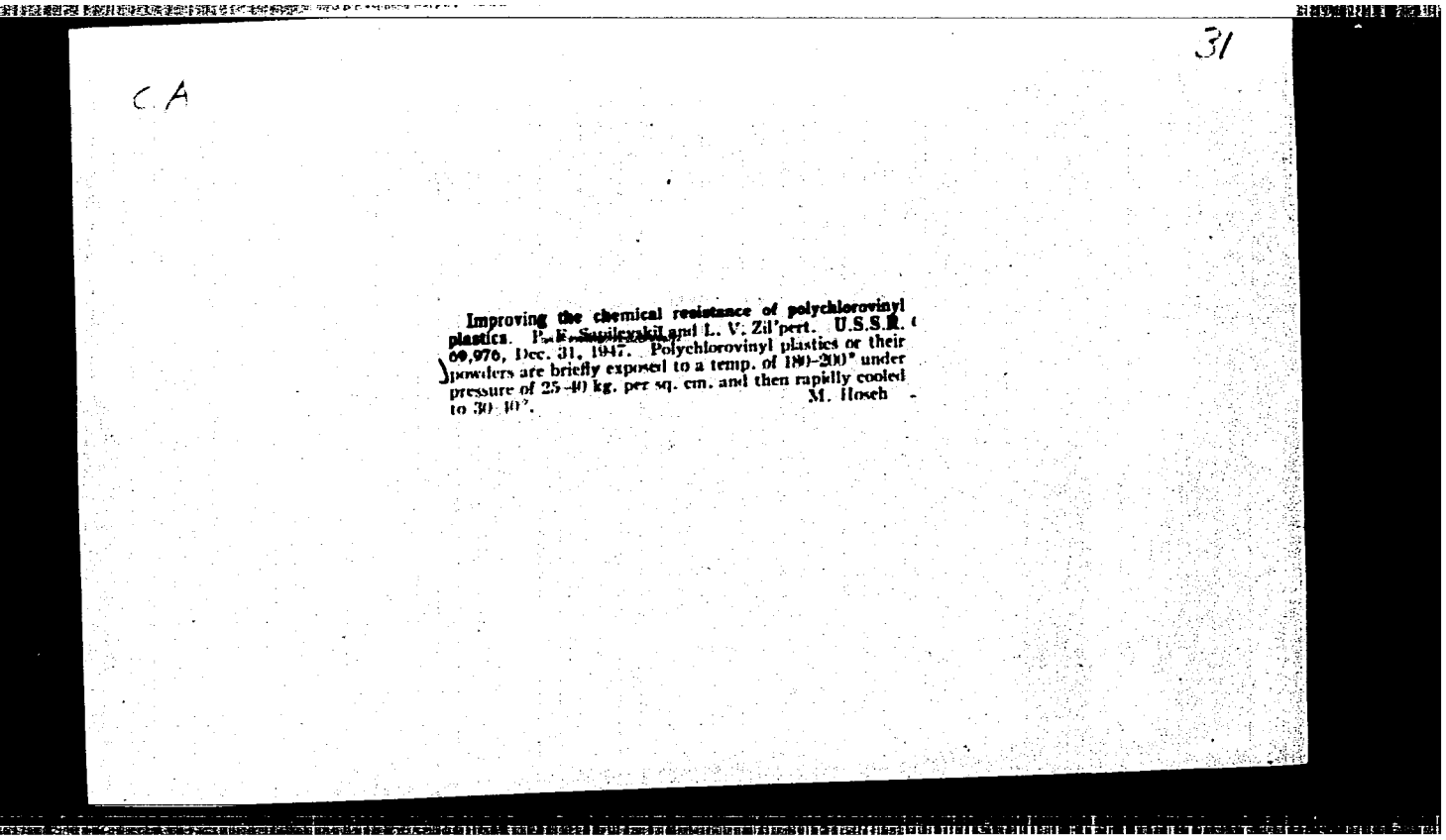
CA

21

Plasticizers for polychlorovinyl resins. L. V. Zil'pert, P. K. Sapilevskii, and A. F. Klimkova. U.S.S.R. 69,882, Dec. 31, 1947. A mixt. of hydrocarbon polymers, a soln. of polymerized and unsatd. hydrocarbons in solvent naphtha, and (or) residues of petroleum hydrolysis, with commonly used plasticizers, e.g., phthalates, is used to plasticize polychlorovinyl resins. M. Hoseh



31

C A

Improving the chemical resistance of polychlorovinyl plastics. P. E. Savilevskii and L. V. Zil'pert. U.S.S.R. 69,976, Dec. 31, 1947. Polychlorovinyl plastics or their powders are briefly exposed to a temp. of 180–200° under pressure of 25–40 kg. per sq. cm. and then rapidly cooled to 30–40°. M. Hoseh

SAPILEVSKIY, P.F.; ZIL'PERT, L.V.; KLIMKOVA, A.F.

Use of textile-vinyl materials based on polyvinyl chloride resin in the footwear industry. Leg.prom. 7 no.10:15-17 O '47. (MLRA 6:11)
(Vinyl polymers) (Shoe industry)

SAPILEVSKIY, P.F.

√Leather substitute. P. F. Sapilevskiĭ, L. V. Zil'pert, and I. Sh. Garkavi. U.S.S.R. 104,929, Feb. 25, 1957. Addn. to U.S.S.R. 65,742 (*C.A.* 40, 7700[9]). Water-sol. salts are leached out from the product while the latter moves and is subjected to tension and squeezing. M. H.

SAPIL'NIKOV, N. G.

The permanent work teams on cotton growing kolkhozes. Moskva, Ob'edinenie gos. izd., Sredneaziatskoe otd-nie, 1934. 52 p.

1. SAPIL'NIKOV, N.G.

2. USSR (600)

4. Labor Productivity-Uzebekistan

7. Possibilities for further growth in labor productivity on collective farms of the irrigated cotton farming zone. Khlopkovodstvo no. 10, 1952.

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

SADIL'NIKOV, N. G.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr. 1954)

Name	Title of Work	Nominated by
Sadil'nikov, N. G.	"Cotton Growing" Textbook	Ministry of Agriculture Uzbek SSR

SO: W-30604, 7 July 1954

SAPIL'NIKOV, N. G.

5651. SAPIL'NIVO, N. G. Razvitiye Mnogootrasalevogo Khozyaystva V Khlopkovodcheskikh Kolkhozakh. (Posobiye dlya Agotekhn. Kursov) Ashkhabad, Turkmengosizot, 1954. 36s 20 sm 1000 Ekz. 35 k Na Turkm. Yaz.-(55-633)338. ik: 633.51 (584.1)

SO: Knizhnaya, Letopis, Vol. 1, 1955

SAPIL'NIKOV, N.G.

DEMAKOV, G.I., mladshiy nauchnyy rabotnik; KOTIKOVA, B.N., mladshaya nauchnaya rabotnitsa; DAVYDOV, I.S., mladshiy nauchnyy rabotnik; SAPIL'NIKOV, N.G. kandidat ekonomicheskikh nauk, redaktor; BASIN, S.G., izdatel'skiy redaktor.

[Results of work of the Union Scientific Research Institute of Cotton Cultivation] Itogi rabot SoiuzNIIKhI za 1954 god. Pod red. N.G. Sapil'nikova. Tashkent, Izd-vo SAGU. No.1. [Research on problems of work organization and use of production resources at machine-tractor stations and collective farms engaged in cotton growing] Izuchenie voprosov organizatsii truda i ispol'zovaniia sredstv proizvodstva v khlopkovykh MTS i kolkhozakh 1955. 60 p. (MLRA 10:5)

1. Tashkent, Vsesoyuznyy nauchno-issledovatel'skiy institut khlopkovodstva. 2. Sektor ekonomiki i organizatsii proizvodstva Soyuznogo nauchno-issledovatel'skogo khlopkovogo instituta (for Demakov, Kotikova, Davydov, Sapil'nikov)
(Cotton growing) (Machine-tractor stations)
(Collective farms)

SAPIL'NIKOV, Nikolay Georgiyevich, kand.ekonom.nauk; FREYDMAN, S.M., red.; BACHURINA, A.M., tekhn.red.; PROKOF'YEVA, L.N., tekhn.red.

[Economics of cotton growing on collective farms] Ekonomika khlopkovodstva v kolkhozakh. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 335 p. (MIRA 13:4)
(Cotton growing--Costs)

AYRUMOV, A.M., kand.ekonom.nauk, otv.red.; BEZRODNOV, N.A., kand.ekonom. nauk, otv.red.; SAPIL'NIKOV, N.G., kand.ekonom.nauk, otv.red.; RAYEVSKIY, L.A., red.; SALAKHUTDINOVA, A., tekhn.red.

[Economic and organizational aspects of socialist agricultural enterprises; textbook] Ekonomika i organizatsiia sotsialisticheskikh sel'skokhoziaistvennykh predpriiatii; uchebnoe posobie. Otv.red. A.M.Airumov, N.A.Bezrodnov, N.G.Sapil'nikov. Tashkent, Gos.izd-vo Uzbekskoi SSR, 1960. 189 p.
(MIRA 14:2)

(Uzbekistan--Agriculture)

SAPIL'NIKOV, N. G.; AYRUMOV, A. M.;, BEZRODNOV, V. A.

