

MEYEVIN, Ye., inzh.

Raise technical standards in constructing industrial buildings.

Stroitel' no.9:6-7 S '59.

(MIRA 13:3)

(Precast concrete construction) (Industrial buildings)

MEYEVIN, Ye., inzh.

Unified standards for controlling the quality of assembling
operations. Stroitel' no.2:25 F '60. (MIRA 13:5)
(Construction industry--Quality control)

MEYFAK, Ye.V., inzhener.

The technology of manufacturing glued skis. Der.prom. 4 no.12:
3-7 D '55. (MLRA 9:3)

1. Giprodrevprom.
(Skis and skiing)

ARBUZOV, B.A.; VINBERG, L.I.; GOLUBOVICH, M.P.; STEPANOVA, N.M.;
NEYFAK, Ye.V.; TSAREVSKIY, N.I.

Casting into chill molds from wooden patterns. Alum. splavy
no.1:182-194 '63. (MIRA 16:11)

BELITSINA, N.V.; GAVRILOVA, L.P.; AYT KHOZHIN, M.A.; NEYFAKH, A.A.;
SPIRIN, A.S.

Informational ribonucleic acid at early stages of the development
of the embryos of the loach (*Misgurnus fossilis*). Dokl. AN SSSR 153
no.2:464-467 N '63. (MIRA 16:12)

1. Institut biokhimii im. A.N.Bakha AN SSSR i Institut morfologii
zhivotnykh im. A.N.Seveftsova AN SSSR. Predstavleno akademikom
A.N.Belozerskim.

BELITSINA, N.V.; GAVRILOVA, L.P.; NEYFAKH, A.A.; SPIRIN, A.S.

Effect of radiation inactivation of nuclei on the synthesis of informational ribonucleic acid in embryos of the pond loach (*Misgurnus fossilis*). Dokl. AN SSSR 153 no.5:1204-1206 D '63. (MIRA 17:1)

1. Institut biokhimi i im. A.N. Bekha i Institut morfologii zhivotnykh im. A.N. Svertseva AN SSSR. Predstavleno akademikom A.N. Belozerskim.

NEYFAKH, A. A.

"An Investigation of Several Morphogenic Characteristics of the
Cornea," Dok. AN, 63, No. 2, 1948. Mbr., Inst. Zoology, Moscow Order
Lenin State Univ. im. M. V. Lomonosov, -c1948-.

NEUFACH, A.A.

NEUFACH, A.A.

Development of the chick eye on chorio-allantois. Doklady Akad. nauk
SSSR 81 no.5:949-952 11 Dec 51. (CML 21:5)

1. Presented by Academician A.I. Abrikosov 27 October 1951.
2. Institute of Animal Morphology imeni A.N. Severtsov, Academy
of Sciences USSR.

НЕЙПАКХУЕ, А. А.

"Experimental Investigation of the Development of the Cornea of a Chick."
Sub 4 Jan 51, Moscow Order of Lenin State U imeni M. V. Lomonosov.

Dissertations presented for science and engineering degrees in Moscow
during 1951.

SO: Sum. No. 480, 9 May 55

NEWMAN, A. A.

Hybridization

Asexual hybridization of animals. Priroda 41 no. 8, 1962.

9. Monthly List of Russian Accessions, Library of Congress, November 1952. 1953, Uncl.

MEYFAKH, A.A.

~~MEYFAKH, A.A.~~
Role of certain conditions of development of the cornea in chicks.
Doklady Akad. nauk SSSR 85 no. 2:453-456 11 July 1952. (CLML 23:3)

1. Presented by Academician A. I. Abrikosov 10 May 1952. 2. Institute of Animal Morphology imeni A. N. Severtsov, Academy of Sciences USSR.

MEYFAKH, A.A.

Relation of development of the cornea to surrounding parts of the embryo. Doklady Akad. nauk SSSR 85 no. 4:937-940 1 Aug 1952.

(CLML 23:3)

1. Presented by Academician A. I. Abrikosov 10 June 1952. 2. Institute of Animal Morphology imeni A. N. Severtsov, Academy of Sciences USSR.

NEYFAKH, A.A.

Transplantation of the cornea of various stages of development in
chorio-allantois. Doklady Akad nauk SSSR 85 no. 5:1177-1180 11
Aug 1952. (CLML 23:3)

1. Presented by Academician A. I. Abrikosov 23 June 1952. 2. In-
stitute of Animal Morphology imeni A. N. Severtsov, Academy of
Sciences USSR.

И. И. И. И.

Cornea

Investigation of certain form producing relationships between the parts of the developing cornea. Dokl. AN SSSR 85, No. 6, 1972.

9. Monthly List of Russian Accessions, Library of Congress, December 1952, ~~1953~~, Uncl.

MEYSAKH, A.A., kandidat biologicheskikh nauk; BROLSKIY, V.Ya.

Ultraviolet microscopy. Nauka i zhizn' 80 No.5:21-22 45 '53. (KIRA 6:8)
(Microscope and microscopy)

NEIFAKH, A.A.

New data in the study of the cell. Priroda 42 no.8:21-32 Ag '53.

(MLBA 6:7)

(Cells)

MEYFAKH, A.A.

Changes in radiosensitivity in the course of fertilization of the
Loach, *Misgurnus fossilis*. Dokl. AN SSSR 109 no.5:943-946 Ag. 1956.
(MIRA 9:10)

1. Institut urologii zhivotnykh imeni A.N. Severtsova Akademii
nauk SSSR. Predstavleno akademikom I.I. Shmal'gauzenom.
(LOACHES) (X RAYS--PHYSIOLOGICAL EFFECT)

USSR/General Biology - Individual Development. Sex Cells.

B.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 94625

Author : Neyfakh, A.A.

Inst : AS USSR

Title : Effect of Ionizing Radiation on Sex Cells in the *Misgurnus* (*Misgurnus fossilis*).

Orig Pub : Dokl. AN SSSR, 1956, 111, 585-588

Abstract : Mature sex cells in the *Misgurnus* (*Misgurnus fossilis*) before fertility were subjected to the effect of different doses of X-rays. The criteria of effect was the degree of survival of embryos which developed from these cells after fertility. During exposure of one of the gametes (male or female) the maximal death of embryos was observed with a dose of 200-3000 G; with further increase of the dose, the percentage of those embryos that perished decreased. An analysis is given of the curve which expresses the

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USSR/General Biology - Individual Development. Sex Cells.

