0.5 hrs, diluted with water, washed with ether, and neutralized with hydrochloric acid. Extraction with ether yields 2.3 g X, $C_{10}H_7O_2Br$, m.p. 136 - 137°C (from

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B106/B186

Bromo-naphthyl esters. VIII. ...

benzene). Oxidation of X with $KMnO_4$ gives XI, m.p. 183 - 184°C. Boiling for 1 hour of a mixture of 1 g VII in 10 ml CH_3OH and 1 g KOH in 5 ml water gives 0.6 g x,y-dibromo-2,3-dihydroxy-naphthalene, $C_{10}H_6O_2Br_2$, m.p. 201 - 202°C (from benzene). 36 g Br_2 is added dropwise to a hot solution of 9 g 2,3-dihydroxy-naphthalene (XIII) in 90 ml CH_3COOH, carefully heated for 30 min, then boiled for 15 min, and allowed to stand for 40 min. One obtains 14 g IX, m.p. 240 - 241°C (from CH_3COOH). A boiling solution of 4 g IX in 80 ml CH_3COOH is mixed with 16 g $SnCl_2$, then 24 ml of concentrated HCl is added in the course of 5 min. After 15 min, water is added, which gives 2.3 g VIII, m.p. 214 - 215°C (from benzene and CH_3COOH). Reaction of p-$CH_3C_6H_4SO_2Cl$ with XIII in acetone in the presence of NaOH gives XII, $C_{24}H_{20}S_2O_6$, m.p. 177 - 178°C (from CH_3COOH). Reaction of the bromine derivatives of XIII with C_6H_5COCl and p-$CH_3C_6H_4SO_2Cl$ in pyridine gives the corresponding esters (name of

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Bromo-naphthyl esters. VIII. ... S/081/62/000/024/044/073
B106/B186

compound, gross formula, m.p. in °C are given): 1,4-dibromo-XII, $C_{24}H_{18}S_2O_6Br_2$, 185 - 186 (from alcohol); 1,4-dibromo-V, -, 195 - 196 (from alcohol); 6,7-dibromo-V, -, 211 - 212 (from CH_3COOH); 1,4,6,7-tetrabromo-XII, -, 231 - 232 (from CH_3COOH); 1,4,6,7-tetrabromo-V, $C_{24}H_{12}O_4Br_4$, 204 - 205 (from CH_3COOH); 5-bromo-XII, -, 152 - 153 (from CH_3OH). See also RZhKhim, 1962, 14Zh169. [Abstracter's note: Complete translation.]

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S/081/62/000/024/040/073
B101/B186

AUTHOR: Prajer-Janczewska, Lidia

TITLE: Study of the sulfone esters of α-hydroxy ketones. I. Synthesis of ω-tosyloxy acetophenone

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 324, abstract 24Zh179 (Roczn. chem., v. 36, no. 3, 1962, 549-551 [Pol.; summary in Ger.])

TEXT: ω-bromo acetophenone (I) does not react with $p\text{-}CH_3C_6H_4SO_3H$ (II), whereas the analogous reaction of I with C_6H_5COOH yields $C_6H_5COCH_2OCOC_6H_5$ (III). Neither could ω-tosyloxy acetophenone (IV) be obtained from $p\text{-}CH_3C_6H_4SO_2Cl$ by reacting with $C_6H_5COCH_2OH$ in pyridine, but IV could be produced only by reaction between diazoacetophenone (V) and II. A mixture of 5 g I, 3 g C_6H_5COOH and 2 g Na_2CO_3 in 120 ml toluene is boiled for 2 hrs yielding 25% III, m.p. 119-120°C. Portions of 2 g V which are obtained from C_6H_5COCl reacting with CH_2N_2, are added to a solution of

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Study of the sulfone esters ...

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5 g anhydrous II in 250 ml hot C_6H_6. The mixture is kept at 50°C for 10 min, then heated to boil, cooled and washed with an $NaHCO_3$ solution. The solvent is distilled and 3 g $C_{15}H_{14}O_4S$ (IV), m.p. 98-99°C, is obtained from CH_3OH. [Abstracter's note: Complete translation.]

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

S/081/62/000/022/019/088
B144/B101

AUTHOR: Prajer-Janczewska, Lidia

TITLE: Effect of the tosyl group in 2-tosyl hydroxy naphthalene on the bromation of the naphthalene ring

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 191, abstract 22Zh138 (Roczn. chem., v. 35, no. 6, 1961, 1589-1595 [Pol.; summaries in Russ., Eng. and Germ.])