The Economics and Organization of Socialist Agricultural Enterprises, Responsible Editors: A. M. Ayrumov, V. A. Bezrodnov, and N. G. Sapil'nikov. Washington, U. S. JPRS, 1961.

145 p. (JPRS: 8934; CSO: 6287-D/A)

Translated from the Original Russian.

BADAR'YAN, G.G.; TYUTIN, V.A.; CHEREMUSHKIN, S.D.; ZUZIK, D.T.; KHODASEVICH, B.G.; FRAYER, S.V.; GUSAROV, Ye.I.; KAZANSKIY, A.M.; KASSIROV, L.N.; KARAYEV, S.A.; AKRAMOV, V.A.; VASIL'YEV, N.V.; BUGAYEV, N.F.; SAPIL'NIKOV, N.G.; KASTORIN, A.A.; RUDNIKOV, V.N.; YAKOVLEV, V.A.; PEREMYKIN, V.I.; ISAYEV, A.P.; KUZ'MICHEV, N.N.; IL'IN, S.A.; PRONIN, V.A.; LUK'YANOV, A.D.; SHAKHOV, Ya.K.; IL'ICHEV, A.K., kand. sel'-khoz. nauk; KOGAN, A.Ya.; TSYNKOV, M.Yu.; BABIY, L.T.; GORBUNOV, I.I.; KOVALEV, A.M.; ROMANCHENKO, G.R.; BRODSKAYA, M.L., red.; IVANOVA, A.N., red.; GUREVICH, M.M., tekhn. red.; TRUKHINA, O.N., tekhn. red.

[Economics of agriculture]Ekonomika sotsialisticheskogo sel'-skogo khoziaistva; kurs lektsii. Moskva, Sel'khozizdat, 1962. 710 p. (MIRA 15:10)

(Agriculture—Economic aspects)

AREF'YEV, T.I., kand. ekon. nauk; BRASLAVETS, M.Ye., prof., doktor ekon. nauk; BROZGUL', M.M.; VLASOV, N.S., prof., doktor ekon. nauk; DUBROVA, P.F., doktor ekon. nauk; YESAULOV, P.A., kand. sel'khoz. nauk; ZAL'TSMAN, L.M., prof., doktor sel'-khoz. nauk; KAL'M, P.A., dotsent, kandidat sel'sko-khoz. nauk; KOSTSELETSKIY, N.A., kand. ekon. nauk; KRYLOV, V.S., kand. sel'khoz. nauk; LIBKIND, A.S., dots., kand. ekon. nauk; MAKAROV, N.P., prof., doktor ekon. nauk; OGLOBLIN, Ye.S., kand. sel'khoz. nauk; POLOVENKO, S.I., kand. ekon. nauk; POPOV, S.A., dots., kand. ekon. nauk; SAPIL'NIKOV, N.G., doktor ekon. nauk; TISHCHENKO, G.A., prof., kand. ekon. nauk; TYUTIN, V.A., prof., doktor ekon. nauk; YANYUSHKIN, M.F., kand. ekon. nauk; PYLAYEVA, A.P., red.; FREYDMAN, S.M., red.; SOKOLOVA, N.N., tekhn. red.

[Organization of socialist agricultural enterprises] Organizatsiia sotsialisticheskikh sel'skokhoziaistvennykh predpriiatii; kurs lektsii. Moskva, Sel'khozizdat, 1963. 662 p.
(MIRA 16:8)

1. Zaveduyushchiy otdelom ekonomiki Vsesoyuznogo nauchno-issledovatel'skogo instituta sakharnoy svekly (for Aref'yev).
2. Odesskiy sel'skokhozyaystvennyy institut (for Braslavets).
(Continued on next card)

AREF'YEV, T.I.--- (continued). Card 2.

3. Moskovskaya sel'skokhozyaystvennaya akademiya im. K.A.Timiryazeva (for Vlasov). 4. Zaveduyushchiy otdelom ekonomiki i organizatsii Nauchno-issledovatel'skogo instituta sadovodstva im. I.V.Michurina (for Dubrova). 5. Moskovskiy Gosudarstvennyy universitet im. M.V.Lomonosova (for Zal'tsman, Polovenko). 6. Zaveduyushchiy kafedroy organizatsii sel'skokhozyaystvennogo proizvodstva Leningradskogo sel'skokhozyaystvennogo instituta (for Kal'm). 7. Zaveduyushchiy otdelom ekonomiki Nauchno-issledovatel'skogo instituta ovoshchnogo khozyaystva (for Kostseletskiy). 8. Vsesoyuznyy nauchno-issledovatel'skiy institut ptitsevodstva (for Krylov). 9. Moskovskiy ekonomiko-statisticheskiy institut (for Libkind). 10. Vsesoyuznyy sel'skokhozyaystvenniy institut zaochnogo obrazovaniya (for Makarov). 11. Zaveduyushchiy otdelom ekonomiki Krasnodarskogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva (for Oglobiin). 12. Kafedra organizatsii sel'skokhozyaystvennogo proizvodstva Leningradskogo sel'skokhozyaystvennogo instituta (for Popov). 13. Zaveduyushchiy kafedroy Sovetskoy ekonomiki Vysshey partiynoy shkoly (for Sapil'nikov). 14. Voronezhskiy sel'skokhozyaystvennyy institut (for Tishchenko). 15. Leningradskiy sel'skokhozyaystvennyy institut (for Tyutin). 16. Direktor Severo-Kavkazskogo filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta ekonomiki sel'skogo khozyaystva (for Yanyushkin).

(Agriculture--Economic aspects)

LAPTEV, I.D.; TERYAYEVA, A.P.; SAPIL'NIKOV, N.G.; CHENTSOV, R.Ye. [deceased]; SEPP, Ya.P.; SUVOROVA, L.I.; ZASLAVSKAYA, T.I.; GREKOVA, A.I.; TONKOVICH, V.S.; IBRAGIMOV, A.I.; KOTSYUBA, T.Ya.; KURYLEV, V.M.; KOVALEVSKIY, G.T.; KALNYNSH, A.A. [Kalnins, A.]; SIDOROVA, M.I.; MALISHAUSKAS, V.I. [Malisauskas, V.]; PASECHNIK, P.P.; BUGAREVICH, V.S.; KARNAUKHOVA, Ye.I.; AREF'YEV, T.I.; KAZAKOV, I.G.; GUMOVSKIY, I.A.; SEMIN, S.I., red.; LINKUNA, N.I., red.; TSITKO, I.A., red.; VOLKOVA, V.V., tekhn. red.

[Material incentives for developing the collective farm production] Material'noe stimulirovanie razvitiia kolkhoznogo proizvodstva. Moskva, Izd-vo AN SSSR, 1963. 326 p. (MIRA 16:12)

1. Akademiya nauk SSSR. Institut ekonomiki. 2. Institut ekonomiki AN SSSR (for Laptev, Teryayeva, Suvorova, Zaslavskaya, Sidorova, Karnaukhova). 3. Sredneaziatskiy gosudarstvennyy universitet (for Sapil'nikov). 4. Komi filial AN SSSR (for Chentsov). 5. Institut ekonomiki AN Estonskoy SSR (for Sepp). 6 Bashkirskiy filial AN SSSR (for Grekova). 7. Institut ekonomiki AN Belorusskoy SSR (for Tonkovich, Kovalevskiy). 8. Institut ekonomiki AN Uzbekskoy SSR (for Ibragimov).

(Continued on next card)

LAPTEV, I.D.—— (continued). Card 2.

9. Institut ekonomiki AN Ukr.SSR (for Kotsyuba, Pasechnik). 10. Belorusskiy institut ekonomiki i organizatsii sel'skokhozyaystvennogo proizvodstva (for Bugarevich). 11. Vsesoyuznyy institut sakharnoy svekly (for Aref'yev). 12. Institut ekonomiki AN Kirgizskoy SSR (for Kazakov). 13. Rabotnik TSentral'nogo komiteta Kommunisticheskoy partii Moldavskoy SSR (for Gumovskiy). 14. Kuybyshevskiy planovyy institut (for Kurylev).
(Collective farms--Income distribution)

VLADIMIROV, D.; SAPILOV, A., inzh.

Get acquainted with new equipment. Sov. shakht. 13 no.3:11-13 Mr '64. (MIRA 17:3)

1. Gosudarstvennyy proyektno-kknstruktorskiy institut avtomatizatsii rabot v ugol'noy promyshlennosti (for Sapilov).

SAPILOV, A.V., inzh.

Automatic cable railroads. Bezop.truda v prom. 3 no.9:27-28 S '59. (MIRA 13:2)
(Mine railroads) (Remote control)

GRANKOVSKIY, Vladimir Fomich; KIKLEVICH, Nikolay Antonovich; SIMONCHAK, Vasiliy Trofimovich; FOMENKO, Dmitriy Ivanovich; SAPILOV, A.V., otv. red.; BELOV, V.S., red. izd-va; SABITOV, A., tekhn. red.; OVSEYENKO, V.G., tekhn. red.

