S/764/61/000/000/001/003

AUTHOR: Sakharuk, P.A., Candidate of Technical Sciences.

TITLE: New methods for the production of ferrochromium.

SOURCE: Razvitiye ferrosplavnoy promyshlennosti SSSR. Ed. by N.M. Dekhanov and others. Kiyev, Gostekhizdat USSR, 1961, 188-204.

TEXT: The paper describes the results of several years of experimentation at the TsNIIChM (Central Scientific Research Institute of Ferrous Metallurgy) on the development and improvement of the so-called mixing (emulsification) method in which the C-free ferrochrome is obtained from liquid silicochrome and a liquid ore-and-lime melt. A brief survey of the state of the art in the Western World is provided. The specific problem to be overcome was the difficulty, encountered in the Soviet plants at Chelyabinsk, Aktyubinsk, and Zaporozh'ye, in which the melt did not exit readily from the furnace, and the lining of the ladle was severely eroded by the liquid silicochrome. It was postulated that it would be necessary to reduce the m.p. of the ore-and-lime melt to facilitate its exit from the furnace. A test series was performed to determine the effect of the CrO_3 content on the m.p., and an optimal ore-lime-melt composition was arrived at, comprising (in percent): CaO 40-45, CrO_3 3-6, Cr_2O_3 25-28, Fe_2O_3 8-10, SiO_2 8-10, MgO 5-7, Al_2O_3 5-7.

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Such a melt is obtained practically from red Cr ores and Fe-containing cements upon oxidation performed either through O blowing during smelting or through preliminary oxidation anneal of a part of the mixture. The oxidation tests are described in detail. A parallel activity, at the Laboratory of Electric-Furnace-Produced Fe Alloys, has developed a technology for the decarbonization of C-containing ferrochrome by O blowing. Thermodynamic calculations, performed for the basic reactions within the converter employed, show that at T of 1,500-1,800°C the predominant reactions are those forming Cr_2O_3. At higher T (2,000 and higher) the reaction of the disintegration of the Cr carbide and the formation of metallic Cr predominates. It was found that a cross-over T of 1,698°C exists; below that T the formation of Cr_2O_3 prevails, whereas at higher T the reaction tends toward a process in which no Cr oxide is formed. The T required for the disintegration of the carbide at various C concentrations was determined. It was found that the pressure prevailing above the bath is a powerful factor which affects the equilibrium substantially. Therefore, for a given C content of the alloy, the T can be reduced substantially by reducing the pressure or, at a prescribed T, the C content in the alloy can be appreciably reduced by the same device. The effect on the chemical composition and the thermodynamics of the bath of the blowing intensity was determined, and it was established that the metal poured from the furnace into the converter must contain 1-1.5% Si to ensure normal operating conditions. Upon completion

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of the experimental work and the pertinent calculations, the "Giprostal'" (State Institute for the Design and Planning of Metallurgical Plants and Establishments) designed a two-converter department for the Aktyubinsk Factory. The construction and assembly of the converters are now completed, and, jointly with the TsNIIChM, the Factory has placed the method into production use. It is noted that, meanwhile, Engineers Kirichenko and Khodkin have performed an investigation at the Laboratory of Pure Metals and Alloys on the decarburization of the ferrochrome under deep vacuum at T so low that the ferrochrome and the oxidizer are no longer fused and the decarburization process proceeds to the practically total oxidation of the C. The chemistry and thermodynamics of the process tested by them are shown and illustrated. In substance, the test showed that the duration of the process and the degree of decarburization achieved depend substantially on the depth of the vacuum and the power of the exhausting pump system. The decarburization reaction begins at fairly elevated pressures. For example, at an ore T of 1,300°, the reaction begins at a residual pressure of 100-130 mm Hg. As the reaction proceeds, the pressure must be continually reduced to maintain the process, until, for a deep decarburization, the residual furnace pressure must be 0.1-0.05 mm Hg. A method for the preparation of nitraded, low-C, ferrochrome by means of a saturation of sufficiently porous decarburized ferrochrome was developed up to a N content to 5-6% at T of 1,000-1,100°. The investigation at the TsNIIChM shows that the study

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of the processes involved in the making of Fe alloys is a fruitful effort which should be expanded to other sectors of the production both of ferrochrome and of other alloys. There are 8 figures and 3 tables; no references.

ASSOCIATION: TsNIIChM (Central Scientific Research Institute of Ferrous Metallurgy).

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S/133/61/000/001/006/016
A054/A033

18 3200

AUTHORS: Sakharuk, P.A., Candidate of Technical Sciences; Dmitrovskaya, G.D., Engineer; Geyev, O.V., Engineer

TITLE: Decarbonization of Ferrochrome in Converters by Blowing Oxygen

PERIODICAL: Stal', 1961, No. 1, pp. 40 - 42

TEXT: Based on the chemical reactions of the decarbonization of ferrochrome with oxygen blown into the converter, the TsNIIChM established the technology for this process consisting of three phases: First phase: blowing oxygen through the metal, heating the metal above 1,700°C and accumulation of oxides in the converter; second phase: blowing oxygen into the converter over the metal, resulting in the oxidation of the main carbon mass, until a carbon content of 1.0 - 1.2% is attained with heating to 1,750 - 1,800°C; third phase: producing a vacuum in the bath and blowing a smaller amount of oxygen into the converter, while the carbon content is reduced to 0.2 - 0.5%. The converter is in the same position as in phase 2 but it is covered with a vacuum chamber. The technology has been tested on 4-ton castings in the Chelyabinskiy zavod ferrosplavov (Chelyabinsk Ferroalloy Plant) and the optimum conditions for the three phases have been de-

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termined as follows:

Phase	I	II	III
Time, min	20 - 30	50 - 70	50 - 60
Oxygen consumption, m^3/ton	50	40	10

In the Chelyabinsk Ferroalloy Plant optimum results were obtained with carbon containing ferro-chromium having a Si-content of 1.5 - 2.0%. At a lower Si-content (under 1%) the converter gradually fills up with slag (containing up to 80% Cr_2O_3) with a Si-content above 2.5%, however, the lining, consisting of melted magnesite is corroded by the slag, containing 20 - 30% SiO_2. The chromium yield after oxygen blowing amounted to about 75 - 80%. When establishing the industrial scale technology the most difficult items were: the construction of the tuyère which had to stand the oxygen blast into the metal, the suitable lining for temperatures above 1,800°C and the vacuum equipment. The best results were obtained with copper tuyères, 20 - 25 mm in diameter, with 22 - 24% water sprinkled into the oxygen blast. The most suitable lining was designed by the Vsesoyuznyy nauchno-issledovatel'skiy institut ogneuporov (All-Union Scientific Research Institute of Refractory Materials) in Kharkov with the cooperation of Ye.V. Ivanov et al., in the form of melted magnesite bricks. Giprostal' designed a converter for this

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process with a capacity of 1.65 m^3, for blowing 4 tons of ferrochromium, with two casings: one with a basic lining for the melting and an outer casing for the vacuum process (Fig. 2). The method has been introduced in the Aktyubinskiy zavod ferrosplavov (Aktyubinsk Ferroalloy Plant) by October 1958, which produced a metal with a lower Si-content (less than 1.0%) than in the Chelyabinsk Plant. The method applied was also different. The converter was lined with periclase-spinellide brick, 230 mm thick, which is rapidly corroded by slag when blowing ferrochromium with a Si-content above 1.5 - 2.0%. This plant, therefore, uses ferrochromium containing not more than 1.0% Si, which, however, results in an increase in chromium cinder. With this lining about 80 meltings can be carried out. This is still not sufficient and attempts are being made to produce a lining good for at least 100 meltings, preferably from melted magnesite. When melting ferrochromium with a higher (6.5 - 8.0%) carbon content, oxidation in the bath starts at a lower temperature, when the metal still is not liquid enough. In this case blowing has to be carried out somewhat slower. In May 1959, the cost of the converter steel produced with this method proved to be 200 rubles lower than the cost of medium carbon ferro-chromium produced by the silico-thermal method. Further improvement can be obtained by using Хр4 (Khr4) grade ferro-chromium with a lower

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(4 - 6.5%) carbon content, in which case melting can be accelerated. There are 3 figures and 1 table.

