

HUNGARY

BENKO, Sándor; BALAZS, Viktor; BOJLIICH, Margit; HORVATH, Eva; KOVACS, Kálmán; CSAKADI, Miklós; FELKAI, Eszter; RÁK, Kálmán; I. Clinic of Internal Medicine and Institute of Pathological Anatomy of the Medical University (Orvostudományi Egyetem I. sz. Belklinika és Kóronctani Intézet), Szeged.

"Pulmonary Granuloma upon the Administration of Methylcellulose Intravenously and the Effect of Cortisone and of the Filtrate of Escherichia Coli Liquid Cultures."

Budapest, Kiserletes Orvostudomány, Vol 14, No 5, Oct 62, pp 515-519.

Abstract: [Authors' Hungarian summary] Continuous, intravenous administration of methylcellulose results in the development of proliferative pulmonary arteriitis and an increase in the serum cholesterol level. Cortisone administration has no effect on the latter but it reduces the proliferative blood vessel inflammation. Coli culture filtrate lowers the cholesterol and cholesterol ester levels significantly and also the methylcellulose and lipid deposition.

JULESZ, Miklos, dr.; B. FROHLICH, Margit, dr.; K. LASZLO, Ilona, dr.;  
TOTH, Istvan, dr.; SZEPESSY, Gabor, dr.; DAVID, Margit, dr.

The effect of estriol on lipid metabolism. Orv. hetil. 103 no.43:  
2017-2021 28 0 '62.

1. Szegedi Orvostudományi Egyetem, I. Belklinika és Központi Laboratórium.  
(ESTRIOL) (LIPID METABOLISM) (CORONARY DISEASE)  
(PHOSPHOLIPIDS) (LIPOPROTEINS)  
(BLOOD CHOLESTEROL) (BLOOD LIPIDS)

BENKO, Sandor; BALAZS, Viktor; EROHLICH, Margit; HORVATH, Eva; KOVACS, Kalman;  
CSANADI, Miklos; FELKAI, Bela; RAK, Kalman

Pulmonary granuloma caused by the intravenous administration of methylcellulose and its sensitivity to cortisone and to Escherichia coli culture broth. Kiserl. orvostud. 14 no.5:515-519 0 '62.

1. Szegedi Orvostudományi Egyetem I. sz. Belklinika és Kóronctani Intézet.

(LUNG) (GRANULOMA) (METHYLCELLULOSE)  
(ESCHERICHIA COLI) (CORTISONE) (BLOOD CHOLESTEROL)

HUNGARY

FROHLICH, Margit, BALAZS, Viktor; Medical University of Szeged, I. Medical Clinic (Szegedi Orvostudományi Egyetem I. sz. Belklinika).

"Analysis of a Cryoglobulin Which Contains Nucleoproteins."

Budapest, Kiserletes Orvostudomány, Vol XV, No 4, Aug 1963, pages 344-350.

Abstract: [Authors' Hungarian summary] The results of detailed chemical analyses of a cryoglobulin are reported which has been isolated by repeated cold-precipitation from the blood of a patient with purpura cryoglobulinemica. Ninety six per cent of the cryoglobulin tested consists of a protein component with a sedimentation constant of 6.1 S. Its UV spectrum resembles that of ribonucleoproteins. It contains large amounts of basic amino acids, and purine and pyrimidine bases corresponding to those of ribonucleoproteins. The possibility of a relation between nucleic acid content and pathological protein production is under investigation. 1 Hungarian, 11 Western references.

1/1

JULESZ, M.; FROHLICH, M.B.; LASZLO, I.K.; TOTH, I.; SZEPESSY, G.; DAVID,  
M.A.

On the effects of estriols on lipid metabolism. Acta med. acad.  
sci. hung. 19 no.2:161-168 '63.

1. I. Medizinische Klinik und Zentrallaboratorium der Medizinischen  
Universitat, Szeged.

(ESTRIOL) (LIPID METABOLISM) (GYNECOLOGY) (BLOOD LIPIDS)  
(PHOSPHOLIPIDS) (LIPOPROTEINS) (BLOOD CHOLESTEROL)  
(BLOOD PROTEIN ELECTROPHORESIS)

TIBOLDI, T.; JULESZ, M.; SZALMA, J.; KOVACS, K.; BALAZS, V.; FROHLICH, Margit;  
LASZLO, Ilona; TOTH, I.

Experience with Selye's granuloma pouch technique. Acta physiol.  
acad. sci. Hung. 25 no.1:61-70 '64.

1. First Department of Medicine and Department of Ophthalmology,  
University Medical School, Szeged.

JULESZ, M.; TIBOLDI, T.; SZALMA, J.; LASZLO, Ilona; KOVACS, K.; SZARVAS, F.;  
BALAZS, V.; FROHLICH, Margit; TOTH, I.

Effect of thyro+ropic hormone on granulation tissue. Acta physiol.  
acad. sci. Hung. 25 no.1:71-81 '64.

1. First Department of Medicine and Department of Ophthalmology,  
University Medical School, Szeged.

BALAZS, Viktor, dr.; SZALMA, Jozsef, dr.; FROHLICH, Margit, dr.

Autoantibodies in pernicious anemia and in other achlorhydric conditions. Orv. hetil. 105 no.37:1729-1733 13 S '62.

1. Szegedi Orvostudományi Egyetem, I Belklinika (igazgató: Julesz Miklos dr.).



HUNGARY

BALAZS, Viktor, Dr., and FROHLICH, Margit, Dr., First Clinic for Internal Medicine at the University for Medical Sciences (Orvostudományi Egyetem, I. sz. Belklinika) in Szeged (Director: JULESZ, Miklos, Dr.)

"Anticomplement Effect of Cryoglobulinemic Sera and Isolated Cryoglobulins"

Budapest, Orvosi Hetilap, Vol 107, No 29, 17 Jul 1966, pp 1350-1353.

Abstract: The anticomplement effect, protein content, the nature of the globuline components, the rheumatoid factor activity, the anticomplement titer before and after heat treatment, and the relations between anticomplement effect and other immunological, physico-chemical, and chemical properties were investigated in total serum, cryoglobulin-less serum, and isolated cryoglobuline from purpura cryoglobulinemia, Co. pulm. reticulosarcoma, purpura cryoglobulinemia, Co. ventric. purpura cryoglobulinemia, reticulosis purpura cryoglobulinemia, and Sjogren syndrome. The globuline components (encountered in all but the first mentioned) consisted of gamma-1M and gamma-2; they were found to be responsible for the anticomplement effect. All were heat-sensitive. 26 references, including 2 German and 24 Western.

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FROHLICH, O.; FARKAS, L.

Postoperative osteitis pubis. *Magy. sebesszet* 5 no. 4:285-294 Nov  
1952. (CINL 24:1)

1. Doctors. 2. First Surgical Clinic (Director -- Prof. Dr. Gyula  
Jaki), Szeged Medical University.

BELA, Hermann, dr.; FROHLICH, Otto, dr.

Data on caseous tuberculosis of the thyroid glands. Tuberk.  
kerdesei 9 no.1:27-28 Feb 56

1. A gyulai Megyei Korhaz Belgyogyaszati (foorvos: Hermann Bela dr.)  
es Sebesszeti Onztalyanak (foorvos: Frohlich Otto dr.) kozlemenye.  
(THYROID GLAND, dis.  
tuberc., caseous, surg. & pathol. (Hun))  
(TUBERCULOSIS  
of thyroids, caseous, surg. & pathol.(Hun))

Frolich, Otto

HERMANN, Bela, dr.; FROHLICH, Otto, dr.

Recovery after surgery in hydropericardium lasting for decades  
and simulating tumor. *Magy. sebeszet* 10 no.1:55-59 Mar 57.

