GUREVICH, E.S.

Plastics used in the manufacture of tableware, haberdashery, and other goods. Plast.massy no.1:60-62 '60. (MIRA 13:6)

(Plastics)

DRINBERG, Anatoliy Yakovlevich; GUREVICH, E.S.; TIKHOMIROV, A.V.

[Technology of non-metal coatings] Tekhnologiia nemetallicheskikh pokrytii. Leningrad, Gos.nauchno-tekhn.izd-vo lit-ry, 1957. 588 p. illus. (MIRA 15:5)
(Protective coatings)

KONDRATOVA, K.G.; KUZOVLEV, A.I.; GUREVICH, E.Ye.; MALEINA, A.P.; MATROSOVA, N.I.

Rendering cyanide in waste waters harmless with liquid chlorine. Stal' 24 no.10:946 O '64. (MIRA 17:12)

1. Kosogorskiy metallurgicheskiy zavod.

L 11331-67 EWT(d)/EWT(l)/EWT(m)/EWP(k)/EWP(h)/EWP(t)/EWP(v) WW/DJ
ACC NR: AP6035921 SOURCE CODE: UR/0413/66/000/020/0173/0174

INVENTOR: Gurevich, E. Z.; Tyvorskaya, R. I.; Fel'dman, A. I.

ORG: none

TITLE: Self-sealing control valve. Class 47, No. 187464

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 173-174

TOPIC TAGS: valve, rotating seal, FLOW CONTROL

ABSTRACT: The proposed control valve contains a housing and a disk shut-off element and a seat, which are positioned perpendicular to the liquid flow. To simplify the

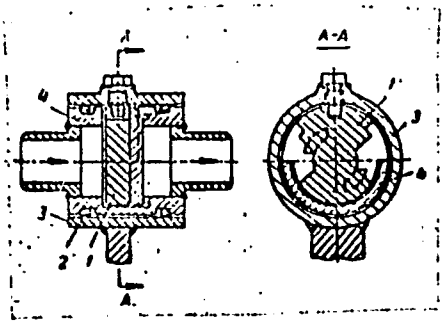


Fig. 1. Self-sealing valve

1 - Shut-off element; 2 - seal; 3 - rotating sleeve; 4 - valve housing.

Card 1/2 UDC: 621.646.47: :621.646.621

L 11331-67

ACC NR: AP6035921

design and increase operational reliability, the shut-off element is connected to a rotating sealing control sleeve which is mounted on the valve housing (see Fig. 1). Orig. art. has: 1 figure. ||

SUB CODE: /3/ SUBM DATE: 21Aug65/

Card 2/2

GUREVICH, E.Z.

Temperature reaction of the organism in hypothermia. Khirurgiia 35 no.10:85-90 O '59. (MIRA 12:12)

1. Iz kliniki obshchey khirurgii lechebnogo fakul'teta (zav. - prof. A.A. Busalov) II Moskovskogo meditsinskogo instituta im. N.I. Pirogova.
(HYPERTHERMIA, INDUCED)
(BODY TEMPERATURE physiol.)

VARDOMSKIY, E.K., inzh.; GUREVICH, E.Z., inzh.

Improvement in the design of a leveling container. Elek.sta. 31 no.6:36-38 Je '60. (MIRA 13:7)
(Boilers) (Liquid level indicators)

GUREVICH, N.Z., insh.; SAGALOVICH, L.O., insh.

Errors of water level indicating columns. Energetik 12 no.8:12-14 Ag '64. (MIRA 17:9)

GUREVICH, E.Z., inzh.

New intake devices for level indicators. Elek. sta. 36 no.12: 23-27 D '65. (MIRA 18:12)

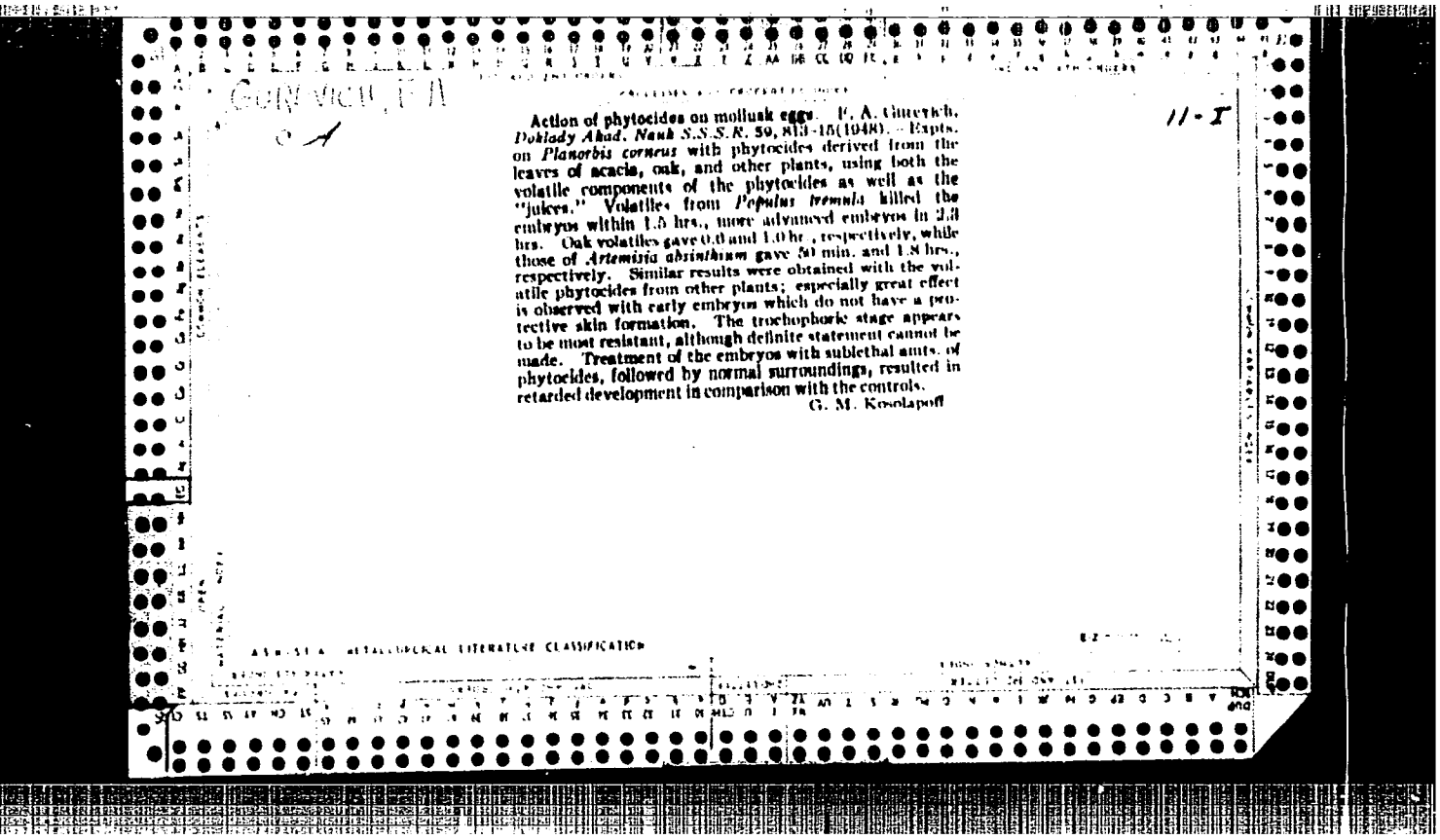
GUREVICH, F. A.

"The Resistance of the Bud of Rana Temporaria to Harmful Agents at Different Stages of Development," Dokl. AN SSSR, 59, No.1, 1948

Lab. of the Dynamics of Growth of an Organism, Inst. Experimental Med., AMS, Leningrad

GUREVICH, F. A.

"The Interrelationship Between Water Plants and the Embryo of Fresh Water Animals," Dokl. AN SSSR, 59, No.3, 1948.



Gurvich, F A

11-I

Action of phytocides on mollusk eggs. F. A. Gurvich. *Doklady Akad. Nauk S.S.S.R.* 59, 813-15(1948).—Expts. on *Planorbis corneus* with phytocides derived from the leaves of acacia, oak, and other plants, using both the volatile components of the phytocides as well as the "juices." Volatiles from *Populus tremula* killed the embryos within 1.5 hrs., more advanced embryos in 2.3 hrs. Oak volatiles gave 0.0 and 1.0 hr., respectively, while those of *Artemisia absinthium* gave 50 min. and 1.8 hrs., respectively. Similar results were obtained with the volatile phytocides from other plants; especially great effect is observed with early embryos which do not have a protective skin formation. The trochophoric stage appears to be most resistant, although definite statement cannot be made. Treatment of the embryos with sublethal amts. of phytocides, followed by normal surroundings, resulted in retarded development in comparison with the controls.