[Electric equipment with 660 volt rating for mines]Rudnichnoe elektrooborudovanie na napriazhenie 660 v. [By]V.F.Grankovskiy i dr. Moskva, Gosgortekhizdat, 1962. 119 p. (MIRA 15:8)
(Mining machinery—Electric driving)

VOLOTKOVSKIY, Sergey Andronikovich, doktor tekhn. nauk, prof.; POLTAVA, Leonid Ivanovich, kand. tekhn. nauk, dots.; BUN'KO, Viktor Aleksandrovich, kand. tekhn. nauk, dots.; PODOL'SKIY, Vladimir Arsen'yevich, kand. tekhn.nauk, dots.; SAPILOV, A.V., otv. red.; KOVAL', I.V., red. izd-va; PROZOROVSKAYA, V.L., tekhn. red.; SHKLYAR, S.Ya., tekhn. red.

[Technical means for automation of the mining industry]Tekhnicheskie sredstva avtomatiki v gornoi promyshlennosti. Pod obshchei red. S.A.Volotkovskogo. Moskva, Gosgortekhizdat, 1962. 331 p. (MIRA 16:2)

1. Dnepropetrovskiy gornyy institut im. Artema (for Volotkovskiy, Poltava, Bun'ko, Podol'skiy).
(Automation) (Mining engineering)

TKACHENKO, Iosif Ivanovich; SAPILOV, A.V., otv. red.; MIRSKAYA, V.V., red.izd-va; IL'INSKAYA, G.M., tekhn. red.

[Automatic control of mine apparatus] Avtomatizatsiia shakhtnykh ustanovok. Moskva, Gosgortekhizdat, 1963. 134 p. (MIRA 16:8)
(Mining machinery) (Automatic control)

KLIMOVITSKIY, A.M.; KRYUCHKOV, V.V.; ERLIKH, G.M.; SAPILOVA, A.V., retsenzent; KAMINSKIY, L.M., retsenzent; MISHUSTINA, H.F., red.; POLYAKOV, R.M., red.; SINICHENKO, L.M., red.; RYABOVA, L.N., tekhn. red.

[Mechanization and automatic control of car exchange complexes] Mekhanizatsiia i avtomatizatsiia kompleksov obmena vagonetok. Moskva, 1962. 55 p. (MIRA 16:8)

1. Moscow. TSentral'nyy institut informatsii tsvetnoy metallurgii.
(Mine railroads—Cars) (Automatic control)

DEMIN, Viktor Vasil'yevich; SAPILOV, A.V., otv. red.; MIRSKAYA, V.V., ved. red.

[Principles of automatic control and remote control in mines] Osnovy rudnichnoi avtomatiki i telemekhaniki. Moskva, Nedra, 1964. 198 p. (MIRA 18:3)

SAPIN, M.R.

Lymphatic capillaries and vessels in the wall of the inferior vena cava in man. Arkh. anat. gist. i embr. 41 no.9:82-87 S '61. (MIRA 15:1)

1. Kafedra normal'noy anatomii (zav. - chlen-korrespondent AMN SSSR prof. D.A.Zhdanov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova, Adres avtora: Moskva, Mokhovaya ul. 11, I Moskovskiy ordena Lenina meditsinskiy institut imeni I.M.Sechenova, kafedra normal'noy anatomii.
(LYMPHATICS) (VENA CAVA)

SAPIN, M.R. (Moskva, B-66, Novo-Ryazanskaya ul., 16, kv.27)

Dissertations on anatomy, histology, and embryology published in 1960. Arkh. anat., gist. i embr. 42 no.3:126-128 Mr '62.
(MIRA 15:5)

(ANATOMY) (HISTOLOGY) (EMBRYOLOGY)

ZHDANOV, D.A.; AKMAYEV, I.G.; SAPIN, M.R.

Solution of controversial problems in the functional anatomy of blood circulation in the hypophysis. Arkh.anat.gist.i embr. 40 no.4:35-49 Ap '61. (MIRA 14:5)

1. Kafedry anatomii I Moskovskogo ordena Lenina meditsinskogo instituta im. I.M.Sechenova i laboratoriya funktsional'noy anatomii Instituta normal'noy i patologicheskoy fiziologii AMN SSSR (zaveduyushchiy kafedroy i laboratoriyey - chlen-korrespondent AMN SSSR prof. D.A.Zhdanov). Adres avtorov: Moskva, Mokhovaya ul. 11, I Moskovskiy ordena Lenina meditsinskiy institut im. I.M.Sechenova, Kafedra normal'noy anatomii.

(PITUITARY BODY—BLOOD SUPPLY)

SAPIN, M.R. (Moskva, B-66, Novoryazanskaya ul., 16, kv.27)

Veins of the adrenal glands and the directions of the outflow of blood from the medullary substance of this organ. Arkh. anat. gist. i embr. 40 no.6:82-90 Je '61; (MIRA 15:2)

1. Kafedra anatomii cheloveka (zav. - chlen-korrespondent AMN SSSR prof. D.A.Zhdanov) I Moskovogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova.
(ADRENAL GLANDS--BLOOD SUPPLY)

SAPIN, M.R. (Moskva)

Higher medical education without discontinuing work; based on the work experiences of the night school faculty of the I.M. Sechenov First Moscow Medical Institute. Sov. zdrav. 21 no.1:15-16 '62. (MIRA 15:2)

(MEDICINE--STUDY AND TEACHING)

SAPIN, M.R. (Moskva, B-66, Novo-Ryazanskaya ul., 16, kv.27)

Dissertations on anatomy, histology and embryology during 1961. (MIRA 16:5)
Arkh.anat.,gist.i embr. 44 no.1:121-124 Ja '63.
(BIBLIOGRAPHY—ANATOMY) (BIBLIOGRAPHY—HISTOLOGY)
(BIBLIOGRAPHY—EMBRYOLOGY)

ZHDANOV, D.A.; SAPIN, M.R.

Interorgan blood vessels of human hypophysis in the functional aspect. Arkhiv. anat. gist. i embr. 43 no.10: 3-12 0'62. (MIRA 17:6)

1. Kafedra anatomii cheloveka (zav.-chlen-korrespondent AMN SSSR prof. D.A. Zhdanov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova. Adres avtorov: Moskova, prospekt K. Marksa, 18, I Moskovskiy ordena Lenina meditsinskiy institut, kafedra normal'noy anatomii.

AGARKOV, G.B.; SAPIN, M.R. (Kiyev)

Innervation of the adrenal veins in hypertension. Arkh. pat. no.12: 61-65 '62 (MIRA 18:1)

1. Iz kafedry normal'noy anatomii (zav. - prof. M.S. Spirov) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsinskogo instituta imeni A.A. Bogomol'tsa i kafedry normal'noy anatomii (zav. - chlen-korrespondent AMN SSSR prof. D.A. Zhdanov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova.

SAPIN, M.R.

Dissertations on anatomy, histology and embryology in 1962.
Arkh. anat., gist. i embr. 45 no. 10:101-104 O '63.
(MIRA 17:9)

1. Adres avtora: Moskva, prospekt Karla Marksa, 18, 1-y Moskovskiy ordena Lenina meditsinskiy institut imeni Sechenova, kafedra normal'noy anatomii.

SAPIN, M.R.

Dissertations in anatomy, histology, and embryology, approved by the Higher Academic Courses in 1963. Arkh. anat., gist. i embr. 49 no.8:117-120 Ag '65. (MIRA 18:9)

SAPIN, M.S. (Moskva B-66, Novo-Ryazanskaya ul., 16, kv.27)

Dissertations on anatomy, histology and embryology presented during 1959. Arkh. anat. gist. i embr. 39 no.8:120-122 Ag '60. (MIRA 13:11)

(BIBLIOGRAPHY--ANATOMY) (BIBLIOGRAPHY--EMBRYOLOGY)
(BIBLIOGRAPHY--HISTOLOGY)

SAPIN, M.R., Cand Med Sci -- (diss) "Intraorgan lymphatic system of the human suprarenal gland." Mos, 1959, 13 pp (First Mos Order of Lenin Med Inst im I.M. Sechenov) 200 copies

(KL, 35-59, 117)

SAPIN, M.R. (Moskva, B-66, Novo-Ryazanskaya ul., d.16, kv.27)

Intraorganic lymphatic system of the human adrenals. Arkh. anat., gist. i embr. 36 no.6:52-59 Je '59. (MIRA 12:9)

1. Kafedra normal'noy anatomii (zav. - chlen-korrespondent AMN SSSR D.A.Zhdanov) I Moskovskogo ordena Lenina meditsinskogo instituta im. I.M.Sechenova.
(ADRENAL GLAND, anat. & histol.
lymphatic system (Rus))
(LYMPHATIC SYSTEM, anat. & histol.
adrenal gland (Rus))

SAPINSKI, Andrzej; SAPINSKI, Wlodzimierz

Sedimentograph - apparatus for automatic registration of erythrocyte sedimentation. Polski tygod.lek. 14 no.50:2202-2203 D '59.

