

ATANASOVA, El., aspirant

Preliminary communication on the treatment of gingivitis ulcerosa
with prof. Beianov's hard dressing. Stomatologia, Sofia no.4:251-
253 1954.

(GINGIVITIS,
ulcerative, ther., hard dressing)

COUNTRY	: Bulgaria	T
CATEGORY	: Human and Animal Physiology, The Nervous System	
ABS. JOUR.	: RZhBiol., No. 5 1959, No. 22408	
AUTHOR	: Svrakov, D.; Kevorkyan, K.; <u>Atanasova, El.;</u> *	
INST.	: --	
TITLE	: An Experimental Study of the Possibility of Setting up a Speranskiy Neurodystrophic Process in the Periodontium.	
ORIG. PUB.	: Stomatologiya, 1957, No. 4, 195--207.	
ABSTRACT	: Sterile glass fragments were placed in the dental pulp of 12 dogs, and within 5 to 6 days the gradual development of neurodystrophic changes was observed in the periodontium of the side on which the operation was performed; within 12 to 15 days they had spread to the opposite side, and then to distant organs (eyes, stomach, intes- tine, etc.) The neurodystrophic changes, as shown by serological investigations, were not associated with the presence of leptospirosis. The data obtained seem to indicate that reflex	
Card:	1/2	
	*Mateyev, D.	

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BALCHEVA, E.; ATANASOVA, El.; PAPAZOVA, M.

Changes of salivary proteins produced by experimental neurodystrophic syndrome in periodontosis. Izv. inst. fiziol. 5:139-145 '62.

(SALIVA chem) (PROTEINS metab) (PERIODONTIUM physiol)

AVRAMOV, N.; ATANASOVA, E.; KIPROV, D.; DACEV, B.; PANOV, F.

Comparative experimental studies on the antiinflammatory effect of the therapeutic agents "Maraslavin" and "Infusion of Digitalis lanata 20:100", applied locally. Nauch.tr. vissh. med. inst. Sofia 42 no.4:29-35 '63

1. Chair of Pharmacology (Director: Prof. D. Paskov); Chair of Therapeutic Stomatology (Director: Prof. D. Svrakov) and Chair of Pathologic Physiology (Director: Prof. S. Pisarev) of the Medical Institute in Sofia.

*

BULGARIA

PAPAZOVA, M., BOEV, K., MILENOV, K., ATANASOVA, E., Institute of Physiology,
Bulgarian Academy of Sciences

"Relationship Between the Appearance of Spike Potentials in the
Electrogastromyogram and the Intensity of the Contraction Wave of the
Gastric Wall"

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 19, No 3, 1966, pp 241-244

Abstract: [English article] It was established earlier that the stomach wall contracts without interruption and that there are slow polyphase changes in the electrogastromyogram corresponding to these low-amplitude contractions of the gastric wall. When these rhythmic contractions increase their amplitude, i.e., when they become stronger, there are groups of spike potentials appearing in the electrogastromyogram. Experiments with 15 dogs were made for the purpose of establishing the relationship between the appearance of spike potentials and the intensity of the contraction wave. Strain-gauges were used to record the contractions of the gastric wall. The article presents the description of experimental procedures, summarizes the results, compares the new findings with those of other authors, and discusses the possible connections between the motor and bioelectric activities of the stomach. There are 1 Bulgarian, 1 Soviet, and 7 Western references. (Manuscript received, 8 Dec 65.)

1/1

LAZAROV, M.; ATHANASSOVA, E. [Atanasova, E.]

Rapid method for determining the oiliness of the sunflower for selection purposes. Doklady BAN 14 no.4:401-404 '61.

1. Note presentee par A. Popoff [A. Popov] membre de l'Academie.

ATANASOVA, E.

(11)

12. "The Relations between the Specific Heat and the Molecular Content of Food Products," A. G. Fridin (in French with Russian summary) pp 373-376.
13. "Notes on Structural and Petrographic Particularities of the Kirovsk Plateau and the Yermolovsk Plateau," E. Atanasova and Ya. Ivanov (in English with Russian summary); pp 377-380.
14. "Studies of Investigating Root Peculiarities in Species of Trees," E. T. Bagalov (in Russian with German summary); pp 381-384.
15. "Cytochemical Studies of Molluscs (Molluscs and Molluscs) in Carcinomas of the Liver (Liver) Glands," C. A. Vassileva-Savcheva and E. Atanasova (in English with Russian summary); pp 385-387.
16. "New Data on Properties of the Molluscs," E. Atanasova (in English with Russian summary); pp 388-391.
17. "Studies on the Dynamics of Growth and Development of the Molluscs," E. Atanasova, E. Bagalov, E. Fridin, E. Ivanov and E. Ivanov (in English with Russian summary); pp 392-396.
18. "Studies on the Dynamics of Growth and Development of the Molluscs," E. Atanasova (in English with Russian summary); pp 397-400.
19. "Studies on the Dynamics of Growth and Development of the Molluscs," E. Atanasova (in English with Russian summary); pp 401-404.
20. "On the Structure of the Molluscs of the Lake of Balat," Following Artificially Selected," E. Atanasova (in English with Russian summary); pp 405-408.
21. "On the Polymorphism of the Molluscs of the Lake of Balat," E. Atanasova (in English with Russian summary); pp 409-412.
22. "Changes in the Electrical Conductivity of the Molluscs of the Lake of Balat," E. Atanasova (in English with Russian summary); pp 413-416.
23. "The Influence of Zoning on the Molluscs of the Lake of Balat," E. Atanasova (in English with Russian summary); pp 417-420.

- 2/3 -

AUERMAN, L.; ATANASOVA, I.; VORONTSOV, P.

Roller mill for grinding small grain samples in laboratories.
Muk.-elev. prom. 26 no. 12:18-19 D '60. (MIRA 13:12)

1. Moskovskiy tekhnologicheskii institut pishcheroy promyshlennosti
(for Auerman, Atanasova). 2. Vsesoyuznaya shkola masterov-
krupchatnikov (for Vorontsov).
(Grain-milling machinery)

ATANASOVA, I. I.

Cand Tech Sci - (diss) "Methods of evaluating the baking properties of wheat grain at various stages of selection." Moscow, 1961. 21 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Technology Inst of the Food Industry); 200 copies; price not given; (KL, 7-61 sup, 231)

Atanasova, L.

ATANASOVA, L.; NISIMOV, R.

Report of a case of unusual complications following therapeutic application of mercurial diuretics. Suvren.med., Sofia 6 no. 2: 92-96 1955.

1. Is Klinikata po bolnichna terapiia pri Visshia med. institut V.Chervenkov - Sofia (sav. Al.Pukhlev).

(DIURETICS, MERCURIAL, injurious effects,
skin dis.)

(SKIN, diseases,
caused by mercurial diuretics)

BOGUSLAVSKI, A.; ATANASOVA, Lj.; LAZAREVSKA, E.

Content of ascorbic acid in fruits and vegetables intended for direct consumption in the area of Skoplje and suburbs in the period from 1952 to 1953 and at the beginning of 1954. Higijena, Beogr. 7 no.1-4:391-395 1955.

1. Centralni higijenski zavod, Skoplje.

(VITAMIN C

content in fruits & vegetables (Ser))

(FRUITS

vitamin C content (Ser))

(VEGETABLES

same)

Atanasova, L.