1. A Gyulai Megyei Kórház Belgyógyászati (Főorvos: Hermann, Bela  
dr.) és Sebészeti Osztályának (Főorvos: Frolich, Otto, dr.)  
közleménye.

(PERICARDIUM, dis.

hydropericardium simulating tumor & lasting for  
decades, diag. & surg. (Hun))

FROHLICH, O.

Third International Construction Equipment Exhibition;  
Zagreb, April 17-25, 1965. Gradevinar 16 no.12:446-448  
D '64.

FROHLICH, P.

(Deceased)

See ILC

REDR, M., doc. inz. GS.; FROLIK, J., promovany matematik

Experimental and theoretical determination of cooling  
ingot heat content. Hit listy 19 no.11:781-789 N '64.

1. Higher School of Mining, Ostrava (for Redr). 2. Research  
Institute of Iron Metallurgy, Prague (for Frolik).

FROIMESCU, A.

Continuous Reinforced Concrete Trusses of Preliminarily Compressed Concrete and Their Utilization for the Construction of Principle Bridge Trusses. Studii Si Cercetari De Mechanica Aplicata (Studies and Research in Applied Mechanics), #1-2:187:Jan-Jun 55



FRIMESCU, A.; ILIE, V.

Effect of the mineralogical composition of cement on physical and mechanical properties of concrete and reinforced concrete; slow flow. p. 589.  
Academia Republicii Populare Romine. Institutul de Mecanica Aplicata.  
STUDII SI CERCETARI DE MECANICA APLICATA. Bucuresti. Vol. 6, no. 3/4, July/Dec. 1955.

So. East European Accessions List Vol. 5, No. 9 September, 1956

✓ 430. Proinseu, A., Influence lines of bending moments in fully restrained arches (in Rumanian), *Indust. constr. Mater. constr.* 7, 5, 289-294, May 1956.

with Stamp

Author explains his opinion that the classical method of determining the statically indeterminate values of  $M$ ,  $V$ , and  $i$ , acting at the elastic centroid of the arch (as introduced by Mörsch, Strassner and Zviriev) is rather complicated, and discusses the preferable method of virtual displacements, which is also generally known. The application of this method to influence lines is presented on a numerical example (arch spanning 51 ft. with 15.5-ft rise).

J. J. Polivka, USA

VIII

FROINESCU, A.

FROINESCU, A.

FROINESCU, A. The calculation continuous arches reposing on elastic  
piers. . . 721.

So. 12, 1956.

INSTRUMENTA CONSTRUCTIVII SI A PRACTICII DE CONSTRUCTII.

TECHNOLOGY

ROMANIA

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

FROIMESCU, A.

The Progresul platform workshop for the manufacture of prestressed elements. p. 446.  
(INDUSTRIA CONSTRUCTIILOR SI A MATERIAELOR DE CONSTRUCTII. No. 7, 1957, Rumania)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 2, No. 12, Dec. 1957  
Uncl.

BUTOV, Ivan, traktorist-mashinist; FROL, V., traktorist-mashinist

Bonuses and monetary awards. Sel'.mekh. no.3:23-24 '62.  
(MIRA 15:3)

1. Sovkhoz "Romashkovskiy", Pallasovskiy rayon, Volgogradskaya oblast' (for Butov). 2. Sovkhoz "Donskoy", Enbekshil'derskiy rayon, Kokchetavskaya oblast (for Frol).

(Agricultural workers—Rewards (Prizes, etc.) (Wages)

FROL'CHENKO, N.

The day oil was on fire. Pozh.delo 8 no.3:18-20 Nr 162.  
(MIRA 15:4)  
(Zhirkovsk region—Oil fields—Fires and fire prevention)

KANDID'YEV, A.N.; FROLINKO, L.A.

*Cnecrhynchus keta* Walb. culture in fish hatcheries with low winter temperature. Trudy MMBI no.9:62-66 '65. (MIRA 18:12)

1. Sakhalinskoye otdeleniye Tikhookeanskogo nauchno-issledovatel'skogo instituta rybnogo khozyaystva i okeanografii.

KOSAREV, O., shturman; GVIL'DIS, B., bortmekhanik (Irkutsk); KORNEV;  
LOZOVSKIY; KUZ'MIN, starshiy inzhener-ekonomist; MESILOV, Yu.,  
aviatekhnik; FROLENKO, N. (Novosibirsk); KHALIULLIN, R.  
(Verkhniye Kigi, Bashkirskoy ASSR); ZOSIMOV, V. (g. Klitsy,  
Bryanskoy oblasti)

Public inspection is in action. Grazhd. av. 20 no.6:28  
Je '63. (MIRA 16:8)

1. Obshchestvennyy inspektor po bezopasnosti poletov,  
Novosibirsk (for Kosarev).  
(Aeronautics, Commercial)



YUKHNOVICH, A.N., veter. vrach (Yel'ninskiy rayon, Smolenskoj oblasti);  
RUDOMETKIN, Ya.S., veter. vrach; EVENTOV, M.Z., veter. vrach;  
SOBOLEV, A.S., dotsent (Estonskaya SSR); DOL'NIKOV, Yu.Ya., kand.  
veter. nauk; PALIMPSESTOV, M.A., prof.; SIMONENKO, N.M., dotsent;  
GONCHAROV, A.P., assistent; BEZRUKOV, A.A.; FROLENKOV, N.A., veter.  
vrach (Serov, Sverdlovskoj oblasti); KOSHCHHEYEV, P.M.; VOROB'YEV,  
M.M., kand. veter. nauk; YANCHENKO, P.Kh., veter. vrach;  
AMELIN, I.P.; BYCHKOV, A.I., kand. veter. nauk; SHVYREV, G.I.,  
veter. vrach (Stavropol'skiy kray); DANILIN, N.F.; TRUSHIN, A.Z.,  
veter. vrach; SKRYPNIKOVA, T.K., veter. fel'sher; MIKHEYEV, A.D.;  
KARMANOVA, Ye.M., kand. biol. nauk; REMIZOV, Ye.S., mladshiy  
nauchnyy sotrudnik; ANTIPIN, D.N., referent

From helminthological practice. Veterinariia 38 no.7:55-58  
Jl '61. (MIRA 16:8)

1. Reshetovskiy veterinarnyy uchastok, Novosibirskoj oblasti  
(for Rudometkin). 2. Sovkhoz "Buda-Koshelevskiy" Gomel'skoj  
oblasti (for Eventov). 3. Sibirskiy nauchno-issledovatel'skiy  
veterinarnyy institut (for Dol'nikov). 4. Khar'kovskiy veteri-  
narnyy institut (for Palimpsestov, Simonenko, Goncharov).  
5. Blagoveshchenskiy sel'skokhozyaystvennyy institut (for  
Bezrukov). 6. Novo-Nikolayevskiy veterinarnyy uchastok Krasno-  
darskogo kraya (for Lochkarev). 7. Karpilovskiy veterinarnyy  
uchastok Chernigovskoj oblasti (for Ponomarenko). 8. Kamalinskiy  
veterinarnyy uchastok Krasnoyarskogo kraya (for Koshcheyev).

(Continued on next card)

SLIVNIK, J.; BRCIC, B.; VOLAVSEK, B.; SMALC, A.; FRLEC, B.; ZEMLJIC, R.; ANZUR, A.; VEKSLI, Z.

On the synthesis of, and magnetic measurements on, xenon tetrafluoride.  
Croat chem acta 34 no.3:187-188 '62.

1. "Jozsef Stefan" Institute for Nuclear Research, Ljubljana, Slovenia, Yugoslavia (for Slivnik, Brcic, Volavsek, Smalc, Frlec, Zemljic, and Anzur.) 2. Institute "Ruder Boskovic", Zagreb, Croatia, Yugoslavia (for Vekslj).

FROENLICH, Jozef; SZCZERBINSKI, Andrzej

A case of Morgagni-Adams-Stokes syndrome in tuberculosis of heart muscle. Pol. tyg. lek. 17 no.37:1455-1457 10 S '62.

