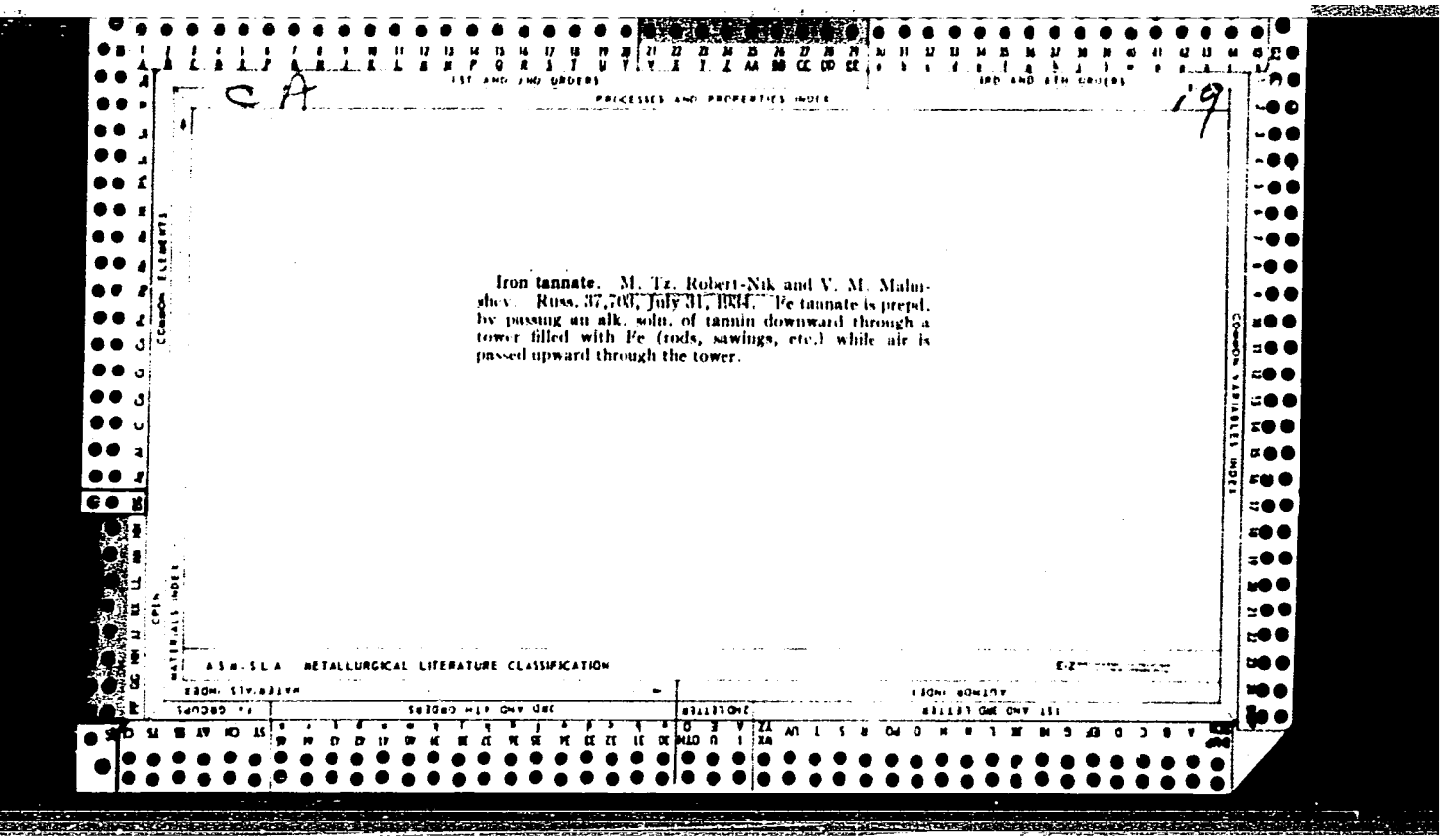
ROBERT-NIKU, M.TS.

Chemistry and technology of chemicopharmaceutical preparations Moskva, Medgiz, 1954. 441 p. (55-16236)

1. Chemistry, Medical and pharmaceutical.

ROBERT-NIKU, M.TS.; KUVSHINSKIY, M.N., redaktor; BOBROVA, Ye.N., tekhnicheskiy redaktor

[Chemistry and technology of chemicopharmaceutical preparations] Khimiia i tekhnologiia khimiko-farmatsevticheskikh preparatov. Moskva, Gos. izd-vo med. lit-ry, 1954. 441 p. (MLRA 7:9)
(Chemistry, Medical and pharmaceutical)
(Drug industry)



Iron tannate. M. Tz. Robert-Nik and V. M. Malinshev. Russ. 37,707, July 31, 1934. Fe tannate is prepd. by passing an alk. soln. of tannin downward through a tower filled with Fe (rods, sawings, etc.) while air is passed upward through the tower.

ROBERTO, U.

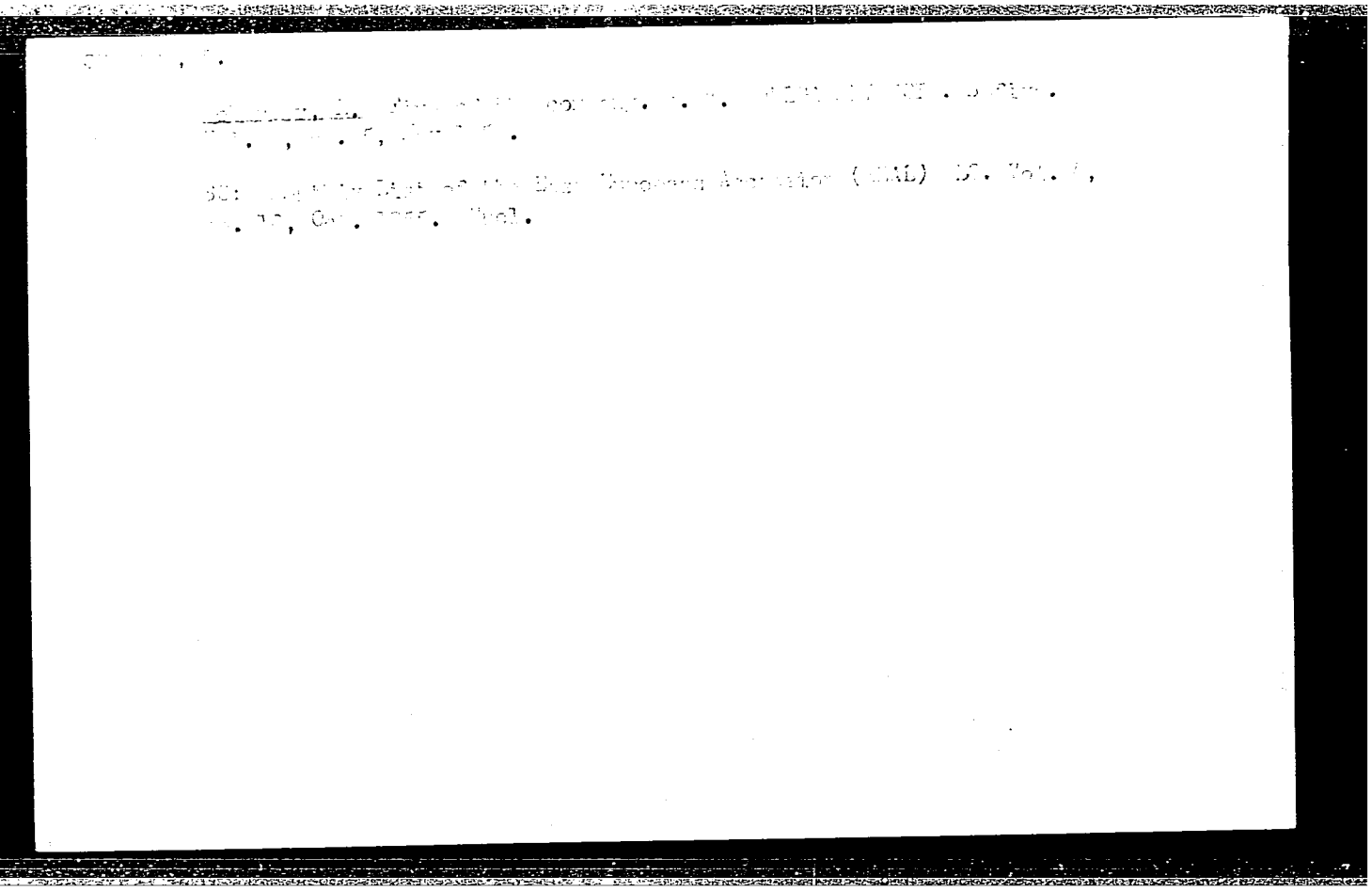
Roberto, U. and Roncali, F.

Application of Hydrazine Sulphate in the Determination of Oxidising Substances.

Chem. Zentr., 1904, pp. 616

J. Chem. Soc., Vol. 86, p. 773

Hydrazine sulphate acts with substances which liberate oxygen in precisely the same way as it does with chlorine, being decomposed by the oxygen and yielding sulphuric acid, water, and nitrogen. When potassium permanganate is gently heated with hydrazine sulphate, the solution is decolorised and nitrogen is evolved, 5 mols. of nitrogen being liberated by 4 of permanganate. In a similar way, 2 mols. of potassium dichromate yield 3 mols. of nitrogen. By measuring the volume of nitrogen liberated, the quantity of oxidising substances may be estimated. This method is also applicable to peroxides, chlorates, &c.



ROBERTS, Brin

British-Soviet trade-union relations. Vsem.prof.dvizh. no.3:47-48 Mr '57. (MLRA 10:5)

1.General'nyy sekretar' Natsional'nogo soyuza gosudarstvennykh sluzhashchikh (Angliia).
(Great Britain--Relations (General) with Russia)
(Russia--Relations (General) with Great Britian)

AUTHOR: Roberts, G. A. 129-58-5-14/17

TITLE: Trends of Development in the Field of High Speed Steels in the U.S.A. (Tendentsiya razvitiya v oblasti bystrorezhushchikh staley v SShA)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 5, pp 52-53 (USSR)

ABSTRACT: Abstract of a paper published in Industrieblatt, 1957, No.6.
Abstracted by V. Yu. Novikov.

AVAILABLE: Library of Congress.

Card 1/1

1. High speed steel-Development

ROBERTS, JOHN D.,
JOHN D. ROBERTS, J. Am. Chem. Soc. 67, 148-50 (1945)

ROBERTS, J.

Practice of the Modern Physics Laboratory. Translated from the English under the editorship of Prof. M. P. Vukalovich. 592 pp, 1952.

371. HYDRO-ELECTRIC DEVELOPMENT IN YUGOSLAVIA. Roberts, R.D.V. (Brit. Elect., Nov. 1951, vol. 4, 363-366). Brief details are given of the Jablanica project. The main concrete dam on the river Neretva will be 280 ft. high. The underground power station containing six 30,000 kw generators will be supplied by two tunnels 16 ft. wide by 1½ miles long. A similar station is being built on the river Rama. Construction should be completed by 1953. B. E. A.

G. TOMASI, Z. Pflanz. Dung. 1935, 38, 88-99, 99-104, 105-109, 109-113, 114-117, 118-121, 121-124, 124-127, 127-130, 130-138, 139-141, 141-145, 145-147, 148-153, 153-155, 155-161

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Ion exchange in peat. W. U. [illegible] and I. M. [illegible] (Z. Pflanz. Düng., 1931, 22A, 50—57).—The proportion of cations adsorbed by acid sphagnum peat from neutral salt solutions bears no relation to that of the H ions displaced. Some cases of negative

and 48 hr. the P_2O_5 or CaO requirement of the soil was determined. Potted soils are first sterilised, since otherwise the butyric acid formed obscures the results. Alternatively, the plates are drained through a layer of charcoal, added at the bottom of the plate, and connected with the atm. by means of a tube.

