

BELOKON', I.P. [Belokin', I.P.]

Development of botany in the Polish People's Republic. Ukr.
bot. zhur. 19 no.2:95-107 '62. (MIRA 15:6)
(Poland--Botanical research)

BELOKON', I.P.

Ksenia IUL'evna Kostriukova; on her 70th birthday. Bot. zhur.
47 no. 11: 1701-1703 N '62. (MIRA 16:1)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G. Shevchenko.
(Kostriukova, Ksenia IUL'evna, 1892-)

BELOKON', I.P. [Bilokin', I.P.]

"Agricultural botany. Part 2: Plant physiology" by R.Dostal,
D.Dykyjova. Reviewed by I.P.Bilokin'. Ukr. bot. zhur. 20
no.4:120-121 '63. (MIRA 17:4)

BELOKON', I.P. [Bilokin', I.P.]

Review of the periodical "Acta societatis botanicorum
Poloniae" for 1960, 1962. Ukr. bot. zhur. 21 no.1:102-105
'64. (MIRA 17:3)

BELOKON', I.P. [Bilokin', I.P.]

Third Congress of the All-Union Botanical Society. Ukr. bot.
zhur. 21 no. 2:117-119 '64. (MIRA 17:5)

L 54714-65

ACCESSION NR: AP5018129

UR/0219/64/058/011/0014/0019

AUTHOR: Belokon', L. I.

TITLE: Changes in the electrical activity of the spinal cord under the effect of copper ions

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 58, no. 11, 1964
14-19

TOPIC TAGS: nervous system, copper, ion

ABSTRACT: Changes in the background ("spontaneous") bioelectrical activity of the spinal cord under the effect of copper ions were investigated. In experiments carried out on cats, cupric chloride in amounts corresponding to 0.1-1 mg Cu per kg weight was injected intravenously or an 0.01 M solution of cupric chloride was applied locally to the dorsal surface of the spinal cord at the place from which the potentials were led off. A brief stimulation of electrical activity, followed by a prolonged depression, was produced. These changes were more pronounced for potentials led off from the deeper portions of the spinal cord (in the region in

Card 1/2

L 54714-65

ACCESSION NR: AP5018129

which the motor nuclei of the tibial muscle are located) than for potentials obtained when the electrodes were applied dorsally. In spinal animals the phase of increased electrical activity was absent; only depression was produced. Orig. art. has: 3 graphs. 0

ASSOCIATION: Kafedra normal'noy fiziologii Ivano-Frankovakogo meditsinskogo instituta (Department of Normal Physiology, Ivano-Frankovak Medical Institute)

SUBMITTED: 19 Jun 63

ENCL: 00

SUB CODE: LS

NR REF SOV: 0011

OTHER: 000

NA

Card ¹⁴ 2/2

ZUSSER, Ye.Ye., kand. khim. nauk; BELOKON¹, L.M., kand. khim. nauk

Continuous flow system of the production of double superphosphate using a small amount of the return product.
Khim. prom. no.5:336-338 My '63. (MIRA 16:8)

AUTHORS: Abramov, V. S., Belokon, L. Sh., 79-28 3-22/61
Makhmutova, F. I.

TITLE: The Reaction of Dialkylphosphorous Acids With Aldehydes and Ketones (O vzaimodeystvii dialkilfosforistykh kislot s al'degidami i ketonami)
Esters of 1-Oxy-1-Acetoethylphosphinic- and 2-Oxy-4-Keto - 2 - Amylphosphinic Acid (Efiry 1-oksi-1-atsetoetilfosfinovoy i 2-oksi-4-keto-2-amilfosfinovoy kislot)

PERIODICAL: Zhurnal Obshchey Khimii, Vol. 28, Nr 3, pp. 665-667 (USSR)

ABSTRACT: The authors carried out systematic investigations of the condensation of dialkylphosphorous acids with diacetyl- and acetylacetone. In this the formation of two products with one or two carbonyl groups was to be expected. In α -diketones (diacetyl) these groups interact by increasing polarization which would have to lead to a condensation of the above mentioned acids with the first carbonyl group of diacetyl under the formation of the compound (I). The reaction of the

Card 1/3

The Reaction of Dialkylphosphorous Acids With Aldehydes and Ketones. 79-28 3-22/61

Esters of 1-Oxy-1-acetoethylphosphinic- and 2-Oxy-4-keto - 2 - Amyl-phosphinic Acid

second carbonyl group with the second molecule of the acid must be independent of the action of the phosphone group on the reactivity of the molecule and on the possibilities of spatial arrangement formed from it after its entrance into the molecule (II). The equimolecular condensation of dialkylphosphorous acids with diacetyl proceeds well, also without catalyst, on the water bath within from 10-12 hours. The vacuum distillation of the esters takes place without decomposition. Contrary to the condensation products of dialkylphosphorous acids with monoaldehydes and monoketones the synthesized esters have a constant boiling temperature. The esters of the 1-Oxy-1-acetoethylphosphinic acid are given in table 1. The condensation of dialkylphosphorous acids with acetylacetone must take place under formation of the esters of the 2'-amylphosphine derivatives. In the condensation of dialkylphosphorous acid with a carbonyl group of acetylacetone an ester is formed in its carbonyl form, namely one of

Card 2/3

The Reaction of Dialkylphosphorous Acids With Aldehydes and Ketones. 79-28.3-22/61

Esters of 1-Oxy-1-Acetoethylphosphinic- and 2-Oxy-4-keto - 2 - Amyl-phosphinic Acid

the 2-Oxy-4-keto -2-amylphosphinic acid (III). With the enole form of acetylacetone, however, a 2,4-dioxy-2-penten-3-yl-phosphinate is formed (IV). In both cases the reaction leads to one and the same product with two tautomeric formulae being in equilibrium, The equimolecular condensation of dialkylphosphorous acids with acetylacetone proceeds a little more difficultly without a catalyst than with diacetyl, the yields being small (table 2). The authors tried in vain to determine the carbonylgroup by means of phenylhydrazone. There are 2 tables and 2 references, which are Soviet

ASSOCIATION: Kazanskiy khimiko- tekhnologicheskii institut
(Kazan' Chemical Technological Institute)

SUBMITTED: March 5, 1957

Card 3/3

L 2791-66 EWT(m)/EWP(i)/T/EWP(t)/EWP(b)/EWA(c) LJP(c) JD

ACCESSION NR: AP5022246

UR/0363/65/001/007/1016/1020
546,289:548,55

40
35
8

AUTHOR: Dorfman, V. F.; Belokon', M. S.; Krasnova, G. F.; Tolkacheva, G. N.

