BERESTNEVA, G.L.; BURSHTEYN, L.L.; KOZLOV, P.V.; MIKHAYLOV, G.P.; NORDBEK, K.Ye.

Effect of stretching on the structure and properties of polyethylene terephthalate films. Part 3: Dielectric losses of plane-oriented films. Vysokom. soed. 2 no. 11:1739-1743 N '60. (MIRA 13:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy kino-fotoinstitut i Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Terephthalic acid) (Films (Chemistry))

NORDBERG, A., kand.med.nauk (Tallin)

Development of the rural public health system in the Estonian S.S.R. during the period 1940-1960. Sov.zdrav. 19 no.12:7-11 '60. (MIRA 14:3)

(ESTONIA--PUBLIC HEALTH, RURAL)

PANOV, Yu.N.; NORDBEK, K.Ye.; FRENKEL', S.Ya.

Selective interaction in polymer chains. Part 3: Fluctuational amorphous network in solution of polymers capable of interchain hydrogen bonding. Vysokom. soed. 6 no.1:47-51 Ja'64.
(MIRA 17:5)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

L 29145-66 EWT(1)/FCC GW

ACC NR: AP6018679 SOURCE CODE: UR/0050/65/000/009/0020/0026

AUTHOR: Vetlov, I. P. (Candidate of physicomathematical sciences); Gayevskiy, V. L. (Candidate of physicomathematical sciences); Ter-Markaryants, N. Ye. (Candidate of physicomathematical sciences); Guseva, L. N.; Dombkovskaya, Ye. P.; Kondrat'yev, K. Ya. (Professor); Nordberg, V. (Doctor; USA)

66
B

ORG: Main Geophysical Observatory (Glavnaya geofizicheskaya observatoriya); Leningrad State University (Leningradskiy gosudarstvennyy universitet); World Meteorological Center (Mirovoy meteorologicheskiy tsentr)

TITLE: Experience in analyzing the infrared image of cloud cover obtained by the meteorological satellite Nimbus I

SOURCE: Meteorologiya i gidrologiya, no. 9, 1965, 20-26

TOPIC TAGS: meteorologic satellite, cloud cover, satellite data analysis, satellite photography, IR photography

ABSTRACT: This article presents the results of a comparative analysis of ordinary meteorological data and data on cloud cover obtained using the satellite Nimbus I. The article is accompanied by reproductions of two Nimbus infrared cloud images obtained at midnight on 2 and 6 September 1964 over the Soviet Union. Much of the information is such as contained in recent articles on the Nimbus photos published in the American press, but of course the photographs are compared with Soviet meteoro-

Card 1/2 UDC: 551.576:551.507.362.2

L 29145-66
ACC NR: AP6018679

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logical data for the photographed area. It was found that the principal difficulties involved in recognition of the character of cloud cover from the photographs is that they show only relatively large details and the smaller details, often important in interpretation, cannot be seen. The following tentative conclusions are drawn: 1. The infrared image obtained from a satellite gives a more complete and informative picture of cloud cover distribution than a synoptic map. The photographs, even for a region with a dense network of meteorological stations, make it possible to refine the distribution of cloud cover over the earth's surface. 2. In some cases data on the radiation balance can be used to aid interpretation of satellite observations. Orig. art. has: 3 figures and 1 table. [JPRS]

SUB CODE: 04, 22, 14 / SUBM DATE: 23Apr65

Card 2/2 cc

NORDEGA, I.G.

USSR/ Geography - Book review

Card 1/1 Pub. 46 - 15/19

Authors : Nordega, I. G.

Title : Geomorphological cartography

Periodical : Izv. AN SSSR. Ser. geol. 5, 158 - 160, Sep - Oct 1954

Abstract : A review is made of the book, "Geomorphological Cartography," by A. I. Spiridinov, published by the State Publishing Office for Geographic Literature, and containing 185 pages. The book explains the principles of making maps which show the relief characteristics of the earth's surface. It is generally highly rated but some shortcomings are found, such as the absence of detailed classification of geomorphological maps.

Institution: .....

Submitted: November 9 1953

NORDEGA, I.G.

The last trip of G.E.Grumm-Grzhimailo to Siberia. Vop.geog. no.35: 309-310 '54. (MLRA 7:12)
(Grumm-Grzhimailo, Grigorii Efimovich, 1860-1936)
(Tuva Autonomous Province--Description and travel)

MERLIN, V.S.; MARTYNOV, D.Ya., otvetstvennyy redaktor; MARKOV, M.V., professor, redaktor; SHAFUGULLIN, A.G., professor, redaktor; ARBUZOV, B.A., professor, redaktor; DYUKOV, I.A., professor, redaktor; [redacted], professor, redaktor; PISAREV, V.I., professor, redaktor; [redacted], Ye. I., professor, redaktor; ABDRAKHMANOV, M.I., dotsent, redaktor; MOROZOV, D.G., dotsent, redaktor; KHARITONOV, A.P., dotsent, redaktor; KOLOBOV, N.V., redaktor; KOLESNIKOVA, Ye.A., starshiy prepodavatel', redaktor; ROZHDESTVENSKIY, B.P., dotsent, redaktor.

[Peculiarity of conditioned reactions in the structure of a voluntary act] Svoeobrazie uslovnykh reaktsii v strukture volevogo akta. Kazan', 1953. 123 p. (Kazan. Universitet. Uchenye zapiski, vol.113, no.3) (MIRA 10:3)

1. Rektor universiteta (for Martynov); 2. Prorektor po nauchnoy rabote (for Markov). 3. Prorektor po uchebnoy rabote (for Shafugullin). 4. Sekretar' partbyuro universiteta (for Kolobov)
(CONDITIONED RESPONSE) (WILL)

NORDEN, A.P.

Sur l'inclusion des theories metriques et affines des surfaces dans la geometrie des systemes specifiques. C.R. Acad. Sci., 192 (1931), 135-137.
Die relative Geometrie der Flachen im projektiven Raume. Trudy semin. Po vektorn. i tenzorn. analizu, 2-3 (1935), 230-268.

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

NORDEN, A.P.

A certain class of minimal surfaces of a four-dimensional space. Izv. vys.ucheb. zav.; mat. no.3:91-97 '62. (MIRA 15:9)

1. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova-Lenina.
(Surfaces, Minimal)

NORDEN, A.P. Continued

O parakh copryazhennykh parallel'nykh pereneseniy. L., Trudy vtorogo Vsesoyuzn. matem. s"ezda, T. II (1936), 75-77.
Uber paare konjugierter Parallelubertragung. Trudy semin. Po vektorn. i tenzorn. analizu, 4 (1937), 205-255.
Ob osobennykh Geodezicheskikh setyakh v neme tricheskoy geometrii. Trudy semin. po vektorn. i tenzorn. analizu, 5 (1941), 226-245.
O proyektivno-evklidovom prostranstve Veylya. DAN, 48 (1945), 327-328.
Afinnaya svyaznost' na poverkhnostyakh proyektivnogo i konformnogo prostranstv. DAN, 48 (1945), 467-569.
O parakh sopryazhennykh parallel'nykh pereneseniy v mnogomernykh prostranstvakh. DAN, 49 (1945), 649-652.
Konformno-evklidovo prostranstvo Veylya. DAN, 50 (1945), 53-56.
Ob istolkovanii prostranstva s vyrozhdayushcheysya metrikoy. DAN, 50 (1945), 57-60.
Ob invariantakh sopryazhennykh setey. DAN, 53 (1946), 499-502.
Prostranstvo afinnoy svyaznosti, dopuskayushcheye drobno-lineynyy integral geodezicheskikh Matem. sb., 18 (60), (1946), 125-138.

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

NORDEN, A.P.