CHEMICAL ABSTRACTS.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

18.8300

33852
S/137/62/000/001/200/237
A006/A101

AUTHORS: Robertson, V. D., Bekish, R. V.

TITLE: The effect of structural factors on corrosion cracking of homogeneous alloys

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 87, abstract 1I615 (V sb. "Korrozion. rastreskivaniye i khrupkost'", Moscow, Mashgiz, 1961, 35-48)

TEXT: The authors analyze the chemical activity of the structure of homogeneous alloys in the spots where cracks arise and develop. They discuss the thermodynamical conditions of intercrystalline failure, the effect of the grain boundary state on the surface of the metal and the grain boundaries in homogeneous alloys. Intra and intercrystalline cracking in polycrystalline metals is caused by irreversible processes, arising in non-stable structural sections. On grain boundary sections, grooves (recesses) are formed due to the non-stability of grain edges forming these boundaries. In pure metal the process is damped with the formation of an equilibrium angle of the groove; in alloys the prevailing oxidation of one of the components produces local heterogeneity in

Card 1/2

The effect of structural factors ...

the alloy composition; this entails the formation of short-circuited galvanic elements. The stability of the alloys is the lesser, the higher the difference in the chemical activity of the alloy components. Plastic deformation produces sections of enhanced chemical activity in the metal. Such sections are groups of slip bands. Sections with a higher chemical activity are sources of crack formation. The cracks develop in a direction perpendicular to the plane of action of stresses applied. There are 25 references.

Ye. Layner

[Abstracter's note: Complete translation]

Card 2/2

18.8300

S/081/61/000/023/024/061
B117/B147

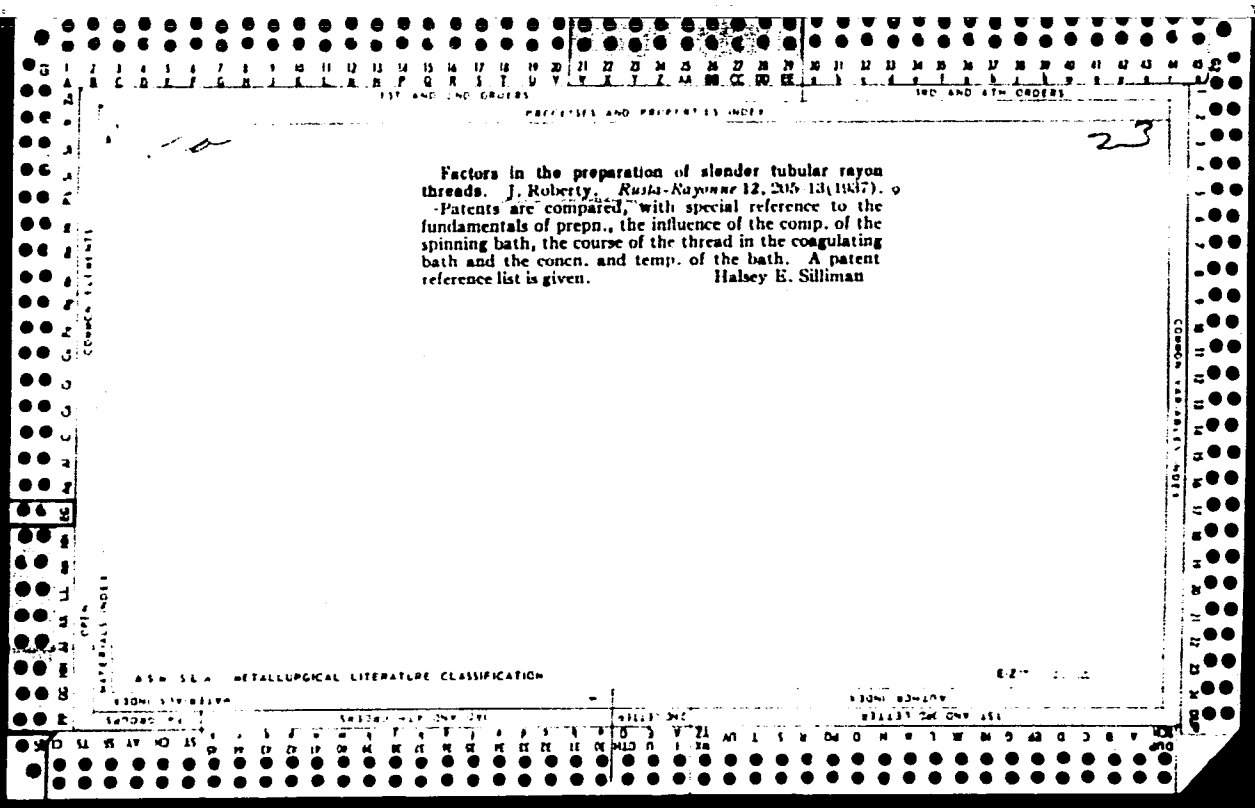
AUTHORS: Robertson, V. P., Bekish, R.

TITLE: Effect of structural factors on corrosion of cracking of homogeneous alloys

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1961, 285, abstract 23I225 (Sb. "Korrozion. rastreskivaniye i khrupkost'". M., Mashgiz, 1961, 35-48)

TEXT: The stability of alloys against corrosion cracking was found to change widely in different corrosive media. The stability of the alloy is assumed to be the lower, the more different the chemical activities of the alloy components. It is noted that sections with increased chemical activity develop due to plastic deformation in metal. Sections of increased chemical activity in single crystals and polycrystals were found to be the origin of cracking. The mechanism of development of sections with increased chemical activity was described. [Abstracter's note: Complete translation.]

Card 1/1



Factors in the preparation of slender tubular rayon threads. J. Roberty. *Rayon-Rayonne* 12, 205-13(1937). -Patents are compared, with special reference to the fundamentals of prepn., the influence of the comp. of the spinning bath, the course of the thread in the coagulating bath and the concn. and temp. of the bath. A patent reference list is given. Halsey E. Silliman

CZECHOSLOVAKIA

TITERA, Pavel, MVDr; KOUDELA, Karel, MVDr, CSc.; ROUBES, Bohuslav, ing.

No affiliation but city of Prague (for all)

Prague, Veterinarstvi, No 2, [February] 1967, pp 49-52

"Analysis of principal results obtained by veterinary inspection of fattened animals and meat in Czechoslovakia in 1965."

GRIGOROV, N., inzh.; ROBEV, Iv., inzh.

New stage in the development of regional and territorial planning in Bulgaria. Tekh delo 500:4 24N '63.

ROBEV, Ivan, inzh.

Problems of water economy in regional planning. Khidtotekh i melior 8 no.7:195-196 '63.

ROBEV, Ivan, inzh.

Schemes for the utilization and gradual development of eater resources. Khidrotekh i melior 8 no.6:163-164 '63.

BULGARIA

ROBEV, St., BAYEV, I.., PANOV, N., Institute of Radiology and Radiation Hygiene, Sofia-Darvenitsa

"Radiation Protection Effect of Certain Isothiuronium-S-Propio-NN'-Diaryl Amidins"

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 19, No 12, 1966, pp 1143-1145

Abstract: /Russian article/ The authors showed recently (see, e.g., St. Robev, S. Todorov, Dokl. AN SSSR, 132, 1960, 1201; I. Bayev, St. Robev, Dokl. BAN, 15, 1962, 613) the irradiation protection properties of aromatic N-aryl substituted amidines. The present paper outlines the results of radiation protection properties of certain newly synthesized β-isothiuronium-S'-propio-NN'-diaryl amidines in two lines of mice exhibiting differing radiation sensitivity. Tables show the results of toxicity tests carried out on 165 animals and radiation protection capability investigation carried out on 425 animals. Data are compared with those from parallel tests on control and cysteamine-protected animals. References: 6 Bulgarian, 2 Soviet, and 1 Western. (Manuscript received, 27 Jul 1966.)

ROB[illegible], St.; [illegible], G.

Synthesis of the [illegible]-like ribonucleic acid in yeast nondividing cell[illegible]. [illegible] biokhim BAN 2:61-70 '64.

1. Scientific Research Institute of Radiation and Radiation Protection at the Ministry of Health and Social Welfare, Sofia.

ROBEV,S.; [illegible],I.; BONEV,L.

The distribution of N-(4-nitrophenyl)-benzamidine-C-1[illegible] in the organs of white rats under conditions of its use for radioprotective purposes. Dokl. Bolg. akad. nauk 18 no.1:51-54 '65

1. Submitted on August 19, 1964.

BULGARIA

ROBEV, S., BANEV, I., PANOV, N., Institute of Radiology and Radiation Hygiene, Sofia

"A Study of the Radiation Protection Induced by 3-3'-Dithio-Bis-Propio Amidine"

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 19, No 11, 1966, pp 1035-1037

Abstract: /Russian article/ The authors showed recently that some of the newly synthesized N-aryl-substituted aromatic amidines exhibit clear radiation protection effects in bacteria (St. Robev, S. Todorov, Dokl. AN SSSR, 132, 1960, 1201) and in mammals (see, e.g., I. Banev, St. Robev, Compt. rend. Acad. bulg. Sci., 15, 1962, No 6, 613). These and other results point to the possibility of increasing the radiation protection effect by means of functional groups in compounds containing sulfhydryl or a potential sulfhydryl and amidine group. Consequently, the present work investigated in 662 white mice the radiation protection supplied by the 3-3'-dithio-bis-propio amidine, and the effects of antagonism and synergism with adrenalin and hexamethonium. Results show that the above compound exhibits excellent radiation protection effect even during supralethal irradiation doses. It is close to the strength of radio protection observed with cysteamine. Other combined applications of propioamidine and with

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BULGARIA

ROBEV, S., PANTEV, T., Institute of Radiology, Sofia

"Sythesis and Radiobiological Study of Gamma-Isothiuronium Butyroamidine"

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 19, No 11, 1966, pp 1039-1041

Abstract: /English article/ Mercapto ethylamine and amino-ethyl isothiuronium compounds have proved to be the most active radioprotective agents. The present paper reports on the synthesis and radioprotective properties of gamma-isothiuronium butyroamidines. The presentation of the materials and methods is followed by the study of radiobiological behavior of gamma-isothiuronium butyroamidine dihydrochloride. Data show that the number of mice surviving X-ray irradiation in the group protected with gamma-isothiuronium butyroamidine is much higher than that in the controls. A point of special interest in the radiobiological investigation of gamma isothiuronium butyroamidine is the impossibility of a transguanidination arrangement as in the case of AET. This unequivocally shows that the radioprotective activity of isothiuronium amines is directly connected with their primary isothiuronium structure and not with their potential ability to produce SH-group containing substances in the organism (mercaptoguanidines). References: 3 Bulgarian, 1 Soviet, and 5 Western. (Manuscript received, 16 Jul 66.)

1/1

L 4365-66

ACC NR: AP5028424

measurable fluctuations caused by individual responces of various organisms. These fluctuations prevent the establishment of any quantitative connections between the amount of incorporated labeled amidine found now and the amounts reported in earlier references. Nevertheless, new data support the assumption that the local amidine concentration has little relation to the appearance of the radiation protection effect. While the amidine distribution pattern is the same during the parenteral and internal introduction, the radiobiological effect is completely different. As reported earlier (Il. Bayev, Rentgenologiya i radiologiya, 1964), the peroral introduction fails to produce any radiation protection whatsoever. The work was presented by A. Spasov, Corresponding Member, 12 Aug 64. Orig. art. has: 1 table. [JPRS]

SUB CODE: LS / SUBM DATE: 12Aug64 / ORIG REF: 008 / OTH REF: 004
SOV REF: 002

KC

Card 2/2

L 00155-66 EWT(m) DIAAP

ACCESSION NR: AP5025542

BU/0011/65/018/003/0239/0242

AUTHOR: Bonev, L.; Todorov, S; Robev, S.