TITLE: Effect of growth conditions on certain properties of epitaxial germanium layers

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, 1016-1020

TOPIC TAGS: epitaxial growing, germanium, crystal dislocation

ABSTRACT: This paper deals primarily with the morphological and structural characteristics of epitaxial germanium layers grown by the iodide process. The dislocation density and its distribution over the thickness of the layers are determined by etching with 8 pts. $K_3[Fe(CN)_6]$ + 12 pts. KOH + 100 pts. H_2O . As the temperature of the growing process rises, the role of homogeneous disproportionation of GeI_2 in the gas phase increases. As a result, the structure of the epitaxial layers changes, and in particular, stacking faults appear. A hypothesis is advanced concerning the general nature of stacking faults and trigonal growth pyramids on the (111) plane. A mechanism accounting for both of these formations

Card 1/2

L 2791-66

ACCESSION NR: AP5022246

5
is proposed. The morphology of epitaxial deposits is closely related to their internal structure. Smooth deposits are obtained by decreasing the dislocation density and increasing the uniformity of their distribution in the layers. "The authors thank K. A. Bol'shakov and I. P. Kislyakov for their helpful comments throughout the course of the study, A. M. Anisimova and T. B. Pleskacheva for assistance in the experiments, and V. G. Kholodova for taking photographs with the electron microscope." Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 18Feb65

ENCL: 00

SUB CODE: SS, IC

NO REF SOV: 005

OTHER: 004

BVK
Card 2/2

DORFMAN, V.F.; BELOKON', M.S.; KRASNOVA, G.F.; TOLKACHEVA, G.N.

Conditions of growth as affecting certain properties of epitaxial
layers of germanium. Izv. AN SSSR. Neorg. mat. 1 no.7:1016-1020
Jl. '65. (MIRA 18:9)

BELOKON', M.P.; ROMANOVA, K.V.

Organization of calculation of morbidity. Sov. zdrav. 13 no.4:
48-49 J1-Ag '54. (MLRA 7:9)

1. Iz Nauchno-metodicheskogo byuro sanitarnoy statistiki Mini-
sterstva zdravookhraneniya SSSR.
(VITAL STATISTICS,
morbidity, method of calculation in Russia)

BELOKOV, M. P.

GOMEL'SKAYA, G.L., kandidat meditsinskikh nauk; BELOKON', M.P.

Method for analyzing the quality of diagnosis in hospitals.
Sov.med. 19 no.9:85-89 S '55. (MLRA 8:12)

1. Iz Nauchno-metodicheskogo byuro sanitarnoy statistiki
Ministerstva zdavookhraneniya SSSR.

(DIAGNOSIS

in hosp., quality of means & methods in Russia)

(HOSPITALS

in Russia, quality of diag. means & methods)

BELOKON', M.Ye.; INOZEMTSEV, G.B.; KOZYRINA, A.P.; VOZNYUK, V.S.;
OSTIYAN, Z.Yu.; KOZUB, M.M.; MAN'KO, Ya.V.

Electric apparatus for chair varnishing. Der. prom. 12 no.9:
11-12 S '63. (MIRA 16:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki drevesiny (for Belokon', Inozemtsev, Kozyrina, Voznyuk).
2. Irshavskiy mebel'nyy kombinat (for Ostiyan, Kozub, Man'ko).

BELOKON', M.Ye.; INOZEMTSEV, G.B.

Methods for analyzing paint concentration in the atomizing
jet during painting in an electric field. Lakokras.mat. i ikh
prim. no.4:46-47 '62. (MIRA 16:11)

KOZYRINA, A.P.; YAKHNO, A.G.; BELOKON', M.Ye.

Use of ultrasonic waves in electric spray painting. Der.
prom. 14 no. 8:4-6 Ag. '65. (MIRA 18:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki drevesiny.

BELOKON, N.I.

BELOKON', N.I., professor

Fire tube wear from the side of gas flow in locomotives. Tekh.zhel.
dor.7 no.7:6-7 J1'48. (MIRA 8:11)
(Locomotive boilers)

BELOKON' .N.I., professor, doktor tekhnicheskikh nauk

Measurements of an impulse of force by means of a physical pendulum. Trudy MNI no.13:180-201 '53. (MIRA 8:6)
(Pendulum)

BELOKON', Nikolay Iovich; LITVIN, A.M., redaktor; FRIDKIN, I.M., tekhnicheskij redaktor.

[Thermodynamics] Termodinamika. Moskva, Gos. energ. izd-vo, 1954.
415 p. (MLRA 8:1)

(Thermodynamics)

BELOKON, NIKOLAI I.

U.S.S.R.

✓ Belokon, Nikolai I.: Termodinamika (Thermodynamics)
Moscow: Gosudarst. Energet. Izdatel'stvo, 1954. 415 pp.

Good
Smew
[Signature]

BELOKON, N.I.

FUKS, G.I., professor, doktor tekhnicheskikh nauk

On the book by N.I. Belokon "Thermodynamics." Reviewed by G.I. Fuks.
Teploenergetika 2 no.9:63-64 S'55. (MLRA 8:10)
(Thermodynamics) (Belokon', Nikolai Iovich)

BELOKON, 'N.I., doktor tekhnicheskikh nauk, professor.

Theoretical and indicator processes in steam engines. Vest. TSNII MPB
no.1:30-37 F '57. (MIRA 10:3)

(Steam engines)

BELOKON', N.I., doktor tekhnicheskikh nauk, professor.

Characteristics of the combustion mass of fuels. Trudy TSNII MPS
no.135:4-25 '57. (MIRA 10:8)

(Combustion)

BELOKON', N.I.

Thermodynamic processes of gas turbine power plants. Trudy MINKHIGP
no.24:183-232 '59. (MIRA 13:3)
(Gas turbines)

BELOKON', N.I., prof., doktor tekhn. nauk, zasluzhennyy deyatel'
nauki i tekhniki RSFSR

Concerning I.A.Z. Kazavchinski and V.S. Zhukovskii's remarks
on the book "Thermodynamics." Izv. vys. ucheb. zav.; energ.
7 no.2:115-119 F '64. (MIRA 17:3)

BELOKON', N.I.; PORSHAKOV, B.P.; TOLYBEKOV, B.S.

