

REJTC, GY.

REJTC, GY. Utilization of production capacity in the brick industry. p. 27.
Vol. 8, no. 1, Jan. 1956. EFITOANYAG. Budapest, Hungary.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

REJTO, GY.

REJTO, GY. Statistical methods of testing quality. (To be contd.) p. 180.

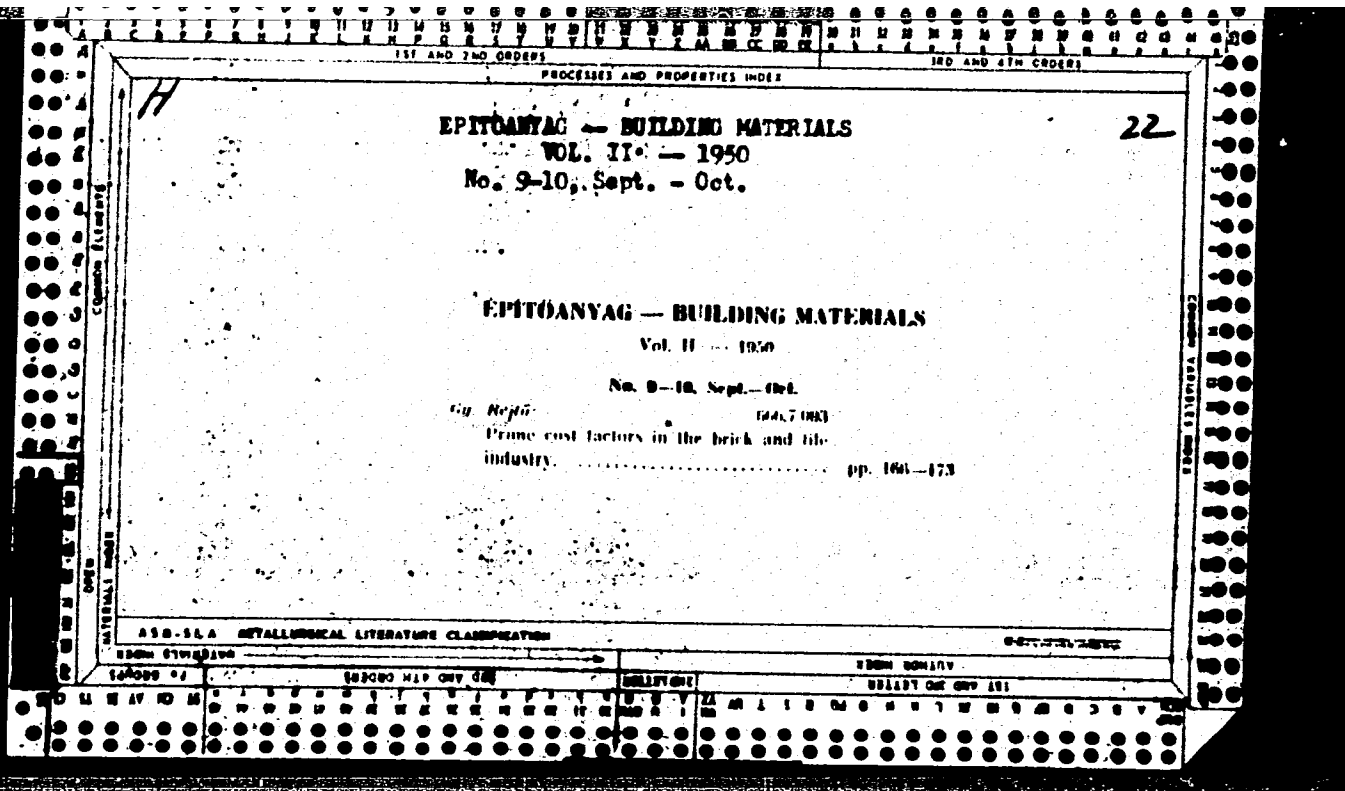
Vol. 8, no. 5, May 1956

EPITOANYAG

TECHNOLOGY

Budapest, Hungary

So: East European Accession, Vol. 6, No. 5, May 1957



REJTO, Istvan

Two documentary volumes from the writings of Pal Gyulai.
Magy tud 69 no.3:193-196 Mr '62.

1. Tudomanyos fomunkatars, Magyar Tudomanyos Akademia Kony-
vtara, Budpaest.

REJTO, Istvan

Old problems in a new dress; remarks about Janos Barta's
article "Mikszath-problems." Magy tud 69 no.4:249-260
Ap '62.

1. Tudományos főmunkatárs, Magyar Tudományos Akadémia
Könyvtára, Budapest.

REJTO, Istvan, tudományos kutató (Budapest)

Kalman Mikszath; a biographic sketch. *Magy tud.* 67 no.9:511-515
S '60. (EEAI 9:12)

(Mikszath, Kalman)

(Hungarian literature--History and criticism)

REJTO, Istvan

Hungarian literary manifestations of nationalism. *Magy tud* 67 no.5/6:
348-352 My-Je '60. (EBAI 9:9)

(Hungary--Nationalism)

(Hungarian literature--History and criticism)

(Hungarian Academy of Sciences)

REJIC, I.

Discussion about Party-mindedness in literature. p. 243.

Vol. 115, no. 4, Apr. 1956

TEREKSZET ES TARSADALOM

Budapest, Hungary

Source: East European Accession List. Library of Congress
Vol. 5, No. 8, August 1956

REJTO, Kalman, foorvos

Fungous diseases of the foot. Borsod szemle 6 no.2:31-35 '62.

1. Borsod megyei kornhaz.

REJTO, Kalman, dr.; MAGYAR, Eva, dr.

Our cases of chronic urticaria related to Entamoeba histolytica.
Borgyogy. vener. szemle 39 no.1:35-38 F '63.

1. A Borsod-Abauj-Zemplen Megyei Korhas, Miskolc, Szentpeteri kapu
(igazgato: Szabo Istvan dr.) borosztalyanak (foorvos: Rajto Kalman dr.)
es a Borsod-Abauj-Zemplen Megyei Kozegeszseguygi es Jarvanyugyi Allomas
(igazgato: Jurkovits Janos dr.) laboratoriumanak (foorvos: Biro Zsigmond
dr.) kozlemenye.

(URTICARIA) (AMMONIUM CHLORIDE) (CHLOROQUINE)
(AMEBICIDS) (AMEBIASIS)

R. E. REJZINS

H-32

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and
Their Application, Part 4 - Cellulose and
Its Derivatives, Paper.

Abs Jour : Ref. Zhur. Khimiya, No 4, 1958, 13228.

Author : R. E. Rejzin's

Inst : Not given

Title : On The Mass Fractioation at Continuous Milling in Hol-
landers.

Orig Pub : Papir a celuloza, 1956, 11, No 1, 15 - 16.

Abstract : Translation. See RZhKhim, 1956, 56326.

Card 1/1

REJTO, Laszlo, ujisagiro

Mass sports in the Ganz Wagon Factory. Munka 8 no.9:28 S '58.

NOVAK, P.; REK, L.

Indications for early treatment of complicated spinal fractures.
Bratisl. lek. listy 43 no.2:103-109 '63.

1. Z I chirurgickej kliniky Lek. fak. Univerzity Komenskeho v
Bratislave, prednosta prof. MUDr. K. Garaky, a z chir. odd. St.
sanatoria v Bratislave, prednosta MUDr. P. Novak, C. Sc.
(SPINAL INJURIES) (FRACTURES) (SPINAL CORD COMPRESSION)

NOVAK, P.; REK, L.; KOMAR, R.

Prevention of lesions due to respiratory insufficiency in
craniocerebral injuries. Bratisl Lek. Listy 44 no.7:435-451 '64.

I. I. chirurgická klinika Lek. fak. Univerzity Komenského v
Bratislave (vedúci prof. MUDr. K. Carský), Chirurgické
oddelenie Štátneho sanatória v Bratislave (vedúci MUDr.
P. Novák, C.Sc.) a Katedra súdneho lekárstva Lek. fak.
Univerzity Komenského v Bratislave (vedúci prof. MUDr.
H. Krsek).

