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15-1957-7-8881

Geology Department of the MGU on the Bicentennial Anniversary of the University (Cont.)

geological-soils department was established at the University; it was subsequently reorganized in 1949 as a geology department and its soils division was adjoined to the department of biology. On its 200th anniversary the department of geology included 14 courses of study: dynamic geology; historical and regional geology; paleontology; geology and geochemistry of fossil fuels; geophysical methods of investigation of the earth's crust; geochemistry; crystallography and crystallochemistry; mineralogy; petrography; hydrogeology; soils and engineering geology; permafrost; and the history of geological sciences. The article includes lists of professors and names of courses, and indicates the scope of the scientific research work.

Card 3/3

D. I. Gordeyev

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.

Three years of international scientific relation in geology. Nauch. dokl.vys.shkoly; geol.-geog.nauki no.1:269-270 '58. (MIRA 12:2)

1. Moskovskiy universitet, geologicheskiy fakul'tet, kabinet istorii geologicheskikh nauk.

(Geology)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

KUKARKIN, Boris Vasil'yevich, prof.; RYBNIKOV, Konstantin Alekseyevich, prof.; BASHMAKOVA, Izabella Grigor'yevna; YUSHKEVICH, Adol'f Pavlovich; YANOVSKAYA, Sof'ya Aleksandrovna; SPASSKIY, Boris Ivanovich, dotsent; MIKHAYLOV, Glab Konstantinovich, starshiy nauchnyy sotrudnik; MATYNOV, D.Ya., prof., otv.red.; GORDEYEV, D.I., prof., red.; IVANENKO, D.D., prof., red.; KUDRYAVTSEV, P.S., prof., red.; KULIKOVSKIY, P.G., dotsent, red.; KHRGIAN, A.Kh., prof., red.; SHEVTSOV, N.S., prof., red.; VERKHUNOV, V.M., assistent, red.; KONONKOV, A.F., red.; YERMAKOV, M.S., tekhn.red.

[Programs of courses on the history of the physicomathematical sciences] Programmy po istorii fiziko-matematicheskikh nauk. Moskva, 1959. 40 p. (MIRA 12:12)

1. Moscow. Universitet. 2. Orgkomitet Vsesoyuznoy mezhvuzovskoy konferentsii po istorii fiziko-matematicheskikh nauk (for Kukarkin, Rybnikov, Spasskiy, Gordeyev, Ivanenko, Kudryavtsev, Kulikovskiy, Mikhaylov, Khrgian, Shevtsov, Verkhunov, Kononkov).
(Physics--Study and teaching)
(Mathematics--Study and teaching)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

KONONKOV, Arkadiy Fedorovich; VOVCHENKO, G.D., prof., otv.red.; BERNSHTEYN, S.B., prof., red.; VILENSKIY, D.G., prof., red.; GORDEYEV, D.I., prof., red.; GUDZIY, N.K., prof., red.; ZAYONCHKOVSKIY, P.A., prof., red.; KECHEK'YAN, S.V., prof., red.; POLYANSKIY, F.Ya., prof., red.; RYBNIKOV, K.A., prof., red.; SKAZKIN, S.D., akademik, red.; SOLOV'YEV, A.N., dotsent, red.; ZAYTSEVA, M.G., red.; GEORGIYEVA, G.I., tekhn.red.

Petr Ivanovich Strakhov. Moskva, Izd-vo Mosk.univ., 1959. 91 p. (MIRA 13:2)
(Strakhov, Petr Ivanovich, 1757-1813)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

LANGE, Oktaviy Konstantinovich; GORDEYEV, D.I., red.; PETROVA, K.A., red.; YERMAKOV, M.S., tekhn.red.

[Underground waters of the U.S.S.R.] Podzemnye vody SSSR. Pod red.D.I.Gordeeva. Moskva, Izd-vo Mosk.univ. Pt.1. [Underground waters in the European part of the U.S.S.R.] Podzemnye vody Evropeiskoi chasti SSSR, 1959. 268 p. (MIRA 12:12)
(Water, Underground)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

SOV/11-59-6-10/15

AUTHORS: Gordeyev, D.I., Afanas'yev, T.P., and Makarenko, F.A.

TITLE: In Memory of Nikolay Nikolayevich Slavyanov

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959, Nr 6, pp 112-113 (USSR)

ABSTRACT: This is an article to the memory of the oldest Soviet hydrogeologist N.N. Slavyanov, Corresponding Member of the AS USSR, who died on October 16, 1958. He received the degree of Doctor of Sciences without having to defend a thesis on the recommendation of Akademicians V.I. Vernadskiy, V.A. Obruchev and P.I. Stepanov. He was one of the creators of hydrogeochemistry as a science.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

LEVSHIN, Leonid Vadimovich; VOVCHENKO, G.D., prof., otv.red.; BERNSHTEYN, S.B., prof., red.; VILENSKIY, D.G., prof., red.; GORDEYEV, D.I., prof., red.; GUDZIY, N.K., prof., red.; ZAYONCHKOVSKIY, P.A., prof., red.; KECHEK'YAN, S.F., prof., red.; MEL'NIKOVA, K.P., kand.nauk, red.; POLYANSKIY, F.Ya., prof., red.; RYBNIKOV, K.A., prof., red.; SKAZKIN, S.D., akademik, red.; SOLOV'YEV, A.N., dotsent, red.; ZAYTSEVA, M.G., red.; GEORGIYEVA, G.I., tekhn.red.

Sergei Ivanovich Vavilov. Moskva, Izd-vo Mosk.univ., 1960. 101 p. (Zamechatel'nye uchenye Moskovskogo universiteta, no.24).
(MIRA 13:6)

(Vavilov, Sergei Ivanovich, 1891-1951)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

RYBNIKOV, K.A., prof., red.; SPASSKIY, B.I., dotsent, red.; GORDEYEV, D.I., prof., red.; IVANENKO, D.D., prof., red.; KUDRYAVTSEV, P.S., prof., red.; KUKARKIN, B.V., prof., red.; KULIKOVSKIY, P.G., dotsent, red.; MIKHAYLOV, G.K., starshiy nauchnyy sotrudnik, red.; KHRGIAN, A.Kh., prof., red.; SHEVTSOV, N.S., prof., red.; VERKHUNOV, V.M., assistent, red.; KONONKOV, A.F., red.; MALIKOVA, M.A., red.; SOROKINA, L.A., red.; YERMAKOV, M.S., tekhn.red.

[Summaries of papers and reports of the Interuniversity Conference on the History of Physics and Mathematics] Tezisy dokladov i soobshchenii Mezhvuzovskoi konferentsii po istorii fiziko-matematicheskikh nauk. Moskva, Izd-vo Mosk.univ., 1960. 187 p. (MIRA 13:6)

1. Mezhvuzovskaya konferentsiya po istorii fiziko-matematicheskikh nauk. 1960.
(Mathematics--Congresses) (Physics--Congresses)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I., prof., glav. red.; DVORYANKIN, F.A., prof., red.; KONONKOV, A.F., red.; RYBNIKOV, K.A., prof., red.; SOLOV'YEV, A.I., dotsent, red.; SPASSKIY, B.I., dotsent, red.; FIGUROVSKIY, N.A., prof., red.; SHEVTSOV, N.S., prof., red.; KHRGIAN, A.Kh., prof., red.; ZAYTSEVA, M.G., red.; YERMAKOV, M.S., tekhn. red.

[History and methodology of the natural sciences] Istoriia i metodologiia estestvennykh nauk. Moskva. No.1. [Physics] Fizika. 1960. 221 p. (MIRA 14:5)

1. Moscow. Universitet.

(Physics)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.

M.V.Lomonosov and the studies of karst. Inform.sbor.Mezhd.kom.po izuch.geol.geogr. kar. no.1:203-206 '60. (MIRA 15:4)

1. Moskovskiy gosudarstvennyy universitet.
(Lomonosov, Mikhail Vasil'evich, 1711-1765) (Karst)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D. I.

Significance of V.I. Lenin's philosophical works for geology; on the 90th anniversary of V.I. Lenin's birth. Vest. Mosk. un. Ser. 4: Geol. 15 no.4:3-7 Jl-Ag '60. (MIRA 13:10)
(Lenin, Vladimir Il'ich, 1870-1924)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D. I.

In memory of Sergei Alekseevich Dobrov; obituary. Vest. Mosk. un. Ser. 4: Geol. 15 no.4:75-79 Jl-Ag '60. (MIRA 13:10)
(Dobrov, Sergei Alekseevich, 1884-1959)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.

