

TOPOLYANSKIY, L. B.

19753 - TOPOLYANSKIY, L. B. O primeneni variatsionnykh metodov priblizhennom reshenii kromevykh zadach dlya differentsial'nykh uravneniy ellipticheskogo Tipa. Prikl. matematika mekhanika, 1949, vyp. 3, S. 317-2-

b. astronomiya

SO: LETOPIS' ZHURNAL STATEY, Vol. 27, MOSKVA 1949

SOV-21-58-4-1/29

On the Upper and Lower Functions of S.A. Chaplygin in Some Boundary Problems

a three-dimensional case and Green's function of the second order.

There are 7 references, 2 of which are Soviet, 1 French, 2 American, 1 English and 1 Italian.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

PRESENTED: By Member of the AS UkrSSR, B.V. Gnedenko

SUBMITTED: July 12, 1957

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

1. Functions--Theory 2. Harmonic function--Theory 3. Operators (Mathematics)--Applications

Card 2/2

TOPOLYANSKIY, D. B.
AMR

2378. Topolianskiy, D. B., On the evaluation of the generalized Dirichlet integral in plane elasticity theory and in a three-dimensional boundary problem (in Russian), *Pril. Mat. Mekh.* 14, 423-428, July-Aug. 1950.

Elasticity
Theory
9

Author shows, in a continuation of his two previous papers, the method of evaluating the generalized Dirichlet integral in the case of plane stress. Approximate solution by method of Ritz gives for Dirichlet integral a value greater than the exact one. Solution by the method of Trefftz gives functions for this integral which lead to a smaller value than the exact. For a three-dimensional boundary problem, if the solution exists, method of Ritz, or a similar variational method, gives for Dirichlet integral a greater value than the exact; the corresponding function satisfies the conditions on the boundary, but not the differential equation for the interior of the body. A function satisfying the differential equation for the interior of the body, but not the conditions on the boundary, gives a value smaller than the exact one for the Dirichlet integral.

Z. Bazant, Czechoslovakia

June '51

REFALLOPOLICAL LITERATURE CLASSIFICATION

TOPOLYANSKIY, D.B. [Topolians'kyi, D.B.]

Use of quasi-Hermitian interpolational polynomials in the
approximate solution of two-dimensional boundary value pro-
blems. Dop. AN URSR no.7:843-847 '65. (MIRA 18:8)

1. Dnepropetrovskiy gosudarstvennyy universitet.

L 15577-66 EWT(d) IJP(c)

ACC NR: AP5019409

SOURCE CODE: UR/0021/65/000/007/0843/0847

AUTHOR: Topolyans'kyy, D. B. (Topolyanskiy, D. B.)

ORG: Dnepropetrovsk State University (Dnipropetrov'skyyi derzhavnyi universytet)

TITLE: The use of quasihermitian interpolation polynomials for approximate solution of two-dimensional boundary value problems

SOURCE: AN UkrRSR. Dopovidi, no. 7, 1965, 843-847

TOPIC TAGS: elliptic differential equation, boundary value problem, interpolation

ABSTRACT: The boundary problem for a self-conjugate elliptical differential equation is studied in the rectangular region $D(a < x < b, c < y < d)$ with contour $\Gamma(x = a, x = b, y = c, y = d)$:

$$M[u] \equiv -\frac{\partial}{\partial x} \left(p \frac{\partial u}{\partial x} \right) - \frac{\partial}{\partial y} \left(q \frac{\partial u}{\partial y} \right) + ru = f, \quad (p, q > 0, r \geq 0)$$

where $P(x, y)$, $q(x, y)$, $r(x, y)$ and $f(x, y)$ are continuous in $D + \Gamma$ of the function, P and q are continuously differentiable in $D + \Gamma$ for the homogeneous boundary

Card 1/2

L 15577-66
ACC NR: AP5019409

condition $u/\Gamma = 0$. Ritz's method and the methods of least squares, and moments in a class of quasihermitian interpolation polynomials are used to obtain approximate values of the function and its partial derivatives at previously assigned points. The paper was presented by Academician M. M. Boholyubov. Orig. art. has: 10 formulas.

SUB CODE: 20/
12/ SUBM DATE: 16Jul64/ ORIG REF: 006/ OTH REF: 000

Card 2/2 mc

TOPOLYANSKIY, D.B. [Topolians'kiy, D.B.]

On submetaharmonic functions. Dop. AN URSR no. 4:432-435 '60.
(MIRA 13:7)

1. Dnepropetrovskiy gosudarstvennyy universitet. Predstavleno
akademikom N.N. Bogolyubovym [M.M. Boholiubovym].
(Harmonic functions)

MIKHAYLOV, Yu.A., inzh.; ORLOV, V.N., kand. tekhn.nauk; POLOVOY, I.F.,
kand.tekhn.nauk; CHERNYAYEV, I.V., kand.tekhn.nauk; VERSHKOV,
V.A., inzh.; NAUMOVSKIY, L.D., inzh.; TOPOLYANSKIY, L.B., inzh.

Registration of internal overvoltages in 110 to 500 kv.
operational power distribution networks. Elek. sta. 36 (MIRA 18:4)
no.2:48-52 F '65.

TOPOLYANSKIY, N.D.

Sudden death from suppurative chondroperichondritis of the larynx.
Vest. otorin. 22 no. 5:71-72 S-0 '60. (MIRA 13:11)

1. Iz Cherkasskogo oblastnogo byuro (nach. - N.P. Turovets) sudebno-
meditsinskoy ekspertizy. (LARYNX--DISEASES) (DEATH)

TOPOLYANSKIY, V.D.

Clinical aspects and treatment of microfocal myocardial infarct complicated by collapse during first aid. Sov.med. 28 no.11:9-13 N '65. (MIRA 18:12)

1. Kafedra fakul'tetskoy terapii (zav. - prof. Z.A.Bondar')
lechebnogo fakul'teta imeni V.N.Vinogradova I Moskovskogo
ordena Lenina meditsinskogo instituta imeni Sechenova i
Stantsiya skoroy pomoshchi (nachal'nik L.B.Shapiro), Moskva.

L 36330-66 EWT(d)/T IJP(e) SOURCE CODE: UR/0021/66/000/002/0135/0138
ACC NR: AP6007804

AUTHOR: Topolyans'kyy, D. B. - Topolyanskiy, D. B.

31
B

ORG: Dnepropetrovsk State University (Dnipropetrovs'ky derzhavnyy universytet)

TITLE: Selection of coordinate functions¹⁶ by direct methods of finding eigenvalues and eigenfunctions

SOURCE: AN UkrRSR. Dopovidi, no. 2, 1966, 135-138

TOPIC TAGS: eigenvalue, function analysis, polynomial solution, boundary value problem, eigenfunction

ABSTRACT: An approximate value of eigenfunctions has determined by the authors by using Ritz's method in the class of interpolational Hermitian polynomials in a one-dimensional boundary problem and in the class of quasi-Hermitian interpolational polynomials in a two-dimensional boundary problem. As a result of this, the values of the eigenfunctions

Card 1/2

L 36330-66

ACC NR: AP6007804

and their derivatives were obtained directly at preselected points.
Paper presented by N. N. Bogolyubov, Member of Academy of Sciences
USSR. Orig. art. has: 6 formulas. [Based on authors' abstract] [NT]

SUB CODE: 12/ SUBM DATE: 16Feb65/ ORIG REF: 003

Card 2/2 *125*

HUNGARY

TOPONARY, Ferenc, Dr, chief veterinary surgeon of the Jaras (jarasi fo-
allatorvos), Dunavecse

"The 64. Agricultural Exhibition as Viewed by a Practising Veterinary
Surgeon."

Budapest, Magyar Allatorvosok Lapja, Vol 17, No 12, Dec 62, pp 477-478.

Abstract: The author describes the various pavilions of the exhibition.
In his report very favourable comments are made on the progress in
agriculture and on the exhibition although he makes some recommendations
and points out a few omissions. Almost no numerical data are presented.