Y Circulatory effects of isotonic and hypertonic solutions.
Effect of magnesium sulfate on the blood vessels of the
lower extremities in man. T. Gotsev and L. Atanasova.
(Med. Fac. "Wylko-Tscherwenkov," Sofia, Bulgaria).
Naunyn-Schmiedeberg's Arch. exp. Pathol. Pharmacol. 227,
400-4 (1958).—Hypertensive and normal persons were in-
jected with 5-25 cc. isotonic (1.8%) and 2-10 cc. hypertonic
(10 and 25%) solns. of $MgSO_4$. Quick injections caused
usually vol. contraction of the lower extremities whereas
slow injection caused enlargement or diphasic contraction
followed by enlargement. Isotonic solns. produced either
vol. increase or diphasic change. Caution is necessary in
the intravenous administration of $MgSO_4$. A. E. Meyer

ATANASOVA, L.; KONFORTI, B.

Renal lesions in acute hemolytic states. Suvrem. med., Sofia 8 no.8:
85-94 1957.

(KIDNEY DISEASES, etiol. and pathogen.

hemolytic reactions, review)

(HEMOLYSIS

hemolytic reactions causing kidney dis., review)

PUKHLEV, Al.; GELINOV, Khr.; ATANASOVA, L.

Therapeutic considerations on hypertension. Suvrem. med., Sofia 8 no.10:
8-25 1957.

1. Iz Katedrata po bolnichna terapiia pri VMI-Sofia (Zab. katedrata:
prof. Al. Pukhlev).
(HYPERTENSION, therapy,
(Bul))

ATANASOVA, I. - St. asistent

Gouty polyarthrititis and tophi in a case of chronic myelogenic leukemia.
Suvrem. med., Sofia 8 no.11:138-141 1957.

1. Iz Klinikata po bolnichna terapiia pri VMI - Sofia (Zav. katedrata:
prof. A. Pukhlev).

(LEUKEMIA, MYELOCYTIC, compl.

gouty polyarthrititis & tophi (Bul))

(GOUT, complications,

myelocytic leukemia & tophi (Bul))

ATANASOVA, I.

On the localization of alkaline phosphatase activity of peripheral blood cells. Suvrem med., Sofia no.3:109-118 '61.

1. Katedra po bolnichna terapiia pri Visshia meditsinski institut, Sofiya. (Rukov. na katedrata prof. Al. Pukhlev.)

(PHOSPHATASES blood) (BLOOD CELLS chem)

ATANASOVA, L. M.

On alkaline phosphatase activity of the blood serum of normal blood donors and other subjects. Suvr. med. 12 no.9:83-93 '61.

1. Iz Katedrata po bolnichna terapiia pri vissh meditsinski institut, Sofia (Rukov. na katedrata prof. Al. Pukhlev)

(PHOSPHATASES blood) (BLOOD DONORS)

GOTSEV, T.; ATANASOVA, L.

Effect of isotonic and hypertonic solutions of sodium chloride
on the blood vessels of the lower extremities in man. Nauch.
tr. vissh. med. inst. Sofia 41 no.1:123-130 '62.

1. Predstavena ot prof. T. Gotsev i prof. A. Pukhlev.
(SODIUM CHLORIDE) (LEG) (PLETHYSMOGRAPHY)

GOTSEV, T.; ATANASOVA, E.

Effect of isotonic and hypertonic solutions of dextrose on
the blood vessels of the lower extremities in man. Nauch. tr.
vissh. med. inst. Sofia 41 no.1:131-139 '62.

1. Predstavena ot prof. T. Gotsev i prof. A. Pukhlev.
(GLUCOSE) (LEG) (PLETHYSMOGRAPHY)

ATANASOVA, I.

Apropos of ankylostomiasis with anemia. Nauch.tr.viss.med.
inst, Sofia 42 no.6:91-107 '63

1. VMI, Sofia i Tran Lu'u Khoi b-tsa 103, Kha Dong. Pred-
stavena ot prof. Al.Pukhlev, rukovoditel na Katedrata po
bolnichna terapija.

*

ATANASOVA, M.; SHANOVA, P.

AGRICULTURE

Periodical: NAUCHNI TRUDOVE. Vol. 5, 1957.

ATANASOVA, M.; SHANOVA, P. Apparatus for determining the moisture in wood.
p. 209.

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 2
February 1959, unclass.

ATANASOVA, M.; SHANOVA, P.

Instrument for determining the moisture in wood, p. 233.

NAUCHNI TRUDOVE. Vissh lesotekhnicheski institut. Sofia, Bulgaria, Vol. 6, 1958.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, No. 1, January 1960.

Uncl.

S/196/62/000/013/004/018
E194/E155

AUTHOR: Atanasova, M.

TITLE: The relationship between the dielectric losses and humidity in cellulose

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no.13, 1962, 6, abstract 13 B 35. (Nauchni tr. Vyssh. lesotekhn. in-t, 9, 1961, 305-306). (Bulgarian, with summary in French).

TEXT: Cellulose is highly hygroscopic and its $\tan \delta$ depends upon humidity because of the presence of polar hydroxyl groups in the cellulose molecules. Specimens of sulphate cellulose made from beech, and bleached cellulose made from spruce, were dessicated over a sulphuric acid solution of definite concentration until their loss of weight ceased. They were then placed in a capacitor in the oscillatory circuit of a high-frequency generator. Measurements at a frequency of 4 Mc/s indicates the losses in the capacitor with cellulose by the value of the generator anode current. The losses in the cellulose specimen and also losses

Card 1/2

The relationship between the ... S/196/62/000/013/004/018
in specimens of wood (beech and spruce) increase with increasing
humidity. E194/E155
7 references.

[Abstractor's note: Complete translation.]

Card 2/2

SPASOV, Al.; ATANASOVA, M.

On hydrazides and some aldehyde hydrazone derivatives of cinchonic and 9-acridinecarboxylic acids. Nauch. tr. vissh. med. inst. Sofia 39 no.1: 267-274 '60.

1. Predstavena ot prof. d-r Al. Spasov, zav. Katedrata po meditsinska khimii.

(QUINOLINES chem) (ACRIDINES chem)
(HYDRAZINES chem)

CHILOV, K.; ATANASOVA, M.

Fluctuation of blood pressure in students. Izv. Med. inst., Sofia
4-5:39-64 1951. (CLML 22:3)

1. Professor, Corresponding Member for Chilov; Doctor for Atanasova.
2. Section for Internal Diseases (Head --- K. Chilov, Corresponding Member) of the Institute for Clinical and Social Medicine of the Bulgarian Academy of Sciences.

Atanasova, M.

CHILOV, K.; prof.; TOMOV, L.; VLADIMIROV, Vl.; STANCHEV, L.; NIKOLAEV, I.,
ATANASOVA, M.

Considerations on hypertension. Suvrem. med., Sofia 6 no.3:
6-10 1955.

1. Iz Klinikata po fakultetska terapija pri Visshia meditsinski
institut V.Chervenkov - Sofia (direktor: prof. K.Chilov)
(HYPERTENSION)

ATANASOVA, M., dr.

Blood pressure in students surveyed for focal infection; preliminary communication. Suvrem.med., Sofia 6 no.3:75-80 1955.

1. Iz Studentskata poliklinika - Sofia.
(FOCAL INFECTION,
dent., blood pressure in)
(BLOOD PRESSURE, in various diseases,
focal infect.)
(TEETH, diseases,
focal infect., blood pressure in)

ATANASOVA, M.

Considerations on hypertension in adolescents. Sovrem. med.,
Sofia 8 no.1:33-47 1957.

1. In Studentskata poliklinika - - Sofia.
(HYPERTENSION, epidemiology,
in adolescents (Bul))

ATANASOVA, M., D-r.