1. Z Kolejowego Szpitala Dzieciecego w Ostrowie Wlkp.; dyrektor: lek. med. W. Sapinski.
(BLOOD SEDIMENTATION)

SAPINSKI, Andrzej

Pulmonary hemorrhage in a child with congenital defect of the heart and rheumatic disease. Polski tygod.lek. 15 no.21:797-798 23 My '60.

1. Z Wojewodzkiego Szpitala Dzieciecego im. B.Krysiewicza w Poznaniu; dyrektor: dr med. Mieczyslaw Stabrowski.
(RHEUMATIC FEVER compl)
(HEART DEFECTS CONGENITAL compl)
(LUNG DISEASE in inf. & child)
(HEMORRHAGE in inf & child)

GUMOWSKA, Maria; SAPINSKI, Andrzej

Clinical observations and therapeutic results in nephrosis in children. Polski tygod.lek. 16 no.4:139-140 23 Ja '61.

1. Z Wojewodzkiego Szpitala Dzieciecego im. B.Krysiewicza w Poznaniu; dyrektor: dr med. M.Stabrowski.
(NEPHROSIS in inf & child)

SAPINSKI, Andrzej

Morbidity of leukemia during 1945-1958 according to data of the Regional Children's Hospital in Poznan. Polski tygod. lek. 16 no.19:713-717 8 My '61.

1. Z Wojewodzkiego Szpitala Dzieciecego im. B. Krysiewicza w Poznaniu; dyrektor: dr med. Mieczyslaw Stabrowski.

(LEUKEMIA statist)

SAPINSKI, Andrzej

A case of paroxysmal tachycardia in a child with rheumatic disease.
Pediat polska 36 no.3:285-290 '61.

1. Z Oddzialu Chorob Wewnetrznych Wojewodzkiego Szpitala Dzieciecego im. B. Krysiewicza w Poznaniu Ordynator: dr med. Z. Majewska-Jezierska Dyrektor: dr med. M. Stabrowski.

(TACHYCARDIA PAROXYSMAL in inf & child)
(RHEUMATISM compl)

GUMOWSKA, Maria; KACZMAREK, Jozef; SAPINSKI, Andrzej

A case of rheumatic fever in an unusual course, cerebral emboli and splenic rupture. Pediat. pol. 37 no.12:1331-1334 D '62.

1. Z Oddzialu Wewnetrznego: ordynator — dr med. Z. Jezierska-Majewska i z Oddzialu Chirurgii Dzieciecej: ordynator -- dr med. T. Suwalski Wojewodzkiego Szpitala Dzieciecego im. B. Krysiewicza w Poznaniu Dyrektor: dr med. M. Stabrowski.

(CEREBRAL EMBOLISM AND THROMBOSIS)
(RHEUMATIC FEVER) (SPLEEN)

SAPINSKI, Andrzej

Prognostic value of the sedimentogram in the acute phase of rheumatic fever in children. Poznan. tow. przyjac. nauk wydz. lek. 25:213-242 '63.

(RHEUMATIC FEVER) (BLOOD SEDIMENTATION)
(PROGNOSIS)

MAKOWSKA, Irena; SAPINSKI, Andrzej

Considerations on the origin of electrocardiographic signs of myocardial infarct in infants. Pol. tyg. lek. 19 no.12:431-433 16 Mr '64.

1. Z Wojewodzkiego Szpitala Dzieciecego im. B. Krysiewicza w Poznaniu (ordynator: dr. med. B. Biedrzynska).

SAPINSKI, Andrzej; SAPINSKI, Wlodzimierz

Rupture of the heart at the site of infarction in a child with tetralogy of Fallot. Pediat.Pol. 39 no.2:185-189 F'64

1. Z Wojewodskiego Szpitala Dzieciecego im. B.Krysiewicza w Poznaniu (Dyrektor: dr.med. M.Stabrowski) i z Kolejowego Szpitala Dzieciecego w Ostrowie Wlkp. (Dyrektor: dr.med. W. Sapinski).

MACIEJEWSKI, Jozef; SAPINSKI, Andrzej; STABROWSKI, Mieczyslaw

Indications for the treatment of circulatory insufficiency in children. Przegl. lek. 21 no.9:554-556 '65.

1. Z Wojewodzkiego Szpitala Dzieciecego im. B. Krysiewicza w Poznaniu (Dyrektor: Dr. med. M. Stabrowski).

SUCHY, E.; SAPINSKI, W.; FRACKIEWICZ, T.

Preventive application of chloromycetin in whooping cough in nurseries. Pediat. polska 29 no.5:533-537 May 54.

1. Z Kliniki Propedeutyki Pediatrii Akademii Medycznej w Warszawie, Kierownik: prof. dr med. W.Szenajch i z Kliniki Chorob Zakaznych Wieku Dziecicego Akademii Medycznej, Kierownik: prof. dr med. J.Bogdanowicz.

(WHOOPING COUGH, prevention and control, chloramphenicol)
(CHLORAMPHENICOL, prev. of whooping cough)

SUCHY, E; SZYMANSKA, J; SAPINSKI, W; SROCZYNSKA, J.

Diphteria carriers in nursery infants. Pediat.polska 30 no.4: 374-376 Apr '55.

1. Z Kliniki Propedeutyki Pediatri A.M. w Warszawie, Kierownik: prof. dr med. W. Szenajch. Z Kliniki Chorob Zakaznych Wieku Dziecicego A.M. w Warszawie Kierownik:prof. dr med. J. Bogdanowcis. i ze Stacji Sanitarno-Epidemiologicznej w W-wie Kierownik: dr med. J. Jakobkiewicz. Warszawa, Dzialdowska 1/3.
(DIPHTHERIA, transmission
carriers in nursery inf.)

SAPINSKI, Wlodzimierz

Largactil in therapy of respiratory insufficiency. Pediat. polska 32 no.1:21-28 Jan 57.

1. Z II Kliniki Chorob Dzieciecych A.M. w Gdansku Kierownik: doc. dr. med. A. Marks-Zakrzewska. Adres: Gdansk-Wrzeszcz, Al. K. Marksa 12 m. 7.

(CHLORPROMAZINE, ther. use
pneumonia in children (Pol))
(PNEUMONIA, in inf. & child
ther., chlorpromazine (Pol))

SAPINSKI, Wlodzimierz (Gdansk-Wrzeszcz, ul. Karola Marksa 12 m.7)

A case of generalized scleroma treated with largactil. Pediat. polska 33 no.4:485-488 Apr '58.

1. Z II Kliniki Chorob Dzieciecych A.M. w Gdansku. Kierownik: doc dr med. A. Marks-Zakrzewska.

(SCLEREMA, NEONATORUM, ther.
chlorpromazine (Pol))
(CHLORPROMAZINE, ther. use
sclerema neonatorum (Pol))

SAPINSKI, Andrzej; SAPINSKI, Wlodzimierz

Sedimentograph - apparatus for automatic registration of erythrocyte sedimentation. Polski tygod.lek. 14 no.50:2202-2203 D '59.

1. Z Kolejowego Szpitala Dzieciecego w Ostrowie Wlkp.; dyrektor: lek. med. W. Sapinski.
(BLOOD SEDIMENTATION)

SAPINSKI, Wlodzimierz

A case of botulism in a 9-year-old boy. Pediat.polska 34 no.12: 1561-1562 D '59.

1. Z Kolejowego Szpitala Dzieciecego w Ostrowie Wlkp. Dyrektor: lek.med. Wl. Sapinski.
(BOTULISM in infancy & childhood)

SAPINSKI, Andrzej; SAPINSKI, Wlodzimierz

Rupture of the heart at the site of infarction in a child with tetralogy of Fallot. Pediat.Pol. 39 no.2:185-189 F'64

1. Z Wojewodskiego Szpitala Dzieciecego im. B.Krysiewicza w Poznaniu (Dyrektor: dr.med. M.Stabrowski) i z Kolejowego Szpitala Dzieciecego w Ostrowie Wlkp. (Dyrektor: dr.med. W. Sapinski).