[no references]

1/1

HUNGARY

TOPONARY, Ferenc, Dr, chief veterinary of the Jaras, Dunavecse (jarasi fo-
allatorvos), Dunavecse.

"Results of the Preventive Measures Introduced Against Swine Fever."

APPROVED FOR RELEASE: 08/31/2001 **CIA-RDP86-00513R001756310017-0**

Budapest, Magyar Allatorvosok Lapja, Vol 18, No 9, Sept 63, page:371.

Abstract: Active immunization against the disease is carried out only in herds
where a specific danger of infection is present. Stringent hygienic measures
have been introduced everywhere and have proven to be of great preventive
value. They consist of guarding against introduction of disease by newly
arrived animals and the control of further spreading by very stringent
measures. A resulting sharp drop in the incidence of the disease during the
past 9 years is reported in the article. The results prove the value of or-
ganized preventive hygienic measures which are more effective and economical
than prevention based on vaccination alone. No references.

1/1

TOPONOGOV, V.A.

Metric structure of Riemann spaces of non-negative curvature
containing straight lines. Sib. mat. zhur. 5 no.6:1358-1369
N-D '64. (MIRA 17:12)

TOPONOGOV, V.A.

Estimating the length of a convex curve on a two-dimensional surface.
Sib. mat. zhur. 4 no.5:1189-1193 S-O '63. (MIRA 16:12)

TOPONOGOV, V.A.

Evaluating the length of a closed geodesic in a compact
Riemannian space of positive curvature. Dokl. AN SSSR 154
no.5:1047-1049 F'64. (MIRA 17:2)

1. Institut matematiki s vychislitel'nym tsentrom Sibirskogo
otdeleniya AN SSSR. Predstavleno akademikom I.N. Vekua.

POKROVSKIY, V.L.; TOPONOGOV, V.A.

Restoring the energy gap in a superconductor with the aid of
sound attenuation measurements. Zhur. eksp. i teor. fiz. 40
no.4:1112-1114 Ap '61. (MIRA 14:7)

1. Institut radiofiziki i elektroniki Sibirskogo otdeleniya
AN SSSR.

(Fermi surfaces) (Superconductivity)

TOPONOGOV, V.A.

Relation between the curvature and the topological structure of
Riemannian spaces with an even number of dimensions. Dokl. AN
SSSR 133 no.5:1031-1033 Ag '60. (MIRA 13:8)

1. Institut radiofiziki i elektroniki Sibirskogo otdeleniya
Akademii nauk SSSR. Predstavleno akad. P.S. Aleksandrovym.
(Spaces, Generalized)

ТОПОНОГОВ, В.А.

TOPONOGOV, V.A.

Convexity of Riemann spaces of positive curvature. Dokl. AN SSSR 115
no.4:674-676 Ag '57. (MIRA 10:12)

1. Novosibirskiy elektrotekhnicheskiy institut svyazi. Predstavleno
akademikom P.S. Aleksandrovym.
(Riemann surfaces) (Spaces, Generalized)

16(1)

SOV/20-127-5-11/58

AUTHOR:

Topcnogov, V.A.

TITLE:

Riemannian Spaces Containing Straight Lines

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 977-979 (USSR)

ABSTRACT:

Let R^m be an m -dimensional complete Riemannian space of non-negative curvature which is three times continuously differentiable.

Theorem 1 : If in R^m there exists a geodesic, every partial section of which is a shortest, then R^m can be represented as a direct metric product of a straight line and of an $(m-1)$ -dimensional Riemannian space of nonnegative curvature. Theorem 2 and 3 are needed for the proof of theorem 1 and were already proved in [Ref 2].

Theorem 4 : Let k independent straight lines pass through the point P of R^m . Then R^m can be represented as a direct product of an Euclidean E^k and of a Riemannian $(m-k)$ -dimensional space.

Besides these four theorems the paper contains six lemmata. The author mentions A.D. Aleksandrov.

Card 1/2

Riemannian Spaces Containing Straight Lines

SOV/20-127-5-11/58

There are 4 Soviet references.

ASSOCIATION: Institut radiofiziki i elektroniki Sibirskogo otdeleniya
Akademii nauk SSSR (Institute for Radiophysics and Electronics
of the Siberian Department of the AS USSR)

PRESENTED: April 29, 1959, by S.L. Sobolev, Academician

SUBMITTED: March 30, 1959

Card 2/2

TOPONOGOV, V. A., Cand Phys Math Sci -- (diss) "Riemann Spaces of Curves Limited From Beneath." Novosibirsk, West Siberian Branch of the Siberian Division of the Academy of Sciences USSR, 1958, 7 pp, (Moscow State Univ in M. V. Lomonosov) 110 Copies, no price given (KL, 21-60, 118)

16(1)

SOV/20-124-2-10/71

AUTHOR: Toponogov, V.A.

TITLE: Estimation of the Length of a Closed Geodesic Line on a Convex Surface (Otsenka dliny zamknutoy geodezicheskoy na vypukloy poverkhnosti)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 2, pp 282-284 (USSR)

ABSTRACT: The author considers closed geodesic lines on two-dimensional two times continuously differentiable convex surfaces R_k the curvature of which is $\geq k$ ($k > 0$).Theorem: The length of a closed not self-intersecting geodesic line on R_k is $\leq \frac{2\pi}{\sqrt{k}}$. The equal sign is only reached on the sphere with the radius $\frac{1}{\sqrt{k}}$.Theorem: The length of a geodesic loop L on R_k is $\leq \frac{2\pi}{\sqrt{k}}$; the equal sign is reached only on the sphere.

Analogous theorems hold for twofold connected, two-dimensional Riemannian manifolds; in this case the estimation is 2 times smaller. For the proof the author uses methods of the inner geometry due to Aleksandrov.

There are 2 Soviet references.

Card 1/2

Estimation of the Length of a Closed Geodesic Line SOV/20-124-2-10/71
on a Convex Surface

ASSOCIATION: Institut radiofiziki i elektroniki Akademii nauk SSSR Sibirskogo
otdeleniya (Institute of Radiophysics and Electronics of the
Siberian Section of the AS USSR)

PRESENTED: September 12, 1958, by S.L.Sobolev, Academician

SUBMITTED: September 1, 1958

Card 2/2

16(1)

AUTHOR: Toponogov, V. A.

SOV/42-14-1-3/27

TITLE: Riemannian Spaces the Curvature of Which is Bounded From Below (Rimanovy prostranstva krivizny, ogranichennoy snizu)

PERIODICAL: Uspekhi matematicheskikh nauk, 1959, Vol 14, Nr 1, pp 87-130 (USSR)

ABSTRACT: The present paper contains a detailed representation of the results announced in Doklady Akademii nauk SSSR, 1957, Vcl 115, pp 674-676. The most essential result is the following one:
Let R_k^m be an m -dimensional, 2 times continuously differentiable Riemannian space the curvature of which is $\geq k$ in all points and all two-dimensional directions. Let every sphere of the metric R_k^m be compact. Then the angles of an arbitrary triangle in the R_k^m formed of shortest lines are not smaller than the corresponding angles of an triangle with the same side lengths in the plane of constant curvature k . In four chapters (11 paragraphs) the paper contains 9 theorems and 30 partly well-known lemmas.

