

BEL'KIND, L.D., doktor tekhn. nauk, prof.; ASHKENAZI, G.I., inzh.,
red.; ASHKENAZI, E.L., red.; AKSEL'ROD, I.Sh.; tekhn.red.

[International lighting vocabulary] Mezhdunarodnyi sveto-
tekhnicheskii slovar'. Moskva, Glav. red. inostr.
nauchno-tekhn. slovarei Fizmatgiza, 1963. 429 p.
(MIRA 17:2)

1. International Commission on Illumination.

AYZENBERG, Yulian Borisovich; ASHKENAZI, G.I., red.

[What should be known about light fixtures with
fluorescent lamps] Chto nuzhno znat' o svetil'nikakh s
litminestsentnymi lampami. Moskva, Izd-vo "Energiia."
1964. 71 p. (Biblioteka elektromontera, no.142)
(MIRA 17:12)

ASHKENAZI, Genrikh Isankovich; UDOL'SKIY, Aleksandr Konstantinovich;
ERINDENBURGSKAYA, E.Ya., red.

[Electrical equipment of clubs] Elektrooborudovanie klubov.
Moskva, Energiia, 1964. 79 p. (Biblioteka elektromontera,
no.143)
(MIRA 17:12)

ASHKENAZI, G.I., inzh.

Work of the light engineering section of the Moscow Scientific
Technical Society of the Power Industry for 1963. Svetotekhnika
10 no.3:27-28 Mr '64. (MLRA 17:3)

1. Uchenyy sekretar' svetotekhnicheskoy sekti: Moskovskogo nauch-
no-tekhnicheskogo obshchestva energeticheskoy promyshlennosti.

ALEKSEYEV, A.A., inzhener, redaktor; ASHKENAZI, K.M., doktor tekhnicheskikh nauk, redaktor; GRABOVSKIY, V.A., kandidat tekhnicheskikh nauk, redaktor; GORBACHEV, A.N., kandidat tekhnicheskikh nauk, redaktor; IVANOV, S.N., kandidat tekhnicheskikh nauk, redaktor; LAPIN, P.S., kandidat tekhnicheskikh nauk, redaktor; NEPENIN, N.N., doktor tekhnicheskikh nauk, redaktor; PUZYREV, S.A., kandidat tekhnicheskikh nauk, redaktor; RYUKHIN, N.V., kandidat tekhnicheskikh nauk, redaktor; FLYATE, D.M., kandidat tekhnicheskikh nauk, redaktor; SHAPIRO, A.D., kandidat tekhnicheskikh nauk, redaktor; ELIASHBERG, M.G., kandidat tekhnicheskikh nauk, redaktor; KEUDYAKOVA, A.V., redaktor; VOLKHOVER, R.S., tekhnicheskiy redaktor.

[Paper maker's handbook] Spravochnik bumazhnika (tehnologa)
Moskva, Goslesbumizdat, Vol. 1 1955. 790 p. (MLRA 8:10)
(Paper industry)

ASHKENAZI, Konstantin Mironovich, professor; ZALEGALLER, Boris Grigor'yevich, dotsent; SOLOV'YEV, N.S., redaktor; PITERMAN, Ye.L., redaktor izdatel'stva; KOLESHNIKOVA, A.V., tekhnicheskij redaktor; VOLKHOVER, E.S., tekhnicheskij redaktor

[Lumbering machinery and equipment] Mashiny i oborudovanie lesorazrabotok. Moskva, Goslesbumizdat, 1956. 442 p. (MIRA 9:11)
(Lumbering--Machinery)

ASHKENAZI, K. M.

ALEKSEYEV, A.A., inzhener, redaktor; ~~ASHKENAZI, K.M.~~ doktor
tekhnikeskikh nauk, redaktor; GRANOVSKIY, V.A., kandidat tekhnicheskikh
nauk, redaktor; GORBACHEV, A.N., kandidat tekhnicheskikh nauk, redaktor;
IVANOV, S.N., kandidat tekhnicheskikh nauk, redaktor; LARIN, P.S.,
kandidat tekhnicheskikh nauk, redaktor; NEPENIN, N.N., doktor
tekhnicheskikh nauk, redaktor; PUZYREV, S.A., kandidat
tekhnicheskikh nauk, redaktor; RYUKHIN, N.V., kandidat
tekhnicheskikh nauk, redaktor; FLYATN, D.M., kandidat tekhnicheskikh
nauk, redaktor; SHAPIRO, A.D., kandidat tekhnicheskikh nauk, redaktor;
MILASHNERG, M.G., kandidat tekhnicheskikh nauk, redaktor; PUZYREV,
S.A., redaktor; RYUKHIN, N.V., redaktor; KHUDYAKOVA, A.V., redaktor
izdatel'stva; KARASIK, N.P. tekhnicheskiy redaktor

[Paper maker's manual] Spravochnik bumazhnika; tekhnologa. Moskva,
Goslesbuzizdat. Vol. 2, book 2. 1957. 433 p. (MLRA 10:4)

1 Leningrad. Tsentral'nyy nauchno-issledovatel'skiy institut
tsellyuloznoy i bumazhnoy promyshlennosti.
(Paper industry)

ALEKSEYEV, A.A., inzh., red.; ASHKENAZI, K.M., doktor tekhn.nauk, red.;
GRABOVSKIY, V.A., kand.tekhn.nauk, red.; GORBACHEV, A.N., kand.tekhn.
nauk, red.; IVANOV, S.N., kand.tekhn.nauk, red.; LARIN, P.S., kand.
tekhn.nauk, red.; NEFENIN, N.N., doktor tekhn.nauk, red.; FUZYREV,
S.A., kand.tekhn.nauk, red.; RYUKHIN, N.V., kand.tekhn.nauk, red.;
FLYATE, D.M., kand.tekhn.nauk, red.; SHAPIRO, A.D., kand.tekhn.nauk,
red.; ELIASBERG, M.G., doktor tekhn.nauk, red.; KHUDYAKOVA, A.V.,
red.izd-va; SIDEL'NIKOVA, L.A., red.izd-va; LOBANKOVA, R.Ye., tekhn.red.

[Manual for paper industry technicians] Spravochnik bumazhnika; (tekhno-
logia). Moskva, Goslesbumizdat. Vol.3. 1961. 719 p. (MIRA 14:6)

1. Leningrad. Tsentral'nyy nauchno-issledovatel'skiy institut
tsellyuloznoy i bumazhnoy promyshlennosti.
(Paper products)

ARFIMIANI, M.S.; COLIDGE, I.A.

Dark aftereffect in sensitized photooxidation of α -naphthylamine.
Zhur.fiz.khim. 39 no.10:2587-2589 1965.

(MIRA 18:12)
L. Institut fizicheskoy Khimii AN UkrSSR. Submitted July 9, 1964.

AS'KENAZI, C. B.

ESOPHAGUS - FOREIGN BODIES

Roentgenographic control of extraction of foreign bodies from the esophagus of children. Vest.oto-rin. 14 No. 2, 1952.

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Unclassified.

ASHKENAZI, O.B.

Foreign bodies in the upper respiratory tract in children from data of the otorhinolaryngological division of the Raukhfus Children's Hospital for 33 years (1926-1958). Vest. otorin. 21 no. 5: 50-55 S-O '59, (MIRA 13:1)

1. In kliniki bolezney ukha, gorla i nosa (zav. - prof. D.M. Rutenburg) Leningradskogo pediatricheskogo meditsinskogo instituta i otolaringologicheskogo otdeleniya bol'nitsy im. Raukhfusa.
(RESPIRATORY SYSTEM, for. bodies)

DERIBAS, A., inzh.; ASHKENAZI, Ye., inzh.

Urgent problems in operating narrow-gauge railroads in
virgin lands. Zhel.dor.transp. 36 no.3:19-24 Mr '55.
(MIRA 12:5)
(Railroads, Narrow-gauge--Management)

ASHKENAZI, Ye.A.