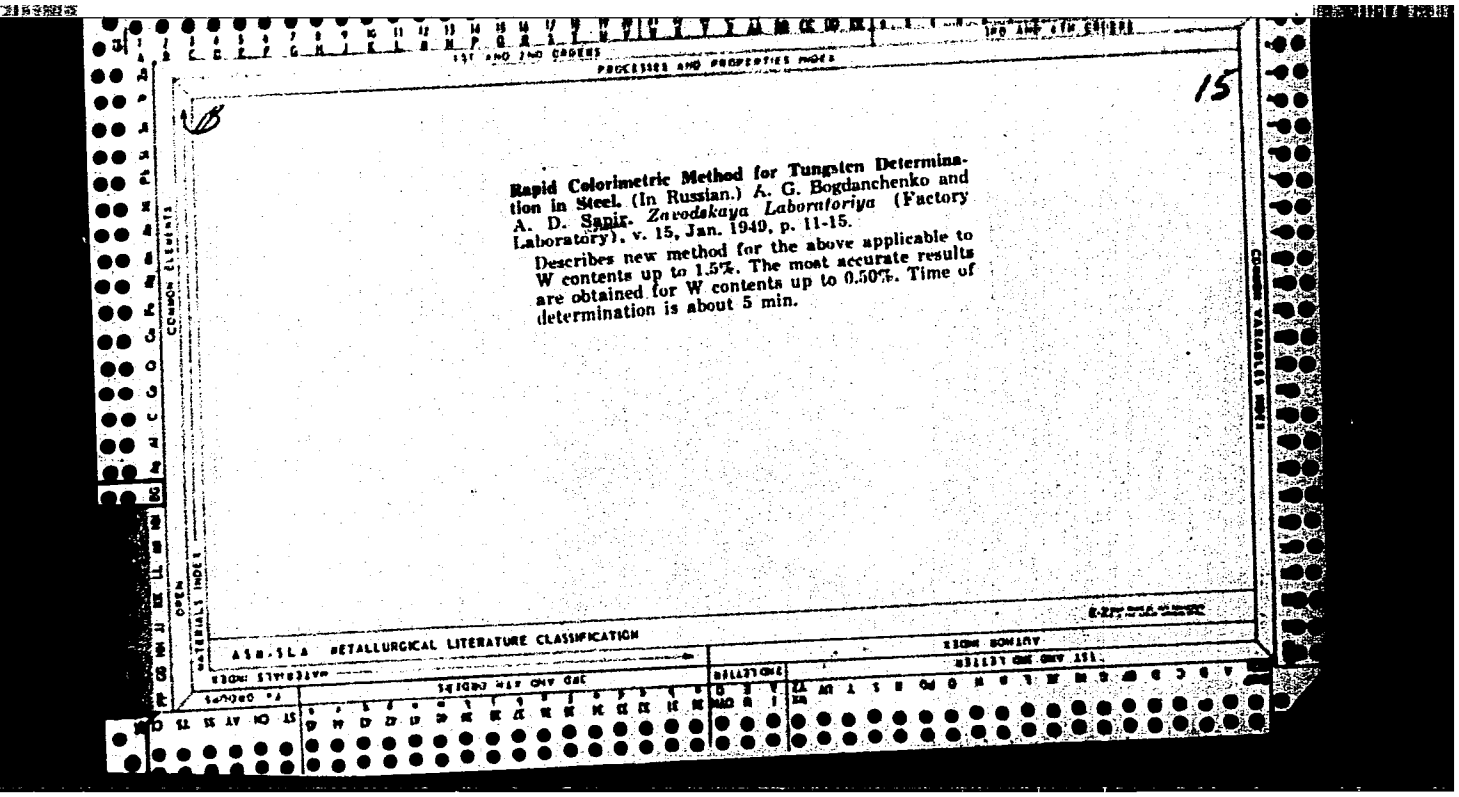
SAPINSKI, Wlodzimierz; EULENFELD, Irena

A case of van Bogaert- Bertrand encephalopathia spongiotica.
Pediat.Pol. 39 no.3:323-326 Mr'64.

1. Z Kolejowego Szpitala Dziecicego w w Ostrowie Wlkp.;
dyrektor: dr.med. W.Sapinski.

SAPIR, A.B., inzh.

Open pit excavating of clay under winter conditions. Stroi. mat. 5 no.2:26-28 F '59. (MIRA 12:2)
(Clay--Cold weather conditions)



15

Rapid Colorimetric Method for Tungsten Determination in Steel. (In Russian.) A. G. Bogdanchenko and A. D. Sapir. *Zavodskaya Laboratoriya* (Factory Laboratory), v. 15, Jan. 1949, p. 11-15.

Describes new method for the above applicable to W contents up to 1.5%. The most accurate results are obtained for W contents up to 0.50%. Time of determination is about 5 min.

CA

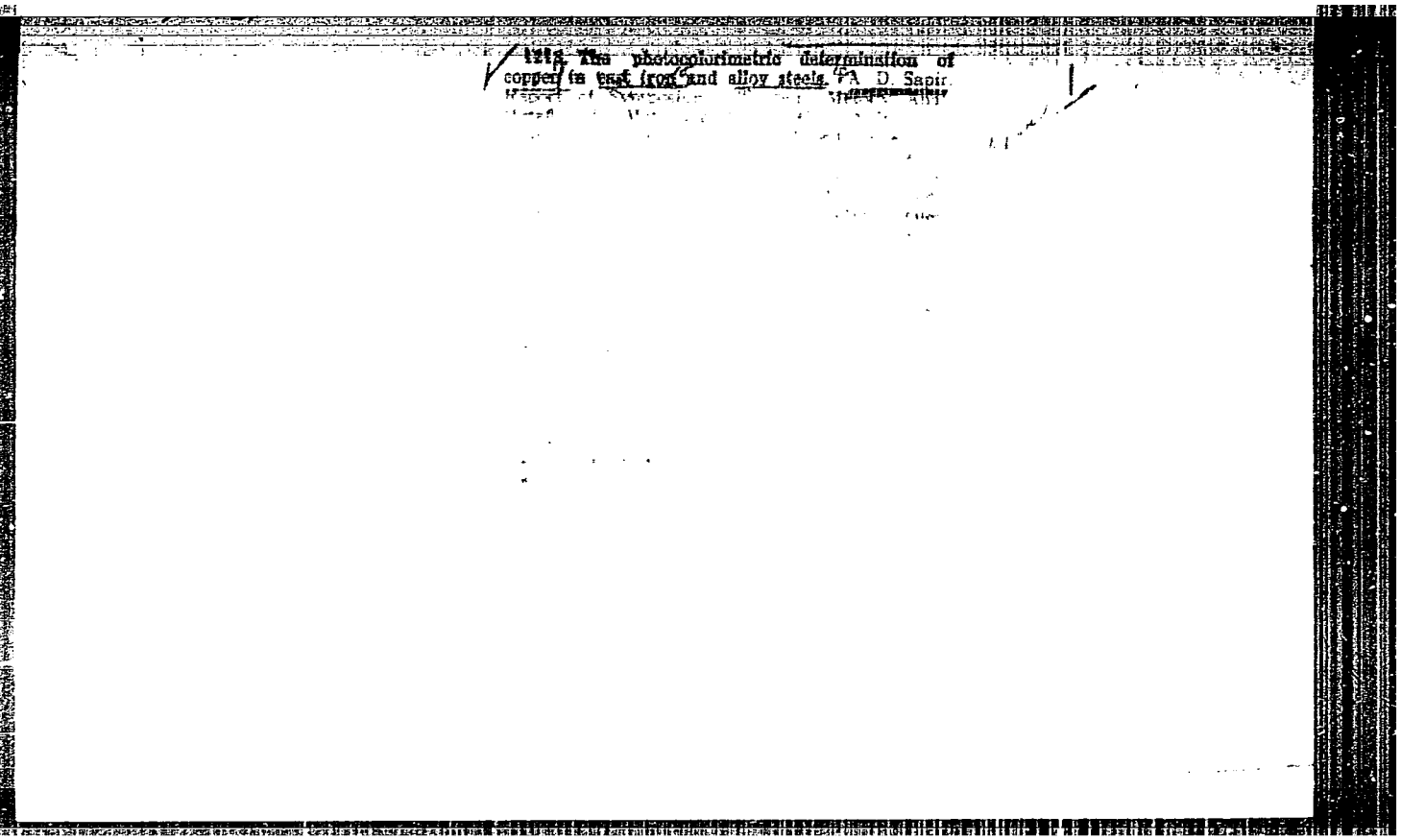
7

Use of aqueous solution of dimethylglyoxime in gravimetric determination of nickel in steel. A. D. Supir (Chelyabinsk Metallurg. Plant). *Zavodskaya Lab.* 16, 1911(1950).—While ammoniacal solns. of dimethylglyoxime give low Ni results, the use of hot H_2O solns. at 85–90° is perfectly satisfactory for routine detns. The use of EtOH solns. is eliminated and perfect checks with standard methods are obtained. G. M. Kosolapoff