TITLE: Possibility of a quantitative tracking of the precipitation reaction using radioactively labeled chromium -51

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 3, 1965, 239-242

TOPIC TAGS: chemical labelling, chromium, radioisotope, chemical precipitation, iron, radiation chemistry, biochemistry, tracer study

ABSTRACT: The existing methods for gauging the precipitation reaction are far from a true quantitative determination of the antigen--antibody reaction. In all the cases one does not know the exact composition of the precipitate which is usually contaminated by admixtures which reacted with the reagents used. In addition, the usual methods are slow and cumbersome. The present paper presents the first results using radioactively labeled trivalent chromium-51. The trivalent chromium was chosen because it can be hydrolyzed into nonsoluble chromium hydroxide at pH7 characterizing the usual precipitation reaction. The results were in agreement with data from other methods. Further studies using double radioactive labeling by chromium-51 and iron-59

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ACCESSION NR: AP5025542

showed that one can achieve a sufficient degree of accurate reproducibility to make the study of interactions between the antigen—antibody complexes possible including the radiation protection effects. Investigations of this type and the utilization of other radioisotope tracers will be described in a subsequent paper. Orig. art. has: 1 graph and 1 table.

ASSOCIATION: Institut Radiologii i Radiatsionnoy Gigiyeny, Darvenitsa-Sofia, (Institute for Radiology and Radiation Hygiene)

SUBMITTED: 00 ENCL: 00 SUB CODE: GC, LS

NR REF SOV: 000 OTHER: 005 JPRS

Card 2/2

L 4345-66 EWT(1)/EWA(j)/EWA(b)-2 JK

ACC NR: AP5028425 SOURCE CODE: BU/0011/65/018/001/0055/0058

AUTHOR: Todorov, S.; Robev, S.

ORG: Scientific-Research Institute of Radiology and Radiation Hygiene, Sofia (Nauchno-issledovatel'skiy institut radiologii i radiatsionnoy gigiyeny)

TITLE: Study of the influence of N-phenylbenzoamidine on the number of reverse mutations obtained during the x-ray irradiation of an E. Coli K54 suspension

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 1, 1965, 55-58

TOPIC TAGS: antiradiation drug, organic amide, biologic mutation, x ray irradiation

ABSTRACT: [Russian article] The quantitative study of radiation protection at the cellular level can be carried out conveniently on the reverse mutation model (see, e.g., H. Kuenkel, P. Kamm, G. Hoehne, Strahlentherapie, 114, 1961, 95). The present study is a continuation of earlier investigations of radiation protection properties of amidines (S. Robev, Dokl. AN SSSR, 121, 1958, 84) on the cellular (see, e.g., S. Robev, S. Todorov, Compt. rend. Acad. bulg. Sci., 13, 1960, 79) and subcellular (Compt. rend. Acad. bulg. Sci., 17, 1964, 259) levels. The results show that the presence of N-phenylbenzoamidine exerts a noticeable influence on the percentage of the radiation-induced reverse mutations in E. coli K54 auxotropic relative to methionine. The effect

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L 4345-66

ACC NR: AP5028425

appears at concentrations which otherwise do not seem to influence in any way the development of E. coli. It is interesting to note that the chemical properties of N-phenylbenzoamidine exclude the possibility of its acting via an artificial hypoxia of the medium. The presence of a possible selective radioprotective amidine action with respect to the genetic marker system of E. coli would allow the determination of the relative antiradiation protection of individual markers in the case of polymarked objects. Consequently, the authors plan to continue their research in this direction.

The work was presented by A. Spasov, 13 Aug 64. Orig. art. has: 1 table, 1 formula. [JPRS]

SUB CODE: LS / SUBM DATE: 13Aug64/ ORIG REF: 005 / OTH REF: 002

Card 2/2

L 4350-66

ACC NR: AP5028774 SOURCE CODE: BU/0011/65/018/002/0133/0136

AUTHOR: Robev, S; Desev, G.; Marinova, Ts.

ORG: Institute of Radiology and Radiological Hygiene, Darvenitsa-Sofia (Institut radiologii i radiatsionnoy gigieny)

TITLE: Comparative study of the incorporation of certain radioactively labeled precursors in the RNA of nonfissioning yeast during x-ray exposure

SOURCE: Bulgarska akademiya na naukite, v. 18, no. 2, 1965, 133-136

TOPIC TAGS: radiology, RNA, yeast, biochemistry, radiation biologic effect

ABSTRACT: [Russian article] The authors showed in one of their earlier papers (see, e.g, Compt. rend. Acad. bulg. Sci., 17, 1964, No 5, 475) that under conditions which in nonfissioning yeast suspension induce basically the synthesis of RNA, whose nucleotide composition resembles the yeast DNA, the radiation-induced braking of the labeled atom incorporation is very strong in systems (identified by this incorporation) otherwise extremely radiation resistant. From the molecular-radiobiologic point of view, it is of interest to find out if the synthesis of the DNA-resembling RNA is slowed down by ionizing radiation at the level of macromolecular copying of the newly-synthesized IRNA from the DNA matrix, or, perhaps, the dominant role in the radiation effect belongs to one of the enzyme systems interacting with the precursor during a stage

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ACC NR: AP5028774

preceding its direct incorporation into the IRNA molecule. Consequently, keeping an eye on the future investigation of this problem, the authors present a study of the participation in the synthesis of the newly-formed DNA-resembling RNA in nonfissioning irradiated yeast suspensions of radioactively labeled phosphate and (under comparable conditions) of some other RNA precursors: uracil-$2C^{14}$, adenine-$2C^{14}$, and the orotic acid-C^{14}. Tests showed that an exposure to 10^4 curie of X-rays did not slow down the synthesis of the DNA-resembling RNA. The observed breking in the case of the phosphate must, most probably, occur prior to its incorporation into nucleoside phosphates which are precursors of the RNA. These findings can be explained only on the assumption that the cell has at its disposal sufficient reserves of phosphates for the above-mentioned synthesis. To check this assumption, the authors carried out a parallel 30-minute incorporation of adenine-C^{14} into the yeast in the absence of phosphates. The absence of phosphates did not seem to slow down the incorporation of adenine. The work was presented by A. Spasov, Corresponding member of BAN, 6 Oct 64. Orig. art. has: 1 table, 3 figures. [JPRS]

SUB CODE: LS / SUBM DATE: 06Oct64 / ORIG REF: 002 / OTH REF: 003

Card 2/2

[redacted], S.

Synthesis of DNA-like RNA in X-irradiated non-dividing yeast cells. Dokl. Polg. Akad. nauk 17 no.5 [redacted] '64.

1. Submitted by Corresponding Member A. Krassov.

TODOROV, S.; ROBEV, S.

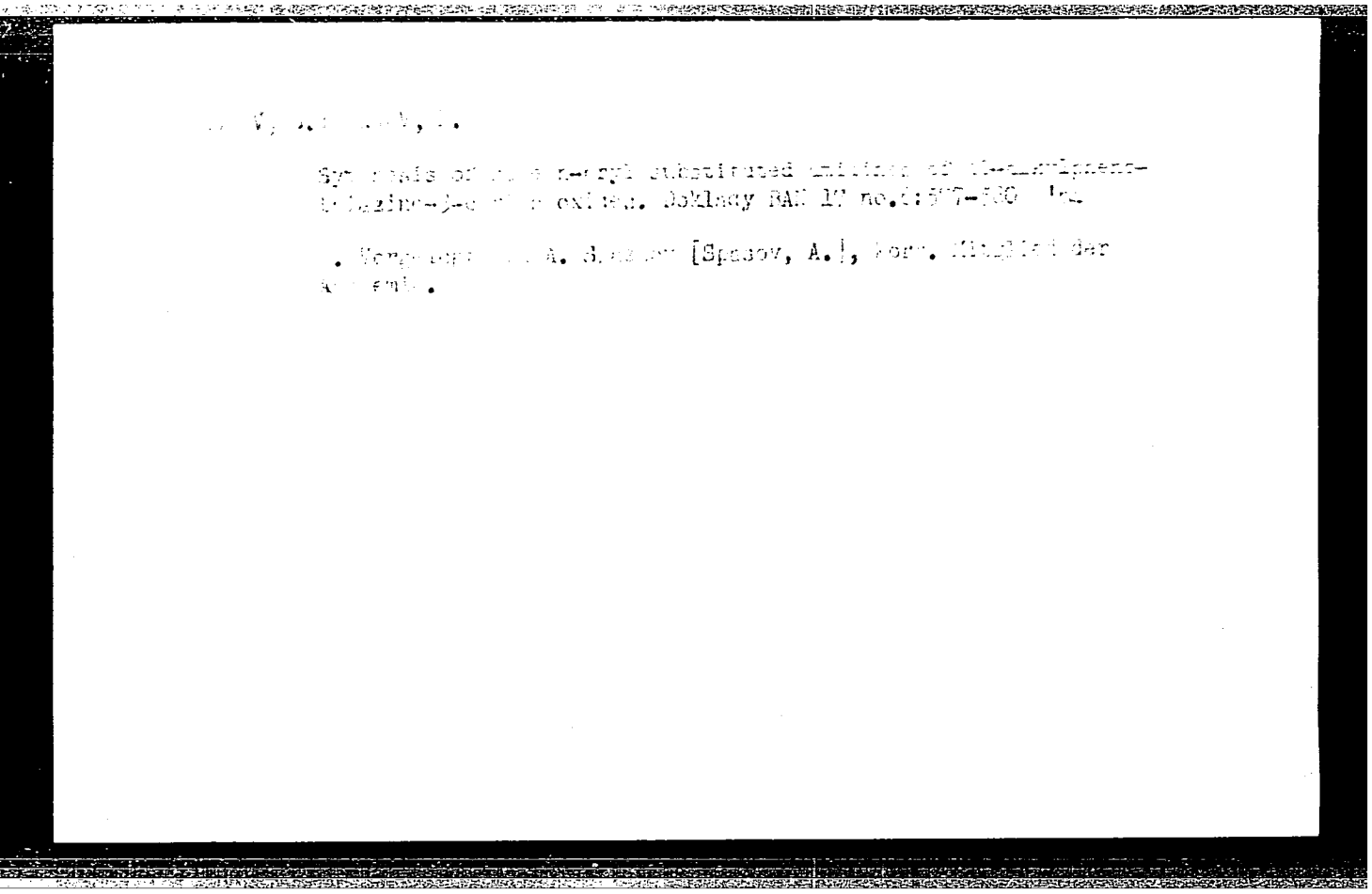
Some radiobiological peculiarities of DNA transformants of E. Coli in connection with transfer of Streptomycin-resistant genetic marker. Dokl. Bolg. akad. nauk 17 no.4:399-401 '64.

1. Submitted by Corresponding Member A. Spassov.

TODOROV, S.; ROBEV,S.