B.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 94615

dependence of survival of the embryos on the dosage. The descending part of the curve is explained by the appearance of dominant lethals, the ascending part by the deactivation of the exposed nuclei and by the development of haploid embryos by using the second unexposed nucleus (Hartvig effect). With exposure of both gametes to various doses in order that the allotment of each dose, arriving to one of the gametes, would vary from zero to a unit, while the sum effect was permanent it was found that the effect of the exposure was different depending on the size of the summation dose. With small summation doses the effect did not vary from that which one gamete received with a total dose, or each received with half a summation dose. With great summation doses the percentage of embryos that survived during exposure both gametes to parts of a dose was lower than during exposure of one of them to a whole dose. The hypothesis is proposed concerning the

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USSR/General Biology - Individual Development. Sex Cells. 8

Abs Jour: Ref Zhur - Biol., No 21, 1958, 94615

Abstract: the independent appearance in the zygote of
affections acquired by both gamic cells. The
theoretical curves obtained on the basis of
this hypothesis agrees with experimental data.---
G. M. Zinabieva.

Card 3/3

USSR/Human and Animal Physiology - Internal Secretion.
Hypophysis.

T-7

Abs Jour : Ref Zhur - Biol., No 18, 1958, 84339

Author : Grayevskiy, E.Ya., Neyfaldi, A.A.

Inst : AS USSR

Title : The Role of Hypophysis in Impairments of Amphibian Ova
Caused by General Ionizing Irradiation.

Orig Pub : Dokl. AN SSSR, 1956, 111, No 5, 1104-1106

Abstract : Frogs (F) were irradiated with gamma rays for 19 hours
(7,000 r), and then kept in a temperature of 16-17° [C]
for 14 days. In another test, irradiation doses of 10,000
r were used, and after irradiation the animals were kept
at the above mentioned temperature for 21-30 days. Then,
F were killed and their hypophysis was inserted into the
lymphatic sac of female frogs, which have been kept at a

Card 1/2

USSR / General Biology. Individual Development. Embryonic B Development.

Abstr Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14377

Author : Neifakh, A. A.

Inst : Not given

Title : The Effect of Ionized Radiation Upon the Development of Organisms

Orig Pub : Priroda, 1957, No 6, 19-28

Abstract : The fundamental problems of contemporary radioembryology are examined in a popular manner. The mechanisms of radiation interrelationships to substance, the effect of radiation on nuclear structures such as the heredity apparatus, the part played by various biochemical components in the development of ray injury are briefly described.

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NEYFAKH, A. A.
AUTHOR: Neyfakh, A. A.

20-6-16/42

TITLE: Role of the Maternal Organism in the Injury of Mouse-Embryos by a Ionizing Radiation (O roli materinskogo organizma v porazhenii zarodyshey myshi ioniziruyushchey radiatsiyey)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 6, pp. 952-955 (USSR)

ABSTRACT: With the experiments discussed here, the pregnant animal was irradiated as a whole. First the effect of the irradiated maternal organism on a none-irradiated embryo was investigated. The performance of the experiments is described, the doses of irradiation amounted to 400, 600 and 1000 r. The mice were dissected after various periods and part of the mice was retained until to the birth of the youngs. If the embryos are irradiated themselves, then those which were submitted to an irradiation with the above-mentioned doses, decay. But if and when the embryos are screened, they mostly remain alive without differing essentially from normal embryos. At a dose of 1000 r in whiche case the mice died after 3 to 4 days, the embryos remained alive till to the death of the mother. The new-born mice were in all cases taken away from the irradiated mother and put to an other suckling mouse. The irradiated and none-irradiated youngs of the mice did not differ from each other with respect to their weight and the postembryonal develop-

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Role of the Maternal Organism in the Injury of Mouse-Embryos by a Ionizing Radiation.

20-6-16/42

ment. Thus the irradiation of the mother has no remarkable influence on the embryos protected from the immediate influence of X-rays. The influence of the irradiated maternal organism on the embryos submitted to an X-radiation was investigated in the principal experiments. Besides the control-animals, all animals to be examined were divided in two series: I) with local irradiation of the abdomen; series II) in which case the abdomen was exposed to a constant dose of 200 r, in which case the whole body was submitted to irradiations of varying doses. An immediate irradiation results in a decrease of the weight of the embryos (many of which dy) and to a shortening of pregnancy with some females. All these effects grow with an increased dose. The irradiation of the maternal organism does not lead to any reliably dterminable decrease in weight of the embryos. Only at 1000 r the weight of the embryo decreases somewhat. Also the probability of surviving is influenced analogously. The data received here permit the conclusion that the injury of the embryo at a total irradiation with ionizing radiation is caused by the direct effect of the radiation energy on the embryo.

Card 2/3

Role of the Maternal Organism in the Injury of Mouse-
Embryos by a Ionizing Radiation.

20-6-16/42

ASSOCIATION: Institute of Animal Morphology imeni A.N. Severtsov
AN USSR (Institut morfologii zhivotnykh im. A. N. Severtsova
Akademii nauk SSSR)

PRESENTED: July 2, 1957, by I. I. Shmal'gauzen, Academician.

SUBMITTED: June 28, 1957

AVAILABLE: Library of Congress

Card 3/3

AUTHORS: Neyfakh, A. A., Rott, H. N.

20-119-2-18/60

TITLE: An Investigation of the Ways of Realization of Radiation
Damage of Fishes in their Early Development Stages
(Issledovaniye realizatsii radiatsionnykh povrezhdeniy v
rannem razvitiy ryb)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol 119, Nr 2,
pp 261 - 264 (USSR)

ABSTRACT: The authors chose a strong dose of radiation in order to
obtain with all embryos a clear and simultaneous reaction
which is only connected with their stage of development. The
time interval between the moment of irradiation and the moment
of the arrest of development was taken as criterion for the
effect of the irradiation. This period was expressed in hours
or in stages of normal ontogenesis. Fertilized ovi of loachs
(*Misgurnus fossilis*) and *Acipenser stellatus* were irradiated
with a dose of 10,000 r in consecutive stages of development
starting from fertilization till the middle of gastrulation.
The irradiation of the embryos of *Misgurnus fossilis* at va-
rious stages of the division till the stages VII and VIII

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20-119-2-18/60

An Investigation of the Ways of Realization of Radiation damage of
Fishes in their Early Development Stages

(6-7 hours) lead to a standstill of the development in the late blastula (stages X-XI, 9-10 hours). The latent period (that is the period between the moment of irradiation and that of the standstill of development) decreases more and more and reaches a minimum of - 3.5 hours. An irradiation in the stages IX-X makes it possible to the embryo to "cut" gastrulation; the standstill of the development and of death take place considerably later and the latent period increases in this. Just the same rules were observed with *Acipenser stellatus*. The development of the early irradiated embryos comes to a standstill here in the stage of early gastrulation (stage XIII) and the stage of the crisis with *Acipenser stellatus* is the stage XII. The minimal latent period is also 3.5 days. The synchronism of divisions of the blastomeres of *Misgurnus fossilis* were determined from the periodic changes of the sensitivity to irradiation (which correspond to the phases of the mitotic cycle). In most cases there is present a relatively