TEXT: A reaction of tosyl chloride (I) with 2-hydroxy naphthalene (II) yields 2-tosyl hydroxy naphthalene (III). Substitution of the hydroxylic H in II by the tosyl or benzoyl group so changes the nature of the substituent that it acts orientating not only for the ortho and para, but also for the meta position. When III is bromated, partial hydrolysis takes place and the mixture of tosylates, separates into: unchanged III, 1-bromo-2-tosyl hydroxy naphthalene IV, 8-bromo-2-tosyl hydroxy naphthalene (V), and 5,8-dibromo-2-tosyl hydroxy naphthalene (VI). Hydrolysis of VI results in 5,8-dibromo-II (VII) which yields, on methylation, 5,8-dibromo-2-methoxy naphthalene (VIII). VI is synthetized by bromation of

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V. 10 g II and 14 g I in 15 ml acetone are gradually mixed with 20 ml of 25%-NaOH; some hours after the exothermic reaction is completed the mixture is diluted with water and ~100% III, m.p. 124-125°C (from benzene) is obtained. To 12 g III in 40 ml boiling CH_3COOH 65 g Br_2 in 5 ml CH_3COOH is added dropwise, the mixture is heated such that Br did not volatilize, after ~40 min Br_2 decolorizes and after some hours 3.7 g IV, m.p. 121-122°C (from alcohol), is separated. The alkaline mother liquor is poured into water and after some hours VI, $C_{17}H_{12}Br_2O_3S$, m.p. 161-162°C (from CH_3OH), is separated and purified by recrystallization. To a boiling solution of 288 g III in 960 ml CH_3COOH, 156 g Br_2 is added within 20 min, boiled for ~4 hrs, and poured into water; the pasty precipitate is ground in the mortar with a small volume of 10% NaOH, the alkaline solution is acidified with dilute HCl, and 0.5 g hydrolysate is separated. By recrystallization of the precipitates (~120 times) 96 g pure IV, 42.1 g V (m.p. 84-85°C), 0.95 g VI, and 22 g nonbromated III (m.p. 124-125°C), are separated. To a boiling solution of 3.77 g V in 10 ml CH_3COOH, 1, 1.5, or 2 moles Br_2 are added and boiled for ~4 hrs; if a precipitate separates it is dissolved by addition of CH_3COOH; the solution is poured into dilute

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NaOH and VI is separated by recrystallization of the residue. 1 g tosylate and 1 g KOH in 5 ml CH_3OH are boiled for 20 min, 1 ml water is added, the mixture is boiled again for 1 hr, diluted with water, and the hydrolysate extracted with ether (substance and m.p. in °C are specified): II, 122 (from CH_3COOH); 1-bromo-II, 83-84 (from CH_3COOH); 8-bromo-II, 113-114 (from benzene); VII, 146-147 (from benzene). VII is methylated with $(CH_3)_2SO_4$ in a solution of NaOH or CH_2N_2 in CH_3OH + ether, and VIII is obtained, m.p. 83-84°C (from CH_3OH). To the boiling solution of 3 g 1,3-dibromo-II (IX) in 10 ml CH_3COOH 5 g crystalline $SnCl_2$ in 5 ml concentrated HCl is added; in the course of boiling 1 ml concentrated HCl is added 5 times at intervals of 2 min each, after continued boiling for another 20 min, the whole is poured into water and 3-bromo-II (X), m.p. 82-83°C, is so obtained. By reaction of the relevant bromo-2-hydroxy naphthalenes with equimolar quantities of the acid chlorides in pyridine (heating for 15 min at ~ 100°C, dilution with water, acidification with HCl) the esters are obtained (substance and m.p. in °C as here specified): X acetate, 94; 6-bromo-II acetate (XI), 103; IX acetate, 102; 1,6-dibromo-II acetate (XII), 125; VII acetate (by boiling VII for 20 min in

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$(CH_3CO)_2O$ excess), 141-142 (from CH_3OH); X benzoate, 105-106 (from CH_3OH); XI benzoate, 122, IX benzoate, 128-129 (from CH_3COOH); XII benzoate, 178-179 (from CH_3COOH); VII benzoate, 146-147 (from CH_3OH); X benzene sulfonate, 103-104 (from CH_3OH); XI benzene sulfonate, 89-90 (from CH_3OH); IX benzene sulfonate, 118-119 (from CH_3OH); XII benzene sulfonate, 129-130; VII benzene sulfonate, 117-118 (from CH_3OH); X tosylate, 106-107 (from CH_3OH); XI tosylate, 140-141 (from CH_3OH); IX tosylate, 118-119; XII tosylate, 138-139; VI tosylate, 161-162. 8-bromo-II in CH_3OH is methylated with CH_2N_2 dissolved in ether; after some hours the volatile matters are distilled off, and from the residual 8-bromo-2-methoxy naphthalene is separated, m.p. 67-68°C (from CH_3OH). [Abstracter's note: Complete translation.]

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PRAJER-JANCZEWSKA, Lidia

Influence of the tosyl group in 2-tosyloxynaphthalin upon the bromation of the naphthalin ring. Rocz chemii 35 no.6:1589-1595 '61.

1. Katedra Chemii Organicznej, Uniwersytet, Wroclaw.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

S/081/62/000/023/037/120
B166/B101

AUTHOR: Prajer-Janczewska, Lidia

TITLE: The influence of the benzoyl group on the bromination of 2-benzoyloxynaphthalene

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 269, abstract 23Zh167 (Roczn. chem., v. 36, no. 2, 1962, 223-226 [Pol.; summaries in Russ. and Eng.])