NOVAK, P., MUDr. CSc.; REK, L.; KOMAR, R.

On the problem of multiple injuries. Bratisl. lek. listy 45
no.7:427-432 15 Ap '65.

1. I. chirurgická klinika Lekárske fakulty Univerzity Komenského v Bratislave (vedúci: prof. MUDr. K. Carský); Chirurgické oddelení Štátneho sanatória v Bratislave (vedúci: MUDr. P. Novák, CSc.) a Ústav súdneho lekárstva Lekárske fakulty Univerzity Komenského v Bratislave (vedúci: prof. MUDr. H. Krsek).

REK, Leopold, doc. MVDr.

Experience in adding synthetic urea to the feeds for ruminants
in the Prostějov District in the years 1959-1961. Veter
medicina 8 no.1:3-12 Ja '63.

1. District Veterinary Station, Prostějov 1.

BRUCKNER, L.; MOSLER, J.; CERNY, J.; BESKA, Fr.; REK, O.

Changes in the large intestine after irradiation in gynecological cancer. Cesk. rentgenol. 15 no.5:334-343 O '61.

1. Onkologicke oddeleni KUNZ Cstrava v Paskove, prednosta prim.
MUDr. B. Raffersberg.

(GENITALIA FEMALE neoplasms)
(INTESTINE LARGE radiation eff.)

REKA, I.

"We have all the possibilities of obtaining a higher yield in the cultivation of maize."

FER BUJESINE SOCIALISTE., Tirane, Albania., Vol. 13, No. 3, Mar. 1959.

Monthly list of EAST EUROPEAN ACCESSIONS (EEAI), LC, Vol. 8, No. 7, July 1959, Unclas

REKA, I.

"We must use all our efforts to fulfill the 1958 plan for agriculture."

p. 1 (PER BUJQESINE SOCIALISTE) Vol. 12 no. 1, Jan. 1958.
Tirane, Albania

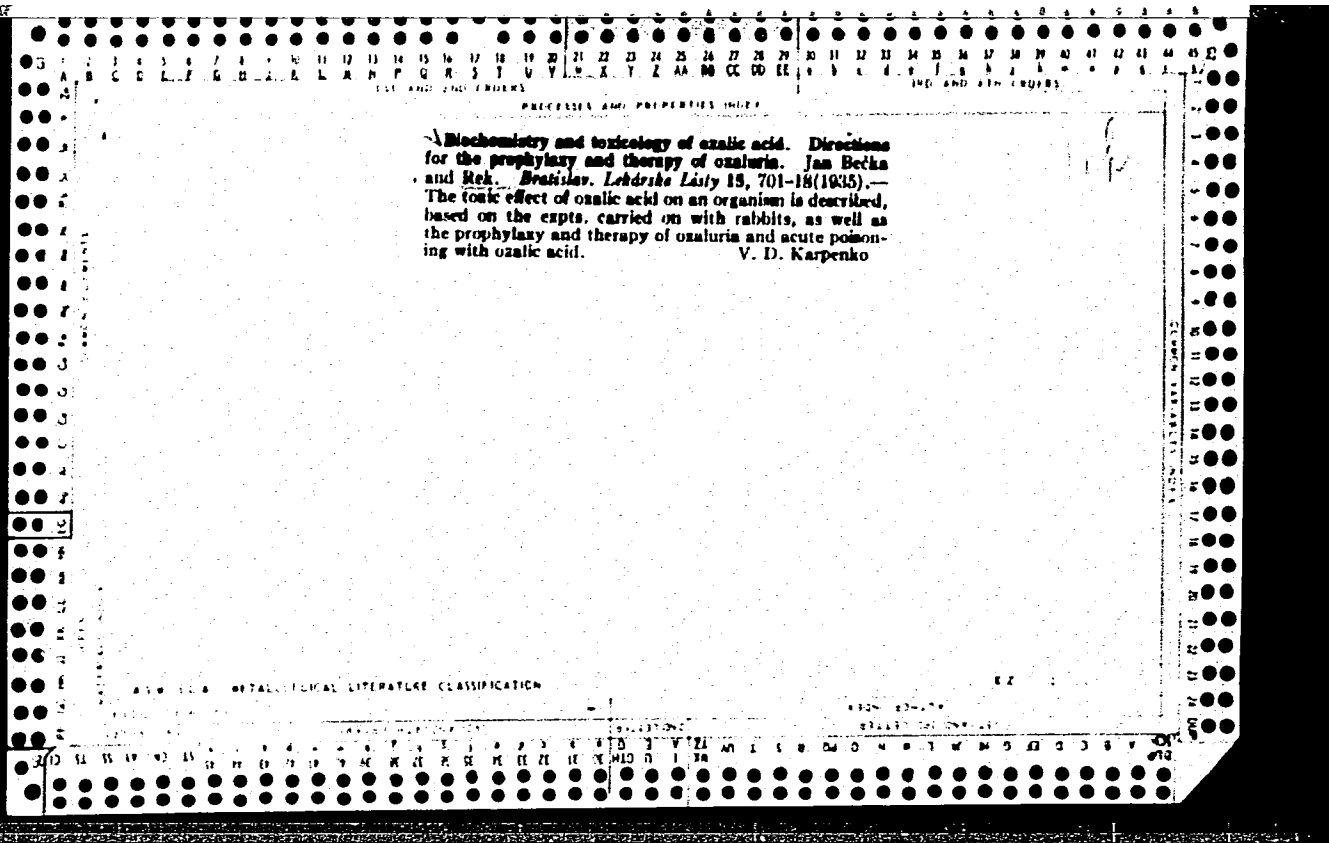
SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7 No. 4,
April 1958

BEKA, MD

KOGAN, Kopel' Borisovich; KAMYSEVA, Nina Konstantinovna; BEKA,
Mikhail Dmitriyevich; SUKACH, Vladimir Davydovich; SVETLICHNYY,
Pavel Luk'yanovich; SHVETS, Vladimir Vasil'yevich; ARKHANGEL'SKIY,
A.S., otvetstvennyy red.; ASTAKHOV, A.V., red.izdatel'stva;
IL'INSKAYA, G.M., tekhn.red.

[The KP experimental cutter-loader] Eksperimental'nyi prokhod-
cheskii kombain KP. Moskva, Ugletekhizdat, 1957. 50 p.
(MIRA 10:12)

(Coal mining machinery)



BRUCKNER, I. [deceased]; REK, O.

Tumors of the nasopharynx. Cesk. otolaryng. 14 no.5:296-300
0 ' 65.

1. Onkologicke oddeleni krajske nemocnice s poliklinikou v
Paskove (vedouci MUDr. B. Rappersberg).

РЕКА, МИХАИЛ Д.

PHASE I BOOK EXPLOITATION

595

Kogan, Kopel' Borisovich; Kamysheva, Nina Konstantinovna; Reka, Mikhail Dmitriyevich; Sukach, Vladimir Davydovich; Svetlichnyy, Pavel Luk'yanovich; and Shvets, Vladimir Vasil'yevich

Eksperimental'nyy prokhodcheskiy kombayn KP (The KP Experimental Continuous Mining Machine) Moscow, Ugletekhizdat, 1957. 50 p. 5,000 copies printed.

Resp. Ed.: Arkhangel'skiy, A. S.; Ed. of Publishing House: Astakhov, A. V.,
Tech. Ed.: IL'inskaya, G. M.

PURPOSE: This pamphlet deals with the selection method for a drift-cutting machine. It should be of interest to mining engineers and technicians in the coal-mining industry.

COVERAGE: In this pamphlet the authors briefly describe the design, method of selection of basic parameters, and the organization of field tests for the KP continuous mining machine operating conditions. This machine, to be used in soft rock for cutting drifts and cross-cuts in coal mines, was built at the Kopeyskiy mashinostroitel'nyy zavod imeni S. M. Kirova (Kopeysk Machine-building Plant imeni S. M. Kirov). A description is given of the planetary cutting

Card 1/2

The KP Experimental Continuous (Cont.)