V.I.Lenin and geology. Biul.MOIP.Otd.geol. 35 no.2:3-11 Mr-Ap '60. (MIRA 14:4)
(Lenin, Vladimir Il'ich, 1870-1924) (Geology)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

BAKHVALOV, Sergey Vladimirovich: VOVCHENKO, G.D., prof., otv.red.; BERNSHTEYN, S.B., prof., red.; VILENSKIY, D.G., prof., red. [deceased]; GORDEYEV, D.I., prof., red.; GUDZIY, N.K., prof., red.; ZAYONCHKOVSKIY, P.A., prof., red.; KECHEK'YAN, S.F., prof., red.; MEL'NIKOVA, K.P., kand.nauk, red.; POLYANSKIY, F.Ya., prof., red.; RYBNIKOV, K.A., prof., red.; SKAZKIN, S.D., akademik, red.; SOLOV'YEV, A.N., dotsent, red.; GOL'DENBERG, G.S., red.; GEORGIYEVA, G.I., tekhn.red.

Nil Aleksandrovich Glagolev. Moskva, Izd-vo Mosk.univ., 1961. 29 p. (Zamechatel'nye uchenye Moskovskogo universiteta, no.28). (MIRA 14:12)
(Glagolev, Nil Aleksandrovich, 1888-1945)
(Nomography (Mathematics)) (Geometry, Projective)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

REMEZOV, Nil Petrovich ; VOVCHENKO, G.D., prof., otv. red.; GORDEYEV, D.I., prof., red.; VILENSKIY, D.G., prof., red.; BERNSHTEYN, S.B., prof., red.; GUDZIY, N.K., prof., red.; ZAYONCHKOVSKIY, P.A., prof., red.; KECHEK'YAN, S.F., prof., red.; MEL'NIKOVA, K.P., kand. geologo-mineralog. nauk, red.; POLYANSKIY, F.Ya., prof., red.; RYBNIKOV, K.A., prof., red.; SKAZKIN, S.D., akad., red.; SOLOV'YEV, A.I., dots., red.; KOROBTSOVA, N.A., red.; MASLENNIKOVA, T.A., tekhn. red.

[Vladimir Vasil'evich Gemmerling] Vladimir Vasil'evich Gemmerling. Moskva, Izd-vo Mosk. univ., 1961. 57 p. (MIRA 14:7)
(Gemmerling, Vladimir Vasil'evich, 1880-1954)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, Dem'yan Ignat'yevich; LANGE, O.K., prof., otv. red.; TATARINOVA, Ye.I., red.; YERMAKOV, M.S., tekhn. red.

[M.V.Lomonosov, founder of geology] M.V.Lomonosov osnovopolozhnik geologicheskoi nauki. Izd.2., ispr. i dop. Moskva, Izd-vo Mosk. univ., 1961. 203 p. (MIRA 14:10)
(Lomonosov, Mikhail Vasil'yevich, 1711-1765)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

MEL'NIKOVA, Klara Petrovna; GORDEYEV, D.I., red.; LYUBIMOV, I.M., red.; GEORGIYEVA, G.I., tekhn. red.

[Development of Soviet soil science in connection with road construction and hydraulic engineering] Razvitie sovetskogo gruntovedeniia v sviazi s dorozhnym i gidrotekhnicheskim stroitel'stvom. Pod red. D.I.Gordeeva. Moskva, Izd-vo Mosk. univ., 1961. 218 p. (MIRA 15:2)

(Soil research)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.

Postwar development of paleohydrogeology and some related branches of science in the U.S.S.R., 1946-1960. Vop.ist.est. i tekh. no.11:29-39 '61. (MIRA 14:11)
(Paleoclimatology) (Hydrology)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.

Monographies and textbooks on the history of geology.
Trudy Inst.ist.est.i tekh. 37:345-349 '61. (MIRA 14:10)
(Geology—Study and teaching)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.

Elemental dialectical materialism in M.V.Lomonosov's works on geology. Vest.Mosk.un. Ser.4:Geol. 16 no.5:7-26 S-O '61. (MIRA 14:9)

(Lomonosov, Mikhail Vasilevich, 1711-1765) (Geology)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.

M.V.Lomonosov's views concerning problems of soil science, biology, and agriculture. Biul. MOIP. Otd. biol. 66 no.5:13-26 S-O '61. (MIRA 14:10)

(LOMONOSOV, MIKHAIL VASIL'EVICH, 1711-1765)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

BROD, I.O., prof., doktor geol.-miner. nauk; VARSANOF'YEVA, V.A., prof., doktor geol.-miner. nauk; VELIKOVSKAYA, Ye.M., prof., doktor geol.-miner. nauk; GORDEYEV, D.I., prof., doktor geol.-miner. nauk; DOBROV, S.A., doktor geol.-miner. nauk [deceased]; KOF, M.I., kand.tekhn.nauk, [deceased]; KUZMICHEVA, Ye.I., mladshiy nauchnyy sotr.; KUZNETSOV, Ye.A., prof., doktor geol.-miner. nauk; LEONOV, G.P., prof., doktor geol.-miner. nauk; MENNER, V.V., dotsent, doktor geol.-miner. nauk; NAZARENKO, I.I., kand. sel'khoz.nauk; POBEDIMSKAYA, Ye.A., assistent; POPOV, S.P., prof., doktor geol.-miner. nauk; SMIRNOV, V.I.; SMIRNOV, N.N., prof., doktor geol.-miner. nauk; SMOL'YANINOV, N.A., prof., doktor geol.-miner. nauk [deceased]; FENIKSOVA, V.V., dotsent, kand.geol.-miner. nauk; SHAFRANOVSKIY, I.I., prof., doktor geol.-miner. nauk; Prinimali uchastiye: BARSANOV , G.P., prof., doktor geol.-miner. nauk; BOKIY, G.B.; GORSHKOV, G.P., prof., doktor geol.-miner. nauk; KUDRYAVTSEV, V.A., prof., doktor geogr. nauk; MARKOV, P.N., dotsent, kand.geol.-miner. nauk; MOROZOV, S.S., prof., doktor geol.-miner. nauk; ORLOV, Yu.A., akademik; SERGEYEV, Ye.M., prof., doktor geol.-miner. nauk; TVALCHRELIDZE, A.A.; GEORGIYEVA, G.I., tekhn. red.

(Continued on next card)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

BROD, I.O.--- (continued) Card 2.

[History of geology at Moscow University] Istoriia geologicheskikh nauk v Moskovskom universitete. Pod red. D.I.Gordeeva. Moskva, Izd-vo Mosk. univ., 1962. 351 p. (MIRA 15:7)

1. Moscow. Universitet. Geologicheskiy fakul'tet. 2. Chlen-korrespondent Akademii nauk SSSR (for Smirnov). 3. Chlen-korrespondent Sibirskogo otdeleniya Akademii nauk SSSR (for Bokiy). 4. Deystvitel'nyy chlen Akademii nauk Gruzinskoy SSR (for Tvalchrelidze).
(Moscow University) (Geology--Study and teaching)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

KUDELIN, B.I., prof., otv. red.; GORDEYEV, D.I., prof., red.; MAKARENKO, F.A., doktor geol.-miner. nauk, red.; CHURINOV, M.V., doktor geol.-min. nauk, red.; GOLODKOVSKAYA, G.A., kand. geol.-min. nauk, red.; ROMANOVSKIY, N.N., red.; YERMAKOV, M.S., tekhn. red.

[Collected articles on hydrogeology and engineering geology] Sbornik statei po voprosam gidrogeologii i inzhenernoi geologii. Pod red. N.N.Romanovskogo. Moskva, Izd-vo Mosk. univ., 1962. 428 p. (MIRA 15:3)
(Water, Underground) (Engineering geology)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, Dem'yan Ignat'yevich; AFANAS'YEV, T.P., doktor geol.-mineral.-nauk, otv.red.; SPRYGINA, L.I., red.izd-va; SUSHKOVA, L.A., tekhn.red.

[Nikolai Nikolaevich Slavianov; his life and work] Nikolai Nikolaevich Slavianov; zhizn' i deiatel'nost'. Moskva, Izd-vo Akad.nauk SSSR, 1962. 135 p. (Akademiia nauk SSSR. Laboratoriia gidrogeologicheskikh problem. Trudy, vol.43). (MIRA 15:3)
(Slavianov, Nikolai Nikolaevich, 1878-1958)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

MIKULINSKIY, S.R., otv. red.; BLYAKHER, L.Ya., red.; GORDEYEV, D.I., red.; ZUBOV, V.P., red.; FEDOSEYEV, I.A., red.; PERMYAKOVA, A.I., red. izd-va; CHERKASOVA, V.I., red. izd-va; NOVICHKOVA, N.D., tekhn. red.

[History of the natural sciences in Russia in three volumes] Istoriia estestvoznaniia v Rossii v trekh tomakh. Moskva, Izd-vo Akad. nauk SSSR. Vol.3. [Geology, geography, and biology] Geologo-geograficheskie i biologicheskie nauki. Pod red. L.IA.Bliakhera i dr. 1962. 603 p. (MIRA 15:5)

1. Akademiya nauk SSSR. Institut istorii yestestvoznaniya i tekhniki.

(Geology--History) (Geography--History)
(Biology--History)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.; KONYUKHOV, I.A.

