KHVOSTOVA, V.V.

LEBEDEV, D.V. [translator]; MATVEYEVA, T.S. [translator]; LASKEVICH, Yu.I. [translator]; OSTRYAKOVA-VARSHAVER, V.P. [translator]; KHVOSTOVA, V.V. [translator]; BARANOV, P.A., redaktor; ASTAUROV, B.L., professor, redaktor; SYSINA, N.A., redaktor; IOVLEVA, N.A., tekhnicheskiy redaktor

[Polyploidy; collection of articles] Poliploidiia; sbornik statei. Perevod D.V.Lebedeva i dr. Pod.red. i s predisl. P.A.Baranova i B.L. Astaurova. Moskva, Izd-vo inostr.lit-ry, 1956. 398 p. (MLRA 10:6)

1. Chlen-korrespondent Akademii nauk SSSR (for Baranova)
(Polyploidy)

KHVOSTOVA, V.V., DELONE, N.L., SOROKINA, O.N., TRUKOV, V.L., TSELISHCHEV, S.P. CHAYKINA, K.V.

Development of soft wheat seedlings obtained from seeds irradiated with thermal neutrons [with summary in English]. Biofizika 3 no.4:459-465 '56 (MIRA 11:8)

1. Institut biologicheskoy fiziki AN SSSR, Moskva i Laboratoriya biofiziki Moskovskogo ordena Lenina sel'skokhozyaystvennoy akademii im. K.A. Timiryazeva, Moskva.
(PLANTS, EFFECT OF RADIATION ON)
(WHEAT)

Q

USSR / Farm Animals. Cattle.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40425.

Author : Tinyakov, G. G., Khvostova, V. V.
Inst : Not given
Title : Histological Characteristics of the Udder of Cows at Different Stages of Pregnancy and Lactation.

Orig Pub: Dokl. AN SSSR, 1956, 106, No 6, 1096-1098.

Abstract: When comparing the microscopic structure of the mammary glands of heifers and lactating cows at different stages of lactation, a considerable predominance of the connective tissue over the glandular one, and its gradual increase in the course of pregnancy, is noticed. In the lactating cows, the glandular tissue is considerably developed and it remains almost without change during pregnancy;

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USSR / Farm Animals. Cattle.

Q

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40425.

Abstract: it decreases somewhat only during a dry period. The index of the ratio of the connective tissue to the glandular one, in heifers, is always less than one unit. The follicles in the heifers are approximately one and a half times narrower, and the glandular epithelium is two times higher, than in the lactating cows.

Card 2/2

KHVOSTOVA V.V.

MANSUROVA, V.V.; SAKHAROV, V.V.; KHVOSTOVA, V.V.

Sensitivity of diploid and autotetraploid plants to gamma radiation [with summary in English]. Bot.zhur. 43 no.7:989-997 Jl '58. (MIRA 11:9)

1. Institut biofiziki Akademii nauk SSSR, Moskva.
(Plants, Effect of gamma rays on) (Polyploidy)

KHVOSTOVA, V.V.; DELONE, N.L.

Radiation sensitivity of the meristem of germules and rootlets in pea and barley embryos. TSitologiia 1 no.3:320-321 My-Je '59. (MIRA 12:10)

1. Laboratoriya radiatsionnoy genetiki Instituta biofiziki AN SSSR, Moskva.
(PLANTS, EFFECT OF RADIOACTIVITY ON)

KHVOSTOVA, V.V.; LEVZGODINA, L.V.

Frequency of chromosome reorganizations in the tissues of radiosensitive and radioresistant pea plants. Tsitologiia 1 no.4:403-407 Jl-Ag '59. (MIRA 12:10)

1. Laboratoriya radiatsionnoy genetiki Instituta biofiziki AN SSSR, Moskva.
(CHROMOSOMES) (RADIATION--PHYSIOLOGICAL EFFECT)
(PEAS)

SIDOROV, B.N.; KHVOSTOVA, V.V.

Factors influencing the genetic effect of ionizing radiations.
Itogi nauki: Biol. nauki no. 3:176-227 '60. (MIRA 13:10)
(RADIATION—PHYSIOLOGICAL EFFECT) (VARIATION (BIOLOGY))

DUBININ, N.P.; KHVOSTOVA, V.V.; DELONE, N.L.

Ionizing radiations and plant breeding. Itogi nauki: Biol. nauki no. 3:292-323 '60. (MIRA 13:10)
(PLANTS, EFFECT OF RADIATION ON) (PLANT BREEDING)

KHVOSTOVA, V.V.; VALEVA, S.A.

On a method for the use of ionizing radiation in plant breeding.
Biofizika 5 no.1:81-84 '60. (MIRA 13:6)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(PLANTS)
(RADIATION EFFECTS)

KUZIN, A.M.; ISAYEV, B.M.; KHVOSTOVA, V.V.; TOKARSKAYA, V.I.; BREGADZE, Yu.I.

Effectiveness of the biological action of C^{14} during its incorporation into living structures. Dokl.AN SSSR 134 no.4: 951-954 O '60. (MIRA 13:9)

1. Institut biologicheskoy fiziki Akademii nauk SSSR. 2. Chlen-korrespondent AN SSSR (for Kuzin).
(CARBON--ISOTOPES)
(PLANTS, EFFECT OF RADIOACTIVITY ON)

DUBININ, Nikolay Petrovich; KHVOSTOVA, V.V., nauchnyy red.; SHIROKOV, S.I., nauchnyy red.; ANDREYENKO, Z.D., red.; MAZEL', Ye.I., tekhn. red.

[Problems in radiation genetics] Problemy radiatsionnoi genetiki. Moskva, Gos. izd-vo lit-ry v oblasti atomnoi nauki i tekhniki, 1961. 467 p. (MIRA 14:11)

1. Chlen-korrespondent AN SSSR (for Dubinin).
(RADIATION—PHYSIOLOGICAL EFFECT) (GENETICS)

KHVOSTOVA, V.V.

33313
S/560/61/000/010/011/016
D290/D302

27 1220

AUTHORS: Glembotskiy, Yn. L., Prokof'eva-Bel'govskaya, A. A., Shamina, Z. B., Gol'dat, S. Yu., Khvostova, V. V., Valeva, S. A., Eygen, N. S., and Nevzgodina, L. V.

TITLE: Effect of cosmic flight factors on the heredity and development of actinomycetes and higher plants

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. no. 10. Moscow, 1961, 72-81

TEXT: The second cosmic space-ship was utilized to study the combined genetic effect of cosmic flight on organisms. This article deals with the study of the following cultures: actinomyces erythreus, stems 2577 and 8594, and actinomyces streptomycini Kras., stem JIC-3 (LS-3). After the cosmic flight, the

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3563
S/560/61/000/010/011/016
D298/D302

Effect of cosmic...

standards and experimental cultures were investigated according to: (1) vitality and (2) a microscopic characteristic of growth and development. The 2577 and 8594 atems differ by the sizes of their nuclear element in the spore and by their sensitivity to ultra-violet rays (UV). It is also assumed that they differ in their reaction to ionizing radiation. All the 4 tested atems were found to be sensitive to conditions of cosmic flight. The vitality (i.e., the number of spores which survived and developed colonies) of the radio-resistant act. erythreus 2577, as compared to the standards, increased 6 times; the no. 8594 decreased 12 times; the act. aureofaciens ASB-2201 (LSB-2201) dropped in vitality by about 75% on the average. In the roots of all 5 types of experimental seeds, the percentage of chromosome changes was somewhat increased. However, only in the case of 2 types was this increase statistically valid. In 3 types of plants, in increase of mitosis was noted. In the case where the percentage of anaphases with chromosome changes was found

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33313
S/560/61/000/010/011/016
D298/D302

to be high (about 5%), the tempo of mitosis fell. The conditions of cosmic flight stimulated the growth intensity compared to the standards. The following microscopic morphology features of the experimental cultures confirm this fact: (a) development of a more basiphyllic and powerful gif, (b) growth of a thicker intertwining of mycelia, (c) lengthy growth of well-developed gifs. Data on the survival of the 8594 and 2577 stems are not completely valid since the concentrations of the spore suspensions of the control and experimental cultures were determined visually from the suspension turbidity. The morphology changes in the colonies were investigated on the act. erythreus 8594 and act. aureofaciens LSB-2201. Obtained data show that the morphology changes in the actinomyces, both in the experiment (cosmic flight) and control, lie within the same limits. The cytology analysis of agricultural plant seeds affected by cosmic flight was conducted by studying the chromosome impairment in the ana- and telophases of the first mitosis. Obtained results

4

S/560/61/000/010/011/016
D298/D302

Effect of cosmic...

showed that in all the investigated plants there is a certain increase of cells with chromosome changes, and in only 2--winter wheat and Spartanet's peas--is this increase statistically valid. There are 4 figures, 2 tables and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: S. B. Pipkin, W. N. Sullivan, Aerospace Med., 30, 585, 1959.

SUBMITTED: May 3, 1961

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S/205/61/001/004/027/032
D298/D303

AUTHORS: Khvostova, V. V. and Nevzgodina, L. V.

TITLE: A cytological analysis of the causes of resistance to in plants

PERIODICAL: Radiobiologiya, v. 1, no. 4, 1961, 611-618

TEXT: In previous works by S. A. Valeva (Ref. 1: Biofizika, 5, 244, 1960) and by V. V. Khvostova and L. V. Nevzgodina (Ref. 2: Tsitologiya, 1, 403, 1959) it was found that the greater sensitivity of the bud to radiation was caused by the fact that more chromosome reconstructions occur in their cells which leads to death of some of the cells and to inhibition of growth. The authors set out in the present work to clarify which of the processes of chromosome reconstruction formation proceeds differently in the cells of plants resistant to radiation and plants sensitive to radiation. For a comparative study, the air-dried seeds (about 8% moisture content) of fodder peas and Kapital variety table pea

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A cytological analysis...

were irradiated with gamma-radiation from a Co^{60} source at an intensity of 450 r/min. and with fast neutrons. In the latter case the pea seeds were irradiated in the horizontal channel of an ART (IRT) reactor in a mixed stream of fast neutrons and gamma-rays at a distance of 240 cm from the active zone. The total dose received by the seeds in 5 hours of irradiation in the channel was 500 r from fast neutrons and 270 r from the gamma-rays. It was found that the seeds of the fodder pea were more resistant to gamma-radiation than were the Kapital pea seeds, judged on the criterion of "damageability"--the percentage of anaphases with chromosome reconstructions in the first mitoses of the radicles and the mean number of reconstructions per anaphase. No difference in the sensitivity to fast neutron activity was noted. Storage of the fodder pea, irradiated with gamma-radiation for 1 and 6 months and also with fractional irradiation at intervals of 1 month, showed no increase in the number of chromosome reconstructions. Furthermore, no change in the number of chromosome reconstructions was noted in seeds irradiated with neutrons. Storage of the Kapital pea seeds, irradiated with gamma-

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A cytological analysis...

radiation for 1 and 6 months and also with fractional irradiation, showed that the number of chromosome reconstructions increased markedly. Storage of seeds irradiated with neutrons gave a much lower rise in the number of chromosome reconstructions. The OBE of neutrons compared with gamma-radiation was 40 times more with the fodder pea and 10 - 15 times greater with the Kapital variety, judging from the percentage of anaphases with chromosome reconstructions. [Abstracter's note: OBE not defined. Perhaps "obshchaya biologicheskaya effektivnost' (general biological effectiveness)"]. A study of the types of reconstructions showed that, after neutron irradiation of the seeds, chromatide bridges comprised about 10% of all the bridges, whereas after gamma-irradiation they comprised about 30%. Storage of the seeds irradiated with neutrons gave no change in the number of reconstructions, but the percentage of chromatide bridges increased. With storage of the Kapital seeds irradiated with gamma-radiation, the percentage of chromatide bridges almost doubled. U. N. Bregadze helped with irradiation of the seeds in the reactor and in calculating the doses of fast neutrons. There are 3 tables and 13 references: 6 Soviet-bloc and 7 non-Soviet-bloc. The 4

Card 3/4

A cytological analysis...

most recent references to the English-language publications read as follows: O. Gelin, L. Ehrenberg, S. Blixt, Agric. hort. genet., 16, 1/2, 78, 1958; A. V. Beatty, J. W. Beatty, Genetics, 45, 3, 331, 1960; J. D. Adams, R. A. Nylan, Rad. Res., 8, 2, 111, 1958; G. J. Neary, S. M. Tonkinson, F. S. Williamson, Int. J. Rad. Biol., 1, 3, 201, 1959.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR (Institute of Biophysics, AS USSR), Moscow

SUBMITTED: March 20, 1961

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Card 4/4

KHVOSTOVA, V.V.; KIKNADZE, I.I.; FILATOVA, I.T.