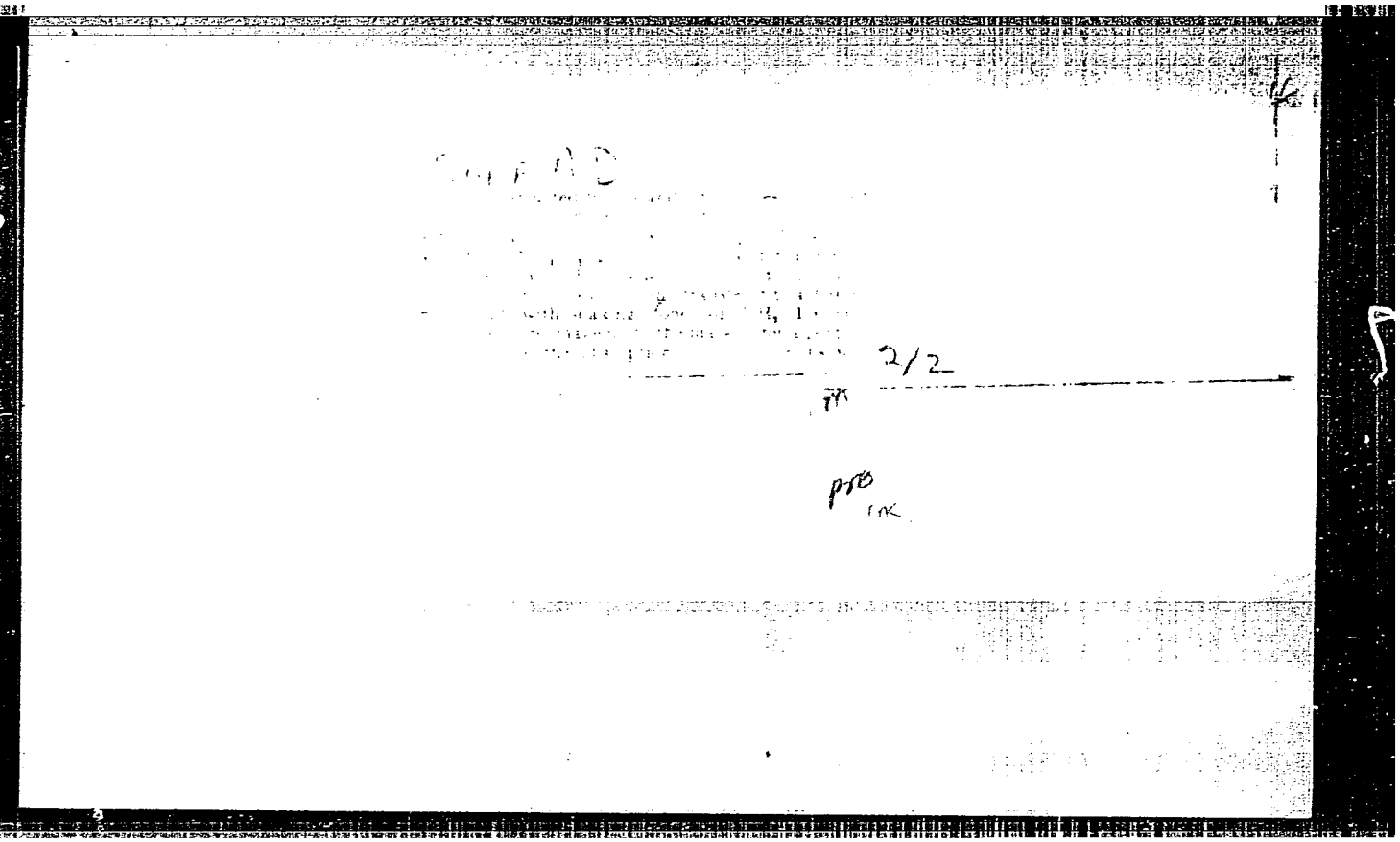
SAPIR, A.D.

Determination of small amounts of carbon in steels and ferroalloys.
Zav.lab.22 no.4:508 '56. (MLRA 9:7)

1.Chelyabinskiy metallurgicheskiy zavod.
(Carbon--Analysis) (Steel--Analysis) (Iron alloys--Analysis)



Title: The photocolorimetric determination of copper in cast iron and alloy steels. / A. D. Sapir.



S/032/60/026/008/019/046/XX
B020/B052

AUTHOR: Sapir, A. D.

TITLE: News in Brief

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 8, p. 949

TEXT: The effect of tungsten in the titration of vanadium in tungsten - vanadium steels by a Mohr's salt solution must be taken into account. Tungsten and vanadium which are contained in the solution form very stable complexes which do not react with the permanganate added for the oxidation of vanadium. The complex-bound vanadium therefore does not react with Fe^{2+} during the further reduction by Mohr's salt, and the analysis results are lower. It is recommended that the titer of the Mohr's salt solution is adjusted by a standard steel sample with a tungsten content similar to that of the sample to be analyzed. Additions are necessary for the ГОСТ (GOST) method regarding the volumetric determination of vanadium, to warrant the elimination of the effect of tungsten during the analysis of tungsten steels.

Card 1/2

News in Brief

S/032/60/026/008/019/046/XX
B020/B052

ASSOCIATION: Chelyabinskiy metallurgicheskiy zavod
(Chelyabinsk Metallurgical Works)

Card 2/2

ZAKHVATKIN, M.O.; SAPIR, A.D.; SPIVAKOVSKIY, V.B.; ZIMINA, V.A.; MARGOLIS, L.D.

Exchange of experience. Zav.lab. 28 no.3:290 '62. (MIRA 15:4)

1. Chelyabinskiy metallurgicheskiy zavod (for Zakhvatkin, Sapir).
2. Kiyevskiy gosudarstvennyy universitet (for Spivakovskiy, Zimina).
3. Dneprovskiy alyuminiyevyy zavod imeni S.M.Kirova (for Margolis).
(Metallurgical analysis)

SAPIR, A.D.; BIRYUKOV, N.D.; KATAL'NIKOV, S.G.; FROLOVA, Z.M.; NEGINA, V.R.; SHUVAKOVA, N.V.; KRASHENINNIKOVA, Ye.P.; BLINOVA, R.V.

Exchange of experience. Zav.lab. 28 no.6:670-671 '62. (MIRA 15:5)

1. Chelyabinskiy metallurgicheskiy zavod (for Sapir). 2. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR (for Biryukov). 3. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva (for Katal'nikov, Frolova).

(Chemistry, Analytical)

SAPIR, I. L.

25696 SAPIR, I.L. Primenenie metoda integrirovaniya uravneniy po ikh kharakteristikam k raschetu neustanovivshegosya divizheniya zhidkosti v razmyvaemom rusle. Trudy Leningr. politekhn. in-ta im. Kalinina, 1948, NO: 5, 5. 222-33

SO: Letopis'Zhurnal'nykh Statey, Vol. 34, Moskva, 1949

SAPIR, I. L.

32487. Raspredeleniye maksimal'nykh davleniy po dline napornogo truboprovoda pri gidravlicheskom udare. (Sprimech. red.) Gidrotekhn. stroit-vo, 1949, No. 10, s. 5-10.

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

USSR/Electricity - Transients Mar 51

"Calculation of Transients in Complex Lines With Distributed and Lumped Constants," I. L. Sapir, Engr, Svir'stroy

"Elektrichestvo" No 3, pp 28-32

Illustrates the application of a method developed by S. A. Khristianovich for calcg transients in long lines. Method is based on the replacement of eqs in partial derivs of the hyperbolic type by an equiv system of ordinary differential eqs. It makes possible

201T25

USSR/Electricity - Transients (Contd) Mar 51

effective numerical calcn of transients in complex lines consisting of a number of different sections for nonlinear boundary conditions and lumped consts connected into the line. Submitted 12 Jan 50.

201T25

SAPIR, I. L.

SAPIR, I.L.

Mechanization of reinforced concrete work in building hydroelectric power station buildings. Mekh.trud.rab. 9 no.12:32-35 D '55. (MLRA 9:5)

1. Nachal'nik upravleniya stroitel'stva zdaniya Kakhovskoy gidroelektrostantsii.

(Reinforced concrete construction)

98-58-7-5/21

AUTHORS: Sapir, I.L., Litvin, A.N., and Raygorodskiy, A.I., Engineers

TITLE: Thin Walled Reinforced Concrete Plate Sheathings (Tonkostennyye armotsementnyye plity-obolochki)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1958, Nr 7, pp 17-22(USSR)

ABSTRACT: During the construction of the Severnyy Donets - Donbass Canal, the authors proposed the use of thin-walled concrete plate sheathings reinforced by factory-made mesh wire. They were tested and introduced into production. The aim was to replace the heavy plate sheathings produced at present, whose use involves many extra expenses. These sheathings differ slightly from those in use in Italy (ref. 1), which were proposed for use by the Candidate of Technical Sciences I.V. Vol'f, (Stalino branch of the YUZHNII) and Engineer V.V. Rudakov (Metallurgkhimmashstroy). However, the lack of watertight joints between the plates prevented their use. Plates proposed by the authors fill the intermediate space between the meshwork lining and the usual reinforced concrete plate sheathings. Preliminary testing of these thin plates showed that: a) there are no difficulties of production (thickness - 2 to 3 cm), transportation and erection; b) plates measuring 3 x 3 m can be reinforced by 2 layers of 1 mm thick mesh wire; c) due to the rather high

Card 1/3

Thin Walled Reinforced Concrete Plate Sheathings

flexibility of the plates they have to be attached to the protruding ends of the reinforcements. These ends are placed on the side of the plate facing the concrete; d) Plates of a dimension up to 3 x 3 m and prepared from a M-250 mixture could be removed from the production stand 24 hours after pouring, transported and erected 3 days later. These thin walled plates were subjected to usual tests of waterproofness, resistance to frost, thawings, etc. The authors give detailed descriptions of production methods. These plate sheathings were used during the construction of the Severnyy Donets - Donbass Canal for linings and casings of the upper part of the wall of the antechamber of the pumping station, at buttresses and supporting walls of the Krasnyy Oskol Dam, and for the internal lining of a reinforced concrete siphon 3 m in diameter. Curved plates of the same kind were also used as an internal lining and casing of

the ducts (fig. 3). There are 5 photos and 2 Soviet references.

1. Reinforced concrete--Products 2. Reinforced concrete--Test methods 3. Reinforced concrete--Test results

STROKOV, G.I., inzh.; SAPIR, I.L., inzh.