Ignatii Osipovich Brod; obituary. Vest.Mosk.un.Ser.4: Geol. 17 no.5:70-73 S-O '62. (MIRA 15:11)
(Brod, Ignatii Osipovich, 1902-1962)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.

"Principles of regional estimation of natural resources of underground waters" by B.I.Kudelin. Reviewed by D.I.Gordeev. Vest. Mosk.un.Ser.4: Geol. 17 no.5:74-75 S-O '62. (MIRA 15:11)
(Water, Underground) (Kudelin, B.I.)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

LANGE, Oktaviy Konstantinovich; GORDEYEV, D.I., red.; KARPOVA, I.S., red.

[Underground waters of the U.S.S.R.] Podzemnye vody SSSR. Moskva, Izd-vo Mosk. univ. Pt.2. [Underground waters of Siberia and Central Asia] Podzemnye vody Sibiri i srednei Azii. 1963. 283 p. (MIRA 17:6)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.

V.I. Vernadskii's theory of natural waters and its significance for hydrogeology. Vest. Mosk. un. Ser. 4: Geol. 18 no.1:28-42 Ja-F '63. (MIRA 16:6)

1. Kabinet istorii geologicheskikh nauk Moskovskogo universiteta.
(Water)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.I.

Oktavii Konstantinovich Lange; on his 80th birthday. Vest. Mosk. un. Ser. 4: Geol. 18 no.1:73-75 Ja-F '63. (MIRA 16:6)

(Lange, Oktavii Konstantinovich, 1883-)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GOLDMIEV, D.I.

All-Union Conference of Geologists. Vest. Mosk. un. Ser. 4: Geol. 20 no.3:87-88 My-Je '65.

(MIRA 18:7)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.K.

Operating characteristics of explosion-proof, pyranol, electric power transformers. Energ.biul. no.7:18-25 Jl '53. (MLRA 6:7)
(Electric transformers)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.K.

[redacted]

Measuring the power factor without breaking the circuit. Energ. biul. no.7:7-11 Jl '57. (MLRA 10:7)
(Electric measurement)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, D.N.

Gordeyev, D.N. "The principal stages in the development of hydrogeology in pre-revolutionary Russia", Trudy Laboratorii gidrogeol. problem im. akad. Savarenskogo, Vol. II, 1949, p. 216-22

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

MISAN, V.; GORDEYEV, G., Isolnyayushchiy obyazannosti dotsenta

What we have learned from the use of the PTB-1 stowage machines. Mor. flot 25 no.9:12-13 S '65. (MIRA 18:9)

1. Nachal'nik otdela mekhanizatsii porta Nakhodka (for Misan).
2. Kafedra mekhanizatsii portov Odesskogo Instituta inzhenerov morskogo flota (for Gordeyev).

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G., normirovshchik.

More attention to electric repair units. Sots. trud no.4:127-128 Ap '57. (MIRA 10:6)

1. Elektromontazhnyy tsekh metallurgicheskogo zavoda.
(Electricians) (Wages)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

BURMISTROV, Georgiy Alekseyevich; KOZLOV, V.P., dotsent, retsenzent; YURSHANSKIY, Z.M., dotsent, retsenzent; GORDEYEV, G.A., dotsent, red.; SHURYGINA, A.I., red.izd-va; BOTVINKO, M.V., tekhn.red.

[Collection of problems pertaining to the method of least squares] Zadachnik po sposobu naimen'shikh kvadratov. Moskva, Izd-vo geodez.lit-ry, 1960. (MIRA 13:12)
(Least squares)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G.I.

"Investigation of Oil Consumption in an Automobile Engine." Cand Tech Sci, Moscow Automobile and Road Inst imeni V.M. Molotov, Min Higher Education USSR, Moscow, 1955. (KL, No 14, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

KRUZE, Ilariy Leonidovich, kandidat tekhnicheskikh nauk, dotsent; GORDEYEV, G.I., redaktor; MAL'KOVA, N.V., tekhnicheskiy redaktor

[Automobile brakes] Tormozhenie avtomobilia. Moskva, Nauchno-tekhn. izd-vo avtotransp. lit-ry, 1956. 54 p. (MLRA 9:10)
(Automobiles--Brakes)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G. I.

118-58-3-6/21

AUTHORS: Gordeyev, G.I., and Zabolotnyy, I.Ye., Engineers

TITLE: A Ship's Hold Loader (Tryumnyy pogruzchik)

PERIODICAL: Mekhanizatsiya Trudoyemkikh i Tyazhelykh Rabot, 1958, # 3, pp 17-18 (USSR)

ABSTRACT: In November 1957, a new machine of the type PTB-2 for the stowing of loose freight was tested at the port of Odessa. This machine was planned by the Tsentral'noye proyektno-konstruktorskoye byuro No 3 ministerstva morskogo flota SSSR (Central Bureau of Projection and Design No 3 of the USSR Ministry of the Merchant Marine) and was constructed by the workshops of the Rizhskoye montazhnoye upravleniye (Riga Assembly Administration). The test trial was successful and it was recommended for serial production.

The main parts of the loader are: 1) the conveyor for transporting the freight into the ship's hold; 2) the rotary bunker and the feeding tray; 3) the intake bunker and 4) the supporting frame. It is remote controlled.

There is 1 photograph.

AVAILABLE: Library of Congress

Card 1/1

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

~~Kovalev, I.F.~~ BB 22 Jun 66

Gordeyev, D.V. BB 12 Jul 66

CIA-RDP86-00513R000516120016-9

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G.I.

The PTB-2 hold loader. Biul.Tekh.-ekon.inform. no.9:70-71 '58.
(MIRA 11:10)

(Loading and unloading) (Barges)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G.N., mayor; LENSKIY, N.G., inzhener-polkovnik, redaktor; ALEKSANDROV, V.N., starshiy leytenant, redaktor; STREL'NIKOVA, M.A., tekhnicheskiy redaktor.

[Problems in aerial navigation; textbook for airmen] Vozdushnaia radionavigatsiia v zadachakh; posobie dlia letnogo sostava. Pod red. N.G.Lenskogo. Moskva, Voennoe izd-vo Ministerstva vooruzhennykh sil SSSR, 1948. 139 p. [Microfilm] (MLRA 7:11)

(Navigation (Aeronautics)--Problems, exercises, etc)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G. N.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 701 - I

BOOK

Call No.: AF175381

Author: GORDEYEV, G. N., Major

Full Title: AIRCRAFT RADIO NAVIGATION IN PROBLEMS (Textbook for flying personnel)

Transliterated Title: Vozdushnaya radionavigatsiya v zadachakh (Posobiye dlya letnogo sostava)

PUBLISHING DATA

Originating Agency: None

Publishing House: Military Publishing House of the Ministry of the Armed Forces of the USSR

Date: 1948 No. pp.: 144 No. of copies: Not given

Editorial Staff

Editor: Lenskiy, N. G., Eng. Lt. Col.

PURPOSE: This textbook was approved by the Chief of Staff of the Air Force and by the Administration of the Armed Forces of the USSR.

TEXT DATA

Coverage: This book consists of problems composed and selected by the author which embrace all methods and procedures of the navigational use of the aximuthal radio system. At the beginning of each section basic conditions, formulae and examples are given. Answers are found at the end of the book. Diagrams, graphs, charts, etc.

No. of References: None

Facilities: None

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G. N.

PHASE X TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 472 - X

[Supersedes AID 472-I]

BOOK

Author: GORDEYEV, G. N. Call No.: AF640943

Full Title: SOME PROBLEMS OF AIRCRAFT NAVIGATION

Transliterated Title: Nekotoryye voprosy samoletovozhdeniya

PUBLISHING DATA

Originating Agency: None

Publishing House: Military Publishing House of the Ministry of Defense of the U.S.S.R.

Date: 1953 No. pp.: 112 No. of copies: Not given

Editorial Staff: None

PURPOSE AND EVALUATION: This book is intended for aircraft navigators and pilots. It may be also used by students of aviation schools of the Air Force and by flying personnel and students of DOSAAF (All-Union Voluntary Society for the Promotion of the Army, Air Force and Navy). This book may be considered as a supplementary textbook for those who study aircraft navigation. It does not introduce any new ideas but shows how certain navigational problems might be solved. Anybody with high school education will follow the text without difficulty.