Mathematical Reviews
Vol. 14 No. 7
July - August 1953
Geometry

Norden, A. P. The conformal Euclidean space of Weyl. Doklady Akad. Nauk SSSR (N.S.) 50, 53–55 (1945). (Russian)

A normalized W_n is a conformal Möbius space M_n with a correspondence between pairs of points. The geometry of such spaces has been investigated by Norden and his colleagues during the past seven or eight years [Mat. Sbornik N.S. 70(62), 263–281 (1917); Doklady Akad. Nauk SSSR (N.S.) 61, 207–210 (1948); these Rev. 9, 67; 10, 67]. The present paper (note the date) deals with the intrinsic affine connection that may be introduced in such a space and with proving that every conformal euclidean Weyl space may be interpreted as a W_n. *M. S. Knebelman.*

NORDEN, A. P.

Mathematical Reviews
Vol. 14 No. 7
July - August 1953
Geometry

8-10-54
LL

Norden, A. P. The conformal Euclidean space of Weyl. Doklady Akad. Nauk SSSR (N.S.) 50, 53-55 (1945). (Russian)

A normalized W_n is a conformal Möbius space M_n with a correspondence between pairs of points. The geometry of such spaces has been investigated by Norden and his colleagues during the past seven or eight years [Mat. Sbornik N.S. 20(62), 263-281 (1947); Doklady Akad. Nauk SSSR (N.S.) 61, 207-210 (1948); these Rev. 9, 67; 10, 67]. The present paper (note the date) deals with the intrinsic affine connection that may be introduced in such a space and with proving that every conformal euclidean Weyl space may be interpreted as a W_n. M. S. Knebelman.

(U) math 3

NORDEN, A. PA 21T65

USSR/Mathematics - Geometry, Differential Sep 1946
Mathematics - Representation, Conformal

"On Conformally-Geodesic Families of Lines in a Plane," A Norden, 3 pp

"Comptes Rendus (Doklady)" Vol LIII, No 7

Mathematical demonstration of subject

21T65

KORDEN, A.P. Continued

Proyektivno-evklidova geometriya veylya,. Matem. sb., 18 (60), (1946), 153-167.
Po povodu rasshireniya tablits. Izv.

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

Norden, A P

PA 21T54

[redacted]/Mathematics - Group Theory Jan 1947
Mathematics - Transformations

"Inner Geometry of Surfaces of Areas of Bi-axial Groups," A P Norden, 3 pp

"Dok Ak Nauk SSSR" Vol LV, No 3

Submitted by A N Kolmogorov 17 Jul 46. Mathematical discussion of the fundamental group in which the subgroup of projected transformations isomorphicly transfer in themselves linear congruences of the elliptical type.

21T54

NORDEN, A. PA 8T25

USSR/Mathematics Feb 1947

"The Affine Connection on the Surfaces of Projective Space," A. Norden, 20 pp

"Matemati Sbor" Vol XX, No 2

Existence of a geometry of affine symmetrical connection for each normalized surface or of an intrinsic geometry of the normalized surface.

8T25

NORDEN, A. P.

27576. O vnutrennikh geometriyakh poverkhnostey proektivnogo prostranstva. Trudy seminara po vektornomu i tenezrnomu analizu s ikh prilozheniyami k geometrii, mekhanike, i fizike. Vyp. 7. M-L, 1949, s. 31-[illegible]-okonchaniye. Nachalo: Vyp. 6, 1948.

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

NORDEN, A. P.

Surfaces

Intrinsic geometries of surfaces of a projective space. Part 1. Trudy Sem. po. vect. i tenz. anal. No. 6, 1948.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

article, "The Theory of a Complex Manifold," Vagner constructs a general theory of objects, which turns out to be a generalization of affinor analysis, and determines the operation of the absolute total differentiation, which is important to the applications of variational calculus, for the field of any local differential object. In his second article, "The Geometry of a Space with a Hyperareal Metric as the Theory of a Field of Local Hypersurfaces in a Complex Manifold," Vagner gives the construction of a geometry of a space with hyperareal metric in such a manner that its immediate application to a geometric interpretation of the corresponding variational problem is possible. In his last article, "Theory of a Field of Local Hyperstrips", Vagner discusses the geometry of a regular m - 1 dimensional hyperstrip in an n-dimensional central affine space as well as the theory of a field of local regular m - 1 dimensional hyperstrips in X_n and the application of this theory to rigid mechanical systems with nonlinear connections. The following persons submitted reports to the Seminar which are not contained in the book: A. P. Norden, V.F. Kagan, D.L. Pikus, N.N. Yanenko, B.A. Rozenfel'd, P.K. Rashevskiy, Ya.S. Dubnov, V.V. Vagner, I.M. Yaglom, A.Ye. Levashev, V.N. Skrydlov, D.P. Polozkov, M.G. Freydina, N.A. Meller, G.B. Gurevich, A.M. Lopshits, N.V. Yefimov, I.P. Yegorov, and Yu.A. Surinov.

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Transactions of the Seminar (Cont.) SOV/1964

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SOV/1964

Transactions of the Seminar (Cont.)

AVAILABLE: Library of Congress

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Card 5/5

USSR/Mathematics - Theory of Surface Mar/Apr 50
Euclidean Space

"Normalized Surfaces of a Conformal Space," A. P. Norden, Physicotech Inst, Kazan Affiliate, Acad Sci USSR, 18 pp

PA 156T57

"Iz Ak Nauk SSSR, Ser Matemat" Vol XIV, No 2

Presents theory of surfaces of conformal Mobius space assuming that to each point of the surface there is associated a region normal to it. Therefore, Weil's internal affine connectivity is determined on the surface. Partial cases lead to results from conformal

156T57

USSR/Mathematics - Theory of Surface (Contd) Mar/Apr 50

theory of surfaces and geometry of surfaces in a Euclidean space and spaces of constant curvature. Submitted by Acad A. N. Kolmogorov 19 Feb 48.

156T57

NORDEN, A. P.

1. NORDEN, A. P.

2. USSR (600)

4. Physics and Mathematics

7. Spaces of Affine Connection, A. P. Norden. (Moscow-Leningrad, State Technical Press, 1950). Reviewed by P. K. Rashevskiy, Sov. Kniga, No. 4, 1951.

9. FDD Report U-3081, 16 Jan. 1953. Unclassified.

NORDEN, A.P.

168T54

USSR/Mathematics - Non-Euclidean Geometry May/Jun 51

"125 Years of Non-Euclidean Geometry," A. P. Norden

"Uspekh Matemat Nauk" Vol VI, No 3 (43), pp 3-30

Report read 24 Feb 51 at the triumphal session of the Sci Soviet of the Kazan' State U imeni Ul'yanov-Lenin, Inst of Math and Mech imeni Chebotarev, and Kazan' Physicomath Soc, in connection with the 125th year of the discovery of non-Euclidean geometry by N. I. Lobachevskiy. Two other reports were also read at this session: "Life and Deeds of N. I. Lobachevskiy," by B. L. Laptev, and "The Philosophy of Lobachevskiy," by G. F. Rybkin (pp 10-17 and 18-30 resp). 168T54

NORDEN, A.P.

Mathematical Reviews
Vol. 15 No. 1
Jan. 1954
Geometry

Norden, A. P. On an interpretation of the complex [illegible]. Sto dvadcat' pyat' let neevklidovoĭ geometrii Lobačevskogo, 1826–1951 [One hundred and twenty-five years of the non-Euclidean geometry of Lobačevskiĭ, 1826–1951], pp. 187–194. Gosudarstv. Izdat. Tehn.-Teor. Lit., Moscow-Leningrad, 1952. 7.60 rubles.