Investigating the operation of the GT-700-4 gas-turbine unit
and its regenerator under operational conditions. Gaz. prom. 9
no.6:29-36 '64. (MIRA 17:8)

KHAINOV, B.Ya.; BELOKON', N.I.

Manufacture and application of loop yarn made with acetate silk.
Tekst. prom. 24, no.5:29-34 My '64 (MIRA 18:2)

1. Rukovoditel' laboratorii po pererabotke khimicheskikh volokon
Uzbeeskogo nauchno-issledovatel'skogo instituta shelkovoy pro-
myshlennosti (for Khainov). 2. Starshiy dessinator Margelan-
skogo shelkovogo kombinata (for Belokon').

BELOKON', N.I.; BIKCHENTAY, R.N.; MATVEYEV, A.V.; PORSHAKOV, B.P.;
TOLYBEKOV, B.S.; BARMIN, S.F.; MOROZ, A.P.

Field testing the GT-700-5 gas turbine installation and its
recuperator. Gaz.prom. 10 no.11:16-24 '65.

(MIRA 1961)

NIKITIN, V.N.; STAVITSKAYA, L.I.; BELOKON', N.S.; PAYKOVA, L.N.;
SPRENNE, M.V.; YASHINA, L.N.

Ontogenesis of the adrenal glands and thymicolymphoid organs
under normal conditions and following intermittent growth-
inhibiting diet. Zhur. evol. biokhim. i fiziol. 1 no.1:45-51
Ja-F '65. (MIRA 18:6)

1. Kafedra fiziologii cheloveka i zhivotnykh i Otdel ontofiziologii
Biologicheskogo instituta Khar'kovskogo gosudarstvennogo universiteta
im. A.M. Gor'kogo.

BELOKON', S.M. [Bilokin', S.M.]

Behavior of pyrite sulfur during the semicoking of brown coal.
Dop. AN URSSR no. 2:207-211 '62. (MIRA 15:2)

1. Institut teploenergetiki AN USSR. Predstavleno akademikom
AN USSR I.N. Frantsevichem [Frantsevych, I.M].
(Coal-Carbonization) (Sulfur)

BELOKON', S.M., inzh.; MURMILOV, A.V., inzh.; FILONENKO, Yu.Ya., inzh.

Determining the temperature of semicoke ignition.
Teploenergetika 9 no.11:52-54 N '62.

(MIRA 15:10)

1. Institut teploenergetiki AN UkrSSR.
(Coke—Combustion)

SHCHOGOLEV, G.M. [Shchokoliev, H.M.]; BELOKON', S.M. [Bilokon', S.M.]

Some problems of the semicoking of gas coals with a solid heat
exchanger. Zbir. prats' Inst. tepl. AN URSS no.25:9-15 '62.
(MIRA 17:1)

~~BELOKON~~ IS. M. [Bilokon', S.M.]; GREBENYUK, A.F. [Hrebenuk, A.F.];
MURMILOV, A.V.; KONOMENKO, V.Ye. [Konomenko, V.IE.]

Effect of the heating time on the yield of the product in the
semicoking of Donets gas coals with a solid heat exchanger.
Zbir. prats' Inst. tepl. AN URSR no.25:16-24 '62. (MIRA 17:1)

BELOKON', S.M. [Bilokon', S.M.]

Behavior of sulfate sulfur during the semicoking of brown coal.
Zbir. prats. Inst. tepl. AN URSS no.25:44-50 '62. (MIRA 17:1)

BELOKON', S.M., inzh.; BAZEYEV, Ye.T., inzh.

Investigation of the effect of the operation of an industrial furnace working as a generator of a solid heat carrier on the combustion temperature. Energ. i elektrotekh. prom. no.1: 15-16 Ja-Mr'64. (MIRA 17:5)

BAZEYEV, Ye.T.; BELOKON', S.M.; KORMYSHEV, V.V.

Utilization of Lvov-Volyn' Basin coals as fuel and source of
chemicals. Khim i tekhn. topl. i masel 9 no.3:41-44, Mr'64
(MIRA 17:7)

BAZEYEV, Ye.T.; BELOKON', S.M.; FILONENKO, Yu.Ya.; SHCHEGOLEV, G.M.

Dust removal from gases in the precondensers of industrial
power systems. Khim. i tekhn. topl. i masel 10 no.3:37-41
Mr 165. (MIRA 18:11)

ONOKHIN, V.F., inzh.; BELOKON', V.A., inzh.; LEBEDEVA, N.I., inzh.,
red.; ALEKSEYEVSKAYA, Ye.A., red.; SREZNOV, P.I., tekhn.red.

[Defects in lead bronze bearing linings] O defektakh vkladyshei,
zalivaemykh svintsovistoi bronzoi. Moskva, TSentr.biuro nauchno-
tekhn.informatsii tiashelogo mashinostroenia, 1959. 25 p.
(MIRA 14:1)

(Bearings (Machinery))

(Lead bronze)

S/032/60/026/010/032/035
B016/B054

AUTHORS: Belokon', V.A., Chief, and Beloborodova, O. S., Substitute
Chief

TITLE: Work of the Central Laboratory of the Sverdlovsk Turboengine
Works

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 10, pp.1184-1185

TEXT: The authors report on the revision of the essential fields of work carried out at the Central Laboratory of the Sverdlovsk Turboengine Works. This revision was urged in the resolutions of the Plenary Meeting of the TsK KPSS (Tsentral'nyy komitet Kommunisticheskoy partii Sovetskogo soyuza, Central Committee of the Communist Party of the USSR) in June, 1959. According to these resolutions, the work of introduction of materials with a more economical consumption, as well as the restriction of the use of scarce goods should be much intensified. This should be done at the expense of pure control work. According to the authors' statement, the extension of automation- and mechanization work of production methods, as well as the introduction of new economical materials, has trebled during
Card 1/3