TEXT DATA

Coverage: In this book some problems are considered which have not yet been sufficiently covered by the existing literature on aircraft

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Nekotoryye voprosy samoletovozhdeniya

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navigation. To this class of problems belong: "precalculated air position"; "determined time of arrival"; "the most effective course under given conditions"; interconnection between aircraft control and navigational computations; generalization of methods of using various technical equipment to determine the position of the aircraft; precision in aircraft navigation and the choice of equipment and methods for determining the position of an aircraft. The author analyses these problems and discusses various sources of errors committed in the computations normally used. He gives a number of examples and shows on diagrams the geometric solution of his problems. In the introduction, he mentions some outstanding achievements in navigation before World War II and gives a few names of famous flyers. He stresses also the importance of training in navigation. In the conclusion among other general considerations the author states that navigation requires the team work of the entire flying crew. Unpredictable atmospheric conditions make continuous checking necessary. The choice of methods of computation and of instruments to be used for the determination of flying data depends on the crew and may influence the results.

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Nekotoryye voprosy samoletovozhdeniya

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Nekotoryye voprosy samoletovozhdeniya

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No. of References: None

Facilities: None

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G. N., podpolkovnik

Manual on air navigation. Vest.Vozd.Fl. 37 no.5:76-78 My '54.
(Navigation (Aeronautics)) (MLRA 8:8)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, Grigoriy Stepanovich, prof.; PYLAYEVA, A.P., red.; FEDOTOVA, A.F., tekhn. red.

[Problems in the economics of corn production in the U.S.A.] Nekotorye voprosy ekonomiki proizvodstva kukuruzy v SShA. Gos. izd-vo sel'khoz. lit-ry, 1958. 93 p. (MIRA 11:11)
(United States--Corn(Maize))

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G.S., prof.; YAKUSHKIN, D.I.. Prinimali uchastiye: GORSKAYA, N.V.; GRANOVSKAYA, A.Ye.; YEVSTIGNEYEVA, Yu.G.; KRYLOV, M.V.; LEYKIN, D.I.; MAKHOVETSKIY, V.B.; MEYENDORF, A.L.; NAZARENKO, V.I.; NICHIPORUK, O.K.; PAVLOV, L.I.; RUMYANTSEVA, N.V.; SOSENSKIY, I.I.; CHERNEVSKIY, Yu.V.. TULUPNIKOV, A.I., red.; SOLOV'YEV, A.V., prof., red.; RAKITINA, Ye.D., red.; ZUBRILINA, Z.P., tekhn.red.

[Agriculture in capitalist countries; a statistical manual] Sel'skoe khozyaistvo kapitalisticheskikh stran; statisitcheskii sbornik. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1958. 247 p. (MIRA 12:5)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva. 2. Otdel nauchnoy informatsii po ekonomike i organizatsii sel'skogo khozyaystva zarubezhnykh stran Vsesoyuznogo nauchno-issledovatel'skogo instituta ekonomiki sel'skogo khozyaystva (for all except Tulupnikov, Solov'yev, Rakitina, Zubrilina). 3. Direktor Vsesoyuznogo nauchno-issledovatel'skogo instituta ekonomiki sel'skogo khozyaystva (for Tulupnikov). 4. Zamestitel' direktora Vsesoyuznogo nauchno-issledovatel'skogo instituta ekonomiki sel'skogo khozyaystva (for Solov'yev).

(Agriculture--Statistics)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, Grigoriy Stepanovich; prof., starshiy nauchnyy sotrudnik; IVANOVA, A.N., red.; PEVZNER, V.I., tekhn.red.; TRUKHINA, O.N., tekhn.red.

[Organization of dairy farms in the U.S.A.] Voprosy organizatsii molochnykh ferm v SShA. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1960. 94 p. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva (for Gordeyev).
(United States--Dairying)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G. V.

USSR/Physics - Plasma 11 Aug 51

"Oscillations of Plasma and Striae (Layers)," G. V. Gordeyev, Leningrad State U imeni Zhdanov

"Dok Ak Nauk SSSR" Vol LXXIX, No 5, pp 771-774

Acknowledges assistance of M. G. Veselov and P. P. Pavinskiy, and the math counsel of V. I. Krylov and V. N. Faddeyeva, who also prepd the tables of the Fresnel integral for complex argument. Considers the striae as a group of waves of the fluctuations in the potential, by identifying the velocity of the striae with the group velocity U = dw/dt, both for standing and traveling striae. Submitted by Acad V. A. Fok 18 Jun 51.

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G. V.

USSR/Physics - Plasma Feb 52

"Oscillations of Plasma and Striae," G.V. Gordeyev, Leningrad State U

"Zhur Eksper i Teoret Fiz" Vol XXII, No 2, pp 230-240

Gives theory of striae considered as a group of waves. Compares theory with expts. Indebted to M. G. Veselov and A. A. Zaitsev. Received 21 Jun 51.

207T82

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

11282 AEC-tr-2800

PLASMA OSCILLATIONS IN A MAGNETIC FIELD. G. V.

Gordeev (Gordeev) Translated from Zhur. Tekh.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G.V.

Transverse oscillation of the electron plasma in a permanent magnetic field. Zhur.eksp. i teor.fiz. 24 no.4:445-452 Ap '53. (MLRA 7:10)
(Field theory) (Electric discharges through gases)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G. V.

Dissertation: "General Investigation of Electron Plasma Oscillations." Cand Phys-Math Sci, Leningrad State U, Leningrad, 1954. Referativnyy Zhurnal--Fizika, Moscow, Jul 54.

SO: SUM No. 356, 25 Jan 1955

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G.V.

USSR/Physics-Electrodynamics of plasma FD-732

Card 1/1 : Pub 146-2/22

Author : Gordeyev, G. V.

Title : Low frequency oscillations of plasma

Periodical : Zhur. eksp. i teor. fiz., 27, 19-23, Jul 1954

Abstract : Derives equations of dispersive plasma oscillations in a constant electric field. Proves that stable undamped plasma oscillations are possible in presence of an external constant electric field. 7 references, including 1 French.

Institution : Leningrad Mining Institute

Submitted : June 19, 1953

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G. V.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

57-28-3-18/33

AUTHOR: Gordeyev, G. V.

TITLE: On the Electric Conductivity of Amorphous Semiconductors (K elektroprovodnosti amorfnykh poluprovodnikov)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 3, pp.539-541 (USSR)

ABSTRACT: A. I. Gubanov (References 1 - 3) constructed a zone-theory of amorphous semiconductors. By employing the method of elementary excitations (of the quasiparticles) the proof for this theory is given here. The semiconductor-model suggested by Vonsovskiy and others (Reference 4) is accepted here. Beside every of the N atoms of the semiconductor 2 electrons with an antiparallel spin-orientation are supposed to be in a ground state. This state is called s-state and is given the index $\lambda = 0$. As excited state the author here designates the p-state with the index $\lambda = 1$. A degeneration of the magnetic quantum number is not taken into account here. According to Reference 4 the energetic spectrum of the

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elementary excitations can in this case be divided into 2 almost independent branches: the Bose and the Fermi branch. In the investigation of the semiconductor-electroconductivity it is sufficient only to treat the Fermi branch. The bilinear form of the Fermi branch, before it has been transformed into the diagonal form, is not connected with the crystalline or amorphous state of the substance. Therefore its form given in Reference 4, formula (20) is used here and it is extended to amorphous semiconductors. The formula (13) for the free length of path for the case of weak fields is derived. According to its shape this formula (13) exactly agrees with that (45) of Reference 2 for the free length of path of the electrons in a liquid. Its difference from the latter only consists in the method of calculation of the nondimensional quantities I^{λ} and the energy of the quasi-particle g^{λ}. In this method of computation the interaction of the electrons is more exactly taken into account than in the case of a one-electron approximation. Thus the zone-theory of amorphous semiconductors built up by A. I. Gubanov is proved. The subject was suggested by A. I. Gubanov. There

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

57-28-3-18/33

On the Electric Conductivity of Amorphous Semiconductors

are 4 Soviet references.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut, AN SSSR (Leningrad Physical-Technical Institute, AS USSR)

SUBMITTED: July 10, 1957

1. Semiconductors--Conductivity 2. Mathematics

Card 3/3

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

AUTHORS: Gordeyev, G. V., Gubanov, A. I. SOV/57-28-9-28/33

TITLE: On the Problem of Plasma Acceleration in a Magnetic Field (K voprosu uskoreniya plazmy v magnitnom pole)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Vol 28, Nr 9, pp. 2046-2054 (USSR)

ABSTRACT: This report covers the investigation of a partly ionized plasma contained between two co-axial cylindrical electrodes to which a potential V is applied. It is assumed that a constant and uniform magnetic field is imposed on the plasma. The field strength H_0 is at a direction parallel to the axis of the cylinder (z-axis). Let the current I_0 through the plasma be considered constant independently of whether the magnetic field is applied or not (this is achieved by a suitable choice of the voltage U). The electric and the magnetic field arranged cross-wise effect a motion of the charged particles in the same direction at right angles to the fields. They carry away the neutral gas atoms effecting a circular motion of the gas about the inner cylinder. The acceleration of the plasma by the external magnetic field is examined. The steady plasma flow is computed taking into account the friction between the plasma

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

SOV/57-23-9-28/33

On the Problem of Plasma Acceleration in a Magnetic Field

and the electrodes. The dependence of the stream velocity upon the magnetic flux and upon the electrode radii and the energy necessary for the maintenance of the current is computed. The computations showed that at realizable dimensions of the apparatus supersonic velocities can be attained in the plasma flow. There are 2 references, 1 of which is Soviet.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut AN SSSR (Leningrad Physical and Technical Institute, AS USSR)

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G.V.