1. Z Oddzialu Wewnetrznego I Szpitala Miejskiego w Gliwicach; ordynator oddzialu: dr med. Jozef Froehlich; dyrektor szpitala: dr Kazimierz Bienkowski.

(HEART BLOCK) (TUBERCULOSIS CARDIOVASCULAR)

PROLENKO, A.

More about simplifying the method for measuring the workday.  
Sots.trud 5 no.3:113 Nr '60. (MIRA 13:6)

1. Starshiy inzhener otдела truda i zarabotnoy platy zavoda  
zuboreznykh stankov "Komsomlets," g. Yegor'yevsk Moskovskoy  
oblasti.

(Yegor'yevsk--Gear-cutting machines)  
(Time study)

FROLENKO, G.I.

Effect of starvation on larval development of bream and  
crucian carp. Nauch.dokl.vys.shkoly; biol.nauki no.1:29-32  
'59. (MIRA 12:5)

1. Rekomendovana kafedroy ikhtiologii Moskovskogo gosudar-  
stvennogo universiteta im. M.V.Lomonosova.  
(FISHES--FOOD) (BREAM) (CARP)

KARTASHEVSKIY, N.G.; BARKOV, G.I.; FEDOROVA, I.G.; FROLENKO, G.I.

New plastic package for the storage of preserved homotransplants.  
Vest.khir. no.7:112-115 '61. (MIRA 15:1)

1. Iz Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-  
issledovatel'skogo instituta perelivaniya krovi (dir. - dotsent  
A.D. Belyakov, nauchnyy rukovoditel' - prof. A.N. Filatov) i  
Nauchno-issledovatel'skogo instituta tokov vysokoy chastoty  
im. prof. V.P. Vologdina (dir. - kand.tekh.nauk M.A. Spitsyn,  
zam. dir. po nauchnoy chasti - kand.tekh.nauk N.P. Glukhanov).  
(TRANSPLANTATION OF ORGANS, TISSUES, ETC.—EQUIPMENT AND SUPPLIES)

YAKUBOVSKIY, A.M., mashinist-instruktor; FROLENKO, M.P., mashinist-instruktor;  
YAROSHEVICH, V.S., mashinist; YERKIMHAYEV, Ye., mashinist;  
BARANAZAROV, A.M., mashinist; FEDOSOV, D. Ye.; SKORKIN, I.S.

Useful book "Reference book for a diesel locomotive engineering by  
V.M.Terekhov, I.I.Murshin. Reviewed by A.M.Iakubovskii and others.  
Elek.i tepl.tiaga 4 no.2:47-48 F '60. (MIRA 13:6)

1. Master zagotovitel'nogo tsekha, depo Chu, Kazakhskaya doroga  
(for Fedosov). 2. Master tsekha bol'skogo periodicheskogo remonta,  
depo Chu, Kazakhskaya doroga (for Skorkin).

(Diesel locomotives)

(Terekhov, V.M.)

(Murshin, I.I.)

FROLENKO, Ya. I.

Centrifugal Pumps

Improving the thrust bearing assembly of the AS-100 centrifugal pump. Sakh. prom.  
27, No. 3, 1953.

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



STEPANOV, P.N., professor, zaveduyushchiy; FROLENKO, Ye.V.

New facts in the treatment of rheumatism. Terap.arkh. 25 no.3:17-23 My-Je  
'53. (MLBA 6:9)

1. Gosptal'naya klinika vnutrennikh bolezney Minskogo meditsinskogo institu-  
ta. (Rheumatism)

FROLENKO, Ye. V.

FROLENKO, Ye. V.: "The treatment of rheumatism by irritating on the intercostals of the vesicles." In: Higher Education USSR. Vil'nyus State U imeni Kapsukas. Vil'nyus, 1956  
(Dissertation for the Degree of Candidate in Medical Science)

So: "Enizhnyaya Intonisa", No 18, 1956

PROLENKO, Ye.V.

Liver function in rheumatic fever. Zdrav. Belor. 4 no.2:22-24 7  
'58. (MIRA 13:8)

1. Iz kafedry gospital'noy terapii (zaveduyushchiy - professor G.Kh.  
Dovgyallo) Minskogo meditsinskogo instituta.  
(RHEUMATIC FEVER) (LIVER)

FROLENKO, Ye.V., dotsent; LISUN, V.P.

Change in the prothrombin, fibrinogen, and viscosity of the  
blood following the use of leeches. Zdrav. Belor. 6  
no. 7:22-23 Je '60. (MIRA 13:8)

1. Iz kafedry gosptal'noy terapii (zaveduyushchiy - prof.  
G.Kh. Davgyallo) Minskogo meditsinskogo instituta i  
terapevticheskogo otdeleniya 1-y klinicheskoy bol'nitsy  
glavnyy vrach A.I. Shuba).  
(PROTHROMBIN) (FIBRINOGEN) (LEECHES)

DOVGYALLO, G.Kh., prof.; FROLENKO, Ye.V., dotsent

Change in the activity of hyaluronidase in the blood serum in  
rheumatic fever. Zdrav. Bel. 7 no.3:14-17 Mr '61. (MIRA 14:3)

1. Iz kafedry gospital'noy terapii (zaveduyushchiy kafedroy - prof.  
G.Kh. Dovgyallo) Minskogo meditsinskogo instituta.  
(HYALURONIDASE) (RHEUMATIC FEVER)

FROLENKO, Yu.G.; KONOVALOV, V.A.; KOPTYAKOV, A.M.

Automatic control of the speed of feeding band saw units. Der.  
From. 12 no.3:13-14 Mr '63. (MIRA 16:5)  
(Band saws) (Automatic control)

MOLOTKOV, R.V.; LYKOVA, T.A.; Prinsipali uchastiye: KALININA, M.I.; SHERINA,  
O.G.; FROLENKOVA, A.A.; BAKHMENDO, D.E.

Compounding of unsaturated polyesters and epoxy resins. Plast.  
massy no.12:16-19 '60. (MIRA 13:12)  
(Epoxy resins) (Esters)

FROLETSKIY, Yu.

Broaching pivot bushings. Avt. transp. 38 no.9:49-50 S '60.  
(MIRA 13:9)

(Broaching machines)



FROLICH, I.

The phenomenon of drying in textile finishing. p. 31.

INDUSTRIA TEXTILA . (Asociatia Stiintifica a Inginerilor si Technicienilor din  
Romina si Ministerului Industriei Usoare) Bucuresti, Rumania. Vol. 10, No. 1,  
Jan. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 6, June 1959.  
UNCL

FROLICH, J., ing.sef.

Dyeing installation built in Rumania. Ind text Rum 12 no.7:  
291-292 J1'61.

1. Intreprinderea "Vasile Roaita", Oradea.

HUNGARY

BALAZS, Viktor, Dr, FROLICH, Margit, Dr, SZEPESSY, Gabor, Dr, CSATI, Miksa, Dr; Medical University of Szeged, I. Medical Clinic and Central Research Laboratory (Szegedi Orvostudományi Egyetem, I. Belklinika és Központi Kutató Laboratorium).

"Properties of Isolated Kryoglobulins, Similar to Those of the 'Rheumatoid Factor'."

Budapest, Orvosi Hetilap, Vol 104, No 33, 18 Aug 1963, pages 1552-1554.

Abstract: [Authors' Hungarian summary] Kryoglobulin was isolated from 10 patients with different diseases. Their agglutination with latex particles and with gamma globulin which was bound to tanninized erythrocytes, and their Waaler-Rose reaction were investigated. Kryoglobulins, with one exception, which contained 7 S and 17-21 S components caused latex-agglutination, and agglutination of erythrocytes with gamma globulin tracer. The one exception exhibited a difference in other physical-chemical properties as well. Kryoglobulins which contained 7 S gamma globulin or B<sub>2</sub> M-globulin alone, gave negative reactions. Heparin had no effect on the reactions investigated, or on the cold precipitation of kryoglobulins. 1 Hungarian, 17 Western references.