ALFEROV, A.A.; ARTEMKIN, A.A.; ASHKENAZI, Ye.A.; VINOGRADOV, G.P.; GALEYEV, A.U.; GRIGOR'YEV, A.N.; D'YACHENKO, P.Ye.; ZALIT, N.N.; ZAKHAROV, P.M.; MOBNIN, N.P.; IVANOV, I.I.; IL'IN, I.P.; KMETIK, P.I.; KUDRYASHOV, A.T.; LAPSHIN, P.A.; MOLYARCHUK, V.S.; PERTSOVSKIY, L.M.; POGODIN, A.M.; RUDOY, M.L.; SAVIN, K.D.; SIMONOV, K.S.; SITKOVSKIY, I.P.; SITNIK, M.D.; TETERYEV, B.K.; TSETYUKIN, I.Ye.; TSUKANOV, P.P.; SHADIKYAN, V.S.; ADELUNG, N.N., retsenzent; AFANAS'YEV, Ye.V., retsenzent; VLASOV, V.I., retsenzent; VOROB'YEV, I.Ye., retsenzent; VORONOV, N.M., retsenzent; GRITCHENKO, V.A., retsenzent; ZHEREBIN, M.H., retsenzent; IVLIYEV, I.V., retsenzent; KAPORTSEV, N.V., retsenzent; KOCHUROV, P.M., retsenzent; KRIVORUCHKO, N.Z., retsenzent; KUCHKO, A.P., retsenzent; LOBANOV, V.V., retsenzent; MOROZOV, A.S., retsenzent; ORLOV, S.P., retsenzent; PAVLUSHKOV, E.D., retsenzent; POPOV, A.N., retsenzent; PROKOF'YEV, P.F., retsenzent; RAKOV, V.A., retsenzent; SINEGUBOV, N.I., retsenzent; TEREININ, D.F., retsenzent; TIKHOMIROV, I.G., retsenzent; URBAN, I.V., retsenzent; FIALKOVSKIY, I.A., retsenzent; CHEPYZHEV, B.F., retsenzent; SHEBYAKIN, O.S., retsenzent; SHCHERBAKOV, P.D., retsenzent; GARNYK, V.A., redaktor; LOMAGIN, N.A., redaktor; MORDVINKIN, N.A., redaktor; NAUMOV, A.N., redaktor; POBEDIN, V.F., redaktor; RYAZANTSEV, B.S., redaktor; TVERSKOY, K.N., redaktor; CHEREVATYY, N.S., redaktor; ARSHINOV, I.M., redaktor; BABNLYAN, V.B., redaktor; BERNGARD, K.A., redaktor; VERSHINSKIY, S.V., redaktor; GAMBURG, Ye.Yu., redaktor; DERIBAS, A.T., redaktor; DOMBROVSKIY, K.I., redaktor; KORNEYEV, A.I., redaktor; MIKHEYEV, A.P., redaktor

(Continued on next card)

ALFEROV, A.A. ---- (continued) Card 2.

MOSKVIN, G.N., redaktor; RUBINSHTEYN, S.A., redaktor; TSYPIN, G.S., redaktor; CHERNYAVSKIY, V.Ya., redaktor; CHERNYSHEV, V.I., redaktor; CHERNYSHEV, M.A., redaktor; SHADUR, L.A., redaktor; SHISHKIN, K.A., redaktor

[Railroad handbook] Spravochnaia knizhka zheleznodorozhnika, Izd. 3-e, ispr. i dop. Pod obshchei red. V.A.Garnyka. Moskva, Gos. transp.zhel-dor. izd-vo, 1956. 1103 p. (MLRA 9:10)

1. Nauchno-tekhnicheskoye obshchestvo zheleznodorozhnogo transporta. (Railroads)

~~ASHKENAZE, K.A.~~, kandidat tekhnicheskikh nauk; IZVOLENSKIY, L.V., kandidat tekhnicheskikh nauk.

About the article "Expected type of current for electrification of transportation in open pit mining." Gor. zhur. no.5:79 My '57.
(Electricity in mining) (MIRA 10:6)

ASHKEHAZI, Ye.A., kandidat tekhnicheskikh nauk.

Some trends in locomotive construction for factory transport
purposes abroad. Vest.TSNII MPS 16 no.3:61-63 My 157, (MLRA 10:5)
(United States--Railroads, Industrial)

ASHKENAZI, Yefrem Abramovich, kand.tekhn.nauk, NEMUKHIN, V.P., kand.tekhn.nauk,
red.; BOBKOVA, Ye.N., tekhn.red.

[Operation of narrow-gauge locomotives] Eksploatatsiia uskokoleinykh
lokomotivov. Moskva, Gos. Transp.zhel-dor. izd-vo, 1958. 150 p.
(Railroads, Narrow-gauge) (MIRA 11:9)
(Locomotives)

ASHKENAZI, Ye.A., kand. tekhn. nauk.

Modern locomotives used on industrial railroads abroad. Bul.
TSNIICM no.3:37-46 '58. (MIRA 11:5)
(Railroads, Industrial--Locomotives--Design)

ASHKENAZI, Ye.A., kand. tekhn. nauk; IZVOLENSKIY, L.V., kand. tekhn. nauk.

Diesel switching locomotives and prospects for their use. Zhel dor.
transp. 40 no.2:51-56 F '58. (MIRA 11:3)
(Diesel locomotives) (Railroads--Switching)

ASHKENAZI, Ye.A., kand.tekhn.nauk

New electric locomotive used for strip mining and results of
testing it. Vost.TSNII MPS 18 no.4:44-47 Je '59.
(MIRA 12:10)

(Electric locomotives) (Mine railroads)

ASHKENAZI, Ye.A., kand.tekhn.nauk

Selecting the type of traction for use under the conditions of
strip mining. Vest.TSNII MPS 21 no.8:36-40 '62. (MIRA 16:1)
(Mine railroads)

ASHKENAZI, Yefrem Abramovich, kand. tekhn. nauk; BAKANOV, Vladimir Ivanovich, inzh.; PETROVA, V.L., red.; VOROTNIKOVA, L.F., tekhn. red.

[Fields of application of the various types of traction in industrial railroad transportation]. Sfery primeneniya razlichnykh vidov tiagi na promyshlennom zheleznodorozhnom transporte. Moskva, Transzheldorizdat, 1963. 133 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy, no.253).

(MIRA 16:4)

(Railroads, Industrial) (Locomotives)

ASHKENAZI, Yaya, Isaakovna; ROGOVA, Ol'ga Arsen'yevna; SMIRNOVA, Lidiya
Aleksandrovna; CHERNYSHEVA, Anna Mikhaylovna; FILIPPOVA, P.I.,
otvetstvennyy redaktor; NIKONOVA, V.I., tekhnicheskiiy redaktor

[For young needleworkers] IUnym rukodel'nitsam. Literaturnaya zapis'
E. Rogovoi. Izd. 2-oe, dop. i ispr. Leningrad, Gos. izd-vo detskoi
lit-ry, 1957. 286 p. (MLRA 10:5)
(Needlework)

MITINSKIY, A.N., prof.; ASHKENAZI, Ye.K., dots.

About a little-known work by F.S.IAsinski. Stroi.prom. 27
no.7:24 J1 '49. (MIRA 13:2)
(Structures, Theory of)

ASHKENAZI, E. K.

USSR/ Engineering - Wood testing

Card 1/1 Pub. 128 - 28/34

Authors : Ashkenazi, E. K.

Title : The first structural tests of wood in Russia

Periodical : Vest. mash. 12, 93-95, Dec 1954

Abstract : A narrative report is presented concerning the structural test of wood to determine its mechanical strength and properties, which was conducted by D. I. Zhuravskiy in 1844-1850. Sixteen references (1649-1954). Drawings.

Institution :

Submitted :

124-57-1-1356

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 186 (USSR)

AUTHOR: Ashkenazi, Ye. K.

TITLE: Experimental Application of the First Classical Hypothesis to the Evaluation of the Strength of Wood Under Compound Stresses (Opyt primeneniya pervoy klassicheskoy gipotezy k otsenke prochnosti drevesiny pri slozhnykh napryazhennykh sostoyaniyakh)

PERIODICAL: Tekhn. inform. po resul'tatam nauch. -issled. rabot Leningr. lesotekhn. akad., 1954, Nr 15, pp 27-32

ABSTRACT: Report on an attempt at evaluation of the strength of wood as an orthotropic material under compound stresses according to the hypothesis of strength in terms of the highest principal normal stresses by means of a combination of the polar diagram of the normal stresses in various areas with the polar diagram of the limit strength of the wood along its principal structural planes of symmetry. The latter can be constructed either from test data or from the theoretical equation of the limit strength, which is similar in setup to the equation of the change in value of the modulus of elasticity of an orthotropic material along different directions relative to the principal directions of

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124-57-1-1356

Experimental Application of the First Classical Hypothesis (cont.)

elastic symmetry; the substantiation of the applicability of this equation to the evaluation of the resistance of wood to the action of normal stresses is adduced in another paper by the same author (Tekhn. inform. po rezul'tatam nauch. - issled. rabot Leningr. lesotekhn. akad., 1954, Nr 6). A comparison of the two diagrams for the case of axial compression of the wood along the fibers explains the formation of the skewed appearance of a fracture. Concepts on the application of the procedure outlined to the evaluation of the strength of wood under body stresses are adduced.