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So-112-2-18/60
An Investigation of the Ways of Realization of Radiation damage of
Fishes in their Early Development Stages

strong increase of the time of the interphase period, i.e. a decrease of the division velocity. Also cytologic investigations prove this interpretation. The mitotic activity of the spawn grains of *Acipenser stellatus*, which were irradiated before a critical moment closer defined here, does not change in consequence of the irradiation and it corresponds exactly to the curve of the normal change of the mitotic coefficient. An irradiation after this period, however, causes a sharp decreases of mitotic activity. After 2 hours it reaches zero, increases within the course of a few more hours again to the normal value and then even increases above the normal value (hypercompensation). One of the possible explanations for the results obtained here is the conception that the cell divisions are an inbetween link between the injury of the nucleus during irradiation and the manifestation of its deficiency in the beginning of gastrulation. The data obtained here can also be explained by the assumption that the

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20-119-2-12/60

An Investigation of the Ways of Realization of Radiation damage of
Fishes in their Early Development Stages

nucleus by its activity in early stages secures a development to certain later stages. There are 3 figures and 9 references, 2 of which are Soviet.

ASSOCIATION: Institut morfologii zhivotnykh Akademii nauk SSSR (Institute for Animal Morphology AS USSR)
Institut biologicheskoy fiziki Akademii nauk SSSR (Institute for Biologic Physics AS USSR)

PRESENTED: December 7, 1957, by I. I. Shmal'gauzen, Member, Academy of Sciences, USSR

SUBMITTED: December 6, 1957

Card 4/4

17(4)

AUTHOR: Neyfakh, A. A.

SC7/30-59-1-27/57

TITLE: News in Brief (Kratkiye soobshcheniya) French Biologists in the USSR (Biologi Frantsii v SSSR)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 1, pp 113 - 114 (USSR)

ABSTRACT: A delegation of the French National Center for Scientific Research visited the Soviet Union from September until October. The guests were acquainted with the organization of scientific work and the training of teams in the academic institutes. The guests were particularly interested in the work carried out by the Institut morfologii zhivotnykh im. A. N. Severtsova (Institute for the Morphology of Animals imeni A. N. Severtsov), as well as in the Laboratoriya iskusstvennogo klimata Instituta fiziologii rasteniy im. K. A. Timiryazeva (Laboratory for Artificial Climate of the Institute of Plant Physiology imeni K. A. Timiryazev). They visited scientific institutions in Leningrad as well as the Crimea. They also delivered reports concerning different fields of science.

Card 1/1

HEYFAKH, A.A.

Radiation inactivation of nuclei as a method of studying their
function during the early development of fishes. Zhur.ob.biol.
20 no.3:202-213 Ky-Je '59. (MIRA 12:8)

1. Institute of Animal Morphology, Academy of Sciences of
the U.S.S.R.

(X RAYS--PHYSIOLOGICAL EFFECT) (CELL NUCLEI)
(EMBRYOLOGY--FISHES)

17(4)

AUTHORS:

Neyfakh, A. A., Rott, N. N.

SDV/20-125-2-55/64

TITLE:

Synchronization of Cell Divisions in Early Embryos of *Misgurnus Fossilis* Under the Influence of Low Temperature (Sinkhronizatsiya kletochnykh deleniy u rannikh zarodyshey v'yuna *Misgurnus fossilis* putem vozdeystviya ponizhennoy temperatury)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 2, pp 432-434 (USSR)

ABSTRACT:

The phenomenon mentioned in the title is known to be found in infusoria (Ref 1). As far as the authors know, an artificial synchronization has not yet been attained with multi-cellular organisms. The embryos of *Misgurnus fossilis* were experimentally used in two stages of development: a) medium blastula (development at 21° for 8 hours, Ref 2) and b) early gastrula (12-13 hours). The synchronous division of blastomers is maintained in the case of *Misgurnus fossilis* up to the early blastula (for 6-7 hours) and then becomes asynchronous (Ref 2). In the present experiment eggs (spawn) were placed from room temperature (18°) into a refrigerator (3°) for two hours and put again into warm water of 18° (Ref 3). From the last temperature increase onward, the embryos were fixed every

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Synchronization of Cell Division in Early Embryos of *Misgurnus Fossilis* Under the Influence of Low Temperature SOV/20-125-2-55/64

4 min for 1 h. Figure 1 shows that the radiosensitivity of embryos changes periodically with a synchronized cell division. The lowest degree of sensitivity is recorded during the period of highest mitotic activity, i.e. during the interkinesis, which is contrary to the data of reference 5. The authors try to explain the difference. Synchronization of the cell divisions of the early gastrula failed (Table 1) (similar phenomena were found with newt larvae, Ref 6). From their results the authors draw the following conclusions: the asynchronization of the first egg divisions possibly can be suppressed for the moment, that is to say, the beginning differentiation can be caused to take place in an earlier state with synchronous cell divisions. Apparently, this reversibility is lost within the stage of gastrulation. This observation requires confirmation and checking under various modified experimental conditions. The mechanism of the asynchronous development possibly is not directly connected with the activity of the cell nuclei (Refs 2,7). The development of the division asynchrony is by no means affected by nuclear inactivation due to radiation.

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Synchronization of Cell Divisions in Early Embryos of *Misgurnus Fossilis* SOV/20-125-2-55/64
Under the Influence of Low Temperatures

There are 2 figures, 1 table, and 7 references, 3 of which are Soviet.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR (Institute of Animal Morphology imeni A. N. Severtsov of the Academy of Sciences, USSR). Institut biofiziki Akademii nauk SSSR (Institute of Biophysics of the Academy of Sciences, USSR)

PRESENTED: November 5, 1958, by I. I. Shmal'gauzen, Academician

SUBMITTED: October 16, 1958

Card 3/3

17 (4.10)

AUTHORS:

Vakhrameyeva, N. A., Neyfakh, A.A.