1/1

HUNGARY

FROSTICH, O.

Productivity of the stone industry in Istria. Gradvinar 16  
no. 7:250-251 Jo '64

GARGULAK, Z.; FROLIK, J.

Simulated operation of casting cranes for determining the most economical organization of a foundry. Hut listy 17 no.5:338-343 My '62.

1. Vyzkumny ustav hutnictvi zeleza, Praha.

L 59611-65 T/EWP(t)/EWP(b) JD/JW

ACCESSION NR: AP5020422

CZ/0034/64/000/008/0551/0556

AUTHOR: Kremer, R. (Doctor, Engineer, Candidate of sciences); Lonsky, H. (Metallurgical engineer); Erolík, J. (Graduate mathematician) 29  
27  
8

TITLE: Variations of the soaking heat pit flow and thermal efficiency during the reheating of the ingots

SOURCE: Hutnicke listy, no. 8, 1964, 551-556

TOPIC TAGS: computer calculation, analog digital computer, metal heat treatment, heat equation, heat treating furnace

Abstract [Authors' English summary modified]: A specific useful heat calculation was carried out on an analogue and a digital computer. The original equation had to be adapted for use in the digital computer. Partial calculation required for the computer program establishing are described. The program allows easy evaluation of reheating of any pit furnace, and of heat recuperation. It is also possible to determine by the program variations in specific useful heat, furnace efficiency, changes of ingot enthalpy 14

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L 59611-65

ACCESSION NR: AP5020422

2  
during preheating, consumption of fuel, and specific heat output during the heating cycle. Curves of specific useful heat variations in 17 ingot reheatings are shown; average curves are suggested.

Orig. art. has: 2 tables, 5 formulas, 2 figures, 5 graphs.

ASSOCIATION: Kremer - VSB, Ostrava; Lonsky, Frolik - VUHZ, Prague

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, TD

NR REF SOV: 001

OTHER: 013

JPRS

AR  
Card 2/2

L 62728-65 EWP(b)/EWP(t) JW/JD

ACCESSION NR: AP5021456

CZ/0034/64/000/011/0781/0789

AUTHOR: Redr, M.<sup>5</sup> (Docent, Engineer, Candidate of sciences); Frolik, J.ES  
(Graduate mathematician)

30  
26  
B

TITLE: Experimental and theoretical determination of the enthalpy of ingots during cooling

SOURCE: Hutnicke listy, no. 11, 1964, 781-789

TOPIC TAGS: thermodynamics, enthalpy, steel, cooling, metal heat treatment

Abstract [Author's English Summary]: Results of measuring internal and surface temperatures of 10 ton-rimming steel ingots are described. Internal temperatures were measured by an immersion thermocouple designed by the authors. The duration of the temperature recordings was 13 hours; later changes were insignificant. Changes of the enthalpy of ingots are shown as a function of time and of the conditions of cooling. Authors' theoretical method of calculating enthalpy during cooling is discussed. The differences between the calculated and experimental values were small. The results of the study form a

Card 1/2



L 62728-65

ACCESSION NR: AP5021456

4  
suitable basis for the control of soaking pit operation by  
means of a computer. Orig. art. has 9 figures, 8 formulas, and 3 tables.

ASSOCIATION: Redr--VSB, Ostrava; Frolik--VUHZ, Prague

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, TD

NO REF SOV: 002

OTHER: 027

JPRS

steel making

55, 18

Card

2/2

FROLIK, Jan, inz.

Development of the plywood industry. 1949-1951. 10 p. 161.

FROLIK, Jan

Calculation of the heat loss in the pit furnace brickwork  
by automatic computers. Hut listy 19 no. 2: 98-102  
F. '64.

1. Vyzkumny ustav hutnictvi zeleza, Praha.

FROLIK, Z.

Internal characteristics of spaces which are topologically complete according to E.Čech. Dokl. AN SSSR 137 no.3:533-536 Mr '61.

(MIRA 14:2)

1. Karlov universitet, Praga, Chekhoslovatskaya Respublika. Predstavleno akademikom P.S.Aleksandrovym.

(Spaces, Generalized)

FROLIK, Z.

Locally topologically complete spaces. Dokl. AN SSSR 137 no.4:790-792 Ap '61.  
(MIRA 14:3)

1. Karlov universitet, Praga, Chekhslovatskaya Sovetskaya Respubli-  
ka.

(Spaces, Generalized)

FROLIK, Z.

On almost real compact spaces. Bul Ac Pol Mat 9 no.4:247-250 '61.

1. Charles University, Praha (CSSR) Presented by K. Kuratowski.

FROLIK, Z,

On analytic spaces. Bul Ac Pol Mat 9 no.10:721-726 '61.

1. Charles University, Prague-Czechoslovakia. Presented by K. Kuratowski.

FROLIK, Zdenek

A generalization of realcompact spaces. Chekhosl mat zhurnal 13  
no.1:127-138 Mr '63.

1. Matematicky ustav, Karlova universita, Praha 8 - ~~K~~mlin,  
Sokolovska 83.



FROLIK, Zdenek

---

On the descriptive theory of sets. Chekhosl mat zhurnal 13 no.3:  
335-359 S '63.

1. Matematicky ustav Karlovy university, Praha 8, Sokolovska 83.

FROLIK, Z.

On coanalytic and bianalytic spaces. Bul Ac Pol math 12  
no.9:527-530 '64.

1. Charles University, Prague.

DOROSHKEVICH, A.M., kand. tekhn. nauk, dots.; FROLIKOV, A.I., red.

[Introduction to theoretical mechanics; statics] Vvedenie v teoreticheskuiu mekhaniku; statika. Uchebnoe posobie. Moskva, Mosk. poligr. in-t, 1962. 141 p. (MIRA 16:4)  
(Statics)

DOROSHKEVICH, A.M., dots., kand. tekhn. nauk; FROLIKOV, A.I., red.;  
BERNSHTEYN, T.I., tekhn. red.

[Lectures on kinematics] Lektsii po kinematike. Moskva,  
Mosk. poligraficheskii in-t, 1961. 89 p. (MIRA 16:9)  
(Kinematics)

DOROSHKEVICH, A.M., dots., kand. tekhn. nauk; FROLIKOV, A.I., red.;  
BERNSHTEYN, T.I., tekhn. red.

[Textbook on dynamics] Uchebnoe posobie po dinamike. Moskva, Mosk. poligr. in-t, 1962. 159 p. (MIRA 16:10)  
(Dynamics)

L 7995-66

ACC NR: AP5026568

SOURCE CODE: UR/0286/65/000/019/0145/0145

AUTHOR: Frolikov, I. I.

ORG: none

TITLE: Gas atomizer. Class 85, No. 175445

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 145

TOPIC TAGS: atomizer, solution atomizer, gas atomizer, gas ejector, gas engineering

ABSTRACT: This Author Certificate presents a gas atomizer for finely dispersed solutions. The atomizer consists of a cylindrical frame with a coaxial feeding pipe (see Fig. 1). The latter is equipped with vortex producing vanes and a conical dissector. To improve the performance and to insure uniform atomization of solutions, the atomizer contains a number of concentric cylinders. The length of the cylinders decreases with decreasing radius of the cylinders. On the outside, the atomizer is provided with a ring which forms an annular opening with the latter. The vortex former has the shape of a fan.