ASSOCIATION: TsNIIChM, Aktyubinskiy zavod ferrosplavov (Aktyubinsk Ferroalloy Plant)

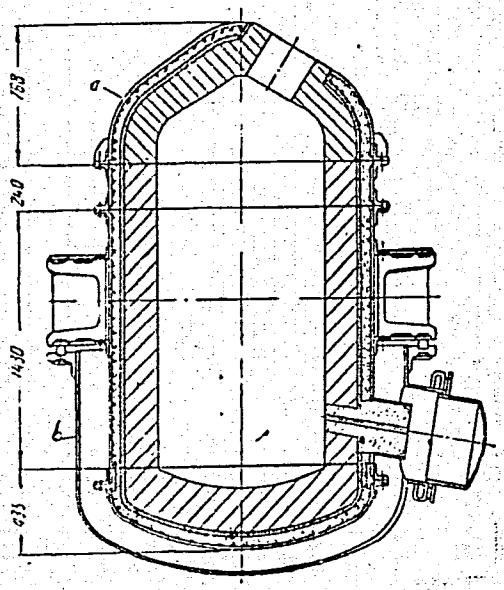

Figure 2: converter for blowing oxygen into ferro-chromium in vacuum: a - basic casing; b - casing for vacuum treatment.

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L 00861-66 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5016634 UR/0138/65/000/006/0008/0012
678.043/.044.004.12

AUTHORS: Fel'dshteyn, M. S.; Gorelik, M. V.; Pevzner, D. M.; Sakhashchik, L. V.

TITLE: 2-(aminodithio)benzthiazoles as agents and accelerators of vulcanization

SOURCE: Kauchuk i rezina, no. 6, 1965, 8-12

TOPIC TAGS: vulcanization, vulcanizate, aminodithiobenzthiazole, catalyst, vulcanized rubber

ABSTRACT: The investigation was undertaken to substantiate the work of J. G. Lichty, J. O. Cole, A. F. Hardman, et al (Ind. Eng. Chem., Prod., 2, 1, 16, 1963) on 2-(morpholinodithio) benzthiazole (I), and to characterize vulcanizing and catalytic properties of 2-(piperidinodithio) benzthiazole (II). The kinetics of vulcanization and the effect of carbon black and sulfur on the vulcanization were determined and compared with the results produced on N,N'-dithiomorpholine (III). It was found that the action of I and II is similar to that of III. The speed and effectiveness of vulcanization of II and III for sulfur-free rubber mixtures are superior to I and to thiuramdisulfides. In sulfur-containing rubber mixtures, 2-(aminodithio)benzthiazoles act as high-efficiency vulcanizing accelerators. In comparison with 2-benzthiazolsulfenamides, the former yield

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ACCESSION NR: AP5016634

vulcanizates from natural rubber and butadiene-styrene synthetic rubber which have greater tensile strength than the latter. The effect of 2-(morpholinedithio) benzthiazole is inferior to sulfenamide-M but similar to sulfenamide-BT. M. I. Shubina collaborated in the experiments. Orig. art. has: 1 table, 7 graphs, and 3 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute for Rubber Tire Industry); Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley (Scientific Research Institute of Organic Intermediates and Dyes)

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

NO REF SOV: 004 OTHER: 005

Card 2/2

SAKHATCHIEV, A., ml. nauchen sutrudnik; DRIANOV, D., st. asistent

Possibilities of roentgenologic diagnosis of hypopharyngeal and laryngeal tumors. Khirurgiia, Sofia 7 no.5:279-289 1954.

1. Republikanski nauchno-izsledovatelski onkologichen institut. direktor: prof. G.Technov. Katedra po bolestite na ukhoto, nosa i gurloto, ISUL. Zavezhdashch dots. Sv. Boikikev.

(LARYNX, neoplasms,
diag., x-ray)
(PHARYNX, neoplasms,
diag., x-ray of hypopharyngeal tumors)

SAKHATCHIEV A.

KRUSTEV, B., st. m.sutrudnik; SAKHATCHIEV, A., mil. n. sutrudnik

Modern treatment of cancer. Khirurgiia, Sofia 7 no.7:388-399 1954.

1. Republikanski nauchno-izsledovatelski onkologichen institut. Direktor: prof. G.Tenchov.
(NEOPLASMS, therapy,)

SAKHATCHEV, A

1728. Effect of strychnine on the biological activity of ionizing radiation. G. Tenchov, S. Baluev, and A. Sakhatchiev. *Vestn. Rentgenol. Radiol.*, 1955, No. 4, 14—21; *Referat. Zh. Biol.*, 1956, Abstr. No. 51429.—Rats were injected subcut. with strychnine in a dose less than the lethal or toxic (1/16th mg. independent of the initial body wt.) before and after radiation. Injection of strychnine 10 min. after radiation at 800 R (94% lethal) saved from death a significant no. of animals, and slowed the lethal activity of the radiation and the loss of wt. A dose of 930 R combined with strychnine was equal to a dose of 800 R without strychnine. Differences in the action between a single dose and repeated doses of strychnine were not apparent. Strychnine in small doses has a tonic effect on the nerve centres, and strengthens the normal trophic-regulator function of the nervous system, and thus it assists in the mobilisation of recovery and compensating mechanisms, which can oppose the developing radiation sickness. Injected before radiation, strychnine does not show any favourable effect on the course of radiation sickness. (Russian). D. H. SMYTH

3

Med

TENCHOV, G; SAKHATCHIYEV, A.; BALUYEV, S.

Changes in weight in white rats following irradiation of the whole body with fatal doses of X rays. Vest. rent. i rad. no.4: 27-33 Jl-Ag '55. (MLRA 8:12)

1. Iz nauchno-issledovatel'skogo onkologicheskogo instituta (dir.-prof. G.Tenchov), Sofiya, Narodnaya Respublika Bolgariya.
(ROENTGEN RAYS, effects,
on body weight of white rats, after total irradiation with lethal doses)
(BODY WEIGHT
eff. of total body Roentgen irradiation with lethal doses in white rats)

SAKHATCHIYEV, A

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901. Change in weight of white rats after radiation of whole organism with lethal dose of Rönhren radiation. G. Tenchov, A. Sakhatchiev, and S. Balnev. *Vestn. Rentgenol. Radiol.*, 1955, No. 5, 27—33. *Referat. Zh. Biol.*, 1956, Abstr. No. 51425.—In rats surviving 5—10 days after radiation a continuous fall in wt. was observed up to 20—30% of the initial wt. Rats surviving 15 days showed some signs towards recovery of wt. The greatest tendency towards recovery in wt. was seen in rats surviving up to 20 days. It is supposed that in the change of wt. of animals after radiation it is possible to determine the probability of survival. The decisive factor appears to be the time of onset and the duration of the recovery phase. If, on the 21st day, the wt. of the animal has recovered up to 91% of its initial wt. it will survive, if not it will die. The number of erythrocytes in the blood in surviving animals falls more slowly than the wt., but their recovery goes parallel with the recovery in wt. Attention is drawn to the much weaker resistance to radiation of young and old animals. (Russian)

D. H. Smyth

SAKHATCHIEV, A.

Roentgenologic symptom of sclerosis of the larynx following deep roentgenotherapy. Suvrem.med.,Sofia 6 no.4:79-84 '55.

1. Iz Nauchno-izsledovatelskiia onkologichen institut (dir.prof. G. Tenchov)

(LARYNX, diseases,
sclerosis caused by deep x-ray diag.)
(ROENTGEN RAYS, injurious effects,
larynx sclerosis in deep x-ray ther.,x-ray diag)

SAKHATCHIEV, A.

Method of fixation of needles containing radium or radioactive cobalt. Khirurgiia, Sofia 8 no.2:171-173 1955.

(RADIUM, therapeutic use,
fixation of needle)
(COBALT, radioactive,
ther.,use, fixation of needle)

SAKHATCHIEV, A.

KONSTANTINOV, N.; SAKHATCHIEVA, L.; SAKHATCHIEV, A.

Considerations on toxoplasmosis with report of a case. Khirurgiia, Sofia 8 no.7:660-666 1955.

1. Institut za spetsializatsiia i usuvurshenstvuvane na lekarite, Sofiia ochna klinika. Zav. katedrata: dots. Iv.Vasilev. Detska psikho-nevrologichna bolnitsa. Gl.lekar: A.Khubavenkova. Nauchno-izsledovatelski onkologichen institut. Direktor: prof. Ves.Mikhailov.
(TOXOPIASMOSIS)

SAKHATCHIEV, A.; KIROV, St.

Problem of so-called prophylactic hormonal therapy of breast cancer. Khirurgiia, Sofia 9 no.4:338-341 1956.

