A Study of the Ramification of Butadiene Rubbers

S/190/60/002/011/006/027
B004/B060

ramification of the chain was estimated. Depending on the degree of approximation, the authors found for $\Delta E \approx 5000$ cal/mole and 13,000 cal/mole. Another result was the dependence of ramification not only on ΔE, but also on the solubility in the polymer at different temperatures. This was determined by means of an apparatus devised by G. F. Lisochkin and F. D. Belostotskaya. It was further found that the ratio of $[\eta]$ for fractions with equal molecular weight does not vary in good solvents (benzene), and, therefore, that the ideal solvent need not be applied. The authors mention V. N. Tsvetkov, O. B. Ptitsyn, A. D. Abkin, and S. S. Medvedev. There are 4 figures, 4 tables, and 24 references: 8 Soviet, 15 US, and 1 Swiss.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber imeni S. V. Lebedev)

SUBMITTED: April 21, 1960

Card 5/5

PODDUBNYY, I.Ya.; ERENBURG, Ye.G.; CHERNOVA-IVANOVA, Ye.P.; KARTASHEVA, G.G.

Effect of the association of polybutadiene macromolecules in various solvents. Dokl. AN SSSR 148 no.2:384-387 Ja '63. (MIRA 16:2)

1. Nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S.V. Lebedeva. Predstavleno akademikom V.A. Karginym.
(Butadiene polymers) (Molecular association)

EREMDZHENOV, N., traktorist (Chistozernyy rayon, Novosibirskaya oblast')

Work to the designers. Sel'.mekh. no.3:32 '62. (MIRA 15:3)
(Tractors—Cold weather operation)

RYBCHINSKAYA, Ye.M., kand.med.nauk; ERENKRANTS, D.I., dotsent (Odessa)

Effect of oxygen baths on the permanent fluctuations of the blood sugar level in the hypersthenic form of neurasthenia. Vrach. delo no.11:85-90 N '61. (MIRA 14:11)

1. Ukrainskiy institut kurortologii i fizioterapii.
(NEURASTHENIA) (BLOOD SUGAR)
(OXYGEN--THERAPEUTIC USE)

ERENKRANTS, L.G.

Roll mandrel for rolling automobile parts. Avt. i trakt. prom. no.6:27-29 Je '56. (MLRA 9:9)

1. Gor'kovskiy avtozavod imeni Molotova.
(Metals--Finishing)

ERENKRANTS, L.G.

Cutting tools for machining precision holes. Avt.prom. no.1: 39-43 Ja '60. (MIRA 13:5)

1. Gor'kovskiy avtozavod.
(Metal-cutting tools)

EREMKRANTS, L. G.

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PHASE I BOOK EXPLOITATION SOV/5581

Moscow. Dom nauchno-tekhnicheskoy propagandy.

Vysokoproizvoditel'nyy rezhushchiy instrument [sbornik] (Highly Productive Cutting Tools; Collection of Articles) Moscow, Mashgiz, 1961. 354 p. Errata slip inserted. 10,000 copies printed.

Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR. Moskovskiy dom nauchno-tekhnicheskoy propagandy imeni F. E. Dzerzhinskogo.

Ed. (Title page): N. S. Degtyarenko, Candidate of Technical Sciences; Ed. of Publishing House: I. I. Lesnichenko; Tech. Ed.: Z. I. Chernova; Managing Ed. for Literature on Cold Treatment of Metals and Machine-Tool Making: V. V. Rzhavinskiy, Engineer.

PURPOSE : This collection of articles is intended for technical personnel of machine, instrument, and tool plants.

Card 1/6

Highly Productive Cutting Tools (Cont.) SOV/5581

COVERAGE: The collection contains information on the following: new brands of high-speed steels and hard alloys; designs of built-up tools and tools for the machining of holes; tools for machining heat-resisting and light-metal alloys and plastics; tools for unit-head machines and automatic production lines; and methods for the sharpening and maintenance of carbide-tipped tools. No personalities are mentioned. There are 56 references, mostly Soviet. References accompany some of the articles.

TABLE OF CONTENTS:

Highly Productive Cutting Tools (Cont.) SOV/5581

BRENKRANTS, P.V.

Distr: 4E4j/4E2c(j)

Ion exchange of Ni^{++} on the sulfonic cation-exchange resins. E. A. Materova and P. V. Brenkrants. Khromatografiya, Leningrad. Gosudarst. Univ. im. A. A. Zhdanova, Sbornik Statei 1956, 67-76.—The equil. and the form in which Ni^{++} is exchanged depend on pH of the soln. In acid soln Ni^{++} is exchanged in Ni^{++} form but in NH_4OH soln as $[Ni(NH_3)_6]^{++}$. The study of the equil. of the exchange of Ni^{++} for NH_4^+ or H^+ reveals that the concn. const. decreases with increase in Ni^{++} concn. in the solid phase. The adsorption of Ni^{++} on sulfonic resins in NH_4^+ and H^+ is faster than is its desorption. A. ... ack

4
2 MAY

EHENFREYS, Ya. G., Candidate Med Sci (diss) -- "The effect of bone regeneration on the growth and differentiation of sarcoma S 465". Riga, 1959. 14 pp (Min Health Latvian SSR, Riga Med Inst), 400 copies (KL, No 23, 1959, 174)

ERENPREYS, Ya.[Erenpreiss, J.] (Riga)

Concerning the method of histochemical research of bone tissue. Report 1.(To be contd.) Vestis Latv ak no.10:123-128 '60. (EEAI 10:9:10)

1. Akademiya nauk Latviyskoy SSR, Institut eksperimental'noy meditsiny.

(Histochemistry) (Bone)

EREMPREYS, Ya.[Erenpreiss, J.]

Histochemical study of alkaline phosphatase in bone regeneration. Vestis Latv ak no.5:165-171 '61.

1. Akademiya nauk Latviyskoy SSR, Institut eksperimental'noy SSR, klinicheskoy meditsiny.

EHRENPREYS, Ya. G.

On the problem of embryonic characteristics of malignant cells. Vop. klin. lech. zlok. novoobraz. 7:9-26 '61.

1. Kafedra gistologii (zav. prof. K. S. Bogoyavlenskiy) Rizhskogo meditsinskogo instituta (dir. prof. V. A. Kal'berg).

(NEOPLASMS pathol)

ERENPREYS, Ya. [Erenpreiss, J.]

Histochemical characteristics of Guerin's carcinoma. Vestis Latv ak no.4:117-121 '62.

ERENPREYS, Ya. [Erenpreiss, J.]

Correlation between alkaline phosphatese and neutral polysaccharides in regeneration of bone. Vestis Latv ak no.2:103-107 '62.

1. Institut eksperimental'noy i klinicheskoy meditsiny AN Latviyskoy SSR.

*

EREN?REYS, Ya.G. [Irenprais, J.]

Growth of Guerin's carcinoma in the regeneration zone of bones in rats. Vop. onk. 8 no.12:51-57 '62. (MIRA 17:6)

1. Iz sektora morfologii i fiziologii (zav.- akademik AN Latviyskoy SSR, prof. P.Ya. Gerke) Instituta eksperimental'noy i klinicheskoy meditsiny AN Latviyskoy SSR (dir.-akademik AN Latviyskoy SSR (prof.P.Ya. Gerke). Adres avtora:Ruga 4, ulitsa Altonavas, 6, Institut eksperimental'noy i klinicheskoy meditsiny AN Latviyskoy SSR.

ERENPREYS, Yan-Ol'gert Gustavovich[Erenpreis, Jan]; KRYLOVA, N., red.; LEMBERGA, A., tekhn. red.

[Significance of nucleic acids in differentiation and malignant degeneration] Rol' nukleinovykh kislot v differentsirovke i malignizatsii. Riga, Izd-vo Akad. nauk Latviiskoi SSR, 1963. 167 p. (MIRA 16:6)
(NUCLEIC ACIDS) (CANCER RESEARCH)

S/510/60/014/000/002/006
D244/D307

AUTHORS: Pokatilo, N.A., Yerasova, Ye.L., Unmut, A.M., Erentsel', B.A., and Topchiyev, A.V.