Card 1/2

Riemannian Spaces the Curvature of which is
Bounded From Below

SOV/42-14-1-3/27

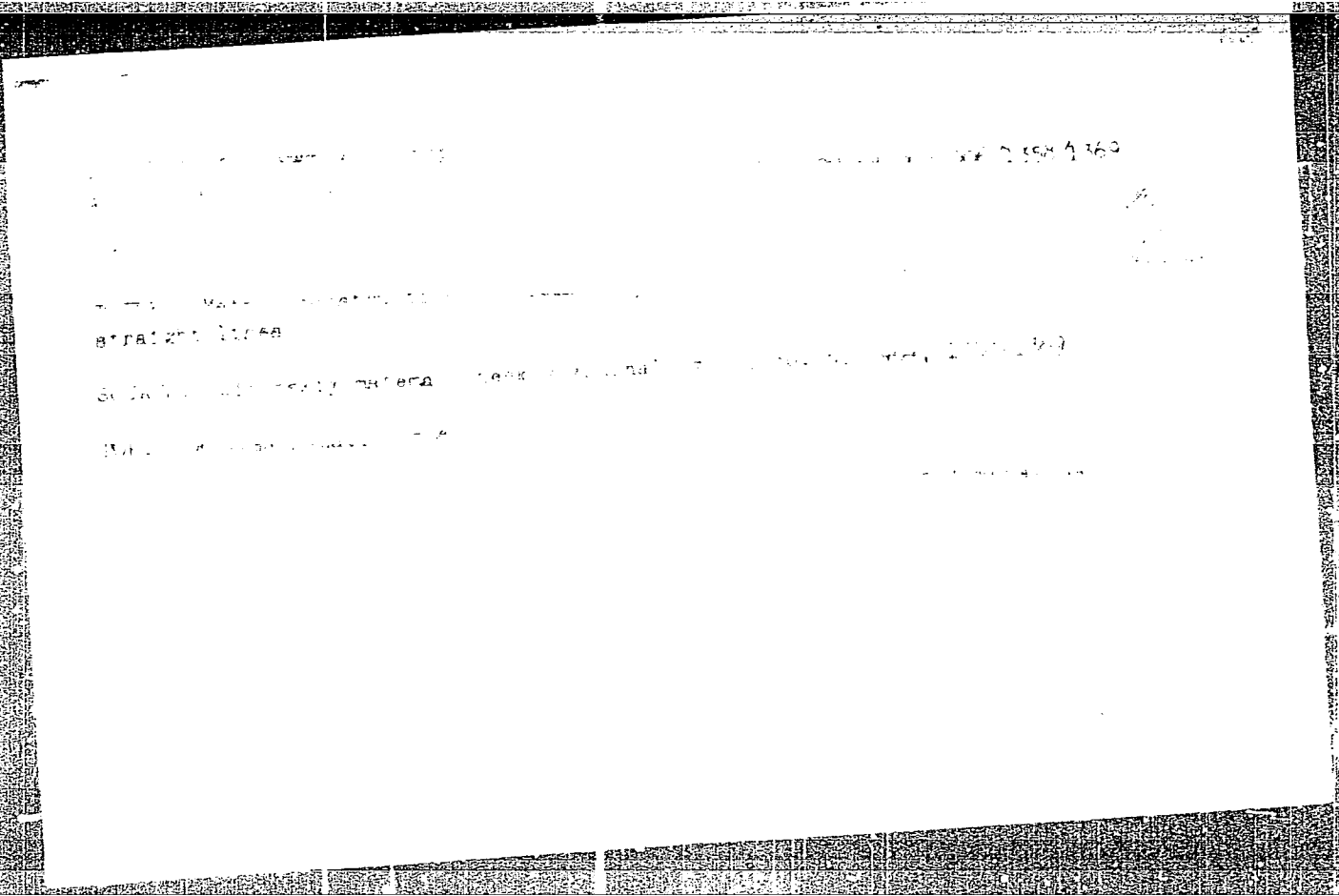
The paper was induced by A.I.Fet and written with the aid of
Fet. Results of A.D.Aleksandrov [Ref 3,4] are used essentially.
There are 16 references, 6 of which are Soviet, 1 French,
4 German, 3 American, 1 Italian, and 1 Swedish.

SUBMITTED: August 29, 1958

Card 2/2

TOPONOGOV, V.A.

Riemannian spaces of below-bounded curvature. Usp. mat. nauk 14
no.1:87-130 Ja-F '59. (MIRA 12:3)
(Geometry, Non-Euclidean)



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... ..
... ..

H.B.
Card 2/2

TOPOGONOV, V.A.

Evaluation of the length of a closed geodesic on a convex surface. Dokl. AN SSSR 124 no.2:282-284 Ja '59. (MIRA 12:1)

1. Institut radiofiziki i elektroniki AN SSSR Sibirskogo otdeleniya. Predstavleno akademikom S.L. Sobolevym.
(Geometry)

20-120-4-9/67

AUTHOR: Toponogov, V.A.

TITLE: Riemannian Spaces With a Curvature Which is Bounded From Below by a Positive Number (Rimanovy prostranstva krivizny, ogranichennoy snizu polozhitel'nym chislom)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 120, Nr 4, pp 719-721 (USSR)

ABSTRACT: Let R_k^m be an m-dimensional two times continuously differentiable space with a complete metric, the curvature of which is $>k>0$. In R_k^m let a triangle be formed by three geodesics.

Theorem: If there exists a triangle the sum of the sides of which is equal to $\frac{2\pi}{\sqrt{k}}$ and if no side is the sum of the two others, then all angles of the triangle are equal to π , so that the triangle is a closed geodesic.

Theorem: The sum of the sides of a triangle is $\leq \frac{2\pi}{\sqrt{k}}$.

Theorem: There exists no geodesic which is longer than $\frac{\pi}{\sqrt{k}}$.

Theorem: If there exists a geodesic of the length $\frac{\pi}{\sqrt{k}}$,

Card 1/2

Riemannian Spaces With a Curvature Which is Bounded
From Below by a Positive Number

20-120-4-9/67

then R_k^m is an m-dimensional sphere of the radius $\frac{1}{\sqrt{k}}$.

Theorem: If there exists a triangle, the sum of the sides of which is equal to $\frac{2\pi}{\sqrt{k}}$, then R_k^m is an m-dimensional sphere of the radius $\frac{1}{\sqrt{k}}$.

The case $k = 0$ was formerly considered by the author (see [Ref 1]).

There is 1 Soviet reference.

ASSOCIATION: Institut radiofiziki i elektroniki Zapadno-Sibirskogo filiala Akademii nauk SSSR (Institute for Radiophysics and Electronics of the West-Siberia Affiliated Institution of the Academy of Sciences of the USSR)

PRESENTED: December 11, 1957, by S.L. Sobolev, Academician
SUBMITTED: December 29, 1957

1. Mathematics

Card 2/2

ТОПОНОВОВ, В.А.

20-4-11/60

AUTHOR: Toponogov, V.A.

TITLE: The Property of Convexity of the Riemannian Spaces with Positive Curvature (Svoystvo vypuklosti rimannovykh prostranstv polozhitel'noy krivizny)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 115, Nr 4, pp. 674-676 (USSR)

ABSTRACT: At first reference is made to three relevant preliminary works. The present paper proves the following theorem: R^n may signify here a twice continuous differentiable Riemannian manifold with complete metrics of non-negative curvature. Then every triangle formed of the shortest lines on R^n has angles that are not smaller than the corresponding angles of a plane triangle with plane lateral lengths. This theorem is proved here in the equivalent form of the "convexity condition" by A.D. Aleksandrov. The course of this proof is followed here step by step, two lemmata being given and proved. This theorem can also be generalized to spaces with curvatures limited at the bottom. By a passage to the limit the theorem can be generalized to any complete convex surfaces in the n-dimensional

Card 1/2

20-4-11/60

The Property of Convexity of the Riemannian Spaces with Positive Curvature

space. From this follows the following theorem: On a $(n-1)$ -dimensional complete convex surface (without assumption of the smoothness) in an n -dimensional space the shortest line is uniquely determined by any small arc of this line. This theorem is the n -dimensional generalization of the "theorem of the non-adjacency of the shortest lines". There are 3 references, 2 of which are Slavic.

ASSOCIATION: Novosibirsk Electrotechnical Institute for Telecommunications
(Novosibirskiy elektrotekhnicheskiy institut svyazi)

PRESENTED: March 5, 1957, by P.S. Aleksandrov, Academician

SUBMITTED: February 27, 1957

AVAILABLE: Library of Congress

Card 2/2

TOPONOGOV, V.A.