Considered is a four-space B_4 whose underlying group is that subgroup of the affine group which preserves two imaginary conjugate lines at infinity. Such a space is called biaffine. The totality of all directions at a point is a projective space P_3 in which two (absolute) imaginary lines are fixed; such a space is called biaxial and has been in-

vestigated by the author in Mat. Sbornik N.S. 24(66), 429–455 (1949) [these Rev. 11, 135]. In such a P_4 there are lines which intersect the absolute lines; they are called singular. Correspondingly, through every point of B_4 pass singular planes; such a plane contains two "conjugate" vectors. The group of biaffine motions (transformations of the biaffine group) is isomorphic with the group of affine transformations of the complex plane A_4. The biaxial angular metric in P_4 is given by a tensor G_i^j for which $G_k^i G_j^k = -\delta_j^i$, $G_k^k = 0$, and the correspondence of vectors in B_4 is characterised by $\bar{v}^i = G_k^i v^k$. If a mapping of B_4 on itself which preserves G_i^j is called biconformal, then, in terms of an appropriate coordinate system, such a biconformal transformation $y^i = y^i(x^1, x^2, x^3, x^4)$ satisfies the equation $y_i^p G_p^j = y_p^j G_i^p$ and can be written $y_1^1 = y_2^2$, $y_2^1 = -y_1^2$, $y_3^2 = y_1^4$, $y_1^3 = -y_2^4$, $y_3^3 = y_4^4$, $y_4^3 = -y_3^4$, $y_3^1 = y_4^2$, $y_4^1 = -y_3^2$, where $y_i^j = \partial y^j / \partial x^i$, $i, j, k, p = 1, 2, 3, 4$. Hence the functions of A_4

$$y^1 + iy^2 = \varphi(x^1 + ix^2, x^3 + ix^4)$$

$$y^3 + iy^4 = \psi(x^1 + ix^2, x^3 + ix^4)$$

are analytic.

An outline is given of the theory of curves and of surfaces X_2 in B_4. The X_2 are singular if their tangent planes are singular; they correspond to analytical curves of A_4. The basic formula for non-singular surfaces can be written in the form

$$\nabla_\beta x_\alpha = \partial_\beta x_\alpha - G^\gamma_{\beta\alpha} x_\gamma = b^\gamma_{\beta\alpha} \bar{x}_\gamma, \quad \alpha, \beta, \gamma = 1, 2,$$

where $x_\alpha = \partial x / \partial u^\alpha$, $\bar{x}_\alpha = \partial \bar{x} / \partial u^\alpha$, x the radius vector, $\bar{x}$ its conjugate. The conditions $b^\gamma_{\beta\alpha}$ are such that the curvature tensor belonging to $\Gamma^\gamma_{\alpha\beta} = G^\gamma_{\alpha\beta} \pm i b^\gamma_{\alpha\beta}$ is zero. When for an X_2 $b^\alpha_{\alpha\beta} = 0$, then its tangent planes are pseudo-parallel, that is, the angle of their lines at infinity is zero.

D. J. Struik (Cambridge, Mass.).

1. NORDEN, A. P.

2. USSR (600)

4. Physics and Mathematics

7. Geometrical Constructions in a Lobachevskian Plane, N. M. Nostorovich. (Moscow-Leningrad, State Technical Press, 1951). Reviewed by A. P. Norden, Sov. Kniga, No. 6, 1952.

9. FDD Report U-3081, 16 Jan 1953, Unclassified.

NORDEN, A. P.

Mathematical Reviews
Vol. 14 No. 8
Sept. 1953
Geometry.

Norden, A. P. On polar normalization in a space with a degenerate absolute. Trudy Sem. Vektor. Tenzor. Analizu 9, 198–212 (1952). (Russian).

This is a continuation of the author's investigations of the past half a dozen years in the geometry of normalized spaces. An n-dimensional projective space with a hypersurface Q_{n-1} of the second order as absolute is normalized if with each point of a manifold X_k one associates two linear spaces P_{n-k} and P_{k-1}, the first having only this point in common with the tangent space P_k while the second is in P_k but does not contain the point. In order that this normalization be polar, P_{n-k} and P_{k-1} must be polar with respect to Q_{n-1}.

In the present paper one applies the principle of duality to the above using a hypersurface Q_{n-1} of the second class and the linear spaces P_{n-k} and P_{k-1} are replaced by pencils of hyperplanes Π_{n-k} and Π_{k-1}. If $\xi=\xi(u^1, \cdots, u^k)$ defines X_k and $\xi, \xi_1, \cdots, \xi_{n-k-1}$ together with ξ define Π_{n-k}, while $\eta_i=\partial_i\xi-l_i\xi$ define Π_{k-1}, then the $n+1$ hyperplanes are independent. If the absolute Q_{n-1} is defined by $a^{\alpha\beta}\eta_\alpha\eta_\beta=0$ and $\eta^\beta=a^{\alpha\beta}\eta_\alpha\xi_\beta$ then $\xi\eta_i=\xi_i\eta_i=0$. The further normalization of the vectors depends on whether X_k belongs to Q_{n-1} or does not (in the first case $\xi\xi=\pm1$, in the second, $\neq0$). In either case the construction of a metric depends on the order of degeneracy of the absolute, r, which is the number of independent hyperplanes satisfying $a^{\alpha\beta}\xi_\beta=0$. The intrinsic geometry of X_k in this case admits a metric g_{ij} such that $\nabla_k g_{ij}=2l_k g_{ij}$ and r independent vectors g^i such that $\nabla_k g^i=l_k g^i$, $g_{ij}g^i=0$. The non-degenerate case has non-zero curvature, while if $r=1$ the curvature is zero. The main result in this case is that the intrinsic geometry of X_k is that of Laguerre. *M. S. Knebelman* (Pullman, Wash.).

math 2 2

7-13-54 LL

USSR/Mathematics - Hypersurface, Conformal Space 21 Jan 52

"Invariant Construction of the Geometry of Hypersurface of Conformal Space," M. A. Akivis

"Dok Ak Nauk SSSR" Vol LXXXII, No 3, pp 325-328

Contains the invariative construction of the geometry of hypersurface of an n-dimensional space, which construction does not depend upon the "fitting out" of the surface as in A. P. Norden's works. Employs the method developed by G. F. Laptev, consisting of the application of the theory of

211T70

NORDEN, A. P.

representation of Lie groups and calcn of exterior differential forms in studies of subgroup manifolds. Submitted by Acad A. N. Kolmogorov 27 Nov 51.

211T70

NORDEN, A. P.

PA 234T82

USSR/Mathematics - Riemannian Space, 1 Sep 52
Tensors

"Correspondence Between Linear Surfaces and Curves in a Riemannian Space," A. P. Norden, N. Ye. Tsypkin, Kazan' State U imeni Lenin

"Dok Ak Nauk SSSR" Vol 86, No 1, pp 23-26

The manifold of straight lines whose Pluecker coordinates satisfy the linear eqs $v_{\alpha}x^{\alpha} = 0$ ($\alpha = 1, \ldots, 6$) is called a linear complex or screw v, and its 6 numbers are called its coordinates. Gives summary of results, in the form of

234T82

9 theorems, of an investigation into linear surfaces. Submitted by Acad S. L. Sobolev 4 Jul 52

234T82

NORDEN, A.P.

MADANOV, P.V.; MARTYNOV, D.Ya., otvetstvennyy redaktor; MARKOV, M.V., professor, redaktor; SHAFUGULLIN, A.G., professor, redaktor; ARBUZOV, B.A., akademik, redaktor; DYUKOV, I.A., professor, redaktor; NORDEN, A.P., professor, redaktor; PISAREV, V.I., professor, redaktor; TIKHVINSKAYA, Ye.I., professor, redaktor; ABDRAKHMANOV, M.I., dotsent, redaktor; MOROZOV, D.G., dotsent, redaktor; KHARITONOV, A.P., dotsent, redaktor; KOLOBOV, N.V., redaktor; KOLESNIKOVA, Ye.A., starshiy prepodavatel', redaktor; VINOKUROV, M.A., professor, redaktor.

[Biological accumulation of manganese in soils of the Volga-Kama forest-steppe and its availability to plants] Biologicheskaia akkumuliatsiia margantsa v pochvakh Volzhsk-Kamskoi lesostepi i ego dostupnost' sel'skokhoziaistvennym rasteniiam. Kazan', 1953. 202 p. (Kazan. Universitet. Uchenye zapiski, vol.113, no.7) (MIRA 10:3)

1. Rektor universiteta (for Martynov). 2. Prorektor po nauchnoy rabote (for Markov). 3. Prorektor po uchebnoy rabote (for Shafugullin) 4. Sekretar' partbyuro universiteta (for Kolobev).