595

mechanism and the drive system. Numerous performance data collected during the test are also given. No personalities are mentioned. There are no references.

TABLE OF
CONTENTS:

Introduction

3

1. Selection of Type and of Basic Parameters of Cutting Mechanism
for the Continuous Mining Machine

4

 Cutting mechanism

7

 Construction features

17

2. Organization of Field Tests for the Machine Under Operating
Conditions

26

 Test Measurements

27

 Field Tests Under Actual Work Conditions

34

 Test Results

46

49

Conclusions

AVAILABLE: Library of Congress (TN 813.K59)

Card 2/2

GO/gmp
August 28, 1958

REKA, Mikhail Dmitriyevich; BURLYGA, F.I., red.

[The KShKh mining complex] Prokhodcheskii kompleks
KShKh. Donetsk, Donetskoe knizhnoe izd-vo, 1963.
18 p. (MIRA 17:9)

L 04303-67 EWT(1)/I-2 FDN/WH

ACC NR: AP6005388

(N)

SOURCE CODE: UR/0413/66/000/001/0139/0139

AUTHORS: Reka, Ya. D.; Khudyakov, Ye. D.; Chernobay, I. F.; Fenkel'shteyn, L. A.;
Kultygin, N. S.; Lavrenyuk, N. A.

54
B

ORG: none

TITLE: A pneumatic drive direct-action pump pressure booster. Class 59, No. 17772
/announced by Donets State Design-Construction and Experimental Institute of the
Complex Mechanization of Mines (Donetskiy gosudarstvennyy proyektno-konstruktorskiy
i eksperimental'nyy institut kompleksnoy mekhanizatsii shakht)]

SOURCE: Izobreneniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 139

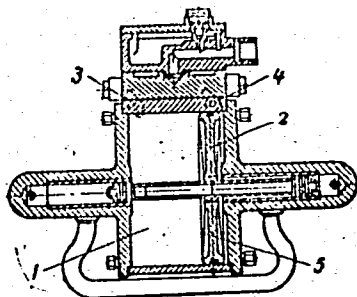
TOPIC TAGS: water pump, high pressure pump, high pressure pneumatic device,
hydraulic pressure amplifier

ABSTRACT: This Author Certificate presents a pneumatic drive direct-action double acting pump pressure booster. The device includes a pneumatic cylinder with a piston, two operating cylinders with pistons rigidly connected with the piston of the pneumatic cylinder, and a distributing valve which is repositioned with the aid of checking devices when the piston approaches the extreme piston (see Fig. 1). The design increases the lifetime of the pump. The piston of the pneumatic cylinder is equipped at its ends with blades for rotating the piston to a specified angle

UDC: 621.651.002.54

Card 1/2

L 04303-67
ACC NR: AP6005388



0
Fig. 1. 1 - pneumatic cylinder; 2 - piston; 3 and 4 - checking devices; 5 - blades

with each stroke. Orig. art. has: 1 figure.

SUB CODE: 13/

SUBM DATE: 18Jan64

Card 2/2 *gd*

REKACH, A

107-57-6-6/57

AUTHOR: Rekach, A., a member of the radio crew of the first Soviet Antarctic expedition.

TITLE: One Year in the Sixth Continent (God na shestom kontinente)

PERIODICAL: Radio, 1957, Nr 6, pp 6-7 (USSR)

ABSTRACT: The first expedition diesel-electric ship, "Ob'," approached the shores of Antarctica on January 5, 1955. Prefabricated housing and equipment were unloaded. Housing was assembled and equipment installed at the site of the future settlement "Mirnyy." Simultaneously, the radio station equipment was set up and its antenna erected. By February 28th, the radio station opened all communications with ships, aircraft, with Moscow, etc. A new inland station in "Pionerskaya" was organized by M. M. Somov and A. M. Gusev; radio operator was German Milikov. On April 26th, our collective radio station UA1KAE went on the air. An American shortwave ham W3VKD established contact with us on July 14th at 12.35 hours, Moscow time. Beginning in July, various radio amateurs reported that sometimes our signals were heard better along the longer path between the two stations. Thus, an American shortwave ham W7VY from Seattle reported that our signals via the North Pole had RST 559 while the signals via the South Pole had RST 579. As a result of various

Card 1/2

107-57-6-6/57

One Year in the Sixth Continent

experiments with radio amateurs who had directional rotatable antennas, we found that in the daytime, communication with the USA and Canada was better via the South Pole; during the night hours, via the North Pole. Georgiy Min'kov established many contacts through our radio station. Over four thousand communications were established from station UA1KAE; over two thousand of these were with Soviet shortwave hams. Over forty contacts were established with the scientific drifting station SP-6 which had the call sign UPOL-6. Four photos in the article.

AVAILABLE: Library of Congress

Card 2/2

REKACH, A. (UA3DQ)

Can one be satisfied with small accomplishments? Radio no.3:16
Mr '63. (MIRA 16:2)

1. Predsedatel' komiteta korotkikh voln Federatsii radiosporta
SSSR. (Radio operators) (Amateur radio stations)

SOV/107-59-3-12/52

6(4)

AUTHORS: Rassadin, G., Rekach, A., Patko, G., Masters of Amateur Radio

TITLE: The World Achievements of Amateur Radio Must be Surpassed (Prevzoyti mirovyye dostizheniya v radiosporte!)

PERIODICAL: Radio, 1959, Nr 3, p 14 (USSR)

ABSTRACT: During the past two years, Soviet amateur radio teams participated in 10 international competitions and demonstrated their superiority in many cases. However, in high-speed manual receiving and transmitting of radio messages they were inferior to the Chinese, North Korean and Bulgarian teams during competitions held in Karlovy Vary and Peking. The authors explain this by the fact that the responsible Soviet institutions are not active enough in the amateur radio training. They mention that the Tsentral'nyy radio klub DOSAAF (DOSAAF Central Radio Club) did not take

Card 1/2

KOSTYUKOV. V. (UA9EU) (Kachkanar Sverdlovskoy oblasti); ZHOMOV, Yu. (UA3FG);
REKACH, A., master sporta, sud'ya vsesoyuznoy kategorii; VITKOV, S.
(UB5EH0)

Short and ultrashort radio waves. Radio no. 6:13-14. Je '65.

(MIRA 18:11)

REKACH, A.

A year on the sixth continent. Radio no.6:6-7 Je '57. (MLRA 10:7)

1. Chlen radiootryada pervoy sovetskoy antarkticheskoy ekspeditsii.
(Antarctic Regions--Radio, Shortwave)

REKACH, A. (UA3DQ)

Exemplary discipline must be maintained on the air! Radio
no.10:14 0 '57. (MIRA 10:10)

(Radio, Shortwave)

REKON, A; ROZLIKOV, F.

Toward new measures of radio amateurs. Tr. from the Russian. p. 13

Vol. 4, no. 7/8, 1955

r. BIC

Sofiya, Bulgaria

So: Eastern European Accession Vol. 5 no. 4, 1956

AIN P - 4327

Subject : USSR/Radio

Card 1/1 Pub. 89 - 1/14

Authors : Magnitskiy, I., A. Rekach, and P. Romanov, Members of the Antarctic Expedition

Title : Radio-communication in the Antarctic Expedition

Periodical : Radio, 1, 7-8, Ja 1956

Abstract : The authors of the article are the radio-specialists participating in the antarctic expedition doing research for the Third International Geophysical Year and are assigned to the diesel ship "Ob'". A schematic map shows the plan of operations in the antarctic, the air-field, the main base, two experimental stations, etc. Photos of the radio workers are also presented.

Institution : None

Submitted : No date

Rekach, A.

USSR/ Electronics - Polar expedition

Card 1/1 Pub. 89 - 4/30

Authors : Magnitskiy, I.; Rekach, A.; and Romanov, P.

Title : Radio connections on the Antarctic expedition

Periodical : Radio 1, 7 - 8, Jan 56

Abstract : An account is given of the plans for radio connections for the Antarctic expedition, which will require transmission and reception between Moscow and the Antarctic base 14,000 kilometers apart and connections among various bases on the continent of Antarctica itself. Brief description of short-wave apparatus is given. Map; illustration.