G. M. Kosolapoff

GUREVICH F. A.

151T32

USSR/Medicine - Algae 11 Oct 49
Frogs, Eggs of

"Blue-Green Algae and Embryos of Fresh-Water Animals," F. A. Gurevich, Inst of Experimental Med, Acad Med Sci USSR, 1½ pp

"Dok AK Nauk SSSR" Vol LXVIII, No 5

In a Petri dish containing pond water and 2-3 gr of blue-green algae--Oscillaria--development of frog's eggs was retarded. No toxic effect observed on Infusoria. S. V. Goryunova has shown in "Dok Ak Nauk SSSR" Vol LX, No 2, 1948 that Oscillatoria can secrete chemical and organic substances and in

151T32

USSR/Medicine - Algae (Contd) 11 Oct 49

"Dok Ak Nauk SSSR" Vol LXIV, No 2, 1949, volatile organic matter. In her opinion these secretions can be toxic to some microorganisms. Submitted by Acad K. M. Bykov 1 Aug 49.

151T32

Gurevich, F.A.

The phytoncides of Glyceria. F. A. Gurevich. *Sborn. Nauch. Trudov Krasnoyarsk. Med. Inst.* No. 3, 207-11 (1953); *Referat. Zhur., Biol.* 1955, No. 8304.--The phytoncide properties of *Glyceria aquatica* vary with the season of the year, the time of the day, the stage of the plant's development, and with the specific part of the plant. The phytoncide properties of the plant pulp are lost within 48 hrs. Heating at 100° for 15 min. completely destroys the phytoncide activity of the plant. The active principle of the volatile phytoncides of *Glyceria* is represented by cyanic compds. The assumption that the toxic properties of *Glyceria* are actually due to the parasitically habitating *Ustilago longissima* was shown to be ill founded.

B. S. Levin

MD

LEVINSON, M.S.; KOMOLOVA, G.S.; GUREVICH, F.A.

Mechanism of the action on Protozoa of water subjected to ultrasonic radiation. Izv. Sib. otd. AN SSSR no.8:114-116 '59.
(MIRA 13:2)

1.Institut fiziki Sibirskogo otdeleniya AN SSSR i Krasnoyarskiy meditsinskiy institut.
(Protozoa) (Ultrasonic waves--Physiological effect)

GUREVICH, F.A.; LEVINSON, M.S.; KOMOLOVA, G.S.

Effect of water exposed to ultrasonic waves on infusorians.
Uch. zap. Kras. gos. ped. inst. 15:253-255 '59. (MIRA 14:12)
(Ultrasonic waves--Physiological effect)
(Infusoria)

GUREVICH, F.A., DROKIN, A.I., BARKHATOVA, I.M.

Effect of ultrasound on the early periods of plant growth. Izv. Sib.otd.AN SSSR no.7:83-90 '60. (MIRA 13:8)

1. Krasnoyarskiy meditsinskiy institut fiziki Sibirskogo otdeleniya AN SSSR.
(Plants, Effect of ultrasonic waves on)

GUREVICH, F.A.; LEVINSON, M.S.

Effect of hydra of water irradiated with ultrasound. Izv.Sib.otd. AN SSSR no.3:126-128 '60. (MIRA 13:10)

1. Krasnoyarskiy meditsinskiy institut i Krasnoyarskiy Institut fiziki Sibirskogo otdeleniya AN SSSR.
(Hydrozoa) (Ultrasonic waves--Physiological effect)

GUREVICH, F.A.

On a high scientific level ("Regeneration and somatic embryogenesis" by B.P.Tokin. Reviewed by F.A.Gurevich). Vest LGU 15 no.15:156-157 '60. (MIRA 13:8)

(REGENERATION (BIOLOGY)) (EMBRYOLOGY)
(CANCER) (TOKIN, B.P.)

GUREVICH, F.A.

Effect of ultrasonic waves on the growth of poplar buds and their phytoncidal properties. Izv. Sib. otd. AN SSSR no.7: 116-119 '61. (MIRA 14:8)

1. Krasnoyarskiy meditsinskiy institut.
(Poplar) (Phytoncides) (Ultrasonic waves)

GUREVICH, F.A., dots., otv. red.

[Chemical and biological effect of ultrasound] O khimicheskom i biologicheskom deistvii ul'trazvuka. Krasnoiarsk, Akad. nauk SSSR, 1962. 204 p. (MIRA 16:5)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Laboratoriya biofiziki.
(Ultrasonic waves)

L 1688-66
ACCESSION NR: AP5017083 UR/0290/65/000/001/0157/0158

AUTHOR: Gurevich, F. A.

TITLE: Conference on phytocide problems

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya biologo-meditsinskikh nauk, no. 1, 1965, 157-158

TOPIC TAGS: biologic conference, biologic personnel, plant chemistry, plant morphology, fungicide, bactericide, wound, antibiotic, horticulture, forestry, food technology, plant disease control, plant ecology, agronomy

ABSTRACT: The first conference on phytocide problems in Siberia and the Far East was held November 21-23, 1964 in Novosibirsk. More than 100 specialists attended including biologists, zoologists, botanists, agronomists, doctors, chemists and food technicians. Twenty papers were presented and brief resumes are given. Several papers dealt with phytocides in medicine. In a study of 618 higher plants, Ye. P. Lesnikov found that 207 are fungicide producers. Bactericidal properties of certain phytocides (clematis, onion, and spirea) against

Card 1/2

L 1688-66
ACCESSION NR: AP5017083

blue pus causative agents, highly resistant to antibiotics, were described. Ramson phytocides were found effective in treating certain forms of periodontosis, tongue injuries, and chronic purulent otitis. A resolution was passed indicating the most important areas for future phytocide research: 1) a systematic study of the phytocide properties of plants, 2) role of phytocides in biocenoses and plant immunity, 3) a study of the chemical nature of phytocides, 4) development of phytocide uses in medicine, agriculture, forestry, food industry and other fields, and 5) investigation of highly phytocidic plants for use in beautification of cities, industrial areas and resorts. Orig. art. has: None.

ASSOCIATION: None.

SUBMITTED: 00 ENCL: 00 SUB CODE: LS

NR REF SOV: 000 OTHER: 000

Card 2/2

GUREVICH, F. L.

22091 Gurevich, F. L. Nekotoryye osobennosti techeniya malyarii u detey Vrachebnoye delo, 1949, No. 7, stb. 627-30

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949.

1. GUREVICH, F. D.

2. USSR (600)

4. Antiquities - Baltic Sea Region

7. Ancient monuments of the southeastern Baltic Sea region and problems in studying them. Krat.soob.IIMK, no. 42, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

GUREVICH, F. L.

"Clinic and Outcome of Infectious Hepatitis in Children," Tezisy Dokladov 12-y Nauchnoy Sessii Stalingradskogo Meditsinskogo Instituta, Stalingrad, 1952, pp. 63,64.

W-27086, 25 Jul 53

ZILBER, D. A., GUREVICH, F. M.

Ocular ergography in luminescent lighting. Gig. sanit., Moskva No. 10, Oct. 50. p. 19-23

1. Of Leningrad State Institute of Labor Hygiene and Occupational Diseases.

CLML 20, 3, March 1951

GUREVICH, Georgiy

AUTHOR: Gurevich, Georgiy 4-12-10/24

TITLE: Around the World in One Hour (Vokrug sveta v odin chas)

PERIODICAL: Znaniye - Sila, 1957, # 12, pp 27 - 29 (USSR)

ABSTRACT: This is an excerpt from a science-fiction novel - "The Birth of the Sixth Ocean". It contains a description of a flight around the world made by Soviet scientists in two so-called ionoplanes.
There are 3 figures.

AVAILABLE: Library of Congress

Card 1/1

GUREVICH, G.

Nationwide national research. Znan. sila 36 no.10:46 O '61.
(MIRA 16:12)

Gurevich, G.

AUTHOR: Gurevich, G., and Offman P. 4-1-16/19

TITLE: The Cupola on the Kel'me (Kupol na Kel'me)

PERIODICAL: Znaniye - Sila, 1958, # 1, pp 40-47 (USSR)

ABSTRACT: This is a excerpt from a story describing the adventures of a party of explorers who went into the Taiga in order to map the territory and search for oil.
There are 6 sketches.