Nucleic acids in cells of the meristem of rootlets of pea varieties with varying radiosensitivity. TSitologiia 3 no. 2:183-188 Mr-Ap '61. (MIRA 14:4)

1. Laboratoriya radiatsionnoy genetiki Instituta biofiziki AN SSSR, Moskva i Laboratoriya obshchey tsitologii Instituta tsitologii i genetiki Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(NUCLEIC ACIDS) (PLANTS, EFFECT OF RADIOACTIVITY ON) (PEAS)

KHVOSTOVA, V.V.; PRAVEDNIKOVA, G.L.

Study of meiosis in constant 56-chromosome intermediate forms of Triticum-Agropyron hybrids. Dokl.AN SSSR 138 no.1:215-218 My-Je '61. (MIRA 14:4)

1. Institut biologicheskoy fiziki AN SSSR i Institut tsitologii i genetiki Sibirskogo todeleniya Akademii nauk SSSR. Predstavleno akademikom N.V.TSitsinym.

(TRITICUM-AGROPYRON HYBRIDS) (CHROMOSOMES)

GLEMBOTSKIY, Ya.L.; PROKOF'YEVA-BEL'GOVSKAYA, A.A.; SHAMINA, Z.B.; KHVOSTOVA, V.V.; VALEVA, S.A.; EYGES, N.S.; NEVZDOGINA, L.V.

Effect of space flight factors on the heredity and development in actinomycetes and higher plants. Probl.kosm.biol. 1:236-247 '62. (MIRA 15:12)
(SPACE FLIGHT--PHYSIOLOGICAL EFFECT)

S/865/62/002/000/016/042
D405/D301

AUTHORS: Khvostova, V.V., Prokof'yeva-Del'govskaya, A.A., Sidorov, B.N. and Sokolov, N.N.

TITLE: Effects of space flight conditions on seeds of higher plants and an actinomycetes

SOURCE: Problemy kosmicheskoy biologii. v. 2. Ed. by N. Sisakyan and V. Yazdovskiy. Moscow, Izd-vo AN SSSR, 1962, 153-163

TEXT: The seeds of plants and the spores of actinomycetes were selected from the viewpoint of their chromosome stage and owing to their practical value in prolonged space flights. The experimental method is described. In the case of seeds, the genetic effect was estimated by the number of cells with chromosome abberations in the rootlets. It was found that the percentage of cells with chromosome abberations in the first mitoses of the rootlets of the wheat ППГ-186 (PPG-186) increased after flight on the space ships Vostok and Vostok-2. The same effect was observed in pea seeds.

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S/747/62/000/000/016/025
D296/D307

AUTHORS: Kuzin, A. M., Isayev, B. M., Khvostova, V. V., Tokarskaya, V. I. and Bregadze, Yu. I.

TITLE: The biological effect of C^{14} incorporated into living tissues

SOURCE: Radiatsionnaya genetika; sbornik rabot. Otd. biol. nauk AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 267-273

TEXT: After the performance of nuclear tests the content of radioactive carbon in the atmosphere increased between 1955 and 1958 at 5% annually. When assessing the possible biological effects of these doses they are usually estimated by the radiosensitivity of living tissues exposed to the external source of radiation. These calculations fail, however, to take into consideration the special geometry of incorporation of C^{14} into radiosensitive structures such as chromosomes as well as the so-called transformation effect in DNA molecules ($C^{14} \rightarrow N^{14}$). These effects may lead to more frequent aberra-

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S/747/62/000/000/016/025
D296/D307

The biological effect ...

tions than expected from calculations on the basis of the dose to which the cells are exposed. The authors compared the biological effect of C^{14} incorporated into plant seedlings, with the effect of exposure to external gamma radiation emitted by Co^{60}. Normally growing 10-day old plants were placed into a photosynthesis chamber containing $C^{14}O_2$ (total activity 100 μ C, volume of chamber 22.5 dm^3); radioactivity of the inner layer of the plants was estimated on scintillation counters and the tissues were investigated cytologically, counting the proportion of micronuclei and the mitotic index. The percentage of cells with chromosome aberrations increased from 0.16% in the control plants to 0.26% in the experimental plants. Plant cells exposed to more than double the dose of radiation (Co^{60}) showed a slight increase in the number of aberrations but calculation revealed that the mutagenic effect of incorporated C^{14} was ten times higher than that of an equal dose of external irradiation. This fact shows that the transformation effect $C^{14} \rightarrow N^{14}$ as well as

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The biological effect ...

the special geometry of the incorporation of C^{14} are factors to be considered further. There is 1 figure and 1 table.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moskva (Institute of Biological Physics, AS USSR, Moscow)

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S/747/62/000/000/025/025
D243/D308

AUTHORS: Khvostova, V. V. and Nevzgodina, L. V.

TITLE: The causes of the radiostability in plants

SOURCE: Radiatsionnaya genetika; sbornik rabot. Otd. biol. nauk AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 358-366

TEXT: The present work was aimed at determining at which stage the formation of chromosome reorganization proceeds differently in radiosensitive and radioinsensitive plant cells. Air-dried seeds of maple and Capital peas were irradiated with total doses, over 5 hours, of 270 r of Co^{60} γ rays at 450 r/min, and 500 r of fast neutrons. Maple pea seeds were found to be more resistant to γ rays, while both types were equally susceptible to fast neutrons. The seed reaction, as measured by the percent of anaphase cells with chromosomal reorganization, was more uniform after neutron than after γ radiation, especially in Capital peas. Two series of experiments, with 7500 r and 5000 r of γ radiation respectively, were then carried out to study the effect of chromosome reorganization, in γ-

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SYUY CHEN'-MAN' [Hsu Ch'en-man]; KHVOSTOVA, V.V.

Effect of fast neutrons on the development of winter wheat PPG-186. Radiobiologiia 2 no.6:926-930 '62 (MIRA 16:11)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

KHVOSTOVA V. V., and VALEVA, S. A.,

"Cytogenetic Analysis of the Sensitivity of Plants to Different Kinds of Radiation."

report submitted for the 11th Intl. Congress of Genetics, The Hague, Netherlands, 2-10 Sep 63

KHVOSTOVA, V. V., MOZHAYEVA, V. S., and EYGES, N. S.,

"Effectiveness and Specificity of Ionizing Radiations and Some Chemical Substances in Inducing Mutations in Winter Wheat."

report submitted for the 11th Intl. Congress of Genetics, The Hague, Netherlands, 2-10 Sep 63

KHVOSTOVA, V.V.; YACHEVSKAYA, G.L.; LUNKINA, A.N.

Analysis of the genetic structure of constant 56-chromosomal triticum-agropyron hybrids. Izv. SO AN SSSR no.4. Ser. biol.-med. nauk no.1:76-78'63. (MIRA 16:8)

1. Institut tsitologii i genetiki Sibirskogo otdeleniya AN SSSR i Nauchno-issledovatel'skiy institut sel'skogo khozyaystva tsentral'nykh rayonov nechernozemnoy polosy.

L 19453-63 EWT(1)/FCC(w)/FS(v)-2/BDS/ES(a)/ES(j)/ES(c)/ES(k)/ES(t)-2/
EEO-2/ES(v) AFFTC/AMD/AFMDC/ESD-3 Pb-4/Pi-4/Po-4/Pq-4/Pe-4 TT/A/RD/DD
ACCESSION NR: AP3007352 S/0293/63/001/001/0186/0191

AUTHOR: Khvostova, V. V.; Gostimskiy, S. A.; Mozhayeva, V. S.; Nebzgodina, L. V.

TITLE: Further study of the influence of conditions of space flight on chromosomes of primary roots of pea and wheat sprouts

SOURCE: Kosmicheskiye issledovaniya, v. 1, no. 1, 1963, 186-191

TOPIC TAGS: space flight effect, chromosome reconstruction, 660 Mev proton, cobalt 60 Gamma ray, Vostok 1, Vostok 2, Vostok 3, Vostok 4

ABSTRACT: Dry seeds of winter wheat (PPG-186) and peas ("Kapital" variety) were exposed to effects of space flight on the four Vostok spaceships. A cytological analysis of the sprout roots of seeds indicated that exposure to space flight resulted in a small but statistically significant increase in chromosome reconstructions. The percentage of reconstructions does not depend on the duration of flight. More reconstructions were found in seeds flown in Vostok-2 than in seeds flown in Vostok-3, in which there was a distinct,

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L 19453-63
ACCESSION NR: AP3007352

but not statistically significant increase. There was no increase in the number of reconstructions in seeds flown in Vostok-4. Control seeds were subjected to radiation and vibration in an attempt to identify which aspects of space flight were responsible for the increase. Exposure to vibration (70 cps; amplitude, 0.4 mm) for 4 hr did not increase the number of reconstructions. Exposure of seeds to 660-Mev protons (dose 1940 rad; rate, 43/min) was no more effective as far as the number of reconstructions is concerned than exposure to Co^{60} γ-rays (dose, 1940 rad; rate, 289/min). Orig. art. has: 4 tables.

ASSOCIATION: none

SUBMITTED: 24Apr63 DATE ACQ: 21Oct63 ENCL: 00

SUB CODE: AM NO REF SOV: 007 OTHER: 001

Card 2/2

SHKUTINA, F.M.; SHEPELEV, V.M.; KHVOSTOVA, V.V.

Study of fertility and the characteristics of meiosis in wheatrye amphidiploids. Biul. MOIP. Otd. biol. 69 no.1:20-27 Ja-F '64. (MIRA 17:4)

DUBININ, N.P., red.; KHVOSTOVA, V.V., kand. biol. nauk, red.;
FOMELINTSEVA, G.M., red.

[Radiation and plant breeding] Radiatsiia i selektsiia rastenii; sbornik statei. Moskva, Atomizdat, 1965. 205 p.
(MIRA 18:12)

KHVOSTOVA, V.V.; KLYSHENKO, K.A.