Institution :

Submitted : ,.....

REKACH, A.

USER/ Electricity - Telegraphy

Card 1/1 Pub. 89 - 8/30

Authors : Rekach, A., and Roslyakov, F.

Title : Toward new successes in the radio amateur sport

Periodical : Radio 6, 11 - 12, Jun 1955

Abstract : Speech was presented by an experienced radio amateur on the usage of conventional and bi-lateral telegraph keys.

Institution :

Submitted :

REKACH, A., master radiolyubitel'skogo sporta; ROSLYAKOV, F., master
radiolyubitel'skogo sporta.

Toward new achievements by amateurs. Radio no. 6:11-12 Je '55.
(Radio operators) (MLRA 8:8)

PA 150T101

USSR/Radio - Radio, Amateur
Short-Wave

Oct 49

"Short-Wave Amateurs in Bukhta Tikhaya,"
Rekach (UA3DSheh), 1 p

radio" No 10

radio station on Bukhta Tikhaya archipelago
(UAIKTeTs) is operated by V. I. Ardashov, who
was landed there by the icebreaker G. Sedov
30 Sep 47. Ardashov previously operated an
amateur station in Yerevan (UD6AA). In one
year, 1,173 communications were carried out with
all continents. Radio-wave propagation conditions

FDD

150T101

USSR/Radio - Radio, Amateur (Contd) Oct 49

are generally good around this northernmost
USSR archipelago, but, as in the Arctic, these
conditions are subject to abrupt changes.

FDD

150T101

KUZ'MIN, N.L., kand. tekhn. nauk; REKACH, V.G., doktor tekhn. nauk;
ROZENBLAT, G.I., kand. tekhn. nauk; RABINOVICH, I.M., red.;
GORYACHEVA, T.V., red.izd-va; KOMAROVSKAYA, L.A., ~~tekhn.~~red.

[Collection of problems for a course in structural mechanics;
pt. I - Problems, Pt. II - Answers and solutions] Sbornik zadach
po kursu stroitel'noi mekhaniki; ch. I - Zadachi, ch. II - Otveti
i resheniia. Pod red. I.M. Rabinovicha. Izd. 2., perer. Moskva,
Gosstroifizdat, 1962. 331 p. (MIRA 16:2)

1. Chlen-korrespondent Akademii nauk SSSR, deystvitel'nyy chlen
Akademii ~~stroitel'stva~~ i arkhitektury SSSR (for Rabinovich).
(Structures, Theory of)

DARKOV, Anatoliy Vladimirovich; KUZNETSOV, Vasiliy Ivanovich; Prinipali
uchastiye: SINEL'NIKOV, V.V., doktor tekhn. nauk, prof.; KLEYN,
G.K., doktor tekhn. nauk, prof.; SHPIRO, G.S., kand. tekhn. nauk;
BYCHOV, D.V., prof., retsenzent; REKACH, V.G., prof., retsenzent;
BOCHAROVA, Yu.F., red. izd-va; GOROKHOVA, S.S., tekhn. red.

[Structural mechanics; statics structures] Stroitel'naia mekhanika;
statika sooruzhenii. Moskva, Vysshiaia shkola, 1962. 742 p.

(MIRA 16:5)

(Strains and stresses)

REKACH, V.G.

Some symmetrical cases of bodies resting on absolute rigid and flat foundations in plane problems of the theory of elasticity. *Mech.dokl.vys.shkoly; stroi. no.1:5-12 '59. (MIRA 12:10)*

1. Rekomendovana kafedroy stroitel'noy mekhaniki Moskovskogo inzhenerno-stroitel'nogo instituta imeni V.V.Kuybysheva.
(Elasticity)

24 4200

23361

S/124/61/000/007/038/044
A052/A101

AUTHOR: Rekach, V. G.

TITLE: Calculation of thin spherical shells

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 7, 1961, 10, abstract 7V71
("Nauchn. dokl. vyssh. shkoly. Stroitel'stvo", no. 1, 1958, 22-25)

TEXT: A method based on Legendre associated functions for calculating spherical shells is worked out. To prepare tables facilitating the application of this method the author gives an algorithm for determining Legendre associated functions. Technique of calculating hypergeometric series is developed, which is used for calculating differential operators for Legendre functions. A number of examples are solved. The high degree of accuracy of the asymptotic integration at the symmetric edge load is shown.

I. Shtayerman

[Abstracter's note: Complete translation]

Card 1/1

REKACH, V.G. (Moskva)

Integration of differential equations of the flexure of a flat
curved beam. Stroi. mekh. i rasch. soor. 3 no.6:11-16 '61.

(MIRA 15:4)

(Elastic rods and wires)

REKACH, V.G., prof., doktor tekhn.nauk

Calculating thin spherical shells. Nauch.dokl.vys.shkoly; stroi.
no.1:22-25 '58. (MIRA 12:1)

1. Moskovskiy inzhenerno-stroitel'nyy institut. Rekomendovana kafedroy
stroitel'noy mekhaniki.
(Elastic plates and shells)

Rekach, V. G.

124-1957-10-11893

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 10, p 99 (USSR)

AUTHOR: Rekach, V. G.

TITLE: Symmetrical Heating of Tapered Spherical Shells (Simmetrichnyy nagrev pologikh sfericheskikh obolochek)

PERIODICAL: Sb. tr. Mosk. inzh. -stroit. in-t, 1954, Nr 8, pp 80-89

ABSTRACT: The paper presents the calculation of the temperature of a tapered spherical shell on the basis of the equation

$$\frac{1}{Eh} \nabla^4 \varphi + \frac{1}{R} \nabla^2 W + \frac{2\alpha t}{Rh} = 0, \quad \nabla^2 \chi = 0$$

$$\chi = D \nabla^2 W - \frac{1}{R} \varphi, \quad \nabla^2 = \frac{\partial^2}{\partial r^2} + \frac{1}{r} \frac{\partial}{\partial r} \quad (1)$$

where φ is the stress function, W is the flexure function, D is the flexural rigidity, t is the temperature of the uneven heating along the thickness. The solution of equation (1) is sought in the following form:

Card 1/2

124-1957-10-11893

Symmetrical Heating of Tapered Spherical Shells

$$\varphi = D \nabla^4 \Phi(r), \quad W = \frac{1}{R} \nabla^2 \Phi(r)$$

The differential equation for the unknown basic function $\Phi(r)$ takes the form of:

$$\frac{D}{Eh} \nabla^4 \psi + \frac{1}{R^2} \psi + \frac{2\alpha t}{Rh} = 0,$$

where:

$$\psi = \nabla^4 \Phi(r)$$

A. V. Sachenkov

Card 2/2

REKACH, V.G.

Engineering theory of designing thick spherical shells.
Trudy Un.druzh.nar. 9 Stroi. no.2:54-83 '65.

Application of boundary homogeneous solutions to the
design of triangular dams. Ibid.:84-108

(MIRA 18:11)

SOV/124-58-11-13018

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 166 (USSR)

AUTHOR: Rekach, V.G.

TITLE: Computation of Shallow Screw-type (Helicoidal) Shells [Raschet pologikh vintovykh (gelikoidal'nykh) obolochek]

PERIODICAL: Sb. tr. Mosk. inzh. stroit. inst., 1957, Nr 27, pp 113-132

ABSTRACT: A system of two homogeneous differential equations of shallow shells expressed in curvilinear coordinates may be solved by means of a trigonometric series if the helicoid is straight and by an exponential series if the helicoid is oblique. A method is indicated whereby particular solutions may be obtained for a system of non-homogeneous equations.