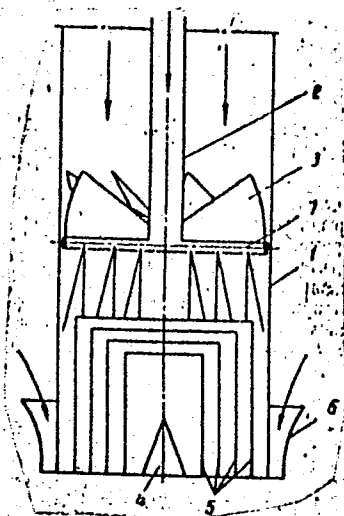
Card 1/2

UDC: 66.069.83:66.047.791.1.05

L 7995-66

ACC NR: AP5026568

Fig. 1. 1- cylindrical frame;  
2- feeder pipe; 3- vortex former;  
4- conical dissector; 5- con-  
centric cylinders; 6- ring; 7-  
fan-like distributed pipes



Orig. art. has: 1 figure.

SUB CODE: IE/ SUBM DATE: 13Mar64  
nw

Card 2/2

FROLIKOVA, I.N.; LINNIKOV, I.K.

Semiautomatic dividing attachment. Stan. 1 instr. 34 no.11:37  
N '63. (MIRA 16:12)



FROLIKOVA, I.N.; LINNIKOV, I.K.

Pneumatic device for turning fittings during machining.  
Mashinostroenie no.6:12-13 N-D '63.

(MIRA 16:12)

FROLIKOVA, I.N., inzh.; LINNIKOV, I.K., inzh.

Mechanical marking of cutting tools. Mashinostroenie no. 2:  
19 Mr-Ap '64. (MIRA 17:5)

FROLIKOVA, I.N., inzh.; LINNIKOV, I.K., inzh.

Multiple-purpose pneumatic device for cold berding of pipes.  
Mashinostroenie no.4:56-57 J1-Ag '65.

(MIRA 18:8)

FROLIKOVA, K. A.

24(0); 5(+); 6(2) PHASE I BOOK EXPLOITATION SOV/2215  
 Vsesoyuzny nauchno-issledovatel'skiy institut astrologii imeni  
 D.I. Mendeleyeva  
 Referaty nauchno-issledovatel'skikh rabot; sbornik No. 2 (Scientific  
 Research Abstracts; Collection of Articles, Nr. 2) Moscow,  
 Standartgiz, 1958. 139 p. 1,000 copies printed.  
 Additional Sponsoring Agency: USSR. Komitet standartov, mer i  
 izmeritel'nykh priborov.

Ed.: S. V. Reshetina; Tech. Ed.: M. A. Kondrat'yeva.  
 PURPOSE: These reports are intended for scientists, researchers,  
 and engineers engaged in developing standards, measures, and  
 gauges for the various industries.

COVERAGE: The volume contains 128 reports on standards of measure-  
 ment and control. The reports were prepared by scientists of  
 institutes of the Komitet standartov, mer i izmeritel'nykh  
 priborov pri Sovete Ministrov SSSR (Commission on Standards,  
 Measures, and Measuring Instruments under the USSR Council of  
 Ministers). The participating institutes are: VNIIM -  
 Vsesoyuzny nauchno-issledovatel'skiy metrologii imeni D.I.  
 Mendeleyeva (All-Union Scientific Research Institute of Met-  
 rology imeni D.I. Mendeleyeva) in Leningrad; Sverdlovsk branch  
 of this institute; VNIIM - Vsesoyuzny nauchno-issledovatel'skiy  
 institut komiteta standartov, mer i izmeritel'nykh priborov  
 (All-Union Scientific Research Institute of the Commission  
 on Standards, Measures, and Measuring Instruments), created  
 from NIIMIP, Moskovskiy gosudarstvennyy institut mer i  
 izmeritel'nykh priborov (Moscow State Institute of Metrology  
 and Measuring Instruments), and NIIMIP, Vsesoyuznyy nauchno-  
 issledovatel'skiy institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy (All-Union Scientific  
 Research Institute of Physico-technical and Radio-engineering  
 Measurements) in Moscow; NIIMIP - Kharkovskiy gosudarstvennyy  
 institut mer i izmeritel'nykh priborov (Kharkov State Institute  
 of Measures and Measuring Instruments); and NIIMIP - Kovo-  
 birskiy gosudarstvennyy institut mer i izmeritel'nykh priborov  
 (Novosibirsk State Institute of Measures and Measuring Instru-  
 ments). No personalities are mentioned. There are no references.

- Folkova, A. Z., and I. P. Vaganov (Sverdlovsk Branch of VNIIM).  
 Studying Line Comparison. 10
- Folkova, A. Z. (Sverdlovsk Branch of VNIIM). Completion of Re-  
 search on Wear Resistance of Plane-Parallel End Standards (of  
 Soviet Plants) of All Classes. 11
- Kayak, I. K., A. M. Koroleva, and A. D. Zagatina (VNIIM). Improving the  
 Accuracy in Testing Small-dimension Scales. 11
- Ornelovskaya, Ye. P., and K. A. Frolikova (NIIMIP). Studying the  
 Circularity Measuring Machine and Development of a Means of Inspect-  
 ing Graduations of Precision Limbs. 12
- Folkova, A. Z., and L. L. Medyantseva (Sverdlovsk Branch of (VNIIM)).  
 Studying an Instrument for Checking Angle-measuring Devices. 13

Card 4/27

4

SHVARTZ, A.G., FROLIKOVA, V.G., TYURINA, V.S., ALEKSANDROV, V.V.,  
BOGUSLAVSKIY, D.B.

Perfecting the rubber mixture composition, based on butyl rubber,  
for diaphragms in the formator-vulcanizers.

Report submitted for the 4th Scientific Research conference on the Chemistry  
and technology of synthetic and natural rubber. Yaroslavl, 1962

SHVARTS, A.G.; FROLIKOVA, V.G.; ARENZON, N.M.; TYURINA, V.S.

Basic requirements for rubber for the membranes of forming  
and vulcanizing units. Kauch. i rez. 23 no.1:24-27 Ja '64.  
(MIRA 17:2)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlen-  
nosti.

I 42987-66 EWT(π)/EWP(f) IJP(c) RM/JND

ACC. NR: AP6013274 (A) SOURCE CODE: UR/0413/66/000/008/0078/0078

INVENTOR: Dogadkin, B. A. ; Tutorskiy, I. A. ; Shvarts, A. G. ; Potapov, Ye. E. ;  
Frolikova, V. G.

ORG: none

30B

TITLE: Method of modifying rubber. Class 39, No. 180790

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 78

TOPIC TAGS: natural rubber, synthetic rubber, aminophenol, hydroxy compound,  
aromatic hydroxy compound, rubber modification

ABSTRACT: An Author Certificate has been issued for a method of modifying  
natural and synthetic rubbers by introducing hexamethylenetetramine and aromatic  
hydroxy compounds into the mixture. To improve the physical and mechanical  
properties of the rubber, aminophenols are used as an aromatic hydroxy compound.  
[Translation] [NT]

SUB CODE: 11,07/ SUBM DATE: 09Jan65/

Card 1/1 hjs

UDC: 678.4.7.046-9:547.564.4

SHVARTS, A.G.; EYTINGON, I.I.; FROLIKOVA, V.T.; STREL'NIKOVA, N.P.

Some requirements for alkylphenol-formaldehyde resins used for  
the vulcanization of butyl rubber. Kauch. i rez. 22 no.10:  
17-18 0 '63. (MIRA 16:11)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.