AVAILABLE: Library of Congress

Card 1/1

AUTHOR: Gurevich, G. SOV/29-58-11-9/28

TITLE: The Book on Our Assistants (Kniga o nashikh pomoshchnikakh)

PERIODICAL: Tekhnika molodezhi, 1958, Nr 11, pp 13-13 (USSR)

ABSTRACT: A new book is announced and briefly reviewed, namely "Energiya i chelovek" (Power and Man) by M. Vasil'yev, published by "Sovetskaya Rossiya", 1958, 316 pages, in an edition of 30 000 copies.

Card 1/1

GUREVICH, G., kand. tekhn. nauk

Monograph devoted to the complex organization of fleet and harbor operations. Mor. flot 23 no.10:44 O '63. (MIRA 16:10)

1. Nachal'nik otdela ekonomiki i ekspluatatsii flota TSentral'nogo nauchno-issledovatel'skogo instituta morskogo flota.
(Merchant marine) (Harbors)

GUREVICH, G.

The financial department controls the movement of materials.
Fin. SSSR 22 no.4:46-48 Ap '61. (MIRA 14:4)
(Moscow—Agricultural machinery industry—Finance)

GUREVICH, G.

Reduce losses in freight transportation. Fin. SSSR 22 no.7: 56-57 Jl '61. (MIRA 14:7)
(Moscow Province--Freight and freightage)

GUREVICH, G.

To the center of earth over Mars. Nauka i zhizn' 28 no.12:94-99 D '61. (MIRA 15:2)
(Earth--Internal structure)

GUREVICH, G., doktor tekhn. nauk

Improve the management system of the merchant marine. Mor. flot 25 no.11:3-4 N '65. (MIRA 18:11)

1. Nachal'nik otdela ekonomiki i ekspluatatsii flota TSentral'nogo nauchno-issledovatel'skogo instituta morskogo flota, Leningrad.

GUREVICH, G.A., inzh.

Universal crosshead on a vibration unit used for forming hollow panels with many voids. Nov.tekh. i pered.op v stroi. 19 no.6:22 Je '57. (MIRA 10:10)

(Concrete slabs)

GUREVICH, G., kand.tekhn.nauk

Principles for the classification of fast passenger lines.
Mor.flot 20 no.10:5-7 O'60. (MIRA 13:10)
(Steamboat lines)

GUREVICH, G. B.

O nekotorykh arifmeticheskikh invaritakh proizvol'noy matrichnoy algebry li DAN, 45 (1944), 51-53.
Geometricheskaya teoriya kuadratichnoy i kubicheskoy binarnykh form. M., uchen. zap. ped in-ta im K. Libknekhta, 7 (1940), 3-14.
Analogiya mezhdu binarnoy kubicheskoy formoy i trivesktorom v shestimernom prostranstve. M., uchen zap. ped. in-ta im. K. Libknekhta, 7 (1940), 15-20 .
Arifmeticheskiye invarianty binarnoy formy chetvertogo poryadka , M., uchen zap ped. in-ta im. K. Libknekhta, 7 (1940), 21-30.
Arifmeticheskiye kharakteristiki kvadrivektorov shestogo i sed'mogo ranga. M., uchen. zap. ped. in-ta im. K. Libknekhta, 7 (1940), 31-34.
O nekotorykh arifmeticheskikh invariantakh proizvol'noy matrichnoy algebry li. DAN, 45 (1944), 51-53
Polnyye sistemy bivektorov. DAN, 45 (1944), 383-384.

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A. G.,
Markushevich, A. I.,
Rashevskiy, P. K.
Moscow-Leningrad, 1948

GUREVICH, G.B.

*Gurevič, G. B. Osnovy teorii algebraičeskich invariantov. [Foundations of the Theory of Algebraic Invariants] OGIZ, Moscow-Leningrad, 1948. 408 pp.

Geometrical introduction; Foundations of tensor algebra; Invariants and comitants of tensors and their simplest properties; Fundamental theorem of the theory of invariants and its consequences; Binary forms; Ternary forms, tensors of valence two; Polyvectors. *Table of contents*

Source: Mathematical Reviews, 1950 Vol 11 No. 6

(52)

Gurevič, G. B. The algebra of trivectors. II. Trudy Sem. Vektor. Tenzor. Analizu 6, 28–124 (1948). (Russian)

This paper [of which part I appeared in Trudy Sem. Vektor. Tenzor. Analizu 2–3, 51–118 (1935)] is a systematic study of the invariants and classification of trivectors, together with the labyrinth of algebraic constructions necessary for their derivation. The author's main contributions have been to give invariants characterizing the possible types of trivectors of rank 7 [the forms themselves were given by Schouten, Rend. Circ. Mat. Palermo 55, 137–156 (1931)] and the 13 types and characteristic invariants for rank 8 [C. R. (Doklady) Acad. Sci. URSS 2, 353–356 (1935)] in the field of complex numbers. The present paper supplies proofs not originally given and considerably simplifies cumbersome proofs in the earlier work of himself and others. A wealth of properties of trivectors and associated invariants and comitants is given. A start is also here made in the study of analogous problems for symmetric trivalent tensors, establishing inequalities between the analogous invariants. *L. C. Hutchinson.*

Mathematical Reviews
Vol. 15 No. 4
Apr. 1954
Algebra

8-24-54
LL

GUREVICH, G. B.

27571. Kvadratichnye formy v polyakh s kharakteristikov 2. Trudy seminara po vektornomu i tenzornomu analizu s ikh prilozheniyami k geometrii, mekhanike, i fizike. vyp. 7. M-L. 1949, s. 227-32.

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

GUREVICH, G. B.

Gurevič, G. B. Certain arithmetical invariants of matrix Lie algebras and a criterion for their complete reducibility. Izvestiya Akad. Nauk SSSR. Ser. Mat. 13, 403–416 (1949). (Russian)

Proofs are given of theorems previously announced [C. R. (Doklady) Acad. Sci. URSS (N.S.) 45, 47–49 (1944); these Rev. 7, 110]. Besides these results, there is a discussion of the system $F(\mathfrak{A})$, where $\mathfrak{A}$ is a Lie algebra of matrices, and $F(\mathfrak{A})$ is the set of all $R\epsilon\mathfrak{A}$ with $\mathrm{tr}(AR)=0$ for all $A\epsilon\mathfrak{A}$. It is shown that F is a solvable ideal, and that the radical of $\mathfrak{A}$ consists of all K with $[AK]\epsilon F$ for all A. The proofs lean heavily on the structure theory of Lie algebras. [In connection with the last sentence of the cited review, it appears to be tacitly assumed that the coefficient field is algebraically closed of characteristic zero.]

I. Kaplansky. (Chicago, Ill.).

Source: Mathematical Reviews, Vol. 11 No. 3

GUREVICH, G. B.

Gurevič, G. B. On some affinors connected with trivectors of the eighth rank. Trudy Sem. Vektor. Tenzor. Analizu. 8, 296–300 (1950). (Russian)

In a preceding paper [same Trudy 6, 89–104 (1948)] two concomitant tensors $h^{ij}a_i$, c_{ij} belonging to the trivector w_{ijk} of rank eight, were introduced, as well as the tensor $H_i{}^j = h^{jl}{}_{...}$. This tensor H has eight invariant directions, of which three belong to the characteristic number $\lambda_1 = -1$, four to $\lambda_2 = \frac{1}{3}$, and one to $\lambda_3 = 1$. To λ_1 belongs a space $\bar{S}_3$ of contravariant vectors $\bar{a}$, to λ_2 a space $\bar{S}_4$ of contravariant vectors $\bar{b}$, and to λ_3 a space $\bar{S}_1$ of vectors $\bar{a}$. We write $\mathring{H}_i{}^j = h^{jl}a_l$, $\mathring{\mathring{H}}_i{}^j = h^{jl}b_l$. The paper studies the structure of these tensors $\mathring{H}$ and $\mathring{\mathring{H}}$. D. J. Struik.

Source: Mathematical Reviews, Vol 12 No. 8

GUREVICH, G.B.