N. A. Alfutov

Card 1/1

ACCESSION NR: AT4017654

S/3065/63/000/034/0148/0194

AUTHOR: Rekach, V. G. (Doctor of technical sciences, professor)

TITLE: Design of thin spherical shells

SOURCE: Moscow. Inzhenerno-stroitel'nyy institut. (Trudy), no. 34, 1963.
Raschet plastin i obolochek (Design of plates and shells), 148-194

TOPIC TAGS: shell, shell design, spherical shell

ABSTRACT: The equations proposed by V. Z. Vlasov (Obshchaya teoriya obolochek. M., GITTL, 1949) are used as the basis for calculating the stress on spherical shells. The spherical shell is considered in terms of orthogonal geographical coordinates alpha and beta. Fig. 1 of the Enclosure shows the coordinate system. Fig. 2 of the Enclosure shows the positive direction of internal stress in the normal shell sections. The Vlasov technique uses the method of displacements for evolving a complete system of differential equations. These are solved in the present paper. The author includes five examples of the numerical calculations for spherical-segment domes under constant bending stress, a snow load, internal radial pressure, and concentrated vertical loads either along a great circle or at the pole. Numerical solutions for the equations for various values of the parameters are tabulated in extensive appendices. Orig. art. has: 127 formulas, 7
Card 1/4

ACCESSION NR: AT4017654

figures, 10 tables, and 18 appendices.

ASSOCIATION: Inzhenerno-stroitel'nyy institut, Moscow (Civil Engineering Institute)

SUBMITTED: 00

DATE ACQ: 13Feb64

ENCL: 02

SUB CODE: AS

NO REF SOV: 004

OTHER: 004

Card 2/4

ACCESSION NR: AT4017654

ENCLOSURE: 01

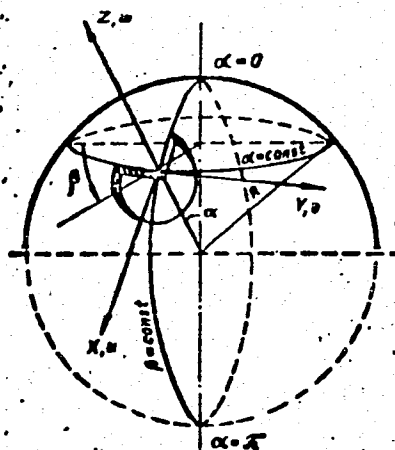


Fig. 1. Coordinate system

Card 3/4

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ENCLOSURE: 02

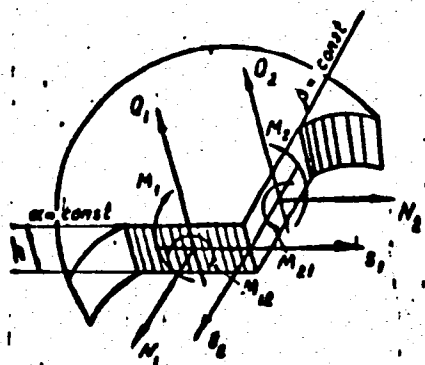


Fig. 2. Positive direction of internal stress

Card 4/4

REKACH, V.G., prof., doktor tekhn. nauk

[Outline of lectures on the theory of elasticity and the fundamentals of the theory of plasticity] Konspekt leksii po teorii uprugosti i osnovam teorii plastichnosti. Moskva, Univ. druzhby narodov im. Patrisa Lumumby, 1964. 106 p.
(MIRA 17:11)

REYACH, V.G., prof., doktor tekhn. nauk

[Outline of lectures on the strength of materials]
Konspekt leksii po soprotivleniiu materialov. Mo-
skva, Univ. druzhby narodov im. Patrisa Lumumby. Pt.2.
[For builders] Dlia stroitelei. 1963. 128 p.
(MIRA 17:9)

REKACH, V.G., doktor tekhn. nauk.

Designing slanting spiral (helicoid) shells. Sbor. trud. MISI no. 27:
113-132 '57. (MIRA 11:3)

(Elastic plates and shells)

RABINOVICH, Isaak Moiseyevich; BYCHKOV, D.V., prof., retsenzent;
KLEYN, G.K., prof., retsenzent; REKACH, V.G., prof., retsenzent;
BUDARINA, E.M., red.izd-va; OSSENKO, L.M., tekhn.red.

[Principles of the structural mechanics of frame construction]
Osnovy stroitel'noi mekhaniki sterzhnevykh sistem. Izd.3.,
peresm. i dop. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i
stroit.materialam, 1960. 518 p.

(MIRA 14:4)

1. Chlen-korrespondent Akademii nauk SSSR, deystvitel'nyy chlen
Akademii stroitel'stva i arkhitektury SSSR (for Rabinovich).
(Structural frames)

KISELEV, Vasilii Aleksandrovich, doktor tekhn. nauk, prof.;
BEKACH, V.G., doktor tekhn.nauk, rezentent;
MEENIKOV, I.A., kand. tekhn. nauk, dots., nauchn.red.

[Structural mechanics; a special course (the dynamics
and rigidity of structures)] Stroitel'naya mekhanika;
spetsial'nyi kurs (dinamika i ustoychivost' sooruzhenii).
Moskva, Stroiizdat, 1964. 331 p. (MIRA 18:2)

KLEYN, Georgiy Konstantinovich, prof., doktor tekhn. nauk, prof.;
REKACH, Vladimir ~~Ormanovich~~, doktor tekhn. nauk, prof.;
ROZENBLAT, Gerya Isaakovna, kand. tekhn. nauk, dots.;
SMIRNOV, A.F., prof., doktor tekhn. nauk, retsenzent;
KOSTROMIN, V.S., prof., retsenzent; L'VIN, Ya.B., dots.,
retsenzent; OSELED'KO, A.I., dots., retsenzent;
BARCHENKOV, A.G., dots., retsenzent; BYCHKOV, D.V., prof.,
doktor tekhn. nauk, red.; KOROTKOVA, A.V., red.

[Manual for conducting lessons in a special course in
structural mechanics] Rukovodstvo k provedeniiu zaniatii po
spetsial'nomu kursu stroitel'noi mekhaniki. Moskva, Vys-
shaia shkola, 1964. 295 p. (MIRA 18:3)

REKACH, Vladimir Germanovich, doktor tekhn. nauk, prof.;
NIKOLAYEVA, I.A., red.

[Principles for calculating thin-shell three-
dimensional systems] Osnovy rascheta tonkostennykh
prostranstvennykh sistem. Moskva, Univ. druzhby narodov,
1963. 135 p. (MIRA 17:8)

SHKACH, Vladimir Germanovich

Academic degree of Doctor of Technical Sciences based on his defense
14 June 1955, in the Council of the Moscow Order of Labor Red Banner
Construction Engineering Institute Kuybyshev, of his dissertation
entitled: "Calculation of Spherical Casing."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 27, 24 Dec 55, Byulleten' MVO SSSR
Uncl. JPRS/NY 548

REKACH, V. G.

Rekach, V. G.

"The Calculation of Spherical Membranes." Min Higher Education USSR. Moscow
Order of Labor Red Banner Construction Engineering Institute V. V. Kuybyshev.
Moscow, 1955. (Dissertation for the Degree of Candidate in Biological Science.)

SO: "Kuznetskiy Letopis"
No. 27, 2 July, 1955

REKACH, V.N.

Materials on the development of a system of measures against the
bean-pod borer (*Etiella zinckenella* Tr.) in the steppe zone of the
Ukraine. Vop. ekol. 7:151-152 '62. (MIRA 16:5)

1. Sel'skokhozyaystvennyy institut, Odessa.
(Ukraine--Pyralid moths--Extermination)
(Ukraine--Vetch--Diseases and pests)

BLAZHEVSKIY, Ye.V., dvazhdy Geroy Sotsialisticheskogo Truda; VOVCHENKO, I.V., kand. sel'khoz. nauk, zasl. agronom Ukr.SSR; VOROB'YEV, N.Ye., st. nauchn. sotr.; GESHELE, E.E., doktor biol. nauk, prof.; ZUBRITSKIY, A.A., agronom; KISEL'GOF, Z.S., inzh., zasl. mekhanizator sel'skogo khoz. Ukr.SSR; KLYUCHKO, P.F., kand. sel'khoz. nauk; KORCHAGIN, A.Ye.; LEBEDEV, Ye.M., st. nauchn. sotr.; NASYPAYKO, V.M., kand. sel'khoz.nauk; PIKUS, G.P., kand. sel'khoz.nauk; REKACH, V.N., doktor sel'khoz. nauk, prof.; SPIVAK, I.I., zootekhnik; TEMCHENKO, L.V., kand. sel'khoz. nauk; FEDULAYEV, A.A., agronom; YAKOVENKO, V.A., kand. tekhn.nauk; KITAYEV, I.A., kand. sel'khoz. nauk, red.; MUSIYKO, A.S., akademik, red.; VINNITSKIY, S.P., red.; MOLCHANOVA, T.N., tekhn. red.