Work of the Central Laboratory of the
Sverdlovsk Turboengine Works

S/032/60/026/010/032/035
B016/B054

1960 (as compared with 1959). By the end of 1959, the chrome plating of piston rings without lapping was automatized, and a nondestructive method of controlling surface hardening was introduced. This type of chrome plating also permits a more frequent and qualitatively better control than the former type. In the electro-refining department, research and introduction work with high-frequency current was carried out. This work permitted an automation and mechanization of the refining operations during the mechanical treatment without a transfer into the refining department. These and other similar measures will save 2.3 million rubles a year. The refining method mentioned is applied to distributor- and crankshafts. During 1960, further engine parts are refined in this way, which allows a replacement of high-alloyed steel grades by lower-alloyed ones. A special laboratory for electrorefining is being established. The Metallograficheskaya laboratoriya (Metallographic Laboratory) of the authors' laboratory, together with the Sverdlovskiy proyektnotekhnologicheskii institut (Sverdlovsk Institute of Planning and Technology), is working at the refining of gears on a semiautomatic assembly line. The Gruppa plastmass (Group of Synthetics) of the authors' laboratory will be extended to an independent laboratory by the end of 1960. By the replacement of various alloys by synthetics in the production of Diesel engine parts, it was
Card 2/3

Work of the Central Laboratory of the
Sverdlovsk Turboengine Works

S/032/60/026/010/032/035
B016/B054

possible to save 7 t of aluminum alloy, 35 t. of copper, and 4 t of tin yearly. The possibility of replacing difficultly available nonferrous metals by others is being studied. Engineers, technicians, and laboratory assistants of the authors' laboratory constantly cooperated, besides their research work, in the introduction of modern techniques in the individual factory departments, and in the saving program of nonferrous metals and electric power. Thanks to the resolutions mentioned at the beginning, work at the Central Laboratory was much extended; seven new engineers and technicians were engaged. With the introduction of the 7-hour working day with a simultaneous increase in salaries for research engineers, the exodus of experts was stopped. In a very near future, the six laboratories of the Central Laboratory will be concentrated in a new building. ✓

ASSOCIATION: Tsentral'naya laboratoriya Sverdlovskogo turbomotornogo zavoda (Central Laboratory of the Sverdlovsk Turboengine Works)

Card 3/3

BELOKON', V.A.

Rare case of cirrhosis of the liver in a child. *Pediatria* 36
no.2:87 F '59. (MIRA 12:4)

1. Iz khirurgicheskogo otdeleniya 4-y gorodskoy bol'nitsy g.
Zaporozh'ye.

(LIVER--CIRRHOSIS)

(CHILDREN--DISEASES)

BELOKON', V.A. (Moskva)

Linus Pauling on the resonance theory. Priroda 52 no.7:67-69
Jl '63. (MIRA 16:8)
(Mesomerism) (Pauling, Linus Carl, 1901-)

BELOKON', V. A.

Can the waves on a stream disclose the secret of supersonic flight?
Tekh.mol. 22 no.6:24-25 Je '54. (MIRA 7:6)

1. Student Fiziko-tehnicheskogo instituta.
(Waves) (Ultrasonic waves)

BELOKON', V.A.

Using percussion fuses in astrophysics. Priroda 45 no.12:80-83 D
'56. (MLRA 10:2)

1. Moskovskiy fiziko-tekhnicheskii institut.
(Astrophysics)

LEBOKOV, V. A.

"Properties of Uniform Shock Waves in Luminous Gas at $M \rightarrow \infty$."

Research in Physics and Radio Engineering, Moscow, Oborongiz, 1958. p. 92.

The book is a collection of 13 articles written by instructors and graduate and undergraduate students of the Moscow Inst. of Physics and Technology. The articles discuss problems in radiophysics, optica and physics.

BELOKON', V.A.

Special features of one-dimensional shock waves in an emitting
gas at M_{∞} . Trudy MFTI no.2:92-107 '58. (MIRA 11:12)
(Shock waves)

24(8)

AUTHOR:

Belokon', V. A.

SOV/56-36-1-60/62

TITLE:

The Vanishing of the Isothermal Jump in the Case of a Great Density of Radiation (Izsheznoveniye izotermicheskogo skachka pri bol'shoy plotnosti izlucheniya)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 1, pp 341-343 (USSR)

ABSTRACT:

Also in the present paper gas is considered to be a heat-conductive continuous medium which conserves the local thermodynamic equilibrium. The author shows that the isothermal jump vanishes in a sufficiently hot gas. The equation of state and the equation for enthalpy are written down by taking radiation density into account. The isothermal velocity of sound increases relatively slowly. Equations are written down for the state of the gas behind the shock wave. One of these equations is equivalent to the condition for the monotony of temperature along the direct evolution of the heat-conductive gas within the shock wave. This applies also to a nonradiating gas. In conclusion, an expression is derived for the total compression on a wave in a radiating gas. This equation corresponds to the transformation of the isothermal

Card 1/2

• The Vanishing of the Isothermal Jump in the Case
of a Great Density of Radiation

SOV/56-36-1-60/62

jump in isothermal sound. The author thanks the researchers of the Institut khimicheskoy fiziki (Institute for Chemical Physics) K. Ye. Gubkin, O. S. Ryzhov, and A. A. Milyutin for their useful discussions. There are 4 references, 3 of which are Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences, USSR)

SUBMITTED: October 18, 1958

Card 2/2

21(7)

AUTHOR:

Belokon', V. A.

SOV/56-36-4-57/70

TITLE:

The Permanent Structure of Shock Waves With Joulean Dissipation
(Permanentnaya struktura udarnykh voln s dzhoulevoy
dissipatsiyey)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36,
Nr 4, pp 1316-1317 (USSR)

ABSTRACT:

In the present "Letter to the Editor" the author points out an absurdity in the theory of magnetohydrodynamic shock waves. If an entropy variation by a unique factor in a continuous medium occurs as Joulean heat, the equations of magnetohydrodynamics, which describe a time-constant homogeneous flow transverse to magnetic lines of force, are determined by the evolution of the thermodynamic parameters according to the laws of conservation for mass and momentum. It holds that

$d(RT/V + H^2/8\pi)/dV \equiv dp/dV = -(\rho u)^2 = -(\rho u)_{+\infty}^2$ with the conditions of thermal equilibrium $\rho u T dS/dx = (c^2/16\pi^2 G)(dH/dx)^2 \gg 0$. Here, the endeavor to obtain a continuous solution leads to

$-(u/V)^3 T dS/dV = (c^2/16\pi^2 G)(dH/dV)^2 dp/dx$. With $dS/dV > 0$, i.e. in

Card 1/2

SOV/56-36-4-57/70

The Permanent Structure of Shock Waves With Joulean Dissipation

the case of a decrease of entropy, pressure tends towards a total value with negative gradient, which is equal to a triplicity of the flow parameters in space. In view of this absurdity of the continuous solution the author deems it necessary to postulate a Riemann or isentropic discontinuity of the flow parameters within the compression wave, similar to the isothermal point of discontinuity for a purely heat-conductive gas. The author finally thanks K. Ye. Gubkin for discussions. There are 8 references, 6 of which are Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute for Chemical Physics of the Academy of Sciences, USSR)

SUBMITTED: December 30, 1958

Card 2/2

BELOKON', V.A.; BELOBORODOVA, O.S.