Gurevič, G. B. Canonization of a pair of bivectors. Trudy Sem. Vektor. Tenzor. Analizu. 8, 355–363 (1950). (Russian)

From the two given bivectors $v_{\alpha\beta}$, $f_{\alpha\beta}$ the following tensors are formed: $L_\alpha{}^\beta = v_{\alpha\gamma}f^{\gamma\beta}$, $T_\alpha{}^\beta = L_\alpha{}^\beta - \lambda\delta_\alpha{}^\beta$, $(T^2)_\alpha{}^\beta = T_\alpha{}^\gamma T_\gamma{}^\beta, \cdots$, $(T^k)_\alpha{}^\beta = (T^{k-1})_\alpha{}^\gamma T_\gamma{}^\beta$. Then, for all k, $(T^k)_{\alpha\beta} = v_{\alpha\gamma}(T^{k-1})_\beta{}^\gamma$ and similar formulas hold for f. Let $\lambda_1, \cdots, \lambda_n$ be different characteristic numbers of L. Then, if λ^α belongs to λ_i (multiplicity $\equiv k$), we have: $T^k\xi = 0$, and $T^k\rho = 0$, where $\rho_\alpha = v_{\alpha\beta}\xi^\beta$. If g_α similarly belongs to $\lambda_j \neq \lambda_i$ then $(g\xi) = g_\alpha\xi^\alpha = 0$. Hence, if ξ_1 and ξ_2 lie in the invariant spaces belonging to different λ, then $(v_{\alpha\beta})(\xi_1)^\alpha(\xi_2)^\beta = 0$. We can proceed similarly for f. Let now $T^{k-1}\xi_0 \neq 0$, $T^k\xi_0 = 0$. If we select ξ_0 such that $T^k\xi_0 \neq 0$ and write $T^{k-1}\xi_0 = \xi_1$, $(\rho_1)_\alpha = v_{\alpha\beta}(\xi_1)^\beta$, then, since $\rho_1 \neq 0$, there exists a vector ξ_2 such that $(\rho_1\xi_2) = 1$. If we now write $T^{k-2}\xi_2 = \xi_1$, $(g_1)_\alpha = v_{\alpha\beta}(\xi_2)^\beta$, then the vectors $\xi_0, \xi_1, \cdots, \xi_k$; $\xi_0, \xi_1, \cdots, \xi_{k-1}$ as well as $-g_1, -g_2, \cdots, -g_k$; $\rho_1, \rho_2, \cdots, \rho_k$ form two reciprocal bases for the space S spanned by $\xi_1, \xi_2, \cdots, \xi_k$. Now the following theorem is proved. The space S can be represented as the straight sum of spaces S_i such that v, f, and L are decomposed into parts of which each lies in one of the S_i, and each of the S_i corresponds to two chains of vectors $(\xi\xi)$ and (ρg). If $\lambda \neq 0$, then the parts of v and f which lie in the corresponding S_i can be given either the form

$$(1)\qquad [\rho_0 g_k] + [\rho_1 g_{k-1}] + \cdots + [\rho_k g_0].$$

$$(2)\qquad \lambda\{[\xi_0\xi_k] + [\xi_1\xi_{k-1}] + \cdots + [\xi_k\xi_0]\} + [\xi_0\xi_1] + [\xi_1\xi_2] + \cdots + [\xi_{k-1}\xi_k]$$

or

$$(3)\qquad \lambda\{[\rho_0 g_k] + [\rho_1 g_{k-1}] + \cdots + [\rho_k g_0]\} + [\rho_0 g_1] + [\rho_1 g_2] + \cdots + [\rho_{k-1} g_k].$$

$$(4)\qquad [\xi_0\xi_k] + [\xi_1\xi_{k-1}] + \cdots + [\xi_k\xi_0].$$

If $\lambda = 0$, then these parts take either the form (1), (2) with $\lambda = 0$, or (3), (4) with $\lambda = 0$, or they take the form

$$[\rho_0 g_k] + [\rho_1 g_{k-1}] + \cdots + [\rho_{k-1} g_1],$$
$$[\xi_0\xi_k] + [\xi_1\xi_{k-1}] + \cdots + [\xi_{k-1}\xi_1].$$

These results can be used to derive the classification for the case of two covariant bivectors, and we obtain the results of Weierstrass and Kronecker. The number k, belonging to the subspace with $\lambda = 0$, is found to be the arithmetical invariant of Kronecker. *D. J. Struik* (Cambridge, Mass.).

Source: Mathematical Reviews, Vol 12 No. 8

GUREVICH, G.B.

Gurevič, G. B. On some linear transformations of symmetric tensors or polyvectors. Mat. Sbornik N.S. 26(68), 463–470 (1950). (Russian)

This paper establishes conditions that a tensor A, symmetrical in k upper and k lower indices, can be written in the form

$$\text{(I)} \qquad A^{i_1 i_2 \cdots i_k}_{j_1 j_2 \cdots j_k} = H^{(i_1}_{(j_1} H^{i_2}_{j_2} \cdots H^{i_k)}_{j_k)},$$

$i_1 \cdots i_k, j_1 \cdots j_k = 1, \cdots, n$, and also deals with the corresponding case for alternating tensors (polyvectors). The following theorems are derived. (α) Let $\overset{0}{c}, \overset{1}{c}, \cdots, \overset{k}{c}$ be symmetrical tensors of valence k, where $\overset{0}{c}$ and $\overset{k}{c}$ are linearly independent. If the tensor $c = \lambda^k \overset{0}{c} + \lambda^{k-1}\mu \overset{1}{c} + \lambda^{k-2}\mu^2 \overset{2}{c} + \cdots + \mu^k \overset{k}{c}$ is simple for any scalars λ, μ the c can be written in the form $(\lambda p + \mu q)^k$, where p and q are linearly independent vectors. Here the expressions $c = a^k$, $'c = a^k b^m$ stand for

$$c_{i_1 \cdots i_k} = a_{i_1} \cdots a_{i_k},$$

$$'c_{i_1 \cdots i_k j_1 \cdots j_m} = a_{(i_1 \cdots i_k} b_{j_1 \cdots j_m)}.$$

(β) Let $A^{i_1 \cdots i_k}_{j_1 \cdots j_k}$ be symmetric in the upper and in the lower indices and of rank $r \neq 1$. Then A can be written in the form (I) if and only if it transforms an arbitrary simple symmetrical covariant k-valent tensor into a simple tensor of the same rank. This is equivalent to

$$A^{i_1 i_2 \cdots i_k}_{(j_1 j_2 \cdots j_k} A^{p_1 p_2 \cdots p_k}_{j_1) j_2 \cdots j_k} = 0,$$

$$A^{(i_1 i_2 \cdots i_k}_{(j_1 j_2 \cdots j_k} A^{p_1) p_2 \cdots p_k}_{j_1) j_2 \cdots j_k} = 0.$$

(γ) Let q linearly independent k-valent polyvectors (k-vectors) be such that any linear combination of them is simple. Then either (1) all these k-vectors can be obtained from one and the same simple $(k-1)$-vector, or (2) all lie in one and the same $(k+1)$-dimensional space. Case (1) is only possible if $q \leq n-k+1$, case (2) only if $q \leq k+1$. (δ) Let C_n^k linearly independent simple covariant k-vectors w^S be given in n-space, where S is a combination (without repetition) of k out of the n indices $1, \cdots, n$, and also C_n^{k-1} simple $(k-1)$-vectors v^T, where T is a combination of $k-1$ of the same indices ($T \subset S$). If the w^S can be obtained from the v^T when S contains every T, then it is possible to find n linearly independent vectors $\overset{1}{p}, \cdots, \overset{n}{p}$ such that the k-vector w^S can be obtained from the vector $\overset{i}{p}$ if the combination S contains the index i ($i \subset S$). (ϵ) Let $A^{i_1 i_2 \cdots i_k}_{j_1 j_2 \cdots j_k}$ be a tensor skew symmetrical in the upper and in the lower indices and of nonsingular matrix. Let the dimension of space n be $\neq 2k$. Then the tensor A can be written in the form

$$A^{i_1 i_2 \cdots i_k}_{j_1 j_2 \cdots j_k} = H^{i_1}_{[j_1} H^{i_2}_{j_2} \cdots H^{i_k]}_{j_k]}$$

if and only if it transforms an arbitrary simple covariant k-vector into a simple covariant k-tensor. This is equivalent to

$$A^{\alpha_1 [\alpha_2 \cdots \alpha_k} A^{\beta_1] \cdots \beta_k}_{[\alpha_1 \beta_1 \cdots \beta_k} = 0.$$

The case $n = 2k$ is also discussed. The author quotes his book [Foundations of the Theory of Algebraic Invariants, OGIZ, Moscow-Leningrad, 1948; these Rev. 11, 413].

J. Struik (Cambridge, Mass.).

Vol. 12 No.

GUREVICH, G. B. PA 163T15

USSR/Mathematics - Tensors Jul/Aug 50

"Complete Systems of Symmetric and Skew-Symmetric Tensors," G. B. Gurevich, Moscow

"Matemat Sbor" Vol XXVII (60), No 1, pp 103-116

Discusses certain special-order linear systems for which methods of classification are possible, in connection with sets of polyvectors (skew-symmetric tensors) of given valency k. Submitted 12 Mar 48.