1. Wood--Stresses--Test results
2. Wood--Mechanical properties
3. Wood--Stresses--Mathematical analysis

A. N. Mitinskiy

Card 2/2

MITINSKIY, A.N., professor, doktor tekhnicheskikh nauk; ASHKENAZI, Ye.K.,
dotsept, kandidat tekhnicheskikh nauk.

First Russian machine for testing the strength of metals. Vest.
mash.34 no.1:99-102 Ja '54. (MLRA 7:2)
(Metals--Testing)

ASHKENAZI, Ye.K.

Determination of the elastic constants of wood. Zav.lab. 21
no.3:357-360 '55. (MIRA 8:6)

remoged
1. Lesotekhnicheskaya akademiya im. S.M.Kirova.
(Wood--Testing)

ASHKENAZI, Ye.K.

Symmetrical strength of wood considered as an anisotropic material. Trudy Len. issotekh. akad. no.78:3-9 '57. (MIRA 11:10)
(Anisotropy) (Wood) (Strength of materials)

ASHKORNAZI, Yelena Konstantinovna

[Anisotropy of mechanical properties of wood and plywood]
Anizotropiia mekhanicheskikh svoistv drevesiny i fanery. Moskva,
(Goslesbumizdat, 1958. 137 p. (MIRA 12:4)
(Wood) (Plywood)

ASHKENAZI, Y.K., GURKIN, G.S.

Strength of plywood. Der.prom. 7 no. 7:14-16 J1 '58. (MIRA 11:8)

1. Leningradskaya lesotekhnicheskaya akademiya im. S.M.Kirova.
(Plywood--Testing)

SOV/32-24-9-30/53

AUTHORS: Ashkenazi, Ye. K., Dutov, B. P., Rubinshteyn, G. M.

TITLE: On the Determination of the Impact Compression Resistance of Wood Pulp (Ob opredelenii soprotivleniya drevesiny udarnomu szhatiyu)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 9, pp 1125-1127 (USSR)

ABSTRACT: One of the authors of the paper has previously (Ref 2) described a special arrangement which facilitates the use of a ram impact machine for wood pulp compression tests (along the fibers). In the preceding papers (Refs 3,4), theoretical formulae had been given, by which the dependence of wood pulp resistance to static stresses on the orientation of the efforts made with regard to the fibers is determined. These equations are supposed to be applicable also to impact tests. In order to establish whether this assumption holds true and for purposes of an investigation of the above-mentioned dependence, the corresponding experiments were carried out in the study under discussion. Tests were made in a ram impact machine of the type MSVO-1000. From an oscillograph, the test diagram was obtained directly in the coordinates "effort-deformation". A description is presented,

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On the Determination of the Impact Compression Resistance of Wood Pulp

as well as a diagram of the photoelectric measuring system of the machine. 12 test series, each of which comprising 9 samples of different orientations, were investigated. Four of the oscillograms obtained are given. It is stated that the above-mentioned formulae are applicable to the case under discussion, and that the impact compression resistance of wood pulp is 2 - 2,5 times greater than its static compression resistance. There are 2 figures and 4 references, which are Soviet.

ASSOCIATION: Leningradskaia lesotekhnicheskaya akademiya im. S. M. Kirova
(Leningrad Academy of Wood Technology imeni S. M. Kirov)

Card 2/2

BELYANKIN, N.P.; PANSHIN, B.I.; LUK'YANCHIKOV, I.K.; POPOV, G.G.;
ASHKENAZI, Ye.K.; NIKOL'SKOY, A.M.; KANAVETS, I.P.

Discussion of the methods for investigating and testing
physicomechanical properties of plastics. Replies to an
inquiry published in issue no.1 of "Zavodskaya laboratoria",
1960. Zav.lab. 26 no.6:655-678 '60. (MIRA 13:7)

1. Institut stroitel'noy mekhaniki Akademii nauk USSR
(for Belyankin). 2. Vsesoyuznyy institut aviatsionnykh
materialov (for Panshin, Nikol'skoy). 3. Tsentral'nyy nauchno-
issledovatel'skiy institut zheleznodorozhnogo transporta
(for Luk'yanchikov & Popov). 4. Leningradskaya lesotekhn-
icheskaya akademiya im. S.M.Kirova (for Ashkenazi). 5. Nauchno-
issledovatel'skiy institut plasticheskikh mass (for Kanavets).
(Plastics)

S/032/60/026/06/04/044
B010/B126

15.0000

AUTHOR: Ashkenazi, Ye. K.

TITLE: Discussion of Methods of Examining and Testing the Physico-mechanical Properties of Plastics. Answers to the Inquiry, Published in No. 1 of the Periodical "Zavodskaya laboratoriya" of 1960

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 6, pp. 668 - 673

TEXT: In connection with the above theme, the author explains questions on the testing of glass textile and glass fibre plastics, whose specific property is their anisotropy. As with plywood, the mechanical properties of these plastics must be determined in the length, cross, and diagonal directions to the alignment of the structure. The samples must be produced without heating and the tests must be carried out at the same temperature and moisture. These methods of examination are described in the instructions published by B. I. Panshin and V. S. Yefimova (Ref. 1). The stability limit of anisotropic plastics must be determined in the above three directions by tensile, compression, and shearing tests. S. D. Tkachev (Ref. 1)

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Discussion of Methods of Examining and Testing the S/032/60/026/06/04/044
Physicomechanical Properties of Plastics. Answers B010/B126
to the Enquiry, Published in No. 1 of the Periodical "Zavodskaya
laboratoriya" of 1960

developed an apparatus for compression tests on the flat part of thin
sheet materials, and apparatus constructed on the same principles by
I. P. Boksberg (Ref. 2) was used in the author's laboratory to compress
plywood. This apparatus was also used for shearing tests, whilst shearing
tests on glass plastics perpendicular to the surface of the sample were
carried out on a device constructed by V. N. Gisin (Ref. 2). The stability
limit in three test directions was calculated from corresponding equations
(1) and (2). An equation similar to (1) was proposed in 1946 by
A. L. Rabinovich (Ref. 4). As V. A. Lomakin has already said (Ref. 5), at
least four elasticity constants of anisotropic sheet materials must be
experimentally determined, that is the elasticity modulus in three
directions, and the coefficient of transverse deformation. The determination
of the shearing modulus is best done with plywood. In the author's
laboratory, the elasticity modulus was determined by tensile tests on the
type (RMM)-250 machine of zavod "Metallist" ("Metallist" Works) (Table,
data of a cold-hardened glass-textile plastic of the type П-1 (PH-1) of
the Leningradskiy zavod sloistyykh plastikov (Leningrad Laminated Plastics

Card 2/3

Discussion of Methods of Examining and Testing the S/032/60/026/06/04/044
Physicomechanical Properties of Plastics. Answers B010/B126
to the Enquiry, Published in No. 1 of the Periodical "Zavodskaya
laboratoriya" of 1960

Works)). Examinations carried out in the author's laboratory by
A. A. Pozdnyakov (Ref. 7) showed that the heterogeneity of the material
must be considered especially on the fatigue tests of anisotropic plastics.
The size of the sample and the type of load should be standardized when
working out new standards ^{ГОСТ} (GOST) of static and impact bending tests. X
There are 1 table and 8 references: 7 Soviet and 1 German.

ASSOCIATION: Leningradskaya lesotekhnicheskaya akademiya im. S. M. Kirova
(Leningrad Technical Academy for Forestry imeni S. M. Kirov)

Card 3/3

ASHIKHVAZI, Yelena Konstantinovna, kand.tekhn.nauk. Prinsipali uchastiye:
POZDNYAKOV, A.A., inzh.; KRAVTSOV, B.A., inzh.; KACHESOV, A.N., inzh.;
BUROV, M., student; ZVEREV, N., student; RAZUVAYEV, V., student;
ROBUSH, O., student; SAMSONOVA, Ye., student. KUSHELEV, N.G., red.;
GVIKTS, V.L., red.isd-va

[Anisotropy of mechanical properties of some glass plastics; verbatim
report of a lecture] Anisotropiya mekhanicheskikh svoystv neko-
torykh stekloplastikov; stenogramma lektsii. Leningrad, Leningr.
Dom nauchno-tekh.propagandy, 1961. 62 p. (MIRA 14:12)
(Anisotropy) (Glass reinforced plastics)

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S/032/61/027/004/015/028
B103/B201

10.9230 also 1155, 1164, 2409

AUTHOR: Ashkenazi, Ye. K.