SOV, 20-125-2-58, 59

TITLE:

A Comparison of Radio- and Thermosensitivity in the Process of Egg Segmentation in *Misgurnus fossilis*

PERIODICAL:

Doklady Akademii nauk SSSR, 1952, Vol 138, Nr 2, pp 429-432 (USSR)

ABSTRACT:

The clarification of the effect of ionizing radiation on the cell is principally based on the understanding of the specific effect of this agent. On the other hand, the similarity of the final effect (mutations and chromosome aberrations) after such manifold kinds of action as radiation, temperature increase, or radiomimetic substances, prevents a judgment on its specificity. The differences can only be determined by such method which can inform on the real nature of interaction of the harmful factors with the cell structures. Such a method may be the comparison of sensitivity to various agents in the course of cyclic changes, e. g. of those proceeding during cell division. If the primary object of damage are chromosomes while the result is the fracture of the latter, the differences of interaction may be expressed in an unequal dependence on the state of damaged structures at the moment of action. At the

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A Comparison of Radio- and Thermosensitivity in the SOV/20-128-2-58/59
Process of Egg Segmentation in *Misgurnus fossilis*

same time, the kind of change in radiosensitivity during the mitosis has hitherto remained completely unclear. In the present paper, the X-radiation was compared with the short-termed effect of increased temperature. The experiment was carried out as follows: from a vessel containing the spawn of *Misgurnus fossilis*, 2 portions (of 200-250 eggs each) were taken every 7 or 8 minutes at exactly the same time. The spawn was in a stage immediately before the appearance of 2 blastomers. One portion of spawn was irradiated while the other one was heated. The further development of the spawn took place at 18°. After the unfecundated eggs had been removed (stage of early until medium blastula), the number of destroyed eggs was determined in the stage of beginning mobility and before slipping out. The radio- and thermosensitivity were expressed in % of survival in comparison with the number of fecundated eggs. Part of the material was fixed in the stage of gastrulation, and the chromosome aberrations (Fig 2) were calculated from this. This and figure 1 show that the sensitivity of eggs to radiation and increased temperature changes periodically. The rhythm of

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A Comparison of Radio- and Thermosensitivity in the Process of Egg Segmentation in *Misgurnus fossilis* SOV/20-125-2-52/59

these changes is in strict agreement with the division rhythm of the egg. On the other hand, the periods of maximum radio-sensitivity and radioresistance do certainly not agree with those of thermosensitivity and thermoresistance, respectively. The kind of chromosome aberrations (Fig 2) was not very different for these two effects. As had been ascertained before (Ref 9), the curve of frequency of chromosome aberrations followed- also in this paper - rather exactly the curve of mortality and the frequency of deformations. This applied to both radiation and heat. Figure 3 shows the dependence of the survival on the frequency of chromosome aberrations. The number of destroyed eggs is directly proportional to the frequency of chromosome aberrations. Thus, both radiation and heat, in low dosage, act upon the nucleus. In case of high dosage, they also act directly on the cytoplasm. V. N. Belyayeva and G. V. Pokrovskaya (Ref 9) are mentioned in the text. There are 3 figures and 10 references, 6 of which are Soviet.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtseva Akademii nauk SSSR (Institute of Animal Morphology imeni A. N. Severtsov of the Academy of Sciences, USSR)

Card 3/4

NEYFAKH, A.A.

Radiation inactivation of cell nuclei as a method of studying their role in the development of respiration in fish embryos. Biokhimiia 25 no.4:658-668 J1-Ag '60. (MIRA 13:11)

1. Institute of Animal Morphology, Academy of Sciences of the U.S.S.R., Moscow.

(X RAYS---PHYSIOLOGICAL EFFECT) (CELL NUCLEI)
(RESPIRATION) (EMBRYOLOGY---FISHES)

NEYFAKH, A.A.

Reduction of the digits in healthy mice after roentgen irradiation.
Arkhnat.gist.i embr. 39 no.11:74-82 N '60. (MIRA 14:5)

1. Laboratoriya radiobiologii (zav. - doktor biologicheskikh nauk
E.Ya.Grayevskiy) Instituta morfologii zhivotnykh imeni A.N.
Severtsova AN SSSR. Adres avtora: Moskva, B-71, Leninskiy pr.,
Institut morfologii zhivotnykh imeni A.N.Severtsova AN SSSR.
(X RAYS--PHYSIOLOGICAL EFFECT)
(FEET--ABNORMALITIES AND DEFORMITIES)

NEIFAEH, A.A.

Some problems concerning the effect of ionizing radiation on
embryogenesis. Biul.MOIP. Otd.biol. 65 no.3:140-141 Ky-Je '60.
(MIRA 13:7)

(RADIATION--PHYSIOLOGICAL EFFECT) (EMBRYOLOGY)

MEYFAKH, A.A.

Studying the functions of nuclei in the development of the sea urchin *Strongilocentrotus dröbachiensis* by the method of radiation inactivation. Dokl.AN SSSR 132 no.6:1458-1461 Je '60.
(MIRA 13:6)

1. Institut morfologii zhivotnykh im. A.N.Severtsova Akademii nauk SSSR. Predstavleno akademikom I.I.Shmal'gauzenom.
(SEA URCHINS) (CELL NUCLEI) (EMBRYOLOGY--ECHINODERMATA)

87419

17.2400

21.6300

S/020/60/135/006/031/011
B016/B060

AUTHORS: ~~Neyfakh, A. A.~~ and Rass, I. T.

TITLE: Radiational Determination of the Morphogenetic Activity of
Nuclei in the Embryonal Development of *Ascaris suum*

PERIODICAL: Doklady Akademii nauk SSSR. 1960, Vol. 135, No. 6,
pp. 1557-1560

TEXT: The authors report on their study of the morphogenetic function of the nucleus based on the action of strong doses (up to 300 kr. intensity 5000 r/min) of an ionizing radiation, which, however, do not injure the cytoplasm to an appreciable extent. The functioning time of nuclei in different stages of development can be determined on the strength of their inactivation by such doses (Ref. 1). The test objects were eggs of *Ascaris suum* incubated at 27°C. The level of development of the asynchronous culture was determined by calculating the percentual content of different stages of development: unsegmented egg, 2, 3-4, 8, and 16 blastomeres, early and late morula, blastula, early and late gastrula, larva (Table 1). The eggs (200 of them) were irradiated by an X-ray apparatus PYU-1 (RUP-1).