[redacted] 163T15

GUREVICH, G. B.

(2) 11.14

Gurevič, G. B. On a property of the algebra of an arbitrary linear system of polyvectors or symmetric tensors. Trudy Sem. Vektor. Tenzor. Analizu 9, 223–229 (1952). (Russian)

Gurevič, G. B. On a certain linear equation for a trivector. Trudy Sem. Vektor. Tenzor. Analizu 9, 230–235 (1952). (Russian)

In the first paper, a number of theorems relating certain associated contravariant and covariant alternating (and symmetric) tensors are derived. For example: Given any s-vector v there exist solutions v (unique or infinitely many) to

$$v_{ab\ldots e[A}v_{f\ldots h]}\epsilon^{ab\ldots cd} = v_{f\ldots hA}.$$

In the second paper the theorem just quoted is used in the case of the trivector to find for given v all possible non-zero solutions w to $w_{[ijk}v_{mn]e}v_{bc]s} = 0$. Solutions exist if and only if v is one of the types (0), (3), (51), (63), or (741), as defined in the paper reviewed above. *L. C. Hutchinson.*

Mathematical Reviews
Vol. 15 No. 4
Apr. 1954
Algebra

8-24-54
LL

GURKVICH, G.B.

Certain linear equation for a trivector. Trudy Sem.po vekt.i tenz.anal. no.9:230-235 '52. (MLRA 8:8)
(Linear equations) (Vector analysis)

GUREVICH, G.B.

Mathematical Reviews
Vol. 15 No. 4
Apr. 1954
Algebra

9-24-54
LL

Gurevič, G. B. On the inclusion of a linear system of polyvectors or of symmetric tensors in a complete system. Mat. Sbornik N.S. 30(72), 225–232 (1952). (Russian)

An algorithm is constructed which associates with any linear system w of s-vectors a complete system w^c such that $w \subset w^c$, $\mathfrak{A} \subset \mathfrak{M}$, where $\mathfrak{A}$ is the (Lie) algebra of w and $\mathfrak{M}$ the principle algebra of w^c, these terms being as defined in Mat. Sbornik N.S. 27(69), 103–116 (1950); these Rev. 11, 586, and literature there quoted. *L. C. Hutchinson.*

FD-1425

USSR/Mathematics - Standard Lie algebras

Card 1/1 : Pub. 64 - 3/9

Author : Gurevich, G. B. (Moscow)

Title : Standard Lie algebras

Periodical : Mat. sbor., Vol. 35 (77), pp 439-460, Nov-Dec 1954

Abstract : The author studies the principal properties of a special class of linear Lie algebras, called standard Lie algebras, whose determination is based upon concepts of the Lie nul algebra, complete nul algebra and main algebra (first introduced by the author in 1949-1950). Four references; e.g. G. B. Gurevich, "Certain arithmetic invariants of matrix Lie algebras and their criterion of complete derivability, Izv. AN SSSR, ser. matem., 13, No 5, 403-416, 1949; "Inclusion of any linear system of polyvectors or symmetric tensors intc a complete system," Mat. sbor., 30 (72), 225-232, 1950.

Institution :

Submitted : October 10, 1953

GUREVICH, G. B.

Gurevič, G. B. On some properties of algebraic linear Lie groups. Dokl. Akad. Nauk SSSR (N.S.) 94, 177–178 (1954). (Russian)

$\mathfrak{T} = F/W$

Using definitions and theorems from previous papers [Mal'cev, Izv. Akad. Nauk SSSR. Ser. Mat. 9, 329–356 (1945); Gurevič, ibid. 13, 403–416 (1949); MR 9, 173; 11, 156] the following theorems are proven for an algebraic linear Lie group $\mathfrak{G}$ and its corresponding Lie algebra $\mathfrak{A}$ with Θ_i the weights of $\mathfrak{G}$, Λ_i those of $\mathfrak{A}$.

1) $$\Theta_1^{\alpha_1}\Theta_2^{\alpha_2}\cdots\Theta_n^{\alpha_n} = \Theta_1^{\beta_1}\Theta_2^{\beta_2}\cdots\Theta_n^{\beta_n}$$

with α_i, β_i non-negative integers, with any other relations reducing to this form. 2) $\gamma_1\Lambda_1+\cdots+\gamma_n\Lambda_n=0$, γ_i integers. 3) The F-system of $\mathfrak{A}$ is always a null algebra. The last nicely generalizes a number of earlier special theorems of the author.

L. C. Hutchinson (Boston, Mass.).

Gurevich, G. B.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress (Cont.) Moscow, Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.

Vulikh, B. Z. (Leningrad). Semiordered Rings. 20-21

Mention is made of Domrachev, G. I.

There are 2 references, both of them USSR.

Gavrilov, L. I. (Leningrad). K-continued Polynomials. 21

There is 1 USSR reference 21

Grantmakher, F. R. (Moscow). On Structural Lattice Stability of the Sum of Two Polynomials. 21

Gurevich, G. B. (Moscow). Algebra of a Group of Automorphisms of an Arbitrary Standard Zero-algebra. 21-22

There are 2 references, both of them USSR.

Zavalo, S. T. (Cherkassy). Operator Free Groups. 22-23

Card 8/80

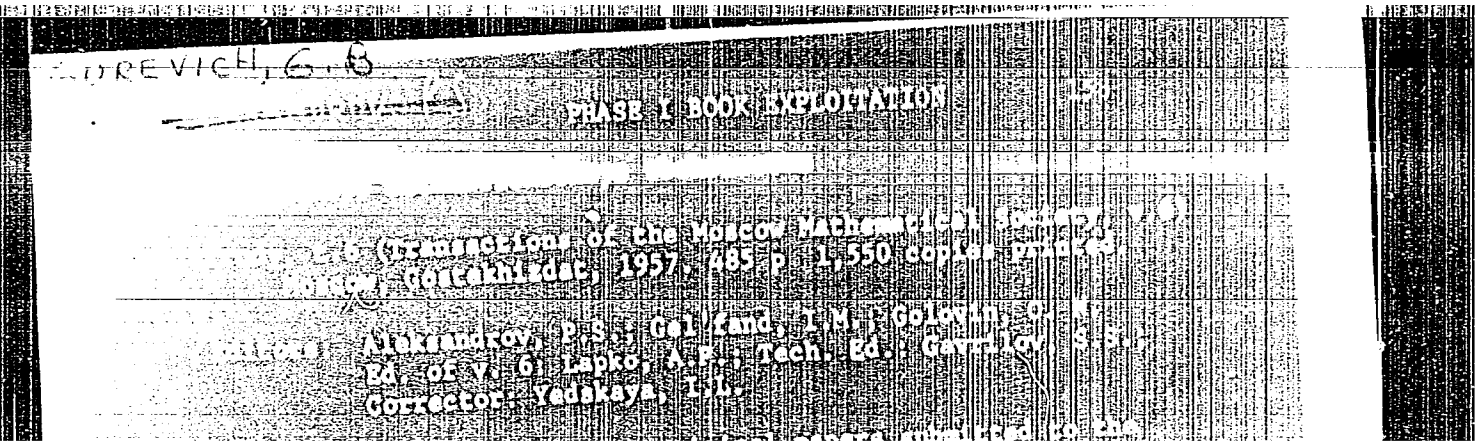
GUREVICH, G. B.

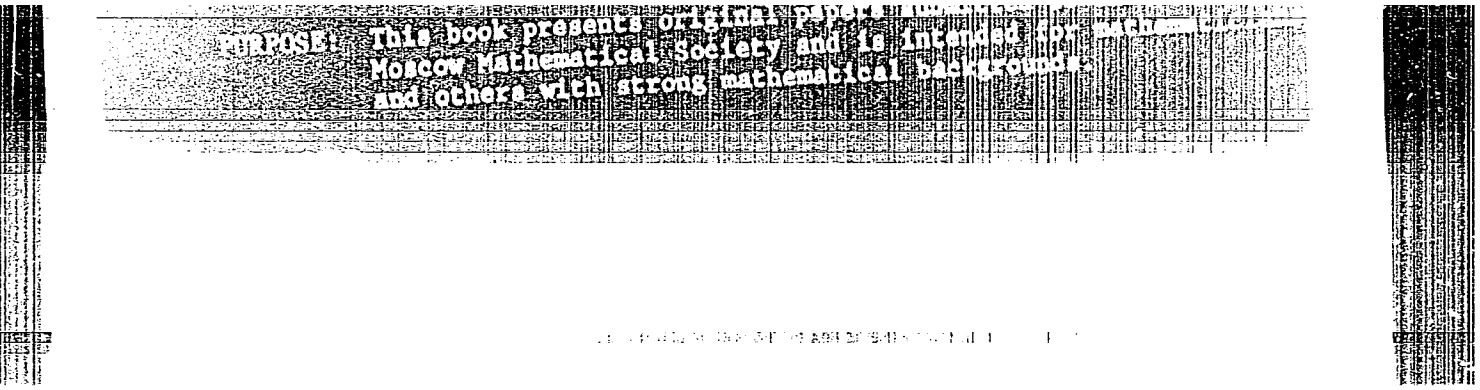
2

Gurevič, G. B. Some properties of standard matric nulalgebras. Trudy Sem. Vektor. Tenzor. Anal. 10 (1956), 89–104. (Russian) 1. FW

The author proves that any standard matric nulalgebra [Gurevič, Mat. Sb. N.S. 33(77) (1954), 457–460; MR 17, 509] may be represented as the intersection of a special system of the so-called full nulalgebras. Further, an enumeration of the types of standard matric nulalgebras is given.