Basic ways and means of shortening the time of construction of the Kremenchug hydroelectric power station. Energ.stroi. no.23:15-37 '61. (MIRA 15:1)

1. Nachal'nik Kremenchuggesstroya (for Strokov). 2. Glavnyy inzh. Kremenchuggesstroya (for Sapir).
(Kremenchug Hydroelectric Power Station--Design and construction)

*SAPIR, I. M.

"The Effect of Tenotomy of the Straight Muscles Upon Inflammatory Processes in the Anterior Section of the Uveal Tract," Vest. Oftalmol., 27, No. 1, 1948.

SAPIR, I. M.

Prevention of blenorrhea in newborn with albucide. Vest. oft., Moskva 30 no. 6:28-31 Nov-Dec 1951. (CLML 21:3)

1. Of the Eye Division (Head -- I. M. Sapir) and of the Lying-In Division (Head — N. G. Popova), Yelets Municipal Hospital (Head Physician -- M. V. Penyayev).

SAPIR, I.M.

Use of celluloid film in penetrating wounds of the cornea. Oft. zhur. 15 no.1:14-16 '60. (MIRA 13:5)

1. Iz glaznogo otdeleniya (zav. - I.M. Sapir) Yeletskoy gorodskoy bol'nitsy No.1.
(CORNEA--WOUNDS AND INJURIES) (CELLULOID--THERAPEUTIC USE)

SAPIR, I.M. (Yelets)

Prevention of blennorrhea of the eye in newborn infants. Akush. i gin. 37 no.1:39-42 '61. (MIRA 14:6)
(CONJUNCTIVITIS, INFANTILE)

SAPIR, L.I.

Treatment of postvaccinal antirabies complications. Sov.med. 22 no.11:130-133 N '58 (MIRA 11:11)

1. Iz nervnogo otdeleniya (nauchnyy rukovoditel' - prof. Z.L. Lur'ye) 4-y Gorodskoy klinicheskoy bol'nitsy Moskvy (glavnyy vrach M.V. Ivanyukov).

(RABIES, prev. & control
vacc., antihistaminics in prev. of postvacc. compl. (Rus))
(ANTIHISTAMINICS, ther. use
prev. of postvacc. antirabies compl. (Rus))

GULUNOV, Vasiliy Slangeriyevich; ZOLOTUYEVA, Svetlana Mikhaylovna; LIBERMAN, Lev Fedorovich; SAKHAROVA, Ninel' Maksovna; SAPIR, Yakov Romanovich; GOLUBCHIK, R.M., red.; DOBUZHINSKAYA, L.V., tekhn. red.

[Metal heating before rolling] Nagrev metalla pered prokatkoi; spravochnik dlia rabochikh. [By] V.S.Gulunov, i dr. Moskva, Metallurgizdat, 1963. 220 p. (MIRA 16:10)
(Rolling (Metalwork))--Equipment and supplies)
(Furnaces, Heating—Handbooks, manuals, etc.)

SAPIR, YE. D.

USSR/Engineering - Power Plants, Electric Transmission Lines — Sept 49

"High-Frequency Protection of TsNIEL MES (Central Scientific Research Electrical Engineering Laboratory, Ministry of Electric Power Plants)," Prof. G. I. Atabekov, Dr Tech Sci, Ye. D. Sapir, Engr, Prof I. I. Solov'yev, TsNIEL MES, 8 pp

"Elektrichestvo" No 9

High-frequency protection is now regarded as basic type of protection for high-voltage transmission lines. TsNIEL MES has developed two simple types of filter protection for high frequency; differential-phase and inertialess directional protection. Both protection were operationally tested in 110-kv line and subjected to linear experimental analysis by short-circuit tests in the electric power system. Discusses basic test results achieved with experimental units. Includes nine diagrams.

PA 153T44

SAPIR, Ye. D.

"Scientific and Technical Session on Protective Relaying,"

SO: Elektrichestvo, No 1, 1951

SAPIR, Ye. D. Sep 51

USSR/Electricity - Relaying, Protective Conferences

"A Conference on Protective Relaying," Yu. A. Gayevenko, Engr

"Elektrichestvo" No 9, p 90

The 3d Inter-Republic Conference on protective relaying was held in Minsk in Apr. I. A. Syromyatnikov, Deputy Chief, Tech Adm, Min of Elec Power Stations, opened the conference with a talk on trends in the development of protection and automatic control in power sytems. Engr V. Ye. Kazanskiy spoke on telemetering by the frequency principle. Engr Ye. D. Sapir reported on the work of the CenSci Res Elec Eng Lab in the field of protective relaying and automatic control.

PA 196T56

SAPIR, Ye. D. (Engr)

SAPIR, Ye. D. (Engr) -- "High-Frequency Protection of Lines of Electric Drive Gears With the Use of Symmetrical Filters." Sub 17 Jun 52, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Vechernaya Moskva, January-December 1952

SAPIR, E. D.

AID P - 2420

Subject : USSR/Electricity

Card 1/1 Pub. 26 - 19/33

Author : Sapir, E. D., Kand. Tech. Sci.

Title : On a particular feature of a differential high-frequency protection device of the DFZ-2 type

Periodical : Elek sta 5, 50-51, My 1955

Abstract : The function of the high-frequency sender and the timing of relays are discussed. One diagram.

Institution: None

Submitted : No date

AID P - 2820

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 9/30

Author : Sapir, Ye. D., Kand. of Tech. Sci.

Title : Phase-differential, high-frequency protection of 110-220-kv transmission lines

Periodical : Elektrichestvo, 6, 48-53, Je 1955

Abstract : The author describes a phase-differential high frequency protection of the DFZ-2 type and its components. The protection does not operate under overloads and swings and can be used in non-full-phase conditions of work. Current phases of positive and negative sequence are equalized at the line ends with the help of high-frequency currents. The characteristics of the use of protection on transmission lines with the one-phase automatic reclosure are studied. Reliable operation of the protection under various operating conditions is demonstrated. One photograph,

AID P - 2820

Elektrichestvo, 6, 48-53, Je 1955

Card 2/2 Pub. 27 - 9/30

2 connection diagrams, 6 Soviet references (1952-1955).

Institution : Central Scientific Research Electrical Engineering Laboratory of the Ministry of Electric Power Stations.

Submitted : D 4, 1954

SAPIR, Ye. D.

AUTHOR: Sapir, Ye.D., Candidate of Technical Sciences. 104-3-36/45

TITLE: On interlocking protection during hunting. (O blokirovke zashchit pri kachaniyakh.)

PERIODICAL: "Elektricheskiye Stantsii" (Power Stations), 1957, Vol.28, No.3, p. 86 (U.S.S.R.)

ABSTRACT: In remote protection extensive use is made of interlocking which introduces the protection for a time which is sufficient for it to operate on the appearance of negative phase sequence components. This supposes that when a line is connected to a three-phase short circuit, negative phase sequence components appear for a short time because the phases of the circuit breaker do not close simultaneously. This note shows that the assumption is true only if the voltage transformer is connected to the sub-station busbars. If the transformer is connected in the line the interlocking may not operate when the line is switched on to a three-phase short circuit, however non-uniform the operation of the circuit breaker. Dangerous conditions may arise because of this.

Card 1/1

AVAILABLE: Library of Congress

AUTHOR: Sapir, Ye. D., Candidate of Technical Sciences SOV/105-58-10-3/28

TITLE: Compensation of Capacitive Charging Currents in Differential Phase Relay Protection (Kompensatsiya yemkostnykh tokov v differentsial'no - faznoy vysokochastotnoy zashchite liniy)

PERIODICAL: Elektrichestvo, 1958, Nr 10, pp 14 - 20 (USSR)

ABSTRACT: This is an investigation of the principles underlying the compensation of capacitive charging currents and of the type of compensation devices used in the differential protection of the type ДФЗ -400M and ДФЗ -2. G.G.Yakubson, Engineer, assisted in the study of the problems approached in this paper. These are the summarizing statements at the end of the paper: 1) Special installations for the compensation of capacitive currents in a high-frequency differential phase protection will eliminate the effect of such currents on the performance of the protection. 2) If one of the parallel circuits of two lines is short circuited the compensation

Card 1/3

of the zero-sequence capacitive currents is effected only with a considerable error. The installation of devices for compensating zero-sequence currents is nevertheless also advisable in two-circuit lines as by this measure the service conditions for the protection are improved in all cases. 3) If compensation devices are used at both terminals of the line they are only connected to the phase sequence whose capacitive current they are intended to compensate. By this measure the circuit diagram is kept at a sufficiently simple level. 4) If the total capacitive current is compensated only at one terminal of the line the compensation device must be connected simultaneously connected to the voltage and current transformers of the corresponding phase sequence. If a device operating with a high-frequency transmitter is used in this case it is also only permissible to connect it to one voltage. 5)Operational experience gained with this compensation device shows that such installations have solved the problem of using high-frequency differential phase protection in

Compensation of Capacitive Charging Currents in Differential Phase Relay Protection

SOV/105-58-10-3/28

220 and 400 kV long-distance transmission lines.
There are 6 figures and 6 references, which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki (All-Union Scientific Research Institute of Electric Power Engineering)

SUBMITTED: September 9, 1957

Card 3/3

SAPIR, Ye.D., kand.tekhn.nauk.