(Plants, Effect of manganese on)
(Volga Valley--Forest soils)

NORDEN, A.P

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 564 - I

BOOK Call No.: AF628310

Author: NORDEN, A. P.
Full Title: ELEMENTARY INTRODUCTION TO LOBACHEVSKIY'S GEOMETRY
Transliterated Title: Elementarnoye vvedeniye v geometriyu Lobachevskogo

PUBLISHING DATA
Originating Agency: None
Publishing House: State Publishing House of Technical and Theoretical Literature
Date: 1953 No. pp.: 248 No. of copies: 8,000
Editorial Staff
Editors: V. A. Solodkov, V. B. Orlov and A. Z. Ryvkin;
Contributor: S. A. Yanovskaya

PURPOSE: To explain the principles of Lobachevskiy's geometry to readers without knowledge of higher mathematics.

TEXT DATA
Coverage: In the preface, the author says that the book was inspired by the absence of an adequate presentation of non-Euclidean geometry and which does not introduce analytical and differential geometry. The text, nevertheless, gives a systematic and sufficiently precise presentation of the principles of Lobachevskiy's geometry. The introduction covers a short history of geometry in general and explains

1/2

NORDEN, A.P. (Kazan')

Geometry of biaxial and biaffine spaces. Uch.zap.Kaz.un. 115 no.10:12 '55. (MLRA 10:5)
(Geometry, Differential)

NORDEN, A.P.

YAGLOM, I.M.

Two new books about Lobachevski'sman-Euclidean geometry ("Elementary introduction to Lobachevski's geometry." A.P. Norden. "Summary of the noncontradictoriness proof in Lobachevski's planimetry." B.N.Delone. Reviewed by I.M. IAglom. Usp.mat.nauk. 10 no.1:233-236 '55 (MLRA 8:6)
(Geometry, Non-Euclidean) (Norden, A.P.)(Delone, Boris Nikolaevich, 1890-)

LOBACHEVSKIY, Nikolay Ivanovich; BRONSHTEYN, I.N.; NORDEN, A.P., redaktor; RIVKIN, A.Z., redaktor; MURASHOVA, N.Ya., tekhnicheskiy redaktor

[Three works on geometry: Geometry. Geometrical studies on the theory of parallel lines. Pangeometry] Tri sochineniia po geometrii: Geometriia. Geometricheskie issledovaniia po teorii parallel'nykh linii. Pangeometriia. Vstup. stat'ia A.P.Nordena. Primechaniia V.F. Kagana. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 415 p. (MLRA 9:7)
(Geometry)

Norden, A.P.

44-1-26

TRANSLATION FROM: Referativnyy zhurnal, Matematika, 1957, Nr 1, p 3 (USSR)

AUTHOR: Norden, A.P.

TITLE: Gauss and Lobachevskiy (Gauss i Lobachevskiy)

PERIODICAL: V sb.: Istoriko-Matem. issledovaniya. Nr 9, Moscow, Gostekhizdat, 1956, pp 145-168

ABSTRACT: A history of the change of Gauss' concepts on the foundations of geometry, traced by letters, a diary and random notes which have been preserved. A 25-year period of research passed before Gauss began to incline towards acknowledgement of the indemonstrability of the Euclidean parallel postulate (letter to Olbers in 1817). After Scheikart's notes in 1819, Gauss was completely confirmed in this judgment. At about this time he already understood the principles of non-Euclidean geometry, but he began to make notes of some of his ideas only in 1831, there being notes relating also to the forties. Gauss mastered the absolute theory of parallels, the concepts of coplanar lines and the boundary line, the concept of a boundary surface and its interior geometry, the theory of planes and the basic formulas of hyperbolic trigonometry. An outline of Gauss' reasoning in the last two problems is presented. A comparison

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Gauss and Lobachevskiy (Cont.)

is made of the degree of development of the non-Euclidean geometry of Gauss and of Lobachevskiy. The causes which compelled Gauss to decline publication of his ideas on the theory of parallels are analyzed.

B.L. Laptev

Card 2/2

NORDEN, A. P.

Call Nr: AF 1108825

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

Norden, A. P. (Kazan'). On the Geometric Interpretation of Certain Concepts of Spinor Analysis. 160

NEPRIMEROV, N.N.; SHARAGIN, A.G.; NUZHIN, M.T., prof., otv. red.; MARKOV, M.T., prof., zamestitel' otv. red.; KASHTANOV, S.G., prof., red.; ARBUZOV, B.A., akademik, red.; AL'TSHULER, S.A., prof., red.; LIVANOV, N.A., prof., red.; NORDEN, A.P., prof., red.; PISAREV, V.I., prof., red.; TIKHVINSKAYA, Ya.I., prof., red.; BARYSHNIKOV, V.G., dots., red.; KOLESNIKOVA, Ye.A., dots., red.; KOLOKOV, N.V., dots., red.; MOROZOV, D.G., dots., red.; KHARITONOV, A.P., dots., red.; YUDIN, I.N., red.; SAMITOV, Yu.Yu., red.

[Investigations of wells and development of preventive paraffin control methods] Issledovanie skvazhiny i razrabotka preventivnykh metodov bor'by s parafinom. Kazan' 1957. 108 p. (Kazan. Universitet. Uchenye zapiski, vol. 117, no.3). (MIRA 11:5)

1. Rektor Kazanskogo gosudarstvennogo universiteta (for Nushin). 2. Prorektor po nauchnoy rabote Kazanskogo gosudarstvennogo universiteta (for Markov). 3. Prorektor po uchebnoy rabote Kazanskogo gosudarstvennogo universiteta (for Kashtanov). 4. Sekretar' partkoma Kazanskogo gosudarstvennogo universiteta (for Yudin).
(Oil wells) (Petroleum engineering)

BLIASHKE, V. [Blaschke, Wilhelm, 1885-]; SHIROKOV, A.P. [translator]; NORDEN, A.P., red.

[Introduction to differential geometry] Vvedeniye v differentsial'-nuyu geometriyu. [Translated from the German] Perevod s nemetskogo A.P. Shirokova. Pod redaktsiyey A.P. Nordena. Moskva, Gos. izd-vo tekhn.-teoret. lit-ry, 1957. 223 p. (MIRA 12:1)
(Geometry, Differential)

NORDEN, A.P.

Paratactic congruence of a three-dimensional Riemann space.
Uch. zap. Kaz. un. 117 no.9:41-43 '57. (MIRA 13:1)

1.Kazanskiy gosudarstvennyy universitet im. V.I. Ul'yanova-Lenina.
Kafedra geometrii.
(Spaces, Generalized)

16(1) PHASE I BOOK EXPLOITATION SOV/2918

Norden, Aleksandr Petrovich

Kratkiy kurs differentsial'noy geometrii (Short Course in Differential Geometry) 2d ed. Moscow, Fizmatigiz, 1958. 244 p. 25,000 copies printed.

Ed.: I. N. Grigor'yev; Tech. Ed.: S. N. Akhlamov.

PURPOSE: This book is approved by the Ministry of Higher Education of the USSR as a textbook for students at universities and pedagogical institutes taking courses in the departments of mathematics and physical mathematics.

COVERAGE: This book is the second edition of the original which appeared in 1948. Some revisions, corrections, and additions have been made in the present edition. The book is an introductory textbook on differential geometry, in which the basic concepts of differential geometry are discussed. Among the topics covered are vector function of a scalar argument, curve

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Short Course in Differential (Cont.) SOV/2918

and tangent, length of an arc and the moving trihedral, natural equations of a curve, developable surfaces, surface and its linear element, curvature of a surface curve, unusual nets and curves on a surface, the intrinsic geometry of a surface, and parallel translation. No personalities are mentioned. There is no bibliography.

TABLE OF CONTENTS:

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Short Course in Differential (Cont.) SOV/2918

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AVAILABLE: Library of Congress (QA641.N59)

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LK/mmh
1-13-60

NORDEN, A.P

p.3

16(1) PHASE I BOOK EXPLOITATION SOV/1366

Istoriko-matematicheskiye issledovaniya, vyp. 11 (Research in Mathematical History, Nr 11) Moscow, Fizmatgiz, 1958. 792 p. 3,000 copies printed.