W. T. van Est (Leiden).





The definition of curves in a Euclidean plane π is given and the terminology used is established. The Σ set of curves under investigation satisfies the following condition: through any two points in a plane only one curve from Σ can be drawn; or, two different curves from Σ intersect at no more than one point. It is proven that any system of curves which satisfies the above condition is an infinite or central system.

Gurevich, G. B. Isomorphism Conditions of Standard Nullalgebras 165

The basic results of this article were presented at the October 5, 1954 session of the Moscow Mathematical Society. There are 4 references, all Soviet. One Soviet personality is mentioned; i.e., Sushkevich, A. K., author of a textbook on higher algebra.

GUREVICH, G.B.

Algebra of differentiations of an arbitrary standard zero-algebra. Izv.vys.ucheb.zav.; mat. no.1:103-120 '57. (MIRA 12:10)

1. Moskovskiy pedagogicheskiy institut im. V.I.Lenina.
(Algebra)

GUREVICH, G.B. (Moscow)

"Elementary Algebra" by V.L. Goncharov. Reviewed by G.B. Gurevich.
Mat. pros. no.1:243-250 '57. (MIRA 11:7)
(Algebra—Textbooks) (Goncharov, V.L.)

GUREVICH, G.B.

Conditions of isomorphism of standard zero algebras. Trudy Mosk. mat.ob-va 6:165-193 '57. (MIRA 10:11)

(Algebra)

GUREVICH, G.B.; ZAIMANOVICH, Z.I.

Lie's orthogonally complementary algebras. Uch. zap MGPI 108:75-97 '57. (MIRA 11:12)

(Algebra, Abstract)

ATANASYAN, L.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; posobie dlia pedagogicheskikh institutov. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv. RSFSR, 1958. 94 p. (MIRA 12:4)
(Geometry---Problems, exercises, etc.)

BEREZANSKAYA, Ye.S.; GUREVICH, G.B.; DITSMAN, A.P. (Moskva); BUDANTSEV, P.A. (Orenburg); KUKOLEV, V.G. (Perm'); LYAPIN, S.Ye.(Leningrad); PRINTSEV, N.A. (Kursk)

Discussion of the new mathematics curricula. Mat. v shkole no.2:5-20 Mr-Ap '59. (MIRA 12:6)
(Mathematics--Study and teaching)

GUREVICH, G.B. (Moskva)

Measuring the area of polygons in Euclidean geometry. Mat. pros. no.5:161-178 '60. (MIRA 13:12)
(Polygons)

GUREVICH, G.B.

Semicharacteristic and characteristic subalgebras of the standard algebra. Trudy Sem.po vekt.i tenz.anal. no.11:25-41 '61. (MIRA 15:3)

(Algebra, Abstract) (Vector analysis)

GURIEVICH, G. B.

PHASE I BOOK EXPLOITATION SOV/5726

Moscow. Universitet.

Trudy seminara po vektornomu i tenzornomu analizu s ikh prilozheniyami k geometrii, mekhanike i fizike. vyp. 11. (Transactions of the Seminar on Vector and Tensor Analysis With Their Application in Geometry, Mechanics, and Physics. no. 11) [Moscow] 1961. 314 p. 2,500 copies printed.

Sponsoring Agency: Moskovskiy gosudarstvennyy universitet imeni M. V. Lomonosova.

Ed. (Title page): P. K. Rashevskiy, Professor; Ed.: V. A. Gukovskaya; Tech. Ed.: K. S. Chistyakova.

PURPOSE: This book is intended for theoretical physicists, mathematicians, and engineers.

COVERAGE: The book contains reports presented at the Seminar on Vector and Tensor Analysis (Moscow, 1961), includes an annotated

Card 1/5

bibliography of some reports presented at Seminar meetings over the period 1 July 1954 through 31 December 1957, and reviews the life and works of Yakov Semenovich Dubnov (1887-1957), senior member and cofounder (with V. F. Kagan and others) of the Seminar. Professor Dubnov's contributions to mathematics are reviewed in some detail and include his teaching of analytical and differential geometry with the application of vector analysis and works on problems in the algebra of affinors. Dubnov also wrote Osnovy vektornogo ischisleniya (Principles of Vector Calculus), studied the general theory of nets on surfaces, and worked on studies of different types of nets and invariant characteristics of nets on surfaces, the central projective and affine theory of curves and surfaces, and related subjects. A chronological bibliography of his publications is included. The biographical sketch of Professor Dubnov was written by V. V. Vagner and A. M. Lopshits. No personalities are mentioned. References accompany individual articles.

SOV/5726

Transactions of the Seminar (Cont.)

TABLE OF CONTENTS:

Card 3/5

AVAILABLE: Library of Congress

JAN/rsm/ec
11-20-61

Card 5/5

GUREVICH, G.B.

Some properties of metabelian Lie algebras. Dokl.AN SSSR 138 no.5:998-1001 Je '61. (MIRA 14:6)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut im. V.I. Lenina. Predstavleno akademikom P.S.Novikovym.
(Lie algebras)

GUREVICH, G.B. (Moskva)

Terminology of elementary algebra. Mat.v shkole no.6:39-44 N-D '62. (MIRA 16:1)

(Algebra--Terminology)

GUREVICH, G.B.

Metabelian Lie algebras. Trudy Sem.po vekt.i tenz.anal. (MIRA 16:6)
no.12:9-61 '63.
(Lie algebras)

GUREVICH, G.B.

Normalization of the weight vectors of the algebra of differentiations of a standard null-algebra. Uch. zap. [illegible] no.308:314-323 '61.

Systems of linear-exponential equations. Ibid.:323-333 (MIRA 17:6)

ANANASYAN, Levon Sergeyevich; VASIL'YEVA, Mayya Vladimirovna, dots.; GUREVICH, Grigoriy Borisovich; IL'IN, Aleksandr Sergeyevich; KOZ'MINA, Tat'yana Leonidovna; REDOZUBOVA, Ol'ga Sergeyevna; DOLGOPOLOV, V.G., red.

[Problems in elementary geometry; textbook for pedagogical institutes] Sbornik zadach po elementarnoi geometrii; posobie dlia pedagogicheskikh institutov. Izd.2., perer. Moskva, Prosveshchenie, 1964. 93 p. (MIRA 17:7)

Cand Med Sci

GUREVICH, G. G., PHYSICIAN

Dissertation: "Hygienic Rating of Swimming Pools."
30/1/50

Second Moscow State Medical Inst imeni

I. V. Stalin

SO Vecheryaya Moskva
Sum 71

GUREVICH, G. G.

USSR/Medicine - Dysentery Mar 53

"Dynamics of the Phagocytosis Reaction in Children Suffering From Acute or Chronic Dysentery," R. V. Litvak, G. G. Gurevich, N. G. Sheynman (deceased), Moscow City Inst of Epidemiol and Bacteriol

"Zhur Mikrobiol, Epidemiol, i Immunobiol" No 3, pp 27-31

The opsono-phagocytic reaction with respect to Flexner bacilli is weak in the case of healthy children, moderate in children below the age of 3 having any form of the disease. The reaction becomes stronger during the course of the disease, particularly when clinical improvement takes place. In cases of protracted and chronic cases of dysentery, phagocytosis is very weak and does not rise with clinical improvement. Vaccinotherapy stimulates phagocytosis and raises the titer of Vidal's reaction.

244T30

244T30

GUREVICH G. Leningrad Physico-Technical Inst imeni M. I. Kalinin, Acad Sci USSR

"Study of Polymers. III On the technique of the mechanical testing of soft and hard rubber and plastics."