Partial removal of injurious radiation effect in barley seeds.
Radiobiologiia 5 no.1:136-139 '65. (MIRA 18:3)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

L 59274-65

ACCESSION NR: AP5015735 UR/0205/65/005/003/0440/0445
577.24:58.039.1

AUTHOR: Khvostova, V. V.; Mozhayeva, V. S.

TITLE: Mutagenic effect of gamma rays and fast neutrons on winter wheat seeds

SOURCE: Radiobiologiya, v. 5, no. 3, 1965, 440-445

TOPIC TAGS: gamma ray, fast neutron, seed, chromosomal aberration, mutation, mitosis, wheat

ABSTRACT: Analysis of the first generation of winter wheat plants (PPG-186 variety) revealed that after the seeds were irradiated with fast neutrons, the shoots overwintered much more poorly than they did when the seeds were irradiated with gamma rays. Gamma rays in doses of up to 500 r produced an insignificant number of chromosomal aberrations in the first mitoses of the roots. The RBE of 1 rad of fast neutrons was over 40 (as compared with about 10 for animals). A comparison of the maximum mutagenic effect of fast neutrons and gamma rays showed that neutrons produced approximately 5 times as many mutations. Both actions resulted in useful mutations. The gamma rays gave rise to large-eared winter wheat forms that proved to

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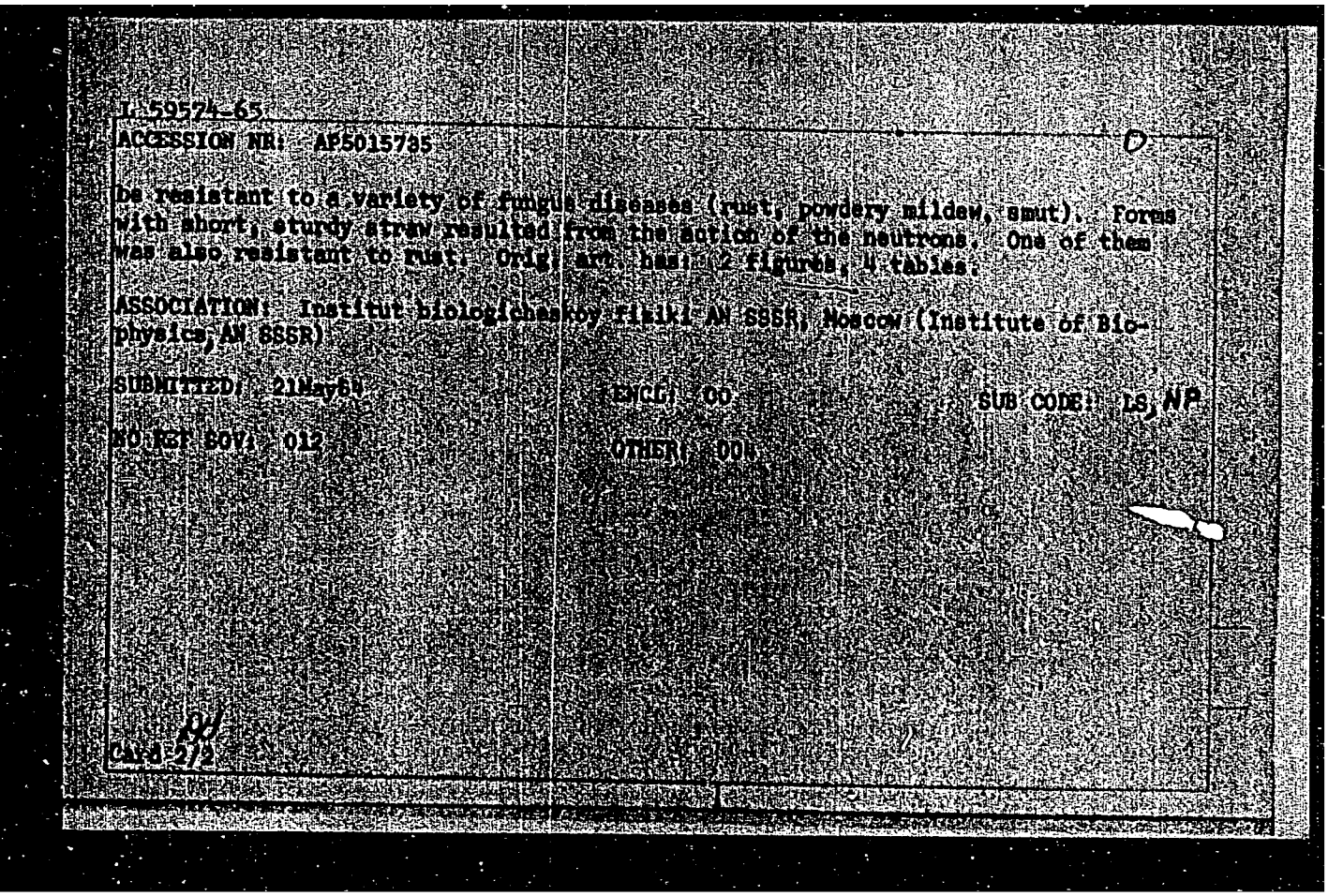

L 59574-65
ACCESSION NR: AP5015785

be resistant to a variety of fungus diseases (rust, powdery mildew, smut). Forms with short, sturdy straw resulted from the action of the neutrons. One of them was also resistant to rust. Orig. art. has: 2 figures, 4 tables.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moscow (Institute of Biophysics, AN SSSR)

SUBMITTED: 21May64 ENCL: 00 SUB CODE: LS, NP

NO REF SOV: 012 OTHER: 006

Card 2/2

L 41084-65 EWG(j)/EWT(m)
ACCESSION NR: AP5008826 S/0026/65/000/003/0025/0031

AUTHORS: Dubinin, N. P. (Corresponding member AN SSSR); Khvostova, V.V.(Candidate of biological sciences)

25
22
B

TITLE: Atomic energy and selection

SOURCE: Priroda, no. 3, 1965, 25-31

19

TOPIC TAGS: nuclear radiation, nuclear particle, mutation, agriculture/ Erectoid 72 wheat, PPG 186 wheat, Radiola 1176 bean, Radiola 1177 bean, Chudo Gruzii soya bean, Universal soya bean, Kuron potato, Sedov potato, Ranneya Rosa potato

ABSTRACT: The effect of atomic energy on the cellular heredity of plants is discussed; it is proposed to apply new achievements in this field to the further development of plant selection (advanced to its present state by I. V. Michurin and N. I. Vavilov). Ionization radiation has been applied to the growth of commercial fungi from natural mold, thus increasing the production of antibiotics. New radiation sources, isotopes Co^{60} and Cs^{137}, gamma-rays, and fast neutrons were used for the irradiation of seeds and cuttings. Agricultural laboratories directed

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the radioactive mutation research toward combinations of physical strength with resistance to infections and climatic hazards; also, new fruit distribution along the branch (convenient for mechanized harvesting) and improved nutritive properties of new breeds combined with an increased crop were achieved. A wheat mutant, Erectoid-72 (obtained by gamma-ray treatment), gave a crop increase of 44% in a cold, rainy climate. Many types of soft wheat crossed with the initial PPG-186 wheat produced a variety more resistant to climatic hazards but still preserving the high qualities of grain typical for soft wheat. An improved cotton mutant 108-F was obtained at the Uzbek Academy of Sciences by gamma-ray Co^{60} (200r) irradiation of the plant in the budding stage. The Institute of Cytology and Genetics of the Siberian Branch of the Academy of Sciences applied this technique to the improvement of potato types Kuron, Sedov, and Rannyaya Rosa; their tubers were treated by gamma-(1500-3000r) and x-rays (2000-8000r), and the grafts by x-rays in doses of 400, 600, 800 and 1000r. The amount of altered plants produced was correspondingly: 2.46, 7.6 and 0.63%. Kameras potato seeds treated with gamma-rays of Co^{60}, fast neutrons, and chemical mutation agents showed promising results. The first radiation plants were obtained at the Mataldtari (Georgia) Agricultural Station by the selection specialist S. G. Teodoradze. Crops of beans Radiola-1175 and Radiola-1177 exceeded the standards by 60-90%, and the soya beans

L 31084-66

ACCESSION NR: AP5008826

Universal and Chudo Gruzii showed increased production and adaptability to climatic differences. The combination of hybridization with radiation has produced new forms highly resistant to the transfer of infections from the wild forms. Although the mutants obtained require additional selection before achievement of the final results, they show better characteristics than those of the intrasortal hybridization. Orig. art. has: 6 photographs.

ASSOCIATION: Laboratoriya radiatsionnoy genetiki, Institute biologicheskoy fiziki AN SSSR Moskva (Laboratory of Radiation Genetics, Institute of Biological Physics, AN SSSR)

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

NO REF SOV: 000 OTHER: 000

Card 3/3

GOSTIMSKIY, S.A.; KIVGASTSEV, V.V.

Effect of chemical mutagens on two rye varieties. Biul. MOIP. Otd. biol. 70 no.4:148-152 Jl-Ag '65. (MIRA 18:9)

L 11937-65 EWG(j)/EWT(m)

ACCESSION NR: AP5021542 UR/0020/65/161/005/1219/1221

AUTHOR: Khvostova, V. V.; Nevzgodina, L. A.; Dubinin, N. P. (Corresponding member AN SSSR)

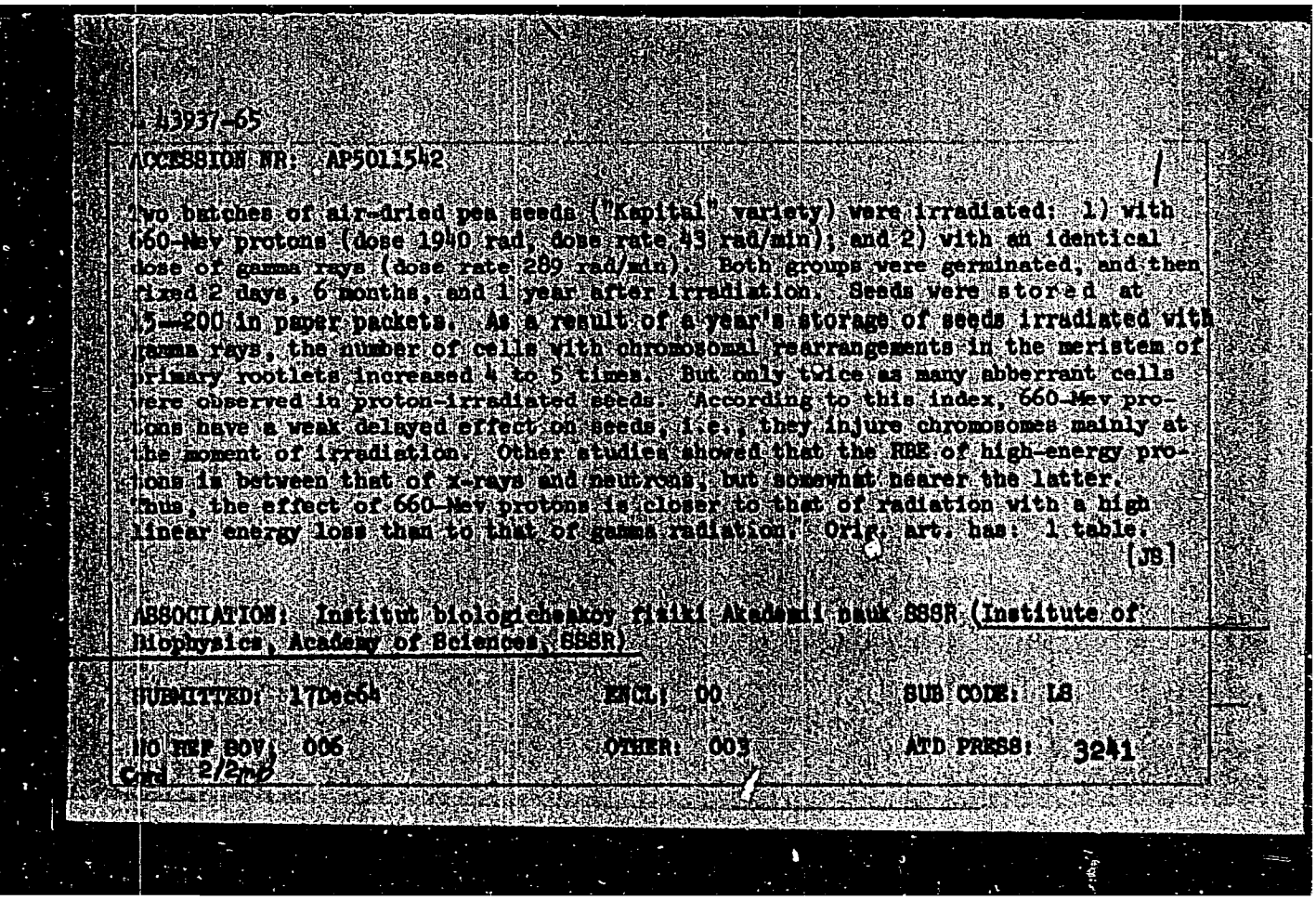
TITLE: Analysis of the delayed effects of gamma rays and 660-Mev protons on chromosomes