[For high corn yields] Za bol'shuyu kukuruзу. [By] E.V. Blazhevskii i dr. Odessa, Odesskoe knizhnoe izd-vo, 1962. 173 p. (MIRA 16:7)

1. Zven'yevoy kolkhoza im. Gor'kogo Kotovskogo rayona na Odesshchine (for Blazhevskiy). 2. Glavnyy agronom sovkhoza "Bessarabskiy" (for Korchagin). 3. Ukrainskaya akademiya sel'skokhozyaystvennykh nauk (for Musiyko).
(Ukraine--Corn (Maize))

REKACH, V. N.

REKACH, V. N. "A Study of the Insect Vectors of Virus Diseases of Cotton,"
in Virus Diseases of Plants, Collection 2, Publishing Affiliate of the All
Union Institute of Plant Protection, Moscow, 1938, pp. 220-221. 464.32
V06 v. 2.

So: SIRA SI-90-53, 15 Dec. 1953

USSR/General and Systematic Zoology. Insects. Harmful
Insects and Acarids. Fodder Pests. P

Abs Jour : Ref Zhur - Biol., No 3, 1959, No 11609

Author : Rekach V.N., Dobretsova T.A.
Inst : Odessa Agricultural Institute
Title : Data on Pests of Seed Alfalfa and on Their Control in the South of the Steppe Zone.

Orig Pub : Tr. Odessk. s.-kh. in-ta, 1957, 9, 50-58

Abstract : The principal pests of the 1st generation seed alfalfa are the alfalfa-leaf weevil and a complex (11 species) of bugs (B), the most harmful of which are the alfalfa and beet B (in some seasons of the years 1950-1954 either one or the other predominated). Other B species are considerably less numerous and less harmful. The biophenology and dynamics of the B species complex are presented.

Card : 1/2

- 20 -

USSR/General and Systematic Zoology. Insects. Harmful P

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001

Abs Jour : Ref Zhur - Biol., No 3, 1959, No 11609

It is recommended to harvest the alfalfa for hay not later than the end of May (prior to development of the B wings), using a low cut and removing the mowed hay from the alfalfa field; at the appearance of considerable numbers of larvae on the seed alfalfa, a twofold treatment by DDT or BHC, after hatching of the larvae and before blossoming, is also recommended. Experiments have demonstrated the advantages of summer nidulate and wide-row alfalfa sowings. Biophenology, dynamics of the alfalfa-leaf weevil and measures for its control.
OO A.P. Adrianov

Card : 2/2

REKAI, Gabor

Storage of agricultural produces in the food industry. Elem
ipar 16 no. 9:264-268 S '62.

1. Directorate of the Milling Industry and Produce Trade.

GORSHKOV, V.G.; REKALO, M.P.; FROLOV, G.V.

Fermion Regge poles and the Compton effect. Zhur. eksp. i teor.
fiz. 45 no.2:285-290 Ag '63. (MIRA 16:9)

1. Fiziko-tehnicheskiy institut imeni A.F.Ioffe AN SSSR,
Fiziko-tehnicheskiy institut AN UkrSSR i Radiyevyy institut
AN SSSR.

(Protons--Scattering) (Compton effect)

REKALO, M.P.

Polarization phenomena in the scattering of $\tilde{\gamma}$ -mesons on nucleons,
and the fermion Regge poles. Zhur. eksp. i teor. fiz. 45 no.3:595-
598 S '63. (MIRA 16:10)

1. Fiziko-tehnicheskiy institut AN UkrSSR.
(Mesons--Scattering) (Polarization (nuclear physics))

REKALO, M.P.; GORSHKOV, V.G.; FROLOV, G.V.

Photoproduction of π -mesons on nucleons, and fermion Regge poles.
Zhur. eksp. i teor. fiz. 45 no.3:672 S '63. (MIRA 16:10)

1. Fiziko-tehnicheskiy institut AN Ukrainskoy SSR i Fiziko-tekhni-
cheskiy institut imeni A.F. Ioffe AN SSSR.
(Mesons--Scattering) (Nuclear reactions)

ACCESSION NR: AP4012548

S/0056/64/046/001/0218/0222

AUTHOR: Rekalo, M. P.

TITLE: Threshold anomalies in the photoproduction of pions on nucleons

SOURCE: Zhurnal eksper. i teoret. fiz., v. 46, no. 1, 1964, 218-222

TOPIC TAGS: photoproduction, photoproduction threshold, threshold anomaly, pion, neutral pion, positive pion, η meson, pion photoproduction anomaly, photoproduction cross section, cross section energy dependence, anomalous energy dependence, η meson quantum number

ABSTRACT: The forms of the neutral pion photoproduction anomalies due to the η meson are discussed for two variants of the η meson, with assignments 0^{-+} and 1^{-+} in the 700 MeV energy region. The form of the anomaly in the π^0 production can be predicted if the ano-

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ACCESSION NR: AP4012548

malous energy dependence of the π^+ photoproduction cross section is ascribed to the η meson. The form of the anomaly depends significantly on the η meson quantum number. It is suggested that similar anomalies in the differential cross section of π^0 production can be likewise investigated. "I express my gratitude to A. I. Akhiezer for continuous encouragement and for many discussions." Orig. art. has: 1 figure and 6 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR (Physico-technical Institute, AN UkrSSR)

SUBMITTED: 18May63

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: PH

NO REF SOV: 001

OTHER: 014

Card 2/2

ACCESSION NR: AP4012557

S/0056/64/046/001/0293/0299

AUTHOR: Rekalo, M. P.

TITLE: Photoproduction of strange particles at high energies.

SOURCE: Zhurnal eksper. i teoret. fiz., v. 46, no. 1, 1964, 293-299

TOPIC TAGS: strange particles, photoproduction, strange particle photoproduction, LAMBDA hyperon, SIGMA hyperon, KNY system, recoil hyperon, recoil hyperon cross section, recoil hyperon polarization, photoproduction at high energy

ABSTRACT: Photoproduction of strange particles at high energies, of the type $\gamma + N \rightarrow \Lambda + K$ and $\gamma + N \rightarrow \Sigma + K$, is considered. The study of these processes at K-meson production angles close to 180° (c.m.s.) relative to the photon momentum is of interest because it permits, in principle, to check the correctness of the hypothesis that the Λ and Σ hyperons are not elementary particles but comprise

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ACCESSION NR: AP4012557

a bound system of other strongly interacting particles. Both possible values of the intrinsic parity of the KNY system are considered. Expressions are derived for the asymptotic cross sections and different polarization effects on the basis of the moving Regge pole hypothesis. It is ascertained that the differential cross section and the polarization of the recoil hyperons do not oscillate. The only oscillating quantities are the correlations of the baryon polarizations and other correlation effects. "In conclusion, I am grateful to A. I. Akhiezer for continuous interest in the work and for numerous discussions." Orig. art. has: 26 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR (Physicotechnical Institute, AN UkrSSR)

SUBMITTED: 21Jun63

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: PH

NO REF SOV: 001

OTHER: 003

Card 2/2

REKALO, M.P.

Electroproduction of π^- -mesons, and fermion Regge poles. Zhur.
eksp. i teor. fiz. 46 no.2:612-619 F '64. (MIRA 17:9)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

REKALO, M.P.