Effect of bounds on plasma oscillations. Zap. LGI 36 no.3:74-84 '58. (MIRA 16:5)

(Plant oscillations)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G.V.

Stratified discharges. Zap. LGI 36 no.3:65-73 '58. (MIRA 16:5)
(Electric discharges through gases)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G. V.

"Striations of Discharges," Notes of the Leningrad Order of Lenin and of the Red Banner of Labor Mining Inst, im. G. B. Plekhanov, Vol. 36, No. 3, 1958.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G.V.

PHASE I BOOK EXPLOITATION SOV/3762

Konferentsiya po magnitnoy gidrodinamike. Riga, 1958.

Voprosy magnitnoy gidrodinamiki i dinamiki plazmy; trudy Konferentsii. (Problems in Magnetohydrodynamics and Plasma Dynamics; Transactions of a Conference) Riga, Izd-vo AN Latviyskoy SSR, 1959. 343 p. Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: Akademiya nauk Latviyskoy SSR. Institut fiziki.

Editorial Board: D.A. Frank-Kamenetskiy, Doctor of Physics and Mathematics, Professor; A.I. Vol'dek, Doctor of Technical Sciences, Professor; I.M. Kirko, Doctor of Physics and Mathematics; V.Ya. Veldre, Candidate of Physics and Mathematics; V.O. Vitol, Candidate of Physics and Mathematics; Yu.M. Kruzin'; and V.Ya. Kravchenko.

Ed.: A. Tvytel'bems; Tech. Ed.: A. Klyavinya

PURPOSE: This book is intended for physicists working in the field of magnetohydrodynamics and plasma dynamics.

COVERAGE: This volume contains the transactions of a conference held in Riga, June 1958, on problems in applied and theoretical magnetohydrodynamics. The objects of the conference were the investigation of the basic trends in theoretical and applied magnetohydrodynamics, establishing contact between the people doing research in different branches of magnetohydrodynamics, and presenting the participation of theoretical physicists in problems in applied magnetohydrodynamics. More than 160 persons from different parts of the Soviet Union took part in the conference, and 55 papers were read. Similar conferences are to be held regularly in the future; the next such conference is scheduled to be held in Riga in June 1960. In this present collection of the transactions of the conference, most of the papers and comments on papers are presented by the authors themselves in an abridged form. The book is divided into two parts: the first part deals with problems in theoretical magnetohydrodynamics and plasma dynamics, and consists of 35 articles on such aspects of the problem as the application of magnetohydrodynamics in astrophysics (D.A. Frank-Kamenetskiy), magnetohydrodynamics and the investigation of cosmic-ray variations (L.I. Dorman), acceleration of plasma in a magnetic field (G.V. Gordeyev and A.I. Oubanov), stability of shock waves and magnetohydrodynamics (A.I. Akhiyezer). The second part, consisting of 33 articles, deals with problems of experimental magnetohydrodynamics, including the application of physical simulation for investigation of electromagnetic processes in liquid metals (I.M. Kirko) and the development of electromagnetic pumps (P.G. Kirillov), at the Institute of Physics of the Academy of Sciences, Latvian SSR. Several articles are devoted to induction pumps, electromagnetic crucibles, electromagnetic stirrers for molten metals, and their application in the metallurgical industry including schematic diagrams of their power-supply systems. References are given at the end of most of the articles.

Velikhov, Ye.P. The Influence of a Magnetic Field on the Flow Stability of a Conducting Fluid 49

Terletskiy, Ya.P. Certain Problems of the Movement of Rarefied Plasma in a Magnetic Field 59

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GORDEYEV, G.V.

Shock ioization on the n-p transition. Fiz. tver. tal 1 no.6:851-860 Je '59. (MIRA 12:10)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.
(Semiconductors) (Ionization)

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S/169/61/000/010/037/053
D228/D304

AUTHORS: Gordeyev, G. V., and Gubanov, A. I.

TITLE: The question of plasma acceleration in a magnetic field

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1961, 12, abstract 10G66 (V sb. Vopr. magn. gidrodinamiki i dinamiki plazmy, Riga, AN LatvSSR, 1959, 73, diskus., 74-75)

TEXT: The movement of plasma between two infinite, coaxial, cylindrical electrodes in an external, axial magnetic field is considered in the stationary case. The calculation was made in the hydrodynamic approximation--disregarding the Hall current, but with due allowance for the plasma's viscosity. [Abstracter's note: Complete translation.]

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GORDEYEV, G. V.

81950
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B002/B063

24.7800

AUTHOR: Gordeyev, G. V.

TITLE: On the Problem of Internal Breakdown in Nonpolar Semiconductors

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 4, pp. 611-619

TEXT: The present paper deals with a theoretical investigation of the electric breakdown in nonpolar pure semiconductors. It is shown that both internal and avalanche breakdown are related to impact ionization. An internal breakdown occurs when the initial electron concentration is so high that the interaction between them prevails in the interaction of particles, and an electron temperature is reached which is higher than the lattice temperature. An avalanche breakdown occurs if the interaction between electrons is insignificant and no specific electron temperature is found. At equal field strength, the electron concentration in the avalanche breakdown rises more slowly than with an internal breakdown, as in the former case the avalanche electrons are removed by the field from the respective crystal region. Internal breakdown is, unlike the avalanche

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On the Problem of Internal Breakdown in Nonpolar Semiconductors

S/181/60/002/04/09/034
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breakdown, independent of the crystal thickness. The author thanks A. I. Gubanov for his discussion. A paper by V. P. Shabanskiy is mentioned. There are 10 references: 3 Soviet, 6 British, and 1 German.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR, Leningrad (Physicotechnical Institute of the AS USSR, Leningrad)

SUBMITTED: July 8, 1959

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000516120016-9

GORDEYEV, G.V.

Internal breakdown in nonpolar semiconductors. Fiz. tver. tela 3 no.9:2881-2882 S '61. (MIRA 14:9)

1. Fiziko-tekhnicheskiy institut imeni A.F. Ioffe AN SSSR, Leningrad.

(Semiconductors)

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24.2120 (1160, 1482, 1502, 1049)
26.1410

S/057/61/031/003/002/019
B125/B202

AUTHOR: Gordeyev, G. V.

TITLE: Nonsteady rotation of a plasma in a magnetic field

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 3, 1961, 271-282

TEXT: The author presents a solution of the steady and the nonsteady problem of the rotation of a plasma in a constant magnetic field by taking account of the effect of the cylindrical coaxial electrodes and the front boundaries of the plasma on its rotation. Calculations are made in hydrodynamic approximation on the following assumptions: 1) the plasma rotates in laminar flow around a cylinder axis. 2) The density of the Hall current is much lower than that of the radial current and can be put equal to zero. 3) Viscosity, density, and conductivity of the plasma can be replaced by the values averaged over the volume. The following equation then holds in cylindrical coordinates:

$$\frac{1}{\nu}\frac{\partial v}{\partial t}=\frac{\partial^2 v}{\partial r^2}+\frac{1}{r}\frac{\partial v}{\partial r}-\frac{v}{r^2}+\frac{\partial^2 v}{\partial z^2}+\frac{H_0}{4\pi\rho\nu}\frac{\partial H}{\partial z}, \quad (1)$$

$$\frac{4\pi\sigma}{c^2}\frac{\partial H}{\partial t}=\frac{\partial^2 H}{\partial r^2}+\frac{1}{r}\frac{\partial H}{\partial r}-\frac{H}{r^2}+\frac{\partial^2 H}{\partial z^2}+\frac{4\pi\sigma}{c^2}H_0\frac{\partial v}{\partial z}, \quad (2)$$