Eds. (Title page): Rybkin, G.F. and Yushkevich, A.P.; Ed. (Inside book): Konoplyankin, A.A.; Tech. Ed.: Murashova, N. Ya.

PURPOSE: This book is intended for mathematicians and others interested in the history of mathematics, and may serve as the basis for a suitable university text on the history of mathematics, thereby filling the most serious gap in Soviet mathematical literature.

COVERAGE: This book contains reports made by members of the section on the history of mathematics at the Third All-Union Mathematical Congress which discussed problems of the history of mathematics and various articles on the significance of the history of mathematics

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for mathematics itself and for the other sciences. There are also four articles on the history of mathematics in Czechoslovakia and Rumania, an article on the investigation of the algebraic roots of differential calculus in connection with a study of the mathematical writings of K. Marx, and an article on the work done on negative numbers by the Arabian mathematician, Abu-l-Wafa. A series of articles on various texts and documents connected with the history of mathematics, including a translation of the treatise De Configuratione Qualitatum by N. Oresme and two articles concerning it, concludes the book.

TABLE OF CONTENTS:

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MISCELLANEOUS ARTICLES

TEXTS AND DOCUMENTS

AVAILABLE: Library of Congress

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LK/mtl
5-4-59

AUTHOR: Norden, A.P. SOV/140-58-4-19/30

TITLE: On the Inner Geometry of Second Genus on the Hypersurface of the Affine Space (O vnutrenney geometrii 2-ogo roda na giperpoverkhnosti affinnogo prostranstva)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1958, Nr 4, pp 172-182 (USSR)

ABSTRACT: The present paper gives some partly not new completions of very special kind to the so-called conjugate normalisation and similar questions treated in the author's paper [Ref 1] on spaces of affine connection.
There are 5 Soviet references.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova-Lenina (Kazan' State University imeni V.I.Ul'yanov-Lenin)

SUBMITTED: March 31, 1958

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NORDEN, A.P. (Kazan')

Foundations of geometry according to N.I.Lobachevskii. Ist.-mat. issl. no.11:97-132 '58. (MIRA 12:1)
(Geometry)

NORDEN, A.P.

AUTHOR: NORDEN,A.P., ROZENFEL'D,B.A., YAGLOM,I.M. 42-1-10/13

TITLE: Petr Konstantinovich Rashevskiy (On the Occasion of his 50th Birthday) (Petr Konstantinovich Rashevskiy (k pyatidesyatiletiyu so dnya rozhdeniya))

PERIODICAL: Uspekhi Matematicheskikh Nauk, 1958,Vol.13,Nr.1,pp.225-231 (USSR)

ABSTRACT: The present paper contains a biographical sketch and a detailed representation of the scientific activity of the well-known Russian geometer who worked chiefly on generalized spaces of constant curvature. There is a list of publications with 58 numbers and a photo of Rashevskiy.

AVAILABLE: Library of Congress
Card 1/1 1. Biography 2. Scientific reports

SHIROKOV, Petr Alekseyevich, prof. [deceased]; SHIROKOV, Aleksandr Petrovich; NORDEN, A.P., red.; LAPKO, A.F., red.; YERMAKOVA, Ye.A., tekhn.red.

[Affine differential geometry] Affinnaia differentsial'naia geometriia. Pod red. A.P.Nordena. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 319 p. (MIRA 12:8)

1. Kazanskiy universitet (for P.A.Shirokov).
(Geometry, Differential)

Norden, A.P.

16(0) PHASE I BOOK EXPLOITATION SOV/3177

Matematika v SSSR za sorok let, 1917-1957. tom 1: Obzornyye stat'i (Mathematics in the USSR for Forty Years, 1917-1957). Vol 1: Review Articles) Moscow, Fizmatgiz, 1959. 1002 p. 5,500 copies printed.

Eds: A. G. Kurosh, (Chief Ed.), V. I. Bityutskov, V. G. Boltyanskiy, Ye. B. Dynkin, G. Ye. Shilova, and A. P. Yushkevich; Ed. (Inside book): A. F. Lapko; Tech. Ed.: S. N. Akhlamov.

PURPOSE: This book is intended for mathematicians and historians of mathematics interested in Soviet contributions to the field.

COVERAGE: This book is Volume I of a major 2-volume work on the history of Soviet mathematics. Volume I surveys the chief contributions made by Soviet mathematicians during the period 1917-1957; Volume II will contain a bibliography of major works since 1917 and biographic sketches of some of the leading mathematicians. This work follows the tradition set by two earlier works: Matematika v SSSR za pyatnadtsat' let (Mathematics in the USSR for 15 Years) and Matematika v SSSR za tridtsat' let (Mathematics in the USSR for 30 Years). The book is divided into the major divisions of the field, i.e., algebra, [illegible], theory of probabilities, functional analysis, etc., and contributions and outstanding problems in each [illegible] discussed. A listing of some 1400 Soviet mathematicians is included with references to their contributions in the field.

16(1)

AUTHOR: Norden, A.P.

SOV/140-59-1-15/25

TITLE: On the Complex Representation of Tensors of the Lorentz Space (O kompleksnom predstavlenii tenzorov prostranstva Lorentsa)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 1, pp 156-163 (USSR)

ABSTRACT: The author considers the relations between the biplanar (compare Shirokov [Ref 2]), complex-affine space and the Lorentz space. The relations are used in order to investigate the properties of such tensors of the Lorentz space which have the symmetry of the tensor of curvature. In essential the paper contains the same as [Ref 1]; only some passages are completed.
There are 4 references, 3 of which are Soviet, and 1 American.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova-Lenina (Kazan' State University imeni V.I.Ul'yanov-Lenin)

SUBMITTED: October 15, 1958

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16(1)

AUTHORS: Vishnevskiy, V.V., and Norden, A.P. SOV/140-59-2-17/30

TITLE: On the Complex Representation of the Invariants of a Four-Dimensional Riemannian Space (O kompleksnom predstavlenii invariantov chetyrekhmernogo rimanova prostranstva)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 2, pp 176-182 (USSR)

ABSTRACT: The complex representation of the tensors of the Riemannian space V_4 as it is described in the papers of A.P.Norden [Ref 1,2] is used in order to determine the base of a complete second order system of invariants for the V_4. The obtained results in essential are already contained in the papers of Geheniau and Debever [Ref 3] and P.I.Petrov [Ref 4]. The present paper, however, gives simpler and clearer formulations of the final results. The consideration is performed for a Riemannian space with the signature 2, but the given invariants remain independent for an arbitrary signature.
There are 4 references, 3 of which are Soviet, and 1 Belgian.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova-Lenina (Kazan' State University imeni V.I.Ul'yanov-Lenin)

SUBMITTED: January 17, 1959

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SAVELOV, Aleksey Aleksandrovich; NORDEN, A.P., prof., red.; LEVIN, Yu.I., red.; GAVRILOV, S.S., tekhn.red.