TEXT: It is shown that bromination of 2-benzoyloxynaphthalene (I) gives not only 1-bromo-I (II) but also 8-bromo-I(III), which when hydrolyzed gives 8-bromo-2-hydroxynaphthalene (IV). The structure of IV is proved by the formation of 3-bromophthalic acid (V) when it is oxidized. 650 ml 20% NaOH are added rapidly to a cooled solution of 288 g β-naphthol and 300 g C_6H_5COCl in 300 ml acetone, giving I, melting point 110°C (from glacial CH_3COOH). To a boiling solution of 250 g I in 750 ml glacial CH_3COOH are added 170 g Br_2 drop by drop over 1/2 hr, the mixture is heated for 1 hr, cooled, decanted into water, and the sediment is extracted with

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10% NaOH, dissolved in hot CH_3OH and on cooling, the following are separated in succession: II, yield 134 g, m.p. 100-101°C (from CH_3OH) and III, $C_{17}H_{11}O_2Br$, yield 10 g, m.p. 141-142°C (from CH_3OH). A mixture of a solution of 7 g III in 35 ml alcohol and a solution of 5.6 g KOH in 14 ml water is boiled for 1 hr, diluted with water, and neutralized with HCl (acid) to produce IV, $C_{10}H_7OBr$, m.p. 113-114°C (from ligroin), acetate, m.p. 63-64°C (from CH_3OH), benzene sulfonate, m.p. 62-63°C (from CH_3OH), and tosylate, m.p. 84-85°C (from CH_3OH). A solution of 0.5 g IV, 0.2 g KOH and 3 g $KMnO_4$ in 12 ml water is boiled for 1 hr, giving V, m.p. 183-184°C (from water). [Abstracter's note: Complete translation.]

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PRAJER-JANCZEWSKA, Lidia

Bromonaphthyl esters Pt.9. Rocz chemii 37 no.2:179-185 '63.

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PRAJER-JANCZEWSKA, Lidia

Studies on the sulfonic esters of α- hydroxyketone. I. Synthesis of ω - tosyloxyacetophenon. Rocz chemii 36 no.3:549-551 '62.

1. Katedra Chemii Organicznej, Uniwersytet, Wroclaw.

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PRAJER-JANCZEWSKA, LIDIA

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Distr: 4E3d/4E2c(j)

On the bromination of the esters of 2,3-dihydroxynaphthalene. Lidia Prajer-Janczewska (Univ. Wrocław, Poland). *Roczniki Chem.* 34, 733-8(1960).—Esterification of 1,4-dibromo-2,3-dihydroxynaphthalene by benzenesulfonic (I), toluenesulfonic (II) and benzoic acid (III) chlorides gave the resp. 2,3-diesters, m. 199-200°, 185-6°, and 195-6°, resp. Bromination of the acetic (IV), I (m. 160-1°), II (m. 177-8°), and III 2,3-diesters, obtained by action of the resp. acid chlorides on 2,3-dihydroxynaphthalene, led to substitution of 2 Br atoms in 1,4-positions in the IV deriv., 1 Br atom in the III deriv. (m. 119-20°), and none in the I and II derivs. A. Kreglewski

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001342820020-9

PRAJER-JANCZEWSKA, Lidia, doc. dr.

The Stobbe condensation. Wiad chem 14 no.7:433-452 Jl '60.

1. Katedra Chemii Organicznej, Uniwersytet, Wroclaw.

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PRAJER-JANCZEWSKA, Lidia

Benzenesulfonic acid esters of β,β'-dihydroxy- and of some bromo- β-hydroxy- naphthalene compounds. Rocz chemii 34 no.5:1489-1493 '60.
(EEAI 10:9)

1. Katedra Chemii Organicznej Uniwersytetu, Wroclaw.

(Esters) (Benzenesulfonic acid) (Naphthalene)
(Bromine) (Naphthalenediol) (Hydroxy compounds)

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YUGOSLAVIA / Chemical Technology. Chemical Products and Their Application. Water Treatment. Sewage. H-5

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 78140.

Author : Prags, Tibor.
Inst : Not given.
Title : Problem of Sewage in Leather Industry.

Orig Pub: Koza i obuca, 1957, 6, No 7, 237-241.

Abstract: It is recommended to purify biochemical sewage together with residential sewage (5-10%) by chemical precipitation in filtration fields. The utilization for irrigation in farming is possible. -- Z. Lebedev.

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PRAJS, TIBOR

YUGOSLAVIA/Chemical Technology. Chemical Products and Their Application. Leather, Mechanical Gelatins. Tanning Agents. Technical Albumens. H-35

Abs Jour: Ref. Zhur-Khimiya, No 11, 1958, 38444.

Author : Prajs Tibor
Inst : Not given.
Title : Application of Mineral Oils in the Leather Industry

Orig Pub: Koza i obuca, 1957, 6, No 5, 161-163.

Abstract: An up-to-date exposition is set forth concerning the application of mineral oils in leather production.

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