Work of the Central Laboratory of the Sverdlovsk Turbomotor Plant.
Zav.lab 26 no.10:1184-1185 '60. (MIRA 13:10)

1. Nachal'nik Tsentral'noy laboratorii Sverdlovskogo turbomotornogo zavoda (for Belokon').
2. Zamestitel' nachal'nika Tsentral'noy laboratorii Sverdlovskogo turbomotornogo zavoda (for Beloborodova).
(Sverdlovsk--Engineering laboratories)

BELOKON', V.A.

The greatest physicist of our times; Niels Bohr as our guest.
Priroda 50 no.8:50-53 Ag '61. (MIRA 14:7)

1. Institut khimicheskoy fiziki AN SSSR (Moskva).
(Bohr, Niels Henrik David, 1885-) (Physics--Philosophy)

BELOKON', V.A.

Nils Bohr visiting with Soviet scientists. Usp. fiz. nauk 76
no.1:185-189 Ja '62. (MIRA 15:2)
(Bohr, Nils Henrik David, 1885-)

L 15711-63 EWT(1)/EWG(k)/BDS/EEC(b)-2/ES(w)-2 AFFTC/ASD/ESD-3/AFWL/
IJP(G)/SSD Pz-4/P1-4/PO-4/Pab-4 AT
ACCESSION NR: AR3002650 8/0124/63/000/005/B005/B006
SOURCE: Rzh. Mekhanika, Abs. 5B24 99
AUTHOR: Belokon', V.A.
TITLE: Tendency of compressional waves to reverse and destroy their isentropicity
in the absence of collisions between particles of the plasma.
CITED SOURCE: Sb. Vopr. magnitn, gidrodinamiki i dinamiki plazmy. v. 2, Riga,
AN LatvSSR, 1962, 349-351
TOPIC TAGS: shock wave, compressional wave, entropy, isentropy, collision,
plasma, Heisenberg principle, freezing-in, magnetic line
TRANSLATION: In many cases the effects of collisions do not play an essential
role in plasmas. In these cases, for the description of the flow, one may use
the magnetohydrodynamic equation in the isentropic form. However, the application
of such equations to the study of compressional waves leads to the paradoxical
conclusion of the possibility of "reversing" the compressional wave. Previously,
arguments of a special order were advanced against this conclusion; for example,
Card 1/2

L 15711-63
ACCESSION NR: AR3002650

that the width of the wave can not be less than the Debye length, etc. In the given work, two more rigorous proofs of the impossibility of reversing and of the possibility of increase of entropy during the absence of collisions in the more general case are presented. The first proof is based on the use of the Heisenberg indeterminacy relations. The second proof is obtained by proceeding from consideration of the low temperature plasma. It is shown that, in this case, during the "freezing in" of magnetic lines in the substance, the entropy may increase even in the absence of collisions. V.M. Kuptsov

DATE ACQ: 14Jun63

SUB CODE: PH, NS

ENCL: 00

Card 2/2

8/658/62/000/009/003/013
A059/A126

AUTHOR: Belokon', V.A.

TITLE: On the thermodynamics of ideal explosions

SOURCE: Moscow. Fiziko-tehnicheskij institut. Trudy. no. 9, 1962. Issledovaniya po mekhanike i prokladnoy matematike. 16 - 26

TEXT: The shock wave which has been introduced by Riemann as a solution to the paradoxon was analyzed which shows the ambiguities of parameters typical of an ideal compressible fluid. When Riemann's solution is being analyzed, the postulates concerning the shock waves and "reasonable" conditions in such explosions are stressed. In the sense of these postulates, it is appropriate to indicate the jumps of the parameters of the medium through Dirac's δ function which is convenient for the quick derivation of the thermodynamic properties of these jumps, and for the refutation of criticism raised against Riemann's physical considerations. Riemann's jump is shown to be irreversible, and can be realized, in principle, by means of a radiant shock wave. New conclusions concerning the correlations in usual and relativistic explosions are methodically com-

Card 1/2

On the thermodynamics of ideal explosions

S/658/62/000/009/003/013
A059/A126

pared, and it is stated that the really registered compression in an infinitely strong relativistic jump tends to infinity; the real recording will give the values of inherent density and temperature. When vapor generation is considered a faster increase in mass packing is achieved in the jump. A.N. Kolmogorov, S. V. Fomin, and L.D. Landau are mentioned. Thanks are due to V.M. Andreyev, Professor R. Kurant, Doctor P. Laks, and, chiefly, to V.S. Imshennik for discussion and valuable comments.

Card 2/2

BELOKON', V. A. (Moscow)

"On the estimation of shock thickness from the principles of statistical mechanics"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 1964.

BELOKON', V. A.; PETRUKHIN, A. I.; PROSKURYAKOV, V. A. (Moscow)

"On the entry of a strong shock wave into a wedge-shaped cavity"

report presented at the 2nd All-Union Congress on Theoretical and Applied
Mechanics, Moscow, 29 Jan - 5 Feb 1964.

I. 26058-65 ENT(1)/EWP(m)/FCS(k)/EWA(h) Pd-1/P1-4

ACCESSION NR: AP5004372

S/0056/65/048/001/0050/0060

AUTHOR: Belokon', V. A.; Petrukhin, A. I.; Proskuryakov, V. A.