Effect of mutual inductance between parallel lines of the performance of relay protection. Elek.sta. 29 no.5:62-63 My '58. (MIRA 12:3)
(Mutual inductance) (Electric lines)

SAPIR, Ye.D.

8(2)
AUTHOR: Osadchenko, F. I., Engineer SOV/105-59-10-21/25

TITLE: Conference on the Results and Prospects of the Development of Soviet Relay Construction

PERIODICAL: Elektrichestvo, 1959, Nr 10, pp 86-87 (USSR)

ABSTRACT: An All-Union Scientific-technical Conference was held at Chabokasy from July 7 to 11, 1959. It dealt with the results obtained in relay construction during the last nine years. Furthermore, the prospects of the further development of relay construction, and the protection and automation of electric installations were outlined. The Conference was attended by representatives of scientific research institutes, planning institutes and colleges, special laboratories, planning organizations, of the Soyuzglavenergo (All-Union Main Power Administration) and a number of power systems. The representatives of the Chabokarskiy elektrosapryatnyy zavod (Chabokary Plant for Electric Apparatus) V. M. Kulygin and M. S. Safaman reported on the achievements of the Plant in the modernization and the development of new highly sensitive and high-speed relays and protective circuits. V. L. Fabrikant, Candidate of Technical Sciences, spoke

Card 1/3

"Developments in Foreign Relay Construction". Professor I. A. Syromyatnikov, Doctor of Technical Sciences, spoke about his impressions from a tour to the United States and delivered a report on "The Ways of Further Development of Soviet Power Engineering". Engineer V. K. Yermolenko spoke about "The Principles Underlying the Design of Complicated Alternating Control Circuit Protective Devices". N. I. Tsarev, Candidate of Technical Sciences, spoke about the work of the TsNIIS for the development of power-supply units. Yu. D. Sankin, Candidate of Technical Sciences, delivered a speech "On the Usefulness of Developing Protective Devices With a Sensitive Electromechanical Element". Engineer Ye. A. Mayorenko) "Prospects of the Development of Relay Protection With Semiconductors". Engineer V. I. Grishkevn reported on the development of the resistor- and power relays with semiconductors. Professor A. D. Smirnov, Doctor of Technical Sciences, spoke about the prospects of further employment of saturated steels in relay construction. The manufacture of large oil- and air circuit breakers by the plants "Elektrosapparat" and "Uralelektrosapparat" was sharply criticized. The Conference pointed out that automatic frequency- and power controllers,

Card 2/3

grouped installations for excitation and power control, modern automatic synchronizers, and automatic regulators for the batteries of static condensers which are indispensable in the full automation of electric installations have not yet been provided for in the Soviet manufacturing program.

Card 3/3

SAPIR, Ye. D., FABRIKANT, Valentin L., FEDOSOIEV, A. M., IVANOV, V. I. [illegible]

"Relay protection with semi-conductor devices"

report to be submitted for Intl. Conference on Large Electric Systems (CIGRE), 18th Biennial Session, Paris, France, 15-25 Jun 60.

S/104/60/000/007/002/002
E194/E455

9,9881

AUTHORS: Ivanov, V.I., Doctor of Technical Sciences,
Mikutskiy, G.V., Candidate of Technical Sciences,
Sapir, Ye.D., Candidate of Technical Sciences,
Fabrikant, V.L., Doctor of Technical Sciences and
Fedoseyev, A.M., Doctor of Technical Sciences

TITLE: Relay Protective Equipment Based on Transistor Instruments

PERIODICAL: Elektricheskiye Stantsii, 1960, No.7, pp.59-64

TEXT: By the use of semiconductor diodes and triodes and also magnetic components, measuring devices and logical parts of protective circuits may be constructed without contacts. Devices responding to the ratio of two electrical magnitudes are often required. They can be made of semiconductor rectifiers or may be based on the principle of comparing the absolute or the phase values of electrical magnitudes. Absolute values may be compared by rectifying and smoothing them and then, using a relay of high sensitivity, to detect the difference between them. With transistors, it has been possible to develop circuit elements with d.c. rectifiers that react to differences between the magnitudes

Relay Protective Equipment Based on Transistor Instruments

compared, and operate other parts of the circuit. The Hall and magneto-restrictive effects may also be used to compare the phase of two electrical magnitudes. High-speed relays may, however, react to the alternating double-frequency component of the Hall emf. It is accordingly necessary to eliminate this component, by the use of filters or special compensating circuits. Two circuits were constructed around two identical Hall emitters, the alternating components of Hall emf being cancelled and the constant components summated. In the second method, the crystal rectifier of one pick-up passes current induced in an additional winding by the flux of the second pick-up. The flux is set up by one of the electrical magnitudes to be compared. Conversely, the current of the second pick-up induces a flux in the first set up by the second electrical magnitude. An expression is given for the resultant emf. In this way, the relay may be made to operate reliably under various circuit conditions. Relays may also make use of the dependence of the resistance of semiconductor elements on the intensity of the magnetic field in which they are located. This

S/104/60/000/007/002/002
E194/E455

Relay Protective Equipment Based on Transistor Instruments

effect is particularly marked if the semiconductor elements are in the shape of discs. The principles underlying a relay of this type are briefly explained and a schematic circuit diagram of a voltage relay is shown in Fig.4. Multi-phase resistance relays have been proposed for remote control. Such a relay reacts to all kinds of multi-phase short-circuits, or at any rate to most of with without opening or closing contacts. Contactless relay systems have been built up in this way. The time-delay elements are usually of the capacitor charging type. Phase differential high-frequency protective relays are then described. Two methods of protection have been devised that differ in the method of making the phase comparison of currents at the ends of the protected line. One of these methods, due to Candidate of Technical Sciences O.V.Mamontov (see Elektricheskiye Stantsii, 1958, No.5),uses the impulse method of comparing the current phases and was installed in 1958 in experimental service on a 220 kV line. In the other system, the current phases at the ends of the protective lines are compared by means of an integrating circuit, shown as a block

Relay Protective Equipment Based on Transistor Instruments

diagram in Fig.6. The operation of this circuit is explained. A directional high-frequency protective circuit is described with a block circuit diagram in Fig.7. It was developed by Candidate of Technical Sciences Ya.M.Smorodinskiy and Engineers O.D.Velichkin, Ye.V.Lysenko and V.P.Kletskiy and uses semiconductor diodes and triodes. If the line is not provided with lightning arresters, so that use can be made of protective systems with an operating time of less than 25 milliseconds, then only the main high-speed part of the circuit is used. The operating principle of the circuit depends on rapid sensing of the direction of negative phase-sequence power at the ends of the protected line and comparison of these directions by means of a high-frequency channel. For this purpose, the protective system uses high-speed double-acting power-directional elements based on semiconductors. Because of the characteristics of lightning arresters, when they are used the line protection must be delayed by 50 milliseconds. Therefore, it cannot be entirely based on instantaneous response to the sign of the negative phase-sequence power as the asymmetry time may be

Relay Protective Equipment Based on Transistor Instruments

much less than 50 milliseconds. In this case the second part of the circuit is used. It contains a grid control element which also responds to instantaneous measurement of the sign of the power acting on the output relay of the protective circuit. In the event of asymmetrical damage to the protected line, the power-directional elements on both ends of the line operate the output protective relay. A receiving-transmitting high-frequency protective system is then described. It is intended for operating with a phase differential protective system. A block circuit diagram is given in Fig.8. The emitter generator is based on a triode and has a quartz frequency-stabiliser. The operating principles are explained; briefly, if there is no manipulation voltage applied to the control cascade it is open and the transmitter operates. If power-frequency voltage appears on the output of the manipulation elements this becomes blocked and the transmitter is stopped. The power of the high-frequency signal beyond the line filter is 6.5 W in the frequency range of 30 to 250 kc/s. The receiver contains an input high-frequency filter

Relay Protective Equipment Based on Transistor Instruments

with a band-width of 1900 c/s, a high-frequency amplifier and detector and a d.c. amplifier. From the output of this amplifier the d.c. impulse is applied to the phase comparator circuit. The overload protection of the triodes of the output cascades of the transmitter is described. In 1958, a prototype of the transmitter-receiver based on transistors was put into service with a differential phase protection scheme type ДФЗ-2 (DFZ-2) on a 110 kV line of 60 km. The operating frequency of the protective channel was 210 kc/s and in 11 months service the performance was fully satisfactory. A method of differential protection with delay has been developed which differs from other systems in that the currents are rectified by a method that ensures selectivity and speed of operation. The reacting element of the protective system is a d.c. relay connected to the output of the comparator circuit, either directly or through a d.c. amplifier based on semiconductors. A common reacting element can be used for all three phases. Fig.10 gives a block circuit diagram of a protective circuit; the method of operation is briefly described. There are 11 figures and 3 Soviet references.

Card 6/6

LEVIUSH, A.I., inzh.; SAPIR, Ye.D., kand.tekhn.nauk

Semiconductor resistance relay with an elliptical work characteristic. Elektrichestvo no.5:64-70 My '62. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki, Moskva.
(Electric protection) (Electric relays)