TITLE: Preparation of isotactic polybutylene

SOURCE: Akademiya nauk SSSR. Institut nefti. Trudy, v. 14, 1960, Khimiya nefti, 58 - 64

TEXT: In view of the improved mechanical properties of poly-α-butylene the polymerization of α-butylene with the application of complex organometallic catalysts was investigated. $Al(C_2H_5)_3$ - $TiCl_4$ and $Al(\underline{iso}\text{-}C_4H_9)_3$ - $TiCl_4$ systems were used as catalysts. The polymerization was carried out in a glass apparatus under atmospheric pressure and also at temperatures and pressures close to the critical values for α-butylene. In the latter apparatus α-butylene served as the solvent as well as the part of liquid α-butylene unused in the reaction. The best conditions found for the polymerization with $(C_2H_5)_3$ Al - $TiCl_4$ were as follows: 1) Molar ratio $(C_2H_5)_3Al$: $TiCl_4$ = 8:1;

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S/510/60/014/000/002/006
D244/D307

Preparation of isotactic polybutylene

reaction temperature 20° - 30°C; reaction time 3 hrs. With iso - $(C_4H_9)_3Al$ - $TiCl_4$ the best conditions are as follows: 1) Molar ratio iso - $(C_4H_9)_3Al$: $TiCl_4$ = 1:1; 2) Reaction temperature 20° - 30°C, reaction time 5 hrs. There are 9 figures.

Card 2/2

ERENYI, Tibor

The First National Trade Union Congress of Hungary. Hung TU no.3/4:10 '63.

ERESHOV, B.E.

Case of a stomach stone. Zdrav.Turk. 7 no.1:24-25 Ja '63.
(MIRA 16:3)

1. Iz khirurgicheskogo otdeleniya (zav. - A.A. Shulev) Chardzhouskoy oblastnoy bol'nitsy (glavnyy vrach A.Ye. Yeldashev).
(BEZOAR)

ERESHEV, B.E. (Chardzou)

Stomach separated from the duodenum by a traumatic isolated tear. Zdrav. Turk. 7 no.5:18 (41). May '63. (MIRA16:8)
(STOMACH—WOUNDS AND INJURIES)

KARIMOV, Sh.M.; KRESHOV, M.E.

Development of cutaneous leishmaniosis into skin cancer. Izv.AN Turk.SSR no.3:86-87 '55. (MLRA 9:5)

1. Turkmenskiy gosdarstvennyy meditsinskiy institut imeni I.V. Stalina.

(LEISHMANIOSIS)

ERESHOV, M.E.

Ereshov, M.

"Borovskiy's disease (cutaneous leishmaniasis) in the city of Ashkhabad," Tashkent State Medical Inst imeni V. M. Molotov. Tashkent, 1956. (Dissertation for the Degree of Candidiate in Medical Science)

So: Knizhnaya letopis', No. 25, 1956

KARIMOV, Sh.M.; KRUSHEV, M.E.

On the problem of a tuberculoid form of leishmaniasis. Vest.ven. i derm. 30 no.4:57-58 Jl-Ag '56. (MLRA 9:10)

1. Iz kafedr patologicheskoy anatomii i kozhno-venericheskikh bolezney Turkmenskogo meditsinskogo instituta.
(ASHKHABAD--LEISHMANIASIS)

KARIMOV, Sh.M.; ERSHOV, M.E.

Consecutive granulomae in leishmaniasis. Vest.ven. i derm. 30 no.5: 54 S-O '56. (MLRA 9:12)
(LEISHMANIASIS)

ERES'KO, M. A.

ERES'KO, M. A. — "The Microflora of the Gall and the Clinic of Colecyst Angiocholitis." Min of Health Ukrainian SSR, Kiev Order of Labor Red Banner Med Inst imeni Academician A. A. Bogomolets, Kiev, 1956. (Dissertations for the Degree of Candidate in Medical Sciences.)

KNIZHNAYA LETOPIS
No. 41, October 1956

ERESNOV, N., inzh.

Correct organization of street cleaning. Zhil.-kom. khoz. 11 no.1:30-31 '61. (MIRA 14:2)
(Street cleaning)

YEREZ, B.M.

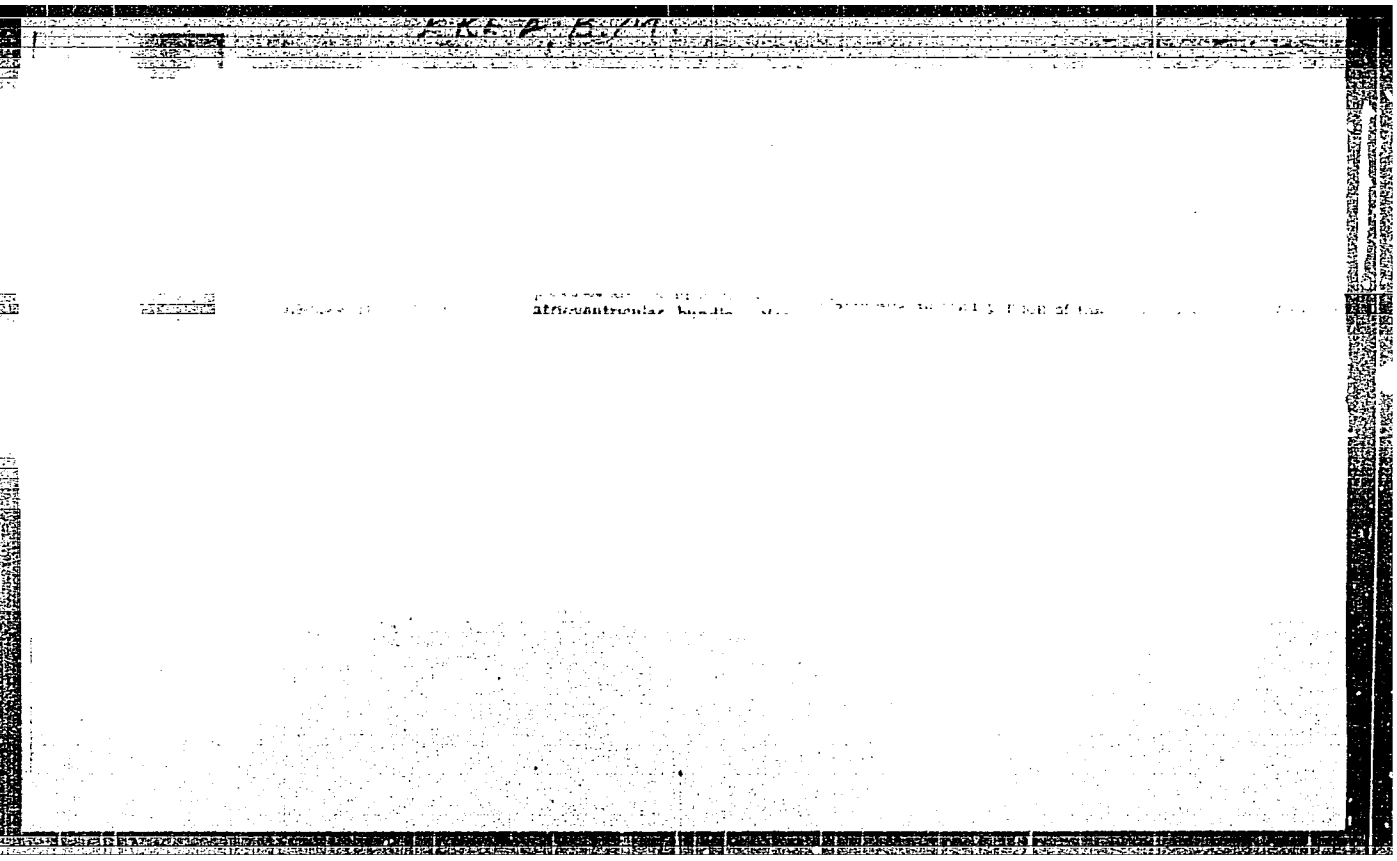
Extracardial nerves in man. Arkh. anat., Moskva 19 no.1:38-42 Jan-Feb 52.
(CLML 21:5)