SOURCE: AN SSSR. Doklady, v. 161, no. 5, 1965, 1219-1221

TOPIC TAGS: delayed radiation effect, chromosomal rearrangement, gamma rays, pea seed

ABSTRACT: The effect of storage (1 year) of irradiated pea seeds on the number of chromosomal rearrangements in primary rootlets sprouted from these seeds was investigated. Study of the delayed effects of radiation, i.e., the increase of radiation injury during storage, helps clarify the ways in which cells are influenced by different types of radiation. Previous studies showed less delayed effects in seeds irradiated with fast neutrons than in those subjected to gamma and x-ray irradiation. It was concluded that neutrons injure chromosomes directly during irradiation, whereas gamma and x-rays act to a great extent after irradiation (perhaps explained by the presence of long-lived free radicals in the latter case)

Card 1/2



L 43937-65

ACCESSION NR: AP5011542

Two batches of air-dried pea seeds ("Kapital" variety) were irradiated: 1) with 660-Mev protons (dose 1940 rad, dose rate 45 rad/min); and 2) with an identical dose of gamma rays (dose rate 289 rad/min). Both groups were germinated, and then fixed 2 days, 6 months, and 1 year after irradiation. Seeds were stored at 3--20C in paper packets. As a result of a year's storage of seeds irradiated with gamma rays, the number of cells with chromosomal rearrangements in the meristem of primary rootlets increased 4 to 5 times. But only twice as many abberrant cells were observed in proton-irradiated seeds. According to this index, 660-Mev protons have a weak delayed effect on seeds, i.e., they injure chromosomes mainly at the moment of irradiation. Other studies showed that the RBE of high-energy protons is between that of x-rays and neutrons, but somewhat nearer the latter. Thus, the effect of 660-Mev protons is closer to that of radiation with a high linear energy loss than to that of gamma radiation. Orig. art. has: 1 table. [JS]

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute of Biophysics, Academy of Sciences, SSSR)

SUBMITTED: 17Dec64 ENCL: 00 SUB CODE: LS

NO REF SOV: 006 OTHER: 003 ATD PRESS: 3241

Card 2/2

GOSTIMSKIY, S.A.; KHVOSTOVA, V.V.

Change in the rate of chromosome reorganization induced by ethylenimine in the first mitosis of pea rootlets. Dokl. AN SSSR 162 no.1:197-200 My '65. (MIRA 18:5)

1. Institut biologicheskoy fiziki AN SSSR. Submitted June 25, 1964.

EL'SHUNI, E.A.; KHVOSTOVA, V.V.; STOLETOV, V.N.

Partial removal of damaging irradiation effect and the mutation process in gramineous plants. Genetika no.3:70-74 S '65.
(MIRA 18:12)

1. Institut biologicheskoy fiziki AN SSSR, Moskva. Submitted March 30, 1965.

NAMESTNIKOV, V.S. (Novosibirsk); KHVOSTUNKOV, A.A. (Novosibirsk)

Creep in duralumin under both constant and variable loads.
PMTF no.4:90-95 N-D '60. (MIRA 14:7)
(Creep of metals)
(Duralumin)

ACC NR: AP7005133 SOURCE CODE: UR/0126/66/022/004/0591/0597

AUTHOR: Lerinman, R. M.; Khvostyntsev, K. I.; Nikanorov, M. A.; Anitov, I. S.; Ksenofontova, T. B.

ORG: Institute of Metal Physics, AN SSSR (Institut fiziki metallov AN SSSR)

TITLE: Combined effect of plastic deformation and aging on the structure and properties of TS6 titanium alloy

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 4, 1966, 591-597

TOPIC TAGS: titanium alloy, metal aging, plastic deformation, phase composition, metal recrystallization / TS6 titanium alloy

ABSTRACT: The effect of plastic deformation (rolling with degrees of deformation amounting to 3, 10 and 40% and aging(at 480°C for 2, 10, 30 and 100 hr) on the fine structure (the kinetics of decomposition of the β-phase, dispersity and the distribution of the α-phase) of TS6 titanium alloy (3.22% Al, 3.42% Mo, 7.80% V, 10.80% Cr, 0.18% Fe, 0.03% C, 0.01% Si, 0.07% O_2, 0.011% N_2, with Ti as the remainder) was investigated by means regular and electron microscopy and measurements of hardness and tensile strength. It is shown that plastic deformation accelerates the decomposition of the metastable β-phase and results in a more fine-

Card 1/2 UDC: 548.526

ACC NR: AP7005133

-grained and uniform structure devoid of undecomposed boundary-layer and intragranular residues of the β-phase, which, together with the high degree of dispersity of the particles of the segregating α-phase, leads to a general improvement in mechanical properties. Quenching the alloy from 800°C following 3% deformation results in polygonization; following 10% deformation, in partial recrystallization; and following 40% deformation, in total recrystallization of the structure. In this last case, since the decomposition of the recrystallized β-phase occurs slowly, a marked change in the alloy's hardness is observed only after 100 hr of aging at 480°C. This may be a cause of the heterogeneity of the alloy's properties following its hardening by heat treatment. The highest hardening rates were observed for the specimens subjected to 3 and 10% deformation prior to their quenching, which indicates that an incompletely recrystallized structure is favorable to the increase in mechanical strength following aging. Orig. art. has: 7 figures, 3 tables.

SUB CODE: 11, 20/ SUBM DATE: 05Feb66/ ORIG REF: 001/ OTH REF: 001

Card 2/2

L 8326-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACC NR: AP5025722 SOURCE CODE: UR/0286/65/000/018/0075/0075

INVENTOR: Anitov, I. S.; Nikanorov, M. A.; Khvostyntsev, K. I.

ORG: none

TITLE: High-strength titanium-base alloy. Class 40, No. 174795 [announced by the Organization of the State Committee of Defense Engineering USSR (Organizatsiya gosudarstvennogo komiteta po oboronnoy tekhnike USSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 75

TOPIC TAGS: titanium alloy, aluminum containing alloy, molybdenum containing alloy, vanadium containing alloy, chromium containing alloy

ABSTRACT: This Author Certificate introduces a high-strength titanium-base alloy containing aluminum, molybdenum, vanadium, and chromium. To improve ductility, the alloy composition is as follows: 2.5—3.5% aluminum, 3.2—4.5% molybdenum, 6.5—7.5% vanadium, 10—11.3% chromium, and the balance titanium. [ND]

SUB CODE: 11/ SUBM DATE: 01Jun64/ ATD PRESS: 4149

Card 1/1 UDC: 669.295.5.018.2

ACC NR: AP7001528 SOURCE CODE: UR/0193/66/000/012/0005/0006

AUTHOR: Khvotostukhin, L. A.; Pleshivtsev, N. V.; Bibayev, V. N.

ORG: none

TITLE: Machining of 1Kh18N2AG5 stainless steel

SOURCE: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 12, 1966, 5-6

TOPIC TAGS: stainless steel, high strength steel, chromium, nickel, manganese steel, nitrogen containing steel, ~~steel~~ mechanical property, steel machining/1Kh18N2AG5 steel

ABSTRACT: The Moscow Institute of Aviation Technology has developed low-nickel high-strength stainless 1Kh18N2AG5(EP-26) steel as a substitute for 1Kh18N10T[AISI321] steel. The 1Kh18N2AG5 steel, in which a great part of the nickel is replaced by manganese and nitrogen, belongs to the austenitic-ferritic class and contains more than 70% austenite. The steel has high mechanical properties, a tensile strength of 117 kg/mm^2, a yield strength of 50 kg/mm^2, an elongation of 30%, an HB hardness of 240 kg/mm^2, and quite satisfactory machinability. It is recommended for aircraft engines and other industrial uses. Sintered carbide-tipped tools are recommended for machining the steel. Sintered T15K6 and VK8 tips are recommended for rough machining and T15K6 tips for semifinished and finished machining. A satisfactory surface finish is produced at cutting speeds above 40 m/min. Subsequent burnishing with a diamond

Card 1/2 UDC: 621.9: 669.14.018.8

ACC NR: AP7001528
"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000722510007-7"

tool greatly improves the surface finish and increases the microhardness of the surface layer. [MS]

SUB CODE: 11, 13/ SUBM DATE: none/ ATD PRESS: 5110

Card 2/2

KHVOYNIK, P.

On the agricultural produce market. Vnesh.torg. 41 no.5, 39-48 '61. (MIRA 14:4)
(Produce trade)

PUGACHEVSKIY, V.P.; KHVOVNITSKAYA, M.A.

Protective containers for working with radioactive substances.
Vest. rent. i rad. 35 no. 6:80 N-D '60. (MIRA 14:2)

1. Iz Kiyevskogo instituta gigiyeny truda i profzabolevaniy (direktor - dotsent L.I. Medved').
(RADIOACTIVE SUBSTANCES—SAFETY MEASURES)
(RADIATION PROTECTION)

KHVOYNITSKAYA, M.A.; PUGACHEVSKIY, V.P.

Hygienic evaluation of labor conditions during the use of radioactive isotopes in metallurgy. Vrach. delo no.8:93-94 Ag '60. (MIRA 13:9)

1. Radiologicheskaya laboratoriya Kiyevskogo instituta gigiyeny truda i professional'nykh zabolevaniy.
(RADIOACTIVITY—SAFETY MEASURES)
(ISOTOPES—INDUSTRIAL APPLICATIONS)

ALEKSEYEV, A.P.; BORISENKO, A.P.; GLIKSON, V.I.; GROMOVA, N.F.; KRASOVSKAYA, A.I.; NOVIKOVA, M.N.; OVCHAROVA, A.I.; KHVOYNIK, P.I.; CHURAKOV, V.P.; SHASTITKO, V.M.; GEORGIYEV, Ye.S., red.; SHIL'DKRUT, V.A., red.; LEVCHUK, K.V., red.; LEKANOVA, I.S., tekhn.red.