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here v denotes the rotation velocity of the plasma, H_0 and H the external axial and the induced azimuthal magnetic field; ν, ρ, σ kinematic viscosity, density, and conductivity of the plasma. In (1) and (2) the magnetic permeability of the plasma is assumed to be equal to 1. The boundary conditions read v = 0 on all boundaries, H = 0 with z = 0, $H = -2I/rc$ with z = h and $\partial(Hr)/\partial r = 0$ with $r = r_1$ and $r = r_2$. Here I denotes the total current passing through the plasma, h the height of the cylinder, r_1 and r_2 the radii of the internal and external electrode, respectively. The voltage U on the electrodes is assumed to be given. By integration of the Lorentz equation over the plasma volume for Ohm's law

$$I = \frac{U}{R_0} + \frac{2\pi\sigma H_0}{c\ln\frac{r_2}{r_1}} \int_0^h \int_{r_1}^{r_2} v\,dr\,dz \qquad (10)$$

is obtained, which in this case is an integral equation for the amperage. The relaxation times of H and I are equal to the relaxation time of the velocity. Instead of (2),

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$\frac{\partial^2 H}{\partial r^2} + \frac{1}{r}\frac{\partial H}{\partial r} - \frac{H}{r^2} + \frac{\partial^2 H}{\partial z^2} + \frac{4\pi\sigma}{c^2} H_0 \frac{\partial v}{\partial z} = 0$ (11) follows. The problem consists in the integration of (1), (10), (11) with the given boundary conditions and the initial condition $I = \frac{U}{R_0}$, $v = 0$ with $t = 0$ by successive application of the Hankel transformation as well as of a sine transformation for v and a cosine transformation for H.

$$\bar{v} = k\int_0^h \int_{r_1}^{r_2} rB_1(pr)v\sin(knz)drdz \quad (12), \quad \bar{H} = k\int_0^h \int_{r_1}^{r_2} rB_1(pr)H\cos(knz)drdz \quad (13).$$

Instead of (1) and (11) the author then obtains

$$\frac{\partial v}{\partial t} = -\nu(p^2 + k^2n^2)v - \frac{H_0 kn}{4\pi\rho}\bar{H},$$

$$(p^2 + k^2n^2)\bar{H} = \frac{4\pi\sigma}{c^2} knH_0 v + \frac{4\pi\rho}{kn^2}F,$$

$$F = \frac{2k}{\pi^3\rho\sigma}\left\{I\left[\frac{J_1(pr_1)}{r_2 J_1(pr_2)} - \frac{1}{r_1}\right] + \pi^2k^2n^2\sigma h\int_{r_1}^{r_2} E_r^0 rB_1(pr)\,dr\right\},$$

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and the initial condition assumes the form $\bar{v} = 0$. From this

$$v = -\pi H_0 \sum_{n=1}^{\infty} \sum_{p} B_1(pr) \frac{p^2 J_1^2(pr_2) \int_0^t e^{\gamma(\tau - t)} F d\tau}{[J_1^2(pr_1) - J_1^2(pr_2)](p^2 + k^2 n^2)} \frac{\sin(knz)}{n}, \quad (24)$$

$$H = \frac{4\pi^2}{h} \sum_{n=1}^{\infty} \sum_{p} B_1(pr) \frac{p^2 J_1^2(pr_2)}{[J_1^2(pr_1) - J_1^2(pr_2)]} \left\{ \frac{pF}{k^2 n^2 (p^2 + k^2 n^2)} - \frac{\sigma H_0^2 \int_0^t e^{\gamma(\tau - t)} F d\tau}{c^2 (p^2 + k^2 n^2)^2} \right\} \times$$
$$\times [\cos(knz) - 1], \quad (25)$$

follow, where

$$\gamma = \nu(p^2 + k^2 n^2) + \frac{\sigma H_0^2 k^2 n^2}{\rho c^2 (p^2 + k^2 n^2)},$$

n is an odd integer. This leads to

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$$I=\frac{U}{R_0}-\frac{4\pi\sigma h H_0^2}{c\ln\frac{r_2}{r_1}}\sum_{n=1}^{\infty}\sum_{p}\left(\int_{r_1}^{r_2}B_1 dr\right)\frac{p^2 J_1^2(pr_2)\int_0^t e^{\gamma(\tau-t)}F d\tau}{[J_1^2(pr_1)-J_1^2(pr_2)](p^2+k^2n^2)n^2}. \quad (26$$

and

$$I=\frac{4\pi^3 r\sigma}{h}\sum_{n=1}^{\infty}\sum_{p}B_1(pr)\frac{p^2 J_1^2(pr_2)}{[J_1^2(pr_1)-J_1^2(pr_2)]}\times$$

$$\times\left[\frac{pF}{k^2n^2(p^2+k^2n^2)}-\frac{\sigma H_0^2\int_0^t e^{\gamma(\tau-t)}F d\tau}{c^2(p^2+k^2n^2)^2}\right].$$

Thus, the problem is reduced to the determination of E_r^0 as a function of r from the integral Eq. (27) and to the solution of the integral Eq. (27) with respect to the amperage. The author then studies the limit of the electrical field strength E_r^0 which with $h \ll r_2 - r_1$ considerably influences

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the amperage, the magnetic field strength, and the velocity of rotation of the plasma. With $h \gg r_2 - r_1$ the term proportional to $\int_{r_1}^{r_2} E_r^0 r B_1 dr$ can be neglected in (24) to (27). With $h \gg r_2 - r_1$ the deviation of E_r^0 from its actual value does not essentially influence the results obtained in determining the amperage, the magnetic field, and the velocity of rotation of the plasma. With $h \ll r_2 - r_1$ the term proportional to the amperage can be neglected in the right-hand sides of (24) to (27), and the term that is proportional to the integral over E_r^0 becomes the main term. On the given conditions

$$I = \frac{2U}{R_0}\frac{\operatorname{th}\left(\frac{M}{2}\right)}{M} + \frac{8U}{\pi^2 R_0}\sum_{n=1}^{\infty}\frac{M^2}{(\pi^2 n^2 + M^2)\, n^2}\, e^{-\frac{\nu}{h^2}(M^2+\pi^2 n^2)t}. \tag{30}$$

is obtained for Ohm's law. The integral Eq. (26) is then solved by successive approximations. By integration over $\tilde{\nu}$ with $t \to \infty$

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$$v_\infty = -\frac{H_0}{ch\eta}\sum_{n=1}^{\infty}\sum_{p} B_1(pr)\frac{p_2 J_1^2(pr_2)\int_{r_1}^{r_2} B_1 dr\left(p^2 J + k^2 n^2 \frac{U}{R_0}\right)}{\left[J_1^2(pr_1) - J_1^2(pr_2)\right]\left[(p^2+k^2n^2)^2 + \frac{M^2k^4n^2}{\pi^2}\right]} \times$$

$$\times \frac{\sin(knz)}{n}, \qquad (31)$$

$$H_\infty = \frac{4}{c}\sum_{n=1}^{\infty}\sum_{p} B_1(pr)\frac{p^2 J_1^2(pr_2)\int_{r_1}^{r_2} B_1(pr)\,dr\,(p^2+k^2n^2)\left(p^2 J + k^2 n^2 \frac{U}{R_0}\right)}{\left[J_1^2(pr_1) - J_1^2(pr_2)\right]\left[(p^2+k^2n^2)^2 + \frac{M^2}{\pi^2}k^4n^2\right]} \times$$

$$\times \frac{[\cos(kn\pi) - 1]}{n^2}, \qquad (32)$$

$$I_\infty = \frac{U}{R_0} - \frac{4cH_0}{c^2\eta \ln\frac{r_2}{r_1}}\sum_{n}^{\infty}\sum_{p}\left(\int_{r_1}^{r_2} B_1 dr\right)^2 \times$$

$$\times \frac{p^2 J_1^2(pr_2)\left(p^2 J + k^2 n^2 \frac{U}{R_0}\right)}{\left[J_1^2(pr_1) - J_1^2(pr_2)\right]\left[(p^2+k^2n^2)^2 + \frac{M^2k^4n^2}{\pi^2}\right]n^2}. \qquad (33)$$

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are obtained. In the limit case $h/(r_2 - r_1) \longrightarrow 0$, $p^2/k^2 \longrightarrow 0$, $a_1 = M/\pi$, $a_2 = 0$

$$v_\infty = -\frac{cU}{H_0 \ln \frac{r_2}{r_1}} \frac{1}{r} \left\{ 1 - \frac{\operatorname{ch}\left[M\left(\frac{1}{2} - x\right)\right]}{\operatorname{ch}\left(\frac{M}{2}\right)} \right\}, \quad (37)$$

$$H_\infty = \frac{4\pi\sqrt{\sigma\eta}}{H_0 \ln \frac{r_2}{r_1}} \frac{U}{r} \left\{ \frac{\operatorname{sh}\left[M\left(\frac{1}{2} - x\right)\right]}{\operatorname{ch}\left(\frac{M}{2}\right)} - \operatorname{th}\left(\frac{M}{2}\right) \right\}, \quad (38)$$

$$I_\infty = \frac{4\pi c h U \operatorname{th}\left(\frac{M}{2}\right)}{\ln \frac{r_2}{r_1} M}. \quad (39)$$

are obtained by summation over p. In the other limit case $h/(r_2 - r_1) \longrightarrow \infty$

$$v_\infty = -\frac{H_0 I_\infty}{4\pi \operatorname{ch} \eta} \left\{ r\left(1 - \frac{r_1^2}{r^2}\right) \frac{\ln \frac{r_2}{r_1}}{1 - \frac{r_1}{r_2}} - r \ln \frac{r}{r_1} \right\}, \quad (4$$