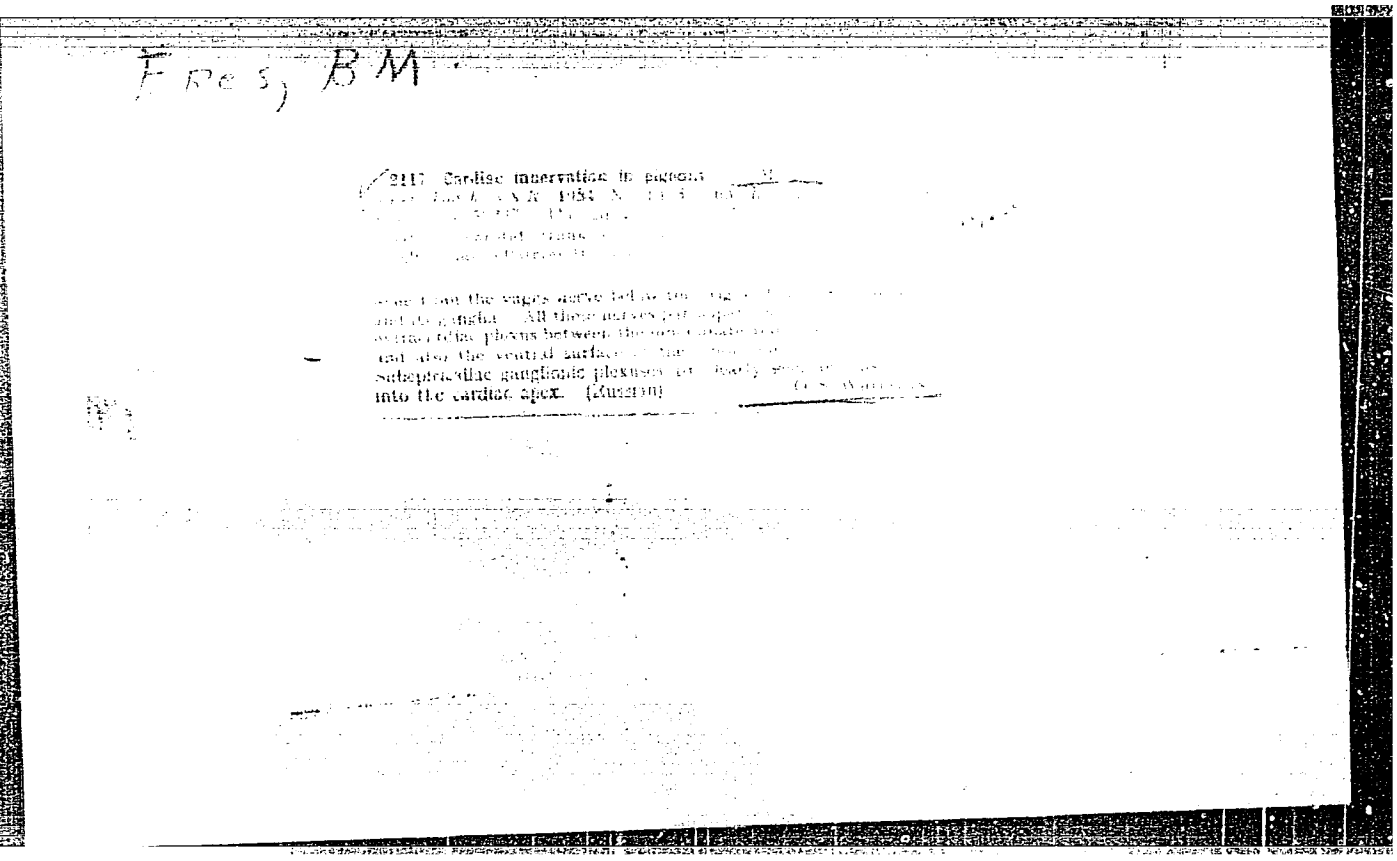
1. Docent. 2. Of the Department of Normal Anatomy (Head--Prof. F.A. Volynskiy), Odessa Medical Institute imeni N.I. Pirogov (Director--Prof. I.A. Deyneka).

EREZ, B.M.

Macroscopic and microscopic study of the upper cardiac branch (the depresser) in man. Dokl.AN Tadzh.SSR no.12:77-82 '54.
(MIRA 9:9)

1.Kafedra normal'noy anatomii Stalinabadskogo gosudarstvennogo meditsinskogo instituta imeni Avitsenny.
(VAGUS NERVE)





Fres, BM

2117 Cardiac innervation in patients

into the cardiac apex. (Auerbach)

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USSR/Human and Animal Morphology (Normal and Pathological)
Peripheral Nervous System

Abs Jour : Ref Zhur - Biol., No 12, 1958, No 55091

Author : Eron, B.M.
Inst : Tadzhikistan Institute.
Title : The Problem of the Extracardiac Nerve System in Dogs.

Orig Pub : Uch. Zap. Tadzh. in-t, 1955, 6, 145-153

Abstract : With the methods of macro- and microscopical slides, as well as by using staining methods according to Kondratyev, it was established that the number of innervation sources of the heart in dogs is considerably larger than has been previously described. Cardiac nerves were discovered which originate at the upper cervical node and at the thoracic collateral stem. The topography of the cardiac nerves is now more accurately defined. These cardiac nerves originate in the thoracic nodes of the bordering sympathetic stem, in the thoracic collateral stem, and in the intermediate cervical node. The

Card : 1/2

USSR / Human and Animal Morphology - Nervous System

Abs Jour : Ref. Zhur. - Biol., No. 22, 1958, No. 101474

Author : Erez, B. M.
Inst : Stalinabad Medical Institute
Title : Innervation of the System Which Conducts Impulses in the Heart of the Guinea Pig.

Orig Pub : Tr. Stalinabadsk, med. in-ta, 1955, Vol. 14, 41-48.

Abstract : Macroscopic and microscopic studies by the method of Vorob'yev-Sinel'nikov, along with histologic studies, have shown that the elements of the conducting system of the heart in the guinea pig do not differ in structure from the other cardiac musculature. The abundantly-innervated nodes of His-Flek and of His-Tavar are inter-connected by means of a venous sinus and by extra-cardial nerve trunks. The venous sinus is an inseparable part of the conducting system of the heart, since along it pass nerve fibers which connect the sinus

Card 1/2

USSR/Human and Animal Morphology (Normal and Pathological) Nervous System. S

Abs Jour : Ref Zhur - Biol., No 7, 1958, No 31212

Author : Eraz B.M.
Inst : Not Given
Title : Changes of the Nervous System of the Human Heart During Pathological Conditions.

Orig Pub : Tr. Stalinabadsk. med. in-ta, 1955, 14, 49-51

Abstract : 30 corpses of neonates and adults are studied, who had died from deforming arthritis, brain abcess, pneumonia, tuberculosis or cancer of the lung, cancer of the esophagus, cardiosclerosis, of myocardial infarction, and other causes. In every case, changes of thenerve cells and fibers in the heart were found. Cells are atrophied; fibers show increased argyrophillic or fragmentation. Preganglionic fibers are most labile (area of sinus node, coronary sinus, artium cordis, first part of the atrioventricular cluster). Postganglionic fibers (ventricles, pedicles of the atrioventricular cluster) are more stable.

Card : 1/1

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USSR/Human and Animal Morphology (Normal and Pathological) Nervous System S

Abs Jour : Ref Zhur - Biol., No 7, 1958, No 31207

Author : Erez B.M.
Inst : Not Given
Title : Collateral Trunks of the Autonomic Nervous System of Man in the Area of the Neck and the Thoracic Cavity.

Orig Pub : Tr. Stalinagadsk. Med. in-ta, 1955, 14, 89-92

Abstract : Collateral nerve trunks were found in the neck and in the thoracic cavity in the material of 65 human corpses, by means of a preparation and of an elective tincture according to the method of N.S. Kondrat'yev. In the area of the neck, from both sides, two basic forms of supplementary trunks of the autonomic nervous system are distinct: 1) form of the nodo collateral trunk and 2) form of "intermediate" or vagosympathetic accumulation of the neck. Both from the neck and from the thorax, collateral trunks branches are traced to the cardiac accumulation.