TITLE: Shearing test methods with anisotropic substances

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 4, 1961, 449-454

TEXT: The author has proved that his method of determining the resistance opposed by wood to cleaving along the fibers can be applied to the estimation of the resistance opposed by glass reinforced plastics of the type CBAM (SVAM) to tangential stresses. The yield strength is determined with results by testing the compression or tensile strength on three kinds of samples: with parallel, vertical, or diagonal run of the fiber. The author refers to the analysis of wood tests according to the book by F. P. Belyankin and according to ГОСТ 6336-52 (GOST 6336-52, "Metody fiziko-mekhanicheskikh ispytaniy drevesiny." "Methods of physico-mechanical wood tests"), and also according to A. N. Flakserman. The following formulas are given: for dangerous normal stress $\sigma_{\alpha}^0 = \sigma_B \sin^2 \alpha$ (1), where σ_B denotes the tensile strength of the sample under the angle α to the

X

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Shearing test methods with ...

S/032/61/027/004/015/028
B103/B201

direction of the fibers; and, for the dangerous tangential stress acting upon planes being parallel to the direction of the fiber of an expanded or compressed sample: $\tau_{\alpha}^0 = \sigma_B \frac{\sin 2\alpha}{2}$ (2). It is stated that when tangential and tensile stresses act simultaneously upon planes being parallel to the direction of the fiber, the wood is then torn transversely to the fibers, if the tensile stresses are larger than half the tangential stresses. The author draws the conclusion that in the cleaving of samples according to GOST 6336-52, the wood is predominantly torn transversely to the direction of the fiber. The method suggested by the author of determining the resistance of wood to cleaving along the direction of the fibers on the basis of constructed limit curves of tensile or compression tests, permits a better evaluation of the resistance concerned. A complete diagram of the change of tensile or compression strength of an orthotropic substance as a function of the inclination angle of the fibers can be constructed on the basis of a tensor equation. For this purpose, the experimental determination of these strengths in only three directions will be sufficient: along the fibers (σ_0), transversely to the fibers (σ_{90}), and diagonally to the fibers (σ_{45}). All these

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B103/B201

Shearing test methods with ...

directions must be on the symmetry plane of the structure of the substance (e.g., a sheet). The tensor formula for calculating the tensile and compression strength σ_B under an angle α to the fibers reads:

$$\sigma_B = \frac{\sigma_o}{\cos^4 \alpha + b \sin^2 2\alpha + c \sin^4 \alpha}, \text{ where } b = \frac{\sigma_o}{\sigma_{45}} - \frac{1+c}{4}; \quad c = \frac{\sigma_o}{\sigma_{90}}.$$

The values σ_B determined from formula (3) are substituted in formulas

(1) and (2), and in this manner the author constructs the limit curves for determining the cleaving stress along the fibers. The author emphasizes that his method is much simpler than all other known methods, as it requires no special equipments. Fig. 2 presents the results, obtained by applying the author's method, of determination of the resistance of sheet-glass reinforced plastics CBAM (SVAM) to tangential stresses in a plane being parallel to the direction of the strongest reinforcement, and perpendicular to the sheet plane. The table gives the values, for SVAM, of the resistance to shearing stress parallel to the fibers, as calculated from the limit curves (Fig. 2), at a tension τ_B^o and compression

X

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Shearing test methods with ...

τ_B^0 . This SVAM was produced at the Leningradskiy zavod sloistykh plastikov (Leningrad Factory for Layered Plastics) from glass fibers with a fiber ratio 1 : 5, 1 : 13, and 1 : 1 by means of epoxy phenol binding agent no. 64. Since values τ_B^0 and τ_B^0 turned out to differ for the same substance, the author recommends that the results of tensile tests be used in practice, and that, applying his method, the lowest value of the resistance of anisotropic glass plastics to tangential stresses be determined. The peak value of this resistance can be established by determining the resistance to shearing stress according to OCT-10044-38 (OST-10044-38), combining the shearing plane with the direction of the strongest reinforcement of the glass plastics. Mention is made of $\frac{OCT}{HKJec} - 250 \left(\frac{OST}{NKLes} - 250 \right)$, TOCT 4631-49 (GOST 4631-49), TOCT 1143-41 (GOST 1143-41), TOCT 4649-55 (GOST 4649-55), as well as papers by F. P. Belyankin (Ref. 1: Prochnost' drevesiny pri skalyvanii vdol' volokon, Izd. AN USSR, 1955 (Strength of wood in cleaving along the fibers. Publishing House of AS UkrSSR, 1955)), A. N. Flakserman (Ref. 4: Vliyaniye naklona volokon na mekhanicheskiye

Card 4/5

Shearing test methods with ...

S/032/61/027/004/015/028
B103/B201

svoystva drevesiny sosny (Effect of the inclination of fibers upon the mechanical properties of fir wood) GNTI, 1931); V. Ye. Moskaleva, (Ref. 5: Stroyeniye drevesiny i yego izmeneniye pri fizicheskikh i mekhanicheskikh vozdeystviyakh, Izd. AN SSSR, 1957 (Structure of wood and its modifications under physical and mechanical actions)); A. A. Pozdnyakov (Ref. 6: Otsenka prochnosti konstruktsionnykh plastmass pri peremennykh nagruzkakh, izd. Ministerstva Vysshego i srednego spetsial'nogo obrazovaniya, LTA, Leningrad, 1960 (Evaluation of strength of plastic structural elements under varying stresses. Published by the Ministry of Higher and Specialized Education, LTA, Leningrad, 1960)). There are 2 figures, 1 table, and 11 Soviet-bloc references. X

ASSOCIATION: Leningradskaya lesotekhnicheskaya akademiya im. S. M. Kirova (Leningrad Academy of Forestry Engineering imeni S. M. Kirov)

Card 5/5

15.8510

27837
S/032/61/027/010/014/022
B104/B102

AUTHORS: Ashkenazi, Ye. K., and Pozdnyakov, A. A.

TITLE: Glass-reinforced plastics subjected to fatigue tests

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 10, 1961, 1288-1293

TEXT: The authors performed fatigue tests using flat, air-cooled test bars made from glass textolite and CBAM(SVAM) glass-reinforced plastics. The tests were made with an ЛТА(LTA) test machine designed by I. P. Boksberg (Zavodskaya laboratoriya, XXVII; 2(1961)), and with an ЛКИ-1(LKI-1) sliding crank test machine. Owing to its modern construction, as many as 800 bending cycles per minute could be attained with the LTA test machine. The capacity of the LKI-1 test machine was limited to 400 cycles per minute, which is due to the greater mass of their movable parts. Fig. 1 shows the measurements of the specimens in mm. At a temperature of 20°C and a relative air moisture of 50%, samples of cold-hardened glass textolite from T-(T) fabric with ПН-1(PN-1) polyester binding agent and SVAM samples with epoxyphenol binding agent no. 64 (70% epoxy resin, 30% phenol formaldehyde resin) were tested. Conclusions: The ratio of the fatigue strength of

Card 1/3

Glass-reinforced plastics...

27837

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B104/B102

glass textolite to its static tensile strength in the direction of filling is 0.16. The corresponding value for the tissue is 0.3. In diagonal direction to the fiber, it is 0.37. For the SVAM glass-reinforced plastic, it is 0.176 in the direction of filling, and diagonal thereto it is 0.37. The deformation limits of plastics of any orientation exceeded those of steel. For samples of the same dimensions, made from steel 35 and from glass-reinforced plastics, a lifetime of 10^7 cycles may be expected, if the glass-reinforced plastic samples are bent two to three times as much as the steel samples. The anisotropy of the fatigue strength is less than that of the static load parameters. Only by testing in diagonal direction a fatigue limit could be established in the materials investigated (10^5 cycles). Investigations in the longitudinal and transverse directions failed. Control tests have shown that cooling the samples with air has no influence on the fatigue limit. A. K. Mitropol'skiy is mentioned. There are 4 figures, 3 tables, and 7 references: 6 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: K. Boller. Fatigue properties of fibrous glass reinforced plastic laminates. Modern plastics, no. 6(1957).

ASSOCIATION:

Lesotekhnicheskaya akademiya im. S. M. Kirova (Forest Engineering Academy imeni S. M. Kirov)

Card 2/3

22789

18.8200

S/057/61/031/005/020/020
B104/B205AUTHOR: Ashkenazi, Ye. K.TITLE: Anisotropy in construction materials. Reply to a letter by
E. I. Braynin

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 5, 1961, 630-632

TEXT: In a previous paper (ZhTF, XXIX, 3, 374, 1959), the author had derived the formula $\sigma_b = \frac{\sigma_0}{\cos^4 \alpha + b \sin^2 2\alpha + c \sin^4 \alpha}$ (1) for the tensile strength of anisotropic materials. In this formula, $c = \sigma_0 / \sigma_{90}$, $b = \sigma_0 / \sigma_{45} - (c+1)/4$; σ_0 , σ_{45} , and σ_{90} are the tensile strengths found for specimens that were cut from steel sheet at an angle of 0, 45, and 90°, respectively, to the direction of rolling; α is the angle between the axis of the specimen and the direction of rolling. E. I. Braynin compared the experimentally obtained tensile strengths of specimens with a size of 130·18·0.5 mm and with $\alpha = 0, 15, 30, 45, 60, 75, \text{ and } 90^\circ$ with curves calculated from Eq. (1). In doing so, he tested OBKП (OBKP) steel sheet Card 1/4

22789

Anisotropy in construction...