[Plane curves: systematization, properties, application; reference book] Ploskie krivye: sistematika, svoistva, primeneniia; spravochnoe rukovodstvo. Pod red. A.P.Nordena. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1960. 293 p. (MIRA 13:7)

(Curves, Plane)

85503

S/140/60/000/004/018/025 XX
C111/C222

16.5600
AUTHOR: Norden, A.P.

TITLE: On a Class of Four-Dimensional A-Spaces

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1960, No. 4, pp. 145 - 157

TEXT: According to (Ref. 1) an affinor which satisfies the condition

(1) $\gamma^i_k \gamma^k_j = \omega \delta^i_j$, i,j = 1,..., 2n ,

defines a biplanar biaxial for n = 2 geometry if there exists a certain canohical base. For $\omega = -1, +1$ or 0 one obtains the elliptic, hyperbolic and parabolic biplanar geometries. The tensor

(4) $b_{ij} = a_{ik} \gamma^k_j$

is called adjoint to the tensor a_{ik}. If a and b have certain properties of symmetry, then a is called an A,B,C or S-tensor according to the table :

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On a Class of Four-Dimensional A-Spaces

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a \ b	skew-symmetric	symmetric
skew-symmetric	A	C
symmetric	S	B

In the case n = 2 an A-tensor defines a line complex, an S-tensor defines a surface of second order $a_{ij}x^i x^j = 0$ which is denoted as a spheroid. A B-tensor defines a surface of second order which is denoted as a bicylinder. It is stated that to every B-tensor (resp. to every bicylinder) two A-tensors (resp. two line complexes) are adjoint which are denoted as accompanying ones. These complexes are autopolar with respect to the bicylinder. A Riemannian V_{2n} is denoted as a B-space if beside of the fundamental tensor

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NORDEN, A.P. (Kazan')

Spaces of a Cartesian composition. Izv. vys. ucheb. zav.; mat no.4:117-128 '63. (MIRA 16:10)

LAVROV, M.I.; NUZHIN, M.T., prof., otv.red.; MARKOV, M.V., prof., red.; DUBYAGO, A.D., prof., red.; ARBUZOV, A.Ye., akademik, red.; NORDEN, A.P., prof., red.; PIS'MEV, V.I., prof., red.; TIKHVINSKAIA, Ye.I., prof., red.; FARYSHNIKOV, V.G., dotsent red.; KOLESNIKOVA, Ye. A., dotsent, red.; KOLOBOV, N.V., starshiy prepodavatel', red.; MOROZOV, D.G., dotsent, red.;

[Some statistical regularities of variable stars and their physical interpretation]. Nekotorye statisticheskie zakonomerr ti u zatmennykh peremennykh zvezd i ikh fizicheskoe istolkovar'e. Kazan', 1955. 63 p. (Kazan. Universitet. Astronomicheskaia observatoriia. Biulleten', no. 31) (MIRA 15:10)

1. Rektor Kazanskogo ordena Trudovogo Krasnogo Znameni gosudarstvennogo universiteta im. V.I.Ul'yanova-Lenina (for Nuzhin). 2. Prorektor po nauchnoy rabote Kazanskogo ordena Trudovogo Krasnogo Znameni gosudarstvennogo universiteta im. V.I.Ul'yanova-Lenina (for Markov).

BUSHMANOVA, Galina Vladimirovna; NORDEN, Aleksandr Petrovich; SHIROKOV, A.P., nauchn. red.; MICHURINA, N.N., red.

[Introduction to conformal geometry] Vvedenie v konformnuiu geometriiu. Kazan', Izd-vo Kazanskogo univ., 1964. 92 p. (MIRA 18:5)

NORDEN, A.P.; SHAPUKOV, B.N.

Boris Lukich Laptev, on his 60th birthday. Izv. vys. ucheb. zav.; mat. no.2:201-202 '65. (MIRA 18:5)

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S/139/61/000/001/013/018
E073/E535

11.7300

AUTHORS: Podymov, V. N. and Norden, P. A.

TITLE: Changing of the Interval of Excitation in the Capillary of a Humming Flame

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1961, No.1, pp. 134-137

TEXT: A humming flame in which there is an acoustic link between the resonator tube and the feeding system has been dealt with by a number of authors. However, humming flames can also be obtained without an acoustic link between the pipe and the feeding system if a wick or long capillaries are used as burners. In this case the mechanism of maintaining oscillations based on interaction of standing waves is eliminated so that the possibility of formation and existence of oscillations in a system without acoustic links has to be explained on the basis of the combustion conditions. The results described in this paper were obtained for a system in which the burner was a metallic capillary, 400 mm long with an internal diameter of 0.7 mm, which was fixed to a glass tube filled to one-quarter with cotton wool. In such a system oscillations are generated well only by flames of pure gases of H_2, C_2H_2, C_2H_4

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(flames of CO and H_2S tear away from the burner). Even slight additions of air to the fuel will impede the formation of oscillations and a flame of a stoichiometric composition will not generate any oscillations at all. The position of the flame on the axis of the resonator tube is determined by the distance ℓ from the bottom of the tube to the end of the capillary, Fig.1 (1 - resonator tube, 2 - capillary, 3 - cotton wool, 4 - glass tube). The beginning of the excitation corresponds to ℓ_H, the stoppage of the oscillation corresponds to ℓ_K, whereby the difference $\ell_K - \ell_H = \Delta\ell$ represents the linear interval of excitation of oscillations in the tube, the magnitude of which for a given fuel depends on the length L and the diameter D of the resontor tube, on the flow rate per second of the fuel V and also on the additions of active or inert mixtures to the fuel. By creating suitable experimental conditions it can be achieved that $\Delta\ell$ will be a function of only one variable and thus it is possible to study separately the influence of each variable. All the experiments were made with glass tubes, using H_2 as fuel with fuel flow rates of 6 and 8 cm^3/sec; this was chosen in order to prevent disturbance of the

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sinusoidal character of the oscillations. During the experiments the following were determined: 1) the influence of the length of the tube L, cm on $\Delta\ell$, cm, the results of which are plotted in Fig.2, for a tube diameter of D = 15 mm (curve 1 - V = 6 cm^3/sec, curve 2 - V = 8 cm^3/sec); 2) the influence of the tube diameter D, cm on $\Delta\ell$, cm for V = 8 cm^3/sec, Fig.3 (curve 1 - L = 50 cm, curve 2 - L = 70 cm); 3) the influence of fuel consumption V, cm^3/sec on $\Delta\ell$, cm, Fig.4 (curve 1 - L = 37.4 cm, D = 12.5 mm, curve 2 - L = 59.5 cm, D - 12.5 mm, curve 3, L = 59.8 cm, D = 16.6 mm). In a capillary with a humming flame the fuel is fed in by force along one channel, whilst the air is drawn in by convection due to draught along another channel, the latter depends on the fuel consumption, the tube parameters etc. The fact that the oscillations are generated only after exceeding a certain minimum fuel consumption for the given tube size indicates that, as a result of interaction between the air flow and the flame, conditions are created under which the combustion is no longer stationary and vibrations set in. A further increase in the air speed, for instance, by increasing the length of the tube or the flame, may disturb the ratio between the

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speed of the flow and other factors which support vibration conditions, as a result of which the oscillations may cease. This was confirmed by experiments on tubes of D = 15 mm; it was found that in short tubes (30 to 40 cm), application of an artificial draught increased Δl by a factor of 1.6 to 1.3, after which oscillations ceased. In tubes 1.5 to 2 times as long, an increase in the draught shifted Δl only slightly upwards at first but then brought about a considerable decrease in Δl. Thereby, the base tone gave way to a second tone, after which the sound ceased completely. In tubes about 100 cm long Δl decreased only, right down to its full cessation. Since the convective air flow in the tubes play an important role from the point of view of the vibrations in the combustion, the conclusion can be drawn that in this case Δl is influenced by all the factors which affect the magnitude of the draught in the tube. However, it is conceivable that appearance or cessation of oscillations is not solely the result of changes in the speed of flow but also depends on processes responsible for feeding energy to the oscillating air column, i.e. Δl should depend on factors which influence the combustion of the diffusion flame: inert

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E073/E535

6r active additions, composition of the fuel etc. as confirmed by preliminary experiments. There are 4 figures and 7 references: 6 Soviet and 1 non-Soviet.