Diagnosis of hypertension . Izv. Mikrob. inst., Sofia no.8:61-71 1957.

1. Studenska poliklinika (glaven lekar: d-r L. Dolchinov.
(HYPERTENSION, diag.
early diag., technic (Bul))

ATANASOVA, M.

Normal erythrocyte count. Suvrem. med., Sofia 9 no.7:43-49 1958.

1. Iz. Studentskata poliklinika (Gl. lekar: LB Doichinov.)
(ERYTHROCYTES,
count, normal levels (Bul))

ATANASOVA, M.

Case of atypical acute appendicitis. Khirurgiia, Sofia 11 no.7:658-659 1958.

(APPENDICITES, case reports,
acute atypical (Bul))

ATANASOVA, M.

Studies on peptic ulcer. Suvrem med., Sofia no.3:87-97 '61.

1. Studentska poliklinika. (Glaven lekar L. Doichinov).

(PEPTIC ULCER statist)

BULGARIA

M. ATANASOVA [Affiliation not given]

"Rebuttal to the Criticism of 'Studies in Ulcer Disease'."

Sofia, Sovremenna Meditsina, Vol 13, No 10, 1962; pp 51-52.

Abstract: Argumentative polemic. The main point of the author of the criticized work in answering Vulnarov's criticism is that more than half of her text was cut by journal editor, and that the critic misunderstood the rest.

1/1

RANEV, D.; KHADZHIATANASOVA, R.; ATANASOVA, M.

Antibiotic therapy in severe burns. Khirurgia (Sofia) 16
no.6:507-514 '63.

1. Institut za burza meditsinska pomosht "N.I. Pirogov". Gl.
lekar: Khr. Zdravkov.
(BURNS) (ANTIBIOTICS)

RAPONSKI, B.; ATANASOVA, R.kh.; ALTUNKOVA, M.; SEDLARSKI, D.

Difficulties in the differential diagnosis of acute surgical abdomen in children. Khirurgiia, Sofia 13 no.7/8:638-648 '60.

1. Institut za burza meditsinska pomosht "N.I.Pirogov," Sofia.
Gl.lekar: Khr. Zdravkov.
(ABDOMEN ACUTE in inf & child)

Atanasova, S

AVDZHEV, G.
Surname (in case): Given Name

Country: Bulgaria

Academic Degrees: not indicated

Affiliation: not indicated

Source: Sofia, Khizana, No 2, Mar/Apr 61, pp 15-19

Date: "Intestinal Bacterial Infection Problems in Bulgaria
and Prospects for Their Solution."

Co-authors:

GRIFONOV, A., Sofia

ATANASOVA, S.

KOEN, R.

PATEV, P.

ATANASOVA, S.
~~SURNAME~~ (in caps), Given Names

5

Country: Bulgaria

Academic Degrees: not indicated

Affiliation: not indicated

Source: Sofia, Khigiena, No 2, Mar/Apr 61, pp 25-26

Data: "Sh. Dysenteriae 3 Have Been Separated for the First Time
in Bulgaria."

Co-authors:

RAYKOV, P., Sofia
BOZAKOV, Zdr. "
POPOV, Khr. "
MEYCHEVA, El. "
GINCHEV, P. "

Atanasova, S.

TRIFONOVA, A.

SOURCE (in code); Given Names

Country: Bulgaria

Academic Degrees: not indicated

Acculturation: not indicated

Source: Sofia, Khizhena, No 2, Mar/Apr 61, pp 31-32

Date: "The Etiologic Role of Pathogenic *Coli* Bacteria in
Infant Gastro-Intestinal Diseases."

Co-authors:

ATANASOVA, S.

KOEN, R.

LOLOVA, M.

BOYUKLIEVA, B.

DOTSOVA, M.

STEFANOV, S.

ATANASOVA, T.

An evening dedicated to the anatomy and physiology of man.
Biol i khim 8 no.1:46-47 '65.

1. M. Iv. Kalinin High School for the Study of Russian
Language No.35, Sofia.

TSVETANOV, B.; KHINOV, V.; ATANASOVA, TSv.

Work therapy and work capacity of patients and convalescents
in osteoarticular therapy. Khirurgia 15 no.2/3:310-312 '62.

1. Iz Sanatorium za vuzrastni, bolni ot kostno-stavna tuberku-
loza - Varna.

(TUBERCULOSIS OSTEOARTICULAR ther)
(OCCUPATIONAL THERAPY)

ATANASOVA-PASKOVA, R.

Materialistic teachings of Iv. P. Pavlov, scientific basis for
the teaching of zoology and human anatomy and physiology. Biol
i khim 4 no.3:22-26 '62.

1. Tsentralen institut za usovurshenstvuvane na uchitelte.

NIKOLOV, P.; RUSINOV, K.; ATANASOVA-SHOPOVA, S.,

Pharmacological studies on drugs used in therapy of hyperkinesia of the extrapyramidal origin. I. Studies on a preparation made of Belladonna root and Hyoscyamus leaves. Izv. inst. fiziol. 5:251-269 '62,

(EXTRAPYRAMIDAL TRACTS dis)
(MOVEMENT DISORDERS ther)
(BELLADONNA ther)
(PLANTS MEDICINAL ther)

ATANASOVA-SHOPOVA, S.; RUSINOV, K.; NIKOLOV, P.

Pharmacological studies on drugs for the treatment of hyperkinesia of extrapyramidal origin. II. Studies on a preparation of radix belladonnae and folia hyoscyami. Izv. inst. fiziol. (Sofia) 6:229-242 '63.

(PHARMACOLOGY) (PARASYMPATHOLYTICS)
(BELLADONNA)

ROUSSINOV, K. [Rusinov, K.]; ATANASSOVA-SHOPOVA, S. [Atanasova-Shopova, S.]

On the anticonvulsive effect of some Bulgarian plants. Doklady
BAN 17 no.1:89-91 '64

1. Submitted by Corresponding Member P. Nikolov.

RUSINOV, K.S.; ATANASOVA-SHOPOVA, S.; Tekhn. soтрудnichestvo: KERESTEDZHIAN, A.

Pharmacological studies on our plants with special reference to
their anticonvulsive properties. I. Izv. Inst. fiziol. (Sofia)
7:205-215 '64.

ATANASOVA-SHOPOVA, S.; RUSINOV, K.S.

Pharmacological studies on Bulgarian plants with special reference
to their anticonvulsive properties. Izv. inst. fiziol. (Sofia) 8:
155-163 '64

RIEDL, O.; HRUSKOVA, J.; STUCHLIKOVA, E.; KOMARKOVA, A.; NOVOTNA, B.;
TENOROVA, M.; RENNER, J.; TVAROH, Fr.; ATANASOV OVA.

Effect of caprolactam on the metabolism in obese subjects and
preliminary observations on the treatment of obesity. Sborn.
lek.62 no.12:338-349 D '60.

1. IV. interni klinika fakulty vseobecneho lekarstvi University
Karlovy v Praze, prednosta prof.dr. M.Fucik; Centralni laboratore
fakultni nemocnice v Praze 2, prednosta dr. J.Hrabane; Endokrino-
logicke oddeleni FZS - KUNZ - KNV Praha, vedouci doc.dr. Fr.Tvaroh.