TITLE: Entrance of a strong shock wave into a wedge-shape cavity

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 1, 1965, 50-60

TOPIC TAGS: shock wave propagation, shock wave reflection, high temperature plasma, shock tube, shock wave, high pressure

ABSTRACT: The authors investigated some features of multiple Mach reflections of converging strong shock waves produced by an electric spark discharge in a shock tube made of iron with an approximate inside diameter of 110 mm. The energy stored was about 8000 J, with approximately 3000 J released in the gap (80% of which was released in 8.5 μ sec. The tube consisted of two sections, each 550 mm long, and to the end of the second section was connected a Flexiglas section, constituting a rectangular channel 50 x 50 mm in cross section and 320 mm long. In the latter was placed an insert in the form of a wedge-shaped cavity with an angle of 40° at the vertex.

Card 1/3

L 26058-65

ACCESSION NR: AP5004372

The total distance from the discharge gap to the vertex of the wedge cavity was 1300 mm. The tube was filled with atmospheric air. The initial pressure prior to the explosion was measured with a McCleod gauge. After each explosion, the tube was refilled with air and pumped out to one of the three initial pressures: 0.1, 0.2, and 0.5 mm Hg. The shock-wave front velocity was measured with an SFR camera with a mirror speed of 60,000 rpm. The passage of the shock wave in the wedge region was photographed at 2×10^6 frames per second by the SFR camera used as a time magnifier. The visible region of the shock wave spectrum was photographed with an ISP-51 spectrophotograph. The results have shown that the multiple irregular (Mach) reflections of a strong shock wave entering the wedge-shape cavity increase noticeably the plasma temperature, increase the mass density by more than 100 times, and increase the glow brightness by more than 1,000 times compared with the plasma characteristics behind the shock wave. At the vertex of the wedge-shape cavity plasma is produced which radiates like a grey body with a brightness temperature 35×10^3 K. The electron density in the wedge-shape cavity is almost ten times larger than in normal reflection from a flat wall (under the same initial shock-wave parameters), and the brightness of the glow increases by approximately 50 times. This can be used to produce a high-

Card 2/3

L 26058-65

6

ACCESSION NR: AP5004372

intensity light source. "We thank Professor G. I. Pokrovskiy for suggesting the idea of the experiment, and also K. Ye. Gubkin, Professor K. Moravets, and I. V. Nemchinov for valuable discussions and Z. N. Stepchenkov for calculations."

Orig. art. has: 6 figures, 3 formulas, and 8 tables.

[02]

ASSOCIATION: Institut fiziaki zemli Akademii nauk SSSR (Institute of Physics of the Earth, Academy of Sciences, SSSR)

SUBMITTED: 15Jun64

ENCL: 00

SUB CODE: ME

NO REF SOV: 007

OTHER: 008

ATD PRESS: 3186

Card 3/3

L 16063-66

ACC NR: AP6002368 EWT(l)/EWP(m)/EWA (d)/FCS(k)/EWA(h) WW

SOURCE CODE: UR/0207/65/000/006/0125/0129

AUTHOR: Belokon', V. A. (Moscow)

ORG: None

TITLE: Interpolation formula for the shock front thickness

SOURCE: Zhurnal prikladnoy mekhaniki tekhnicheskoy fiziki, no. 6, 1965, 125-129

TOPIC TAGS: shock wave structure, shock wave front, statistic mechanics

ABSTRACT: It is impossible to determine exactly the thickness of the discontinuity and the structure of the shock wave even in the case of a gas consisting of elastic spheres. The present article attempts to estimate the thickness of the discontinuity utilizing the general principles of statistical mechanics without a detailed qualitative description of its structure. The basis of the method was outlined elsewhere (O vyvode otsenki tolshchiny skachka iz printsipov statisticheskoy mekhaniki. Annotatsii dokl. na II Vsesoyuznom s"yezde po teor. i prikl. mekhanike. Izd-vo AN SSSR, 1964, p. 31). Here, using the linearity condition

or

Card 1/2

59
56
0

I 16063-66

ACC NR: AP6002368

the author presents rough illustrations of the method of thickness estimates for various media (collisionless plasma, elastic sphere gas, Maxwellian molecules) and compares it with data found in the literature. In the future best results may be expected in laser measurements at different wavelengths while studying the structure of the discontinuity in solids in the gamma and X-ray range. Author thanks K. Ye. Gubkin, V. S. Imshennik, and coworkers of the Theoretical Department, Institute of Physics, AN Latvian SSR (Institut fiziki AN Latviyskoy SSR) for stimulating criticism. Orig. art. has: 17 formulas and 1 figure.

SUB CODE: 20 / SUBM DATE: 12Jun65 / ORIG REF: 006 / OTH REF: 018

Card 2/2

BELOKON', V.G.; ELINSON, M.M.

Distribution of gas in the formation of coal-bearing sediments
in the diamond region of the Donets Basin. Izv. vys. ucheb. zav.;
geol. i razv. 8 no. 12:64-70 D '65 (MIRA 19:1)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze.

BELOKON', V.V., inzh.; AKUNOV, V.I., kand. tekhn. nauk

Iron removal from quartz sand during its grinding on a counter-flow-type jet mill. Stek. i ker. 22 no.12:22-25 D '65.
(MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov.

RUDYSHIN, M.P. [Rudyshyn, M.P.]; BELOKON', Ye.M. [Belokon', O.M.]

Materials on the gamasid mites of insectivores and rodents
of the upper Dniester Basin. Nauk. zap. Nauk-pryrod. muz.
AN URSR 9:61-68 '61. (MIRA 15:2)

(Dniester Valley—Mites)

(Parasites—Insectivora)

(Parasites—Rodentia)

BELIKOV, V.M.; BELOKON', Yu.N.

Nucleophilic addition of a magnesium complex of nitroacetic acid.
Izv. AN SSSR. Ser. khim. no.6:1134 Je '64.

(MIRA 17:11)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

BABIYEVSKIY, K.K.; BELIKOV, V.M.; BELOKON', Yu.N.