Card : 1/1

USSR/Human and Animal Morphology (Normal and S-2
Pathological). Nervous System. Peripheral Nervous System.

Abs Jour: Ref Zhur-Biol., No 16, 1958, 74303

Author : Erez, B. M., Mirzoyev, Kh. Kh.
Inst : Stalinabad Medical Institute.
Title : Macro-Microscopic Investigation of the Recurrent Nerve in Dogs and Cats.

Orig Pub: Tr. Stalinabadsk. med. in-ta, 1955, 14, 95-98

Abstract: The recurrent nerve (RN) was studied in 20 dogs and 20 cats for the purpose of clarifying its connections with other nerves and its structure in the trunk. RN stems from the trunks of the nerve vagus on the level of the aortic arch (on the left) and

Card : 1/3

Abs Jour: Ref Zhur-Biol., No 16, 1958, 74303

arteria subclavia (on the right) and rises up to the laryx as inferior laryngeal nerve group. Superior and anterior laryngeal nerves are often connected by anastamosis. The branches of the beginning portion of RN are connected with the cardiac nerves which depart from the caudal cervical ganglion and numbering 1-3 run to the heart, enter (in dogs) into the main cardiac branch of the nerve vagus, innervate the trachea and esophagus. Additional RN are discovered, with varying places of departure, which run parallel to the main trunks of RN and innervate

USSR/Human and Animal Morphology (Normal and Pathological) Nervous System. S

Abs Jour : Ref Zhur - Biol., No 7, 1958, No 31206

Author : Erez B.M.
Inst : Not Given
Title : Macro- and Microscopic Investigation of the Human Recurrent Laryngeal Nerve.

Orig Pub : Tr. Stalinabadsk. med. in-ta, 1955, 14, 99-105

Abstract : On the basis of the study of 85 cases the course of both recurrent laryngeal nerves is described. In a majority of preparations, right endlift accessory recurrent laryngeal nerves are found. In the trunks of all of these nerves, there are fine accumulationsof ganglion cells non medullated fibers alternate with medullated. The latter appear in the given nerves from the third month of prenatal life.

Card : 1/1

EREZ, B.M.

Intracardiac nervous system in certain birds. Dokl. AN Tadzh. SSR no.15:95-100 '56. (MLRA 9:10)

1. Kafedra normal'noy anatomii Stalinabadskogo gosudarstvennogo meditsinskogo instituta imeni Abuali ibn-Sino.
(Nervous system--Birds) (Heart--Innervation)

EREZ, B.M.

Intracardiac nervous system in certain reptiles. Dokl. AN Tadzh.SSR no.15:101-103 '56. (MLRA 9:10)

1. Kafedra normal'noy anatomii Stalinabadskogo gosudarstvennogo meditsinskogo instituta imeni Abuali ibn-Sino.
(Nervous system--Reptiles) (Heart--Innervation)

EREZ, B.M.

Extracardiac nerves in turtles. Dokl. AN Tadzh.SSR no.15: 105-111 '56. (MLRA 9:10)

1. Kafedra normal'noy anatomii Stalinabadskogo gosudarstvennogo meditsinskogo instituta imeni Abuali ibn-Sino.
(Turtles) (Nervous system--Reptiles) (Heart--Innervation)

EREZ, B.M.; KRASNOSHTEYN, S.R.

Range of location of the phrenic nerve in human pectoral and abdominal cavities. Dokl. AN Tadzh.SSR no.16:99-100 '56.
(MLRA 9:11)

1. Kafedra normal'noy anatomii Stalinabadskogo meditsinskogo instituta imeni Abuali-ibi-Sino i Kafedra normal'noy anatomii Stavropol'skogo meditsinskogo instituta. Predstavleno chlenom-korrespondentom Akademii nauk Tadzhikskoy SSR Ya.A. Rakhimovym.
(PHRENIC NERVE)

KRASNOSHTEYN, S.R.; EREZ, B.M.

Location of the phrenic nerve in dogs. Dokl. AN Tadzh.SSR no.16:111-116 '56. (MLRA 9:11)

1. Kafedra normal'noy anatomii Stalinabadskogo meditsinskogo instituta imeni Abuali-ibi-Sino i Kafedra normal'noy anatomii Stavropol'skogo meditsinskogo instituta. Predstavleno chlenom-korrespondentom Akademii nauk Tadzhikskoy SSR Ya.A. Rakhimovym.
(PHRENIC NERVE) (DOGS)

EREZ, B.M.

Extracardiac nervous system in rabbits. Dokl.AN Tadzh.SSR no.17: 65-75 '56. (MLRA 9:11)

1. Kafedra normal'noy anatomii Stalinabadskogo meditsinskogo instituta imeni Avitsenny.
(Nervous system--Mammals) (Rabbits)

EREZ, B.M.

Cardiac nerves in guinea pigs. Dokl.AN Tadzh.SSR no.17:77-85 '56. (MLRA 9:11)

1. Kafedra normal'noy anatomii Stalinabadskogo meditsinskogo instituta imeni Avitsenny.
(Nerves, Cardiac) (Guinea pigs)

EREZ, B.M.

Cardiac nerves in man. Dokl.AN Tadzh.SSR no.17:87-94 '56.
(MLRA 9:11)

1. Kafedra normal'noy anatomii Stalinabadskogo meditsinskogo instituta imeni Avitsenny.
(NERVES, CARDIAC)

EREZ, B.M.

Regions of distribution of the vagus nerves in the heart of the dog. Dokl. AN Tadzh. SSR no.18:87-93 '56. (MLRA 10:4)

1. Kafedra normal'noy anatomii Stalinabadskogo meditsinskogo instituta im. Abuali-ibn-Sino. Predstavleno chlenom-korrespondentom AN Tadzhikskoy SSR Ya.A. Rakhimovym.
(HEART--INNERVATION) (VAGUS NERVE)

FREZ, B.M.

Regions of the distribution of fibers of the right and left sympathetic caudal jugular ganglia in the heart of the dog. Dokl. AN Tadzh. SSR no.18:95-105 '56. (MLRA 10:4)

1. Kafedra normal'noy anatomii Stalinabadskogo meditsinskogo instituta im. Abuali-ibn-Sino. Predstavleno chlenom-korrespondentom AN Tadzhikskoy SSR Ya.A. Rakhimovym.
(HEART--INNERVATION)

EREZ, B.M.; KRASNOSHTEYN, S.R.

Human diaphragmatic nerve and its role in the formation of the "intermediate" jugular plexus. Dokl. AN Tadzh. SSR no.18:107-115 '56. (MLRA 10:4)

1. Kafedra normal'noy anatomii Stalinabadskogo meditsinskogo instituta im. Abuali-ibn-Sino i Kafedra normal'noy anatomii Stavropol'skogo meditsinskogo instituta. Predstavleno chlenom-korrespondentom AN Tadzhikskoy SSR Ya.A. Rakhimovym.
(DIAPHRAGM--INNERVATION) (NERVOUS SYSTEM, SYMPATHETIC)

EREZ, B.M.

USSR/Morphology of Man and Animals - (Normal and Pathologic). S-3
The Nervous System.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12401

Author : Erez, B.M.
Inst : -
Title : The Comparative Anatomy of Cardiac Innervation.

Orig Pub : Tr. Stalinabadsk. med. in-ta, 1957, 24, 208 str. il

Abstract : No abstract.

Card 1/1

EREZ, B.M.

Nervous system of the human and vertebrate heart. Trudy Stal. med.inst. 25:27-54 '57 (MIRA 11:8)

1. Iz kafedry normal'noy anatomii (zav. - chlen-korrespondent AN Tadzhikskoy SSR dots Ya. A. Rakhimov) Stalinabadskogo gosudarstvennogo meditsinskogo instituta im. Abuali ibn-Sino.
(HEART-INNERVATION)

USSR/Human and Animal Morphology (Normal and Pathological) Nervous System. S

Abs Jour : Ref Zhur - Biol., No 7, 1958, No 31211

Author : Eroz B.N.
Inst : ~~Not Given~~
Title : Concerning the Nervous System of Man and the Vertebrates (Critical-Historical Review).