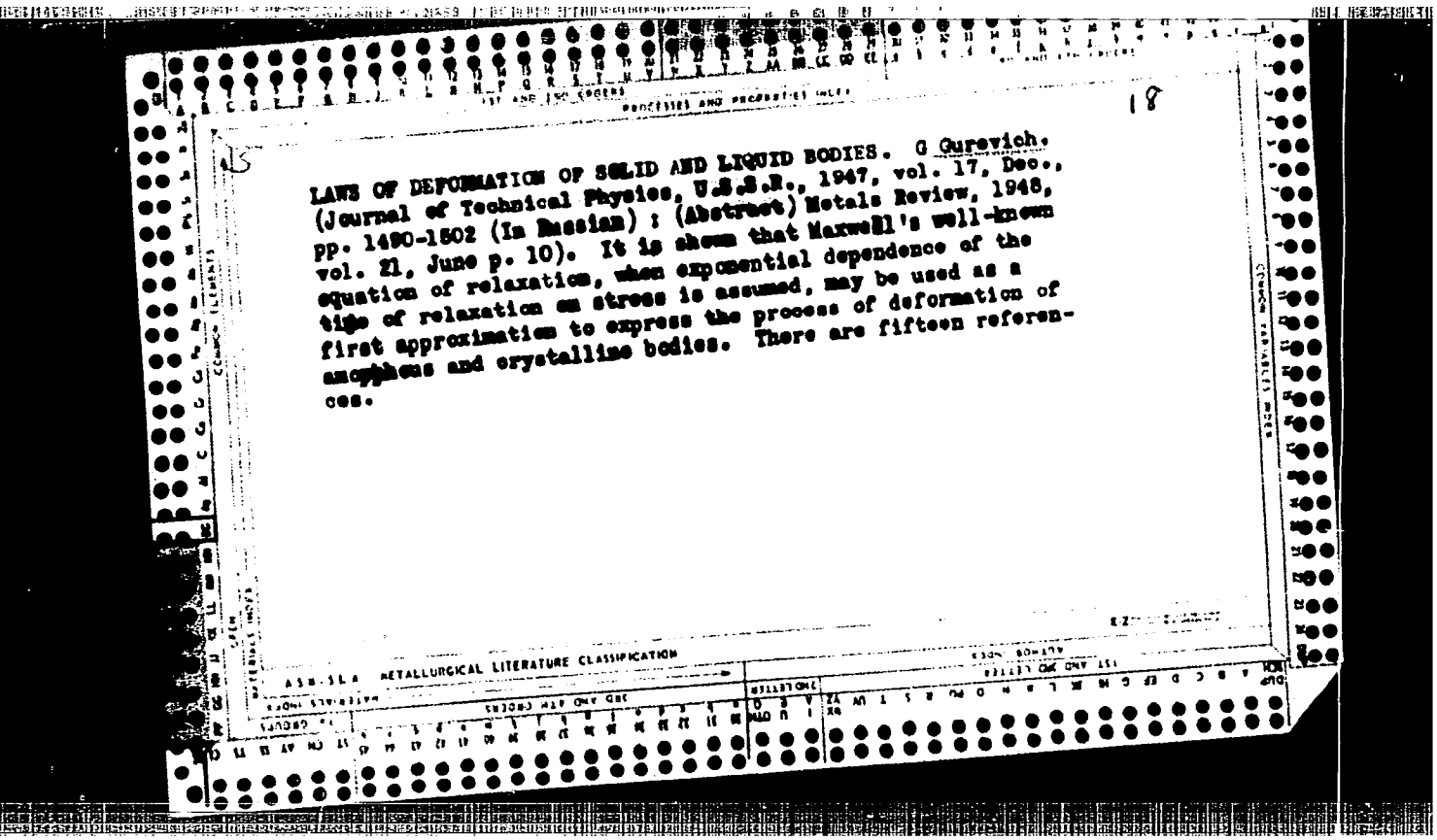
SOURCE: Acta Phys Vol 12, No 5, 1940

GUREVICH, G. I.

"The Deformation Law of Solids and Liquids." Sub 29 May 47, Moscow Order of Lenin State U imeni M. V. Lomonosov Candidate Physico-Math. Sci.

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55



LAWS OF DEFORMATION OF SOLID AND LIQUID BODIES. G Gurevich. (Journal of Technical Physics, U.S.S.R., 1947, vol. 17, Dec., pp. 1490-1502 (In Russian) ; (Abstract) Metals Review, 1948, vol. 21, June p. 10). It is shown that Maxwell's well-known equation of relaxation, when exponential dependence of the time of relaxation on stress is assumed, may be used as a first approximation to express the process of deformation of amorphous and crystalline bodies. There are fifteen references.

GUREVICH, G.

Feb 1947

USSR/Deformation
Stress analysis

"The Law of Deformation of Amorphous and Polycrystalline Bodies," G. Gurevich, 4 pp

"CR Acad Sci" Vol LV, No 6

Study of the general law of deformation as a reason for variations found in the stress-strain curves obtained in testing rigid materials.

8T35

SHADURSKIY, K.S., prof.; GUREVICH, G.I., kand.med.nauk

Effect of iprazid on resistance to hypoxemia in mice. Zdrav. Bel. 7 no.8:36-37 Ag '61. (MIRA 15:2)
(IPRONIAZID) (ANOXEMIA)

PA 23T61

GUREVICH, G. I.

USSR/Engineering
Induction Heating
Heating - Electric Units

Apr 1947

"Induction Heating During Assembly and Operation of Electric Equipment," G. I. Gurevich, V. V. Mikheyev, Southern Electric Assembly Factory, Dnepropetrovsk, 1 p

"Promyshlennaya Energetika" Vol IV, No 4

Discusses the induction circuit for penetration of wooden parts and heating of cable masses, as well as the drying of wooden baffle plates and containers for oil-filled breaking switches.

23T61

1. GUREVICH, G.I.

2. USSR (600)

4. Drilling and Boring Machinery

7. Incorrect connection of an electric drill, Eng. Rab. energ. 3 no. 3, 1953.

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

GUREVICH, G.I., inzhener.

Electric welding of bars and cables with alternating current.
Elek.sta. 25 no.8:51-52 Ag '54. (MLRA 7:9)
(Electric welding) (Electric cables)

GUREVICH, G. I

AID P - 1970

Subject : USSR/Engineering

Card 1/1 Pub. 29 - 19/25

Author : Gurevich, G. I., Eng.

Title : Metal disc for cutting aceit plates

Periodical : Energetik, 4, 31, Ap 1955

Abstract : The author suggests replacing the corundum discs used to cut aceit insulating plates by metal discs. The corundum discs easily break and are non-economical, while metal discs are much more reliable.

Institution: None

Submitted : No date

GUREVICH, Gedaliy Il'ich; KOFMAN, K.D., redaktor; MEDVEDEV, L.Ya., tekhnicheskiy redaktor

[Organization of electric installation work in the construction of industrial enterprises] Organizatsiia elektromontazhnykh rabot na stroitel'stve promyshlennykh predpriiatii. Moskva, Gos. energ. izd-vo, 1957. 215 p. (MIRA 10:9)
(Electric engineering)

GUREVICH, G.I., inzhener.

Activating electric installation work. Prom. energ. 12 no.4:32-33 Ap '57. (MLRA 10:5)

1. Dneprpetrovskoye montazhnoye upravleniye "Yuzhelektromontazh". (Electric engineering)

GUREVICH, Gedaliy Il'ich; KOFMAN, K.D., red.; LARIONOV, G.Ye., tekhn.red.

[Organization of electric-wiring operations in constructing industrial buildings] Organizatsiia elektromontazhnykh rabot na stroitel'stve promyshlennykh predpriiatii. Izd.2., perer. Moskva, Gos.energ.izd-vo, 1960. 271 p. (MIRA 14:1)

(Electric wiring) (Industrial buildings)

GUREVICH, Gedeliy Il'ich; NEMCHUNOVA, O., red.; GORKAVENKO, L., tekhn.red.

[Installation, repair, and operation of electric equipment in metallurgical enterprises] Montazh, remont i ekspluatatsiia elektrooborudovaniia metallurgicheskikh predpriiatii. Kiev, Gos.izd-vo tekhn.lit-ry USSR, 1960. 327 p.

(MIRA 13:12)

(Metallurgical plants--Electric equipment)

USSR/Geophysics - Geodynamics

Card 1/1

Author : Gurevich, G. I.