Study of the effect of N-phenylbenzamidine on the rate of reverse mutation produced by the irradiation of suspensions of E. coli K54 by X-rays. Dokl. Bolg. akad. nauk 18 no.1:55-58 '65

1. Submitted on August 13, 1964



[illegible]

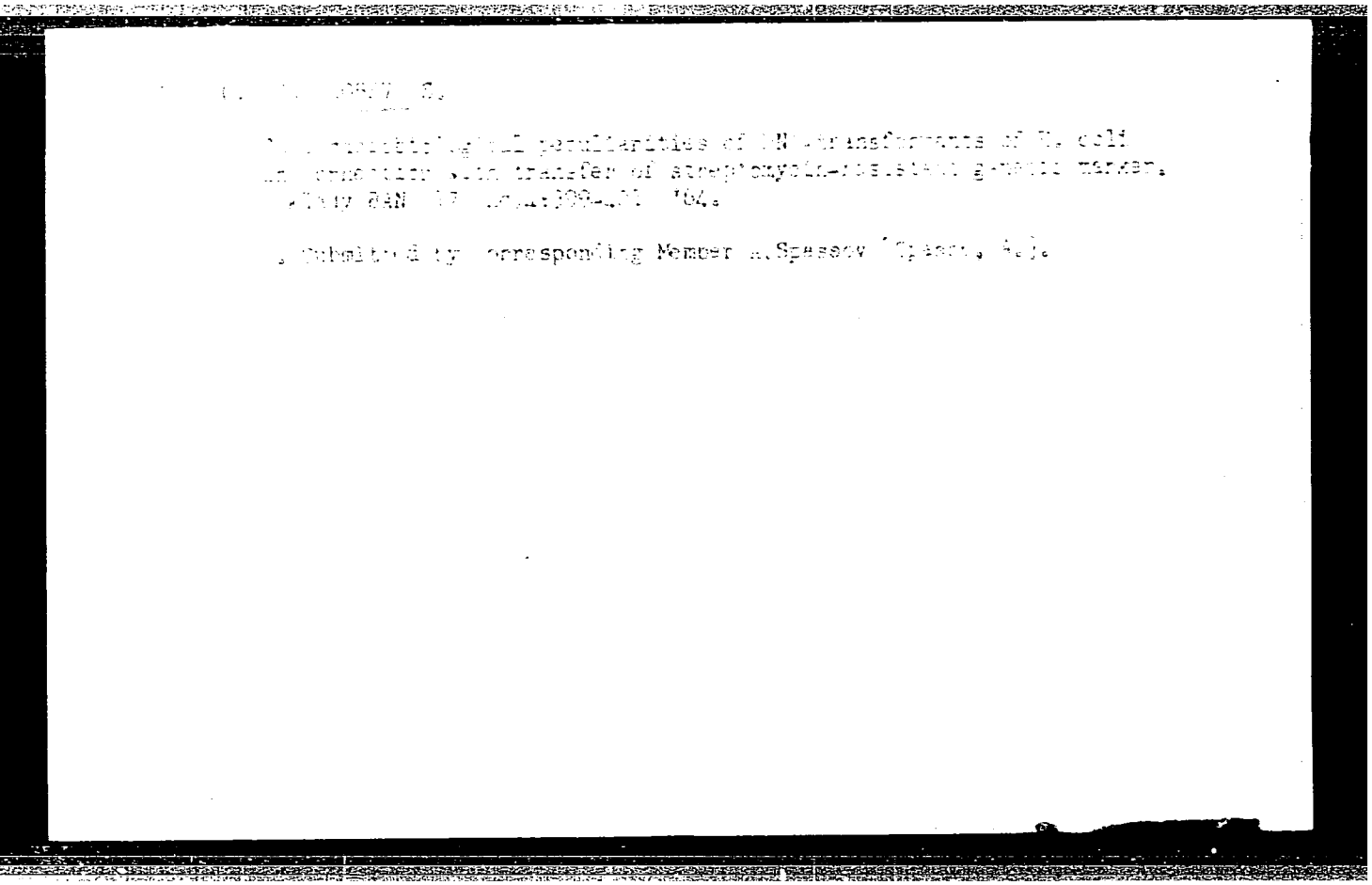
possibility of aniline rearrangement of alkylarylhydrazones passing through intermediate decomposition in amines and nitriles. Doklady BAN 17 no.8:737-740 '64.

1. Department of Radiation Chemistry of the Radiobiological Institute, Sofia, Box 673, Bulgaria, and Faculty of Chemistry of the Leningrad State University, U.S.S.R. Predstavleno chl.-korr. A.Spasovym.

[illegible],[illegible]; DE[illegible]SEV,[illegible]. [[illegible]]

Synthesis of [illegible] [illegible] non-dividing yeast cells. Doklady AN [illegible] no.5:[illegible]

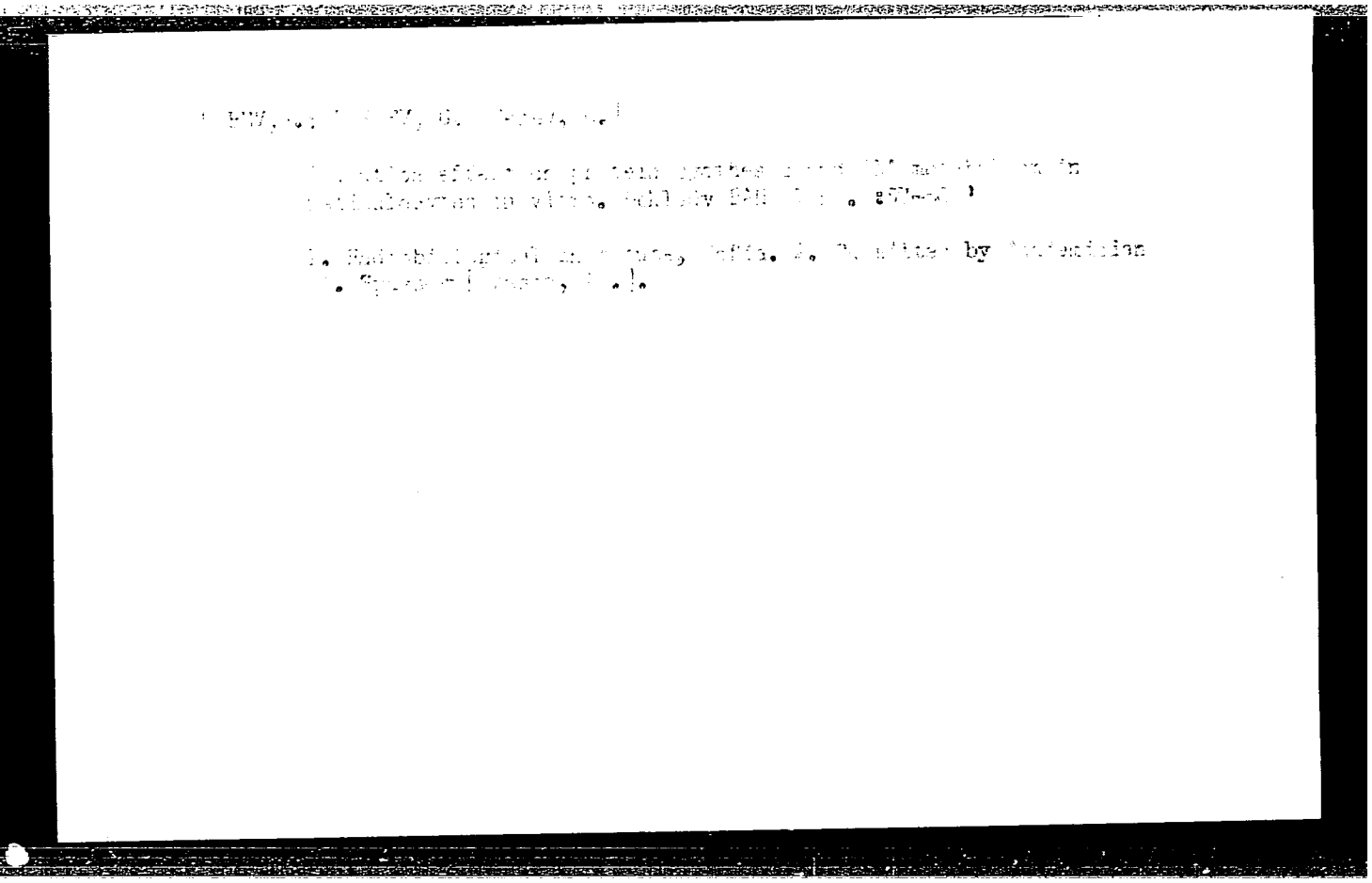
1. Submitted by Corresponding Member A. [illegible] [Spasov, A.].



ROBEV, S.; TODOROV, S.

Irradiation-produced changes in serological properties of certain proteins. Doklady BAN 17 no.3:259-262 '64.

1. Submitted by Corresponding Member A. Spassov [Spasov].



ROBEV,S.; TODOROV,S.

Irradiation-produced changes in serological properties of certain proteins. Dokl. Bolg. akad. nauk 17 no.1:259-262 '64

1. Submitted by Corresponding Member A.Spassov.

B/007/62/000/002/006/012
D204/D307

AUTHORS: Kolarov, V., Bonev, L. and Robev, S.

TITLE: Studies of the scintillating properties of some triazyl-substituted members of the imidazole series

PERIODICAL: Referativnyy byulleten' Bolgarskoy nauchnoy literatury, Khimiya i khimicheskaya tekhnologiya, no. 2, 1962, 7, abstract 109, Doklady BAN, 15, 1962, book 2, pp 167-170

TEXT: The authors studied the scintillating properties of some triazyl-substituted imidazoles (2,4,5-triphenylimidazole, 2,4,5-tri(4-tolyl)-imidazole, and 2,4,5-tri(2-thionyl)-imidazole) and also hydrobenzamide, amarin and isoamarin, having the same atomic structure. Xylene solutions of various concentrations were prepared from these compounds, and their scintillating properties were studied under standard conditions. A Co^{60} preparation with 10^6 disintegrations per minute was used as the source of ionization. The triazyl-substituted imidazoles showed good scintillation properties and,

Card 1/2

Studies of the scintillating ...

bearing in mind their ease of preparation, can be successfully used in radiometry. Photoluminescent maxima in the excitation spectra of 2,4,5-triphenylimidazole and 2,4,5-tri(4-tolyl)-imidazole occur at 390 and 400 mμ and are in the spectral regions convenient for working with ordinary photomultipliers. These substances may also be used for displacing the photoluminescent spectra of other compounds, the luminescent maximum of which lies in the ultraviolet region of the spectrum. Amarin and isomarin exhibit no scintillating properties. (Otdeleniye radiobiologicheskikh nauk, Sofia, 36 (The Department of Radio-Biological Sciences, Sofia, 36))
[Abstracter's note: Complete translation]

Card 2/2

ROBEV,S.; DESSEV,G.

Radiation effect on protein synthesis and RNA metabolism in reticulocytes in vitro. Dokl. Bolg. akad. nauk 17 no.1: 57-60 '64

1. Submitted by Academician Al. Spassov.

BAEV, J.; ROBEV, S.

On the radioprotective characteristics of some nitro derivatives of aromatic monoaryl-substituted amidines. Dokl. bolg. akad. nauk 15 no.6:613-630 '62.

1. Note presentee par A. Spassov.
(RADIATION-PROTECTIVE AGENTS) (AMIDINES)

KOLAROV, V.; BONEV, L.; ROBEV, S.

Scinteillating properties of some triaryl-substituted representatives of the imidazole series. Doklady BAN 15 no.2:167-170 '62.

1. Otdeleniye radiobiologii, Sofia, 56. Predstavleno chl.-korr. A. Spasovym [Spasov, A.].

S/081/62/000/020/012/040
B158/B101

AUTHORS: Bakalov, D., Panov, N., Sumerska, T., Robev, St.

TITLE: Examination of certain nitro-derivatives of aromatic amidines

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1962, 149, abstract 20Zh125 (Doklad. Bolg. AN, v. 14, no. 8, 1961, 811-814 [summary in Eng.])