(OBESITY ther)

(HETEROCYCLIC COMPOUNDS ther)

RIEDL, O.; HRUSKOVA, J.; STUCHLIKOVA, E.; KOMARKOVA, A.; NOVOTNA, B.;
BLAZKOVA, B.; TENOROVA, M.; RENNER, J.; SPALA, M.; TVAROH, F.;
Technical Assistance: ATANASOVOVA, J.; TRUKOVA, R.

Treatment of obesity with caprolactam. Rev. Czech. med. 9
no.3:167-182 '63.

1. Fourth Medical Clinic, Faculty of General Medicine, Charles
University, Prague. Director: Prof. M. Fucik, M.D. Central
Laboratory, Faculty Hospital, Prague. Director: Dr. J. Hrabane
Institute for General and Experimental Pathology, Faculty of
General Medicine. Director: Prof. J. Heyner, M.D. Endocrino-
logical Department, University Health Centre, Regional Institute
of National Health, Central Bohemian Region. Director: Doc.
F. Tvaroh, M.D.

(OBESITY) (AMINOCAPROIC ACID)
(PYRUVATES) (CITRATES) (LACTATES)

RIEDL, O.; HRUSKOVA, J.; STUCHLIKOVA, E.; SPALA, M.; TVAROH, F.;
ATANASOVOVA, J.; TRUKOVA, R.

Clinical experiences in the treatment of obesity with
caprolactam. Sborn. lek. 65 no.5:133-141 My '63.

1. IV interni klinika fakulty vseobecneho lekarstvi University
Karlovy v Praze, prednosta prof. dr. M. Fucik Ustav pro
vseobecnou a pokusnou patologii fakulty vseobecneho lekarstvi
University Karlovy v Praze, prednosta prof. dr. J. Hepner
Endokrinologicke oddeleni fakultni polikliniky KUNZ Stredo-
ceskeho kraje, vedouci doc. dr. F. Tvaroh.
(OBESITY) (APPETITE DEPRESSANTS)

WIKTOROW, Iwan; ATANASOW, Nikita

Bacterial flora in nephritis and upper urinary inflammation and changes in their sensitivity during antibiotic therapy. Polski przegl. chir. 33 no.11a:1381-1384 '61

1. Z Oddziału Urologicznego Szpitala Wojskowego w Sofii Ordynator:
kandydat nauk med. I. Wiktorow Z Kliniki Chirurgicznej i Urologicznej
Akademii Medycznej w Sofii Dyrektor: prof. dr G. Popow Kierownik
Kliniki Urologicznej: doc. dr S. Lambriew.
(NEPHRITIS microbiol) (ANTIBIOTICS ther)

ATANASSOV, A. [Atanasov, A.]

Refraction of cold neutron sheaves. Doklady BAI 15 no.3:253-255
'62.

1. Submitted by Academician H. Hristov [Khristov, Kh.]

ROUSSINOV, K. [Rusinov, K.]; ATANASSOVA-SHOPOVA, S. [Atanasova-Shopova]

On the tremorine hyperkinesia in pigeons. Doklady BAN 14 no.7:
767-770 '61.

1. Submitted by Corresponding member F. Nikolev.

(Paralysis agitans) (Pigeons)

ATANASSOVA - SHOPOVA, S.

See also: *United States District Court*. Vol. 16, No. 7, 1961

(Continued)

37. "Solubility of Some Aluminums in Gaseous Phase: Oxidized Reagents."
I. I. MAKAREVICH and I. I. BOBKOVA (Submitted by A. I. MAKAREVICH). [English Article], pp 67-69.
38. "The Effect of Copper Ions on the Fracturing of Amorphous Pure Silver Sulfide Crystals." A. ALBERT (Submitted by A. ALBERT). [English Article], pp 70-75.
39. "Thermodynamic Properties of Organic Acids." A. ALBERT and I. I. MAKAREVICH (Submitted by A. ALBERT). [English Article], pp 71-72.
40. "The Permittivity of Polymers by Means of Thermogravimetry." O. A. LOVCHENKO and I. I. MAKAREVICH (Submitted by A. I. MAKAREVICH). [English Article], pp 73-76.
41. "The Process of Plant Stimulation." P. I. MAKAREVICH (Submitted by A. I. MAKAREVICH). [English Article], pp 77-79.
42. "The Redox-Reductive Properties of Aromatic Acids and Aldehydes." A. I. MAKAREVICH (Submitted by A. I. MAKAREVICH). [English Article], pp 80-81.
43. "The Pathogenesis of Hemorrhagic Infarction." A. I. MAKAREVICH (Submitted by A. I. MAKAREVICH). [English Article], pp 82-84.
44. "The Quantitative Electrochemical Analysis of Sulfonamides." A. I. MAKAREVICH (Submitted by A. I. MAKAREVICH). [English Article], pp 85-86.
45. "The Reaction of Nitrogen with Phosphorus." A. I. MAKAREVICH and I. I. MAKAREVICH (Submitted by A. I. MAKAREVICH). [English Article], pp 87-89.
46. "The Reaction of Nitrogen with Phosphorus." A. I. MAKAREVICH and I. I. MAKAREVICH (Submitted by A. I. MAKAREVICH). [English Article], pp 90-92.

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ATANASYAN, A.S. (Moskva); VORONTSOVA, N.S. (Chelyabinsk)

Special normalizations of degenerate hypersurfaces of
($n + 1$)-dimensional projective space. Volzh. mat. sbor.
no.1:5-9 '63. (MIRA 19:1)

ATANASYAN, G.A.

Similitude criteria for rectifying loads in power systems. Izv. AN Arm.
SSR. Ser. tekhn. nauk 11 no. 6: 47-53 ' 58. (MIRA 12:3)

1. Vodno-energeticheskiy institut AN Arm. SSR.
(Electric current rectifiers--Models)

ATANASYAN, G.A.

"Electromechanical transition processes in electric systems" by
V.A. Venikov. Reviewed by G.A. Atanasian. Izv. AN Arm. SSR. Ser.
tekh.nauk 13 no.2:61-62 '60. (MIRA 13:8)

(Electric networks)
(Venikov, V.A.)

1. ATANASYAN, L. A.
2. USSR (600)
4. Gall Bladder - Diseases
7. Case of two-stage rupture of the liver simulating acute cholecystitis.
Khirurgiia no. 11 - 1952

Monthly Lists of Russian Accessions, Library of Congress, March, 1953, Unclassified.

ATANASYAN, L.A. (Moskva)

On M.G.Kamenchi's article "On the treatment of acute cholecystitis."
Klin.med. 34 no.8:84-86 Ag '56. (MIRA 12:8)

1. In khirurgicheskogo otdeleniya (zav. L.A.Atarasyan) Gorod-
skoy bol'nitsy No.40 (glavnyy vrach Ya.S.Shipotovskiy).
(GALL BLADDER--DISEASES) (KAMENCHI'S, M.G.)

ATANASYAN, I.A. kand.med.nauk

Causes of death in cholecystitis [with summary in English].
Khirurgia 33 no.7:52-57 JI '57. (MIRA 10:11)

1. Iz 1-y khirurgicheskoy kafedry (zav. kafedroy - deystvitel'nyy
chlen AMN SSSR zaslushenny deyatel' nauki prof. V.R.Bravtsev)
TSentral'nogo instituta usovershenstvovaniya vrachey (dir. V.P.
Lebedeva) na baze TSentral'noy klinicheskoy bol'nitsy Ministerstva
putey soobshcheniya im. N.A.Semashko (nach. V.F.Akopov)
(CHOLECYSTITIS,
causes of death)

^A
ATANGSYAN, L.A., kand.med.nauk

Surgical clinic of the Semashko Hospital of the Ministry of
Communications. Khirurgiia 33 no.7:135-138 J1 '57. (MIRA 10:11)

1. Rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. V.R.Bravtsev.
(HOSPITALS
in Russia, N.A.Semashko Hosp., surg. department)

ATANASYAN, L.A.