Riemann spaces having their curvature bounded below by a positive.
Dokl. AN SSSR 120 no. 4:719-721 Je '58. (MIRA 11:8)

1. Institut radiofiziki i elektroniki Zapadno-Sibirskogo filiala
AN SSSR. Predstavleno akademikom S.L. Sobolevym.
(Spaces, Generalized)

84649

S/020/60/133/005/028/034XX
C111/C222

16.5600 16.5400

AUTHOR: Toponogov, V.A.

TITLE: Relation Between Curvature and Topological Structure for Riemannian Spaces of an Even Number of Dimensions

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol.133, No.5, pp.1031-1033.

TEXT: In a Riemannian space the author forms a triangle of two shortest lines and one geodesic line. The triangle is called regular if the sum of two arbitrary of its sides are greater than the third one.
Lemma 1: If in a complete Riemannian space M the curvature K in every point and in every two-dimensional direction is not smaller than H and if the perimeter of a regular triangle ABC consisting of the shortest lines AB, AC and the geodesic line BC, equals $2\pi/\sqrt{H}$, then the angles B and C equal π .

Lemma 2: Under the assumptions of lemma 1 the perimeter of a regular triangle is not greater than $2\pi/\sqrt{H}$.

Theorem: Let M be a complete Riemannian space of even dimension. If the curvature K of M in every point and in every two-dimensional direction satisfies the inequation $0 < \frac{1}{4} L < K \leq L$, then M is either a sphere or homeomorphic to the elliptic space.

Card 1/2

X

84649

S/020/60/133/005/028/034XX
C111/C222

Relation Between Curvature and Topological Structure for Riemannian Spaces of an Even Number of Dimensions

The theorem improves a result of Rauch (Ref.1) and Klingenberg (Ref.2). The proof uses the theorem K of (Ref.2): If the curvature K of a compact simply connected Riemannian space is strongly positive in every point and in every two-dimensional direction, and if it is not greater than L , then every part of the geodesic line with the length π/\sqrt{L} is a shortest line.

There are 6 references: 1 Soviet and 5 American.

ASSOCIATION: Institut radiofiziki i elektroniki Sibirskogo otdeleniya Akad. nauk SSSR (Institute of Radiophysics and Electronics of the Siberian Department of the Academy of Sciences USSR)

PRESENTED: April 7, 1960, by P.S.Aleksandrov, Academician

SUBMITTED: April 1, 1960

Card 2/2

TOPOR, C.

A magnetolectric instrument, equipped with thermopiles, for measurement of very low-frequency pulsating currents. p. 268.

METROLOGIA APLICATA. (Directia Generala de Metrologie de pe linga Consiliul de Ministri) Bucuresti, Rumania. Vol. 5, no. 6, Nov./Dec. 1958

Monthly list of East European Accessions (EEAI) IC Vol 8, No. 6, June 1959
Uncl.

TOPOR, D.

"Manual on nuclear and radiochemistry" by Friedlander, I. Kennedy.
Reviewed by D. Topor. Studii cerc chim 10 no.3/4:397-398 '62.

TOPOR, Dumitru

The use of organic solvents for the selective elution of
 cations adsorbed on ion-exchange resins. I. The selec-
 tive elution of zinc and copper. Georgeta Buznea, Olimpi-
plus Constantinescu, and Dumitru Topor. Acad. rep.
populare Romine, Studii cercetari chim. 8, 333-8(1958).
 A total eqm. between Zn and Cu ions adsorbed on a sulfo-
 nated phenol-formaldehyde ion-exchange resin in the H form
 is obtained by eluting with a mixt. of acetone, 0.5% HCl
 (d = 1.10), and 20% H₂O. Martin L'quecnic

4
8/20

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TOPOR, D.

Problems of stratification of tree and brushwood seeds. P. 346.
REVISTA PADURILOR. Bucuresti. Vol. 70, No. 7, July 1955.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, No. 3, March 1956.

TOPOR, D.

"Sounding line to measure interior temperature and to test acorns in warehouses during winter". p. 142, (REVISTA PADURILOR, Vol. 69, No. 3, Mar. 1954, Bucuresi, Rumania)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

MURGULESCU, I.G.; TOPOR, D.

Electromigration of lithium in melted alkaline nitrates. Rev
chimie Roum 9 no.12:815-818 D '64.

1. Center of Chemistry and Physics Research, Rumanian Academy,
23 Dumbrava Rosie Street, Bucharest. Submitted August 1, 1964.

MURGULESCU, I.G.; TOPOR, D.

Electromigration of lithium in melted alkaline nitrates. Studii
cerc chim 13 no.12:865-868 D '64.

1. Center of Physical Chemistry Research, Rumanian Academy,
23 Dumbrava Rosie Street, Bucharest.

TOPOR, D.

"Preparing seeds of the common maple for seeding". p. 212, (REVISTA PADURILOR, Vol. 69, No. 5, May 1954, Bucuresi, Rumania)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

TOPOR, Dumitru; STERNBERG, S.

Transport number in the aqueous solutions of CuCl_2 . Studii cerc
chim 8 no.3:445-449 '60. (EEAI 10:9)

1. Centrul de cercetari chimice, Sectia de chimie-fizica, Bucuresti.

(Solutions) (Water) (Copper chlorides)
(Ions) (Electrolysis)

GONTARENKO, M.A., starshiy nauchnyy sotrudnik; ZEL'TSER, V.Ya., inzh.-mekhanik; TOPOR, I.A, agronom-plodovod

Filling station for sprayers. Zashch.rast.ot vred.1 bol. 5
no.7:18-19 J1 '60. (MIRA 16:1)

1. Moldavskaya stantsiya Vsesoyuznogo instituta zashchity rasteniy (for Gontarenko). 2. Sovkhoz imeni Frunze (for Zel'tser, Topor).

(Spraying and dusting equipment)

POPOR, Mariya Mitrofanovna [deceased]; SKATKINA, L.N., red.; RODIONOVA,
Z.A., red.; MAKHOVA, N.N., tekhn. red.

[Practical work in arithmetic for the third and fourth grades]
Prakticheskie raboty po arifmetike v III i IV klassakh. Pod
red. L.N. Skatkina. Moskva, Gos. uchebno-pedagog. izd-vo M-va
prosv. RSFSR, 1957. 44 p. (MIRA 11:8)
(Arithmetic--Problems, exercises, etc.)

TOPOR-N.

0000

551.509.33:551.509.318
 ✓ 7.5-99
 [TOPOR-N. A távidojelzés kutatása a Román Népköztársaságban. [Research on long-range forecasting in Rumania.] *Időjárás*, Budapest, 58(6):380-396, Nov./Dec. 1954. 34 figs., 2 tables. Russian and French summaries p. 380. Transl. by L. Avjeszky. DWB- Also: complete German version: *Die langfristige Wettervorhersage in der Volksrepublik Rumanien. Acta Agronomica*, Budapest, 5(1/2):163-186, 1955. Russian and English summaries p. 186. DA—In Romania systematic research on long range forecasting was started in 1951 by a small research group. A card file was prepared from Romanian observational data for the period 1889-1951. Sixteen pressure and circulation types were determined on the basis of U. S. Weather Bureau Historic Weather Maps (1889-1939) and Romanian synoptic weather maps (1939-1951). This paper contains a detailed description of the 16 circulation types and their frequency distribution in Europe, with particular reference to their effect on weather in Romania. Subject Headings: 1. Long range forecasting. 2. Synoptic types 3. Rumania. I. Aujeszky, László (Trans.).—G.T.

Topor, N.

ROMANIA

TOPOR, N.

Meteorological Institute of the Rumanian People's Republic
(Institutul Meteorologic al R.P.R.)

Bucharest, Viata Medicala, No 9, 1 May 63, pp 577-582

"Meteorology and Medicine."

TOPOR, N.D.

Combined thermal analysis of mineral formations using differential weight loss curves. Izv. AN SSSR. Ser. geol. 29 no.11:83-89 (MIRA 17:12)
N '64.