Decay of vector mesons in SU(6) symmetry. IAd. fiz. 2
no.5:928-930 N '65. (MIRA 18:12)

L 12005-66 EWT(m)/T/EWA(m)-2

ACC NR: AP6001781

SOURCE CODE: UR/0386/65/002/010/0497/0499

AUTHOR: Rekalo, M. P. 11, 55

26
B

ORG: Physicotechnical Institute, Academy of Sciences UkrSSR (Fiziko-tehnicheskiy institut Akademii nauk UkrSSR) 19, 49, 55 49, 55

TITLE: Constants of interaction of vector mesons with nucleons. Photoproduction of neutral pions and η mesons on nucleons and electromagnetic form factors of nucleons

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 10, 1965, 497-499

TOPIC TAGS: vector meson, pion, meson interaction, nucleon interaction

ABSTRACT: This is a continuation of an earlier paper by the author (ZhETF Pis'ma, v. 1, no. 3, 1965) where it was shown that an appreciable contribution to the $\pi^0 p$ photoproduction amplitude at small angles and large γ -quantum energies is made by peripheral mechanisms corresponding to vector-meson exchange. In this article the author estimates the ratio of the contributions of various vector mesons to the amplitudes of the processes $\gamma + P \rightarrow P + \pi^0$, and $\gamma + P \rightarrow P + \eta$. Expressions are derived within the framework of SU(6) symmetry for the π^0 - and η -meson photoproduction amplitudes. It follows from these expressions that: (1) ϕ -meson exchange

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L 12005-66

ACC NR: AF6001781

0
makes no contribution to the π^0 -production amplitude, while all three vector mesons contribute to η -production. (ii) The contribution of the ω meson is nine times larger than the contribution of the ρ meson to π^0 photoproduction, and the interference of the ω and ρ contributions is also significant. To the contrary, in η photoproduction the ρ -meson contribution is nine times larger than that of the ω meson. (iii) In the approximation used the cross section of π^0 photoproduction at zero angle is three times larger than the cross section of η photoproduction. While the agreement between the experimental and theoretical ratios is satisfactory for the magnetic form factors, there is disparity both in sign and in magnitude for the charge form factors. Orig. art. has: 2 formulas.

SUB CODE: 20/ SUBM DATE: 07Oct65/ ORIG REF: 001/ OTH REF: 003

Card *2/2*

REKALO, N.P.

(generation of baryon resonances in weak interactions, and unitary symmetry. Pis'. v red. Zhur. eksper. i teor. fiz. 1 no.1:16-19
Ap '65. (MIRA 18:9)

1. Fiziko-tekhnicheskiy institut AN UkrSSR,

AKHIEZER, A.I.; LUKALO, M.P.

Magnetic moments of baryons and the SU(6)-symmetry. Fiz'.
mat. Zhur. eksper. i teor. fiz. 1 no.1147-51 Ap '65.
(MIRA 18:9)

1. Fiziko-tekhnicheskly Institut AN UkrSSR.

RELATION, P. 1.

Electromagnetic properties of media in SO (G)-symmetry. Fiz'. y
rad. zhur. spektr. i teore. fiz. T. no. 2:321-35 No 185.

(MIRA 18:10)

1. Fiziko-tekhnicheskly izdatel AN URSS.

L 9811-66 EWT(m)/T/EWA(m)-2

ACC NR: AP5027993

SOURCE CODE: UR/0386/65/002/007/0320/0323

AUTHOR: Rekalo, M. P.

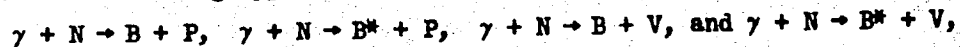
ORG: none

TITLE: Photoproduction of mesons on nucleons and SU(6) symmetry

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. (Prilozheniye), v. 2, no. 7, 1965, 320-323

TOPIC TAGS: photonuclear reaction, baryon, vector meson, strong nuclear interaction, quantum field theory

ABSTRACT: The author indicates some consequences of SU(6) symmetry for the processes of meson photoproduction on nucleons. It is assumed, as is customary, that the use of SU(6) symmetry is justified in the case of meson production in the s-state (accompanied by absorption of a γ -quantum of the electric dipole type). An expression is obtained for the photoproduction amplitude, describing the observable photoproduction reactions of the following types:



where B and B* are baryons from the octet or decuplet, while P and V are the pseudo-scalar and vector mesons. The detailed structure is then obtained for the amplitudes of the processes $\gamma + N \rightarrow B + P$, and the relations between the amplitudes are obtained for the isotopic SU(2) symmetry, SU(3) symmetry, and SU(6) symmetry. Comparison with

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L 9811-66

ACC NR: AP5027993

the experimental data on π production near threshold leads to the following results: 1) The photoproduction of η mesons in the s-states should be suppressed; 2) the cross section for the production of Λ hyperons on a proton should greatly exceed the cross section for the photoproduction of Λ hyperons on a neutron; 3) many more charged K^+ mesons than neutral K^0 mesons should be produced in the reactions $\gamma + N \rightarrow \Sigma + K$. Similar expressions can be obtained for the amplitudes of the processes $\gamma + N \rightarrow B^* + P$. It is noted that these relations coincide fully with the relations which are valid in SU(3) symmetry, while the relations which are specific for the SU(6) symmetry intermix the amplitudes for baryon photoproduction and baryon resonances. It can also be shown that the cross sections for the production of charged mesons together with the isobar greatly exceed the cross sections for the production of neutral mesons, which is a perfectly natural fact from the point of view of the model of electric dipole absorption. Orig. art. has: 5 formulas.

SUB CODE: 18,20 SUBM DATE: 28Jul65/ OTH REF: 003

Card

2/2

REKALO, M.P.

Photoproduction of mesons on nucleons, and SU(6)-symmetry.
Pis', v red. Zhur. eksper. i teoret. fiz. 2 no. 7:320-323
0 '65. (MIRA 18:12)

1. Submitted July 28, 1965.

REHALO, M.P.

Constants of interaction between mesons and nucleons, Photo-production of π^0 and η -mesons on nucleons, and the electromagnetic form factors of nucleons. Pis'. v red. Zhur. eksper. i teoret. fiz. 2 no. 10:497-499 N '65 (MIRA 19:1)

1. Fiziko-tekhnicheskiy institut AN UkrSSR, Khar'kov. Submitted October 7, 1965.

AKHIEZER A.I., akademik; REKALO, M.F.

Photoproduction of mesons on nucleons, and SU(6)-symmetry. Dokl.
AN SSSR 166 no.1:60-62 Ja '66. (MIRA 19:1)

1. Fiziko-tekhnicheskiy institut AN UkrSSR. Submitted September 6,
1965.

L 22531-66 EWT(m)/T

ACC NR: AP6009712

SOURCE CODE: UR/0386/66/003/004/0160/0163

AUTHOR: Rekalo, M. P.

ORG: Physicotechnical Institute, Academy of Sciences, Ukrainian SSR (Fiziko-
tehnicheskij institut Akademii nauk UkrSSR)

TITLE: Check of C-invariance in the photoproduction of strongly interacting
particles

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu.
Prilozheniye, v. 3, no. 4, 1966, 160-163

TOPIC TAGS: strong nuclear interaction, parity principle, photoeffect, electro-
magnetic interaction, Gamma interaction, meson interaction, proton interaction,
vector meson

ABSTRACT: The author discusses the possibility of checking on the hypothesis con-
cerning C-noninvariance of electromagnetic and strong interactions in experiments
with high energy gamma quanta and electrons, and shows that many difficulties
arising in the verification of C-invariance in different hadron decays can be cir-
cumvented in these experiments. The proposed processes are the inverse of the
 $\pi^0 + 3\gamma$ reaction (photoproduction of a π^0 meson and a γ quantum in the Coulomb

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ACC NR: AF6009712

field of a nucleus), the photoproduction of π^0 (η) mesons of high energies, the decays $\gamma + p \rightarrow p + \rho^0$, $\gamma + p \rightarrow p + \omega$, and $\gamma + p \rightarrow p + \phi$ in the angle and energy region where peripheral mechanisms corresponding to vector-meson exchange take place, and the process $\gamma + p \rightarrow p + f^0$ at small angles of f^0 production. Orig. art. has: 2 formulas.

SUB CODE: 20/ SUBM DATE: 27Dec65/ OTH REF: 003

Card 2/2

REK-10, M.F.