1. Institut za spetsializatsiia i usuvur shenstvuvane na lekarite--Sofiia. Nauchnoizsledovatelski onkolog. inst. Direktor: prof. V. Mikhailov.
(BREAST NEOPLASMS, prevention and control, hormones (Bul))
(HORMONES, therapeutic use, cancer of breast prev. (Bul))

Country : [illegible]
CATEGORY : General Problems of Pathology. Tumors. Comparative Oncology
ABS. JOUR. : RZBiol., No. 12 1958, No. 56530

AUTHOR : Sakhatchiyev, A.
INST. :
TITLE : A Cannula Made of Acrylic Plastic, Used in the Treatment of Tumors of the Larynx and Inferior Portion of the Pharynx
ORIG. PUB. : Khirurgiya (B"lg.), 1956, Vol.9, No.5, 466-467

ABSTRACT : In the X-ray treatment of tumors of the larynx and inferior portion of the pharynx, patients are often seen in whom tracheotomy or intubation must be carried out. A metal cannula weakens the effectiveness of the X-rays and causes secondary irradiation which disturbs the precision of the dose of X-rays. It is not advisable to remove the cannula even temporarily. Hence a cannula of acrylic plastic is very suitable; it is permeable to X-ray to a degree similar to that of tissues, and produces no secondary radiation. The plastic cannula is lighter than the metal one and is not irritating to the tissues. -- S.S.Kulikov

CARD: 1/1

SAKHATCHIEV, A.

Method of investigation on the effect of certain drugs on biological action of ionizing radiations. Suvrem. med., Sofia 8 no.6:3-8 1957.

1. Iz Nauchnoizsledovatelskiia onkologichen institut (Direktor: prof. G. Tenchov).

(RADIATION PROTECTION,
testicular procaine block as protective measure in radiother. of prostatic cancer (Bul))
(RADIOTHERAPY, in var. dis.
cancer of prostate, protection of testes by procaine nerve block (Bul))
(PROSTATE, neoplasms,
radiother., protection of testes by procaine nerve block (Bul))
(ANESTHESIA, REGIONAL,
testicular procaine block, protective role in radiother. of prostatic cancer (Bul))

BALABANOV, M.; SAKHATCHIEV, A.; TSENTNER, F.

Apparatus for bucco-facial fixation in curietherapy. Khirurgiia, Sofia 10 no.1:83-85 1957.

1. (Iz Nauchnoizsledovatelskiia onkologichen institut i Nauchnoizsledovatelskiia stomatologichen institut.)
(FACE, neoplasms,
radium ther., fixation appar (Bul))
(MOUTH, neoplasms,
same)
(RADIUM, therapeutic use,
cancer of face & mouth, fixation appar (Bul))

SAKHATCHIEV, A.

Distribution of doses of gamma rays and their determination in two parallel moulages. Khirurgiia, Sofia 10 no.7:634-673 1957.

1. Nauchnoizsledovatelski onkologichen institut Direktor: prof. V. Mikhailov.

(GAMMA RAYS, therapeutic use,
cancer, distribution of rays & determ. in 2 parallel moulages (Bul))
(NEOPLASMS, therapy,
gamma rays, distribution & determ. in 2 parallel moulages (Bul))

TENCHOV, G., Prof.; SAKHATCHIEV, A.

Delayed bone lesions caused by radiotherapy. Khirurgiia, Sofia 11 no.1:32-40 1958.

1. Institut za spetsializatsiia i usuvurshenstvuvane na lekarite - Sofiia katedra po rentgenologiia i onkologiia.

(RADIOTHERAPY, inj. eff.
bone lesions, delayed (Bul))
(BONE AND BONES, eff. of radiations on
lesions caused by radiother. (Bul))

SAKHATCHIEV, A.

Possibility of x-ray and radium contact therapy. Khirurgiia, Sofia 11 no.9:836-843 1958.

1. Institut za spetsializatsiia i usuvurshenstvuvane na lekarite-1 Sofiia katedra po rentgenologiia i onkologiia zav. katedrata: prof. G. Tenchov.

(RADIOTHERAPY,
contact (Bul))
(RADIUM, ther. use,
contact (Bul))

TENCHOV, G.; SAKHATCHIEV, A.; ZOGRAFOV, D.; MITROV, G.; KANETA, Ia.

Occupational ionizing radiation injuries in medical personnel in Bulgaria. Suvrem. med., Sofia 10 no.1:37-44 1959.

1. Iz Katedrata po pentgenologiia i radiologiia pri ISUL (Zav. katedrata: prof. G. Tenchov).

(RADIATIONS, inj. eff.
in med. personnel (Bul))
(OCCUPATIONAL DISEASES,
radiation inj. in med. personnel (Bul))

SAKHATCHIEV, A.

Certain variations of normal roentgenographic picture of the hyoid bone and of the laryngeal cartilage. Khirurgiia, Sofia 12 no.1:61-62 1959.

(Iz Katedrata po rentgenologiia i radiologiia--ISUL).
(HYOID BONE, radiography,
variations of normal x-ray picture (Bul))
(LARYNGEAL CARTILAGE, radiography
same)

SAKHATCHIEV, A.

Interstitial application of colloidal radioactive gold (Au198) in the treatment of cancer of the mammary gland. Khirurgiia, Sofia 12 no.10:845-854 '59.

1. Institut za spetsializatsiia i usuvurshenstvuvane na lekarite, Sofiia. Katedra po rentgenologiia i radiologiia. Zav.katedrata: prof. G. Tenchov.
(BREAST neopl.)
(GOLD radioactive)

SAKHATCHIEV, A.; BIZHEV, Khr.

An apparatus for fastening a moulage to the vagina. Khirurgiia, Sofia 13 no.7/8:717 '60.

1. Iz Katedrata po rentgenologiia i radiologiia pri ISUL.
(GYNECOLOGY equip. & supplies)

TENCHOV, G.; SAKHATCHIEV, A.; BALUEV, S.; ZAGRAFOV, D.

Prognostic value of changes in the body weight and peripheral blood in acute radiation sickness in white rats. Suvrem med., Sofia no.12: 86-92 '60.

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

(RADIATION INJURY exper)
(BODY WEIGHT radiation eff)
(BLOOD CELLS radiation eff)

KHADZHIDEKOV, G., dots.; SAKHATCHIEV, A.

On calcifications and ossifications in the region of the hyoid bone and thyroid cartilage. Khirurgiia, Sofia 14 no.8:695-702 '61.

1. Institut za spetsializatsiia i usuvurshenstvuvane na lekarite, Sofiia. Katedra po rentgenologiia i radiologiia. Zav. katedrata: prof. G. Tenchcv[deceased].

(CALCIFICATION) (OSSIFICATION)
(LARYNGEAL CARTILAGES pathol)
(HYOID BONE pathol)

SAKHAROCHIYEV, A.

Interstitial use of colloidal Au^{198} solution in the treatment of breast cancer. Med. rad. no.12:10-14 '61. (MIRA 15:7)

1. Iz kafedry rentgenologii i radiologii (zav. - prof. G. Tenchov [deceased]) Instituta spetsializatsii i usovershenstvovaniya vrachey v Sofii.

(BREAST--CANCER) (GOLD--ISOTOPES)

SAKHATCHIEV, A.; NACHEV, Ch.

Radioisotope diagnosis of the blood circulation and water-electrolyte balance. Suvr. med. 14 no.10:58-68 '63.

BULGARIA

SAKHATCHIEV, A., and PENCHEV, P.; Oncological Scientific-Research Institute (director: Prof N. ANCHEV)

"Improved Needles with Radioactive Cobalt"

Sofia, Rentgenologiya i Radiologiya, Vol 5, No 2, 1966, pp 117-121

Abstract [authors' Russian and English summaries, modified]: By pinning the base of the tongue, the floor of the oral cavity, the vagina, the female urethra, the anal region, etc. it is not always possible to observe the requirement that the irradiated region be surrounded on all sides with needles in order to compensate for the reduction of the dose in the proximity of the needle ends. To avoid the inconvenience of pinning in relatively inaccessible regions, the authors propose using Co-60 needles with higher linear activities at one or both ends than at their middle part. The authors obtained such needles by placing cobalt-nickel pins with different linear activity in steel filters for the Co-60 needles. The distribution of the dose around the ordinary and the modified single needle, and from implants with such needles, is illustrated with equidensity curves. Using the modified needles gives a suitable distribution of the dose in the implanted region, employing only parallel

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TENCHOV, G.; SAKHATCHIEV, Z.; ZOGRAFOV, D.

Some changes in peripheral blood during total-body irradiation of white mice with a lethal dose of x-ray. Suvrem. med., Sofia 9 no.3:52-59 1958.

1. Iz Rentgenoviia institut pri USUL--Sofiia (Direktor: prof. G. Tenchov)
(ROENTGEN RAYS, effects,
total body, on peripheral blood in mice (Bul))
(BLOOD, eff. of radiations on
x-ray total body irradiation of mice (Bul))

SAKHATCHIEVA, L.

IORDANOV, B.; SAKHATCHIEVA, L.

Therapeutic use of glutamic acid and accidents during its use.
Suvrem. med., Sofia 7 no.11:83-89 1956.

1. Iz Klinikata po nevrologiia na VMI - Sofiia (Direktor: prof. G. Uzunov) i Detskata psikho-nevrologichna bolnitsa - Sofiia (Gl. lekar: A. Khubavenkova).
(GLUTAMATES, injurious effects, side eff. in ther. (Bul))

USUNOV, G.; BOZHINOV, S.; GEORGIEV, I.; PETROV, P.,IANKOV, Is.; SAKHATCHIEVA, L.; VETSKA, P.