1. Moskovskiy gosudarstvennyy universitet.

CANICHERNO, I.G.; TOPOR, N.D.; TOCHNINEVA, K.V.

Physicochemical properties of para-sulfite oxides. *Vest.Mosk.un.Ser.*
2:Khim. 19 no.4:19-25 41-Ag '64. (MIRA 18:3)

1. Kafedra fizicheskoy khimii Moskovskogo universiteta.

TOPOR, N.D.

[Differential thermal and thermogravimetric analysis
of minerals] Differential'no-termicheski i termo-
vescvoi analiz mineralov. Moskva, Nedra, 1962. 157 p.
(MIRA 18:1)

ACCESSION NR: AP4044071

TOPIC TAGS: ERIS, GADOLIN OXIDE, Ytterbium oxide, ytter-

APPROVED FOR RELEASE: 08/31/2001

Card 2 / 3

TOPOR, N. D.

Platinum Group

Crystals of complex compounds of metals of platinum group; tenth article. Trudy
Inst. Krist. no. 5, 1949.

Monthly List of Russian Accessions, Library of Congress, December 1952 Unclassified.

TOPOR, N.D.

~~Bentonite~~ found near the village of Stodal'nya in the Moldavian
S.S.R. Trudy MGRI 29:57-58 '56. (MIRA 10:4)
(Stodal'nya (Moldavia);- Bentonite)

TOPOR, N. D.

USSR/Cosmochemistry. Geochemistry. Hydrochemistry.

D

Abs Jour : Referat. Zhurnal Khimiya, No 6, 1957, 18951.
Author : N.D. Topor.
Inst : Moscow Geological Prospecting Institute.
Title : Bentonite Near Stodol'ne Village, Moldavian SSR.
Orig Pub : Tr. Mosk. Geol. Razved. In-ta, 1956, 29, 57-58.

Abstract : Chemical, mechanical, thermal and X-ray analyses of a bentonite clay were carried out. This clay was found on the right bank of the Dniester in Sarmatian deposits as intercalations 0.1 - 0.2 m thick. This clay consists mainly of minerals of the montmorillonite group. The chemical composition is (in %) as follows: SiO₂ 53.1; Al₂O₃ 19.24; Fe₂O₃ 3.28; CaO 2.43; MgO 6.19; Na₂O + K₂O 3.81; loss after calcination - 6.77; hygroscopic moisture - 5.51. It is surmised that this clay has originated from volcanic ashes from the Neogenic volcanoes in the Carpathian mountains, which is indicated by the identical chemical composition and the increasing thickness of intercalations in the direction to the Carpathian mountains.

Card 1/1

61-

TOPOR, N. D.

42032 TOPOR, N. D. - Nabor immersionnykh Zhidkostey s. vysokimi pokazetelyami
prelomleniya (Nd-1.740-2.04). Nauch. Zapiski Moldav. Nauch.- issled.
Bazy Akad. Nauk SSSR. t. I. Bud. 1, 1948, s. 45-55. - Bib. Liogr: 9 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1949

TOPOR, V.: VESELKINA, A. redaktor; MALEK, Z. tekhnicheskiy redaktor.

[Handbook for workers in factory, plant and local committees].
Spravochnik Rabotnika FZMK; sbornik materialov v pomoshch'
fabrichno-zavodskim i mestnym komitetam. Moskva, Izd-vo VTsSPS
Profizdat, 1947. 230 p. (MLRA 8:8)
(Trade unions)

ТОПОР, В. М.
ARKHANGEL'SKAYA, O.A.; RAKHMANOV, P.A.; TOPOR, V.M.; SHOLOKHOV, V.N.;
NOVOSPASSKIY, V.V., redaktor; RAKOV, S.I., tekhnicheskiy redaktor

[Tourist routes through the U.S.S.R] Turistskie marshruty po
SSSR. Moskva, Izd-vo VTsSPS Profizdat, 1956. 300 p. (MLRA 10:4)

1. Vsesoyuznyy tsentral'nyy sovet professional'nykh soyuzov.
Turistsko-ekskursionnoye upravleniye. 2. Rabotniki Tsentral'nogo
turistsko-ekskursionnogo upravleniya Vsesoyuznogo tsentral'nogo
soveta professional'nykh soyuzov. (for Arkhangel'skaya, Rakhmanov,
Topor, Sholokhov)
(Russia--Guidebooks)

ARKHANGEL'SKAYA, O.A.; BAKHMANOV, P.A.; ~~TOPOR, V.N.~~; SHOLOKHOV, V.N.;
NOVOSPASSKIY, V.V., redaktor; BAKOV, S.I., tekhnicheskiy redaktor

[Tourist trips through the U.S.S.R.] Turistskie marshruty po SSSR.
[Moskva] Izd-vo VTsSPS Profizdat, 1956. 300 p. (MLRA 10:1)

1. Tsentral'noye turistsko-ekskursionnoye upravleniye Vsesoyuznogo
TSentral'nogo Soveta professional'nykh soyuzov. (for Arkhangel'skaya,
Bakhmanov, Topor, Sholokhov)
(Russia--Discription and travel--Guidebooks)

TOPOR, V.v.; GEORGESCU, R.; VLADICA, Gh.

Ensuring the permanency of the brigades of production in collective farms. Probleme econ 15 no.1:93-102 Ja '62.

PAVEL, I.; SDROBOCI, D.; DUMITRESCU, C.; TOPORAG, V.

The importance of exogenous factors in the etiology of obesity.
Cesk. gastroent. vyz. 16 no.3/4:310-313 Ap '62.

1. Clinica de nutritie - dietetica, Bukuresti.
(OBESITY) (NUTRITION SURVEYS) (NUTRITION DISORDERS)
(PREGNANCY) (MENOPAUSE) (ARTERIOSCLEROSIS) (DIABETES MELLITUS)

136

2-1

Mechanism of the formation of atomic and colloidal centres of silver in alkali halide phosphors. A. TORONC (Compt. rend. Acad. Sci. U.R.S.S., 1937, 16, 248-249; of A., 1930, 427). -- The formation of at. Ag and K centres by penetration of electrons into KCl and KBr crystals has been studied by observing their ultra-violet absorption coeffs. The formation of colloidal Ag particles instead of at. centres is discussed. A. J. E. W.

AS 51 A METALLURGICAL LITERATURE CLASSIFICATION

AS 51 A METALLURGICAL LITERATURE CLASSIFICATION										METALLURGICAL LITERATURE CLASSIFICATION														
SUBJECT					SUBJECT					SUBJECT					SUBJECT									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

PROCESSES AND PROPERTIES INDEX

a-1

bc

Atomically divided silver. A. TOPOROG (Compt. Rend. Acad. Sci. U.R.S.S., 1935, 4, 27-30).—The absorption spectra of Ag dispersed in KCl, KBr, and KI are recorded. The colloidal nature of the colour centres is discussed. H. J. E.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUPS										LETTERS															
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z

PRECISES AND PROPERTIES INDEX

A 548

SA

2171. Mobility of Metallic Ions in Alkali Halide Crystals. S. Arsybyev and A. Toporcov. *Comptes Rendus de l'Acad. des Sciences, U.R.S.S.* 1. 4. pp. 176-178, 1934. In German.—In the additive coloration of rock-salt by diffusion of metallic ions into a crystal under the action of an electric field a small vivid red cap appears beyond the limit of the coloured region near to the anode. This cap is separated from the coloured region by a clear region which absorbs ultra-violet light beyond 3000 Å. It is shown that the small cap is caused by diffusion of metallic ions from the anode into the crystal; these ions disturb the crystal grating and permit coagulation of the colour-centres in such a way as to cause them to absorb in two band regions with maxima at 445 $\mu\mu$ and 800 $\mu\mu$. With a copper anode measurement of the distance from the anode at which the cap is formed in a given time enables one to determine the mobility of copper ions in rock-salt crystals. This is found to be 180 $\mu\mu$ per second. The mobility of Ag, Fe and Ni ions is similarly determined. J. E. K.