Analysis of 1250 observations on patients with gastric cancer.
Khirurgiia 35 no. 11:41-47 N '59. (MIRA 14:1)
(STOMACH—CANCER)

ATANASYAN, L.A., kand.med.nauk (Moskva, Kutuzovskaya sloboda, d. 39,
kv.121)

Chronic invagination of the large intestine. Vest.khir. 82
no.2:106-108 F '59. (MIRA 12:2)

1. Iz 1-y kafedry klinicheskoy khirurgii (zav. -- prof. V.R. Bray-
tser) Tsentral'nogo instituta usovershenstvovaniya vrachey na baze
TSentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshcheniya
(nash. bol'nitsy - V.F. Akopov).
(INTUSSUSCEPTION, surg.
large intestine (Rus))

ATANASYAN, I. A.

Surgical treatment of tumors of the carotid body; from data on
Russian surgery for the past 60 years. Khirurgia 36 no, 5:133-
138 My '60. (MIRA 14:1)

(CAROTID BODY—TUMORS)

ATANASYAN, L.A.

Total gastrectomy and extensive resection of the stomach in cancer.
Vest. khir. 84 no. 2:24-30 F '60. (MIRA 14:1)
(STOMACH--SURGERY)

ATANASYAN, L.A., kand.med.nauk (Moskva, Kutusovskiy pr., d.47, korp.B,
kv.1:21)

Tumors of the carotid gland. Vest.khir. no.6:105-107 '61.

(MIRA 15:1)

1. Iz 1-y kafedry klinicheskoy khirurgii (zav. - prof. V.R.
Braytsev) TSentral'nogo instituta usovershenstvovaniya vrachey
(dir. - M.D. Kovrigina) na baze TSentral'noy klinicheskoy bol'-
nitsy im. N.A. Semashko (nach. - A.A. Potsubenko).
(CAROTID GLAND--TUMORS)

ATANASYAN, L.A. (Moskva, G-293, Kutuzovskiy prospekt. 47, korp. 3. kv. 121)

Surgical treatment of tumors of the carotid bodies. (chemodectomas).
Vop. onk. 8 no. 9: 101-111 '62. (MIRA 17:6)

1. Iz kafedry onkologii Tsentral'nogo instituta usovershenstvovaniya
vrachei (zav. kafedroy - deystvitel'nyy chlen AMN SSSR, zasluzhennyy
deyatel' nauki, prof. A.I. Savitskiy) na baze Gosudarstvennogo
nauchno-issledovatel'skogo onkologicheskogo instituta imeni
P.A. Gertsena (dir. - prof. A.N. Novikov).

ATANASYAN, L.S.

Mathematical Reviews

Vol. 14 No. 8

Sept. 1953

Geometry.

Atanasyan, L. S. Rigged manifolds of a particular form in a multidimensional affine space. Trudy Sem. Vektor. Tenzor. Analizu 9, 351-410 (1952). (Russian)

In a flat affine space E_n a manifold V_m is defined by its radius vector $r = r(x^i)$, $i, j, k = 1, \dots, m$, all $r_i = \partial r / \partial x^i$ linearly independent. The rigging (Einspannung) is performed by $n-k$ vectors $\xi, \alpha = 1, \dots, n-m$, such that the r_i, ξ are linearly independent. Then $r_{ij} = \Gamma^a_{ij} r_a + h_{ij} \xi$, or $r_{ij} = h_{ij} \xi$, where r_{ij} is the covariant derivative. Moreover, $\xi_i = \beta_i^a r_a + \gamma_i \xi$. Between the $\Gamma^a_{ij}, h_{ij}, \beta_i^a, \gamma_i$ exist the Gauss-Codazzi-Ricci equations. These equations are written out, as well as the transformation equations of these tensors under an arbitrary change of rigging and a change in which the ξ remain in the same plane Π_{n-m} . A necessary and sufficient condition that a V_m lie in an $E_{n+p} \subset E_n$ is that a rigging exist for which $h_{ij} = 0, \gamma_i \geq 0, \alpha = 1, \dots, p, p = p+1, \dots, n-m$.

A number of special cases are investigated.

a) Developable V_m of rank r , which are V_m consisting of ∞^r generating E_{n-r} , and which at all points of each of these E_{n-r} have one and only one tangent E_m . A necessary and sufficient condition is that the spaces of all tensors h_{ij} at every point are imbedded in some plane Π_r , where r is the smallest number satisfying this condition. Along each generating E_{n-r} the osculating space (spanned by r_i, r_{ij}) is the same.

6/1/54

b) s Fold degenerated manifolds of rank r , which are V_m consisting of ∞^r generating V_{m-s} such that at all points of a generator the tangent space to the V_m is parallel to a plane E_s ($n > s \geq m$). A necessary and sufficient condition is that a rigging exist for which the tensors $\hat{h}_{ij}, \gamma_i$ ($\alpha = 1, \dots, n-m, \beta = s-m+1, \dots, n-m$) at every point are imbedded in an $(n-m)$ -dimensional space. The vectors ξ are parallel to the plane E_s corresponding to the generator passing through the point.

The trivial and the axial type of rigging. In the trivial case the space of the ξ is at all points parallel to a fixed plane Π_{n-m} . Then $\beta_i^A = 0$ for all x and the induced Riemann tensor is zero. In the axial case all the $(n-m)$ -spaces of the rigging of the V_m pass through one and only one plane Π_{n-m} . In this case $\beta_i^A = \varphi \delta_i^A, \alpha = 1, \dots, k$, where the φ are invariants.

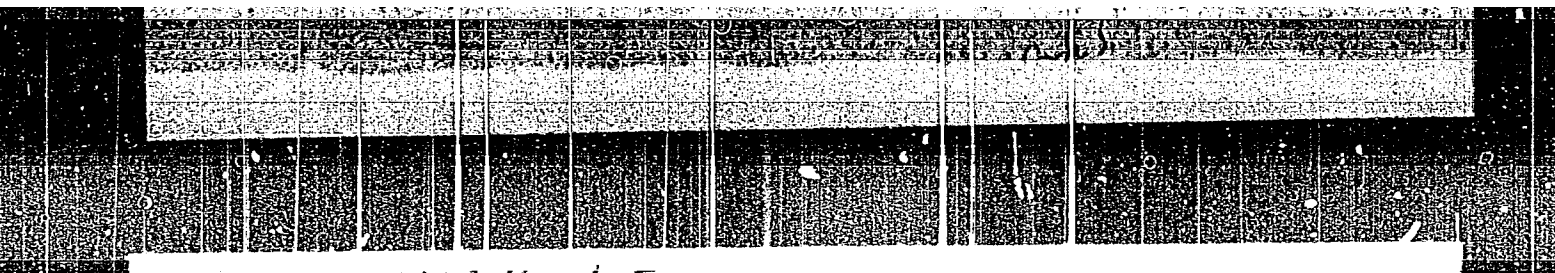
The tensor of Ricci $R^A_{\alpha\beta}$ is symmetrical.