S/057/61/031/005/020/020
B104/B205

(350-250 mm) in four different conditions. The greatest deviations were found with condition "a" (cold-rolled with 75% reduction). The tests showed that σ_B as a function of α had a maximum at $\alpha = 15^\circ$ and a minimum at $\alpha = 50^\circ$. Braynin repeated his tests with steel sheet (250.260.0.5 mm) from the same lot made available to him by the author. The specimens were smaller to ensure a more homogeneous material (80.5.0.5 mm). Data of the specimens, which were cut from various parts of the sheet and displayed different orientations, are compiled in Table 1. In Fig. 2, the curves calculated from Eq. (1) are compared with the test results. It is seen that the tensile strength at $\alpha = 15^\circ$ is higher than that observed at $\alpha = 0^\circ$. The average difference is 1.3%. At the same time, variations in the tensile strength at $\alpha = 0^\circ$ amount to 14% according to the orientation of the specimen. The maximum obtained for $\alpha = 15^\circ$ therefore seems to be doubtful. There are 2 figures, 1 table, and 2 Soviet-bloo references.

ASSOCIATION: Lesotekhnicheskaya akademiya im. S. M. Kirova Leningrad
(Forest Engineering Academy imeni S.M.Kirov, Leningrad)

SUBMITTED: November 2, 1960

Card 2/4

ASHKENAZI, Ye.K.; POZDNYAKOV, A.A.

Methods for experimental determination of the elastic constants
of anisotropic materials. Nauch.trudy LTA no.94:65-85 '62.

(MIRA 16:1)

(Elasticity)

(Veneers and veneering)

ASHTON, Y.A.F.

Analysis of the mechanical properties of uniaxially oriented
films of crystalline polymers. Plast. massy no. 2:67 '64.
(MIRA 17:8)

ACCESSION NR: AP4013313

S/0032/64/030/002/0225/0227

AUTHOR: Ashkenazi, Ye. K.

TITLE: Boundary surface construction for plane, stressed, anisotropic materials

SOURCE: Zavodskaya laboratoriya, v. 30, no. 2, 1964, 225-227

TOPIC TAGS: anisotropic material, homogeneous solid, tensile strength, shear strength, surface boundary

ABSTRACT: An approximate method has been devised to evaluate the strength of anisotropic materials (e. g., plywood, vitreous-plastics) under stressed and arbitrarily oriented planes. It is assumed that the material can be represented as a continuous, homogeneous solid medium with a surface

$$F(\sigma_x, \sigma_y, \tau_{xy}) = 0.$$

The stresses σ_x , σ_y and τ_{xy} of the various points on the surface are represented as functions of tension, compression, and shear strength limits of the material, determined from independent material tests, and the angle between the filament and the specimen axis. The accuracy of the method depends on the number of points calculated through which the surface boundary passes and the degree of accuracy

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ACCESSION NR: AP4013313

with which the coordinates of each point are determined. Orig. art. has: 2 formulas and 2 figures.

ASSOCIATION: Leningradskaya lesotekhnicheskaya akademiya (Leningrad Wood Technology Institute) (copy?)

SUBMITTED: 00

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: MA

NO REF SOV: 002

OTHER: 001

Card 2/2

L 3569-66 EWT(m)/EWP(w)/EPF(c)/EWP(j)/I WH/EW/RM
ACCESSION NR: AP5024820

UR/0032/65/031/010/1245/1247
620.172:678.5.06

44.55
44.55
AUTHOR: Ashkenazi, Ye. K.; Pozdnyakov, A. A.

TITLE: Shape of specimen for tensile tests of anisotropic transparent plastics

SOURCE: Zavodskaya laboratoriya, v. 31, no. 10, 1965, 1245-1247

TOPIC TAGS: tensile strength, synthetic material, plastic strength

ABSTRACT: The geometry of transparent plastic tensile test specimens of anisotropic material is studied on the premise that the purpose of the testing is to determine indices which most accurately describe the strength of the material under conditions of uniform and uniaxial tension. This requirement eliminates the tubular test specimens preferred by some researchers and indicates the use of flat specimens with a rather high ratio of length to width. Stresses are calculated in a transparent plastic specimen which is twice as wide as it is long, to determine the effect of containment of angular and transverse deformations on the stress field in a flat specimen. It was found that transverse normal stresses in this case result in increased strength and reduced deformation of the specimen since the transverse nor-

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ACCESSION NR: AP5024820

mal stresses always have the same sign as longitudinal normal stresses. Therefore, the test data from wide samples are too high. It is recommended that flat specimens with a length to width ratio of $>3:1$ should be used for tensile tests of anisotropic plastics for an approximately uniform and uniaxial stressed state. The nonuniformity and deviation from uniaxiality in tubular specimens must be further analyzed for a quantitative evaluation of this type of test specimen. Orig. art. has: 2 figures. 6

ASSOCIATION: Leningradskaya lesotekhnicheskaya akademiya (Leningrad Forestry-Engineering Academy); Sibirskiy Tekhnologicheskii Institut (Siberian Institute of Technology)

SUBMITTED: 00

ENCL: 00

SUB CODE: HT, AS

NO REF SOV: 005

OTHER: 000

mlr
Card 2/2

1. ALEKSEIEVA, T. S.; AB ENNAZI, YE. S.; ZAKUSHEINOV, A. P.; KOLCHINA, G. V.;
CHISOVSKAYA, A. I.

2. USSR (600)

4. Paper Industry

7. Effect of the degree of polymerization of pulp on its characteristics in the
noilander process. *Sov. Prom.* 27, No. 7, 1952

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

KATAYEV, S.I.; ASHCHENAZY, V.O., redaktor; FRIDKIN, A.M., tekhnicheskiy
redaktor

[Impulse generators for television scanning] Generatory impul'sov
televizionnoi rasvertki. Moskva, Gos. energ. izd-vo, 1951 271 p.
[Microfilm] (MLRA 10:1)
(Television) (Oscillators, Electron-tube)

GOLUBEV-NOVOZHILOV, Yu.S. [translator]; ASHKENAZY, V.O., red.; GROZNOVA,
V.I., red.; SMUROV, B.V., tekhn. red.

[Application of the theory of games in military affairs] Pri-
menenie teorii igr v voennom dele; sbornik. Moskva, Izd-vo
"Sovetskoe radio," 1961. 360 p. (MIRA 15:2)
(Game theory) (Military art and science)

ASHKEROV, I.R., gornyy inzh.; KHRAMTSOV, V.F.; PARSHIN, V.A.

Practice of using various development systems in the Temir-Tau Mine.
Gor. zhur. no.5:23-28 My '63. (MIRA 16:5)

1. Rpdnik Temir-Tau (for Ashkerov). 2. VostNIGRI (for Khrantsov,
Parshin).

(Temir-Tau region (Kemerovo Province)--Iron mines and mining)

PHASE I BOOK EXPLOITATION

80V/4689

Ashkerov, V. P., B. G. Zabelok, Ye. I. Kalugin, and L. P. Shevchenko

Voyska protivovozdushnoy oborony strany (Air Defense Forces of the Country)
Moscow, Voenizdat, 1960. 217 p. No. of copies printed not given. (Series:
Biblioteka ofitsera)

General Ed.: P. K. Demidov; Ed.: P. V. Fesenko; Tech. Ed.: T. F. Myasnikova.

PURPOSE: This book is intended for officers of the Soviet Armed Forces, from
platoon leader to regimental commander, who are not specially trained in air
defense.

COVERAGE: The book deals with active air defense both in the Soviet Union and
in other countries, presenting past development and present state. The role
of air defense in the overall defense organization of a country is described.
Principles governing use of air defense facilities are given. Sections 3 and
4 of Chapter IV are based on non-Soviet press information. G.S. Desnitskiy

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Air Defense Forces of the Country

SOV/4689

and A. N. Kochurov took part in the writing of the book. There are 17 references, all Soviet (8 translations into Russian).

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1. Origin of air defense and its development during World War I	6
2. Development of air defense in capitalist countries after World War I and during World War II	12
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Card 2/4

ASHKEROV, V.P., polkovnik; ZABELCK, B.G., polkovnik

Training critique. Vest. protivovozd. obor. no.5:13-14
My '61.