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

NON-METALS: H C N O S P

ALLOYS: AL CU FE NI CO CR NI MO

REFINING: P B C D E F G H I J K L M N O P Q R S T U V W X Y Z

PROPERTIES: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

PHYSICAL: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

CHEMICAL: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

MECHANICAL: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

OTHER: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

1440. Atomic Silver in Alkali and Silver Halides. A. Toporec.
Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R. 4. 1-2.
pp. 27-30, 1935. In German.—The colouring in alkali halides may be due
to either colloidal or atomic silver and each has a characteristic absorption
band. It is known that u.v. light produces the atomic Ag in alkali
halide solid solutions but such a process is still uncertain in the silver
halides. Calculation of the "atomic" absorption wave-length from the
Mollwo formula $\mu^2 = 5.02 \times 10^{-3} \text{ cm.}^2 \text{ sec.}^{-1}$ (k being the lattice
constant) shows that in Ag halides there would be overlapping of the
atomic and colloidal absorption bands. There is coincidence between the
calculated atomic absorption wave-length and the maximum of the photo-
electric effect. Experiments with silver introduced into KBr and KI show
that atomically distributed silver does exist here (absorption at $300 \mu\mu$)
—but so also does colloidal Ag (absorption varying from 410 to $490 \mu\mu$
with varying size of colloidal particles). Calculation of the expected
absorption wave-lengths for KCl, KBr and KI with atomic Ag centres
gives numbers in close agreement with the observed u.v. absorption. J. E.

1454

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REGION BOMIRAV

144000 017 000 001

A 548

Sa

PROCESSES AND PROPERTIES UNDER
1ST AND 2ND SUBHEADS

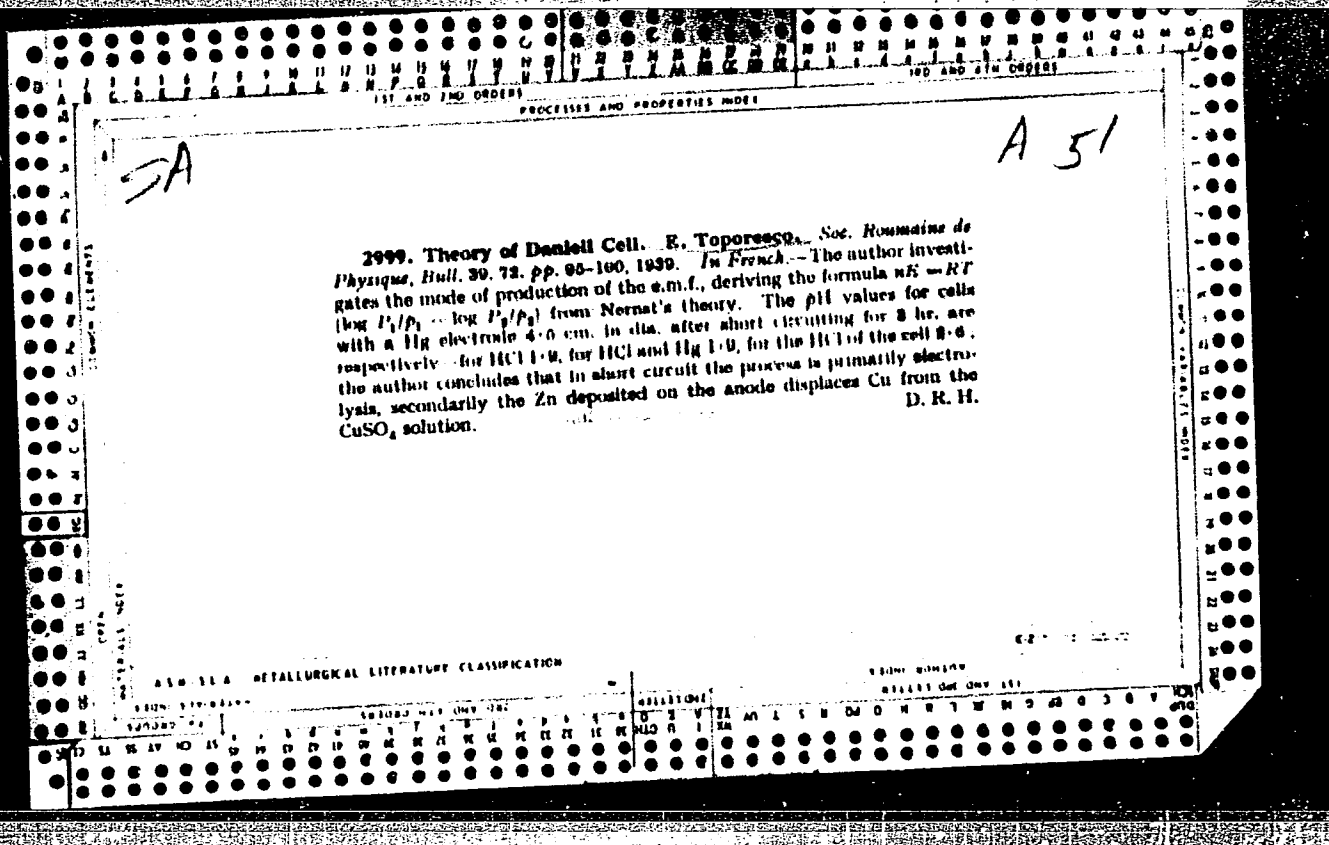
6306. Formation of Atomic and Colloidal Centres of Silver in Alkali-Halide Phosphors. A. Toporec. *Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R.* 18: 5, pp. 243-248, 1937. In English.— It has been shown in a previous paper that if electrons penetrate into a crystal of an alkali halide containing ionic Ag, atomic centres of Ag—A centres—as well as atomic centres of alkali metal—F centres (see Abstract 1440 (1936)) are formed. The number of either kind has been evaluated from absorption measurements. The number of Ag centres does not depend on the temperature while the number of alkali centres depends on temperature exponentially. This is taken to show that the electrons are mainly trapped by the Ag ions. In K salts above a certain limiting concentration of Ag, colloidal Ag is formed as well as atomic centres. In Na salts the Ag aggregates to colloidal centres at infinitesimal concentrations.

J. E.

METALLURGICAL LITERATURE CLASSIFICATION

ASM-ISA METALLURGICAL LITERATURE CLASSIFICATION

GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Topor

RUMANIA/Forestry. Forestry and Forest Cultivation.

J-3

Abs Jour: Referat Zh-Biol., No 6, 1957, 22578

Author : Topor
Inst : 0
Title : The Preparation of Spearleaved Maple Seeds for Sowing.

Orig Pub: Rev. padurilor, 1954, 69, No 5, 212-214

Abstract: Tests were conducted at the "Michurin" (Rumanian People's Republic) testing station in 1949-1952 on preparation of spearleaved maple seeds for sowing. Soaking the seeds in water for 24 hours, then mixing them with sand and holding for 2-3 days at 16°, is recommended. Seeds with a germination of 75-80% are fully suitable for sowing. The collection of seeds should be made in the ripe stage, when the wings have yellowed. There is a reference to studies by Soviet authors on stratification of spearleaved maple seeds.

Card : 1/1

-17-

TOPOR, D.; BUZNEA, G.; CONSTANTINESCU, O.

Use of organic solvents in the selective elution of the cations adsorbed on the ion-exchanging resins. I. Selective elution of zinc and copper. p. 333.

Academia Republicii Populare Romine. STUDII SI CERCETARI DE CHIMIE.
Bucuresti, Rumania. Vol. 6, no. 2, 1958.

Monthly List of East European Accessions (EEAI) Vol. 8, no. 7, July 1959.

Uncl.

TOPOR, D.