Then follow a series of algebraic theorems dealing with the case of a tensor $\beta_i^A, \alpha = 1, \dots, k$, forming an exterior orthogonal system (Cartan), that is, a system for which $\hat{h}_{ij}\beta_i^A\beta_j^A = 0$. They involve so-called coplanar systems $\hat{h}_{ij}$ for which the vectors $\hat{h}_{ij}x^j$ are linearly dependent for any vector x^j ; when $k=2$ the tensors are collinear. These theorems are applied to another set of special manifolds. They involve manifolds admitting riggings which induce a connection of zero curvature, a projectively euclidean connection, an equiprojective connection (here the V_m is in E_{n+1} and E_{n+2}). An example is the theorem that, when for $n < 2m$ and $n-m < 5$ and the β_i^A linearly

independent, a nontrivial rigging of a V_m in E_n induces a connection of zero curvature, then the V_m is developable of rank r ($r \leq n-m$) and along every plane generator the rigging spaces are parallel to each other. Here r is the dimension of the common region of the $\hat{h}_{ij}, \beta_i^A$ with respect to the lower indices. For related work see the papers of A. M. Lopšic [same Trudy 8, 273-285, 286-295 (1956); these Rev. 12, 636, 637]. Also quoted is the Moscow dissertation of G. F. Laptev (1941). D. J. Struik (Cambridge, Mass.).

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000102510009-3



APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000102510009-3"

sp. 71 (1955) (Russian)
 This is a study of V_n in affine E_m given by

$$r = r(x^1, \dots, x^n),$$

 for which the space E_{n+p} spanned by the vectors γ_i, γ_{ij}
 has lower than maximum dimension, e.g. $p=1$ (axial
 point), $p=2$ (planar point). This involves certain algebraic
 relations between the tensors h_{ij}, p_i^A, γ_i (Akasanyan, Trudy
 Serb. Vektor. Tensor. Anal. 9 (1952), 351-410; MR 14,
 796). The following result is typical. If an exterior ortho-
 gonal system of $p' \leq p$ tensors h_{ij} and $p'(p+1)$ vectors
 $\gamma_i (i=1, \dots, p, p=p+1, \dots, m-n)$ is called regular,
 if the h are independent, if from $\gamma \gamma_i = 0$ follows $\gamma = 0$
 $\dots = \gamma = 0$ and the dimension l of the region of the tensors
 h and γ does not exceed p' , then the theorem holds: If the
 rigging of a V_n in E_m with $p < \min\{n, m-n\}$ consists of
 the vectors $\xi (i=1, \dots, p)$ inside the E_{n+p} and the
 $\xi (i=p+1, \dots, m-n)$ outside of it and the exterior
 orthogonal system of the h and γ is regular, then the V_n
 is developable of rank $l \leq p$.
 E. J. Shul'ca

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ATANASYAN, L. S.

PA 249T6

USSR/Mathematics - Manifolds

11 Jan 53

"Some Manifolds of Partial Form Which are Put into
a Central Affine Space," L. S. Atarasyan, Moscow
State Pedagogic Inst imeni Lenin

DAN SSSR, Vol 88, No 2, pp 189-192

Discusses so-called s-degenerate manifolds of rank
 r which consists of s "generating" manifolds V_{n-r}
and at all points of whose one and the same genera-
trix planes tangent to V_m are parallel to a certain
plane E_s . Presented by Acad I. G. Petrovskiy
13 Nov 52.

249T6

FINIKOV, S.P., prof.; ATANASYAN, L.S., dots., red.; DZHATLYNV, S.G., tekhn.
red.

[Programs of pedagogical institutes; differential geometry] Programmy pedagogicheskikh institutov; differentsial'naya geometriya. (MIRA 11:9)
[Moskva] Uchpedgiz, 1955. 1 p.

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye podgotovki uchiteley.
(Geometry, Differential--Study and teaching)

ROZENFEL'D, Boris Abramovich; ATANASYAN, L.S., redaktor; TIKHONOVA,
E.P., redaktor; AKHLAMOV, S.M., tekhnicheskii redaktor.

[Non-Euclidean geometry] Neevklidovy geometrii. Moskva, Gos. izd-vo
tekhniko-teoret. lit-ry, 1955. 744 p. (MLEA 8:10)
(Geometry, Non-Euclidean)

ATANASYAN, L.S., redaktor; SMIENOVA, M.I., tekhnicheskiiy redaktor

[Programs of pedagogical institutes; state examinations in mathematics (mathematics majors)] Programmy pedagogicheskikh institutov; gosudarstvennye ekzameny po matematike (spetsial'nost' - matematika). [Moskva, Uchpedgiz, 1956. 5 p. (MIRA 9:10)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i srednikh pedagogicheskikh uchebnykh zavedeniy.
(Mathematics--Study and teaching)

ATANASYAN, L.S.

Mathematics departments. Uch. zap MGPI 108:3-44 '57.

(Surfaces)

(MIRA 11:12)

ATANASYAN, L.S., red.; VOICHEK, V.L., tekhn. red.

[Programs of pedagogical institutes; state examinations in mathematics; major: mathematics] Programmy pedagogicheskikh institutov; gosudarstvennye eksamony po matematike. Spetsial'nost' - matematika. [Moskva] Uchpedgiz, 1958. 5 p. (MIRA 11:9)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i srednikh pedagogicheskikh uchebnykh zavedeniy.
(Mathematics--Study and teaching)

ATANASYAN, I.S.; GUREVICH, G.B.; IL'IN, A.S.; KOZ'MINA, T.L.; REDOZUBOVA,
O.S.; NEMTSOVA, L.G., red.; DZHATIYEVA, F.Kh., tekhn.red.

[Collection of problems in elementary geometry; textbook for
teachers' institutes] Sbornik zadach po elementarnoi geometrii;
ponobie dlia pedagogicheskikh institutov. Moskva, Gos.uchebno-
pedagog.izd-vo M-va prosv. RSFSR, 1958. 94 p. (MIRA 12:4)
(Geometry--Problems, exercises, etc.)

ATANASYAN, I.S.

Introduction of invariant connectivities on the curves of an
n-dimensional projective space. Uch. zap. MGPI no.208:48-65
'63.

Presentation of the consistency of Lobachevskii's solid geometry
in a course on "The elements of geometry." Ibid. v.343-351
(MIRA 17:6)

ATANASYAN, L.S.; VORONTSOVA, N.S.

Construction of the invariant equipment of a r -degenerate
hypersurface in n -dimensional projective space. Uch. zap.
MGPI no. 243:5-28 '65 (MIRA 19:1)

ATANASYAN, S.S.

Prolonged retention of the contrast medium in the mammary gland
in mammography. Vest.khir.76 no.9:109-110 0 '55. (MLRA 9:1)

1. Iz Nauchno-issledovatel'skogo instituta rentgenologii i
onkologii Minsdrava Armyanskoy SSR (dir.-prof. V.A.Fanardshyan)
(CONTRAST MEDIA
prolonged retention in mammary gland for mammography)
(BREAST, radiography
contrast media retention)

ATANASYAN, S.S.

Complications and late results in treating breast cancer. Sov.
med. 25 no.11:111-115 N '61. (MIRA 15:5)

1. Iz Instituta rentgenologii i onkologii AN Armyanskoy SSR (dir. -
chlen-korrespondent AMN SSSR prof. V.A.Fanardzhyan).
(BREAST--CANCER)

ATANASYAN, S.S., starshiy nauchnyy sotrudnik

Pathogenic role of the mammary gland secretion. Vop. rent. 1
onk. 7:305-310 '63 (MIRA 17:7)

ATANASYAN, V. A.