(MIRA 14:7)

(Military education)

ASHKINADZE, A. M. Cand. Med. Sci.

Dissertation: "Industrial Traumatism in the Machine Building Industry and its Prevention During Last War." Central Inst. for Advanced Training of Physicians.
8 Apr 47.

SO: Vechernyaya Moskva, Apr, 1947 (Project #17836)

MEOS, A.I.; PEREPILKIN, K.Ye.; SOROKIN, Ya.Z.; ASHKINADZE, B.I.

Apparatus for checking the air content of fluids by the dilatometric method. Zav.lab. 22 no.5:606-608 '56. (MLRA 9:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

(Fluids) (Physical instruments)

L 51998-65 EPF(n)-2/EPA(w)-2/EWT(1)/EWG(m) P1-4/P2-4/P3-6/P4-10 10P(10)
AT/WW

ACCESSION NR: AP5012045

TR/0057/65 0055/0057/0057/0057

AUTHOR: Ganichev, D.A.; Fridrikhov, S.A.; Ashkinadze, B.M.; Solgan, A.B.

TITLE: Investigation of a high frequency resonant discharge in crossed fields

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 5, 1965, 813-822

TOPIC TAGS: secondary emission, resonant state, discharge plasma, microwave field, magnetic field, hydrogen

ABSTRACT: High frequency resonant discharge was investigated in the presence of a magnetic field because of the importance of the phenomenon for magnetrons and other high-frequency equipment. The possibility of secondary emission in the discharge is investigated. The discharge is excited by a series of pulses of a wavelength H_{10} waves at a repetition rate of 10^3 sec^{-1} . The applied magnetic field was perpendicular to the narrow wall of the waveguide, and in the wide wall were introduced two probes (with aquadag coated electrodes to minimize secondary emission) and a hot cathode. The discharge was excited in the presence of a magnetic field. The discharge characteristics are investigated.

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ACCESSION NR: AP5012045

(kW/pulse) the magnetic field was gradually increased to 6000 Oe and the probe currents, the uhf attenuation, and the luminous intensity were observed. The shape of the individual light pulses was also observed with a wide-band amplifier and an oscilloscope. In addition to the uhf intensity (electric field strength) and the magnetic field strength, the residual hydrogen pressure was varied over a wide range. Many of the results are presented graphically and are discussed in some detail. At pressures from 5×10^{-6} to 5×10^{-2} mm Hg resonant discharges with ionization of the residual gas were observed at the two values of the magnetic field for which the electron Larmor frequency was equal to the uhf frequency or to half the uhf frequency. At pressures above 10^{-2} mm Hg a third resonance was observed at a Larmor frequency one-fourth the uhf frequency. These resonant discharges occurred only for uhf electric field strengths exceeding a threshold value that depended on the gas pressure. The probe current increased rapidly with increasing pressure and reached a maximum at around 10^{-2} mm Hg. In conclusion, the authors express their gratitude to the Soviet Academy of Sciences for the work done in the laboratory of the Institute of High-Pressure and High-Frequency Physics.

Card 2/3

L 51998-65

ACCESSION NR: AP6012045

ASSOCIATION: Leningradskiy politekhnicheskij institut im. M.I. Kalinina (Leningrad Polytechnical Institute)

SUBMITTED: 03Jul64

ENCL: 00

SUB CODE: EM, NP

NR REF SOV: 002

OTHER: 003

BJB
Card 3/3

L 32634-66 FBD/EWI(1)/EWP(e)/EWI(m)/EEC(k)-2/T/EWP(k) IJP(c) WG/WH
 ACC NR: AP6018797 SOURCE CODE: UR/0056/66/050/005/1187/1201

AUTHOR: Ashkinadze, B. M.; Vladimirov, V. I.; Likhachev, V. A.; Ryvkin, S. M.; 93
Salmanov, V. M.; Yaroshetskiy, I. D. 83

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

TITLE: Breakdown of transparent dielectrics by intense laser radiation

SOURCE: Zh eksper i teor fiz, v. 50, no. 5, 1966, 1187-1201 25

TOPIC TAGS: dielectric breakdown, laser effect, laser radiation, phonon interaction

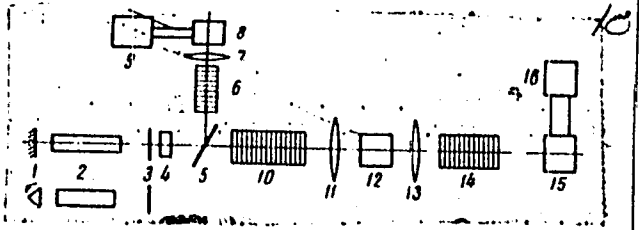
ABSTRACT: The transparent dielectrics investigated were alkali-halide single crystals (LiF, NaCl, CsI, KBr, KI, and others), polymers (polymethyl methacrylate and polystyrene), and glasses (K3 silicate glass and fused quartz). Ruby and neodymium lasers generating 1.79 and 1.17 ev photons, respectively, were used at first, but when it was found that the breakdown was qualitatively the same for polarized (ruby) and unpolarized (neodymium) radiation, only the latter was used, since it could operate in both the ordinary (20 J) and giant-pulse (2 J) modes. The diagram of the experiment is given in Fig. 1. The samples were parallelepipeds with polished faces of varying lengths and cross sections. The character of the breakdown was examined under a microscope and its size measured with a horizontal comparator. The laser-induced breakdown begins in locations exposed to high light-flux intensity and spreads to lower-intensity regions. In the case of focused beams, no destruction occurs behind the focal point. The breakdown occurs in very short time intervals, shorter than

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ACC NR: AP6018797

Fig. 1. Diagram of experiment. 1 - Totally reflecting mirror or rotating prism, 2 - ruby or neodymium rod, 3 - partially reflecting mirror or plane-parallel plate, 4 - light filter, 5 - plane parallel-plate, 6,10,14 - neutral filters, 12 - tested sample, 7,11,13 - lenses, 8,15 - photodiodes, 9,16 - oscilloscopes.



the length of the light pulse, and develops independently at various points of the solid. Estimates of stresses caused by the hypersonic wave due to the laser beam indicate that local effects play a substantial role in the breakdown process. In the case of an ordinary laser pulse, the breakdown mechanism is governed by the peak power, whereas in the case of a giant pulse the decisive factor is the total energy. The cause of the breakdown is shown to be connected with the action of coherent acoustic phonons generated in the course of a stimulated Brillouin scattering, thermal effects being secondary. Study of the breakdown makes possible comparison of volume and surface strengths of the material and can be used to evaluate the time of phonon coherence loss, which is found to be of the order of 6 μ sec for polymethyl methacrylate. The authors thank B. P. Konstantinov for continuous interest and valuable discussions, and A. M. Prokhorov, P. P. Pashinin, A. V. Prokhideyev, I. N. Filimonova, G. V. Vladimirova, G. M. Malyshev, F. F. Vitman, V. P. Pukh, and G. A. Malygin for help with the experiments and for discussions. Orig. art. has: 10 figures and 11 formulas. 18/

Card 2/2 SUB CODE: 20/ SUBM DATE: 30Nov56/ ORIG REF: 004/ OTH REF: 004/ ATD PRESS: [02] 50711

I 45779-66

REC(k)-2/EWP(j)/EWP(k)/EWT(l)/EWT(m)/EWP(o)
ACC NR: AP6030971

LJP(a) RM/WH/AN/AN
SOURCE CODE: UR/0181/66/008/009/2735/2737

AUTHOR: Ashkinadze, B. M.; Likhachev, V. A.; Ryvkin, S. M.; Salmanov, V. M.;
Tomashevskiy, E. Ye.; Yaroshetskiy, I. D.