ASSOCIATION: Kazanskiy gosuniversitet imeni V. I. Ul'yanova-Lenina (Kazan State University imeni V.I.Ul'hanova-Lenin)

SUBMITTED: March 23, 1960

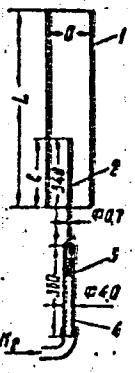

Fig.1

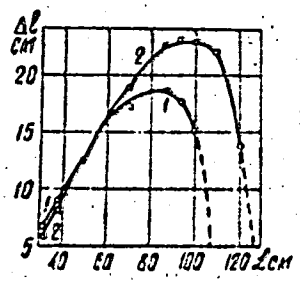

Fig.2

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Fig.3

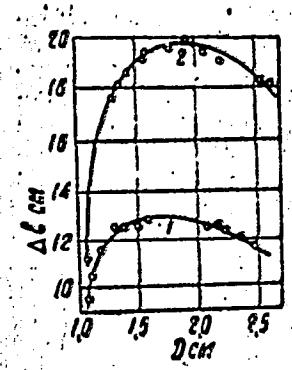
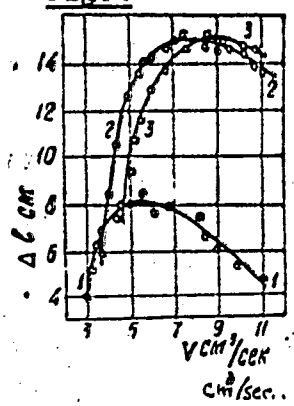


Fig.4



Card 6/6

NORDIO, A.V.

Use of the "URAL-1" computer in the design of a series of electric transformers. Energ. i elektrotekh. prom. no.1:20-21 Ja-Mr '63. (MIRA 16:5)

1. Zaporozhskiy nauchno-issledovatel'skiy institut transformatorostroyeniya i vysokovol'tnoy apparatury.
(Electric transformers)

S/081/61/000/023/016/061
B117/B147

AUTHORS: Rybnikova, A. A., Tits-Skvortsova, I. N., Nordov, E.

TITLE: Hydrogenolysis of sulfurorganic compounds on aluminum-cobalt-molybdenum catalyst

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1961, 190 - 191, abstract 23Zh128 (Neftekhimiya, v. 1, no. 1, 1961, 100 - 104)

TEXT: For the first time, conversions of thiolene, sulfides, and disulfides of the aliphatic and aromatic series on an aluminum-cobalt-molybdenum catalyst (AMC) were studied systematically in a static system at hydrogen pressure under conditions of partial hydrogenolysis. Decomposition diagrams of: (a) thiolene (n-nonyl mercaptan and thiophenol), and (b) sulfides (di-n-nonyl sulfide and diphenyl sulfide) are suggested. According to diagram (a), the process takes place in two directions: $RSH + H_2 \rightarrow H_2S + RH$ and $2RSH \rightarrow H_2S + RSR$. It was found that the hydrogenolysis of sulfur compounds of the aliphatic and aromatic series proceeds according to similar diagrams. It was shown that some sulfur compounds were partly converted into other ones in the desulfurization on AMC and

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Hydrogenolysis of sulfurorganic...

that hydrocarbons were the final product; sulfur was precipitated as hydrogen sulfide. The sulfur compounds used in this study were synthesized according to methods described in the literature (Titz-Skvortsova, I. N., et al., Zh. obshch. khimii, 21, 1951, 242; Zh. obshch. khimii, 23, 1953, 303. Sb. statey po obshchey khimii, 1, 1953, 541) and characterized by the main constants. Constants of these compounds are also given on the basis of published data. Approximately 30 g of the substance investigated and 3 g of AMC are heated in the autoclave for 5 hr at 300°C. Initial hydrogen pressure is 40 atm. After cooling, H_2S is absorbed in ammoniacal zinc sulfate solution. Some ether is added to the liquid catalyzate, the catalyst is filtered off, and the catalyzate fractionated. Initial substance, conversion percentage, products obtained, and their yields in moles per 100 moles of converted substance are as follows: n-nonyl mercaptan (I), 69.0, H_2S, n-nonane (II), di-n-nonyl sulfide (III), 58.9, 55.2, 14.3; thiophenol (IV), 72.1, H_2S, C_6H_6, diphenyl sulfide (V), 72.8, 70.8, 8.7; (III), 45.3, H_2S, (II) (I), 32.2, 108.3, 30.2; (V), 62.0, H_2S, C_6H_6, (IV), 73.5, 76.9, 10.1; di-n-nonyl disulfide,

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Hydrogenolysis of sulfurorganic... S/081/61/000/023/016/061
B117/B147

100, H_2S, (II), (I), (III), 59.2, 33.9, 104.7, 10.0; diphenyl sulfide, 98.7, H_2S, C_6H_6, (IV), (V), 48.2, 13.7, 97.8, 11.5. 7 references.
[Abstracter's note: Complete translation.]

Card 3/3

SHIRVINDT, B.G.; RYABINSKAYA, T.F.; DOBKINA, M.S.; GOLUBEVA, I.V.; AL'TGAUZEN, V.P.; NORDSHTEYN, R.A.

Clinical picture and diagnosis of coli enteritis in children. Pediatriia 37 no.8:77-82 Ag '59. (MIRA 13:1)

1. Iz Instituta pediatrii Ministerstva zdravookhraneniya RSFSR (dir. - A.P. Chernikova, zamestitel' direktora po nauchnoy chasti - prof. N.R. Shastin), Instituta imeni Mechnikova (dir. - A.P. Muzychenko) i 4-y gorodskoy klinicheskoy bol'nitsy (zaveduyushchiy infektsionnym otdeleniyem T.F. Yermolovich).
(ENTERITIS, etiology)
(ESCHERICHIA COLI INFECTIONS, in infancy & childhood)

SHIRVINDT, B.G., prof.; RYABINSKAYA, T.F.; DOBKINA, M.S.; NORDSHTEYN, R.A.

Clinical characteristics of colienteritis and some immunological indices in its prevelence. Nauch.trudy Chetv.Mos.gor.klin.bol. no.1:28-39 '61. (MIRA 16:2)
(INTESTINES--DISEASES) (IMMUNITY) (ESCHERICHIA COLI)