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Radiational Determination of the Morphogenetic
Activity of Nuclei in the Embryonal Development
of *Ascaris suum*

S/020/60/115/006/137,037
B016/B060

Table 2 shows the distribution of culture according to the above enumerated stages on irradiation with 150 kr at 0 to 10 days from the beginning of incubation. From a comparison of these data with normal development (Table 1) it is possible to express the stage at which development has stopped in days of development of the nonradiated control series. It is inferred from results that within the range of doses 50-100 to 200-300 kr the irradiation effect is not dependent upon the dose, but on the time of incubation until the moment of irradiation. After the action of 100 and 150 kr the cytoplasm goes on developing only by virtue of the previous activity of the nucleus. Table 1 and 2 as well as Fig. 3 give the results. It is observed from Fig. 3 that irradiation during the first 2.5 days of egg development causes this development to be interrupted at about a level of 4.2 days in control eggs. With an irradiation at later stages the development sets in the later the later the time of irradiation. It is therefore believed that nuclei do not exert their morphogenetic function prior to the 2-3 blastomere stage, but that this is not started until later. In *Misgurnus fossilis* which has mosaic like eggs, nuclei begin with their function much earlier than *Ascaris suum*. It is further observed

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Radiational Determination of the Morphogenetic
Activity of Nuclei in the Embryonal Development
of *Ascaris suum*

S/020/60/135/006/037/037
B016/B060

from Table 2 that the development of *Ascaris* eggs irradiated prior to the 2-blastomere stage comes about at various stages (from 2 to 16 blastomeres). It is inferred therefrom that the first four segmentations are not directly controlled by the nucleus, but that they are dependent upon the cytoplasm whose properties have been shaped already during ovogenesis with the participation of the nucleus. The further development of the eggs, as from the stage of early morula, proceeds under the control of the nucleus. Unlike the regulation type of development, the formation of morula and blastula in mosaic-like eggs constitutes no passive continuation of already started segmentation, but an independent phase of development, namely the beginning of differentiation, in which the new distribution of differentiated cells follows a definite plan (Ref. 2). The morphogenetic function of nuclei is necessary for this process to take place. There are 3 figures, 2 tables, and 2 Soviet references

X

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Radiational Determination of the Morphogenetic
Activity of Nuclei in the Embryonal Development
of Ascaris suum

S/020/60/135/006.031/03"
B016, B060

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii
nauk SSSR (Institute of Animal Morphology imeni A. N.
Severtsov of the Academy of Sciences USSR). Gel'minto-
logicheskaya laboratoriya Akademii nauk SSSR
(Helminthological Laboratory of the Academy of Sciences
USSR)

PRESENTED: June 21, 1960, by K. I. Skryabin, Academician

SUBMITTED: June 18, 1960

Card 4/4

NEYFAKH, A. A. (USSR)

"Nuclear Control of the Cell Respiratory Apparatus Development."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

NEYFAKH, A. A.

"Nucleocytoplasmic Interactions Studied by the Radiation
Inactivation of Nuclei."

Report to be submitted for the Fifth International (Embryological)
Conference - London, England, 18-21 Sep 61

Institute of Animal Morphology imeni A. N. Severtsov, Academy of
Sciences USSR, Moscow

NEYFAKH, A. A.

Doc Biol Sci - (diss) "Radiation study of nucleocytoplasmic interactions in growth." Leningrad, 1961. 33 pp; (Leningrad Order of Lenin State Univ imeni A. A. Zhdanov); 180 copies; free; list of author's works on pp 32-33 (17 entries); (KL, 10-61 sup, 210)

MEYFAKH, A.A.

Comparative radiobiological study of the morphogenetic function
of nuclei in the development of animals. Zhur. ob. biol. 22 no.1:
42-57 Ja-F '61. (MIRA 14:1)

1. Institute of Animal Morphology, U.S.S.R. Academy of Sciences.
(CELL NUCLEI) (RADIATION—PHYSIOLOGICAL EFFECT)
(EMBRYOLOGY)

NEYFAKH, A.A.

Radiation study of morphogenetic functions of nuclei at the early developmental stage of tailless amphibians. Dokl.AN SSSR 136 no.5:1248-1251 F '61. (MIRA 14:5)

1. Institut morfologii zhivotnykh im. A.N.Severtsova AN SSSR.
Predstavleno akad. Yu.A.Orlovym.
(Cell nuclei) (Embryology--Amphibia)
(X rays--Physiological effect)

ARMAN, I.P.; NEYFAKH, A.A.

Radiation study of the morphogenetic function of nuclei during
the early development of acipenserid fishes. Dokl. AN SSSR 137
no.3:745-748 Mr '61. (MIRA 14:2)

1. Institut morfologii zhivotnykh im.A.N.Savertsova AN SSSR.
Predstavleno akademikom Yu.A.Orlovym.
(EMBRYOLOGY--FISHES) (CELL NUCLEI)

PETROV, R.V.; KOROGODIN, V.I.; LYASS, F.M.; NEYFARKH, A.A.; ROMANTSEV, Ye.F.; VEREVKINA, N.M., red.; MORGUNOVA, G.M., tekhn. red.

[Contribution of radiology to the development of the medical and biological disciplines] Vklad radiologii v razvitie mediko-biologicheskikh distsiplin. [By] R.V.Petrov i dr. Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1962. 145 p. (MIRA 15:9)

(RADIOBIOLOGY)

(RADIOLOGY, MEDICAL)

NEYFAKH, A.A.; DONTSOVA, G.V.

Radiation study of the role of nuclei in the increase of cytochrome oxidase activity in fish embryos. Biokhimiia 27 no.2:339-348 Mr-Apr '62.
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1. Institute of Animal Morphology, Academy of Sciences of the U.S.S.R., Moscow.

(CYTOCHROME OXIDASE) (EMBRYOLOGY--FISHES)
(RADIATION--PHYSIOLOGICAL EFFECT) (CELLNUCLEI)

NEYFAKH, A.A., kand.biolog.nauk

Professor D. Petrucci as a guest of the Academy. Vest. AN SSSR 32
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(Petrucci, Danielo Angelo, 1923-)

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Radiation study of the function of oocyte nuclei in the ovulation process in loaches. Dokl.AN SSSR 144 no.4:942-944. Je '62.

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1. Institut morfologii zhivotnykh im. A.N.Severtsova AN SSSR.

Predstavleno akademikom Yu.A.Orlovym.

(X rays--Physiological effect) (Ovulation) (Loaches)

ABDULIN, A.; ALEKSEYEV, I.; BANTLE, O.; BOBROV, L.; BOZHANOV, B.;
BOYKO, V.; BONDAREV, K.; BORZOV, V.; VERKHOVSKIY, N.; GUBAREV, V.;
GUSHCHEV, S.; DEBABOV, V.; DIKS, R.; DMITRIYEV, A.; ZHIGAREV, A.;
ZEL'DOVICH, Ya.; ZUBKOV, B.; IRININ, A.; IORDANSKIY, A.;
KITAYGORODSKIY, P.; KLYUYEV, Ye.; KLYACHKO, V.; KOVALEVSKIY, V.;
KNORRE, Ye.; KONSTANTINOVSKIY, M.; LADIN, V.; LITVIN-SEDOY, M.;
MALEVANCHIK, B.; MANICHEV, G.; MEDVEDEV, Yu.; MEL'NIKOV, I.;
MUSLIN, Ye.; NATARIUS Ya.; NEYFAKH, A.; NIKOLAYEV, G.; NOVOMEYSKIY, A.;
OL'SHANSKIY, N.; OS'MIN, S.; PODOL'NYY, R.; RAKHMANOV, N.; REPIN, L.;
RESHETOV, Yu.; RYBCHINSKIY, Yu.; SVOREN', R.; SIFOROV, V.; SOKOL'SKIY, A.;
SPITSYN, V.; TEREKHOV, V.; TEPILOV, L.; KHAR'KOVSKIY, A.; CHERNYAYEV, I.;
SHAROL', L.; SHIBANOV, A.; SHIBNEV, V.; SHUYKIN, N.; SHCHUKIN, O.;
EL'SHANSKIY, I.; YUR'YEV, A.; IVANOV, N.; LIVANOV, A.; FEDCHENKO, V.;
DANIN, D., red.