68
67
8

ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR, Leningrad (Fiziko-
tekhnicheskii institut AN SSSR)

TITLE: Occurrence of paramagnetic centers in polymers under the effect of laser
radiation

SOURCE: Fizika tverdogo tela, v. 8, no. 9, 1966, 2735-2737

TOPIC TAGS: laser radiation, laser effect, laser r and d, polymethylmethacrylate,
polystyrene, electron paramagnetic resonance

ABSTRACT: The authors report observation of paramagnetic centers in polymethyl-
methacrylate (PMMA) and polystyrene (PS) under the influence of radiation from pulsed
ruby and neodymium lasers (0.69 and 1.08 μ , respectively) and also
under the influence of a giant-pulse neodymium laser. The samples (20 mm
long, 7 mm dia) were investigated in a standard radiospectrometer, using a procedure
described earlier (ZhETF v. 50, 1187 (1966)). In both materials, clearly pronounced
electron paramagnetic resonance (EPR) was observed above a certain threshold radi-
ation. The EPR spectra obtained at hydrogen and room temperatures constitute a single

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L 45779-66

ACC NR: AP6030971

lines characterized by g factors close to 2.002 and small width (1- and 3 Oe between maximum-slope points for PMMA and PS, respectively). The Curie law is satisfied for the EPR signals from PMMA, but not PS. The observed paramagnetic centers have a concentration estimated at $\sim 4 \times 10^{15} \text{ cm}^{-3}$ and are quite stable. No difference was seen between the effect of the ruby and neodymium laser, or between ordinary and giant pulses. The paramagnetic centers appeared only in the presence of cracks produced in the material by the laser radiation. In view of some unusual features of the observed paramagnetic centers (absence of macroradicals and absence of hyperfine structure), it is difficult to draw definite conclusions concerning their nature, but it is suggested that they may be the results of the decomposition of the polymers under the influence of the laser beam. The differences between the centers of PMMA and PS may be caused either by differences in the centers themselves, or by differences in their local concentration. Orig. art. has: 3 figures. [02]

SUB CODE: 20/ SUBM DATE: 28Feb66/ ORIG REF: 004/ ATD PRESS: 5085

ms
Card 2/2

L 13025-66 FRD/EWT(1)/EWP(e)/EWT(m)/EEC(k)-2/EWP(j)/T/EWP(t)/ETI/EWP(k)

ACC NR: AP6030009 IJP(c) WG/JD/WW/JW/ SOURCE CODE UR/0020/65/169/005/1041/1043

JG/RM/WH

AUTHOR: Ashkinadze, B. M.; Vladimirov, V. I.; Likhachev, V. A.; Ryvkin, S. M.; Salmanov, V. M.; Yaroshetskiy, I. D.; Konstantinov, B. P. (Academician)

77
76
B

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

TITLE: Laser induced damage in transparent dielectrics

SOURCE: AN SSSR. Doklady, v. 169, no. 5, 1966, 1041-1043

TOPIC TAGS: laser induced damage, material damage, glass, dielectric, alkali halide, crystal

ABSTRACT: Damage induced by standard and ²⁵giant-pulse lasers in a broad class of materials (alkali halide single crystals, polymers, glasses) was investigated experimentally. Plane cracks were observed in poly(methyl methacrylate) (PMMA) under standard-pulse radiation at a 45° angle with respect to the laser beam axis and at random with respect to the crack rotation plane around the same axis. A large number of isolated cracks was observed at superthreshold energies. A 20-j beam focused at f = 6 cm caused tail-end damage in glasses. The same pulse caused total destruction along the cleavage planes in alkali-halide crystals at energies slightly above threshold. In each instance, damage was observed when a giant-pulse beam was focused on the inside of specimens. In single crystals the damage occurred along

Card 1/2

UDC: 535.89:537.226.004.74

GUSEVA, A.N.; ASHKINADZE, L.D.; LEYPMAN, I.Ye.

Infrared spectra of solid petroleum paraffins in the 700 cm^{-1}
region. Vest.Mosk.un.Ser. 2: Khim. 15 no.3:75-77 My-Je '60.
(MIRA 13:8)

1. Kafedra geologii i geokhimii goryuchikh iskopayemykh
Moskovskogo universiteta.
(Paraffins--Spectra)

S/065/61/000/002/006/008
E030/E235

AUTHORS: Guseva, A. N., Ashkinadze, L. D. and Leyfman, I. Ye.
TITLE: Characteristics of the Infra-Red Absorption Spectra
of Solid Petroleum Paraffins
PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No. 2,
pp. 59-62

TEXT: The infra-red absorption spectra of very narrow fractions of solid petroleum products exhibiting carbamide complexes have been studied in the region 700-750 cm^{-1} . Previous published data referred only to individual hydrocarbons, and it was claimed that n-paraffins could be distinguished from the others (iso- and cycloparaffins) by a strong shoulder at 732 cm^{-1} . This has now not only been disproved, but there is also no clear correlation at all between absorption spectrum and physico-chemical structure, although a dependence of spectral shape on melting temperature has been found. Petroleum crudes and fractions of the following origins were studied: Ozek-Suat, El'sk, Chalodidi, Selli, Shirvanskaya. They were fractionated from a benzol solution of the complex formed by them and methanol saturated with carbamide, and the complex was broken by heating with
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S/065/61/000/002/006/008
EO30/E235

Characteristics of the Infra-Red Absorption Spectra of Solid Petroleum Paraffins

distilled water to 90°C. They were then split into about 50 fractions according to melting point between 19.5 and 68.2°C, and each is characterized by a sum factor, $\delta_c = 2(10^{3n_p} - 1400) - 0.84t_{MP}$, which measures the deviation from the n-paraffin structure, where t_{MP} is the melting temperature. The spectra obtained are reproduced in the article. The spectra were obtained from thin films mounted on a sodium-chloride crystal spectrometer *NKC-12* (IKS-12) at room temperature, with specimen and slit size adjusted for maximum resolution. It is seen that the 720 line is alone in the low melting specimens, but the 732 line increases in size with melting point until a 732/720 doublet is formed. The 720 line is usually ascribed to (CH₂) chain deformation, and the 732 to the crystal structure. The gradual change of spectral type with melting point is suggestive of the phase change which occurs around C₂₂, (which corresponds to a melting temperature of 44.0°C, and is hence in the region studied here), but any stronger suggested correlation would be sheerly speculative at present. There are

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S/065/61/000/002/006/008
EO30/E235

Characteristics of the Infra-Red Absorption Spectra of Solid
Petroleum Paraffins
1 table, 1 figure and 9 references: 4 Soviet and 5 non-Soviet.
ASSOCIATION: MGU

✓

Card 3/3

GUSEVA, A.N.; ASHKINADZE, L.D.; LEYFMAN, I.Ye.

Infrared spectra of solid petrolsum paraffins. Neftekhimia 2
no.5:662-665 S-0 '62. (MIRA 16:1)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Paraffin wax--Spectra)

10590-63

EHT(c)/EWT(m)/BIS

AFTTC/EST-3/APGC

Pr-4

BW/RM/DJ

ACCESSION NR: AP3001472

S/0152/63/000/004/0049/0053

AUTHOR: Guseva, A. N.; Leyfman, I. Ye; Ashkinadze, L. D.

66
65

TITLE: Investigation of solid petroleum paraffins by refraction and IR-absorption spectra

SOURCE: IVUZ. Neft' i gaz, no. 4, 1963, 49-53

TOPIC TAGS: hydrocarbon fraction, carbamid complexes, IR-absorption, solid petroleum paraffin

ABSTRACT: It was found in the investigation of petroleum paraffins that the changes in the structure of those paraffins which form carbamide complexes and which are dependent upon temperature are reflected in the intensity and form of infrared absorption in the region of 720 cm⁻¹. These changes are fixed on the refraction curves at the same temperature levels. The limits of existence of various phases and phase transitions are determined according to the temperature dependence, the form of the infrared absorption in the region of 720 cm⁻¹, and the changes of the crystal structure of petroleum paraffins. These interpretations of various infrared spectra of petroleum paraffin fractions were taken at room temperature. The methods used in this study can be applied to the

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L 10590-63

ACCESSION NR: AP3001472

identification of hydrocarbon fractions of solid petroleum paraffins. The hexagonal structure is noted at temperatures higher than the transition interval, and the rhombic structure is noted at temperatures below the transition interval. The mixed structure is found during the transition interval. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow state university)

SUBMITTED: 01Oct62

DATE ACQD: 10Jun63

ENCL: 00

SUB CODR: 00

NO REF SOV: 004

OTHER: 007

Card

2/8
10/8

SOKOLOV, S.D.; ASHKINADZE, L.D.

Infrared spectra of methylisoxazoles in the region 2800-3000 cm^{-1} .
Zhur.VKHO 8 no.1:119-120 '63.
(MIRA 16:4)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Iscoxazole—Absorption spectra)

GUSEVA, A. N.; ASHKINADZE, L. D.; LEYFMAN, I. Ye.

Characteristics of paraffine wax based on infrared absorption spectra in the 700 cm^{-1} region. Izv. AN SSSR. Ser. fis. 27 no.1:104-107 Ja '63. (MIRA 16:1)

1. Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova.

(Paraffine—Spectra)

ACCESSION NR: AP3000132

8/0062/63/000/015/0946/0947

AUTHOR: Sokolov, S. D.; Ashkinadze, L. D.; Chlenov, M. A.; Kochetkov, N. K.