[Prices on the world capitalistic market; a handbook] TSeny mirovogo kapitalisticheskogo rynka; spravochnik. Moskva, Vneshtorgizdat, 1958. 391 p. (MIRA 12:7)

1. Moscow. Nauchno-issledovatel'skiy kon"yunkturnyy institut. (Prices)

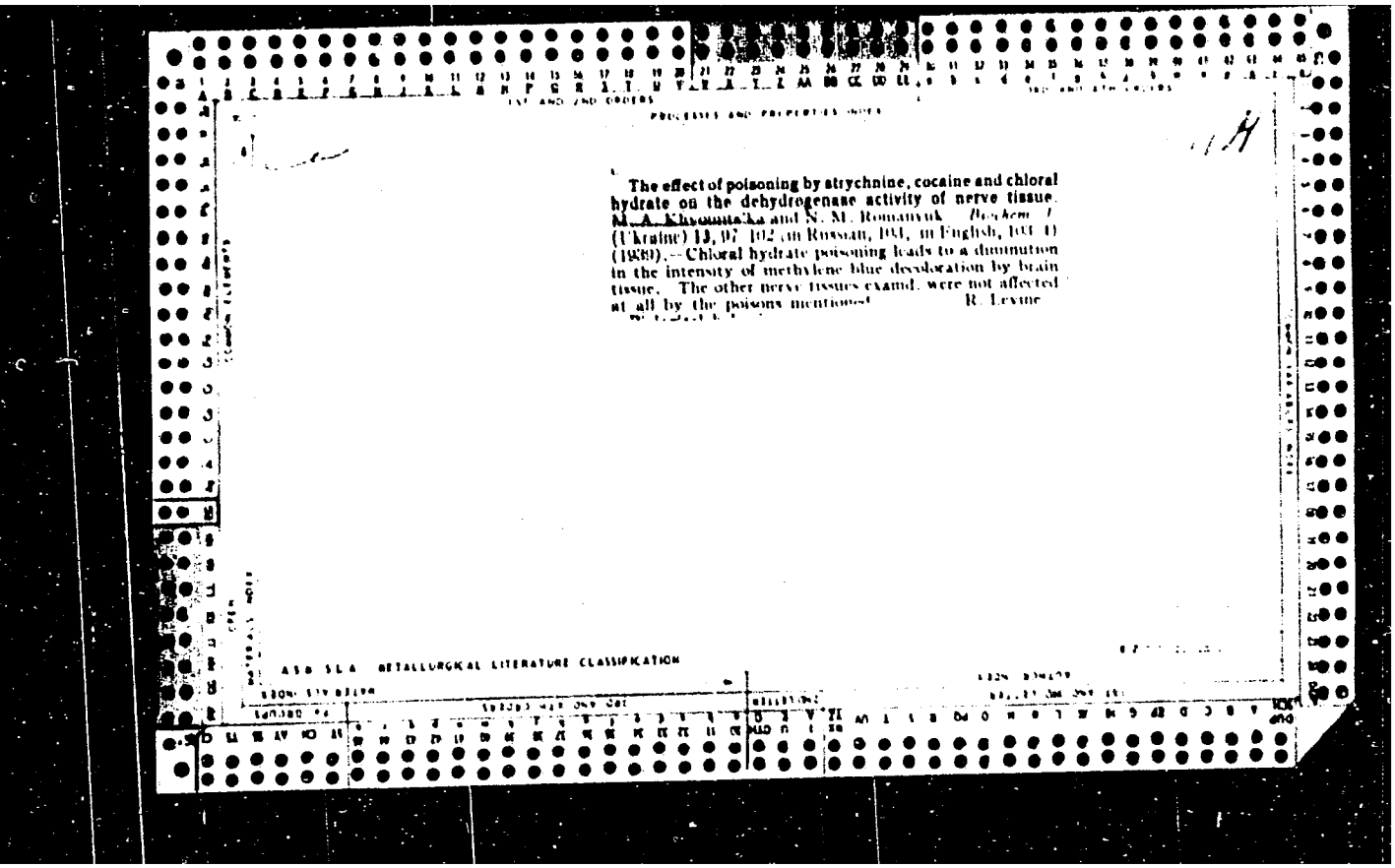
1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Ca

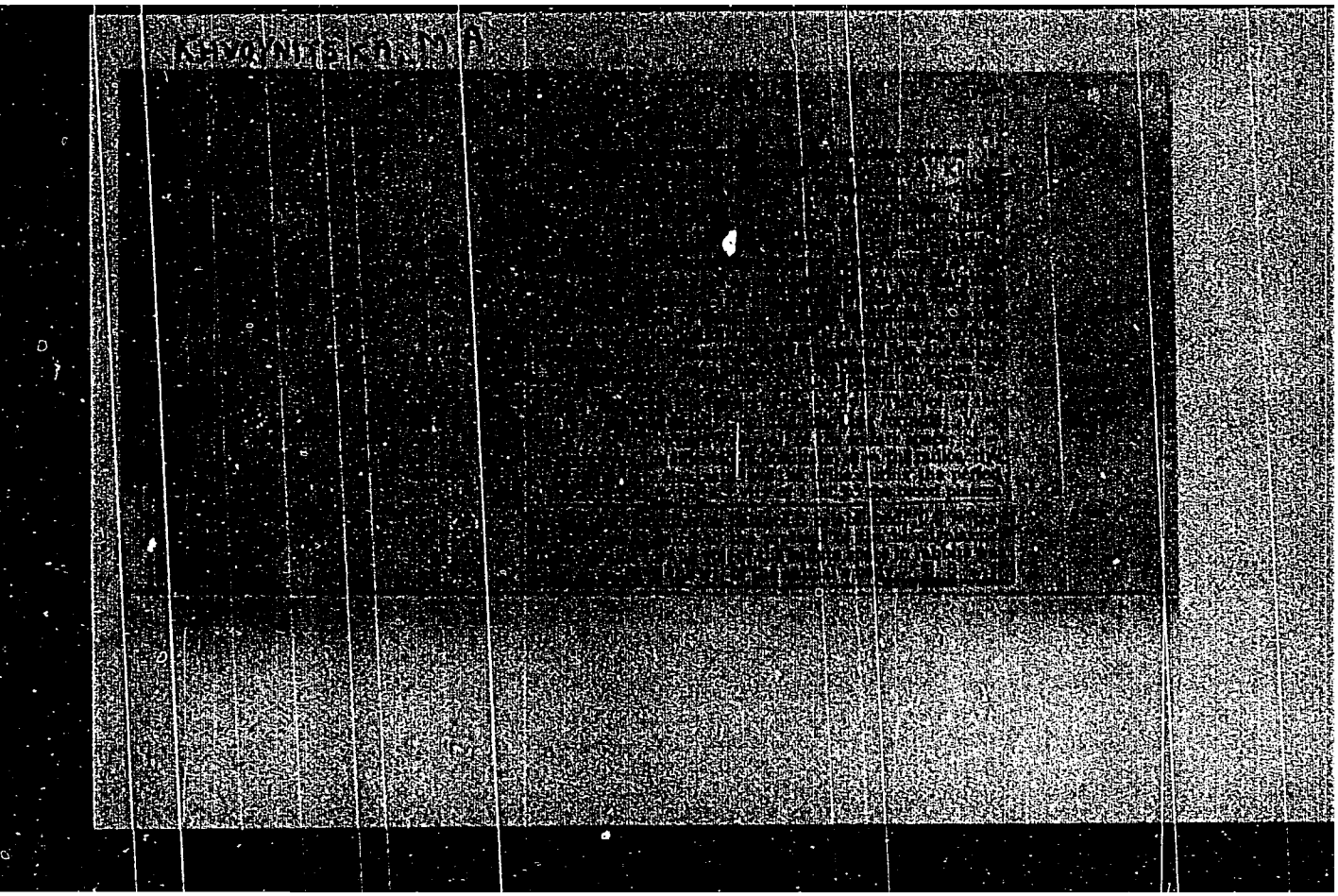
Reduction of dehydroascorbic acid in experimental hyperthyroidism M. A. Khaimutska. *Biokhem. J.* (Ukraine) 14, 261–72 (in Russian, 272–4, in English, 274–5) (1939). — The liver pulp of hyperthyroid guinea pigs has a lower capacity for the reduction of dehydroascorbic acid. At the same time the body content of ascorbic acid falls. However, in animals which can synthesize ascorbic acid no reduction in the reducing capacity of the liver can be found. The loss of ascorbic acid in guinea pigs fed thyroid is due not only to the lowered capacity for the reduction of dehydroascorbic acid, but also to the greater rate of destruction of ascorbic acid itself. R. Levine

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



The effect of poisoning by strychnine, cocaine and chloral hydrate on the dehydrogenase activity of nerve tissue. M. A. Khromuta'ka and N. M. Romanyuk. *Biokhim. Zh.* (Ukraine) 13, 97–102 (in Russian, 101; in English, 103–4) (1938).—Chloral hydrate poisoning leads to a diminution in the intensity of methylene blue decolorization by brain tissue. The other nerve tissues exaind. were not affected at all by the poisons mentioned. R. Levine

A58 SL4 METALLURGICAL LITERATURE CLASSIFICATION



KHVOYNITSKAYA, M.A.

Water distribution in the body following exposure to high environmental temperature. Biul. eksp. biol. med. 47 no.5:53-56 My '59 (MIRA 12:7)

1. Iz Instituta gigiyeny truda i profzabolevaniy (dir. - dotsent L.I. Medved'), Kiyev. Predstavlena deystvitel'nym chlenom AMN SSSR S.Ye. Severinym.

(HEAT, eff.
on water distribution (Rus))
(WATER, metab.
eff. of heat distribution (Rus))

KHVOYNITSKAYA, M.A.

Changes in water-salt metabolism in radiation sickness induced in rabbits by radiophosphorus. Med.rad. 4 no.7:88-89 Jl '59. (MIRA 12:9)

1. Iz Kiyevskogo instituta gigiyeny truda i profzabolevaniy.
(RADIATION INJURY exper.)
(PHOSPHORUS radioactive)
(BODY FLUIDS)

KHVOYNITSKAYA, M.A. [Khvoynyts'ka, M.A.]

Method for simultaneous determination of the volume of extracellular "sulfate" space and the volume of circulating blood in an intact organism by the use of radioactive sulfur and phosphorus. Ukr.biokhim.zhur. 31 no.5:759-764 '59. (MIRA 13:4)

1. Institute of Labor Hygiene and Occupational Diseases, Kiev.
(BODY FLUIDS) (SULFUR--ISOTOPES) (PHOSPHORUS--ISOTOPES)

KHVOYNITSKAYA, M.A.; PUGACHEVSKIY, V.P.