[Eureka] Evrika. Moskva, Molodaya gvardiya, 1964. 278 p.
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1981-1982, 1983, 1984, A.A.

1. Increase in cytochrome oxidase activity in homogenates and
isolated mitochondria of leech embryos. Biokhimiya 29 no.4:
630-632, 31 Ag 1984. (MIRA 18:6)

2. Institut morfologii zhivotnykh, ul. Savvukova AN SSSR, Moskva.

LOPASHOV, G.V., red.; NEYFAKH, A.A., red.; STROYEVAYA, O.G.,
red.; IGNAT'YEVA, G.M., red.

[Cell differentiation and induction mechanisms; reports]
Kletochnaia differentsirovka i induktsionnye mekhanizmy;
sbornik dokladov. Moskva, Nauka, 1965. 269 p.

(MIRA 18:7)

1. Simpozium po kletochnoy differentsirovke i induktsion-
nym mekhanizmam. Moscow, 1963. 2. Institut morfologii
zhivotnykh im. A.N.Severtsova AN SSSR, Moskva (for Lopashov).

NEYPAKH, A. A.; BONDURA, G. V.

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in the fertilization process. Dokl. AN SSSR 194 no. 1:598-599 Ky
1955. (MIRA 18:5)

1. Institut morfologii zhivotnykh im. A. N. Severtsova AN SSSR.
Submitted August 1, 1954.

ABRAMOVA, Y.B.; LUKHTMAN, P.V.; MEYFAKH, A.A.

Study of mechanisms of the intensification of respiration in
the embryonal development of fish. Zhur. evol. biokhim. i
fiziol. 1 no.3:227-233 My-Je '65. (MIRA 18:7)

1. Gruppya kosmicheskoy biologii i biofiziki razvitiya Instituta
morfologii zhivotnykh imeni Severtsova AN USSR, Moskva.

NEYFAKH, A.A., doktor biolog. nauk

Correlation of the nucleus and cytoplasm and the problem of
cellular differentiation. Zhur. VKHO 8 no.4:403-412 '63.
(MIRA 16:10)

(CYTOLOGY) (CANCER RESEARCH)

MEYFAKH, A., doktor biolog. nauk

Space embryology. Nauka i zhizn' 30 no.1:64d-67 Ja '63.
(MIRA 16:4)

(Space biology)

L 24001-66 EWT(d)/FSS-2/EWT(1)/EWA(h)

ACC NO: AP6009905

SOURCE CODE: UR/0413/66/000/004/0104/0105

AUTHOR: Neyfakh, A. E.

ORG: none

TITLE: A device which generates an error ^qsignal for simultaneously detecting and correcting bursts of errors with the aid of a recurrent code. Class 42, No. 179090

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 104-105

TOPIC TAGS: error correction, error correcting code

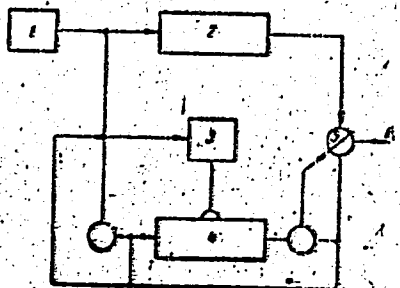
ABSTRACT: This Author's Certificate introduces a device which generates an error signal for simultaneously detecting and correcting bursts of errors with the aid of a recurrent code. The unit consists of a permissible burst counter, a protective spacing counter with a discharge circuit, and memory cells. Incorrectible error bursts are detected by connecting the permissible burst counter in the recording winding of a memory cell, the protective spacing counter to the blocking winding of this cell, and the correction sequence shaper to the readout winding of the same cell.

UDC: 681.142.07

Card 1/2

L 24001-66

ACC NR: AP6009905



1--initial correction sequence shaper; 2--permissible burst counter; 3--discharge circuit; 4--protective spacing counter; 5--memory cell; 6--error signal output.

SUB CODE: 09/

SUBM DATE: 20Apr65/

ORIG REF: 000/

OTH REF: 000

Card 2/2 *pla*

NEYFAKH, A. M.

USSR/Geography Economic geography

Card : 1/1 Pub. 45 - 10/20

Authors : Neyfakh, A. M.

Title : Another variant of the capitalistic theory of industrial plant location

Periodical : Izv. AN SSSR. Ser. geog. 4, 73 - 76, July - August 1954

Abstract : Critique of the USA (E. Hoover) capitalistic theory of geographical-economical relocation of industrial plants. Four USA references (1937 - 1952).

Institution :

Submitted :

NEYFAKH, A.M.

IVANOV, A.; MIKHAILOV, P.; DOBRONRAVOV, A.A., dotsent, redaktor;
NEYFAKH, A.M., kandidat ekonomicheskikh nauk, dotsent; SOKOLOVA
Ye.I., redaktor; BARYSHEV, I.G., redaktor; VOLKOVA, Ye., tekhnicheskiy redaktor.

[Soviet Black Sea region] Sovetskoe chernomor'e. [Izd. 2-e]
Moskva, Izd-vo "Morskoi transport, " 1955. 366 p. (MLRA 8:10)
(Black Sea region--Description and travel)

NEYFAKH, A.M.

New trends in bourgeois science on the distribution of industry.
Izv. AN SSSR. Ser. geog. no.6:117-125 N-D '61. (MIRA 14:12)
(Industries, Location of)

NEYFAKH, E.A., starshiy nauchnyy sotrudnik

Inflammatory diseases of the nasal cavity and its accessory sinuses;
survey of foreign literature for 1957-1959. Zhur. ush., nos. 1
gorl. bol. 20 no.4:73-77 J1-Ag '60. (MIRA 14:6)
(NOSE—DISEASES)

NEIFAKH, G.M.