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$$H_\infty = -\frac{2I_\infty z}{\operatorname{ch} r},$$

$$U = I_\infty \left\{ R_0 + \frac{H_0^2}{4\pi c^2 r_1 h} \left[\frac{(r_2 - r_1)^2}{4} + \frac{r_1^2}{2} \ln \frac{r_2}{r_1} - \frac{r_1^2 \left(\ln \frac{r_2}{r_1}\right)^2}{1 - \frac{r_1^2}{r_2^2}} \right] \right\}.$$

is obtained. The weaker the field, the lower is the compression of the cylinder, and the effect of the front faces on the plasma rotation can be neglected the more the lower the ratio $h/(r_2 - r_1)$. Formulas

$$v = v_\infty + \frac{H_0}{ch\eta} \sum_{n=1}^{\infty} \sum_{p} \frac{B_1(pr)\, p^2 J_1^2(pr_2) \left(p^2 I_\infty + \frac{k^2 n^2 U}{R_0}\right) e^{-\gamma t}}{\left[J_1^2(pr_1) - J_1^2(pr_2)\right] \left[(p^2 + k^2 n^2)^2 + \frac{M^2 k^4 n^2}{\pi^2}\right]} \times$$

$$\times \int_{r_1}^{r_2} B_1 dr \frac{\sin(knz)}{n}, \qquad (48)$$

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$$H \simeq H_\infty + \frac{4\pi M^2}{ch^2} \sum_{n=1}^{\infty} \sum_p \frac{B_1(pr)\, p^2 J_1^2(pr_2)\left(p^2 I_\infty + \frac{k^2 n^2 U}{R_0}\right) e^{-\gamma t}}{\left[J_1^2(pr_1) - J_1^2(pr_2)\right]\left[(p^2 + k^2 n^2)^2 + \frac{M^2 k^4 n^2}{\pi^2}\right]} \times$$

$$\times \frac{k^2}{k^2 + p^2} \int_{r_1}^{r_2} B_1 dr \frac{[\cos(knz) - 1]}{n^2}, \tag{49}$$

$$I = I_\infty + \frac{4\pi M^2}{h^2 \ln \frac{r_2}{r_1}} \sum_{n=1}^{\infty} \sum_p \frac{p^2 J_1^2(pr_2)\left(p^2 I_\infty + \frac{k^2 n^2 U}{R_0}\right) e^{-\gamma t}}{\left[J_1^2(pr_1) - J_1^2(pr_2)\right]\left[(p^2 + k^2 n^2)^2 + \frac{M^2 k^4 n^2}{\pi^2}\right]} \times$$

$$\times \left(\int_{r_1}^{r_2} B_1 dr\right)^2 \frac{1}{n^2}. \tag{50}$$

are the solutions of the nonsteady problem of the rotation of a plasma in a magnetic field. The author thanks Professor A. I. Gubanov for a discussion and advice. There are 4 references: 3 Soviet-bloc and 1 non-

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Nonsteady rotation of a plasma... S/057/61/031/003/002/019
B125/B202

Soviet-bloc. The reference to the English-language publication reads as follows: C. C. Chang, T. S. Lundgren, The Physics of Fluids, 2, No. 6, 1959, 627.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Institute of Physics and Technology imeni A. F. Ioffe of the AS USSR Leningrad)

SUBMITTED: June 27, 1960

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AT/IJP(C) 62
ACCESSION NR: AT3002993 S/2827/62/000/000/0124/0131

AUTHOR: Gordeyev, G. V.

TITLE: Theory of the reverse-current-voltage characteristic of p-n junctions [Report of the All-Union Conference on Semiconductor Devices held in Tashkent from 2 to 7 October 1961]

SOURCE: Elektronno-dy*rochny*ye perekhody* v poluprovodnikakh. Tashkent, Izd-vo AN UzSSR, 1962, 124-131

TOPIC TAGS: semiconductor p-n junction, semiconductor reverse-current-voltage characteristic

ABSTRACT: These two questions have remained unanswered so far: (1) under what conditions the Maxwell-Boltzmann distribution is inapplicable to the space-charge region of p-n junction and (2) how important is the effect of strong field in deriving current-voltage characteristics for heterogeneous semiconductors. To answer these questions, the article offers solutions of the kinetic equations for electrons and the Poisson equation with an allowance for both the inhomogeneity of field and the strong-field effect. The assumptions are made that the processes are

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ACCESSION NR: AT3002993

steady-state and that the lattice temperature is constant; only the interaction of charged particles with acoustic phonons is taken into account. The assumptions are justified by a practical case of Ge p-n junction at room temperature. The resulting formulas for the current-voltage characteristic are found to be in some agreement with the experimental results obtained by V. I. Stafeyev (author's abstract of his Candidate dissertation, Moscow, 1960). Further experimental verification is considered desirable. Orig. art. has: 17 formulas.

ASSOCIATION: Akademiya nauk SSSR (Academy of Sciences SSSR); Akademiya nauk Uzbekskoy SSR (Academy of Sciences UzSSR); Tashkentskiy gosudarstvenny*y universitet (Tashkent State University)

SUBMITTED: 00 DATE ACQ: 15May63 ENCL: 00

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B102/B138

24.7700 (1043,1035,1482)

AUTHOR: Gordeyev, G. V.

TITLE: Effect of a strong field on a p-n junction

PERIODICAL: Fizika tverdogo tela, v. 4, no. 2, 1962, 317-328

TEXT: It was the aim of the author to solve the kinetic equations for electrons and holes in a strong inhomogeneous field of a p-n junction, together with the Poisson equation, taking account of charged particle interaction with acoustic phonons only. Also investigated are the conditions under which the carriers in the volume charge region of the p-n junction satisfy Maxwell-Boltzmann distribution. The strong field $\mathcal{E}$ which is inhomogeneous at the p-n junction is not negligible, if $\frac{el_n|\mathcal{E}|}{\Theta}\sqrt{\frac{M}{m_n}} > 1$; e - absolute electron charge, m_n - its effective mass, l_n - its mean free path, M - phonon mass, Θ - lattice temperature in terms of energy. The semiconductors are assumed to be homogeneous. A

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thin plane p-n junction is considered whose characteristics are assumed to be functions of one coordinate only. x points from the p- to the n-region, with its origin at the $|\mathcal{E}|$ maximum. Then the distribution function is given by

$$F_{n,p}(k, x) = f_{n,p}(E, x) + \frac{k_x}{k}\psi_{n,p}(k, x), \qquad (2)$$

where the kinetic energy $E = h^2k^2/2m_{n,p}$, $f_{n,p}$ is the symmetrical part of the distribution function in the k-space, $\psi_{n,p}$ is a small correction to it. The kinetic equations are then given by

$$\left.\begin{aligned} \frac{\partial}{\partial E}\left[a_{n,p}E^2\left(0\frac{\partial f_{n,p}}{\partial E} + f_{n,p}\right) - e_{n,p}\mathcal{E}l_{n,p}E\psi_{n,p}\right] &= El_{n,p}\frac{\partial\psi_{n,p}}{\partial x}, \\ \psi_{n,p} = -e_{n,p}\mathcal{E}l_{n,p}\frac{\partial f_{n,p}}{\partial E} - l_{n,p}\frac{\partial f_{n,p}}{\partial x}, \end{aligned}\right\} \qquad (3)$$

and the Poisson equation by

$$\frac{d\mathcal{E}}{dx} = \frac{4\pi e}{\varepsilon}(N_d - N_a + p - n), \qquad (4)$$

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the carrier concentrations are

$$p=\frac{8\pi m_p^{3/2}}{h^3}\int_0^\infty f_p\sqrt{E}\,dE,\quad n=\frac{8\pi m_n^{3/2}}{h^3}\int_0^\infty f_n\sqrt{E}\,dE. \tag{5}$$