U S S R

Atanasyan, V. A. Invariant rigging of surfaces of multi-dimensional affine spaces. Dokl. Akad. Nauk SSSR

(N.S.) 98, 701-704 (1954). (Russian)

We deal with a manifold V_n in a flat affine space A_m given by $F = F(x^1, x^2, \dots, x^n)$. Each set of vectors $\bar{a}_1, \bar{a}_2, \dots, \bar{a}_n$ which with $\bar{r}_1, \bar{r}_2, \dots, \bar{r}_n$ ($k = m-n$), $\bar{r}_k = \partial F / \partial x^k$, forms a set of m linear independent vectors forms a rigging. The vectors $\bar{a}_1, \bar{a}_2, \dots, \bar{a}_n$ span a k -plane N_k . For each N_k the equations exist: $\bar{r}_k = T^{\lambda}_{ik} \bar{a}_i + h^{\lambda}_{ik} \bar{a}_i$, $\bar{a}_i = \partial F / \partial x^i + \Gamma^{\lambda}_{ij} \bar{a}_j$, $\bar{r}_k = \partial F / \partial x^k + \Gamma^{\lambda}_{kj} \bar{a}_j$. Then we have the Gauss-Codazzi-Ricci relations:

$$(A) \quad h^{\lambda}_{ij} \bar{a}_j = R^{\lambda}_{ik} \bar{a}_k \quad (\text{Gauss}); \quad (B) \quad h^{\lambda}_{ij} \bar{a}_j = 0;$$

$$(C) \quad \bar{a}_i \bar{a}_j = 0; \quad (D) \quad h^{\lambda}_{ij} \bar{a}_j = R^{\lambda}_{ik} \bar{a}_k,$$

where R^{λ}_{ik} is the curvature tensor of the V_n and

$$R^{\lambda}_{ik} = \partial \Gamma^{\lambda}_{ik} / \partial x^j + \Gamma^{\lambda}_{ij} \Gamma^{\lambda}_{ik} - \Gamma^{\lambda}_{ik} \Gamma^{\lambda}_{ij};$$

the bar underneath the indices represents alternation. Introduced are the determinants T, F, E, B :

$$F = |F_{ij}| = |n \delta_{ij} - h^{\lambda}_{ij} \bar{a}_j|,$$

$$E = |E_{ij}| = |n k \delta_{ij} + 2 h^{\lambda}_{ij} \bar{a}_j + h^{\lambda}_{ij} \bar{a}_j \bar{a}_j|,$$

$$B = |B_{ij}| = |n \delta_{ij} \bar{a}_j + h^{\lambda}_{ij} \bar{a}_j \bar{a}_j + h^{\lambda}_{ij} \bar{a}_j \bar{a}_j|,$$

(rows on i ; columns on j)

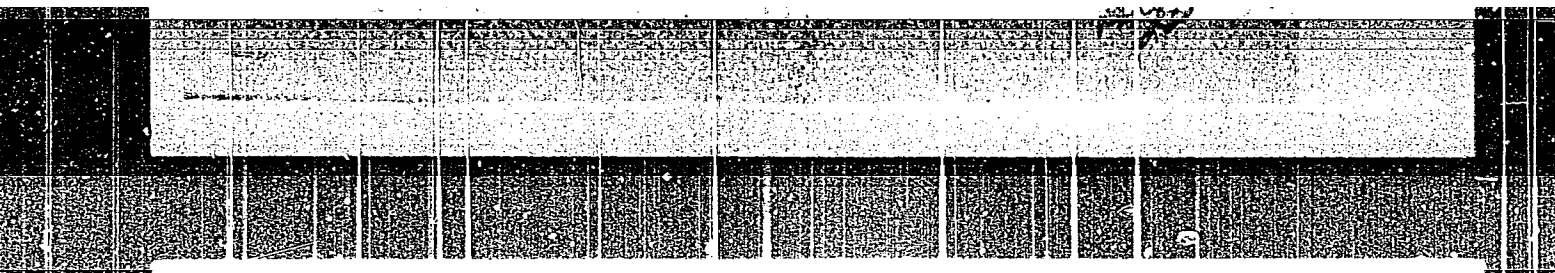
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STANLEY A.

and I is the determinant of the components of h_i which
when $\mu=0$, allows us to pass from h_i to h_i' such that
 $h_i \cdot h_i' = 1$ and $h_i \cdot h_i' = 1$ and $h_i \cdot h_i' = 1$

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ATANASYAN, V.A.

Interior geometry of surfaces of a multi dimensional affine space.
Uch. zap. MGPI 108:177-217 '57. (MIRA 11:12)
(Geometry, Differential)

ATANASYAN, V.A.

Affine spheres and affinely parallel surfaces. Uch.zap.
MGZPI no.3:23-45 '59. (MIRA 13:5)
(Sphere) (Surfaces, Parallel)

ATANASYAN, Ye. N.

Atanasyan, Ye. N. -- "Decomposition of hydrogen peroxide on activated carbon," Report 1, Izvestiya (Akad. nauk Arm. SSR), Fiz.-matem., yestestv. i tekhn. nauki, 1948, No. 3, p. 227-36 --- Summary in Armenian --- Bibliog: p. 235

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

CHALTYKYAN, O.A.; ATANASYAN, Ye.N.

Decomposition of hydrogen peroxide in activated carbon. Izv. AN
Arm. SSR, Ser. FIZMATEM. nauk 4 no. 6: 453-465 '51. (MLRA 9:8)

1. Kafedra fizicheskoy khimii Yerevanskogo gosudarstvennogo universi-
teta imeni V.M. Molotova.
(Hydrogen peroxide) (Carbon, Activated)

CHALTYKYAN, O.A.; ATANASYAN, Ye.N.; SARKISYAN, A.S.

Kinetics of the reactions of peroxides with amines. Part 1. Kinetics of the interaction of benzoyl peroxide with diethylamine in diethyl ether solution. Dokl.AN Arm.SSR 15 no.1:23-26 '52. (MLRA 9:10)

1.Yerevanskiy Gosudarstvennyy universitet imeni V.M.Molotova. Predstav-
lene G.Kh.Bunyatyanom.
(Benzoyl peroxide) (Diethylamine)

CHAPYKYAN, O.Z.; ATANASYAN, Ye.H.; SARKISYAN, A.S.

Kinetics of the reaction of peroxides with amines. Part 2. Kinetics of the interaction of benzoyl peroxide with diethylamine in an acetone solution. Dokl.AN Arm. SSR. 15 no.2:41-45 '52.
(MLRA 9:10)