Orig Pub : Tr. Stalinagadsk. med. in-ta, 1957, 25, 27-54

Abstract : No abstract

Card : 1/1

USSR / Human and Animal Morphology, Normal and Pathological. S-2
Nervous System. Peripheral Nervous System.

Abs Jour : Ref Zhur - Biol., No 18,1958, No 83675

of fibers of the intraganglionic branches. Straight and cross connection of the large splanchnic nervi vagi and phragmal nerves with the ganglia of the solar plexus was revealed; more degenerated fibers were revealed in the nerves of the selfsame side. Thus, the egress of the afferent fibers from the peritoneal cavity passes not only along the splanchnic nerves but also through the system of the nervus vagus and the diaphragmal nerve. -- D. D. Ivanov.

Card 2/2

USSR/Human and Animal Morphology (Normal and Pathological). Nervous System. Peripheral Nervous System. S-2

Abs Jour: Ref Zhur-Biol., No 16, 1953, 74304

cervical ganglion in a cat is permanent and the medial cardiac nerve departs from it. In none of the examined cats was the collateral trunk of the neck detected, but in all cases thoracic collateral trunks were found, as well as thoracic cardiac nerves, departing from upper five thoracic ganglia. A depressor nerve and a "thick" cardiac nerve were detected in 40 preparations. -- D. D. Ivanov

Card : 2/2

USSR/Human and Animal Morphology (Normal and [illegible] Pathological). Nervous System. Peripheral Nervous System. S-2

Abs Jour: Ref Zhur-Biol., No 16, 1958, 74305

heart of a dog, accomplishing direct and cross innervation; furthermore, the right semilunar ganglion gives off a greater quantity of fibers to the sinus region, coronary sinus, right atrium, anterior surface of the cardiac ventricles, and a lesser quantity into the region of the left atrium, posterior surface of the ventricles; and the left - to the left atrium and posterior surface of the ventricles, and less to the region of the sinus, coronary sinus, anterior and posterior surface of the right atrium and anterior surface of the ventricle. The quantity of medul-

Card : 2/3

ZHEZ, B.M.

Cardiac innervation in the grass snake (Natrix natrix), the big-eyed races (Coluber), Levantine viper (Vipera lebetina) carpet viper (Echis carinatus), and desert monitor (Varanus griseus). Trudy Stal.med.inst. 25:171-181 '57 (MIRA 11:8)

1. Iz kafedry normal'noy anatomii (zav. - chlen-korrespondent AN Tadzhikskoy SSR, dots. Ya.A. Rakhimov) Stalinabadskogo gosudarstvennogo meditsinskogo instituta im. Abuali ibn-Sino.
(HEART--INNERVATION)
(NERVOUS SYSTEM--REPTILES)

USSR / Human and Animal Morphology (Normal and Pathological). The Peripheral Nervous System. S-2

Abs Jour: Ref Zhur-Biol., No 10, 1958 , 45551.

Abstract: Atrophied changes in nerve cells, located peripherally and inside the trunk, also were revealed. The number of satellites around such cells increase. -- T. N. Ulissova

Card 2/2

USSR / Pharmacology, Toxicology. Chemotherapeutic Substances, Antibiotics. V

Abs Jour: Ref Zhur-Biol., No 18, 1958, 85230.

Author : ~~Erez, S. L.~~
Inst : Not given.
Title : The Treatment of Bacterial Dysentery with Antibiotics by the Cyclical Course Method.

Orig Pub: Vrachebn. delo, 1957, No 7, 705-708.

Abstract: In 167 patients with acute bacterial dysentery, combined treatment was carried out with antibiotics in two 5-day cycles, with intervals of 4 to 5 days. The first cycle was one of streptomycin in doses of 50,000 units and synthomycin in doses of 0.5 gm 4 times a day. The second cycle was the same dose of streptomycin with phthalazol in doses of one gm 4 times a day. Following 2 cycles,

Card 1/3

USSR / Pharmacology, Toxicology. Chemotherapeutic Substances, Antibiotics. V

Abs Jour: Ref Zhur-Biol., No 18, 1958, 85230.

Abstract: cycles of treatment, the stool failed to become normalized in 10.4% of the patients, the mucosa of the distal segment of the intestine failed to return to normal in 18.6%, and the coprocytogram had not become normal in 14.6% of the patients. Treatment of chronic dysentery, in 4.6% of patients, was accompanied by side effects (allergic rash, nausea, frequency of stool, etc.). Simultaneous treatment of disturbances of gastric secretion, and elimination of cholecystitis, trichomoniasis, and helminthiasis, increased the effectiveness of the treatment of dysentery with antibiotics by the cyclical course method. -- G. I. Arsen'yev.

Card 3/3

EREZ, S. L.

"Treatment of bacterial dysentery with antibiotics by the cycliccourse method."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

EREZ, S.L., dotsent; MEL'NIKOV, P.P., kand.meditsinskikh nauk

Clinical characteristics of infectious erythema. Vrach. delo no.8: 52-55 Ag '60. (MIRA 13:9)

1. Klinika infektsionnyykh bolezney Stalinskoy meditsinskogo instituta i klinicheskaya imeni Kalinina.
(ERYTHEMA)

EREZ, S.L., dotsent; KRYUKOVA, Z.V., kand.med.nauk

Atypical pneumonia caused by the ornithosis virus. Vrach. delo no.6: 88-90 Je '61. (MIRA 15:1)

1. Klinika infektsionnykh bolezney (zaveduyushchiy - dotsent S.L. Erez) Stalinskogo meditsinskogo instituta na baze Oblastnoy klinicheskoy bol'nitsy.

(PNEUMONIA) (ORNITHOSIS)

EREZ, S.L.; RYKLINA, A.G.; BONDAREV, A.S.

Clinical characteristics of nonspecific ulcerous colitis.
Kaz. med. zhur. no.1:19-22 Ja-F '62. (MIRA 15:3)

1. Kafedra infektsionnykh bolezney (zav. - dotsent S.L. Erez) Donetskogo meditsinskogo instituta i oblastnaya bol'nitsa imeni M.I. Kalinina (glavnyy vrach - B.A. Shparenko).
(COLITIS)
(ULCERS)

EREZ, V.P. (Moskva)

Effect of physical stress of different intensity on the hypophysis - adrenal cortex system in young and elderly persons. Probl. endok. i gorm. 9 no.3:68-72 My-Je '63. (MIRA 17:1)

1. Iz sektora sportivnoy meditsiny (zav. - prof. S.P. Letunov) TSentral'nogo nauchno-issledovatel'skogo instituta fizicheskoy kul'tury (dir. - prof. N.G. Ozolin).

EREZ, V.P.

Function of the adrenal system in aged subjects. Ukr. biokhim. zhur. 35 no.1:58-63 '63 (MIRA 17:5)

1. Central Research Institute of Physical Culture, Moscow.

NARZULLAYEV, B.N.; ERFAN, P.G.

Studying the rupture of films in drawing a horizontal plate from a liquid. Dokl. AN Tadzh. SSR 3 no.1:35-41 '60. (MIRA 13:12)

1. Tadzhikskiy gosudarstvennyy universitet imeni Lenina. Predstavleno akademikom AN Tadzhikskoy SSR S.U.Umarovym.
(Films (Chemistry))

ERFURT, I.B.

Device for determining the incline of pipelines [Suggested by I.B. Erfurt]. Rats. i izobr. predl. v stroi. no.6:142-143 '58. (Water pipes) (MIRA 11:10)

ERGARDT, N. N.

ERGARDT, N. N.: "Methods of increasing the precision of measuring temperatures between 300 and 1600 degrees Centigrade by means of thermocouples made of noble metals." Commission on Standards, Measures, and Measuring Instruments, Council of Ministers USSR. All-Union Sci Res Inst of Metrology imeni D. I. Mendeleyev. Leningrad, 1956. (Dissertation for the Degree of Candidate in Technical Sciences)

Knizhnaya letopis', No 39, 1956, Moscow.