Hygienic requirements in work with continuously radioactive luminous paint. Vrach. delo no.12:126-129 D '61. (MIRA 15:1)

1. Kiyevskiy nauchno-issledovatel'skiy institut gigiyeny truda i profzabolevaniy.
(LUMINOUS PAINT) (RADIOACTIVE SUBSTANCES--TOXICOLOGY)

L 56911-65

ACCESSION NR: AP5010361 UR/0205/65/005/002/0310/0311

AUTHOR: Kruglyakova, M. A.; Dobrovol'skiy, L. A.; Likhtarev, I. A. 4 B

TITLE: Differences in radiophosphorus effective half-life kinetics in the ovaries with single and multiple administration of the isotope into the organism

SOURCE: Radiobiologiya, v. 5, no. 2, 1965, 310-311

TOPIC TAGS: animal, mouse, phosphorus-32, single dose, fractional dose, ovary, effective half-life

ABSTRACT: The first of two experimental groups of white mice weighing 150±15 g received a single subcutaneous injection of P^{32} (2 microcuries), and the second group received the same dose daily for 1½ yrs to determine P^{32} effective half-life differences in the ovaries. Animals were killed at regular intervals and radiophosphorus concentrations in ovary tissues were measured by direct radiometering. The effective half-life for a single P^{32} dose was found to be 5.5±1 days and on this basis calculations for the daily administered P^{32} dose were made. However, the calculated effective half-life of P^{32} in the ovaries proved to be considerably higher than experimental findings. Whereas the zero moment concentration in the ovary for a single P^{32} dose was 1.5% of initial activity

Card 1/2

L 56514-65
ACCESSION NR: AP5010361

and effective half-life was 5.52 days, corresponding values for the chronic P^{32} dose were 0.77 and 3.3 days. No explanations for the significant differences in P^{32} kinetics in the ovaries are offered. Orig. art. has: 2 figures and 3 formulas.

ASSOCIATION: Kiyevskiy nauchno-issledovatel'skiy institut gigiyeny truda i profzabolevaniy (Kiev Scientific Research Institute of Labor Hygiene and Occupational Diseases)

SUBMITTED: 10Jun63 ENCL: 00 SUB CODE: LS

NR REF SOV: 004 OTHER: 000

Card 2/2

BABENYSHEV, V.M.; KHVOYNITSKIY, V.I.

Automatic device for rate-measuring potentiometric and coulometric titration. Zav.lab. 26 no.1:113-114 '60. (MIRA 13:5)

1. Kuybyshevskiy industrial'nyy institut.
(Titration)

KHVOYNOVSKIY, A.

USSR/Medicine, Veterinary - Infectious Diseases Mar 52

"Ring Test for Diagnosing Brucellosis of Cows (Translated into Russian from 'Medycyna Veterinaryina,' No 6, 1951)" S. Runge, T. Lozinskiy, A. Khvoynovskiy, T. Dzyubek

"Veterinariya" Vol XXIX, No 3, pp 55, 56

Describes in detail the technique of this test, which is carried out on lactating cows.

216T36

KHVUL', A. M.

Khvul', A. M. "Kidneys in the war and postwar period," Trudy VI Vsesoyuz. s'yezda det. vrachey, posvyashch. pamyati prof. Filatova, Moscow, 1945, p. 220-23

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

KHVUL', A.K.

Pulmonary function in experimental rickets. Pediatriia 39 no.6: 10-15 N-D '56. (MLRA 10:2)

1. Iz patomorfologicheskoy laboratorii (zav. - dotsent N.A. Maksimovich) Ukrainskogo nauchno-issledovatel'skogo instituta okhrany materinstva i detstva (dir. - zasluzhennyy vrach USSR M.D.Burova)

(RICKETS, experimental,
lungs in (Rus))
(LUNGS, in various diseases,
exper. rickets (Rus))

USSR/[illegible] and Animal Phys[illegible] Nutrition.

Abs Jour: Ref Zhur-Biol., No 8, 1958, 37944.

Author : Khvul', A.M., Vendt, V.P.
Inst : AS Ukrainskoy SSR.
Title : Influence of the Synthetic Complex of Vitamin B_{12} and Protein on the Course of Rickets in Children.

Orig Pub: V sb.: Vitaminy. 3. Kiyev, AN USSR, 1956, 166-173.

Abstract: No abstract.

Card : 1/1

KHVUL', A. M.; GUSOVSKIY, Ya. M.; VENDT, V. P.

Development of hypervitaminosis D after administration of synthetic vitamin D preparations. Pediatriia no.11:34-39 '61.
(MIRA 14:12)

1. Iz Ykrainskogo nauchno-issledovatel'skogo instituta okhrany materinstva i detstva imeni Geroya Sovetskogo Soyuza prof. P. M. Buyko (dir. kandidat meditsinskikh nauk A. G. Pap)

(VITAMINS—D) (HYPERVITAMINOSIS)

SVYATKINA, Klavdiya Andreyevna, prof.; KHVUL', Anna Markovna, dokter med. nauk; RASKOLOVA, Mariya Alekseyevna, kand. med. nauk; POKROVSKAYA, P.A., prof. red.; DMITRIEVA, Ye.P., red.

[Rickets] Rakhit. Moskva, Meditsina, 1964. 221 p. (MIRA 17:10)

KHVUL', G.M. [Khvul', H.M.]; GUSOVSKIY, Ya.M. [Husovs'kyi, IA.M]; VENDT, V.P.

Influence of large doses of various preparations of vitamin D on the rise of hypervitaminosis under experimental conditions. Ped., akush. i gin. 22 no.4:30-33 '60. (MIRA 14:5)

1. Ukrains'kiy naukovo-goslidniy institut OKhMD im. Geroya Radyans'kogo Soyuzu prof. P.M.Buyka (direktor - zasluzh.likar URSR M.D. Burova) ta Institut biokhimii AN URSR (direktor - akad.O.V.Palladin).
(HYPERVITAMINOSIS) (VITAMINS--D)

KHVUL', R.M.; PECHUK, L.M.; FRIZMAN, M.O.

Antibacterial therapy of cavernous forms of pulmonary tuberculosis in children and adolescents. Ped., akush. i gin. 20 no.6:5-8 '58. (MIRA 13:1)

1. Detskiy tuberkuleznyy sanatoriy im. M. Gor'kogo (konsul'tant - kand.med.nauk L.M. Pechuk), Kiyev, Pushcha-Voditsa.
(TUBERCULOSIS)

KLEBANOV, M.A., prof., ABERNMAN, A.A., KSHANOVSKIY, S.A., PRZHEVAL'SKAYA, L.A. KHVUL', R.M.

Causes of failure and outcome of prolonged antibacterial therapy of cavernous pulmonary tuberculosis [with summary in French]. Probl.tub. 36 no.6:16-28 '58 (MIRA 11:10)

1. Iz Ukrainskogo instituta tuberkuleza imeni F.G. Yanovskogo (dir. dots. A.S. Mamolat).
(TUBERCULOSIS, PULOMONARY, ther.
chemother. in cavitation, causes of failure (Rus)))

W.E. KHVOSTIKOV I. A.

Geophysical and Extraterrestrial Phenomena

3114

The Structure of the Upper Layers of the Atmosphere as determined by Twilight Observations. [illegible]

[illegible] Vol. 59, No. 2, pp. [illegible] In Russian. Values of upper-air density and pressure deduced from spectrophotometric observations have been obtained regularly since 1932 at Abastuman observatory (south West Caucasus) during morning and evening twilight. Results agree closely with those of other workers using different methods.

1948

BERMAN, G.N. [author]; KHVYL', G.L. (g. Smela) [reviewer].

Shortcomings, leading to idealism in metaphysics ("Number and its theory." G.N. Berman. Reviewed by G.L.Khvyl'.) Mat.v shkole no.5:76-78 S-O '53. (MLRA 6:9)

(Numbers, Theory of) (Berman, Georgii Nikolaevich, d. 1949)

KHVYLYA, D. S. (and others)

Plowing

Work indicators of disk colters on black-earth and turfy-podzolic soils. Pochvovedenie, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Undlassified.

KHVYLYA, K. S.

Soils - Analysis

Improvement of the Fadeyev-Vil'yams apparatus for determining firmness of soil structure. Pochvovedenie No. 7, 1952

Monthly List of Russian Accessions. Library of Congress. September 1952. UNCLASSIFIED.

1. KHVYLYA, K. S.

2. USSR (600)

4. Plowing

7. Problem of the aim in plowing. Pochvovedenie No. 4, 1953.

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

Khvylya, K. S.

USSR.

A study of the structure of the plowed layer of a sod-podzolised soil in relation to tillage. K. I. Baltyan, P. U. Baichtin, and K. S. Khvylya. *Pochvovedenie* 1954, No. 11, 49-55.—Besides the mechanical compn. of the different particle-size fractions of the plowed layer of 3 profiles, in rye and clover-timothy 2-year-old sod, the chem. compn. (SiO_2, Fe_2O_3, Al_2O_3, TiO_2, P_2O_5, CaO, MgO, MnO_2, alkalies in terms of Na_2O, loss on ignition, humus, exchangeable ions, hydrolytic acidity, and pH of H_2O and neutral salt ext.) of a series of particle-size fractions is given.

J. S. Joffe

1. KHYAKIN YA.B.

2. USSR (600)

4. Sheep-Crimea

7. Growth of Tsugayskiy sheep in the Crimea, Sots.zhiv. 15, no. 2, 1953.

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

KHYAMYALYAYNEN, Khel'vi [Hamelainen, Helvi], finskaya pisatel'nitsa

Two solemn words, peace and friendship. Sov. profsoiuzy 18 no.20:39-40 O '62. (MIRA 15:10)
(Finland--Labor and laboring classes) (Peace)

USPENSKIY, V.A.; RADCHENKO, O.A.; GLEBOVSKAYA, Ye.A.; SHISHKOVA, A.P.; MEL'TSANSKAYA, T.N.; INDENBOM, F.B.; Prinimali uchastiye: KOLOTOVA, L.F., khimik; CHAGINA, T.P., tekhnik; BASKINA, T.B., laborant; VIKULINA, M.N., laborant; POLOVNIKOVA, I.A., fizik; PETROV, A.K., tekhnik; PONOMAREV, B.P., laborant; KHYAMYALYAYNIN, L.B., laborant; KLOCHKOV, B.N., laborant; RAGINA, G.M., vedushchiy red.; SAFRONOVA, I.M., tekhn.red.

[Basic processes of the transformation of bitumens in nature and the problems of their classification] Osnovnye puti preobrazovaniia bitumov v prirode i voprosy ikh klassifikatsii. Leningrad, Gos.nauchno-tekhn.izd-vo neft.i gorno-toplivnoi lit-ry Leningr.otd-nie, 1961. 314 p. (Leningrad. Vsesoiuznyi nauchno-issledovatel'skii geologorazvedochnyi institut. Trudy, no.185). (MIRA 15:4)

(Bitumen--Geology)

GULYAYEVA, L.I.; VINOGRADOVA, A.P.; KHYANINA, A.P.; KARPOVSKAYA, R.R.

Determination of the trace amounts of sulfur in the products of petrochemical synthesis. Neftekhimiia 3 no.2:296-302 Mr-Ap '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.
(Sugar--Analysis) (Petroleum chemicals)

GULYAYEVA, L.I.; KHYANINA, A.P.

Spectrophotometric determination of the content of phenols in aqueous solutions. Zav.lab. 30 no.4:417-418 '64. (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

GULYAYEVA, L.I.; KHYANINA, A.P.

Using the pyroanalytic method to determine the fluorine in alumino-platinum catalysts and catalysis products. Nefteper. i neftekhim. no.7:29-32 '64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

GULYAYEVA, L.I.; KHYANINA, A.P.