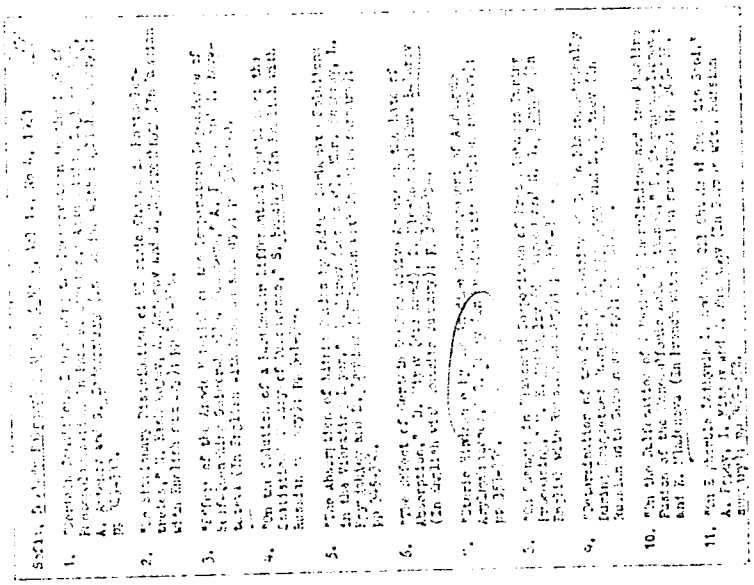
TEXT: 3-nitro-4-methyl-(I), 3-nitro-4-methoxy-(II), 3-nitro-4-chloro-(III) and N-(4-nitrophenyl)-benzamidine (IV), which have a possible radiobiological and pharmocological activity, are obtained when aromatic monoaryl substituted amidines are nitrated. At $\geq 30^{\circ}C$, 51 millimoles N-phenylbenzamidine are added to 40 ml HNO_3 (d 1.52) and after 10 min poured out in an excess of 5% cold KOH, giving IV, yield 89%, m.p. $168^{\circ}C$ (from alcohol); hydrochloride (HC), m.p. 207-209°C (from alcohol); hydrobromide (HB), m.p. 236-238°C (from alcohol); hydroiodide (HI), m.p. 223-224°C (from aqueous alcohol); picrate, m.p. 162-163°C; aniline-formyl

Card 1/2

derivative, m.p. 182°C; and nitrate, m.p. 200-201°C (decomp.). The following are obtained similarly (the product obtained, yield %, m.p. in °C and m.p. in °C of HC, HB and HI are given): I, 87, 195-196 (from benzene-dioxane, 1:2), 206-207 (from alcohol), 297-298, 220-223; II, 63, 213 (from alcohol-benzene, 3:1), 205-206, 210-212, 201-202; III, 79, 179-180 (from alcohol), -, -, -. A mixture of 2 millimoles of IV and 0.5 g Zn are heated for 1 hr at 200°C, cooled, extracted with 5 ml hot C_6H_6, then with 15 ml ether, the combined extract treated three times with 20 ml 2% HCl and C_6H_5CN is obtained from the organic layer; the aqueous layer is acidified and 4-nitro-aniline (V), m.p. 146°C, is obtained; Similarly, V and 3-nitro-n-toluic nitrile are obtained from I, and V and 3-nitro-anisic nitrile from II. 10 ml 10% H_2SO_4 is added to a mixture of 6.25 millimoles of I and 1 g Zn; after 2 hours the filtrate is made alkaline with KOH solution, extracted with 400 ml hot C_6H_6 and N-(4-aminophenyl)-benzamidine; a yield of 68%, m.p. 121°C (from benzene-ligroin), is obtained from the organic layer. [Abstracter's note: Complete translation.]

Card 2/2

ROBEV, S.



KALCHEV, K.; BONEV, L.; MITRANI, L.; DESSEV, G.[Desev, G.]; ROBEV, S.

Studies on the possibility of eliminating radioactive strontium from milk by means of ion-exchange resins. Doklady BAN 14 no.5:475-478 '61.

1. Research Base on the Problems of Radiation Diseases and Radiological Protection at the Onkological Research Institute, Sofia. Submitted by Corresponding Member Al. Spassov[Spasov, Al.]

(Strontium) (Milk) (Radioactivity)

NIKOLOV, I.; BAEV, I.; ROBEV, S.

On the radioprotective effect of the N-Phenylamidine of the Thiophene-2-Carboxylic acid depending on the radioprotector's dose used. Doklady Ban 14 no.5:551-554 '61.

1. Submitted by Academician D. Orahovats[D. Orakhovats]

(Phenols) (Carbolic acid) (Radiology)

ROBEV, St.

SURNAME, Given Names

Country: Bulgaria

Academic Degrees: not given

Affiliation: not given

(5)

Source: Sofia, Khigiena, Vol IV, No 5, Sep/Oct 1961, pp 31-43

Data: "Protection against Radiation through Amidin Compounds."

Authors:

NIKOLOV, Iv.
BAEV, Il.
ZOGRAFOV, D.
TODOROV, Sv.
ROBEV, St.

GPO 981643

Distr: 4E2c(j)

5
2-IAAJ(NB)(MAY)
1

New uses of Na amide in organic synthesis. V. Structure of the basic product ($C_{32}H_{28}N_2$) from the condensation of sodium phenylacetate and benzalaniline in the presence of sodamide. Reaction of benzalaniline with sodium anilide. Al. Spasov and St. Robev, *Godishnik Sofiiskiya Univ. Fiz. Mat. Fak., Kniga 3-Khim.* 51, 103–12(1956–57)(Pub. 1958); cf. *CA* 51, 12075g.—The compd. $C_{32}H_{28}N_2$ (I), m. 176–7° (*CA* 49, 6182g), was identified as PhCH(NHPh)NPhCH(NHPh)Ph (II). A mixt. of 0.23 g. α-phenylcinnamic acid, 0.93 g. $PhNH_2$, and 0.88 g. powd. $NaNH_2$ in 30 ml. C_6H_6 was refluxed 3 hrs., 3.6 g. benzalaniline (III) added, the mixt. refluxed 3 hrs., decompd. with cold H_2O, and the C_6H_6 layer dried and distd. to give 44% II. Heating of I or II to 200° gave $PhNH_2$ and III; reaction with KSCN gave the thiourea deriv., m. 193–5°, which above 220° gave 1,3,4,5,6-pentaphenylhexahydro-1,3,5-triazine-2-thione, m. 236–7°.

G. H. Megerian

G

COUNTRY : BULGARIA
CATEGORY : Organic Chemistry. Synthetic Organic Chemistry

ABS. JOUR. : RZKhim., No. 1 1960, No. 1258

AUTHOR : Spasov, A.; Robev, S.
INST. : Sofia University, Physicomathematical Faculty
TITLE : On Some New Uses of Sodium Amide in Organic Synthesis. V. Study of the Basic Product ($C_{32}H_{29}N_3$) of Condensation of Sodium Phenyl* Acetate and Benzylideneaniline in the Presence of Sodium Amide. Interaction of Benzylideneaniline with Sodium Amide

ORIG. PUB. : Godishnik Sofiysk. un-t. Fiz.-matem. fak., 1956-1957 (1958), 51, No 3, 103-112

ABSTRACT : The $C_{32}H_{29}N_3$ base (I) which is obtained on the condensation of benzylideneaniline (II) and $C_6H_5CH_2COONa$ in the presence of NH_2Na (see preceding report, RZhKhim., No 12, 1956, No 35856) forms the dihydrochloride, m.p. 250-252°

CARD: 1/5

COUNTRY :
CATEGORY :

ABS. JOUR. : RZKhim., No. 1 1960, No. 1258

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : these data, I was attributed a structure of
cont'd $C_6H_5N[CH(C_6H_5)NHC_6H_5]_2$, which is also confirmed by the formation of I upon the condensation of II with C_6H_5NHNa in the presence of α-phenylcinnamic acid (III), which is apparently a "carrier" of aniline. A probable mechanism of the described conversions is proposed. The suspension of 0.5 mole of NH_2Na in 20 ml of C_6H_6

CARD: 3/5

COUNTRY :
CATEGORY :

ABS. JOUR. : [illegible]Khim., No. [illegible] 1960, No. [illegible]

[illegible] :
[illegible] :
[illegible] :

ORIG. PUB. :

ABSTRACT : [illegible] distilled [illegible] I [illegible] of [illegible] -- D. [illegible]

[illegible]: [illegible]

ROBEV, St.

Steric hindrance by the amidine rearrangement of aldehyde arylhydrazones. Doklady BAN 14 no.4:353-356 '61.

1. Predstavleno chl. korr Al. Spasovym.

ROBEV, St.; TODOROV, Sv.

Studying the effect of N-phenylbenzamidine, N-phenyl-2-furamidine, and N-phenylamidine of 2-thiophenecarboxylic acid on the radiation resistance of suspensions of Bacillus anthracis, Bacillus cereus, Candida albicans and Staphylococcus aureus following irradiation with gamma rays of Co^{60}. Dokl.AN SSSR 132 no.5:1201-1203 Je '60. (MIRA 13:6)

1. Institut spetsializatsii i usovershenstvavaniya vrachey, Sofiya, Bolgariya. Predstavleno akademikom A.I. Oparinym.
(AMIDINES) (RADIATION PROTECTION) (BACTERIA)

TODOROV, Sv.; ROBEV, St.

On the utilization of certain chemical substances for the prevention of radiation sickness. Suvrem.med.,Sofia no.6:3-8 '59.

1. Iz Katedrata po rentgenologiia i radiologiia pri ISUL. Zav. katedrata: prof. G. Tenchov.i Katedrata po mikrobiologiia i virusologiia pri ISUL. Zav.katedrata: prof. D. Khadzhidimova.
(RADIATION PROTECTION)

AUTHOR: Robev, St.

SOV/20-121-1-22/55

TITLE: The Investigation of the Influence of N-Phenylamidine-Thiophene-2-Carboxylic Acid on the Resistivity of Mice to an Irradiation by Lethal Doses of Gamma-Rays From Co^{60} (Issledovaniye vliyaniya N-fenilamidina tiofen-2-karbonovoy kisloty na rezistentnost' myshey pri obluchenii letal'nymi dozami gamma-luchey Co^{60})

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 1, pp. 84-86 (USSR)

ABSTRACT: The present paper is the first part of a thorough investigation of the amidines as substances to protect from radiation, which was planned to be carried out by the author. The author started his experiments with N-phenyl benzamidine, N-phenyl-2-furamidine, and with N-phenyl amidine of the thiophene-2-carboxylic acid. The second and the third compound were synthetized by the author for the first time. The experiments with N-phenyl-benzamidine temporarily were stopped because of its toxidity. The investigation of the radiation-protective effect of N-phenyl-2-furamidine has not brought any definite

Card 1/3

The Investigation of the Influence of N-Phenylamidine-Thiophene-2-Carboxylic Acid on the Resistivity of Mice to an Irradiation by Lethal Doses of Gamma-Rays From Co^{60}

results as yet. N-phenylamidine of thiophene-2-carboxylic acid, however, shows a definite radiation-protective effect. Of 139 mice which before the exposure to radiation were treated with 1,5 mg of this compound (named in this paper αTA) 39,5% were still living 30 days afterwards, compared with 2,7% of the control animals. The employed dose of αTA approximates the toxic dose of $LD_{5\%}$. On the exact mechanism of the radiation-protective effect of αTA until now only suppositions are possible. First a report is given on the synthetization of N-phenylamidine of thiophene-2-carboxylic acid. 1 per cent acetic acid solutions of the amidine lyes at pH 5 were injected to the mice. The introduction of 1,5 mg αTA first excites the animals, but after 15 to 30 minutes they become depressed. The obtained experimental results speak for a different resistivity of male and female animals. In a series of experiments where 2 mg cysteine hydrochloride were injected into the mice before their exposure to radiation no protective effect was found at all. There are 1 figure, 2 tables, and 2

SOV/20-121-1-22/55

The Investigation of the Influence of N-Phenylamidine-Thiophene-2-Carboxylic Acid on the Resistivity of Mice to an Irradiation by Lethal Doses of Gamma-Rays From Co^{60}

references, 7 of which are Soviet.