TITLE: Structure of 3-methyl-4-nitroisoxazolone-5

SOURCE: AN SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 5, 1963, 946-947

TOPIC TAGS: 3-methyl-4-nitroisoxazolone-5, isomeric methyl derivatives, 3-methyl-4-nitro-5-methoxyisoxazole, 2,3-dimethyl-4-nitroisoxazolone-5, infrared spectra, ultraviolet spectra

ABSTRACT: 3-Methyl-4-nitroisoxazolone-5 was considered to be a DELTA compound, therefore, capable of enolization. This was, however, disproved by the inability to prepare a chloro derivative. In order to establish the structural formula of 3-methyl-4-nitroisoxazolone-5, two isomeric methyl derivatives were synthesized. 3-Methyl-4-nitro-5-methoxyisoxazole was prepared by the action of diazomethane on 3-methyl-4-nitroisoxazolone-5, while 2,3-dimethyl-4-nitroisoxazolone-5 was prepared by the action of methyl iodide on the silver salt of the original compound. Infrared and ultraviolet spectra for 3-methyl-4-nitroisoxazolone-5 and its derivatives are reported. It was established that 3-methyl-4-nitroisoxazole-5, its silver salt and its N-methyl derivative are DELTA and 3 compounds. "The authors express their gratitude to N. B. Kupletskaya for procuring ultra-violet spectra"

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ACCESSION NR: AF3000132

Orig. art. has: 1 figure, 4 formulas, and 1 table.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 27Dec62

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: CH

NO REF SOV: 003

OTHER: 003

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GUSEVA, A.N.; LEYFMAN, I.Ye.; ASHKINADZE, L.D.

Study of solid petroleum paraffins by refractometry and infrared
absorption spectra. Izv. vys. ucheb. zav.; neft' i gaz 6 no.4:
49-53 '63. (MIRA 16:7)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Spectrum, Infrared) (Refractometry)
(Paraffins)

KAZITSYNA, L.A.; KIKOT', B.S.; ASHKINADZE, L.D.; REUTOV, O.A.

Infrared spectra of hydroxyphenyl diazonium compounds in the region
2100 to 2300 cm^{-1} . Zhur.ob.khim. 33 no.7:2238-2244 JI '63.
(MIRA 16:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Diazonium compounds--Absorption spectra)

KAZITSYNA, L.A.; KIKOT', B.S.; ASHKINADZE, L.D.; REUTOV, O.A.

Correlation of the frequencies and intensities of infrared absorption bands for diazonium salts X - $C_6H_4N_2Cl$ with the constants of the substituent. Dokl. AN SSSR 151 no.3:573-576 JI '63.

(MIRA 16:9)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.
2. Chlen-korrespondent AN SSSR (for Reutov).
(Diazonium compounds--Absorption spectra)
(Substitution (Chemistry))

L 33268-66 EWP(j)/EWT(m) RM

ACC NR: AR6016191

SOURCE CODE: UR/0058/65/000/011/1025/D025

AUTHOR: Kazitsyna, L. A.; Kikot', B. S.; Ashkinadze, L. D.; Reutov, O. A. 63TITLE: Correlation of frequencies and intensities of ir absorption bands of
diazonium salts $X-C_6H_4N_2Cl$ with the constants of the substitutes B

SOURCE: Ref. zh. Fizika, Abs. 11D188

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 130-137

TOPIC TAGS: ir absorption, absorption band, diazonium salt, chemical bonding, line intensity

ABSTRACT: The authors measured the integral intensities of the absorption bands, corresponding to the valence vibrational bond $N=N$, for methanol solutions of diazonium chlorides $X-C_6H_4N_2Cl$, where $X = H-CH_3O, H-CH_3, H-Cl, H, M-Cl, H-NO_2,$ and $M-NO_2$. It is shown that the integral intensity changes in the range from 0.62×10^{-4} for $M-NO_2$ to $3.85 \times 10^{-4} \text{ cm}^{-2} \text{ mole}^{-1} \text{ liter}$ for $H-CH_3O$. It is also found that logarithms of the integral intensities and the frequencies of the valence vibrations of the $N=N$ bond of diazocations, measured for dilute solutions of diazonium chlorides, depend linearly on the values of the Hammett constants of the substitutes of the benzene ring. For the substitutes $H-CH_3O$ and $H-OH$, the linearity of these dependences is retained only if the values of σ^+ are used in place of the Hammett constants σ .
[Translation of abstract]

SUB CODE: 20, 07 /

Card 1/1

ASKINAZI

SEE ALSO ASKINAZI

ASHKINAZI, A. .

Local materials are a great reserve. NTO 5 no.10:42-43 0 '63.

(MIRA 17:1)

1. Chlen Altayskogo krayevogo pravleniya Vsesoyuznogo khimicheskogo obshchestva imeni Mandele'yeva.

ASHKINAZI, Abram Khaskolevich; YEL'KOV, F., red.; ZHDANOVA, G.
tekh.red.

[Lime production in the Altai Territory] Proizvodstvo
izvesti v Altaiskom krae. Barnaul, Altaiskoe knizhnoe
isd-vo, 1960. 48 p. (MIRA 14:2)
(Altai Territory--Lime industry)

ASHKINAZI, Abram Khaskelevich; KONDRATYUK, M., red.; SAFONOVA, M.,
tekhn. red.

[Innovators and builders of the Altai] Ratsionalizatory-
stroiteli Altaia. Barnaul. Altaiskoe knizhnoe izd-vo,
1963. 51 p. (MIRA 17:3)

ASHKINAZI, A.L.

Effect of leakages on the efficiency of steam hammer operations.
Trudy LIMI no.5:111-122 '50. (MLRA 9:8)
(Hammers)

ASHKINAZI, A.I., kandidat tekhnicheskikh nauk, dotsent; FRENKEL', Ya. I.,
inzhener.

Co-operative effort to increase the efficiency of the heat-power
system in machine-building plants. Truly LIEI no.7:69-80 '54.
(Forging machinery) (MIRA 9:9)

ASHKINAZI, A. L.

ASHKINAZI, A. L. - "Author's abstract of a dissertation on "The Heat-Engineering Basis for Perfecting Steam Hammers and Possible Progress in the Power Engineering of Forges" presented toward the academic degree of Doctor in Technical Sciences.

So; Knizhnaya Letopis' No 3, 1956

25(2)

PHASE I BOOK EXPLOITATION SOV/3383

Ashkinazi, Aleksandr L'vovich

Rezervy parosilovogo oborudovaniya kuznechno-pressovykh tsekhov
(Reserves of Steam-Power Equipment for Forging Shops) Moscow,
Mashgiz, 1959. 225 p. Errata slip inserted. 1,200 copies
printed.

Reviewer: K.K. Yekimov, Engineer; Ed.: K.A. Reznikovich, Candidate
of Technical Sciences; Managing Ed. for Literature on Machine-
Building Technology (Leningrad Division, Mashgiz): Ye.F. Naumov,
Engineer; Ed. of Publishing House: A.I. Varkovetskaya; Tech.
Ed.: O.V. Speranskaya.

PURPOSE: This book is intended for technical personnel of drop-
and press-forging shops, designers, and students of schools of
higher technical education.

COVERAGE: This book presents results of tests on steam hammers and
steam-hydraulic presses. The effect of certain factors on the
operation of steam hammers and possible steam losses are discussed.

Card 1/6

Reserves of Steam-Power (Cont.)

SOV/3383

Advice on the design of steam distribution is given, and methods for designing steam piping and accumulators in order to secure sufficient steam reserves are presented. No personalities are mentioned. There are 83 references: 63 Soviet, 16 German, and 4 English.

TABLE OF CONTENTS:

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Ch. I. Elements of the Theory of Steam-Power Plants. System of Efficiencies	6
1. The theoretical cycle and its efficiency	6
2. Efficiency of real plants	11
3. Efficiency of a drop hammer operating on compressed air	16
Ch. II. General Problems of the Theory of Steam Hammers	20
1. Basic constructional characteristics of a steam-hammer cylinder and steam distribution	20

Card 2/6

ASIKOVICH, A. L.

PHASE I BOOK EXPLOITATION

SOV/5658

Ivanov, Aleksandr Petrovich, Candidate of Technical Sciences, and Viktor Dmitriyevich Lisitsyn, Candidate of Technical Sciences, eds.

Modernizatsiya kuznechno-shtampovochnogo oborudovaniya (Modernization of Die-Forging Equipment) Moscow, Mashgiz, 1961. 226 p. Errata slip inserted. 10,000 copies printed.

Reviewer: V. Ye. Nedorezov, Candidate of Technical Sciences; Ed. of Publishing House: T. L. Leykina; Tech. Ed.: A. A. Bardina; Managing Ed. for Literature on Machine-Building Technology (Leningrad Department, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for foremen, machinists, designers, and process engineers concerned with the modernization and design of die-forging equipment. It may also be used by students at schools of higher education.

COVERAGE: The book contains material presented at the Conference

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