Determination of the methanol content of formalin. Zav. lab. 30 no.8:944 '64. (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

KHYAZEVA, A. A., GERSHUNI, G.V. AND FEDOROV, L. N.

"About the Modification of Auditory Sensitivity in Action of Sound During Hypnotic Sleep," Fiz. Zhur., 32№ No.5, pp 557-566, 1946

Translation 297, Lulich

L [illegible] [illegible]/[illegible](a)/[illegible](c) [illegible] [illegible]/[illegible](b)/[illegible](t)
JD/[illegible]/[illegible]

ACCESSION NR: AP4042627 S/0075/64/019/007/0899/0902

AUTHOR: Luk'yanov, V. F.; Knyazeva, Ye. M.

TITLE: Determination of zirconium in alloys by means of N-benzoylphenylhydroxylamine

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 7, 1964, 899-902

TOPIC TAGS: zirconium, gravimetric analysis, quantitative analysis, Zr(C sub 13 H sub 10 O sub 2 N) sub 4, N-benzoylphenylhydroxylamine, zirconium, benzoylphenylhydroxylamine, masking agent, hydrogen peroxide, mineral analysis, alloy analysis, interfering ion

ABSTRACT: The conditions for precipitating zirconium with N-benzoylphenylhydroxylamine (BPHA) to form compounds suitable for gravimetric analysis, and application of this method to the analysis of zirconium alloys were investigated. Quantitative precipitation of zirconium was obtained from 0.7-0.6N H_2SO_4 solutions with 4% ethanol solution of BPHA. The compound formed has the formula $Zr(C_{13}H_{10}O_2N)_4$. A number of masking agents for Ti, Nb and Ta were examined. H_2O_2 was effective but caused the precipitate to lose its crystallinity, hence the Zr had to be determined

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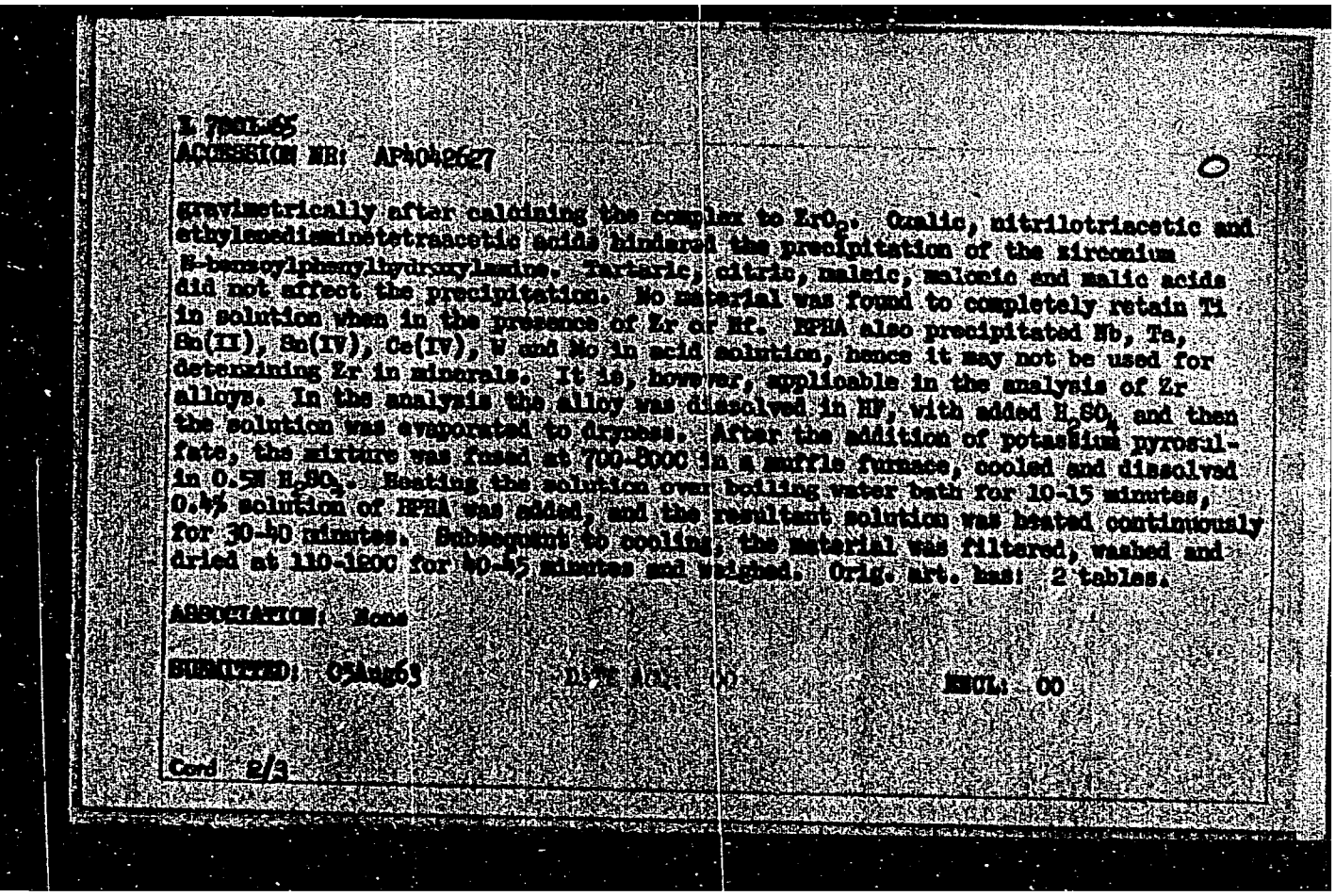

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ACCESSION NR: AP4042627

gravimetrically after calcining the complex to ZrO_2. Oxalic, nitrilotriacetic and ethylenediaminetetraacetic acids hindered the precipitation of the zirconium N-benzoylphenylhydroxylamine. Tartaric, citric, maleic, malonic and malic acids did not affect the precipitation. No material was found to completely retain Ti in solution when in the presence of Zr or Hf. BPHA also precipitated Nb, Ta, Sn(II), Sn(IV), Ce(IV), W and Mo in acid solution, hence it may not be used for determining Zr in minerals. It is, however, applicable in the analysis of Zr alloys. In the analysis the alloy was dissolved in HF, with added H_2SO_4 and then the solution was evaporated to dryness. After the addition of potassium pyrosulfate, the mixture was fused at 700-8000 in a muffle furnace, cooled and dissolved in 0.5N H_2SO_4. Heating the solution over boiling water bath for 10-15 minutes, 0.4% solution of BPHA was added, and the resultant solution was heated continuously for 30-40 minutes. Subsequent to cooling, the material was filtered, washed and dried at 110-1200 for 40-45 minutes and weighed. Orig. art. has: 2 tables.

ASSOCIATION: None

SUBMITTED: 05Aug63 DATE ACQ: 30 ENCL: 00

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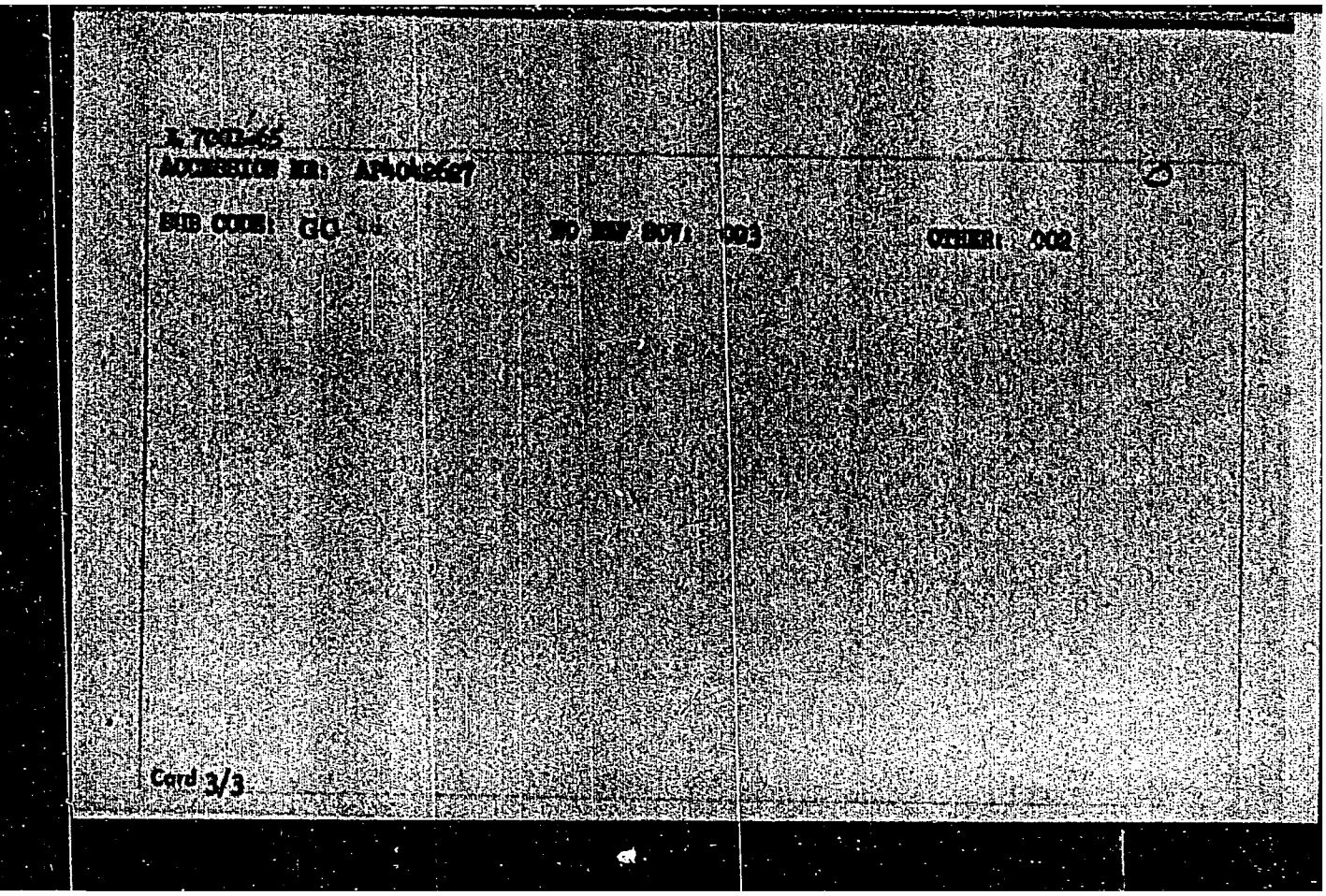

KHYBUTIYA-LABUNIYA, O. A. —

"The Bacteria of the Genus Proteus, Their Significance in Food Poisoning, and a Comparative Biochemical and Serological Study of the Strains Isolated From Human and Rodent Faces."

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

TORPAN, B.K., kand. tekhn. nauk, dots.; KHYDREYARV, Kh.Kh. [Hõrejärv, H.], inzh.

Investigating the corrosion of steel in the presence of shale ash at high temperatures. Izv. vys. ucheb. zav.; energ. 2 no.7: 105-110 Jl '59. (MIRA 13:1)

1.Tallinskiy politekhnicheskiy institut.
(Steel--Corrosion) (Oil shales)

MAMEDOV, Shamkhal; LERNER, G.Ya.; KHYDROV, D.N.