Symptomatic epilepsy in supra- and sub-tentorial tumors of the brain.
Suvrem. med., Sofia 8 no.11:51-59 1957.

(BRAIN NEOPLASMS, complications,
supratentorial & subtentorial, causing epilepsy (Bul))
(EPILEPSY, etiol. & pathogen.
subtentorial & supratentorial tumors (Bul))

BABAYEV, A.; SAKHATOV, A.

Types of conditions for forest growth in sands of the second-order zone of the Kara Kum Canal. Izv. AN Turk. SSR. Ser. biol. nauk no.5: 18-25 '61. (MIRA 14:12)

1. Institut pochvovedeniya i osvoyeniya peskov AN Turkmenskoy SSR.
(KARA KUM CANAL REGION--AFFORESTATION)

SAKHATOV, K.

Water-soluble boron in virgin soils of the Tedzhen Oasis. Izv. AN Turk. SSR.Ser. biol. nauk no.2:73-76 '62. (MIRA 17:4)

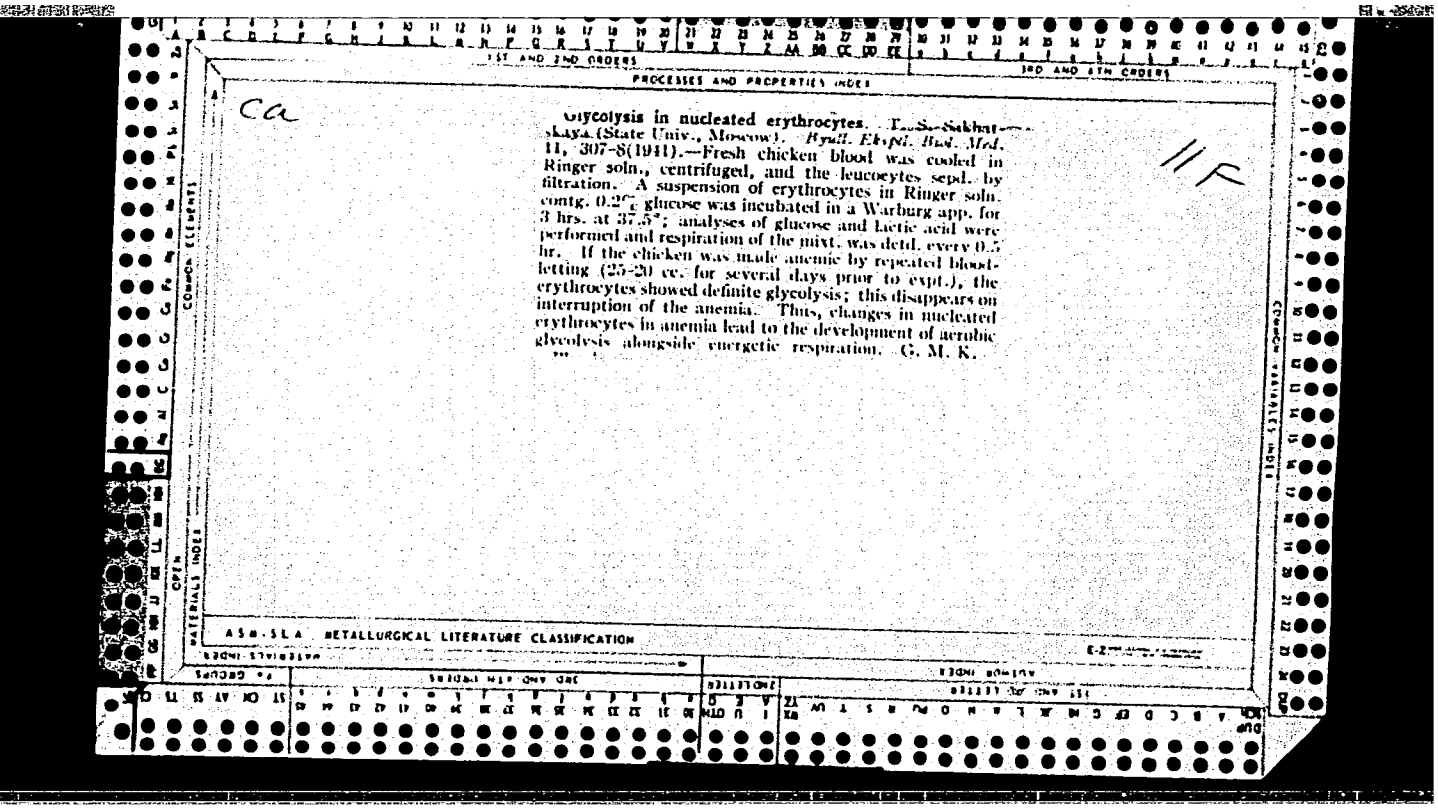
1. Turkmenskiy sel'skokhozyaystvennyy institut imeni M.I.Kalinina.

KRYLOVA, F.D.; SAKHATOV, Ya.

Organization of trachoma control in Iolotan District. Zdrav. Turk. 4 no.6:38-40 N-D '60. (MIRA 14:1)
(IOLOTAN DISTRICT—CONJUNCTIVITIS, GRANULAR)

PAVLOV, Ye.; SKOBEL'SKAYA, Yu.; SAKHATSKAYA, T.

Symposium on the formation of endocrine functions in ontogeny.
Usp. sovr. biol. 60 no.2:316-319 S-O '65. (MIRA 18:10)



PROCESSES AND PROPERTIES INDEX

Ca

Glycolysis in nucleated erythrocytes. T. S. Sakhat-skaya (State Univ., Moscow). *Byull. Eksptl. Biol. Med.* 11, 307–8(1941).—Fresh chicken blood was cooled in Ringer soln., centrifuged, and the leucocytes sepd. by filtration. A suspension of erythrocytes in Ringer soln. contg. 0.2% glucose was incubated in a Warburg app. for 3 hrs. at 37.5°; analyses of glucose and lactic acid were performed and respiration of the mixt. was detd. every 0.5 hr. If the chicken was made anemic by repeated blood-letting (25–30 cc. for several days prior to expt.), the erythrocytes showed definite glycolysis; this disappears on interruption of the anemia. Thus, changes in nucleated erythrocytes in anemia lead to the development of aerobic glycolysis alongside energetic respiration. G. M. K.

11F

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

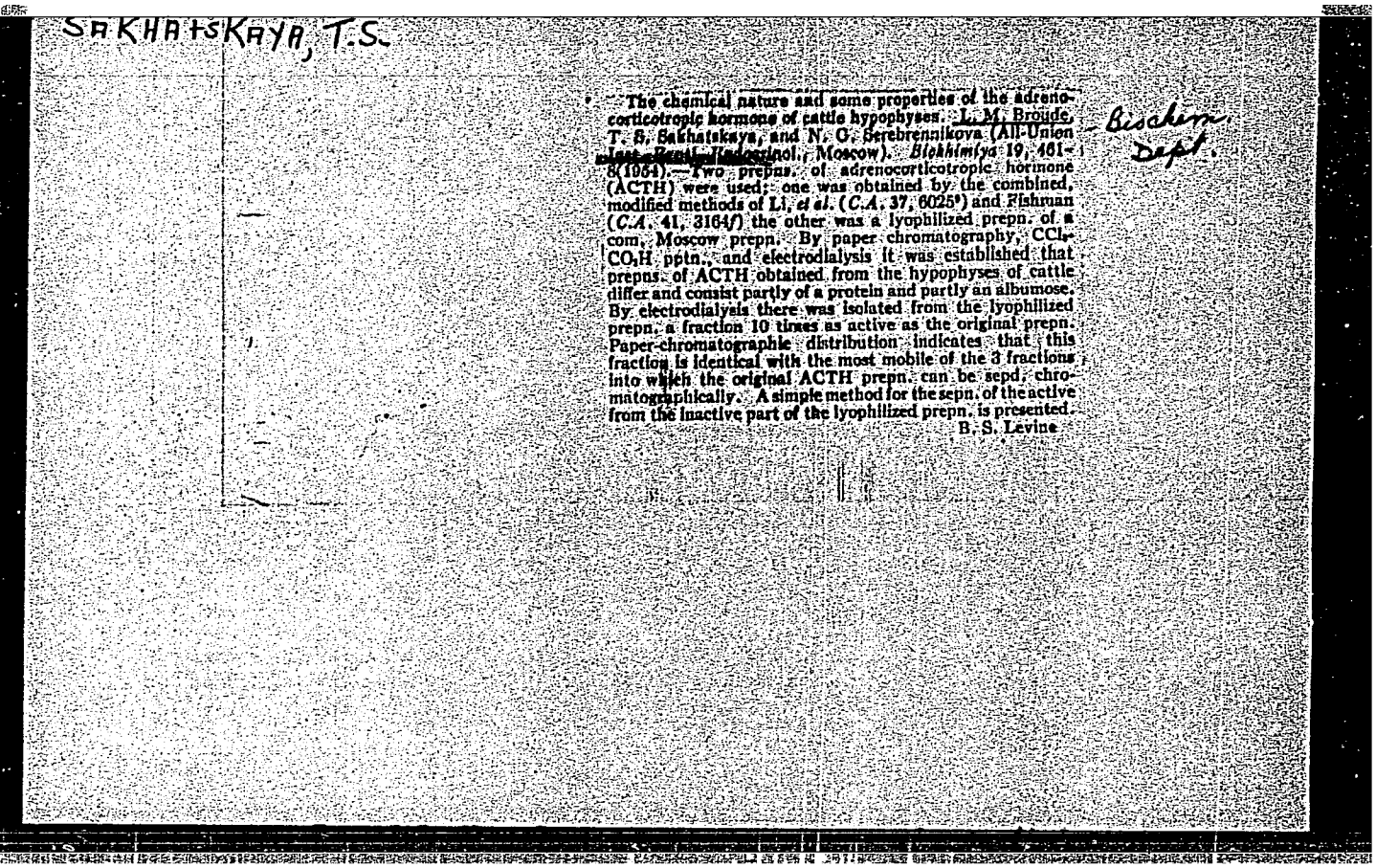
SAKHATSKAYA, T. S. Cand. Biolog. Sci.