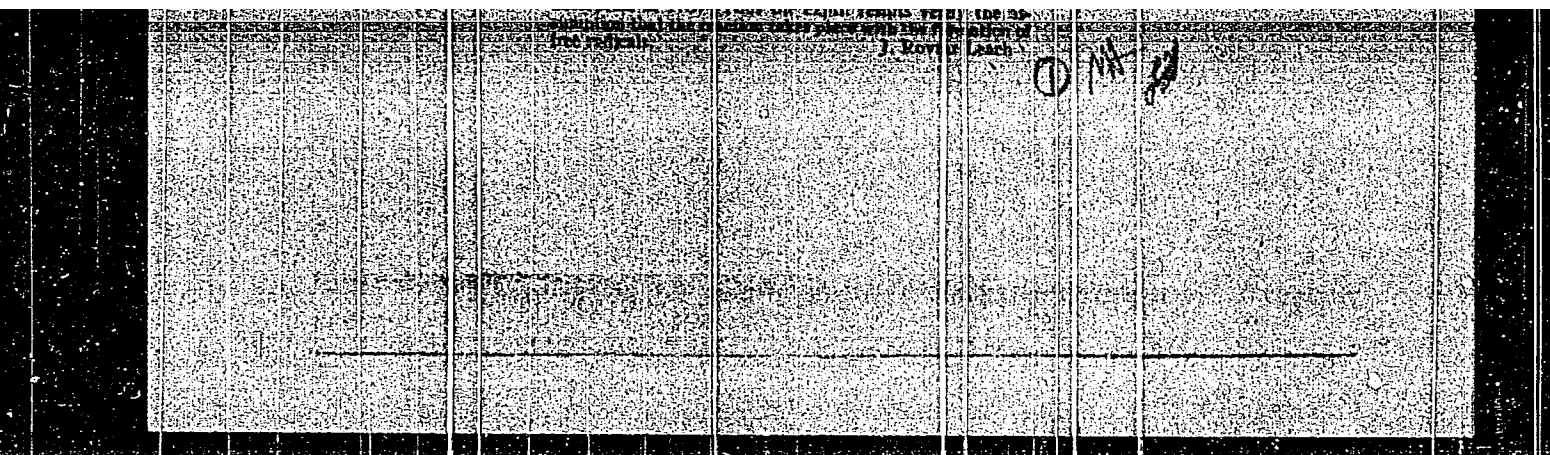
E. Yerevanskiy gosudarstvennyy universitet imeni V.M. Molotova.
Kafedra fizicheskoy khimii. Predstavleno G.Kh. Buntyanom.
(Benzoyl peroxide) (Diethylamine)

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[illegible]

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APPROVED FOR RELEASE: 06/05/2000

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ATANASYAN, YEN.

✓ Kinetics of reactions of peroxides with amines. IV. Order of reactions of secondary aliphatic amines with benzoyl peroxide. O. A. Chaltyryan, B. N. Atanasyan, and D. M. Golbaksyan. *Dokl. Akad. Nauk Armyn. S.S.R.* 22, No. 1, 13-16 (1956) (in Russian); *cf. ibid.* 15, No. 2, 41 (1952); *C.A.* 46, 11874s. The reaction rate of Et_2NH with Bz_2O_2 was studied in dil. dioxane solns. Despite the basic nature of the solvent the reaction shows a self retardation effect. In Et_2O the reaction rate accelerates with time relative to the 2nd-order equation, and at very high concns. the reaction is violent. In dioxane, Me_2CO , and C_6H_6 the reaction retards itself relative to the 2nd-order reaction rate. At low initial concns. the 2nd-order rate applies with activation energy of 14.6 kcal/mole. The results indicate a radical-chain type of reaction. In Et_2O the retarding effect of the BrOH formed is insignificant. G. M. Kosolapov

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SOV/76-32-11-22/32

AUTHORS:

Chaltykyan, O. A., ~~Atanasyan, Ye. N.~~, Sarksyian, A. A.,
Marmaryan, G. A., Gaybakyan, D. S.

TITLE:

Reaction Kinetics of Peroxides in Solutions (Kinetika reaktsii
perekisey v rastvorakh) I. Reaction Kinetics of Benzoyl
Peroxide With Secondary Aliphatic Amines (I. Kinetika vzai-
modeystviya perekisi benzoila so vtorichnymi alifaticheskimi
aminami)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 11, pp 2601-2607
(USSR).

ABSTRACT:

Diethyl, dipropyl, di(n-butyl), and diisobutyl amine with
benzoyl peroxide in ether, acetone, benzene and dioxane
solutions were investigated. These amines were selected as they
differ with respect to their alkalinity. The kinetic measure-
ments were carried out at 25°C and below in a double flask
(Fig). Benzoyl peroxide was identified iodometrically according
to the method by Gelissen and Hermans (Germans) (Ref 9). The
experiments showed that the reaction with all four amines in
all four solvents was of second order, and that the benzoic
acid formed considerably hampers the reaction. The reaction

Card 1/3

Reaction Kinetics of Peroxides in Solutions. I. Reaction Kinetics of Benzoyl Peroxide With Secondary Aliphatic Amines

SOV/76-32-11-22/32

velocity changes in ether solutions (Table 1) as follows: diethyl amine > n-dibutyl amine > dipropyl amine > diisobutyl amine. A comparison of the experimental results (Tables 1-4) shows that the reaction velocity in ether solutions is five times lower than that in acetone or dioxane solutions. The velocity constant $k_{20} = 0.24$ in benzene solutions was determined by S. L. Mkhitarian. It was found that the velocity and the mechanism of the reaction of secondary amines with benzoyl peroxide depends on the alkalinity (proton acceptor property) of the amine. The reaction either takes place according to a bimolecular mechanism (aminolysis of the peroxide) or by way of an intermediate complex compound (amine peroxide). In the second case benzoic acid (as amine salt) and O-benzoyl-N-N-dialkyl-hydroxylamine had to be obtained as stable end products, which fact was proved by S. P. Gambaryan et al. (Refs 1-2, 4-6). There are 1 figure, 5 tables, and 12 references, 8 of which are Soviet.

ASSOCIATION:
Card 2/3

Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

5(4),
AUTHORS: Chaltykyan, O. A., Atanasyan, Ye. N., Beyleryan, N. M.,
Marmaryan, G. A. SOV/76-33-1-7/45

TITLE: Reaction Kinetics of Peroxides in Solutions (Kinetika reaktsiy
perekisey v rastvorakh) II: Reaction Kinetics of Benzoyl
Peroxide With Diphenylamine (II. Kinetika vzaimodeystviya
perekisi benzoila s difenilaminom)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 1, pp 36-44 (USSR)

ABSTRACT: It was already shown that in a reaction of benzoyl peroxide (I)
with secondary aliphatic amines the reaction velocity (RV)
increases in proportion with the alkalinity of the amines and
the solvent (Ref 1). The reaction mentioned in the title was
already investigated by S. P. Gambaryan (Ref 3) as well as by
Kh. S. Bagdasar'yan and R. I. Milyutinskaya (Ref 4). The
working method of the present case is rather similar to that
of the investigations (Ref 4). It was observed (Tables 1,2)
that the reaction velocity of (I) with diphenylamine (II) is
greatest in benzene solutions; equal in ether and acetone
solutions, which is, however, slower than in benzene; i. e.
in the reaction of (I) with (II) the influence of the solvent
is different from that in the case of aliphatic alkaline

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Reaction Kinetics of Peroxides in Solutions. II. Reaction Kinetics of
Benzoyl Peroxide With Diphenylamine

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secondary amines. If the benzene solutions are diluted (Table 3), the reaction order changes and approaches an order of the second degree (as was observed in reference 4). Determinations of the RV in vinyl acetate solutions at 20, 30, and 40°C showed (Fig 1) that the RV decreases strongly in comparison to the benzene solutions, which may be explained by the formation of free benzoate radicals. Using an appropriate arrangement (Fig 3), investigations on the absorption of nitrogen oxides (III) in benzene solutions of (I) + (II) at 20° and in acetone solutions at 20, 25, 30, and 40° were carried out. As soon as the initial concentration of (I) and (II) is increased, the absorption velocity of (III) increases in proportion with the concentrations of (I) and (II) (Fig 5). The formation of a free diphenyl nitrogen radical was proved qualitatively by means of concentrated sulfuric acid. The temperature function of the absorption velocity of the (III) by (I) and (II) in acetone solutions is characterized as an exponential function (Figs 6,7). The value found for the activation energy (12.7 kcal) corresponds to that mentioned in reference 4. It is assumed that:

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