L 16330-65 EWT(m)/EWA(d)/EWP(j)/T/EWP(t)/EWP(b) Pc-4 ASD(m)-3 RM/MJW/ID/WB

ACCESSION NR: AP4049181

S/0314/64/000/005/0029/0031

AUTHOR: Liferenko, I. G. (Candidate of technical sciences), Istrian, A. F., Frolikova, Ye. <sup>B</sup>

TITLE: Corrosion resistance of cast OKh21N6M2T steel during production of dimethylterephthalate ↗

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 5, 1964, 29-31

TOPIC TAGS: chromium steel, steel corrosion, cast steel, pump manufacture, steel mechanical property, steel corrosion resistance, dimethylterephthalate production/  
steel OKh21N6M2T

ABSTRACT: The production of dimethylterephthalate, used for obtaining synthetic fibers and films, requires pumps made of Kh18N12M2T steel, which is quite expensive. A cheaper OKh21N6M2T steel has therefore been tested for corrosion resistance. The foundry laboratory of VIGM tested the castability, shrinkage, macrostructure and microstructure of the cheaper steel. The tests showed good casting and mechanical properties of the steel (ultimate strength 69.5-76.1 kg/mm<sup>2</sup>, relative elongation 25.6-34.8%, impact toughness 6.6-11.9 kg-m/cm<sup>2</sup> and Brinell hardness 187). The chemical composition of the tested steel was 0.01-0.10% C, 0.38-0.80% Si, 0.53-1.38% Mn,

1/2  
Card

L 16330-65  
ACCESSION NR: AP4049181

17.8-20.97 Cr, 5.75-12.10% Ni, 0.15-0.57% Ti, 2.08-2.91% Mo, 0-0.027% P, and 0-0.0275% S). Intercrystalline corrosion was first tested according to GOST 6032-58. The performed tests, both in the laboratory and at the plants, showed that cast and welded samples of OKh21N6M2T steel had high corrosion resistance. Metallographic analysis showed an absence of intercrystalline and selective corrosion on the samples. No traces of corrosion were found on a pump impeller made of this steel. "Engineers O. F. Aksenov and A. I. Porshneva took part in studying the casting properties of the steels." Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, IE

NO REF SOV: 000

OTHER: 000

Card 2/2

FROLOKOVA, Ye. G.

9(6)

PHASE I BOOK RECLASSIFICATION

SOV/2173

Нагревательные терморезисторы; сборник статей (Термисторы: Collection of Articles) Moscow, Gosizdat, 1959. 259 p. 13,000 copies printed. (Title page); B. S. Borobov, Doctor of Technical Sciences, Professor; Ed. (Co-Editor): V. A. Biryuzov, Tech. Ed.; O. I. Muraviev; Editorial Board: B. S. Borobov, Doctor of Technical Sciences, Professor (Chief Ed.); B. P. Malov, Candidate of Technical Sciences, B. S. Kaystov, Engineer, Ye. N. Smogorov, Engineer, and V. I. Turukuleta, Engineer.

PHASE I: This collection of articles is intended for engineering and technical personnel of plants, OZ, NII and also instructors and students of vuzes. COMMENTS: The book contains articles dealing with problems of manufacture of thermistors, determining resistor parameters and characteristics. The authors also discuss problems of industrial application of thermistors as control elements. The book is a result of cooperation by scientists of a number of vuzes, members of NII and also of the plants (some of them are not given) of Magnitogorsk. No personalities are mentioned. References appear at the end of some articles.

PHASE II: The author discusses parameters of thermistors with direct and indirect heating and presents methods of calculating temperature characteristics, constant  $\beta$  and power dissipation coefficient. The author discusses thermistor voltage characteristics and presents methods of constructing a heating characteristic as well as methods of experimental determining of thermistor parameters. There are 4 references, all Soviet.

78  
Bachuray, S. F. Problems of Design of Thermistors for Circuits Used in Relay KRYVET  
The author discusses operating conditions of thermistors used in circuits based on relay circuit and calculates thermistor parameters required in the design of thermistors. There are 3 references, all Soviet.

82  
Bekjurnykh, A. L., and I. P. Trut'nik. Temperature Characteristics of Thermistors Made from Two-oxide Mixtures  
The authors present experimental temperature characteristics of thermistors made from the following two-oxide mixtures:  $\text{NiO-Cr}_2\text{O}_3$ ;  $\text{NiO-Co}_2\text{O}_3$ ;  $\text{Co}_2\text{O}_3$ ;  $\text{Co}_2\text{O}_3$ ;  $\text{NiO-Co}_2\text{O}_3$ ; and  $\text{NiO-Cr}_2\text{O}_3$ . They describe the importance of these mixtures in the design of new types of thermistors. There are 4 references, all Soviet (including 1 translation).

93  
Boultonov, Ye. G. Thermistors for Controlling Heating of an Automobile Engine  
The author discusses fundamentals of manufacture of laboratory type thermistors used as thermosensitive elements in the automobile cooling system and presents thermistor characteristics. There are 2 references, both Soviet.

121  
Gryshkin, P. I. Experimental High-temperature Thermistor  
The author discusses the manufacture and operation of a laboratory type thermistor used at temperatures 1,000 - 1,500°C and presents its basic characteristics. There are 9 references: 4 Soviet, 2 English and 3 German.

116  
Kozlov, B. E. Analytical Methods of Determining Operating Conditions for Thermistors Using Alternating Current  
The author discusses operating conditions of two thermistors with this element in the circuit. He also presents a method of calculating thermistor-circuit parameters such as current values, function  $\text{Ror}(t)$  etc. There are no references.

119  
Kozlov, B. E. Voltage Stabilizer Circuits With Thermistors  
The author presents fundamentals of voltage stabilizer circuits with thermistors and discusses methods of calculating circuit parameters. There is 1 Soviet reference.

128  
Kozlov, B. E. Transients in Simple Circuits With Thermistors  
The author presents a method of calculating dynamic characteristics of thermistors. The method can be used in the design of time relays utilizing lag in thermistor circuits. He also discusses transients in simple circuits with thermistors. There are 2 references, both Soviet.

145  
Kopylov, M. P. Dynamic Parameters of Thermistors With Indirect Heating  
The author discusses indirect-heated thermistors as elements of automatic control of transmission level in a long-distance communication line. He describes transfer function of a thermistor and determines dynamic parameters of a thermistor-circuit. There are 3 references: 1 Soviet and 2 English.

FROLIKOVA, Ye. M.

17

PHASE I BOOK EXPLOITATION SOV/2488

Moscow. Vsesoyuzny nauchno-issledovatel'skiy i konstruktorskiy institut khimicheskogo mashinostroyeniya.  
 Materialy v khimicheskom mashinostroyenii (Materials in Chemical Machine Building) Moscow, Informatsionno-izdatel'skiy otdel, 1960. 143 p. (Series: Its: Trudy, Vyp. 34) 3,000 copies printed.

Sponsoring Agency: Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu and Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorskiy institut khimicheskogo mashinostroyeniya NIIKHMASH.

Ed. (Title page): V. K. Fedorov, Candidate of Technical Sciences; Editorial Council: Chairman: V. B. Nikol'skiy; Deputy Chairman: Yu. M. Vlnogradov, Candidate of Technical Sciences; B. N. Borisoglebskiy, A. N. Goncharov, Yu. G. Popandupulo, I. N. Tkalov, Candidate of Technical Sciences and G. M. Luscova, Candidate of Technical Sciences; Ed.: V. I. Glukhov; Tech. Ed.: P. A. Vshivtsev.

PURPOSE: This collection of articles is intended for technical personnel in chemical machine building and other branches of the machine and instrument industry.

COVERAGE: The collection deals with the results of investigations on the mechanical, corrosive, and engineering qualities of certain alloys after various heat-treatment regimes; the phase composition of stainless steels; methods of checking products, and part designs of apparatus used in checking. References accompany each article.