6

The possibility of separation of some ions on the Romanian cation-exchanger R-21. Silvia Ionescu, Olimpiu Constantin Ionescu, Ion Guinar, Mihai Mihalcu, and Dumitru Topor. *Acad. rep. populare Romane, Studii cercetari chim.* 6, 313-19(1957). The R-21 cation exchanger (sulfonated PhOH-HCHO) is a high-d. resin with a low water regain. The absorption capacity is of the order of 2 meq./g. dry resin, which is similar to the resins of this type. The selectivity of the resin is sufficient for the sepn. of pairs of ions with similar properties. The elutions are selective for the sepn. of similar cations. C. Heitner-Wirkus

GAJ
1/1

TOP SECRET

RUMANTSA / Analytical Chemistry--Analysis of Inorganic substances.

3-2

Abstr Jour : Referat Zhur--Khimiya, No. 11, 1959, 38275

Author : Ionescu, S.; Constantinescu, O.; Gelnar, I.; Hileanu, M.; and Topor, D.

Inst : Not given

Title : Investigation of the Possibility of Separating Some Ions on Rumanian Type R-21 Cation Exchange Resins.

Orig Pub : Studiul si Cercetarea Chie 6, No. 2, 313-319 (1959) (In Rumanian with French and Russian summaries)

Abstract : The authors have determined conditions for the resolution of a pairs of cations using rumanian-made type R-21 cation exchange resin, obtained by the polycondensation of p-phenolaldehyde acid (1 mol) with CH₂O (1.3 mol) in the presence

Card 1/3

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of K₂CO₃ without the use of pressure or distillation. The ion exchange capacity of the R-21 resin is about 2 mequiv/cm, calculated on a dry resin basis; the density of the resin is 1.492 g/cm³; moisture utilization the cation exchange resin is put in the H form by washing with an HCl solution. Good results were obtained from the resolution of the following ion pairs: Al³⁺-Fe³⁺ (eluted with 0.05-1 N HCl, concn 41-50 mg/l); Cu²⁺-Ni²⁺ (0.3 N solution of ammonium acetate, pH 5; 1.5x 24 cm; 0.1-0.5 mm); Co²⁺-Zn²⁺ (ammonium chloride solution of pH 3-2; 1x 105 cm; 0.1-0.2 mm), and Ni²⁺-Mg²⁺ (1 N HCl; 1x 105 cm; 0.1-0.2 mm).

Card 2/3

Inorganic substances.

Abstr Jour : Referat Zhur--Khimiya, No. 11, 1959, 38275

Title : A flow rate of 10-15 drops per min is used for the solution to be analyzed and for the eluent. -- B. Manole

Card 3/3

83

RUMANIA / Analytical Chemistry--Analysis of
inorganic substances.

E-2

Abs Jour : Referat Zhur--Khimiya, No. 11, 1959, 38276

Author : Buznea, G.; Constantinescu, O.; and Topor, D.

Inst : Not given

Title : The Application of Organic Solvents in the
Selective Elution of Cations Adsorbed on Ion
Exchange Resins. I. Selective Elution of Zinc
and Copper.

Orig Pub : Studii si Certetari Chim, 6, No. 2, 333-338
(1958) (in Rumanian with summaries in French
and Russian)

Abstract : It has been determined that when acetone con-
taining 20% H₂O and 0.5% HCl (sp gr 1.16) is
used as the eluent, the complete resolution of
Zn²⁺ and Cu²⁺ adsorbed on Rumanian-made type

Card 1/3

RUMANIA / Analytical Chemistry--Analysis of
inorganic substances.

E-2

Abs Jour : Referat Zhur--Khimiya, No. 11, 1959, 38276

R-21 cation exchange resin (see preceding abstract) can be achieved. Good results have also been obtained with acetone containing 40% H₂O and 1% HCl. A solution of the sulfates of Zn and Cu containing Zn⁶⁵ as a radioactive indicator was passed through a quartz column (0.7x 25 cm) packed with R-21 cation exchange resin (grain size 0.3-0.5mm) which first had been converted to the H-form by washing with 5 N HCl. The amount of solution passed through the column was taken at about 20% of the total exchange capacity of the column (54.6 mg Zn and 56.8 mg Cu per gm of air-dried resin). Following washing with acetone (10 ml) one of the above-

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TEODORESCU, Marius, ing.; TOPOR, Gheorghe, ing.

Necessity of air transport and its part among all means of
transportation. Rev. transport 10 no.12:552-561 D '63.

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001756310017-0

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001756310017-0"

TOPOR, Mariya Mitrofanovna [deceased]; SKATKIN, L.N., red.; KAPUSTINA,
V.S., red.; KOVALENKO, V.L., tekhn. red.

[Practical work in arithmetic in grades 1-4] Prakticheskie
raboty po arifmetike v I-IV klassakh. Pod red. L.N. Skatkina.
Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1959.
127 p. (MIRA 12:8)

(Arithmetic--Problems, exercises, etc.)

TOPOR, N.D.; KOSTIK, G.Ye.

Miocene volcanic ash in the northeastern part of the Moldavian
S.S.R. Trudy MGRI 33:145-148 '58. (MIRA 12:12)
(Moldavia--Volcanic ash, tuff, etc.)

15-57-5-6616

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,
p 132 (USSR)

AUTHOR: Topor, N. D.

TITLE: Bentonite Near the Village of Stodol'ne in Moldavia
(O bentonite bliz derevni Stodol'ne Moldavskoy
SSR)

PERIODICAL: Tr. Mosk. geolorazved. in-ta, 1956, Vol 29, pp 57-58.

ABSTRACT: Volcanic ash and tuff, occurring in Neogene deposits,
are found in the region between the Dnestr and the
Carpathian arc. In the same region, in the district
of Stodol'ne, seams of rock occur which, in their
outward appearance, suggest bentonitic clays. These
are middle Sarmatian deposits. Megascopically these
clays are homogeneous, waxy rocks with greenish colors
and with small ferruginous inclusions. The light
fraction of the clays (less than 2.9) consists almost
exclusively of isotropic volcanic glass (N 1.512 to
1.527) and small quantities of quartz and feldspar.

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15-57-5-6616

Bentonite Near the Village of Stodol'ne in Moldavia (Cont.)

The heavy fraction is principally limonite. X-ray and thermal studies of the fraction smaller than 0.001 have shown that this material consists principally of minerals in the montmorillonite group. The chemical composition of the bentonitic clays is similar to that of the volcanic ash. The bentonitic clays of the region are apparently associated with diagenetic changes in the volcanic ash.

O. V. B.

Card 2/2

~~TOPOR, Nikolay Dmitriyevich; KLER, M.M., red.; KARPOVA, I.S., red.;~~
~~YERMAKOV, M.S., tekhn. red.~~

[Spectrum analysis of minerals, ores and rocks] Spektral'nyi
analiz mineralov, rud i gornykh porod. Moskva, Izd-vo Mosk.
univ., 1963. 190 p. (MIRA 16:8)
(Minerals--Spectra) (Ores--Spectra) (Rocks--Spectra)

~~TOPOR, V.~~

Winter recreation. Okhr. truda i sots. strakh. 4 no. 1f38 Ja '61.
(MIRA 14:3)

(Winter sports)

ARKHANGEL'SKAYA, O.A.; RAKHMANOV, F.A.; TOPOR, V.N.; SHELOKOVA,
I.N., red.

[Trade-union tourist bases] Turistskie bazy profsolyuzov.
Moskva, Profizdat, 1965. 412 p. (MIRA 18:1)

PAVEL, I.; SDRBICI, D.; DUMITRESCU, C.; TOPORAS, V.

Prevention of obesity. Stud. cercet. endocr. 16 no.3:
243-251 '65.

Toporets, A.A.

K

USSR / Optics

Abs Jour: Referat Zhur-Fizika, 1957, No 4, 10339

Author : Toporets, A.A.

Inst : Not Given

Title : Influence of External Factors on the Results of Measurements of Reflected Light.

Orig Pub: Optika i spektoskopiya, 1956, 1, No 1, 90-93

Abstract: Experimental data are given to show that the result of the measurement of the coefficient of diffused reflection depends both on the method of illuminating the specimen, as well as on the method of observation. The principal role is played in this case by the light flux reflected from the surface of the specimen. A method for measuring this flux is described and the dependence of the form of the indicatrix on the magnitude of the absorption in the reflecting layer is indicated.