Dissertation: "Thermal Effect of the Splitting of Phospho-Carnosine, Phospho-Histidine and Phospho-Betoalanine." Inst of Physiology, Acad Med Sci USSR, 25 Nov 47.

SO: Vechernyaya Moskva, Nov, 1947 (Project #17836)

SAKHATSKAYA, T. S.

"Heat Changes of Hydrolysis of Phosphocarnosine, Phospho-b-Alanine and phosphohistidine," Biokhim., 12, No. 2, 1947. Mbr., Chair Medical Chemistry, Moscow Med. Inst., -1947-.

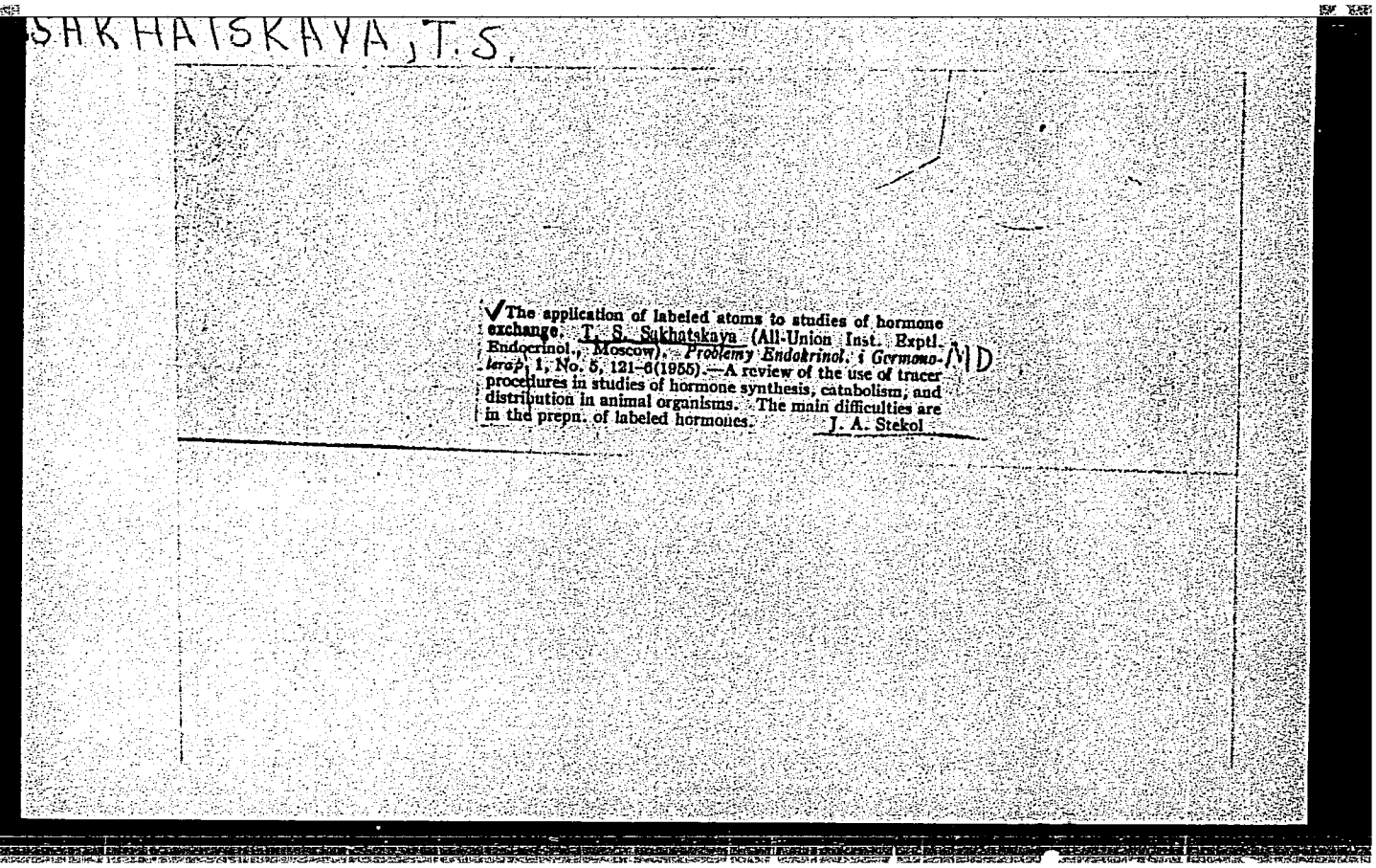


SAKHATSKAYA, T.S.

The chemical nature and some properties of the adrenocorticotropic hormone of cattle hypophyses. L. M. Broude, T. S. Sakhatskaya, and N. G. Serebrennikova (All-Union Inst. Exptl. Endocrinol., Moscow). *Biokhimiya* 19, 401–8(1954).—Two prepns. of adrenocorticotropic hormone (ACTH) were used: one was obtained by the combined, modified methods of Li, *et al.* (*C.A.* 37, 6025⁹) and Fishman (*C.A.* 41, 3164*f*) the other was a lyophilized prepn. of a com. Moscow prepn. By paper chromatography, CCl_3CO_2H ppta., and electrodialysis it was established that prepns. of ACTH obtained from the hypophyses of cattle differ and consist partly of a protein and partly an albumose. By electrodialysis there was isolated from the lyophilized prepn. a fraction 10 times as active as the original prepn. Paper-chromatographic distribution indicates that this fraction is identical with the most mobile of the 3 fractions into which the original ACTH prepn. can be sepd. chromatographically. A simple method for the sepn. of the active from the inactive part of the lyophilized prepn. is presented.

B. S. Levine

Biochem. Dept.



SAKHATSKAYA, T.S.

The application of labeled atoms to studies of hormone exchange. T. S. Sakhatskaya (All-Union Inst. Exptl. Endocrinol., Moscow). *Problemy Endokrinol. i Gormono-terap.* 1, No. 5, 121–6(1955).—A review of the use of tracer procedures in studies of hormone synthesis, catabolism, and distribution in animal organisms. The main difficulties are in the prepn. of labeled hormones. J. A. Stekol

MD

SAKHATSKAYA T. S.

USSR

The formol number in the estimation of the quality of pancreas intended for use in insulin production. L. M. Broude, E. A. Kolli, and T. S. Sakhatskaya (All-Union Inst. Expti. Endocrinol., [redacted] 20, 16-18(1955).—A parallelism exists between the total N, residual N, and amino N in the formol no. of exts. of the pancreas. This makes possible the detn. of the formol no. in industry by a simple and easily accessible method. An increase in the formol no. is always accompanied by a fall in the insulin potency. In the frozen gland the formol no. and the amino-acid content remain undiminished. In acidified alc. exts. of the pancreas kept in the refrigerator total N and the formol no. also remain unchanged for 3-4 weeks. Freshly frozen pancreatic glands have formol nos. of 2.4-3.2. In deteriorated glands the formol no. rises while the insulin content falls. B. S. Levine

SAKHATSKAYA, T.S. (Moskva); SEREBRENNIKOVA, N.G. (Moskva)

Effect of partial acid and peptic hydrolysis of an ACTH preparation on its biological activity. Probl. endok. i gorm. 2 no.1:64-68 Ja-F '56. (MLRA 9:10)

1. Iz Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir. - prof. Ye.A.Vasyukova)
(ACTH,
eff. of partial acid & peptic hydrolysis (Rus))

EXCERPTA MEDICA Sec.3 Vol.12/5 Endocrinology April 58

Sakhatskaya T.S.