TABLE OF CONTENTS:

Gavrilov, V. M. [Engineer], and V. K. Fedorov [Candidate of Technical Sciences]. Crystallization of Alloys in the Elastic-Vibration Field	3
Koslov, M. I. [Engineer]. Metal Which Will Resist Corrosion in Molten Type Metal Containing Zinc	12
Shapiro, M. B. [Engineer], and V. M. Makarov [Engineer]. Induction Hardening of Small-Module Pinions of [Speed] Reducers	26
Chernykh, M. P. [Engineer, Irkutskiy filial NIIEKHMASH - Irkutsk Branch of NIIKHMASH]. Investigation of the Effect of Hydrogen on the Endurance of Certain Steels [Engineers V. D. Molchanova and M. I. MI took part in the investigation]	33
Alshentsva, A. P. [Candidate of Technical Sciences], and G. N. Shumratova [Engineer]. Effect of Heat Treatment on the Phase Composition of Kh18Ni9Ti and Kh18Ni2MnTi Steels [V. N. Dayatlova, P. F. Baitriyev, B. N. Shevelkin, A. M. Shabanova, Z. K. Ogurtsova, and L. Ye. Lobanova took part in the investigation]	50
Dyblaya, I. E. [Engineer], and Ye. M. Frolikova [Engineer]. Dependence of the Corrosion Resistance of Kh18Ni9Ti and Kh18Ni2MnTi Steels on the $\alpha$ -Phase Content	69
Shevelkin, B. M. [Candidate of Technical Sciences]. Effect of Various $\alpha$ -Phase Contents in Kh18Ni9Ti Steel and $\alpha$ - and $\sigma$ -Phase	Card 3/5

DYATLOVA, V.N., inzh.; FROLIKOVA, Ye.M., inzh.

Relation between the corrosion resistance of 1Kh18N9T and Kh18N12M3T  
steels and the composition of the  $\alpha$ -phase. Trudy NIIKHIMMASH  
no.34:69-81 '60. (MIRA 14:1)

(Steel—Corrosion)

S/184/63/000/002/004/007  
A059/A126

AUTHORS: Dyatlova, V.N., Frolikova, Ye.M., - Engineers

TITLE: Resistance to corrosion of metals and alloys in solutions of sulfuric acid with titanium impurity

PERIODICAL: Khimicheskoye mashinostroyeniye, no. 2, 1963, 32 - 33

TEXT: In the production of titanium pigments, solutions of sulfuric acid containing titanium, iron and other metal cations are used. The working solution is cooled in a vacuum crystallizer from 55 to 15°C, and supplied to the vacuum evaporator, where it is heated to 70°C. The rate of corrosion of different metals and their welded samples was determined in order to find materials appropriate to replace copper and lead in these setups. Titanium was welded in argon with infusible electrodes, while the electrode HX-13. CB.X 18 H11 E (NZh-13.sv.Kh18N11B) was used for the manual welding of the steels X 18 H12 M2T (Kh18N12M2T) and X18H 12 M3 T (Kh18N12M3T), and the steel X 23 H28 M3Д 3 T (Kh23N28M3D3T) was manually welded with the electrode M15 (M15) in the Laboratoriya svarki NIIKhIMMASHa (Welding Laboratory of the NIIKhIMMASH) under the

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S/184/63/000/002/004/007  
A059/A126

Resistance to corrosion of metals and alloys in ....

guidance of A.N. Krutikov and P.T. Dmitriyeva. Corrosion tests were performed both in laboratory and plant conditions in the solution contained in the vacuum crystallizer. Titanium BT-1 (VT-1) showed the highest resistance to corrosion both in the production of titanium dioxide pigments and in the vacuum crystallizer at 55°C. All stainless steels and also copper and its alloys were rather resistant to corrosion in the production of titanium dioxide pigments showing surface pitting. The corrosion of the steel Kh23N28M3D3T increased by a factor of more than 10 under working conditions as compared to the laboratory, and that of the steels Kh18N12M2T and Kh18N18M3T by a factor of more than 200, being uniform in each case. The rate of corrosion of copper increased only little with the degree of its purity. Deoxidized Chile copper dissolved completely; the bronzes behaved in almost the same way as copper. The steel Kh23N28M3D3T was highly resistant both on complete and partial submersion in the solution of the vacuum crystallizer, while Kh18N12M3T showed pitting, and Kh18N12M2T was very strongly corroded. Copper and bronzes were subject to strong local corrosion along the water lines on partial immersion, while corrosion was uniform and intense on complete submersion. The rate of corrosion of the steel Kh23N28M3D3T was 10fold under working conditions as compared to the laboratory, and corrosion

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S/184/63/000/002/004/007

A059/A126

Resistance to corrosion of metals and alloys in ....

spread in the form of stains. The steels Kh18N12M3T and Kh18N12M2T were very badly corroded. Copper was much more heavily attacked as compared to the laboratory tests, while the bronzes were corroded to the same extent, and a uniform oxide film formed on the Fe-Mn bronzes. The maximum impurity contents found in the solution contained in the vacuum crystallizer were: 0.01 g Cr<sup>3+</sup>/liter; 0.02 g Cu<sup>2+</sup>/liter; and traces of nickel. There are 3 tables.

Card 3/3



57  
13

L 10813-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD

ACCESSION NR: AP3003442

S/0129/63/000/007/0005/0009

AUTHOR: Akshentseva, A. P.; Istrina, Z. F.; Khimushin, F. F.; Frolikova, Ye. M.

TITLE: Phase transformations and corrosion resistance of OKh21N6M2T<sup>14</sup> steel<sup>14</sup>

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 7, 1963, 5-9

TOPIC TAGS: low-nickel stainless steels, ferritic-austenitic stainless steels, structural changes, corrosion resistance, intergranular corrosion, heat treatment, Sigma phase, corrosion rates, nitric acid, phosphoric acid

ABSTRACT: An investigation was made of the phase composition, weldability, and corrosion resistance of OKh21N6M2T steel (0.07% C; 21.0% Cr; 5.66% Ni; 2.3% Mo; 0.47% Ti). In as-delivered condition (15-min annealing at 1000C followed by water quenching), this steel has a ferritic-austenitic structure, containing up to 75%  $\delta$ -ferrite. This structure, however, is not stable; at 500-1000C the steel undergoes complex phase transformations. Tempering at Card 1/3

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ACCESSION NR: AP3003442

0

500—550C for 2 hr causes dispersion hardening of the ferrite and precipitation of chromium carbides along the grain boundaries; 2-hr tempering at 700—950C brings about transformation of the ferrite into secondary austenite, with crystals of the latter forming inside the ferrite grains. Longer holding at 700—950C promotes intensive growth of the secondary austenite crystals, which finally penetrate all the ferrite grains. At the same time, diffusion growth of the primary austenite grains takes place; cooling to room temperature brings about partial martensitic transformation within these grains. With longer holding (50 and 100 hr) at 650—850C, the  $\sigma$ -phase precipitates within the ferrite grains, and the notch toughness of the steel drops from initial 6 to 0.5 kg-m/cm<sup>2</sup>. Annealing at 750C reduces the content of  $\delta$ -ferrite to 45—55%. The structure with a ratio of  $\delta$ -ferrite to secondary austenite of approximately 1:1 appears to be the most stable. When this steel is welded, regardless of the type of welding or the kind of electrode used, recrystallization of the base metal occurs in the weld-adjacent zone, with formation of large grains of  $\delta$ -ferrite, along whose boundaries small crystals of secondary austenite form with cooling. The steel with a Ti/C ratio equal to or exceeding 5, after annealing at 1000C, as well as after sensitizing annealing at 550—650C for 2 hr, is not susceptible to intergranular corrosion in boiling 50%

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ACCESSION NR: AP3003442

and 65% nitric acid or in boiling 50% phosphoric acid. The corrosion rate in phosphoric acid varied from 0.012 to 0.472 g/m<sup>2</sup>-hr (except for 2.11 g/m<sup>2</sup>-hr of specimens sensitized at 650C). Corrosion rates in 50% nitric acid after sensitizing at 500—700C were high (1.45—50.11 g/m<sup>2</sup>-hr). Stabilizing annealing at 700—1000C lowered corrosion rates to 0.192—0.583 g/m<sup>2</sup>-hr. Annealing the steel at temperatures above 1100C increases the ferrite content and lowers corrosion resistance, but tempering at 700C or above restores resistance to intergranular corrosion. In some media this steel has the same corrosion resistance as Kh18N12M2T Cr-Ni-Mo steel and is therefore recommended as a substitute for it. Orig. art. has: 7 figures and 1 table.