ERGADT, N.N.

Investigation of platinorhodium-platinum thermocouples made of high-purity materials. Izm.tekh.no.2:20-23 Mr-Ap '56. (MIRA 9:7)
(Thermocouples)

EHRGARDT, N.N.

New method for calibrating thermocouples. Izm. tekh. no.6:58-60 N-D '57. (MIRA 10:12)
(Themocouples) (Calibration)

EFGARDT, N. N

AUTHOR: GORDOV, A.N., EFGARDT, N.N. 32-6-28/54

TITLE: On the Accuracy of Measuring the Temperature of Liquid Steel by Means of Various Types of Thermocouples. (O tochnosti izmereniya temperatury zhidkoy stali termoparami pogruzheniya razlichnykh tipov, Russian)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol 23, Nr 6, pp 727-730 (U.S.S.R.)

ABSTRACT: In this paper it is said that for measuring the temperature of liquid steel no possibilities have hitherto been available. No concrete data are to be found in Soviet scientific publications. Therefore the Ministry for "Black Metallurgy" (cast iron etc.) called a meeting without, however, achieving any success. The problem is therefore investigated by this paper. Two types of thermocouples have hitherto mainly been used in Soviet metallurgical plants for the measuring of the temperature of liquid steel: A platinorhodium-platinum thermocouple (PP) and the tungsten-molybdenum thermocouple (TM). It is pointed out that both have the disadvantages which are mainly due to thermoelectric difference (caused by temperature) between the immerged (working) and the not immerged (free) parts of the thermocouples; as the extent to which these parts are immerged is difficult to control, unequal results are usually obtained even if circumstances remain equal. Results in the case of the TM thermocouple may differ up to an amount of ± 16- ± 20°. A further disadvantage

Card 1/2

On the Accuracy of Measuring the Temperature of Liquid Steel by Means of Various Types of Thermocouples.

is to be found with the PP thermocouple, in that platinum is fouled at temperatures above 1100° by the tendency to absorb vapors. A new thermocouple (PPS) of spectrally pure platinum, the positive thermoelectrode of which contains 10% rhodium, was found to have greater stability at high temperatures. For the time being the application of these thermocouples is prevented by the fact that, at first, all officially graduated tables in the USSR would have to be changed. Since 1956 research work has been carried out jointly by the Ministry for Apparatus Construction and various scientific institutes in order to find the most stable thermocouples. Among new suggestions already made there is that concerning the use of the thermocouple PR30/6 (in which the positive electrode consists of 70% platinum and 30% rhodium and the negative electrode of 94% platinum and 6% rhodium) and the thermocouple PR30/13 which has the same positive and negative electrode of 87% platinum and 13% rhodium. Both showed comparatively good stability at temperatures of from 1500-1800°. (1 Illustration, 7 References).

ASSOCIATION: ALLUNION Scientific Research Institute for Metrology
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress
Card 2/2

ERGARDT, N.N.

24(0); 5(4); 6(2) PHASE I BOOK EXPLOITATION SOV/2215

Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D.I. Mendeleyeva

Referaty nauchno-issledovatel'skikh rabot; sbornik No.2 (Scientific Research Abstracts; Collection of Articles, Nr 2) Moscow, Standartgiz, 1958. 139 p. 1,000 copies printed.

Additional Sponsoring Agency: USSR. Komitet standartov, mer i izmeritel'nykh priborov.

Ed.: S. V. Reshetina; Tech. Ed.: M. A. Kondrat'yeva.

PURPOSE: These reports are intended for scientists, researchers, and engineers engaged in developing standards, measures, and gages for the various industries.

COVERAGE: The volume contains 128 reports on standards of measurement and control. The reports were prepared by scientists of institutes of the Komitet standartov, mer i izmeritel'nykh priborov pri Sovete Ministrov SSSR (Commission on Standards, Measures, and Measuring Instruments under the USSR Council of Ministers). The participating institutes are: VNIIM - D.I. Vsesoyuznyy nauchno-issledovatel'skiy metrologii imeni Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni D.I. Mendeleyev) in Leningrad; Sverdlovsk branch of this institute; VNIIM - Vsesoyuznyy nauchno-issledovatel'skiy institut Komiteta standartov, mer i izmeritel'nykh priborov (All-Union Scientific Research Institute of the Commission on Standards, Measures, and Measuring Instruments), created from NOIMIP - Moskovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Moscow State Institute of Measures and Measuring Instruments) October 1, 1955; VNIIFTRI - Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy (All-Union Scientific Research Institute of Physicotechnical and Radio-engineering Measurements) in Moscow; KhGIMIP - Khar'kovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Khar'kov State Institute of Measures and Measuring Instruments); and NOIMIP - Novosibirskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Novosibirsk State Institute of Measures and Measuring Instruments). No personalities are mentioned. There are no references.

Card 17/27

8(4) SOV/32-24-12-19/45

AUTHORS: Gordov, A. N., Ergardt, N. N.

TITLE: Concerning Several Sources of Error in Measuring Temperature With Thermoelements (O nekotorykh istochnikakh oshibok izmereniya temperatur s pomoshch'yu termopar)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 12, pp 1467-1470 (USSR)

ABSTRACT: Errors in measurement were studied which arise through the heterogeneity of the thermoelectrodes or because of undesirable conditions for heat exchange between the thermoelements and the body under investigation. There are two kinds of electrode heterogeneities which can be studied: a local heterogeneity caused by the presence of impurities and by cold hardening; and a continuous heterogeneity which is caused by the effects of high temperatures and by a change in chemical composition, the presence of impurities, and an unhomogeneous recrystallization. These two types are further explained by the use of diagrams (Figs 1,2). Using experimental material published by I. P. Zubkov (Ref 1) the author found error in the measuring method which utilizes thermoelements, since the proper depth of im-

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Concerning Several Sources of Error in Measuring Temperature With Thermo-elements

mersion of the thermcelements was not determined and the parasitic thermo-electric motor power was thus not taken into consideration. It is noted with regret that the laboratoriya Kamenets-Ural'skogo zavoda (Laboratory of the Kamenets-Ural Plant), which is the main producer of chromel and alumel electrodes, has been using an incorrect method of testing. In the proper testing method a very small immersion depth and induction heating (Refs 3,4) are used. In measuring the temperatures of solid bodies the situation is even more difficult, since as large a contact surface as possible must be maintained between the thermoelement and the body being measured. As an example of a case where the effect of heat exchange was not taken into consideration the work of V. S. Mikheyev (Ref 5) is cited. There are 2 figures and 5 Soviet references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D. I. Mendeleyeva (All-Union Scientific Research Institute for Metrology imeni D. I. Mendeleyev)

9,2200/9,2400

82465
S/112/60/000/006/011/032

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1960, No. 6, p. 247, # 4.4793

AUTHOR: Ergardt, N. N.

TITLE: Some Data on the Stability of Platinrhodium-Platinum Thermocouples

PERIODICAL: Tr. Vses. n.-i. in-ta metrol., 1958, No. 35(95), pp. 87-91

TEXT: Platinrhodium-platinum thermocouples provide an ultimate error of the order of ± 1 - ± 2 C within the range of 300-1,100°C and ±10 - ±12°C within the range of 1,100-1,600°C. Practice shows that a nonuniformity of electrodes arises during the operation, resulting from effects of high temperatures, environment and impurities. This nonuniformity causes changes in the thermoelectric characteristics of the thermocouples and magnifies the measurement error. At the Laboratoriya vysokikh temperatur VNIIM (Laboratory of High Temperatures of VNIIM) 51 Class I reference thermocouples were manufactured and calibrated. After they had been in operation for periods of 1 to 3 years, it was found that the calibrating characteristics had changed by 6 microvolts at the solidification point of copper (1,083.1°C). This change remains within

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82465
S/112/60/000/006/011/032

Some Data on the Stability of Platinrhodium-Platinum Thermocouples

the limits of the standard. Thus, as a rule platinrhodium-platinum thermocouples can serve as Class I reference thermocouples within a temperature range of 300-1,100°C for a period of three years.