Title : So-called "mechanical analysis" in geological literature

Periodical : Izv. AN SSSR, Ser. geofiz. 3, 264-279, May/Jun 1954

Abstract : Resume of a report read by the author at a joint seminar of the Division of Physics of the Earth and the Division of Geodynamics, Geophysics Institute, Acad Sci USSR. Treats methods for the application to geology of the Jacobi principles of mechanics, found in the literature of American tectonists over the past 60 years and having obtained wide-spread currency in other countries, including the USSR. Shows that the noncritical following of these "methods" in Soviet geological literature has led to deep-rooted absurdities of no theoretical or practical use. 21 references-16 Soviet.

Institution : Geophysics Institute, Acad Sci USSR

Submitted : June 17, 1953

GUREVICH, G. I.
USSR/Geophysics - Criticism

FD-763

Card 1/1 : Pub 44-11/11

Author : Gurevich, G. I.

Title : Letter to the editor

Periodical : Izv. AN SSSR, Ser. geofiz., 496, Sep-Oct 1954

Abstract : States that the editorial comment prefacing his article "So-called mechanical analysis," in issue No. 3 (1954) was incorrect. The comment asserted that the author ascribes to Soviet geologists "conscious objection of researchers to utilize methods of physics and mechanics."

Instituion : --

Submitted : --

GUREVICH, G. I.

USSR/Geophysics - Tectonic block formation FD-755

Card 1/1 : Pub 44-3/11

Author : Gurevich, G. I.

Title : Problem of the mechanism governing the division of rock strata into blocks

Periodical : Izv. AN SSSR, Ser. geofiz., 411-414, Sep-Oct 1954

Abstract : Studies the fundamental factors that condition the possibilty of a hard lamina breaking up into separate blocks where the lamina is compressed between two layers of plastically deformable material. Two references: V. V. Belousov and A. A. Sorskiy, both in Trudy Geofizicheskogo instituta (1952).

Institution : Geophysics Institute, Acad. Sci. USSR

Submitted : July 18, 1953

SOV/124-58-3-3297

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 3, p 108 (USSR)

AUTHOR: Gurevich, G. I.

TITLE: On the "Mechanical Analysis of Problems of Tectonics" in Its Traditional Exposition (Survey of Textbooks on Structural Geology) (O "Mekhanicheskom analize voprosov tektoniki" v yego traditsionnom izlozhenii. [Obzor rukovodstv po strukturnoy geologii])

PERIODICAL: Tr. Geofiz. in-ta AN SSSR, 1955, Nr 31, pp 3-106

ABSTRACT: An extensive critical review of the methods of the application, in geological literature, of physical and mechanical information used as the basis of "mechanical analysis" of the deformation of the earth's crust. The survey comprises 8 chapters: 1. Typical Samples of the Presentation of "Fundamentals of Mechanics" in Geological Literature. 2. The "Ellipsoid of Deformation" by "G. Bekker". 3. Utilization of Experimental Data in Geology and the "Bukher" "Theory". 4. "Mechanical Analysis" and Real Fundamentals of Tectonics. 5. Deformation of Earth's Crust and Deformation of a Cube. 6. "Physical" Fundamentals of "Mechanical Analysis".

Card 1/2

SOV/124-58-3-3297

On the "Mechanical Analysis of Problems of Tectonics" (cont.)

7. Textbooks of Recent Years. 8. On the So-called "Stress Hypothesis". Convincingly albeit too protractedly it is shown that gross distortions of the fundamental concepts of mechanics and errors committed in books on structural geology render the respective chapters worthless and unapplicable. Some considerations are presented concerning ways of utilizing the mechanics of a deformed body in the problems of tectonics.

G. Yu. Dzhanelidze

Card 2/2

SOV/124-58-1-1034

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 136 (USSR)

AUTHOR: Gurevich, G. I.

TITLE: On the Nature of Slow Earth Movements Related to Earthquakes (K voprosu o prirode medlennykh dvizheniy, svyazannykh s zemletryaseniyami)

PERIODICAL: Tr. Geofiz. in-ta AN SSSR, 1955, Nr 31, pp 135-154

ABSTRACT: Bibliographic entry

Card 1/1

GUREVICH, G. I.

USSR/Physics of the Earth - Seismology, O-3

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36380

Author: Gurevich, G. I.

Institution: Institute of the Physics of the Earth, Academy of Sciences USSR, Moscow

Title: On the Problem of the Physical Foundations of the Theory of Propagation of Elastic Waves

Original Periodical: Tr. Geofiz. in-ta AN SSSR, 1955, No 30, 314-348

Abstract: The equations of propagation of waves in a nonideal elastic medium are obtained in most cases by introducing into the generalized Hooke's law additional "elastic stresses" proportional to the velocity of the deformation. Thus the connection between the tangent stresses σ_{12} and the shear deformation ε_{12} are written in the form $\sigma_{12} = \mu\varepsilon_{12} + \mu' \frac{d\varepsilon_{12}}{dt}$ (1)

(μ is the shear modulus and μ' the coefficient of "internal

Card 1/5

USSR/Physics of the Earth - Seismology, 0-3

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36380

Abstract: friction"). However equations of type (1) have no physical meaning. For example at $\frac{d\varepsilon_{12}}{dt} = \text{const} = V$ it follows from (1) that for the instant $t = 0$ we have $\varepsilon_{12} = 0$ and $\sigma_{12} = \mu' V$, i.e., the results that the stress occurs in the undeformed volume element. Equations of type (1) are suitable only for the description of attenuation such as is caused by the resistance of the surrounding medium, but does not follow from the deformation mechanism itself. In a real body, the stresses are smaller (owing to their relaxation) than in an ideally elastic medium. This is taken into account by the equations of B. Deryagin (Zh. geofiziki, 1931, 1, 207; 1932, 2, 337), in which the 2 components of stress are connected by a minus sign, which is equivalent to representing the strain in the form of a sum (and not a difference) of its elastic and inelastic components. The author starts from the same concept, indicating that in the most general case it is characterized by the known Maxwell relaxation equation, which can be supplemented by an analysis of not only the elastic (Hooke) and residual deformation, but also by the deformation of the elastic aftereffect. According to preceding works by the author

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Abstract: (Zh. tekhn. fiziki, 1947, 17, 1491; Tr. Geofiz. in-ta AN SSSR, 1953, No 21 (148); 1955, No 31 (158)), an exponential relationship exists between the time of relaxation T and the voltage, which when taken into account in the Maxwell equation describes in basic outlines the mechanical properties of a homogeneous isotropic body over the entire range of its state, from the solid to the liquid. If the stresses occurring during the vibrations are small, T can be assumed constant and the equations of the oscillations reduced to

$$\frac{\partial}{\partial t}\left[(\lambda+\mu)\frac{\partial\theta}{\partial x}+\mu\nabla^2 u\right]=\rho\frac{\partial^3 u}{\partial t^3}+\frac{\rho}{T}\frac{\partial^2 u}{\partial t^2}-\frac{k}{T}\frac{\partial\theta}{\partial x} \qquad (2)$$

with analogous expressions for the 2 other components of the displacement (they can be obtained also as a particular case of the relationships, derived by Ya. Frenkel' and Yu. Obraztsov (Zh. eksperim. i teor. fiziki, 1939, 9, 1081). In the case of plane longitudinal waves, equation (2) yields

$$\frac{\partial}{\partial t}\left[(\lambda+2\mu)\frac{\partial^2 u}{\partial x^2}\right]=\rho\frac{\partial^3 u}{\partial t^3}+\frac{\rho}{T}\frac{\partial^2 u}{\partial t^2}-\frac{k}{T}\frac{\partial^2 u}{\partial x^2} \qquad (3)$$

which as T approaches zero (Pascal liquid) gives the same velocity of longitudinal wave $\sqrt{k/\rho}$ as the ideal liquid; in the other limiting

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Abstract: case, when T approaches infinite (ideally-elastic body) the velocity of the longitudinal wave is $\sqrt{\frac{\lambda+2\mu}{\rho}}$. For all the states of the body, the transverse waves propagate with a velocity $c_3 = \sqrt{\mu/\rho}$. In a medium close to the ideally-elastic one, the transverse waves attenuate somewhat faster than the longitudinal waves, and the longer waves length have a smaller phase velocity. As T diminishes, the attentuation of the longitudinal wave first increases, but then diminishes. This can be used to explain the "absence" of longitudinal waves and the presence of longitudinal waves in the core of the earth. Using as an example the deformation of a rod with constant speed of increase in stresses, it is shown that allowance for the dependence of T on the voltage makes it possible to explain the sharp increase in the logarithmic decrement of the attenuation δ with the increasing amplitude of oscillations at a given frequency (a phenomenon observed during the investigation of mechanical oscillations in solids), and also the practical independence of δ on the frequency at large stresses. Based on equations (2) one considers a change in the wave form of the plane transverse wave with time

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