711. THE INFLUENCE OF A SINGLE OR PROLONGED ADMINISTRATION OF ACTH ON THE SECRETION OF CORTICOSTEROIDS BY THE ADRENALS IN RATS (Russian text) - Sakhatskaya T. S. All-Union Inst. of Exp. Endocrin., Moscow - PROBL. ENDOKR. 1956, 2/6 (51-55)

A single injection of ACTH in a dose of 0.5 to 4 U. into the jugular vein of hypophysectomized rats raised the corticosterone content of the adrenal vein blood to the level of that in intact rats. Hydrocortisone could not be detected. Similarly, after prolonged administration of ACTH no quantitative change in the secretion of corticosteroids was observed: after 16-30 days of injections, corticosterone only was secreted. Dilman - Leningrad (S)

SAKHATSKAYA, T.S., kand.biologicheskikh nauk

Chemistry of ACTH and its effect on the adrenal gland. Probl.endok. i gorm. 3 no.4:95-110 Jl-Ag '57. (MIRA 10:12)

1. Iz otdela biokhimii (zav. - kandidat biologicheskikh nauk Ye.A. Kolli) Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir. prof. Ye.A.Vasyukova)

(ACTH,
chem. & eff. on adrenal cortex, review (Rus))
(ADRENAL CORTEX, effect of drugs on,
ACTH, review (Rus))

LARINA, M.A., SAKHATSKAYA, T.S. (Moskva).

Corticosterone content of adrenal blood in rats at various periods after irradiation [with summary in English]. Problem.endok. i gorm 4 no.4:21-24 Jl-Ag '58 (MIRA 11:10)

1. Iz radiatsionnoy laboratorii (zav. - dots. D.E. Grodzenskiy) Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir. prof. Ye.A. Vasyukova).

(RADIATIONS, eff
on corticosterone content in adrenal blood of rats (Rus))
(ADRENAL CORTEX HORMONES, in blood
corticostorone in adrenal blood, eff of x-irradiation in rats (Rus))
(ADRENAL GLANDS, blood supply
corticosterone content of adrenal blood, eff. of x-irradiation (Rus))

SAKHATSKAYA, T. S.

"Urinary 17-Ketosteroid Excretion in Rats of Different Ages."

Theses of the Proceedings of the Annual Scientific Sessions 23-26 March 1959 (All-Union Institute of Experimental Endocrinology)

From the Biochemistry Department (Head--Senior Scientific Worker, Ye. A. Kolli) of the All-Union Institute of Experimental Endocrinology (Director--Professor Ye. A. Vasyukova).

SAKHATSKAYA, T.S.

Effect of somatotropic hormone on the adrenals in rats. Probl. endok. i gorm. 6 no. 3:9-11 My-Je '60. (MIRA 14:1)
(PITUITARY BODY—SECRETIONS) (ADRENAL CORTEX)

SAKHATSKAYA, T. S., (USSR).

Effect of Androgens on the Secretory Powers of the Rat Suprarenal Glands.

report presented at the 5th Int'l.
Biochemistry Congress, Moscow, 10-16 Aug. 1961.

YUDAYEV, N.A.; SAKHATSKAYA, T.S., red.; LYUDKOVSKAYA, N.I., tekhn. red.

[Chemical methods of determining steroid hormones in biological fluids] Khimicheskie metody opredeleniia steroidnykh gormonov v biologicheskikh zhidkostiakh. Moskva, Medgiz, 1961. 170 p.
(MIRA 14:10)

(STEROIDS) (HORMONES)

IVANENKO, T.I.; SAKHATSKAYA, T.S. (Moskva)

Method for determining the aldosterone in human urine. Probl. endok.i gorm. no.1:50-57 '62. (MIRA 15:8)

1. Iz radiatsionnoy laboratorii (zav. - kand.med.nauk D.E. Grodzenskiy) i biokhimicheskogo otdela (zav. - kand.med.nauk Ye.A. Kolli) Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir. - prof. Ye.A. Vasyukova).
(ALDOSTERONE) (URINE--ANALYSIS AND PATHOLOGY)

SAKHATSKAYA, T.S.

Biosynthesis of corticosteroids by adrenal glands of rat embryos. Probl. endok. i gorm. 10 no.5:67-70 S-O '64. (MIRA 18:6)

1. Laboratoriya endokrinologii Instituta morfologii cheloveka (dir. - prof. A.P. Avtsyn) AMN SSSR, Moskva.

SAKHATSKAYA, T.S. (Moskva)

Effect of sex hormones on the secretory activity of the adrenal glands. Sovr. vop. endok. no.3(70-83) '60. (MIRA 18:9)

SAKHATSKIY, G.P.

USSR/Engineering - Welding, Magnesium Agu 51

Electric-Arc Welding of Magnesium Alloys," K.K. Khrenov, Mem, Acad Sci Ukrainian SSR, Docent M.N. Gapchenko, Cand Tech Sci, G. P. Sakhatskiy, Engr.

"Avtogen Delo" No 8, pp 1-5

Investigated welding methods for Mg alloys of MAI Type, containing 1.3-2.5% Mn and small amounts of Al, Zn, Fe, Si and others. Out of 10 flux systems investigated best results were obrained from fluxes contg considerable amt of fluorides of alkali metals. Mech properties of fluorides of alkali metals. Mech properties of welded joints are lower than those of base metal. Homogenization of welded specimens failed to improve noticeably mech properties. Macro- and microstructure of welded joints showed satisfactory weldability of metal. Tabulates conditions of dc welding, using carton electrode.

200Th7

SAKHATSKIY, G.P.

Metallurgical Abst.
Vol. 21 Apr. 1954
Joining

Electric-Arc Welding of Magnesium Alloys. K. K. Khrenov, M. N. Gapchenko, and G. P. Sakhatsky (*Aircraft Eng.*, 1952, 24, (283), 277–278).—Translated from *Avtog. Delo*, 1951, 22, (8), 1–5. D.C. and A.C. C-arc welding of alloy MA1 (1·3–2·5% Mn) with various fluxes and with varied conditions of the arc is described and discussed.—H. S.

SAKHATSKIY, G. P.

USSR.

10989* Cold Welding of Aluminum and Copper Conductors. Kholodnaia svarka alumininevykh i mednykh provodov. (Russian.) K. K. Khrenov and G. P. Sakhatskii. *Svarochnoe Proizvodstvo*, 1955, no. 4, Apr., p. 1-4.

Cold welding instruments and techniques; strength properties of cold welds. Photographs, diagrams, table.

M BI

SAKHATS'KIY, G.P.

Cold welding of aluminum and copper wires. Visnyk AN URSR 26 no.2: 51-52 F '55. (MIRA 8:4)
(Welding)

SAKHATSKIY, G. P.

SAKHATSKIY, G. P.: "Investigation of the cold welding of certain metals and alloys." Min Higher Education Ukrainian SSR. Kiev order of Lenin Polytechnic Inst. Kiev, 1956.
(Dissertation for the degree of doctor in Technical Sciences)

SO: Knizhnaya Letopis', No 36, 1956, Moscow.

AID P - 4870

Subject : USSR/Engineering

Card 1/1 Pub. 107-a - 4/14

Authors : Khrenov, K. K. and G. P. Sakhatskiy

Title : Shape of punch affecting the strength of the spot-joint in the cold welding of aluminum.

Periodical : Svar. proizv., 4, 12-14, Ap 1956

Abstract : The authors present data of their research carried out at the Academy of Sciences of the Urainian SSR and the Kiev Polytechnic Institute. They describe various punches for rectangular, round, profile and other configurations of the non-ferrous metal spots to be welded, and the results obtained. Three tables, 5 drawings, 2 photos. 2 Russian references (1949-53).

Institutions: Academy of Sciences of the Urainian SSR and the Kiev Polytechnic Institute.

Submitted : No date

18(5,7) SOV/125-59-7-8/19

AUTHOR: Sakhatskiy, G.P.