ASSOCIATION: Institut spetsializatsii i usoverchenstvovaniya vrachey Sofiya, Bolgariya (Institute for Specialisation and Perfection of Physicians, Sofia, Bulgaria)

PRESENTED: April 3, 1958, by A. I. Oparin, Member, Academy of Sciences, USSR

SUBMITTED: March 21, 1958

1. Mice--Effects of radiation 2. Gamma rays--Physiological effects
3. Cyclic compounds--Properties 4. Radiation tolerance--Test results

Card 3/3

COUNTRY : Bulgaria
CATEGORY :

AFS. JOUR. : RZKhim., No. 5 1960, No. 19613

AUTHOR : Robev, S.
INST. : Bulgarian Academy of Sciences
TITLE : The Rearrangement of Hydrazones to Amidines. V. The Investigation of the Tendency of Readily Decomposing at Normal Conditions Arylhydrazones to*

CITE. PUB. : Doklady Bolg Akad Nauk, 12, No 2, 141-144 (1959)

ABSTRACT : The rearrangement of the o- and m-tolylhydrazones of benzaldehyde, o-totlyhydrazone of piperonal, and o- and m-tolylhydrazones of anisicaldehyde by the procedure previously described (see Communication IV, RZhKhim, 1960, No 3, 9218) was used to prepare respectively N-o-(Ia) and N-m- (Ib) tolylbenzamidines, N-o-tolyl-3,4-methylenedihydroxybenzamidine (II), and N-o- (IIIa) and N-m- (IIIb) p-methoxybenzamidines. The amidine, yield in %, and mp in °C are given below: Ia, 23, 109-110

*Undergo the Amidine Rearrangement.

CARD: 1/2

S/020/60/132/05/63/069
B011/B002

AUTHORS: Robev, St., Todorov, Sv.

TITLE: Investigation of the Influence of N-Phenylbenzamidine, of N-Phenyl-2-furamidine, and of N-Phenylamidine of Thiophene-2-carboxylic Acid on the Resistance of Bacterial Suspensions of B. anthracis, B. cereus, Cand. albicans, and Staphylococcus aureus to Gamma Rays From Co^{60}

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 5, pp. 1201-1203

TEXT: The authors studied the subject mentioned in the title, since the protective amidine agents cannot be explained by present theories of the chemical protection from radiation. They determined the degree of the action of rays upon bacterial suspensions by counting the surviving bacteria by their ability to form colonies. The experimental objects were B. anthracis, B. cereus, Cand. albicans, and Staph. aureus-209. The first three strains were bred by the Gosudarstvennyy kontrol'nyy institut

Card 1/4

Investigation of the Influence of N-Phenyl-benzamidine, of N-Phenyl-2-furamidine, and of N-Phenylamidine of Thiophene-2-carboxylic Acid on the Resistance of Bacterial Suspensions of B. anthracis, B. cereus, Cand. albicans, and Staphylococcus aureus to Gamma Rays From Co^{60}

S/020/60/132/05/63/069
B011/B002

(State Control Institute), the 4th stock by the bacteriological laboratory of the authors' institute. A cobalt apparatus of the type ГУТ-400 (GUT-400) served as gamma ray source. 1% acetic acid amidine solutions with pH 5 and subsequent dilution were used for the experiments. B. anthracis and B. cereus were irradiated with a dose of 300 kr. B. cereus was found to exhibit an equally high resistance to radiation as B. anthracis. It was found on the other hand that the radiation sensitivity of both microbe species does not change in the presence of the amidine compounds used (Table 1). Cystamine has no influence at all on the resistance of these two bacteria to radiation. At a dose of 50 kr, cell suspensions of Cand. albicans exhibited a marked resistance to radiation, although only in a narrow concentration range of the amidines (Fig. 1). It can be seen therefrom that the greatest effect arises on dilutions of from 1 : 500 to 1 : 2500. At 1 : 4000 there is no difference found in the control. In suspensions of Staphylococcus aureus, the amidines

Card 2/4

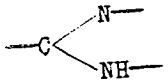
Investigation of the Influence of N-Phenyl-benzamidine, of N-Phenyl-2-furamidine, and of N-Phenylamidine of Thiophene-2-carboxylic Acid on the Resistance of Bacterial Suspensions of B. anthracis, B. cereus, Cand. albicans, and Staphylococcus aureus to Gamma Rays From Co^{60}

S/020/60/132/05/63/069
B011/B002

investigated did not act as radiation protectors, but as radiation sensitizers (Fig. 2). This effect begins at about 1 : 3000, remains at an almost constant level up to 1 : 30000 and gradually vanishes with higher dilutions. The authors explain the missing effect of amidines in B. anthracis and B. cereus by large amounts of wax-like substances in the cell membranes of these microbes which prevent the amidines from penetrating. Amidines are good protective agents in the case of Cand. albicans. The effect was weaker, however, as compared with E. coli (Ref. 3). The authors assume that the different effects exerted by αTA and NPA on the one hand, and αFA on the other, are caused by the presence of a furan ring in αFA, which raises the radiosensitivity. This assumption, however, has not been confirmed by experiments. The authors believe that in the case of αFA not only the presence of the group

Investigation of the Influence of N-Phenyl-benzamidine, of N-Phenyl-2-furamidine, and of N-Phenylamidine of Thiophene-2-carboxylic Acid on the Resistance of Bacterial Suspensions of B. anthracis, B. cereus, Cand. albicans, and Staphylococcus aureus to Gamma Rays From Co^{60}

S/020/60/132/05/63/069
B011/B002



, but also its spatial position plays an important part.

There are 2 figures, 1 table, and 9 references: 3 Soviet, 1 German, 1 British, and 3 Bulgarian.

ASSOCIATION: Institut spetsializatsii i usovershenstvovaniya vrachey Sofiya, Bolgariya (Institute of Specialization and Higher Training of Physicians, Sofia, Bulgaria)

PRESENTED: June 5, 1959, by A. I. Oparin, Academician

SUBMITTED: June 5, 1959

Card 4/4

ROBEV, St.

4E2c(j)
4E3d
1-8j(WB)

Rearrangement of hydrazones into amidines. IV. Preparation of certain aromatic N-(p-iodophenyl)-substituted amidines. St. Robev and T. Sumerska. *Compt. rend. acad. bulgare sci.* 12, 137–41(1959)(in Russian); cf. *C.A.* 50, 13838g.—Reactions according to the scheme ArCH:NNHAr′ → ArC(NH_2):NAr′ were carried out to det. the role of various substituents in the aromatic rings. Four new *N*-(*p*-iodophenyl)-substituted amidines have been synthesized. Benzaldehyde *p*-iodophenylhydrazone 1.61 and anhyd. xylene 20 was heated to boiling, $NaNH_2$ 0.2 added, the mixt. stirred till all the NH_3 evolved, gently boiled 1 hr., H_2O 50 added, the aq. layer discarded, the xylene layer extd. twice with 5% HCl 50, the exts. combined, shaken with activated C 0.2 part, filtered, and the filtrate made alk. with 20% NaOH till the formation of a milky suspension, from which the cryst. *N*-(*p*-iodophenyl)-benzamidine (I) soon sepd. Recrystn. from dil. alc., then from ligroine yielded 63% product, m. 138–41°. I 0.32 in (AcO)$_2$O 2 was boiled 0.5 hr., kept a day, H_2O 0.1 part added, and the soi.i. neutralized with 20% NaOH. In 2–3 days the product solidified; one recrystn. from dil. alc. yielded *N,N′*-diacetyl-*N*-(*p*-iodophenyl)benzamidine 0.19 part, m. 174–7°: repeated recrystn. increased the m.p. to 181–2°. *p*-Tolualdehyde 2.4 in alc. 10 and *p*-iodophenylhydrazine 4.66 in alc. 20 in the presence of some glacial AcOH cooled to −10°, and the ppt. washed with cold 80% alc. 10 parts yielded 80% *p*-toluylaldehyde *p*-iodophenylhydrazone (II), m. 141–2°. Following the above procedure, II 1.66 yielded *N*-(*p*-iodophenyl)-*p*-methylbenzamidine 0.73 part, m. 180–2°. Similarly piperonal *p*-iodophenylhydrazone 1.8 yielded crude *N*-(*p*-iodophenyl)-3,4-methylenedioxybenzamidine 0.95 part, m. 137–40°; the pure compd. m. 146–7°. Finally anisaldehyde *p*-iodophenylhydrazone 1.74 yields *N*-(*p*-iodophenyl)-*p*-methoxybenzamidine 0.97 part, m. 162–4°. **V. Study of certain, under ordinary conditions unstable, arylhydrazones with respect to their tendency to undergo amidine rearrangement.** St. Robev. *Ibid.* 141–4.—The expts. show that *o*- and *m*-tolylhydrazones can rearrange to the amidines: benzaldehyde *o*-tolylhydrazone yields 23% *N*-(*o*-tolyl)benzamidine, m. 109–10°; piperonal *o*-tolylhydrazone yields 31% *N*-(*o*-tolyl)-3,4-methylenedioxybenzamidine, m. 131–2°; anisaldehyde *o*-tolylhydrazone yields 47% *N*-(*o*-tolyl)-*p*-methoxybenzamidine, m. 60–1°; benzaldehyde *m*-tolylhydrazone yields 36% *N*-(*m*-tolyl)benzamidine, m. 108–9°; and finally anisaldehyde (*m*-tolyl)hydrazone yields 33% *N*-(*m*-tolyl)-*p*-methoxybenzamidine m. 107–8°. Ihor J. Masnyk

3

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SPASOV, Al., Prof. d-r.; ROBEV, St.

Interrelation of isonicotinic acid & cyancetic acid hydrazides in reference to their tuberculostatic effect. Suvrem. med., Sofia 8 no.12:3-12 1957.

1. Iz Katedrata po meditsinska khimiia pri Med. fakultet na VMI--Sofiia (Zav. katedrata: prof. d-r Al. Spasov) i Katedrata po rentgenologiia i radiologiia pri ISUL (Zav. katedrata: prof. G. Tenchov).

(TUBERCULOSIS, ther.
cyanacetic acid hydrazides, comparison of antituberc. eff. with isoniazid (Bul))
(ACETIC ACID, rel. cpds.
same)
(CYANIDES, eff.
same)

ROBEV, S.

ROBEV, S. Regrouping of hydrazone in amidines. II. Some new examples of the application of the regrouping of derivatives of p-tolylhdrazine. In Russian with German summary. p.29.

Vol. 8, no. 2, Apr./June 1955, DOKLADY, Sofiya, Bulgaria.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 10, Oct. 1956.

ROBEV, St.

Rearrangement of hydrazones to amidines. II. New examples of the applicability of this rearrangement in *p*-tolylhydrazine derivatives. St. Robev. *Compt. rend. acad. bulgare sci.* 8, No. 2, 29-32 (1955) (in Russian); cf. *C.A.* 50, 3315*d*, 7073*a*.—*p*-Tolylhydrazones of BzH, piperonal, and 2-naphthaldehyde were rearranged to the corresponding amidines in xylene or toluene contg. $NaNH_2$. *p*-PhCH:NNHC$_6$H$_4$Me (0.01 mole) and 0.0075 mole $NaNH_2$ in 50 ml. xylene were refluxed 1 hr., 50 ml. H_2O added, the amidine extd. with 50 ml. 5% aq. HCl, and the ext. treated with C, filtered, and made alk. to ppt. 61% *N*-(*p*-tolyl)-benzamidine, m. 98–9°. Similarly was prepd. 54% *N*-(*p*-tolyl)-3,4-methylenedioxybenzamidine, m. 145–6°, and 37% *N*-(*p*-tolyl)-2-naphthamidine, m. 188–9°. G. H. M.

St Robev, St.