A. A. B.

Card 2/2

SOV/58-59-9-20020

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 9, p 84 (USSR)

AUTHOR: Gordov, A.N , Krakhmal'nikova, G.A , Ergardt, N.N.

TITLE: A Horizontal Furnace for Obtaining Temperatures up to 1,500°C in an Air Combustion-Chamber

PERIODICAL: Tr. Vses. n.-i. in-ta metrol., 1958, Nr 35(95) pp 92 - 94

ABSTRACT: The furnace can serve for the calibration of operating Pt-PtRh thermocouples up to 1,500°C. Fundamentally, it consists of two coaxial tubes. The inner tube (of Al_2O_3) serves as the combustion chamber, while the outer tube (of BeO^2) carries the heating winding (of Mo wire with a cross section of 0.2 mm), operating in an atmosphere of refined Ar, supplied under a pressure of 0.02 atm. The power of the heater is 5 kw, and the voltage of the alternating current is 220 V. The furnace provides heating up to 1,500°C for two hours. Temperature fluctuations in the center of the furnace do not exceed $\pm$ 4°C over a distance of 7 cm.

B.I. Pilipchuk

Card 1/1

PHASE I BOOK EXPLOITATION SOV/4940

Gordov, A. N., I. I. Kirenkov, E. A. Lapina, and N. N. Ergardt

Metody izmereniya vysokikh temperatur (High Temperature Measuring Methods) Moscow, Standartgiz, 1960. 52 p. 3,000 copies printed. (Series: Vsesoyuznyy nauchno-issledovatel'skiy institut komiteta standartov, mer i izmeritel'nykh priborov. Seriya obzornykh monografiy po izmeritel'noy tekhnike, vyp. 12)

E.: V. I. Startsev; Ed. of Publishing House: M. I. Kuznetsova; Tech. Ed.: A. Ye. Matveyeva.

PURPOSE: This book is intended for technical personnel concerned with the application of modern pyrometric techniques.

COVERAGE: The book describes the methods and equipment of both radiation and optical pyrometry; a special chapter is devoted to color pyrometry. Visual and photoelectric methods of measuring high temperatures by means of pyrometers, as well as methods of checking all types of pyrometers, are investigated. Description is

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given of various thermocouples, their calibration and checking, and of the determination of the nonuniformity of thermocouple electrodes. The problem of using thermocouples for measuring temperatures up to 1800°C is examined. The book has been compiled by the staff members of the Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D. I. Mendeleyeva (VNIIM) (All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev). A. N. Gordov wrote Ch. I, E. A. Lapina - Ch. II, I. I. Kirenkov - Ch. III, and N. N. Ergardt - Ch. IV. There are 127 references, 55 Soviet (including 3 translations), 55 English, 10 German, and 7 French.

TABLE OF CONTENTS:

ERHARDT, N. N.

2

S/263/62/000/003/006/015
I004/I204

AUTHOR: Adakhovskiy, A. P., Gordov, A. N., Lapp, G. B., Lebedeva, Z. S., Maksimova, V. L. Omelchenko, G. F., Prokopyev, P. N. and Erhardt, N. N.

TITLE: Investigation of new types of thermocouples for measurement of temperatures up to 1800°C

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. Izmeritel'naya tekhnika, no. 3, 1962, 38, abstract 32.3.229. "Tr. in-tov Kom-ta standartov, mer i izmerit. priborov, pri Sov. Min. SSSR", 1960, no. 42 (102), 29-38

TEXT: The authors studied thermocouples, both electrodes of which were made of platinum-rhodium alloys of varying composition. Sverdlov sovnarkhoz (district economic council) produced platinum-rhodium wires with different rhodium contents, 0.3, 0.5, 0.8 and 1.0 mm in diameter and studied their thermoelectric uniformity. The latter was determined on a semi-automatic industrial set-up consisting of an oven for heating the junction of the investigated wire with a comparison electrode, a rewinding unit and a laboratory potentiometer. The degree of uniformity of the thermoelectric material was determined by the value of the thermoelectric emf created at the junction of the investigated wire with a comparison electrode. The comparison electrode was formed by a piece of wire cut from an end of the investigated bundle. The oven of the set-up was built

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of porcelain tube 15 mm diameter and 90 mm long, a platinum heater, thermal insulation, an outer mantle and a stand. The temperature inside the cavity of the oven was determined by means of a Pt Rh thermocouple The Sverdlov branch of BHHHIM (VNIIM) collected and analyzed the data in order to establish deviation limits from the average calibration for the thermoelectric emf of the couples. VNIIM developed a method of calibration of thermocouples, studied their calibration characteristics and analyzed the variation of these properties for thermocouples stemming from different melts. The influence of the contact between the thermoelectrodes and the supporting ceramic of different composition under high temperature conditions and the stability of the thermocouples under various operating conditions were studied. As a result of these comprehensive studies it is concluded that the thermocouples of the IIP 30/6 (PR 30/6) type are the most accurate for measurement of temperatures of molten metals and of temperatures above 1400 C for several hundred hours. For operation under actual working conditions the fixtures and the protective caps should be made of aluminum oxide with titanium oxide added. There are 5 figures, 4 tables and 6 references.

[Abstracter's note: Complete translation.]

Card 2/2

28 (5)
AUTHORS: Gordov, A. N., Ergardt, N. N.

S/032/60/026/01/049/052
B010/B001

TITLE: On Testing Methods for Thermoelectrodes and Thermocouples (On the Occasion of the Paper by A. N. Gordov and N. N. Ergardt Published in the Periodical "Zavodskaya laboratoriya", 1958, Vol 24, Nr 12)

III

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol 26, Nr 1, p 122 (USSR)

ABSTRACT: In reply to the paper by A. G. Nuzhnov, G. N. Pokrovskaya, and I. L. Rogel'berg (ibid p 122), the authors point out that the method described by Nuzhnov et al. and used at the Kamensk-Ural'skiy zavod po obrabotke tsvetnykh metallov (Kamensk-Ural'skiy Factory for the Working of Nonferrous Metals) is sufficient for examinations of thermocouples, but insufficient for thermoelectrodes. On longer working duration, considerable thermoelectric heterogeneity appears along the thermocouples, as can be seen in practice. Frequently, such thermocouples are used at various depths of immersion into the furnace, and thus, considerable errors in measurement occur. Since the above factory produces thermoelectrode wire from nonprecious metals on a large scale, quality control at stationary immersion depth of the

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thermocouples is considered unsatisfactory because a change of the composition and structure of the thermoelectrodes cannot be determined by this method. The thermoelectric force of the thermocouples (produced from thermoelectrodes) has to be measured at a considerably lower depth of immersion (than is the case under working conditions) to permit the observation of a change in these thermoelectrodes.

S/115 /61/000/001/003/007
B129/B201

AUTHORS: Gordov, A. H., Izrailov, K. S., Kandyba, V. V., Kirenkov I. I., Kovalevskiy, V. A., Lapina, E. A., Finkel 'shteyn V. Ye., and Ergardt, N. N.

TITLE: Comprehensive metrological studies for developing methods and apparatus for exact measurements of high temperatures

PERIODICAL: Izmeritel'naya tekhnika, no. 1, 1961, 22-25

TEXT: The ever-increasing demands made by industry on the accuracy and range of measurements of high temperatures make it necessary to reorganize the entire metrological system in the field of measurements of high temperatures and the development of new standard and model devices on the basis of the latest achievements in the construction of precision instruments. In this connection, the VNIIM imeni D. I. Mendeleyeva and KHGIMIP developed a program for the performance of comprehensive metrological studies for the establishment of new standards and high-precision master instruments for temperatures of up to 10,000°C. T his metrological research work was completed in 1960. T he studies were made in four fundamental directions: thermometry

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of gases, thermoelectric pyrometry, optical visual pyrometry, objedtive pyrometry (photoelectric and radiation pyrometry). New temperature scales in the field of high temperatures were established on the basis of new methods of objective spectropyrometry. The optical pyrometers used for measuring high temperatures are not sufficiently accurate. T hus, the admissible error in measurement of the optical pyrometers ОПИР (OPIR) is up to ± 15°C at 1,000°C, and up to 30°C at 2,000°C. It is evident that this is insufficient for many purposes and for scientific research work. In connection with the above problem, i.e., direct temperature measurement of high accuracy, the optical precision pyrometers ЭОП-51 (EOP-51) and ОП-48 (OP-48) spectropyrometers of the types ИКП-57 (IKP-57) and СПК (Spk), and new optical devices of the type УРП (URP) were developed and introduced. The international temperature scale was used with maximum accuracy for the new instruments at the Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. O. I. Mendeleyeva (All Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev) and at the institutes of the Komitet standartov, mer i izmeritel'nykh priborov (Committee on Standards, Measures, and Measuring Instruments). The new pyrometers are widely used for scientific research work. There are 59 references: 49 Soviet-bloc and 6 non-Soviet-bloc.