Glycol ethers and their derivatives. Part 65: Synthesis of alkoxymethyl ethers of trichloromethylphenylcarbinol. Zhur.ob.khim. 34 no.1:53-58 Ja '64. (MIRA 17:3)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.

ACC NR: AP6028888 SOURCE CODE: UR/0366/66/002/008/1377/1382

AUTHOR: Mamedov, Shamkhal; Shamilov, Kh. Kh.; Khydrov, D. N.

ORG: Institute of Petrochemical Processes, Academy of Sciences, AzerbSSR, Baku (Institut neftekhimicheskikh protsessov Akademii nauk AzerbSSR)

TITLE: Glycol ethers and their derivatives. CVIII. Synthesis of alkoxymethyl ethers of 1-hexyloxy-3-(diethylamino)-2-propanol

SOURCE: Zhurnal organicheskoy khimii, v. 2, no. 8, 1966, 1377-1382

TOPIC TAGS: pesticide, hexyloxydiethylaminopropanol alkoxymethyl ether, ether, chemical synthesis

ABSTRACT: In a search for new pesticides, a series of previously unreported methoxy-, propoxy-, isopropoxy-, isobutoxy-, and isoamyloxy-methyl ethers of 1-hexyloxy-3-(diethylamino)-2-propanol (I) and methoxy-, propoxy-, butoxy-, and amyloxymethyl ethers of 1-vinylmethoxy-3-(diethylamino)-2-propanol (II) were synthesized by a variant of the Williamson ether synthesis, in which α-chloro-methyl alkyl ethers are treated with I and II in the presence of NaOH. Composition and properties of the new ethers (III—XII) are given in the table. At 40—50°C in the presence of Na methoxide,

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I reacts with acrylonitrile to form XIII. Compound XIV was obtained by heating (at 75—80°C) a mixture of I with hexamethyleneamine, benzene, and paraformaldehyde. I reacts in benzene solution with thionyl chloride to form XV. Compounds XVI—XX were obtained by the reaction of XV with Na alkoxides at 60—70°C. At 90—100°C XV reacts with hexamethyleneamine to form XXI. Compound XXII was obtained by the reaction of XV with ethylmagnesium bromide. Reaction of XV with potassium acetate yielded XXIII; with potassium isoamylxanthogenate XV reacts to form XXIV; and with ethylene glycol XV reacts to form XXV. XXVI is formed in the latter reaction as a by-product. XXVI reacts with α-chloro-methyl ether to form XXVII. Composition and properties of the new ethers are given in the table:

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Compound no.	Yield (in %)	bp (p in mm)	d_4^{20}	n_D^{20}	MR_D		Found %		
					Found	Calc'd	C	H	N
I	90	126—130° (1)	0.8609	1.4412	69.28	69.49	67.46, 67.31	12.82, 12.95	6.46, 5.88
II	90	104—105 (5)	0.9155	1.4500	54.88	55.07	64.23, 64.27	11.57, 11.38	7.66, 7.64
III	54	124—126 (1)	0.8934	1.4340	80.17	80.51	65.71, 65.93	12.40, 12.17	4.90, 5.44
IV	55	141—143 (1)	0.8838	1.4368	89.79	89.81	—	—	4.67, 4.52
V	40	135—137 (1)	0.8820	1.4360	89.72	89.81	66.88, 67.36	12.57, 12.52	4.55, 4.59
VI	44	150—152 (1)	0.8800	1.4362	94.23	94.45	—	—	4.47, 4.88
VII	48	166—168 (1)	0.8814	1.4390	98.77	99.10	69.20, 68.89	12.32, 12.81	4.55, 4.55
VIII	40	161—163 (1)	0.8790	1.4376	98.77	99.10	—	—	4.70, 4.65
IX	52	100—102 (2)	0.9200	1.4396	66.11	66.09	62.21, 62.67	11.19, 11.27	6.35, 6.53
X	50	123—125 (2)	0.9076	1.4400	75.22	75.38	—	—	5.41, 5.81
XI	52	128—130 (0.5)	0.9050	1.4405	78.72	79.04	65.96, 66.31	11.66, 11.82	5.47, 5.28
XII	54	149—151 (2)	0.8993	1.4408	84.67	84.25	—	—	5.27, 4.99

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Compound no.	Yield (in %)	bp (p in mm)	d_4^{20}	n_D^{20}	MR_D Found	MR_D Calc'd	Found % C	Found % H	Found % N
XIII	60	162—163 (0.5)	0.8927	1.4438	80.30	80.02	68.00, 67.90	11.67, 11.57	10.10, 10.10
XIV	54	172—174 (1)	0.9056	1.4603	103.51	104.01	70.62, 70.55	12.32, 12.72	8.48, 8.17
XV*	87	120—122 (1)	0.9172	1.4450	72.41	72.62	62.31, 62.48	11.28, 11.16	5.32, 5.73
XVI	74	118—120 (1)	0.8595	1.4336	74.17	74.41	68.90, 68.76	13.05, 12.99	5.83, 5.78
XVII	61	126—127 (1)	0.8571	1.4341	78.69	79.06	—	—	5.79, 5.81
XVIII	75	135—136 (1)	0.8532	1.4350	83.33	83.71	70.60, 70.04	12.90, 12.99	5.35, 5.49
XIX	70	146—147 (1)	0.8517	1.4366	88.22	88.36	—	—	4.77, 4.89
XX	77	154—156 (1)	0.8502	1.4380	92.93	93.00	72.19, 72.09	13.42, 13.44	4.72, 4.75
XXI	50	170—172 (1)	0.8635	1.4623	97.15	97.60	73.35, 73.17	13.16, 12.88	6.88, 9.25
XXII	46	116—119 (2)	0.8250	1.4354	76.90	77.30	74.06, 73.76	13.67, 13.83	5.67, 5.59

* Found %: Cl 14.53, 14.29. Calculated %: Cl 14.29.

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Compound no.	Yield (in %)	bp (p in mm)	d_4^{20}	n_D^{20}	MR_D Found	MR_D Calc'd	Found % C	Found % H	Found % N
XXIII	54	144—146 (1)	0.9088	1.4366	78.63	78.85	66.24, 66.22	11.18, 11.16	5.28, 5.35
XXIV**	54	208—210 (1)	0.9585	1.4912	113.95	114.35	60.76, 60.46	10.59, 10.70	3.66, 3.49
XXV	43	161—163 (2)	0.9200	1.4490	80.17	80.55	65.69, 65.49	11.61, 12.09	5.08, 5.07
XXVI	25	239—240 (2)	0.8997	1.4510	146.77	146.05	69.23, 68.59	12.33, 12.79	7.93, 8.14
XXVII	57	160—162 (1)	0.9202	1.4398	91.34	91.57	64.24, 63.98	11.75, 12.02	4.66, 4.28

** Found %: S 16.59, 16.65. Calculated %: S 16.97.

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ACC NR: AP6028888

Compound no.	Formula	Calculated %		
		C	H	N
I	$C_{13}H_{19}NO_2$	67.53	12.55	6.06
II	$C_{10}H_{21}NO_2$	64.17	11.23	7.42
III	$C_{18}H_{33}NO_3$	65.45	12.00	5.09
IV	$C_{17}H_{37}NO_3$	—	—	4.62
V	$C_{17}H_{37}NO_3$	67.33	12.21	4.62
VI	$C_{18}H_{39}NO_3$	—	—	4.41
VII	$C_{18}H_{41}NO_3$	68.88	12.39	4.23
VIII	$C_{18}H_{41}NO_2$	—	—	4.23
IX	$C_{13}H_{25}NO_3$	62.34	10.82	6.06
X	$C_{14}H_{29}NO_3$	—	—	5.67
XI	$C_{15}H_{31}NO_3$	65.93	11.36	5.12
XII	$C_{16}H_{33}NO_3$	—	—	4.89

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ACC NR: AP6028888

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000722510007-7"

Compound no.	Formula	Calculated %		
		C	H	N
XIII	$C_{18}H_{32}N_2O_2$	67.60	11.27	9.85
XIV	$C_{20}H_{40}N_2O_2$	70.18	12.28	8.18
XV*	$C_{13}H_{28}ClNO$	62.78	10.66	5.63
XVI	$C_{14}H_{31}NO_3$	68.57	12.66	5.71
XVII	$C_{13}H_{33}NO_3$	—	—	5.40
XVIII	$C_{16}H_{35}NO_3$	70.33	12.83	5.12
XIX	$C_{17}H_{37}NO_2$	—	—	4.88
XX	$C_{18}H_{39}NO_2$	71.76	12.95	4.65
XXI	$C_{19}H_{40}N_2O_2$	73.08	12.82	8.97
XXII	$C_{15}H_{30}NO$	74.07	13.58	5.90
XXIII	$C_{16}H_{31}NO_3$	65.93	11.35	5.12

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ACC NR: AP6028888

Compound no.	Formula	Calculated %		
		C	H	N
XXIV **	$C_{18}H_{39}NO_2S_2$	60.48	10.34	3.71
XXV	$C_{18}H_{33}NO_3$	65.46	12.00	5.09
XXVI	$C_{28}H_{60}N_2O_4$	68.85	12.30	7.73
XXVII	$C_{22}H_{37}NO_4$	63.95	11.60	4.39

[WA-50; CBE No. 12]

SUB CODE: 07,06/SUBM DATE: 21Jan65/ ORIG REF: 012/

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L 42410-65 EWT(d) Pg-4/Pk-4 IJP(c)

ACCESSION NR: AP5006264 S/0040/65/029/001/0158/0161

AUTHOR: Dem'yanov, V. F. (Leningrad); Khvdyakov, L. Yu. (Leningrad) 28 B

TITLE: Solution in integers of a problem in quadratic programming

SOURCE: Prikladnaya matematika i mekhanika, v. 29, no. 1, 1965, 158-161

TOPIC TAGS: nonlinear programming, operations research, mathematical method, optimum process, applied mathematics, matrix algebra, analytic geometry, vector analysis

ABSTRACT: The problem of whole-number linear programming has been treated by L. V. Kantorovich (Matematicheskiye metody organizatsii i planirovaniya proizvodstva, Izd. LGU, 1939) and by D. B. Yudin and Ye. G. Gol'shteyn (Zadachi i metody lineynogo programmirovaniya, Fizmatgiz, 1961). The present authors, considering the quadratic case, first examine the non-integral auxiliary problem (the "continuous" problem), and then show how to find an integral solution from a known solution of the non-integral solution. As an example, they reduce the problem of selecting the optimum order of external actions to a linear system. The general problem is posed as follows:

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Given the function

$$F(X) = X'AX + X'B + \sigma \qquad (1.1)$$

where

$X = (x_1, x_2, \ldots, x_n)$ - an n-dimensional vector

A - real symmetric positive-definite square matrix of order n

B - n-dimensional vector

σ - a real number

$'$ - the operation of transposition

Also given n real numbers

$$y_1, \ldots, y_n \qquad (A)$$

from which one can form factorial-n ($n!$) different n-dimensional vectors, into each of which all the numbers (A) enter as coordinates. All of the points of the set Ω, these vectors, designated by Ω, obviously lie in a plane which is perpendicular to the vector $(1,1,\ldots,1)$ and which passes through the point $(a,a,\ldots,a)$ where

$$a = (y_1 + \ldots + y_n)/n$$

It is required to find a point Z in the set Ω

$$[Z \in \Omega]$$

such that

$$F(Z) = \min F(X), \quad [X \in \Omega] \qquad (1.2)$$

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