Amino acids. Report No.2: Synthesis of D L-proline from nitroacetic ester derivatives. Izv. AN SSSR. Ser. khim. no.7:1226-1229 '65. (MIRA 18:7)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

18.200

77423
SOV/130-60-1-6/22

AUTHOR: Belokonko, N. A. (Foreman of Maintenance Shop of Krivoy Rog Plant)

TITLE: Replacement of the Ignition Furnace in the Sintering Machine

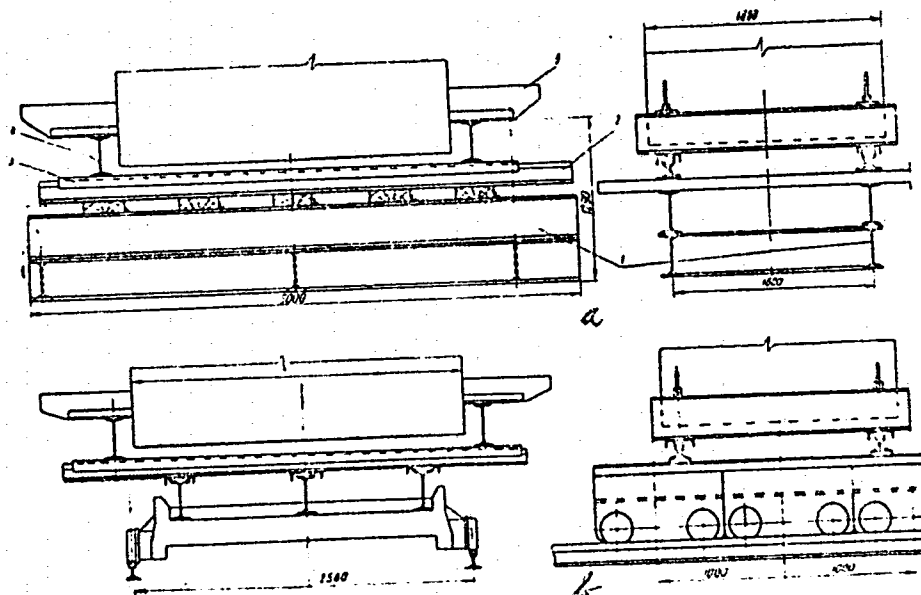
PERIODICAL: Metallurg, 1960, Nr 1, pp 12-13 (USSR)

ABSTRACT: For speeding up the repairs of refractory lining in the ignition furnace, the following method suggested by the author at the Krivoy Rog plant was used. Alongside of the sintering machine a reserve furnace is placed; it can be substituted for the worn-out furnace by means of the special fixture shown in Fig. 1. During the replacement skids are raised by a winch together with the hearth, and placed on the rails of the frame of the sintering machine. After that the sintering machine is reversed, and the hearth placed in the right position for the assembly. Using this method, the time of repairs decreased from 24 to 8 hrs.

Card 1/3

77423

SOV/130-60-1-6/22



Card 2/3

See caption on Card 3/3

Replacement of the Ignition Furnace in
the Sintering Machine

77423
SOV/130-60-1-6/22

See Fig. 1 on Card 2/3

Fig. 1. Fixture for the replacement of the ignition furnace in the sintering machine: (a) reserve furnace, placed alongside sintering machine; (b) hearth on the supports of sintering machine. (1) Frame; (2) rails; (3) skid; (4) guide channels; (5) lug of the furnace.

There is 1 figure.

ASSOCIATION: Krivoy Rog Metallurgical Plant

Card 3/3

BELOKONENKO, S.R., inzhener.

Improving the heating process of an asphalt-concrete mixer. Mekh.stroi. 10
no.8:20-22 Ag '53. (MLRA 6:8)
(Mixing machinery)

BELOKONENKO, S. R.

USSR/Miscellaneous - Cranes

Card 1/1 : Pub. 70 - 8/9

Authors : Belokonenko, S. R., Engineer

Title : Mechanized unloading of loose materials from trucks

Periodical : Mekh. stroi. ^{11, No. 3} 3, 30-31, March 1954

Abstract : A TL-2 crane, especially designed for unloading loose materials (sand, and gravel) from trucks, is described. Drawing.

Institution :

Submitted :

BELOKONENKO, S.R., inzhener.

Mechanization of earth work in road building. Mekh.stroi. 11 no.10:
14-17 0 '54. (MLRA 7:11)
(Earthwork) (Road machinery)

BELOKONENKO, S.R., inshener.

Experience using cement concrete machines in road construction. Mekh.
stroil. 12 no.2:20-21 P '55. (MIRA 8:4)
(Road machinery)

BELOKONENKO, S.R., inzhener

How to improve the design of the D-152 asphalt concrete mixer.
Avt.dor.18 no.5:25-26 S'55. (MIRA 9:1)
(Mixing machinery)

BELOKONENKO, S.

PPF-18 semitrailer for carrying trusses. Prom. stroi. i inzh.
soor. 4 no.3:52 My-Je '62. (MIRA 15:7)

1. Nachal'nik otdela mekhanizatsii i avtomatizatsii Orgtekhstroya
upravleniya stroitel'stva Odesskogo sovnarkhoza.
(Truck trailers)
(Trusses--Transportation)

BELOKONENKO, S.R., inzh.

The PPF-18 semitrailer for transporting trusses. Mekh. stroi.
19 no.4:25 Ap '62. (MIRA 15:9)
(Motortrucks) (Precast concrete--Transportation)

KOSENKO, B.T., inzh.; BELOKONENKO, S.Ya. [Bilokonenko, S.IA.], inzh.

Electric resistance buildup of parts. Mekh. sil'. hosp. 14 no.10:
3-5 0 '63. (MIRA 17:2)

1. Melitopol'skiy institut mekhanizatsii sel'skogo khozyaystva (for Kosenko). 2. Yakimovskaya issledovatel'skaya stantsiya mekhanizatsii sel'skogo khozyaystva (for Bilokonenko).

BELOKONEV, L.N., kandidat tekhnicheskikh nauk.

Effect of steam temperature and number of valve strokes on the
economic operation of steam engines. Trudy MEMIIT no.62:136-154 '53.
(Steam engines) (MLRA 7:12)

SHCHETININ, N.V., kand. tekhn. nauk, dots.; ~~BELOKONEV~~, L.N., kand. tekhn. nauk,
dots.; GORODETSKIY, M.N., kand. tekhn. nauk, assistant

Performance of locomotive diesel engines under operating conditions.
Trudy MIIT no.112:5-22 '59. (MIRA 13:2)
(Diesel locomotives)

BOLKHOVITINOV, G.F., prof.; SHCHETININ, N.V., dotsent; BELOKONEV, L.N.,
dotsent; GORODETSKIY, M.N., dotsent

Load and economic characteristics of the TE3 diesel locomotive
under operational conditions. Trudy MIIT no.138:5-12 '61.