00000058

PHASE I

TREASURE ISLAND BIBLIOGRAPHIC REPORT

BOOK

Call No.: TN686.T54

Authors: EFROI'OVICH, Yu. E., Cand. of Tech. Sciences
KRICHEVSKIY, G.M., Engineer
LEVITANSKIY, B.A., Engineer
MALAYA, R.Yu., Cand. of Tech. Sciences, deceased.
NEIFAKH, G.M., Cand. of Tech. Sciences
POPOV, M.D., Engineer
SMORODINSKIY, Ia. M., Cand. of Tech. Sciences
SOSUNOV, M.N., Engineer
STASYUK, V.N., Engineer
TAITS, A.A., Engineer
FEDOSEEV, L.M., Engineer
FEIGIN, V.I., Engineer
CHELYUSTKIN, A.B., Engineer
SHERENTSI, A.N., Engineer

Full Title: A HANDBOOK FOR ELECTROTECHNICAL PERSONNEL IN FERROUS METALLURGICAL INDUSTRIES.

Transliterated Title: Spravochnik elektrika predpriyatii chernoi metallurgii

Publishing Data

Originating Agency: None.

Publishing House: State Publishing House of Scientific-Technical Literature on Ferrous and Nonferrous Metallurgy (Metallurgizdat). Moscow.

Date: 1952

No. pp.: 1167

No. copies: 14,000

1/2

NEIFAKH, G.M.

2/2

00000058

Call No.: TN686.T54

Full Title : A HANDBOOK FOR ELECTROTECHNICAL PERSONNEL IN FERROUS METALLURGICAL INDUSTRIES

Editorial Staff

Compiler: Tikhomirov, I.G., Engineer

Technical Editor: None.

Editors: Shalyapin, M.G.

Appraiser: None.

Levitanskiy, B.A.

Text Data

Coverage: A detailed handbook containing technical data on specifications, standards, design and operation of various types of electrical equipment in ferrous metallurgical industries: Electric power supply plants and their distributing systems, transforming stations and transmission lines (high and low tension), blast furnace works, rolling mill plants, open-hearth plants, mines, electrical steel smelting and ferroalloy furnaces, sintering plants, coke plants, and electrical transport. Tables and diagrams. Subject index.

Purpose: A handbook for electrotechnical personnel, engineering technicians, machine operators, and planning personnel of metallurgical industries.

Facilities : None.

No. of Russian references: References listed at end of each chapter.

Available: Library of Congress.

VOITYAKOV, V.I.; NEDBAYLIK, A.I.; MEYFAKH, L.G.; LEVIN, M.Sh.

Influence of the composition of VKL culture medium and of the age of the culture on the number of live microbes in dry BCG vaccine. Zdrav. Belor. 5 no.2:17-19 F '59. (MIRA 12:7)

1. Belorusskiy institut epidemiologii, mikrobiologii i gigiyeny.
(BACTERIOLOGY—CULTURES AND CULTURE MEDIA)
(VACCINES)

Metabolism during an abundant protein diet. I. L. D. Kashevnik, S. A. Neufakh and A. Yu. Kharit. *J. Physiol.* (U. S. S. R.) 19, 505-514 (1955).--Feeding expts. lasting more than a year were carried out with men metal workers and women textile workers. The men were given daily 225-250 g. of proteins, the women, 150-215 g. All the usually accepted indices of N metabolism (N balance, ratio of urea N to general N, ratio of creatinine N to total N, residual N of blood) are the same as under normal conditions. H. Cohen

CIA-RDP86-00513R001136810C

12A

pa

Chemical transformations of cholesterol by ultraviolet rays in the presence of air. S. A. Nefzakh. *Biochemistry* 5, 318-37 (1940). When subjected to ultraviolet light in the presence of air for a period of 6 hrs. or longer, cholesterol is transformed into a yellowish green substance with a lower m. p. and sp. rotation, with a lesser soly. in ether and greater soly. in alk. and acetone. The changed cholesterol possesses a different absorption spectrum, and has a violet blue fluorescence in acetone soln.; the fluorescent spectrum is identical with that of ergosterol. A photographic plate is blackened by cholesterol irradiated in the air; when irradiated in an atm. of N₂, no products affecting a photographic plate are produced. R. P.

ASB 54.4 METALLURGICAL LITERATURE CLASSIFICATION

[illegible]

118

Indigenous blastoma producing substances G. E. Kleinberg, S. A. Nefakh and I. M. Shihadi. *Arch. ex. biol.* (U. S. S. R.) 38, No. 5, 3-27 (in English, 28) (1940); cf. *C. A.* 33, 6420. To obtain these tumor-inducing chem. substances, fractionated benzene exts. of individual livers of 41 persons who had died of cancer, and of 25 noncancerous persons of both sexes were made. The rather crude exts. were diluted with olive oil and injected subcutaneously into mice, whose history as regards spontaneous tumors was known. Doses of 0.2-0.4 cc. were given at 10-day intervals. Over 50% of the mice lived 4-6 months after the start of the exts. Organs taken at autopsy were histologically examined. The incidence of tumors induced by the exts. from metastatic tissue was 25% or 5 times greater than that of spontaneous cases. Exts. from nonmetastatic tissue gave tumors in 62% of the mice. The no. of tumors induced by exts. from noncancerous livers was lower than the no. of tumors induced by cancerous livers, but it was still higher than that of spontaneous cases. The exts. suggest that the human liver contains a certain amt. of blastoma producing substances.

1. Tumors

410-354 METALLURGICAL LITERATURE CLASSIFICATION

RECORDS 137 02,94

120,100 74

RESEARCH UNIT ONE

RESEARCH UNIT TWO

RESEARCH UNIT THREE

RESEARCH UNIT FOUR

RESEARCH UNIT FIVE

RESEARCH UNIT SIX

RESEARCH UNIT SEVEN

RESEARCH UNIT EIGHT

RESEARCH UNIT NINE

RESEARCH UNIT TEN

RESEARCH UNIT ELEVEN

RESEARCH UNIT TWELVE

RESEARCH UNIT THIRTEEN

RESEARCH UNIT FOURTEEN

RESEARCH UNIT FIFTEEN

RESEARCH UNIT SIXTEEN

RESEARCH UNIT SEVENTEEN

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RESEARCH UNIT HUNDRED

1ST AND 2ND DEPT.										PROCESSING AND REPORTS INDEX										3RD AND 4TH DEPT.									
CA																													
Photodynamic action of 3,4-benzopyrene. R. S. Billig and S. A. Nallakshmi-Synal. <i>Khopel. Ind. Med.</i> 12, 108 (1941). Rings-peptone soln. contg. <i>Paramecium caudatum</i> was mixed with an aq. soln. of 3,4-benzopyrene (1:200,000) and irradiated by a quartz lamp, with a filter passing 200-400 mμ. When the specimens were kept in the dark 30-60 min. before irradiation, the lethal exposure was shortened by 30 (60) min. apparently because of penetration of the colloid into the parameria. Similar expts. using 1:75,000 diln. of cholic acid instead of benzopyrene showed no such effect even in 3 hrs. Semiburned coal (known to contain 3,4-benzopyrene) gave results identical with those from the pure substance. Parameria might be killed not by direct action of radiation but by the fluorescence given off by the hydrocarbon on irradiation. Another possibility was a photochem. reaction producing a toxic substance. However, expts. in which a soln. of benzopyrene was interposed between the specimen and the lamp showed that the 1st supposition was false; similarly the 2nd supposition was negated by lack of killing power of the filtered specimen. Hence, the only remaining possibility is that irradiation excites the hydrocarbon to a state which is capable of energy transfer to the proteins of the parameria, giving a killing reaction. Work is in progress to examine this possibility. G. M. Kowalski																													
ASH-TLA METALLURGICAL LITERATURE CLASSIFICATION																													
SIGNATURE										DATE RECEIVED										DATE RECEIVED									

MEYFAKH, S.A.; GRECHISHKINA, V.I.