A new synthesis of β-anilino acids (preliminary publication). B. Kurtev and St. Robev. *Compt. rend. acad. bulgare sci.* 4, 37–40(Pub. 1955)(German summary).—By treating isopropylidene anil (I) and benzylidene anil (II), resp., with the complex ClMgCHPhCO$_2$Na (III) 2 new β-anilino acids were prepd.: *α-phenyl-β-anilino-γ-methylvaleric acid*, m. 152–3° (decompn.) (from C$_6$H$_6$-petr. ether) and *α-phenyl-β-anilinohydrocinnamic acid*, m. 157–8° (decompn.) (from C$_6$H$_6$-petr. ether). Both acids are cryst., colorless, sol. in alkali, concd. HCl, C$_6$H$_6$, alc., Et$_2$O; slightly sol. in water, petr. ether. Gerard Aufleger

ROBEV, ST.

BULG...

The isomeric forms of benzil phenylosazone. IV. Reduction of benzil osotetrazine. Al. Spasov and St. Robev. *Bull. inst. chim. acad. bulgare sci.* 2, 3-22(1953); cf. C.A. 47, 2154a.—A suspension of 0.1 g. CPh:N.(NPh)$_2$.N:CPh (I) in 3 ml. $PhNHNH_2$ was heated to 200° and the mixt. dild. with EtOH to give crystals of β-benzil phenylosazone (β-II), m. 230–3°. Reduction of 1.0 g. I in 80 ml. Et_2O by shaking 0.5 hr. with 0.4 g. Pd over C gave β- and γ-II and triphenylosotriazole (III), m. 120–2°; in $CHCl_3$-EtOH-H_2O (10:10:1) as solvent, 25% β-II and 18% III was obtained; 6 hrs. shaking gave only 4% β-II and 88% III with a small amt. of $PhNH_2$. Reduction of 0.5 g. I suspended in 25 ml. EtOH with 5 ml. of 50% or 15 ml. of 10% KOH contg. 1 g. Zn dust gave 0.4 g. β-II and a little γ-II; in Ac_2O-MeOH as solvent 0.1 g. III was also isolated; attempted reduction of β-II under same conditions failed to give III. Reduction of I with colorless ammonium sulfide also gave β-II, γ-II, and III. When H_2S was bubbled through a soln. of I in EtOH at reflux temp. for 3 hrs., besides β-II and III a S contg. compd., $C_{26}H_{18}N_4S$ (IV) was obtained; when H_2S was bubbled for only 3–3 min., a large amt. of IV, orange crystals, m. 123–4°, sepd. IV treated with $(NH_4)_2S$ gave III after acidification with HCl; reduction of IV with Zn and AcOH also gave III. V. The cyclization of α- and β-benzil phenylosazones to 2,4,5-triphenylosotriazole. Catalytic cyclization with palladium on carbon.

1/2

SPASOV, AL

Ibid. 23-36.—Cyclization expts. carried out in Et_2O, Ac_2O, EtOAc, C_6H_6, and EtOH-$CHCl_3$-H_2O mixt. with Pd over charcoal as catalyst showed that the β-form of benzil phenylosazone, m. 234°, forms triphenylosotriazole faster than the α-form, m. 218°; therefore the β- and α-forms must represent the *syn* and *anti* forms, resp. The catalyst (0.25–0.5 g.) was suspended in a soln. of 0.5–1.0 g. II in 30 ml. solvent, the mixt. refluxed from 36 to 48 hrs., the product was filtered hot, the filtrate evapd. to dryness, and the residue taken up with the solvent to dissolve the triazole, while the unreacted II remained insol. G. Meguerian

2/2

ROBEV, St.

New molecular rearrangement. Conversion of aldehydearylhydrazones into amidines. Dokl. AN SSSR. 101 no.2:277-279 Mr '55. (MLRA 8:7)

1. Meditsinskaya akademiya im. V. Chervenkova Sofiya, Bolgariya. Predstavleno akademikom I.N. Nazarovym.
(Hydrazones) (Amidines)

ROBEV, St.; TODOROV, Sv.

A study of the effect of N-phenylbenzamidine, N-phenyl-2-furamidine and N-phenylamide of thiophene-2-carboxylic acid on the radioresistance of suspensions of B. anthracis, B. cereus, Candida albicans and Staphyl. aureus following their irradiation with gamma rays. Suvrem med., Sofia no.6:56-61 '60.

1. Iz Katedrata po rentgenologiia i radiologiia pri ISUL (Rukov. na katedrata: prof. G.Tenchov) i Katedrata po mikrobiologiia i virusologiia pri ISUL (Rukov. na katedrata: prof. Khadzhidimova)

(AMIDINES pharmacol.)
(AMIDES pharmacol.)
(BACTERIOLOGY radiation eff.)
(STAPHYLOCOCCUS radiation eff.)
(CANDIDA radiation eff.)

ROBEV, St.

USSR/ Chemistry - Conversion processes

Card 1/2 Pub. 22 - 22/51

Authors : Robev, St.

Title : New molecular regrouping. Conversion of aldehydearylhydraones into aminines

Periodical : Dok. AN SSSR 101/2, 277-279, Mar 11, 1955

Abstract : A new type of molecular regrouping discovered in the field of aldehydearyl-hydrazones is discussed. It was established that the heating of aromatic aldehydearylhydrazones in an inert medium in the presence of certain N-metallic derivatives and some oxygen is followed by a regrouping of molecules and conversion of the hydrazones into N-substituted amidines: $Ar\text{-}CH = N - NH\text{-}Ar'$ $Ar\text{-}C(NH_2) = N - Ar'$.

Institution : The V. Chervenkov, Medical Academy, Sofia, Bulgaria

Presented by: Academician I. N. Nazarov, January 11, 1955

Periodical : Dok. AN SSSR 101/2, 277-279, Mar 11, 1955

Card 2/2 Pub. 22 - 22/51

Abstract : It was found that only the free aldehydearylhydrazone submits to regrouping which takes place in the presence of N-metallic derivatives of K, N, Li and magnesium alkyl halides. Five references: 1 French, 2 German, 1 USA and 1 Russian (1896-1953).

SPASOV, Al.; ROBEV, St.

Some new applications of sodium amide in organic synthesis; production of α-, β-, γ-triaryl glutaric acids. Dokl.AN SSSR 95 no.3:559-561 Mr '54. (MLRA 7:3)

1. Meditsinskaya akademiya im. V.Chervenkova, Sofiya, Bolgariya. Predstavleno akademikom V.M.Rodionovym.

(Sodium amide) (Glutaric acids)

SPASOV, Al.; ROBEV, St.

Certain new uses of sodium amide in organic synthesis. Preparation of α-, β-diaryl-β-[N-aryl]-aminopropionic acids. Dokl.AN SSSR 95 no.4:817-819 Ap '54. (MLRA 7:3)

1. Meditsinskaya akademiya im. V.Chervenkova, Sofiya, Bolgariya.
(Propionic acid) (Amides)

Some new applications of sodamide in organic syntheses. I. Preparation of α,β,γ-triarylglutaric acids. Al. Spasov and St. Robev. *Bull. inst. chim. acad. bulgare sci.* 2, 37–52 (1953); *Doklady Akad. Nauk S.S.S.R.* 95, 559–61(1954). —$PhCH_2CO_2H$ (I) (3.2 g.) was treated with 1.9 g. $NaNH_2$ in 50 ml. anhyd. C_6H_6, then 3.6 g. PhCH:NPh was added and the mixt. refluxed 4 hrs.; the product was dissolved in H_2O, extd. with Et_2O and acidified with HCl to ppt. the acids, which were then taken up in C_6H_6; *α,β,γ-triphenylglutaric acid* (II), m. 236–7°, being insol., was sepd. in 61.5% yield; the soln. also gave 6.5% *α-phenylcinnamic acid* (III), m. 169–70°. Similarly, in 4–5 hrs. *N*-benzylidene-α-naphthylamine and I gave 46% II and 6% III; if the reaction is stopped after 2 hrs., α-$C_{10}H_7NHCHPhCHPhCO_2H$, m. 158–60°, is isolated (HCl salt, m. 191–2°). *p*-MeC_6H_4CH:NPh and I yielded 60% *α,γ-diphenyl-β-(p-tolyl)glutaric acid*, m. 223° and 8% *α-phenyl-β-(p-tolyl)-acrylic acid*; hydrogenation of the latter gave the dihydro deriv., m. 161°. α,β-Diphenyl-γ-(3,4-methylenedioxyphenyl)glutaric acid, m. 233–4° (from EtOH), was similary prepd. To a boiling mixt. of 2.3 g. III, 2.0 g. I, and 2.4 g. $NaNH_2$ in 50 ml. C_6H_6, 5 g. $PhNH_2$ was added and the mixt. refluxed 3 hrs. under an atm. of H. The reaction product was dissolved in H_2O, boiled with activated C and acidified with HCl; the sepd. acids were then dried and taken up in CS_2 leaving 1.2 g. insol. II. II. Preparation of *α,β-diaryl-β-(N-aryl)aminopropionic acids*. *Bull. inst. chim. acad. bulgare sci.* 2, 53–66(1953); *Doklady Akad. Nauk S.S.S.R.* 95, 817–19(1954).—A suspension of 0.022 mole $R'CH_2CO_2Na$ (IV) in 100–120 ml. C_6H_6 or Et_2O was treated

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SPASOV, AL.

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with 0.04 mole RCH=NHR' anil deriv. in 15–20 ml. solvent in the presence of $NaNH_2$ and under reflux. When the suspension had almost disappeared (10–15 min. in C_6H_6 and 1 hr. in Et_2O), 100 g. ice and 25 g. NH_4Cl was added to the mixt., the ppt. filtered, suspended in H_2O and treated with excess dil. AcOH; the pptd. $RCH(NHR')CHR''CO_2H$ (V) was recrystd. from alc. The following V were prepd. (R, R', R'', and yields are given): *Ph*, *Ph*, *Ph*, m. 171–2°, 46% from PhCH:NPh (*HCl-salt*, m. 196–7°); *p*-tolyl, *Ph*, *Ph*, m. 181–2°, 52% from *p*-$CH_3C_6H_4CH$:NPh; *Ph*, *p-tolyl*, *Ph*, m. 189–90°, 55% from PhCH:$NC_6H_4CH_3$; *Ph*, *α-naphthyl*, *Ph*, m. 158–60°, 57% from PhCH:$NC_{10}H_7$ (HCl-salt, m. 190–2°). G. Meguerian

1/2

Distr: 4E2c(j)

Rearrangement of the arylhydrazones of 2-thiophenealdehyde and of furfural into amidines. Stephan Robev (Roentgen-Inst., Sofia, Bulgaria). *Chem. Ber.* 91, 844-8(1958).—2-Thiophenealdehyde phenylhydrazone (I) (2.02 g.), m. 134–5°, in 20 cc. xylene refluxed 45 min. with 0.3 g. powd. $NaNH_2$, the mixt. treated with 50 cc. cold H_2O, the org. layer extd. with two 50-cc. portions 5% HCl, the ext. washed with Et_2O, stirred with C, allowed to stand briefly, and filtered, and the filtrate treated carefully with 20% aq. NaOH pptd. 1.26 g. *thiophene-2-carboxylic acid N-phenylamidine* (II), m. 144–5° (ligroine, or aq. EtOH). I (2.02 g.) and 0.3 g. powd. $NaNH_2$ heated with stirring 0.5 hr. at 140–50°, cooled, powdered, and extd. twice with 5% HCl, and the ext. treated with 20% aq. NaOH pptd. 0.4 g. II, m. 144°; the HCl-insol. residue from this run was I. II (0.30 g.) heated 15 min. with 0.5 g. Zn dust, at 220° gave $PhNH_2$ and 2-cyanothiophene; the $PhNH_2$ was identified with PhNCO as $CO(NHPh)_2$; the 2-cyanothiophene treated with cold, concd. H_2SO_4 gave thiophene-2-carboxamide, m. 175°.