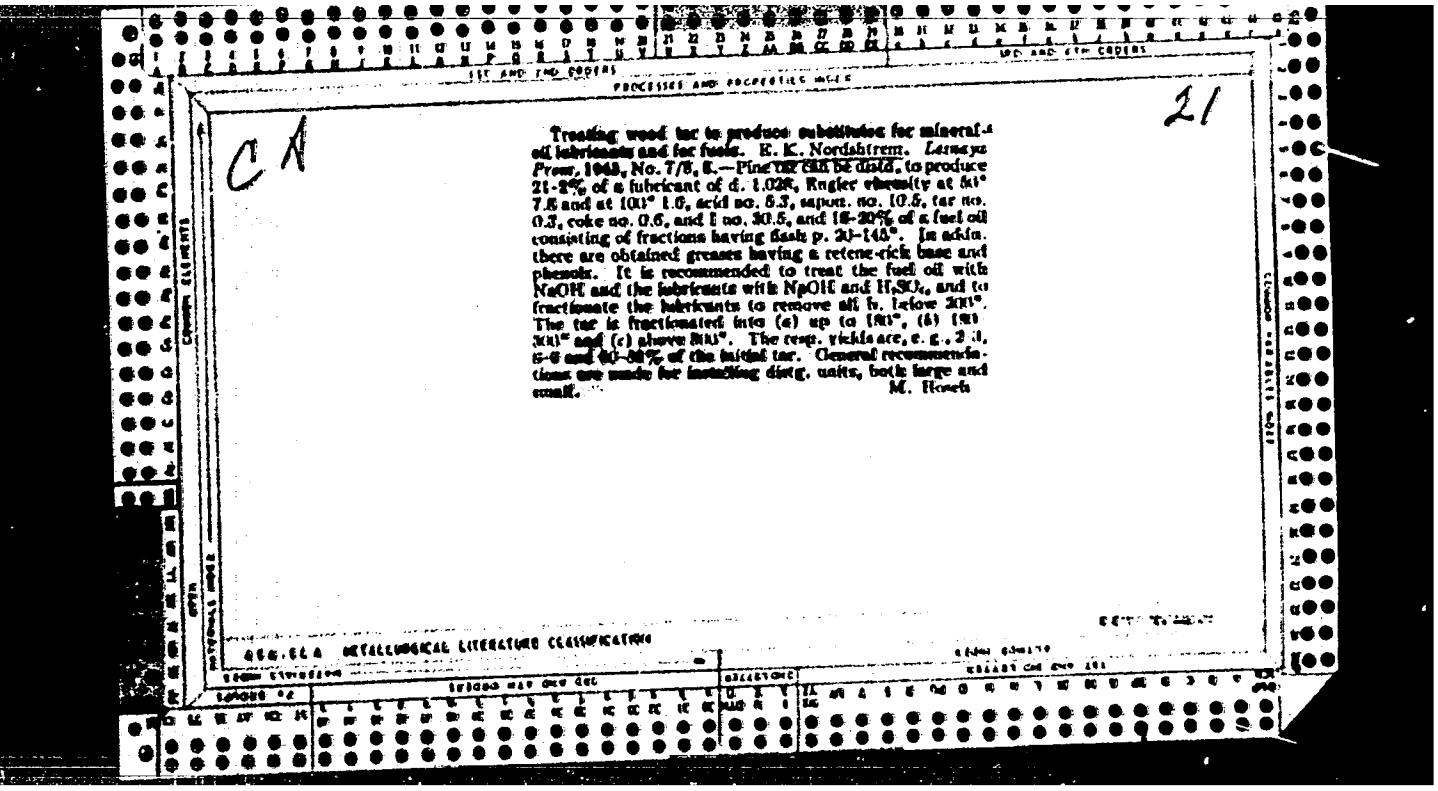
PROCESSES AND PROPERTIES INDEX

Ca

2b

Types of tar-turpentine installations, their construction and operation. K. K. Nurdshinov and V. I. Koryakin. *Lesnaya Prom.* 1948, No. 11/12, 23-6.—Discussion of driers and stills used in production of turpentine. Economics of operation and installation of various types are included. G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

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Treating wood tar to produce substitutes for mineral oil lubricants and for fuels. E. K. Nordshtrem. *Lesnaya Prom.*, 1943, No. 7/8, 8.—Pine tar can be distd. to produce 21–2% of a lubricant of d. 1.028, Engler viscosity at 50° 7.6 and at 100° 1.6, acid no. 6.3, saponi. no. 10.5, tar no. 0.3, coke no. 0.6, and I no. 30.5, and 18–20% of a fuel oil consisting of fractions having flash p. 20–145°. In addn. there are obtained greases having a retene-rich base and phenols. It is recommended to treat the fuel oil with NaOH and the lubricants with NaOH and H_2SO_4, and to fractionate the lubricants to remove all b. below 200°. The tar is fractionated into (a) up to 180°, (b) 180–300° and (c) above 300°. The resp. yields are, e. g., 2–3, 5–6 and 30–35% of the initial tar. General recommendations are made for installing distg. units, both large and small.

M. Hosch

NORDSHTEIN, M.K.; OYSTRAKH, F.E.

Briquetting charcoal and charcoal fines. Gidrolis. i lesokhim. prom. 8 no.6:30-31 '55. (MLRA 9:1)
(United States--Briquets (Fuel))

NORDSHTREM, N.K.

Resources of raw materials for resin production. Gidrolis. i lesokhim. prom. 9 no.2:21-22 '56. (MLRA 9:7)

1.Giprolesokhim.
(Gums and resins) (Weed waste)

Nordshtrem, Ye.E

GUBENSKIY, Vladimir Aleksandrovich; NORDSHTREM, Yelena Emil'yevna; UTAL'TSOV, A.N., glavnyy red.; ZAHETSKIY, Ye.M., kand.tekhn.nauk, red.

[Corrosion protection of the inner surface of pipes] Protivokorrozionnaia zashchita vnutrennei poverkhnosti trub. Moskva, In-t tekhniko-ekon.inform., 1956. 12 p. (Informatsiia o nauchno-issledovatel'skikh rabotakh. Tema 23, no.I-56-47) (MIRA 11:2)
(Corrosion and anticorrosives) (Pipe, Steel)

NORDSHTREM, Ye.E.; ETINGER, I.A.

Protection of the interior of a vacuum over with lacquer-paint coatings. Lakokras. mat. i ikh prim. no.5:60-63 '61. (MIRA 15:3)
(Protective coatings) (Ovens)

NORDUKHAY-BOLTOVSKOY, D.

PA 26/49T61

USSR/Mathematics - Function Theory Jan 49
Mathematics - Numbers, Properties of

"Hypertranscendental Functions and Numbers," D. Nordukhay-Boltovskoy, 4 pp

"Dok Ak Nauk SSSR" Vol LXIV, No 1

Generalizes the original equation which determines transcendental numbers. Submitted 29 Jun 48.

[redacted] 26/49T61

137-58-6-11902

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 102 (USSR)

AUTHORS: Abramov, G.A., Kostyukov, A.A., Nordvik, L.V.

TITLE: Effect of Additions of Magnesium Fluoride and Lithium Cryolite on the Electrical Conductivity of Cryolite-alumina Melts (Vliyaniye dobavok ftoristogo magniya i litiyevogo kriolita na elektroprovodnost' kriolit-glinozemnykh rasplavov)

PERIODICAL: Tr. Leningr. politekhn. in-ta, 1957, Nr 188, pp 40-44

ABSTRACT: A study is made of the effect of additions of lithium cryolite and Mg fluoride on the electrical conductivity of sodium cryolite. It is established that the electric conductivity of the melts when small amounts of lithium cryolite have been added undergoes an insignificant increase and that addition of lithium cryolite to the Al bath is desirable only when its cost is relatively low. The electric conductivity of melts of the Na_3AlF_6-MgF_2 system diminishes as the MgF_2 contents rise. A comparison of the results obtained with data previously published shows that addition of MgF_2 to the cryolite reduces its electric conductivity to the same degree as does addition of CaF_2. I.G.

Card 1/1 1. Aluminum oxides -cryolite--Electrical factors 2. Magnesium fluoride--Electrical effects 3. Cryolite-lithium--Electrical effects 4. Aluminum--Production 5. Electrolytic cells--Performance

NOREK, CZESLAW

SURNAME, Given Names

Country: POLAND

(1)

Academic Degrees: / not given/

Affiliations: / not given/

Source: Warsaw, Rozprawy Elektrotechniczne, Vol VII, No 2, 1961, pp 199-244

Data: " Approximation Problems in the Theory of Low-pass RC Filters"

Authors:

SZULKIN, Pawel

NOREK, Czeslaw

JC

NOREN BERG, A. Ye.

Norenberg, A. Ye. "Covered puncturing of ulcers of the stomach and duodenum," Trudy Gospit. Khirirg. kliniki (Sverdl. gos. med. in-t), Vol. IV. 1948, p. 108-16

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Stately, No. 5, 1949)

NORENBERG, A. Ye.

USSR/Medicine - Burns Jul 51

"Treatment of Burns," Prof A. T. Lidskiy, A. Ye. Norenberg, Dr Med Sci Sverdlovsk

"Sov Med" Vol XV, No 7, pp 12-15

In the open method of treatment, the burn is treated by means of elec lamps and painted with KMnO4, alcoholic soln of brilliant green plus novocain, etc. Treatment with tannin plus alc plus ether forms a closed film. Burn trauma disturbs metabolism, causing acidosis. Contrary to foreign publications, tannin does not produce necrosis of the liver (D. S. Sarkisov). During World War II,

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USSR/Medicine - Burns (Contd 1) Jul 51

bentonite paste was used extensively. One part of tannin plus 1.5 parts of streptocide plus 7.5 parts of bentonite plus 2-3 parts of boiled water form a good mixt (occasionally tannin plus streptocide are replaced by tannoflavin). Salves and plaster of Paris bandages are of limited usefulness and advantage. Filatov's perforated fibrin films are effective in some types of burns, but there may be seepage so that application of a Sollux lamp is necessary. Tissue therapy, if applied, should not be delayed. One must not forget that in cases of extensive burns hypoproteinemia may develop (Yu. Yu. Dzhanelidze). Intravenous injection of dissolved dry plasma by the drip

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