(MIRA 14:12)

(Diesel locomotives--Testing)

GRYAZNOVA, Z.V.; PANCHENKOV, G.M.; BELOKONEV, S.V.

Application of N.A.Shilov's formula for calculating the velocity of adsorption front motion in a countercurrent of sorbate and sorbent. Zhur.prikl.khim. 38 no.6:1395-1396 Je '65.

(MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.

BELOKONOV, K., polkovnik.

"Victory of the Soviet Army in the Arctic regions." N.M. Rumiantsev.
Reviewed by K. Belokonov. Voen.vest. 36 no.1:90-93 Ja '56.

(MLRA 9:8)

(World War, 1939-1945--Campaigns--Arctic regions)
(Rumiantsev, N.M.)

BELOKONOV, V.M.

BELOKONOV, V. M.

"Calculation of Aerodynamic Characteristics of Thin Airfoil of Low Elongation of Arbitrary Design from the Theory of Supporting Surfaces." Min Higher Education USSR, Moscow Order of Lenin Aviation Trust imeni S. M. Kirov, Tomsk, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: M-955, 16 Feb 56

BELOKONOVA, A.F., inzh.

Manufacture of tubularly slotted filter distribution devices.
Energetik 10 no.9:19-20 S '62. (MIRA 17:1)

BELOKONOVA, A.F., inzh.

Operation of automatic reagent proportioning devices in water
purifying systems. Elek. sta. 34 no.10:80-81 0 '63.

(MIRA 16:12)

BELOKONSKAYA, N.V.

Bechterew's disease and its orthopedic treatment, Trudy Len.gos.
nauch.-issl.inst.travm. i ortop. no.7:192-202 '58.

(MIRA 13:6)

1. Ortopedicheskoye otdeleniye Leningradskogo gosudarstvennogo
nauchno-issledovatel'skogo instituta travmatologii i ortopedii.
(ARTHRITIS, RHEUMATOID) (SPINE--DISEASES)

BELOKONSKAYA, N.V.

Orthopedic supply in Bechterew's disease. Trudy Len.gos.nauch.-
issl.inst.travm.i ortop. no.7:203-209 '58. (MIRA 13:6)

1. Iz ortopedicheskogo otdeleniya Leningradskogo gosudarstven-
nogo nauchno-issledovatel'skogo instituta travmatologii i orto-
pedii.

(ORTHOPEDIC APPARATUS) (ARTHRITIS, RHEUMATOID)

BULGARIA/Human and Animal Physiology (Normal and Pathological) T
The Effect of Physical Factors. Ionizing Irradiation

Abs Jour : Ref Zhur Biol., No 6, 1959, 27205

Author : Belokonski, Il.

Inst : -

Title : Changes of Alimentary Conditioned Reflexes in White Rats
in General Irradiation with X-Rays.

Orig Pub : Voen.-med. delo (Bolg.), 1957, 12, No 5, 22-28

Abstract : Conditioned reflexes (CR) were produced in rats according to the methods of Kotlyarovski and Ganike. Even in the process of irradiation (after a summary dose of 500 r, the irradiation was temporarily discontinued and the state of CR was studied), inhibition of CNS in the course of 4-14 min was observed, after which gradual restoration of its function was noted. After final irradiation at a dose of 800 r, CR disappeared again for 4-10 min and, in the course of the subsequent 2 days, the

Card 1/2

- 177 -

BULGARIA/Human and Animal Physiology (Normal and Pathological) T
The Effect of Physical Factors. Ionizing Irradiation

Abs Jour : Ref Zhur Biol., No 6, 1959, 27205

inhibition continued to grow. On the 4th day, signs of restoration of CNS appeared. On 6-7th day it was completely restored. In the course of 8-9 days, the animals were in apparently good condition, but later signs of progressing inhibition of CNS appeared again. In the course of 9-13 days, all rats perished. On the day of death, CR were totally absent and rats did not react either to positive or to inhibitory stimuli. --
G.A. Zubovskiy

Card 2/2

EXCERPTA MEDICA Sec 14 Vol 13/8 Radiology Aug 59

1494. UTILIZATION OF OXYGEN BY RATS AND MICE DURING X-RAY IRRADIATION (Russian text) - Belokonsky I. S. - MED. RADIOL. 1958, 3/4 (21-25) Graphs 3 Tables:

Utilization of O₂ was investigated during X-ray irradiation with the aid of a method developed by the author in 30 white rats and 50 white mice. O₂ intake was registered every minute or every 5 min. in cu. cm., the doses of irradiation being 600-700 r. and 3,000 to 3,500 r. It was established that during single general irradiation by 600-700 r. utilization of O₂ by the animals is increased by 25-35%. Later in continuous or fractional (each dose being 500 r.) irradiation it gradually decreases. Pronounced undulatory variations in the O₂ intake with the amplitude of 30 to 34% were noted during continuous irradiation by 3,000 r. and following it. However, the general tendency of the intake value was towards decrease. A suggestion is made that the role of O₂ in the mechanism of the injurious effect of ionizing radiation is probably changed during irradiation, depending on the time and the dose of irradiation. The mechanisms regulating the gas metabolism in the animal organism are disturbed with increase of the dose.

(XIV, 2*)

BELOKONSKI, I.S. (Bolgariya)

Changes in the higher nervous activity of rats during X-irradiation.
Me. drad. 4 no. 12:11-16 D '59. (MIRA 13:5)
(CENTRAL NERVOUS SYSTEM radiation eff.)

BELOKONSKI, I.S. (Bolgariya)

Oxygen requirement during the irradiation of rats with modified resistance to radiations. Med. rad. 4 no.4:27-31 Ap '59. (MIRA 12:7)

(ANOXIA, exper.

eff. of chem. radioprotective substances on oxygen requirement in x-irradiated rats (Rus))

(RADIATION PROTECTION,
same)

BELOKONSKIY, I.; HUSEY, G.

Significance of oxidation processes in early radiation reaction
[with summary in English]. Biofizika 4 no.2:204-208 '59.

(MIRA 12:4)

1. Nauchno-issledovatel'skiy voyenno-meditsinskiy institut, Sofiya.

(OXIDATION REDUCTION,

eff. of oxidation on reactions to x-rays (Rus))

(ROENTGEN RAYS, affects,

eff. of oxidation on reactions (Rus))