$a_{n,p} = \frac{6m_{n,p}s^2}{\theta}$, s is the sonic velocity, N_d and N_a are donor and acceptor concentrations, respectively. For the system (3)-(5) the boundary conditions

$$\varphi_d-\varphi_a=V; \tag{7}$$

$$f_{n,p}\to 0,\ \psi_{n,p}\to 0 \text{ при } E\to\infty,\ \psi_{n,p}\to 0 \text{ при } E\to 0; \tag{8}$$

$$n_a=n_p-\frac{L_n j_{na}}{eD_n}\operatorname{th}\frac{x_a-x_p}{L_n},\quad p_d=p_n-\frac{L_p j_{pd}}{eD_p}\operatorname{th}\frac{x_n-x_d}{L_p}; \tag{9}$$

$$p_a=n_a+N_a-N_d,\quad n_d=p_d+N_d-N_a, \tag{10}$$

$$f_{n,p,0}=A_{n,p}e^{-\frac{E}{\theta}}+B_{n,p}\left(1+\frac{E}{q_{n,p}\theta}\right)^{q_{n,p}}e^{-\frac{E}{\theta}}, \tag{12}$$

$$q_{n,p}=\frac{e^2 l_{n,p}^2\mathcal{E}_0^2}{a_{n,p}\theta^2},\quad \mathcal{E}_0=\mathcal{E}|_{x=0}<0,$$

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$V = \varphi_n - \varphi_p - V_n - V_p$ are given (V_n, V_p - potential drops in n- and p-region), with which the system can be solved in good approximation. Then from

$$j = \frac{8\pi e}{3h^3}\int_0^{\infty}(m_p\psi_p - m_n\psi_n)\,E\,dE. \qquad (6)$$

and

$$j_n = e\mu_n\mathcal{E}_0 n_D, \quad j_p = e\mu_p\mathcal{E}_0 p_D, \qquad (44)$$

$$\mu_{n,p} = \frac{2^{1/4}\sqrt{\pi}}{6\Gamma\left(\frac{3}{4}\right)}\left(\frac{e a_{n,p} l_{n,p}}{m_{n,p}|\mathcal{E}_0|}\right)^{1/2}$$

the volt-ampere characteristic is determined for back voltage. It is given by

$$j = \frac{eD_n\left(n_p - n_a e^{-\frac{eV}{\theta}}\right)}{\left(1+\frac{1}{b_n}\right)L_n \operatorname{th}\frac{x_a - x_p}{L_n}} + \frac{eD_p\left(p_n - p_a e^{-\frac{eV}{\theta}}\right)}{\left(1+\frac{1}{b_p}\right)L_p \operatorname{th}\frac{x_n - x_d}{L_p}}. \qquad (48)$$

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or, for the electron component ($\frac{1}{b_p} \gg 1$, $\frac{1}{b_n} \ll 1$) by

$$j = \frac{eD_n\left(n_p - n_d e^{-\frac{eV}{\theta}}\right)}{L_n \operatorname{th}\frac{x_n - x_p}{L_n}} + \frac{e\mu_p \mathcal{E}_0\left(p_n - p_a e^{-\frac{eV}{\theta}}\right)}{\chi_{pd}}. \tag{50}$$

with

$$p_D \chi_{pd} = \frac{p_n - p_a e^{-\frac{eV}{\theta}}}{1 + b_p}, \qquad n_D \chi_{na} = \frac{n_p - n_d e^{-\frac{eV}{\theta}}}{1 + b_n}, \tag{45}$$

$$b_p = \frac{L_p \mu_p \mathcal{E}_0}{D_p \chi_{pd}} \operatorname{th}\frac{x_n - x_d}{L_p}, \qquad b_n = \frac{L_n \mu_n \mathcal{E}_0}{D_n \chi_{na}} \operatorname{th}\frac{x_a - x_n}{L_n}.$$

In this case the hole current is independent of the thickness of the n-region and the hole diffusion coefficient in it, depending only on the field effect in the volume charge region. The contribution of the electron current to the total current is quite small and has little

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influence on the volt-ampere characteristic. Thus, for $V < V_{crit}$ the volt-ampere characteristic has the usual shape with possible current increase and saturation; above field strength V_{crit} field effect may not be neglected. For the carriers in the volume charge region Boltzmann distribution may be assumed if $1/b_p \ll 1$ and $\frac{p_n}{b_p} \ll p_a e^{-eV/\theta}$. In an appendix to the paper the kinetic equations near the origin are studied. A. I. Gubanov and V. I. Stafeyev are thanked for help. There are 9 references: 7 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: T. Yamashita, M. Watanabe, Progress of theor. Phys. 12, 443, 1954.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe, AS USSR, Leningrad)

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AUTHOR:: Gordeyev, G. V.

TITLE: Induction pinch of plasma in a p-i-n diode

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2890-2896

TEXT: R. N. Hall (Proc. IRE, 40, 1512, 1952) has studied the volt-ampere characteristics of p-i-n diodes and has found that the law governing the characteristics at $j < 1$ a/cm^2, $j \sim \exp(eV/2KT)$ changes at higher current densities. Then $j \sim \exp(eV/KT)$ Hall ascribed this and the even slower increase of the j(V) curve at higher j to the increasing recombination or reduced carrier mobility caused by scattering in electron-hole collisions. The latter explanation is not sustainable by strict theoretical examination. The course of the j(V) dependence is studied for a germanium p-i-n diode with $j > 100$ a/cm^2. It could be shown that the carrier plasma in the p-i-n region is subject to an induction pinch effect which, at sufficiently high current densities, causes the volt-ampere characteristics of such a diode to deviate from the Hall form. If the current is given by

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$I = 2\pi \int_0^{r_0} \int_{z_2}^{z_3} \frac{n}{\tau_i}\, r dr dz$ where τ_i is the carrier lifetime in the i-region, z the coordinate perpendicular to the junction where z_2 and z_3 bound the i-region, and if the carrier concentrations $p = n = n_0 \exp(-r^2/a^2)$, then $I = \pi r_0^2 \bar{j} = \pi j_H a^2 (1-e^{-r^2/a^2})$. Here a is the pinch radius, r the radical coordinate. If $a \gg r_0$ the following Hall characteristic is obtained: $\bar{j} = j_H \simeq \frac{2e(z_3-z_2)n_i}{\tau_i} \exp(eV/2kT)$. If however, $a < \sqrt{2r_0}$, then $j \simeq A \exp(eV/3kT)$ where $A = \sqrt[3]{\frac{2a^2 e(z_3-z_2)n_i^2}{\pi r_0 \tau_i}}$. $a < \sqrt{2r_0}$ corresponds to $\bar{j} < 100$ a/cm^2 at $r_0 \simeq 1$ cm.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad)

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GORDEYEV, G.V.

Low-frequency plasma oscillations in nonpolar semiconductors. Fiz. tver. tela 4 no.11:3144-3151 N '62. (MIRA 15:12)

1. Fiziko-tekhnicheskiy institut imeni A.F. Ioffe AN SSSR, Leningrad.
(Plasma oscillations)
(Semiconductors)

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GORDEYEV, G.V.

Maximum efficiency of a plasma current generator. Zhur. tekh. fiz. 33 no.9:1031-1042 S '63. (MIRA 16:11)

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ACC NR: AP6031026 SOURCE CODE: UR/0109/66/011/009/1611/1615

AUTHOR: Gordeyev, G. V.

ORG: none

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B

TITLE: Sustained plasma oscillations in nonpolar semiconductors

SOURCE: Radiotekhnika i elektronika v. 11, no. 9, 1966, 1611-1615

TOPIC TAGS: plasma, semiconductor, plasma oscillation, nonpolar semiconductor, phase velocity

ABSTRACT: The author obtains the condition superimposed on the impurity concentration which makes possible sustained plasma oscillations in a nonpolar semiconductor situated in an outer electric field. He also determines the phase velocity of the waves of sustained oscillations and the intensity of the electric field at which these oscillations appear. The author expresses his gratitude to A. I. Gubanov for reviewing the manuscript and for valuable remarks. Orig. art. has: 22 formulas. [Author's abstract] [GC]

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ACC NR: AP7000050 SOURCE CODE: UR/0207/66/000/005/0050/0057

AUTHOR: Gordeyev, G. V. (Leningrad)

ORG: none

TITLE: High-frequency plasma oscillations in junction-type diodes

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1966, 50-57

TOPIC TAGS: junction diode, semiconductor diode, discharge plasma, gas discharge plasma, plasma oscillation

ABSTRACT: The longitudinal high-frequency plasma oscillations in junction-type diodes were investigated by the method of kinetic equations. The asymmetry of the boundary conditions at the plasma interface with the electrode barriers was taken into account. In the plasma of a glow or arc discharge, as well as in semiconductor diodes, when the current passes through the diode, the conditions on the boundaries between plasma and space charge regions are not identical. Under direct current in a p-i-n-diode holes are reflected from the boundary separating the i- and p-regions and easily penetrate into the n-region, where they recombine; the electrons, however, easily penetrate into the p-region, where they recombine and are reflected from the boundary separating the i-region from the n-region. A similar asymmetry of boundary conditions takes place on boundaries of a positive column with electrode barriers in glow and arc discharges as well as in the plasma of the cesium diode. It is shown that when the time required for

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