Relation between electromagnetic amplitudes according to the
unitary symmetry model. Ukr. fiz. zhur. 10 no.8:813-823 Ag
165. (MIRA 18:8)

I. Fiziko-tekhnicheskii institut AN UkrSSR, Khar'kov.

REKALO, M.P.

Annihilation of antibaryons and unitary symmetry. Zhur.
eksp. i teor. fiz. 48 no.2:756-758 F '65. (MIRA 18:11)

1. Fiziko-tekhnicheskii institut AN UkrSSR.

L 00983-66 EWT(m)/T/EWA(m)-2

ACCESSION NR: AP5006531

S/0056/65/048/002/0756/0758

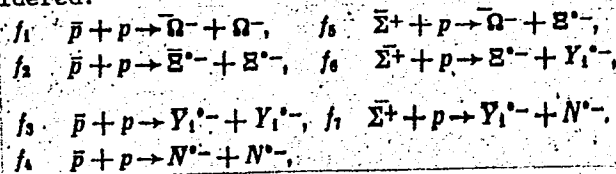
AUTHOR: Rekalo, M. P.

TITLE: Antibaryon annihilation and unitary symmetry

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 2, 1965, 756-758

TOPIC TAGS: particle physics, baryon, particle interaction, particle production, strange particle, pair production

ABSTRACT: The relationships between baryon-antibaryon pair production are studied for the case of \bar{p} -proton and \bar{E}^+ -proton annihilation. The representatives of this pair belong to the irreducible representation of 10-dimensional SU_3 . The following processes are considered:



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L 00983-66

ACCESSION NR: AP5006531

While the relationships between the amplitudes of these processes have been previously studied, the success of Okubo's mass formula (S. Okubo, *Prog. Theoret. Phys.*, 27, 949, 1962) gives a basis for determining the relationships between amplitudes, assuming strong interaction which destroys unitary symmetry but preserves isotopic spin and hypercharge (moderately strong interaction). Taking moderately strong interaction between amplitudes into account, the following relationships are derived in first-order perturbation theory:

$$f_1 + f_4 + 3(f_2 + f_3) = 0,$$

$$f_3 + \sqrt{3}f_6 + f_7 = 0, \quad \sqrt{3}(f_1 + f_2 - f_3 - f_4) = 2(f_6 - f_7),$$

which give these inequalities between cross sections:

$$\sqrt{\sigma(\bar{\Omega}^-\Omega^-)} < 3(\sqrt{\sigma(\bar{E}^*E^*)} + \sqrt{\sigma(Y_1^*Y_1^*)}) + \sqrt{\sigma(\bar{N}^*N^*)},$$

$$\sqrt{\sigma(\bar{\Omega}^-\Omega^-)} > \sqrt{\sigma(\bar{N}^*N^*)} - 3(\sqrt{\sigma(\bar{E}^*E^*)} + \sqrt{\sigma(Y_1^*Y_1^*)}).$$

Production of baryon in the direction of the original antibaryon momentum may be due to exchange of states of the deuteron type with a baryon number of 2. Assuming that these deuteron systems belong to the 10-dimensional SU₃ representation, U-spins of 1 and 0 are possible. If the mechanism with U = 0 takes place, all amplitudes on the

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ACCESSION NR: AP5006531

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unitary symmetry level are equal to zero. If exchange of states with $U=1$ takes place, then

$$f_1/3 = -f_2/2 = f_3 = f_0/\sqrt{3} = -f_6/\sqrt{2} = f_7/\sqrt{3}, f_4 = 0.$$

This mechanism is not compatible with data on the cross sections for the production ($\bar{\Omega} - \Omega^-$) and ($\bar{Y}_1^* - Y_1^{*-}$) in ($\bar{p} + p$)-annihilation. "In conclusion, the author thanks A. I. Akhiezer for discussion of these results." Orig. art. has: 4 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR (Physico-technical Institute, Academy of Sciences, Ukrainian SSR)

SUBMITTED: 24Oct64

ENCL: 00

SUB CODE: NP

NO REF SOV: 000

OTHER: 008

Card 3/3

ACCESSION NR: AP4037604

S/0056/64/046/005/1891/1896

AUTHOR: Rekalo, M. P.

TITLE: Weak interactions at high energies

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 5, 1964, 1891-1896

TOPIC TAGS: meson reaction, neutrino, Regge pole, pion, baryon, K meson, differential cross section, isospin

ABSTRACT: The weak meson-production processes $\nu + N \rightarrow e^- (\mu^-) + N + \pi$ and $\nu + N \rightarrow e^- (\mu^-) + Y + K$ are investigated for large incident-neutrino energies. The effect of the strong interactions is taken into account on the basis of the hypothesis concerning the singularities of the partial amplitude as a function of the angular momentum. The asymptotic region of these processes when the mesons are produced at $\sim 180^\circ$ in the c.m.s. of the final baryon and meson are considered. An expression is derived for the differential cross section, along

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ACCESSION NR: AP4037604

with a whole set of isotopic relations that depend on the isotopic spin of the leading pole. It is concluded that the meson-production differential cross is a monotonic function of the energy and of the angle, in spite of the oscillating behavior of the amplitude of the process. The isotopic relations are general and do not depend on the applicability of the Regge pole theory. Orig. art. has: 21 formulas.

ASSOCIATION: Fiziko-tehnicheskii institut Akademii nauk UkrSSR
(Physicotechnical Institute, Academy of Sciences UkrSSR)

SUBMITTED: 18Dec63

DATE ACQ: 09Jun64

ENCL: 00

SUB CODE: NP

NR REF SOV: 007

OTHER: 006

Card 2/2

ACCESSION NR: AP4042578

S/0056/64/046/006/2132/2140

AUTHORS: Gorshkov, V. G.; Rekalov, M. P.; Frolov, G. V.

TITLE: Fermion Regge poles in processes involving vectons

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 6, 1964, 2132-2140

TOPIC TAGS: Regge pole, fermion, meson, meson scattering, vector meson, vector

ABSTRACT: The asymptotic value and several relations are obtained for the cross sections of processes involving vector mesons, assuming the existence of one or several Regge poles. The processes considered are scattering of vectons (vector mesons) by nucleons (including photoproduction of vectons), production of vectons by pions on nucleons, and scattering of pions by nucleons. The singularities of the partial amplitudes are analyzed by using the amplitudes for transitions between states having different helicities. Relations

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between the cross sections of the various processes are derived.
"The authors are grateful to Ya. A. Azimov, A. I. Akhiezer, D. V. Volkov, and V. N. Gribov for valuable critical remarks." Orig. art. has: 1 figure, 30 formulas, and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute, Academy of Sciences SSSR)

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ACCESSION NR: AP4046441 S/0056/64/047/003/1169/1171

AUTHORS: Akhiyezer, A. I.; Rekalov, M. P.

TITLE: Electromagnetic properties of strong-interacting particles
in the unitary model B
14

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47,
no. 3, 1964, 1169-1171

TOPIC TAGS: elementary particle interaction, strong interaction,
unitarity, magnetic moment, form factor, Compton effect

ABSTRACT: The electromagnetic properties of strongly interacting
particles are studied, including effects of the interaction that
breaks the unitary symmetry. The use of the concepts of U-spin and
U multiplets (Levinson, Lipkin, and Meshkov, Phys. Lett. 7, 81,
1963) makes it possible to take simple account of electromagnetic
interaction in arbitrary order, including the interaction that

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breaks the unitary symmetry in first order of perturbation theory. It is shown that the mass splitting, and also various electromagnetic quantities (magnetic moments, form factors, Compton effect amplitudes, and others) satisfy the rule of equal distances for each U multiplet. A deep analogy is seen to exist between the electromagnetic interaction and the interaction that breaks the unitary symmetry, within the framework of the SU_3 transformation. In addition, relations are established between the amplitudes for various electromagnetic transitions for particles that belong to the same unitary multiplet or to different unitary multiplets. "The authors thank I. A. Akhiezer for valuable discussions." Orig. art. has: 10 formulas.

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