TITLE: Essential Principles of Cold Welding of Metals

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 7, pp 57-66 (USSR)

ABSTRACT: In the past ten years, the method of cold pressure welding has been extensively used. In this connection, the author gives on this subject a few considerations of his own and at the same time criticizes the theory of the cold welding process as expounded by S.E.Ainbinder on the basis of his research carried out in the Technological Laboratory of the Latvian SSR. The author maintains that cold welding is performed on the surfaces of metals to be welded together. On the strength of that, he considers that the necessary conditions for cold welding are defined by the properties of the surfaces of metals. On the other hand, the author declares that no cold welding is possible unless the surfaces to be welded together are subjected to an adequate pressure, and unless they subsequently undergo a certain deformation. In practice, it has been found

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Essential Principles of Cold Welding of Metals

out that the capacity of metals to be welded together without heating depends chiefly on the nature of their material and on conditions under which their surface deformation takes place; whereas the original state of the surfaces, provided that they are properly cleaned and the surface films are removed, plays only a subordinate role- In some cases, like, for instance, in the cold welding of aluminum with copper, certain difficulties are raised due to the great difference in the hardness of these two metals. Nevertheless, experience shows that with an equal grade of deformation on both these metals, their surfaces can be adequately prepared to be cold welded. Researchers of cold welded joints have disclosed that oxidation films become gradually reduced, as the deformation increases The author gives finally his endorsement to the displacement method of cold welding advanced by B.I. Kostetskiy. This new method possesses a number of

Essential Principles of Cold Welding of Metals

advanced features as compared to other methods; its chief advantage resides in the fact that the deformation, instead of affecting large metal volumes, is accomplished only on thin surface layers, 0,05-0,15 mm thick. This method requires only a little effort and the welded pieces do not considerably change their dimensions. There are 21 photographs and 12 references 11 of which are Soviet and 1 English

ASSOCIATION: Ordena trudovogo krasnogo znameni Institut elektrosvarki imeni Ye.O. Patona AN USSR (Order of the Red Banner of Labor Institute of Electric Welding AS UkrSSR imeni Ye.O. Paton)

SUBMITTED: January 9, 1959

SOV/125-12-2-10/14

18(5)

AUTHOR: Sakhatskiy, G.P., and Shirokovskiy, R.M.

TITLE: Perfecting the Technology for the Welding and Heat Treatment of Carbonaceous (Cable) Wire (Usovershenstvovaniye tekhnologii svarki i termicheskoy obrabotki uglerodistoy (kanatnoy) provoloki)

PERIODICAL: Avtomaticheskaya svarka, 1959, Vol 12, Nr 2, pp 76-86 (USSR)

ABSTRACT: The weak point in the accepted welding technique at present is the insufficient stability of the mechanical properties of welded joints. The object of the research described here was to compare various methods of welding at the junction of cable wires, to select the optimum systems for welding and heat treatment and to design equipment which automatically ensures the selected conditions of heat treatment in welding a joint. The work was done in collaboration with the Odessa Cable Factory. The article devotes a page to a comparison of methods, discussing condenser, press and contact welding by smelting and

Card 1/3

Perfecting the Technology for the Welding and Heat Treatment of Carbonaceous (Cable) Wire

by resistance. The circuit diagram for an experimental condenser welding machine is shown. Press welding of fine cable wire was found impracticable with normal techniques, which are to be further developed. Contact welding by resistance was found the best method as regards ease of use and mechanical properties of the welds. The article deals with the selection of the best methods for contact resistance welding, giving a table of methods varying with diameter of the wire and welding equipment used. One page describes the selection of a heat treatment system, and 2 pages deal with the heat treatment machinery (2 circuit diagrams, photograph and a graph). The penultimate section deals with the mechanical properties of welded joints, giving a table of various types of steel and varying diameters after the welding and heat treatment methods described earlier. Conclusions of the article are that in selecting the basic parameters for a system of contact resistance welding, the minimum duration must be attained. Secondly the heat treatment

SOV/125-12-2-10/14

Perfecting the Technology for the Welding and Heat Treatment of Carbonaceous (Cable) Wire

after welding is decisive in obtaining optimum mechanical properties. Isothermic hardening on a sorbite structure permits considerably better mechanical properties of carbonaceous wire than does normalization. Finally the equipment described automatically carries out the set cycle of heat treatment and ensures stable mechanical properties. There are 3 circuit diagrams, 6 illustrations, 2 tables and 1 graph.

ASSOCIATION: Ordena trudovogo krasnogo znameni institut elektrosvarki imeni Ye.O.Patona AN USSR (Order of the Red Banner of Labor Institute of Electric Welding imeni Ye.O.Paton of the AS UkrSSR)

SUBMITTED: November 20, 1958

Card 3/3

38117
S/125/62/000/006/007/013
D040/D113

12300

AUTHOR: Sakhatskiy, G.P.

TITLE: Resistance flash butt welding of copper and nickel

PERIODICAL: Avtomaticheskaya svarka, no. 6, 1962, 48-53

TEXT: The Institut elektrosvarki im. Ye.O. Patona AN USSR (Electric Welding Institute im. Ye.O. Paton, AS UkrSSR) has found that copper and nickel can be flash butt-welded, and has determined the optimum welding parameters. For this process, technology of which was developed in cooperation with the Artemovskiy zavod "Tsvetmet" (Artemovskiy "Tsvetmet" Plant). Experiments were conducted in joining strips of 2 copper grades of 2 x 60, 5 x 50 and 6 x 35 mm cross section, and НП-3 (NP-3) nickel strips, 3 x 65 mm; an experiment welder of 290 kva, in which the forging pressure time, the preheating time and the contact time during upsetting under current could be controlled, was used. The temperature gradient in the welding zone was reduced by using one preheating pulse of 0.6-0.8 sec, special electrodes with a heat conductivity much lower than copper, and copper electrodes on shims of steel having a low heat conductivity. Copper was welded

Card 1/2

Resistance flash butt .....

at 220-250 mm/sec upsetting rate and an electric pulse lasting 0.1-0.50 sec during upsetting. Nickel was successfully welded using copper electrodes, a 220 mm/sec upsetting rate and a 0.25 sec pulse during upsetting. The mechanical properties of welded joints both in copper and nickel were very close to those of the base metal. A table of recommended welding process parameters is included. There are 4 figures and 1 table.

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O. Patona AN USSR (Electric Welding Institute "Order of the Red Banner of Labor" im. Ye.O. Paton, AS UkrSSR)

SUBMITTED: October 9, 1961

Card 2/2

SAKHATSKIY, G.P.

Butt resistance fusion welding of certain copper alloys. Avtom. svar. 15 no.9:67-72 S '62. (MIRA 15:9)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O.Patona AN UkrSSR.
(Copper alloys--Welding)

SAKHATSKIY, G.P.; SHIROKOVSKIY, R.M.

Resistance welding and heat treatment of high strength carbon wire. Stal' 22 no.2:180-185 F '62. (MIRA 15:2)

1. Institut elektrosvarki im. Ye.O. Patona AN USSR.
(Wire--Welding)

SAKHATSKIY, G.P.; SHIROKOVSKIY, R.M.

Welding and thermal treatment of high-strength reinforcement wire. Prom.stroi. 40 no.8:42-45 '62. (MIRA 15:11)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O.Patona AN UkrSSR.

(Concrete reinforcement)

S/125/63/000/001/004/012
A006/A106

AUTHOR: Sakhatskiy, G. P.

TITLE: Butt-welding of some heavy non-ferrous metals and alloys in ductile state

PERIODICAL: Avtomaticheskaya svarka, no. 1, 1963, 23 - 29

TEXT: The author studied the possibility of butt-welding non-ferrous metals in ductile state with heating according to the resistance butt-welding method. Strips (2 - 6 mm thick) of copper, brass, bronze nickel and German silver were welded, and also copper and brass rods, 9 - 12 mm in diameter. A method was developed for welding the aforementioned metals using a special device. Sufficient heat, assuring the ductile state of the metal, is obtained by using two independent adjustable lengths: one of them determines optimum heating and maintenance of heat assuring ductility; the other one determines the optimum allowance for welding during which contamination is eliminated. The weldability and mechanical properties of the weld joints are optimum values. The parts to be welded are mounted into special clamps of the butt welding machine which consist of contact blocks,

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Butt-welding of some heavy non-ferrous metals and... S/125/63/000/001/004/012
A006/A106

a movable adjustable contact plate and insulated fixing guides which are equipped with a device for removing burrs. The adjustable heating length is determined from the optimum heating efficiency and the adjustable setting length is determined from conditions of removing contaminations from the welding zone and from weldability. Intensive heat emanation from the non-ferrous metals can be reduced by using a special device. It was established that welding of large size metal parts in ductile state can be assured by uniform heating and pressure. Welding of copper, some brass grades and bronze in ductile state has the following advantages over flash welding: current density is 1.5 - 2.5 times lower; welding time is 1.2 - 2 times less; irrevocable losses are prevented (allowance for fusion). The mechanical properties are equal. The process is simpler, it excludes intensive pore formation and facilitates welding operations. There are 2 tables and 7 figures.

ASSOCIATION: Institut elektrosvarki imeni Ye. O. Patona AN USSR (Institute of Electric Welding imeni Ye. O. Paton AS UkrSSR)

SUBMITTED: December 7, 1961

Card 2/2

SAKHATSKIY, G.P.