Preparation of glucose 6-phosphate. Biokhimiya '51, 16, 444-448.

(BA-BIII Je '53:831)

(MLRA 4:10)

MEYFAKH, S.A.

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Biological Chemistry

* Preparation of 6-phosphofructokinase in highly purified form. S. A. Meyfakh, M. P. Mednikova, and F. V. Mozhalov. *Doklady Akad. Nauk S.S.S.R.* 91, 557-60 (1953).—The following scheme yields 6-phosphofructokinase in the form of almost homogeneous catalytically active protein. The back and hind leg muscles of killed rabbit are minced in the cold and extd. 30 min. with 1 vol. cold H₂O, then with 0.5 vol. cold H₂O 15 min. The exts. are filtered through cloth, treated with (NH₄)₂SO₄ until 0.3 satd., filtered and the filtrate is treated with (NH₄)₂SO₄ until 50% satd., yielding a filtrate with pH 5.8-6.0. The filtrate is now discarded and the ppt. taken up in H₂O. Adjustment with 5% NH₄OH to pH 8-8.2 is followed by agitation 2-3 min. at 57°, followed by rapid cooling. The flocculent ppt. of protein matter is filtered off by suction and discarded. The filtrate is acidified with 0.5M AcOH to pH 5-5.2 and the ppt. of denatured proteins is filtered off and discarded. The filtrate is immediately adjusted with 5% NH₄OH to pH 6.8-7.0 and treated with satd. (NH₄)₂SO₄, previously adjusted to pH 8.2-8.5 with NH₄OH, adding 0.8 vol. sulfate soln. to 1 vol. filtrate, thus achieving 0.44 level of satn. The ppt. formed is the most active protein fraction. Its activity is detd. readily by detn. of the amt. of fructose-1,6-diphosphate formed from fructose-phosphate with the aid of pure aldolase in conjunction with NaCN to capture the triose phosphate formed. The above purification scheme permits concn. of the enzyme by a factor of 25. Ultracentrifugal examn. of the final product gave sedimentation const. $S = 6.88 \times 10^{-13}$ sec. Thus the product is a globulin, with mol. wt. approaching that of serum γ -globulins. A widening of the sedimentation

Inst. Experimental Med., AMS USSR

peak suggests admixt. of some partially denatured protein. The enzyme has optimum activity at pH 7.2-7.3. Dissoc. const. of enzyme-substrate complex is $1 \times 10^{-4} M$. Molar activity at 37° is low: some 300 moles of substrate per 10^6 g. protein. The enzyme is free of other enzymic activity except myokinase and phosphohexose isomerase; it also is capable of transfer of phosphate from adenosine triphosphate to glucose-6-phosphate. Complete removal of phosphoisomerase was achieved by a second heat treatment at 58°, which completely inactivated the latter enzyme, while 73% kinase activity was retained. The product was active thus in phosphate transfer from adenosinetriphosphate to fructose-6-phosphate but not to glucose-6-phosphate. The trace of myokinase could not be removed.

G. M. Kosolentoff

USSR/Medicine - Physiology

FD-2692

Card 1/1 Pub. 33-1, 28

Author : Neyfakh, S. A.

Title : Work of V. A. Engel'gardt on chemical dynamics of the cell (On the occasion of his 60th birthday)

Periodical : Fiziol. Zhur, 1, 3-8, Jan/Feb 1955

Abstract : This article pays tribute to Academician Vladimir Aleksandrovich Engel'gardt, prominent scientist, organizer of scientific research, and teacher, who recently celebrated his 60th birthday and 35 years of work in biochemistry. V. A. Engel'gardt is well known for his research work in chemical processes and chemical composition of living organisms. His published works were on the subject of chemical dynamics of cells and chemical dynamics of muscular contractions. Photographic portrait.

Institution : Institute of Experimental Medicine, Acad. Med. Sci. USSR, Leningrad

Submitted

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136810

U.S.S.R. / Human and Animal Physiology. Thermoregulation. T

Abs Jour: Ref Zhur-Biol., No 5, 1958, 22036.

Author : ~~Neyfakh, S.A.~~ Zdrodovskaya, E. P.
Inst : Institute of Experimental Medicine Acad. of
Med. Sciences, U.S.S.R. Leningrad.
Title : Changes in Organic Phosphorus Metabolism of
the Liver in Overheating and Experimental
Fever.

Orig Pub: Ezhegovnik In-t eksperim med. Akad med. nauk
SSSR 1955, L., 1956, 214-215.

Abstract: No abstract.

Card 1/1

COUNTRY : USSR
 CATEGORY : Medical Problems of Pathology. Tumors.
 Metabolism
 ABST. JOUR. : RZhBiol., No. 23 1958, No. 107001
 AUTHOR : ~~Yevlakh, S.A.~~; Fedina, M.I.
 INST. : Institute of Experimental Medicine of the
 USSR Acad. Sci.
 TITLE : On the Mechanism of Skeletal Losses of
 Calcium in the Presence of Phenylpyruvate of a Rat.
 ORIG. PUB. : Yevlakh, S.A. In: Izv. Akad. Nauk SSSR, Med. Biol. Ser., 1958, L., 1956, 217-218.
 ABSTRACT : The hexokinase activity (H.A.) of tumor
 cells is 0.7 times higher than that of the
 skeletal muscle. It is assumed that the in-
 creased H.A. is one of the causes of accel-
 erated glycolysis in tumors. H.A. in tumors
 is less sensitive to the action of oxidants.
 Thus, with a concentration of $4 \cdot 10^{-4}$ l. of
 2,6-dichloro-1,4-dimethyl-5-nitrophenol, a decreasing in
 H.A. of muscles by 90%, the H.A. of tumors
 decreased only by 40-50%.--Ye.A. Kharatyan.

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(CARBOHYDRATES, metabolism,

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& eff. of hexokinase (Rus))

(MUSCLES, metabolism,
same)

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