II and PhNCO (equimolar amts.) gave 87% *anilinoformyl deriv.* of II, needles, m. 185° (EtOH). Furfuryl phenylhydrazone (3.72 g.) in 20 cc. dry xylene refluxed with 0.6 g. powd. $NaNH_2$ 1.25 hrs., cooled, decompd. with 50 cc. 5% AcOH, and filtered, the xylene layer of the filtrate extd. with 50 cc. 5% AcOH, and the combined AcOH exts. shaken 0.5 hr. with C, filtered, and treated with 20% aq. NaOH gave 1.42 g. *pyromucic acid N-phenylamidine* (III), needles, m. 100–7° (aq. EtOH and ligroine). III heated 0.5 hr. with Zn dust at 200–10° gave 2-cyanofuran and $PhNH_2$. III gave a *picrate*, m. 148°, and an *anilinoformyl deriv.*, m. 168–9° (EtOH), in 90% yield.

F. W. Hoffmann

S/058/62/000/006/045/136
A061/A101

AUTHORS: Hudson, B. E., Jr., Robey, R. F., Nelson, J. F.

TITLE: Achievements in vacuum ultraviolet spectrophotometry

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 9, abstract 6G72 (In collection: "5-y Mezhdunar. neft. kongress, 1959, v. 4". Moscow, Gostoptekhizdat, 1961, 9 - 19)

TEXT: This is a brief review of data on the absorption of vacuum UV-radiation by different substances, and on the ionization potentials of some organic molecules. Analytical applications are considered, and brief descriptions are given of spectroscopic apparatus, types of radiation sources, of receivers, and recording methods. There are 22 references.

[Abstracter's note: Complete translation]

Card 1/1

CHERNYY, B.G.; ROBEYKO, A.K.

Press for testing glued wooden beams. Rats. i izobr. predl. v strei. no.116:30-31 '55. (MLRA 9:7)
(Girders) (Testing machines)

ROBEZHNIEKS, I.A.; SKULME, K.A.; PETERSON, M.P.

Oxidation of ascorbic acid by human gastric juice. Latvijas PSR Zinātnu Akad. Vēstis '51, 757-60. (MLRA 5:10)
(CA 47 no.22:12597 '53)

1. PUTNINA, G.; BERZINA, L.; ROBEZNIYECE, I.

2. USSR 600

4. Riboflavin

7. Riboflavin in sprouting legume seeds, Latv. PSR Zin. Akad. Vestis, No. 11, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. ROBEZNIYEKS, I.; SKULME, K.; PETERSONE, M.

2. USSR (600)

4. Gastric Juice

7. Oxidation of ascorbic acid with gastric juice of man. Latv. PSR Zin. Akad. Vestis 5, 1951

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

ROBICSEK, F.

R-5

USSR/Human and Animal Morphology - The Heart.

Abs Jour : Referat Zhur - Biologii, No 16, 1957, 70693

Author : Robicsek, F.
Title : The Problem of Neuro-Regulation in the Compensatory Stenosis of the Left Venous Opening.

Orig Pub : Vnitrni lekarsvi, 1956, 2, No 10, 865-877

Abstract : In catetherization of the heart of patients with mitral stenosis, it was established, that the burden on the right ventricle is determined in a large degree by the enlarged resistance in the pulmonary vessels, rather than by the stenosis. The increased resistance appear to be a neuro-functional reaction, expressed in spasm of the arterioles. In dogs the artificial increase in

2138. HALMAGYI D., ROBICSEK F., FELKAI B., IVANYI J., ZSOTER T. and SZUCS Zs. A szegedi Orvostud. Egyet. I., és II. Belgyógyászati Klin. és Budapesti Orvostud. Egyet. Sebésztovábbképző klinikájának Közlem. *Megfigyelések kisérletes idult jobbszivelégtelenségben kutyán. Observations on experimentally produced right cardiac failure MAG. BELORV. ARCH. 1955, 8/3 (80-84) Tables 4

Tricuspid insufficiency and pulmonary stenosis were produced experimentally in dogs. The resulting clinical picture (severe ascites with high protein content, reduced minute volume, decreased arterial pressure, and short survival time) bears close resemblance to the state of chronic cardiac insufficiency in man. Data are

545. ROBICSEK F. Post-Grad. Surg. Clin., Univ. Med. Sch., Budapest *Intravascular catheterization for the diagnosis of aortic coarctation* Acta cardiol. (Brux.) 1956, 11/5 (475—479) Graphs 1 Illus. 2

The author describes a procedure for the diagnosis of coarctation of aorta which he has used successfully in 8 patients without complications. An intravascular catheter is passed through a peripheral systemic artery into the aorta and the presence and localization of the coarctation is determined from the site at which the catheter gets stuck and from the pressure curves. Heath – Birmingham

EXCERPTA MEDICA Sec.18 Vol.1/2 Cardiovascular Feb 57

557. ROBICSEK F., TEMESVÁRI A. and KÁDÁR R. L. Dept. of Heart Surg., Post-Grad. Surg. Clin., Budapest *A new method for the treatment of congenital heart disease associated with impaired pulmonary circulation. An experimental study* Acta med. scand. 1956, 154/2 (151—161) Graphs 1 Tables 1 Illus. 4

The authors have developed experimentally in dogs a new method for the relief of congenital heart disease associated with impaired pulmonary circulation. In 15 dogs the superior vena cava was transected superior to the site of union of the azygos vein and the right pulmonary artery was transected immediately at its origin from the main trunk. The peripheral stumps of the 2 vessels were then anastomosed end-to-end. As a result the right lung was supplied with blood directly from the superior vena cava, the blood flow by-passing the right heart. Eleven dogs survived the operation, and in 10 of these the anastomosis remained patent. Cardiac catheterization showed that pulmonary blood flow was almost equal on both sides without any significant increase in blood pressure in the area of the superior vena cava. Angiocardiography demonstrated excellent filling of the right pulmonary arterial tree. The authors claim that their method is applicable to human cardiac surgery and has advantages over the Blalock operation and its modifications in the following respects: (1) The operation places no considerable extra burden on the heart. (2) It does not increase blood pressure in the main trunk of the pulmonary artery. (3) The anastomosis supplies pure venous blood to the lung. (4) Endarteritis is not liable to occur. (5) Technically the operation is not difficult, even when performed in children. Heath – Birmingham (VI, 9, 18)

HALMAGYI, D.; ROBICSEK, F.(ROBICHEK, F.); FELKAI, B.; ZSOTER, T.; IVANYI,J.
TENYI, M.; SZUCS, Zs.(SIUCH', Zh.); SZEITZ,K., technical assistant

Studies on experimental tricuspidal insufficiency in dogs. Acta med.hung. 5 no.3-4:347-361 1954.

1. Drs. Halmagyi, Felkai, Ivanyi, Szucs, and Tenyi are members of the staff of the First Department of Medicine, University Medical School, Szeged; Dr. Robicsek is a member of the staff of the Postgraduate Department of Surgery (Postgraduate Surgical Clinic), University Medical School, Budapest; Dr. Zsoter of the Second Department of Medicine, Szeged.
(TRICUSPID VALVE, diseases
*exper. insuff. in dogs after removal of casps, hemodynamics)

ROBICSEK, Ferenc; TEMESVARI, Antal; R.-KADAR, Livia; ARVAY, Attila

New surgical method in the therapy of congenital cardiac defects with decreased pulmonary circulation (pulmonary circulation with evasion of the right side of the heart). Magy. Tudom. Akad. Biol. Orv. Oszt. Kozl. 8 no.1-2:79-82 1957.

1. A Budapesti Orvostudomanyi Egyetem Sebesztovabbkepzo Klinikajarol.
(PULMONARY STENOSIS, exper.
surg., end-to-end anastomosis between vena cava superior & pulmonary artery in dogs (Hun))

ROHICSECK F., FELKAI B., IVÁNYI J., ZSÓTÉR T., SZŰCS Zs., TÉNYI M. AND HALMÁGYI D.

1 und 2 inn. Klin., Med. Univ., Szeged; Klin. für chir. Fortbild., Budapest. *Der Lungenkreislauf bei experimenteller Pulmonalstenose. Pulmonary circulation in experimental pulmonary stenosis ACTA PHYSIOL. ACAD. SCIENT. HUNG. (Budapest) 1954, 5/suppl. (57-58)

SO: EXCERPTA MEDICA, Section II Vol. 7 No. 11

HALMAGYI, D.; ROBICSEK, F.; FELKAI, B.; ZSOTER, T.; IVANYI, J.

The lesser circulation in experimental mitral regurgitation. Acta. med. hung. 6 no.1-2:177-188 1954.

1. 1st and 2nd Departments of Medicine, University Medical School, Szeged and Postgraduate Department of Surgery, University Medical School, Budapest.

(MITRAL VALVE, dis.
insuff., exper., eff. on pulm. circ. in dogs)
(BLOOD CIRCULATION
pulm., eff. of exper. mitral insuff. in dogs)

ROBICSEK, F.

A new method for the diagnosis of coarctation of the aorta. Acta med. hung. 6 no.1-2:219-222 1954.

1. Department of Postgraduate Surgery, University Medical School, Budapest.
(COARCTATION OF AORTA, diag.
catheterization)

ROBICSEK, F.

HALMAGYI, D.; ROBICSEK, F.; FELKAI, B.; ZSOTER, T.; IVANYI, J.; SZUCS, Zs.; TENYI, M.

Studies on experimental tricuspid insufficiency in dogs.
Kiserletes orvostud. 6 no.3:220-230 May 54.

1. Szegedi Orvostudomanyi Egyetem I. es II. Belklinikaja es Budapesti Orvostudomanyi Egyetem Sebesztovobbkepso Klinikaja.
(TRICUSPID VALVE, diseases,
exper. insuff. in dogs)

Robicsek F.

HALMAGYI, D.; ROBICSEK, F.; FELKAI, B.; IVANYI, J.; ZSOTER, T.; SZUCS, Zs.; TENYI, M.

Small circulation in experimental pulmonary stenosis. Kiserletes orvostud. 6 no.3:230-238 May 54.

1. Szegedi Orvostudomanyi Egyetem I. es. II. Belklinikaja es a Budapesti Orvostudomanyi Egyetem Sebesztovabbkepzo Klinikaja.

(PULMONARY STENOSIS, experimental,
pulm. circ. in)
(LUNGS, blood supply,
circ. in exper. pulm. stenosis)

TEMESVARI, Antal, dr.; SOLTESZ, Lajos, dr.; ROHICSEK, Ferenc, dr.

Surgical treatment of the Raynaud's syndrome of the upper extremity. Magy. sebeszet 7 no.6:407-417 Dec 54.

1. Budapesti Orvostudomanyi Egyetem Sebesztovabbkepzo Klinikajanak koslemenye. Igazgato: Littmann Imfre dr. egyetemi tanar.
(RAYNAUD'S DISEASE, surg.
technic)

LASZLO, Janos, dr.; LITTMAN, Imre, dr.; TEMESVARI, Anta, dr.; ROBICSEK, Ferenc, dr.

The relation between hemodynamics and changes of the pulmonary vessels in the mitral stenosis. Orv. hetil. 95 no.50:1368-1375 12 Dec 54.

1. A Budapesti Orvostudomanyi Egyetem I. Korbonctani es Kiserleti Rakkutato Intezetenek (igazgato: Balo Jozsef dr. egyet. tanar) es z Budapesti Orvostudomanyi Egyetem Sebesztovabbkepso Klinikajanak (igazgato: Litman Imre dr. egyet. tanar) kozlemenye.

(MITRAL STENOSIS, physiol.
hemodynamics & pulm. vasc. changes)
(LUNGS, blood supply
pathol. changes in mitral stenosis, hemodynamics)