Investigation flash and resistance butt welding. Avtom. svar. 16 no.10:26-32 O '63. (MIRA 16:12)

1. Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR.

L 32441-65 EWT(m)/EWA(d)/EWP(v)/EPR/T/EWP(t)/EWP(k)/EWP(b) Pf-4/Ps-4 IJP(c)
JD/HM

ACCESSION NR: AP4047229 S/0125/64/000/010/0053/0060

AUTHOR: Sakhatskiy, G.P. (Candidate of technical sciences); Sushil'nikov, V.N. (Engineer)

TITLE: Contact butt welding of duralumin sections under conditions of volumetric compression

SOURCE: Avtomaticheskaya svarka, no. 10, 1964, 53-60

TOPIC TAGS: contact welding, butt welding, weld strength, duralumin, aluminum alloy welding, electric welding

ABSTRACT: Regimes for contact butt welding (with resistance and flashing off) under conditions of volumetric compression, mechanical properties (static and dynamic), and the results of metallographic tests of duralumin joints arepresented. Defects characteristic of ordinary contact butt welding (cracks, foliation) are eliminated. The process is carried out with great speed and the mechanical properties of the weld joint equal or approach those of the original material. Uniform heating over the cross section of weld profiles of varying wall thickness is achieved by adjusting the installation length. Comparison of weld joints with riveted joints of similar profile showed the strength of the first to be 1.7-1.9 times higher and the fatigue limit 1.5 times greater than the second. All welded constructions are considerably smaller than the riveted ones. Orig. art. has:

Card 1/2

L 32441-65

ACCESSION NR: AP4047229

5 figures, 1 formula and 4 tables.

ASSOCIATION: Institut electrosvarki im. Ye. O. Patona AN UkrSSR (Electrowelding Institute, AN UkrSSR)

SUBMITTED: 03Apr64 ENCL: 00 SUB CODE: IE

NO REF SOV: 003 OTHER: 000

Card 2/2

SAKHATSKIY, G.P.

Flash butt welding of transformer steel. Avtom.svar. 18 no.1:50-55 Ja '65. (MIRA 18:3)

1. Institut elektrosvarki im. Ye.O.Patona AN UkrSSR.

CHEREDNICHOK, V.T.; SAKHATSKIY, G.P.

Resistance welding of structural elements. Avtom.svar. 18 no.11:54-56 N '65. (MIRA 18:12)

1. Institut elektrosvarki im. Ye.O.Patona AN UkrSSR. Submitted March 23, 1965.

AUTHOR: Sakhatskiy, I.I. SOV-21-58-8-18/27

TITLE: Some Peculiarities of the Mineral Composition of the Cretaceous Deposits in the Western Part of the Azov Crystalline Massif (Nekotoryye osobennosti mineralogicheskogo sostava melovykh otlozheniy zapadnoy chasti Priazovskogo kristallicheskogo massiva)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 8, pp 871-873 (USSR)

ABSTRACT: Cretaceous deposits of the western part of the Azov Crystalline massif occur in the Chernigov of the Zaporozh'ye Oblast and fill up a depression in the crystalline foundation composed of Precambrian granites, migmatites and gneisses. The lithological study of the Cretaceous deposits shows that they are composed mostly of sandstones and sandstones intercalated with sand and shale. Ye.M. Matviyenko (Ref. 4) estimates their age as Senonian. The author considers these rocks as Upper Cretaceous littoral-marine sediments, and gives their mineralogical and chemical composition based on analyses performed by the analyst B.G. Lyubizer. He points out that they contain ilmenite, and this may be of practical importance. Crystals of zircon in slight quantities also occur and their

Card 1/2

Some Peculiarities of the Mineral Composition of the Cretaceous Deposits in the Western Part of the Azov Crystalline Massif

morphological type is, according to I.D. Tsarovskiy (Ref. 5), similar to that characteristic for the plateau massifs of the eastern Azov area. This fact indicates that the distributive province for Cretaceous deposits had considerable sizes. There is 1 table and 6 Soviet references.

ASSOCIATION: Kirovskaya ekspeditsiya Ministerstva geologii i okhrany nedr SSSR (Kirov Technical Service of the USSR Ministry of Geology and Conservation of Mineral Resources)

PRESENTED: By Member of the AS UkrSSR, V. G. Bondarchuk

SUBMITTED: February 8, 1958

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

1. Geology--USSR 2. Minerals--Properties

AUTHOR: Goroshnikov, B. I., Sakhatskiy, I. I. 20-119-5-45/59

TITLE: On the Alluvial Deposits of Ilmenite in the Tertiary Deposits of the Southern Border of the Donbass (O rossypyakh il'menita v tretichnykh otlozheniyakh yuzhnoy okrainy Donbassa)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 5, pp. 1003-1005 (USSR)

ABSTRACT: Until recently the above-mentioned ilmenite deposits were along the northern contact of the Precambrian rocks of the Priazovskiy crystalline massif with younger sedimentary formations only known of the Cretaceous deposits near the village of Chernigovka (district of Zaporozh'ye). But in the year 1957 they were discovered in younger, tertiary deposits by the Ministery for Geology and the Protection of Mineral Resources of the USSR (Ministerstvo geologii i okhrany nedr SSSR) and by the Institute of the authors. These latter are quietly deposited between the villages of Novo-Troitskoye and Karakuba on a washed

out surface of Precambrian and Paleozoic rocks. Although the stratigraphy here has not yet been sufficiently investigated, these deposits were conditionally (reference 4) classified with the non-subdivided Paleogenic. The ilmenite deposits are mainly bound to the upper horizons of the tertiary deposits of the district, namely to sands and weakly cemented sandstones. These latter predominantly consist of quartz with grains of feldspar transformed to kaolinite and of clay minerals. The quartz grains have a size of 0,1 - 1 mm. Ilmenite is here either uniformly scattered in the rock, or it occurs in nest-like accumulations or more rarely as interrupted, thin intermediate layers. The ilmenite grains are rolled, augulary rolled or more rarely of a thick-columnar shape (figure 1). It is brownish-black to light-brown in color, more rarely gray-brown or gray-white. Such a manifold coloring stems from the conversion to rutile and leukoxene. The The chemical analysis (performed by A. A. Stetsenko)

showed in %: TiO_2 - 60,51; Fe_2O_3 - 31,25; FeO - 3,94; MnO - 1,14 and MgO - 1,30. As admixtures occur (according to the spectroscopic analysis by N. D. Dubitskaya): Si, Al and Ca - about 1 % each; Y, Na hundredths of %; V, Cr, Pb, Ni, Nb - thousandths of %; Co and Cu - tiny traces. Single grains of of monazite and zirconium occur (figure 3). According to their age these sands should be classified with the littoral--continental Eocenic deposits of the Buchakskiy or Kieyevskiy period. The paleobasalts which are widely distributed in the region are to be considered the basic source of the denudation of ilmenite. The ilmenite deposits are of an industrial interest. There are 3 figures and 6 references, 6 of which are Soviet.

ASSOCIATION: Institut geologicheskikh nauk Akademii nauk USSR (Institute for Geological Sciences, AS Ukrainian SSR)

On the Alluvial Deposits of Ilmenite in the Tertiary Deposits of the Southern Border of the Donbass

20-119-5-45/59

PRESENTED: December 17, 1957, by D. S. Korzhinskiy, Member, Academy of Sciences, USSR

SUBMITTED: December 15, 1957

Card 4/4

3(5) SOV/21-59-1-21/26

AUTHORS: Kobelev, M.V. and Sakhatskiy, I.I.

TITLE: On the Weathering Crust of the Dubovskiye and Anatolian Granites (of the North-East Azov Seashore) (O kore vyvetrivaniya Dubovskikh i Anatoliyskikh granitov (Severo-vostochnoye Priazov'ye)).

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1959, Nr 1 pp 81-84 (USSR)

ABSTRACT: The chiefly detrital weathering crust of Tertiary age in the region of the Dubovskiye and Anatolian granites at the North-East Azov Seashore is described. The crust deepened in upper tertiary time, was destroyed, and the heavy minerals (ilmenite, zircon and monazite) were extruded and accumulated at a distance from the granite mass. The area, in addition to the South-and North-West Azov shores, can be prospected for ilmenite. Recently, geological prospecting has discovered deposits

Card 1/2

SOV/21-59-1-21/26

On the Weathering Crust of the

of ilmenite embedded in the tertiary sandstone and hardened kaolin, in an area North of the Dubovskoy massif. There are 1 map and 7 Soviet references.

ASSOCIATION: Kirovskaya geologicheskaya eksped-itsiya (The Kirov Geological Expedition)

PRESENTED: August 12, 1958, by V.G. Bondarchuk, Member of AS UkrSSR

Card 2/2

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