Card 2 /2

S/058/62/000/005/002/119
A160/A101

AUTHOR: Ergardt, N. N.

TITLE: A method of determining the parasitic thermo-emf of the heterogeneity of thermocouples

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 12, abstract 5A130 ("Tr. In-tov Kom-ta standartov, mer i izmerit. priborov pri Sov. Min. SSSR", 1961, no. 51 (III), 89-97)

TEXT: A short description and analysis is given of the methods used for determining the parasitic thermo-emf of the heterogeneity of a thermoelectrode wire for thermocouples. A theoretical calculation of the distribution of temperature and its gradients in a test furnace is presented. A method is given for determining the magnitude of the parasitic thermo-emf in a working furnace on the basis of the results of a test carried out with the given wire in a point furnace.

[Abstracter's note: Complete translation]

Card 1/1

ERGARDT, N. N.

Reproduction and transmission of temperature scale in the range of 300 to 1,063°C. by means of thermocouples. Trudy inst. Kom. stand., mer i izm. prib. no.51:73-81 '61.
(MIRA 16:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D. I. Mendeleyeva.

(Thermometry) (Thermocouples)

ERGARDT, N. N.

Method for determining the parasitic thermoelectromotive force of the nonuniformity of thermocouples. Trudy inst. Kom. stand., mer i izm. prib. no.51:89-97 '61. (MIRA 16:1)

1. Vsesoyuznyy naudhno-issledovatel'skiy institut metrologii im. D. I. Mendeleyeva.

(Thermocouples—Testing)

ERGARDT, N.N.

Constant melting point of copper. Trudy inst.Kom.stand.mer i izm. prib. no.71:94-96 '63. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I. Mendeleyeva.

KAMOCHKINA, Ye.M.; ERGARDT, N.M.

Melting point of palladium. Trudy inst.Kom.stand.mer i izm.prib. no.71:237-241 '63. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I. Mendeleyeva.

KAMOCHKINA, Ye.M.; ERGARDT, N.N.

Apparatus for calibrating thermocouples and studying thermoelectrode materials. Nov. nauch.-issl. rab. po metr. VNIIM no.3:17-20 '64 (MIRA 18:2)

NOVITSKIY, L.A.; FROLOVT, N.N.

New instruments for thermophysical research. Teplofiz. vys. temp. 3 no.3:463-466 My-Je '65. (MIRA 18:8)

L 7062-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l) IJP(c)
ACC NR: AP5025982 JD/JG SOURCE CODE: UR/0294/65/003/005/0691/0694

AUTHOR: Ergardt, N. N.

ORG: All-Union Scientific Research Institute of Metrology im. D. I. Mendeleyev (Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii)

TITLE: Some thermoelectric characteristics of platinum-rhodium alloys

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 5, 1965, 691-694

TOPIC TAGS: alloy, platinum alloy, rhodium containing alloy, thermal emf, alloy thermal emf, platinum alloy thermocouple

ABSTRACT: The method and the results of an experimental determination of the thermoelectric properties of platinum-rhodium alloys are described. The investigated Pt-Rd alloys contained 1, 6, 10, 13, 20, 30, and 40% Rd. The thermal emf of the alloys relative to platinum was measured at 100, 500, and 900C, using seven types of thermocouples whose positive arms were made from Pt-Rd wires and the negative arms from platinum wires. The resistivity of Pt-Rh alloys was measured at temperatures ranging from zero to 1200C. On the basis of the obtained data, formulas were derived for approximate calculation of the expected thermal emf of thermocouples made from platinum and platinum-rhodium wires containing from 1 to 40% Rh at temperatures up to 800C. The calculated values of the thermal emf for thermocouples at 800C were found to be correct to within 2—4% of the measured values of thermal emf. Orig. art. has: 3 figures, 4 tables, and 2 formulas. [MS]

UDC: 537.323:546.3-19'92'97

Card 1/2

L 7062-66
ACC NR: AP5025982

SUB CODE: EE, MM/ SUBM DATE: 12Jan65/ ORIG REF: 004/ OTH REF: 001/ ATD PRESS: 4144

Card 2/2

L 14938-66 EWT(d)/EWT(l)/EWP(v)/EWP(k)/EWP(h)/EWP(l)
ACC NR: AP5016701 SOURCE CODE: UR/0294/65/003/003/0463/0466

AUTHOR: Novitskiy, L. A.; Ergardt, N. N.

ORG: none

TITLE: New devices for thermophysical analysis

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 3, 1965, 463-466

TOPIC TAGS: heat conductivity, temperature control, thermocouple, pyrometer, temperature regulation, temperature measurement

ABSTRACT: The authors list the following newly developed devices (giving a brief description and citing the source of information in each case): 1) Apparatus for determining the coefficient of heat conductivity of heated solids, based on stationary heat flow through a plate (Avtorskoye svidetel'stvo No. 163393). 2) Device for measuring the coefficient of heat conductivity by the cylindrical shell method. (Ogneupory, No. 5, 1964, p. 227). 3) Experimental stand for investigation of nonstationary heat exchange at a solid-nonsolid interface (IVUZ. Priborostroyeniye, v. 7, No. 6, 1964, p. 84). 4) Device for measuring heat conductivity of fluids in the 0.07-0.6 kcal range (Pribory i tekhnika eksperimenta, No. 6, 155, 1964). 5) De-

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vice for regulating temperatures up to 400°C by means of photodiode tube. Can be used for temperature control in soldering, etc. (Radio, No. 12, 42, 1964). 6) Thermoprobe with contact thermocouple. Measures temperatures in the 160-520°C range within 0.7-1.1 sec. (Izmeritel'naya tekhnika, no. 11, 37, 1964). 7) Automatic programmed temperature control system. Has temperature fluctuation of 0.7% (Ogneupory, no. 13, 117, 1964). 8) Supersensitive heat regulator. Temperature held at 300°C ± ± 0.025°. (Priborostroyeniye, No. 6, 14, 1964). 9) Device for measuring surface temperatures in the 25-120°C range. (Priborostroyeniye, no. 17, 25, 1964). 10) Thermocouple device for contactless determination of temperatures of solids. Used for temperature control of metals up to 1300°C. (Stal', no. 8, 751, 1964). 11) Automatic color pyrometers: a) "Tsvetopir 1" which has a sensitivity of ~2° and an error of 0.3%; b) two models of "Tsvetopir 2"--an industrial model with a temperature range of 1300-2800°C and a subrange of 300-400°C; a research model with a temperature range of 1400-2800°C with four subranges. (Pribory i sredstva avtomatizatsii, no. 9, 29, 1964). 12) High temperature heating system for the UEMV-100 electron microscope. (Zavodskaya laboratoriya, no. 12, 1513, 1964). 13) Krypton light source. (Avtorskoye svidetel'stvo No. 160769). 14) Graphite source of infrared radiation in the 2-20 mμ range. (Pribory i tekhnika eksperimenta, no. 4, 188, 1964). 15) Apparatus for automatic recording of dimensional changes of heated components.

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(Ogneupory, no. 4, 167, 1964). 16) System for the continuous measurement of weight losses in evaporating solids. (Zavodskaya laboratoriya, no. 12, 1518, 1964).

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