Card : 1/1

Toporet's A.S.

USSR/Optics - Physical Optics

K-5

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12976

Author : Ivanov, A.P., ~~Toporet's, A.S.~~

Inst : -

Title : Investigation of Diffused Reflection with Application of Polarized Light. I.

Orig Pub : Zh. tekhn. fiziki, 1956, 26, No 3, 623-630

Abstract : During diffused reflection from dielectrics, the reflected flux comprises two components, an external, reflected from the surface, and an internal, reflected from the inside. In an earlier work by one of the authors (Toporet's A.S., Zh eksperim i teor fiziki, 1950, 20, 390) it was proposed, that the external component retains the polarization state of the incident stream, and the internal becomes depolarized. The degree of polarization of the internal component, depending on the angles of observation, was investigated theoretically and experimentally both

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USSR/Optics - Physical Optics

K-5

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 12976

since the external component also becomes mixed in. However, using polarized light, it is possible to measure the external and internal components over a sufficiently wide range of angles, without a noticeable error. Measurements of the degree of polarization of the reflected stream in the case of colored and uncolored paper have shown that up to angles of 45° the degree of polarization of the internal component does not exceed the measurement error, provided the light employed is polarized in the plane of incidence. At greater angles of observations, the degree of polarization of the internal components reaches values of several percent.

Card 3/3

Toporets, A.S.

IVANOV, A.P.; ~~TOPORETS, A.S.~~

Spectrophotometric analysis of mixtures of powderlike specimens.
Izv. AN SSSR Ser. fiz. 21 no.11:1502 N '57. (MIRA 11:1)
(Spectrophotometry)

PROCESSES AND PROPERTIES INDEX

A new method for determining the mobility of metallic ions in alkali halide crystals. S. A. Artzibuishev and A. S. Lupovalov. *Compt. rend. acad. sci. U. R. S. S. (N. S.)*, 1, 176-7 (in German 177-8)(1934); cf. C. A. 28, 318. Three rock salt crystals of the same size were heated to 700° and an e. m. f. of 40 v. was applied between Cu electrodes, for 20, 40 and 60 min., resp. A C cathode was then replaced by one of Na and the e. m. f. again applied. A bright red "cap" (Artzibuishev, Yuzhakov and Milkovskaya, C. A. 28, 3055) was found at distances from the anode directly proportional to the duration of the previous treatment. B. R. R.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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COMMON ELEMENTS

PERIODIC TABLE

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1ST AND 2ND GROUPS PROCESSES AND PROPERTIES INDEX

3

Ca

Nucleus formation in silver halide crystals. M. V. Savust'yanova and A. Toporetz. *Compt. rend. acad. sci. (U. S. S. S.)* 2, 225-R (in German 225-31) (1934) - Ag halides were prepd. in the form of thin plates by melting the salt between 2 glass or quartz plates and slowly cooling. On treatment with light of proper wave length, the Ag halide underwent a discoloration. Spectrophotometric measurements produced a series of absorption maxima that were in good agreement as to form and position with those calcd. from Mie's theory. Don Brouse

METALLURGICAL LITERATURE CLASSIFICATION

E2

PROCESSES AND PROPERTIES INDEX

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

5TH AND 6TH ORDERS

7TH AND 8TH ORDERS

9TH AND 10TH ORDERS

11TH AND 12TH ORDERS

13TH AND 14TH ORDERS

15TH AND 16TH ORDERS

17TH AND 18TH ORDERS

19TH AND 20TH ORDERS

21ST AND 22ND ORDERS

23RD AND 24TH ORDERS

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71ST AND 72ND ORDERS

73RD AND 74TH ORDERS

75TH AND 76TH ORDERS

77TH AND 78TH ORDERS

79TH AND 80TH ORDERS

81ST AND 82ND ORDERS

83RD AND 84TH ORDERS

85TH AND 86TH ORDERS

87TH AND 88TH ORDERS

89TH AND 90TH ORDERS

91ST AND 92ND ORDERS

93RD AND 94TH ORDERS

95TH AND 96TH ORDERS

97TH AND 98TH ORDERS

99TH AND 100TH ORDERS

Atomically divided silver. A. S. Toporoff, *Comp. Rend. Acad. Sci. U. R. S. S. R.* 19, 27 (1935), cf. C. A. 29, 5149, (1937); 20, 2449. — To det. whether Ag can exist in at. form in Ag halides, a modified form of Mollwo's equation (C. A. 29, 5847) was used to calc. the max. wave lengths; the sums of the at. radii for AgCl, AgBr and AgI were used. The at. color bands were found in the colloidal region and could not be used by optical methods. Alkali halides contg. Ag phosphors (C. A. 29, 1018) were prep'd. and colored by the method of Art. zaitsev (C. A. 29, 2437), with a cathode of Na which was melted and pointed into a hole bored in the crystal, which increases the no. of electrons penetrating the crystal. The absorption spectrum showed at least 2 new bands near the F bands and the color centers did not disappear on reversing the current, as did the F centers. The first band was in the ultraviolet at about 300 m μ and the second in the blue-violet, but it was not very distinct. In different KCl crystals the maxima varied from 410 to 490 m μ , which is probably due to differences in particle size, since the maxima change irreversibly on heating and the absorption bands, calc'd. from Mie's theory for the smallest particles, are 410 m μ for Ag-KCl, 420 for KBr and 430 for KI. For larger particles the curve was shifted toward the red end of the spectrum. The bands at 300 m μ are due to at. Ag because they are always found in the same position in different crystals of the same salt. They undergo a reversible change with temp., and phosphors

which have bands at 300 m μ and are colorless become colored on heating to 700°, owing to the formation of colloidal particles. The positions of the at. color bands calc'd. from the modified equation of Mollwo (C. A. 29, 5847) agree closely with observed values. KCl with 0.05 mol. % Ag gave 280 m μ observed and 287 calc'd., KBr and 0.02 Ag, 302 and 301, resp., KI and 0.02 Ag, 320 observed.

E. R. Rushton

2

PROCESSES AND PROPERTIES INDEX

CA

Growing of single lithium fluoride crystals. A. Toporetz and G. Bush. *Optiko-Mekhan. Prom.* 7, No. 12, 112 (1937); *Chem. Zentr.* 1938, II, 1805. A single LiF crystal 20 mm. in diam. and 35 mm. thick was obtained by heating the fused salt in a Pt crucible placed on a porcelain ring in an elec. furnace and then rapidly cooling the melt immediately after inoculation. It is most important to avoid contamination of the crystal or the melt, as, e. g., by the Fe from the furnace. This is accomplished by maintaining a furnace-wall temp. of 900° and placing a Pt shield between furnace wall and crucible. M. G. M.

METALLURGICAL LITERATURE CLASSIFICATION

GROUP NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1

Crystalization of potassium chloride from melts. A. M. Kublitski and A. S. Toporetz. *J. Phys. Chem.* (U. S. S. R.) 10, 982(1937).—Comments on Technoviter's paper (*C. A. JI. 8284*).

ASTM-ISA METALLURGICAL LITERATURE CLASSIFICATION

GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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PROCESSES AND PROPERTIES

1ST AND 2ND SECTORS

2

CP

Mechanism of the formation of atomic and colloidal centers of silver in alkali halide phosphors. A. Toporets. *Compt. rend. acad. sci. U. R. S. S.* 19, 245-8(1937).
 The absorption of crystals contg. centers of at. Ag and alkali metal was measured. The no. of Ag centers for the same concn. in the melt does not depend on the temp. at which the electrons penetrate into the crystal, while the no. of alkali metal centers depends on the temp. exponentially. There occurs a passage of electrons from alkali metal centers toward Ag ions; at. and colloidal Ag are formed. If the electrons enter the crystal continuously there is a decrease in the velocity of the diffusion of the alkali metal centers.
 G. H. Coler

ASM-31A METALLURGICAL LITERATURE CLASSIFICATION

GROUPS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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