ASSOCIATION: NIKhIMMASH

SUBMITTED: 00

DATE ACQ: 02Aug83

ENCL: 00

SUB CODE: 00

NO REF SOV: 002

OTHER: 001

*lm/ut*  
Card 3/3

ISTRINA, Z.F., inzh.; VOLIKOVA, I.G., kand. tekhn. nauk; KRUTIKOV, A.N.,  
kand. tekhn. nauk; FROLIKOVA, Ye.M., inzh.

Corrosion resistance of metals in the production of citric acid.  
Khim. i neft. mashinost. no.2:36-37 Ag '64 (MIRA 18:1).

L 41332-65 EWT(m)/EPF(c)/EWA(d)/ENP(t)/ENP(z)/ENP(b) Pad LJP(c) MJW/ 3  
JD/HI/JG/VB

ACCESSION NR: AR5000732 S/0277/64/000/009/0007/0007 32

SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruksii i raschet detaley mashin. Gidroprivod. Otd. vyp., Abs. 9.48.40

AUTHOR: Istrina, Z. F.; Krutnikov, A. N.; Shevelkin, B. N.; Shapiro, M. B.; Akhontseva, A. P.; Khimushin, F. F.; Prolikova, Ye. M.; Bolinkiy, A. L.

TITLE: Corrosion resistant properties of chromium<sup>21</sup> nickel<sup>21</sup> steels with lowered nickel content

CITED SOURCE: Tr. Vses. n.-i. i konstrukt. in-t khim. mashinostr., vyp. 45, 1963, 76-93

TOPIC TAGS: corrosion resistance, chromium nickel steel, nickel containing alloy, metal corrosion/ steel OKh21N5T, steel OKh21N6M2T, steel OKh17N5G9AB, steel 1Kh18N9T, steel 1Kh18N12M2T

TRANSLATION: Results of an investigation of the structure, heat treatment, weldability, pressure working, and corrosion resistance of corrosion resistant steels with reduced nickel content and their

Card 1/2

L 41332-6C  
ACCESSION NR: AR5000732

welded joints are presented, and the field of application of these steels in the construction of chemical equipment is determined. Because of their corrosion resistance, steels OKh21N5T, OKh21N6M2T, and OKh17N5G9AB can be used as substitutes for steels 1Kh18N9T and 1Kh18N12M2T in a variety of corrosive media, for example, in the production of caprolactam, adipic acid, dimethylterephthalate, citric acid, urea, nitric acid, and others.

SUB CODE: MM

ENCL: 00

Card 2/2

3

I. 57059-65 EPA(a)-2/FIT(m)/EFF(c)/EIA(d)/EAP(v)/T/EMP(t)/EAP(k)/EAP(s)/EAP(b)/  
 L/A(c) Pf-l/Pad LJP(c) KIM/JD/IM/4D/IM S/O137/65/000/001/1079/1070  
 ACCESSION NR: AR5008973 669.15.018.85

SOURCE: Ref. zh. Metallurgiya, Abs. 11463

AUTHOR: Istrina, Z. F.; Krutikov, A. N.; Shevelkin, B. N.; Shapiro, M. B.;  
 Akahentsava, A. P.; Khimushin, F. F.; Frolikova, Ye. M.; Belinkiy, A. L.

TITLE: Properties of corrosion-resistant nickel-chrome steel with reduced nickel content

CITED SOURCE: Tr. Vses. n.-i. i konstrukt. in-t khim. mashinostr., vyp. 45, 1963, 76-93

TOPIC TAGS: metallurgy, ferrous metals, corrosion resistance, heat treatment, welding

TRANSLATION: Austenite-ferrite OKh21N5T, PKh21N5T and OKh21N6M2T steels and  
 OKh17N5G9AB of the austenite class were studied. The OKh21N5T and OKh21N6M2T  
 steels were quenched from 1000°, OKh17N5G9AB from 1150°. Additional toughening of  
 steels of the austenite-ferrite class can be achieved by age-hardening at 475° for

Card 1/2 \* (PKh21N5T should be 1 Kh21N5T)

L 57059-65

ACCESSION NR: AR5008973

3  
2 hours. The  $\sigma_s$  of OKh21N6H2T steel is increased from 45 to 51 kg/mm<sup>2</sup> and that of OKh21N5T steel to 50 kg/mm<sup>2</sup> by heat treatment, which produces martensite conversion. Conditions of heat treatment in this case are: heating to 750°; cold working at -70° for two hours and age-hardening at 350° for two hours. The welding conditions for the steels studied correspond to the parameters for steels of type 18-8 and 10-12. Heat treatment of OKh21N5T and OKh21N6H2T steels should be done at 1080-900°; for OKh17H17N5G9AB steel at 1080-900°. OKh21N5T and OKh21N6H2T steels have high corrosion resistance and do not have a tendency toward intercrystalline corrosion after quenching from 1000°, and the same is true of OKh17N5G9AB steel for quenching from 1150°. Beams welded with an austenite electrode are resistant to intercrystalline corrosion.

SUB CODE: HM, IE

ENCL: 00

*Am*  
Card 2/2



LIFERENKO, I.G., kand. tekhn. nauk; ISTRINA, Z.F., inzh.; FEOLIKOVA,  
Ye.M., inzh.

Corrosion resistance of OK1.21N6M2T cast steel in the production  
of dimethyl terephthalate. Khim. i neft. mashinostr. no.5:29-31  
N '64 (MIRA 18:2)

L 25692-65 EWT(m)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b) Pf-L/Pad IJP(c)

MJW/JD/HM/HW/WB

ACCESSION NR: AP5003578

S/0314/65/000/001/0030/0034

AUTHOR: Krutikov, A. N. (Candidate of technical sciences); Istrina, Z. F. (Engineer); Arest, T. V. (Engineer); Frolikova, Ye. M. (Engineer)

40  
30  
B

TITLE: Welding and applications of steels with a relatively low nickel content

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 1, 1965, 30-34

TOPIC TAGS: low nickel steel, steel welding, stainless steel, steel corrosion, steel heat treatment, electric arc welding, argon arc welding, intercrystalline corrosion, weld seam stability/steel 0Kh21N5T, steel 1Kh21N5T, steel 0Kh21N6M2T

ABSTRACT: Three stainless steels with a relatively low nickel content (0Kh21N5T, 1Kh21N5T and 0Kh21N6M2T) were tested for weldability and for the corrosion stability of welded or thermally treated segments to define the applicability of such steels under commercial conditions. The samples were manually welded by electroarc using various electrodes and also with a number of welding rods used in argon arc welding. Welded joints and specimens which had been heated 15 min. at 1100C or 3 min. in a salt bath at 1100 or 1250C were tested for intercrystalline corrosion. Both welding methods were shown to be usable, and the electrode TsL-11 with welding rod Sv-08Kh19N10B was selected for steel 0Kh21N5T, whereas the electrode EA-400/10 was recommended for 0Kh21N6M2T.

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L 25692-65

ACCESSION NR: AP5003578

Welded joints produced under similar conditions as used for welding type 18-8 steels did not require thermal aftertreatment and had good mechanical properties and resistance to intercrystalline corrosion. The corrosion stability of thermally treated specimens depended on temperature and steel type, as shown in Fig. 1 of the Enclosure. Orig. art. has: 1 figure and 6 tables.

ASSOCIATION: NIKhimmash

SUBMITTED: 00

ENCL: 02

SUB CODE: MM

NO REF SOV: 004

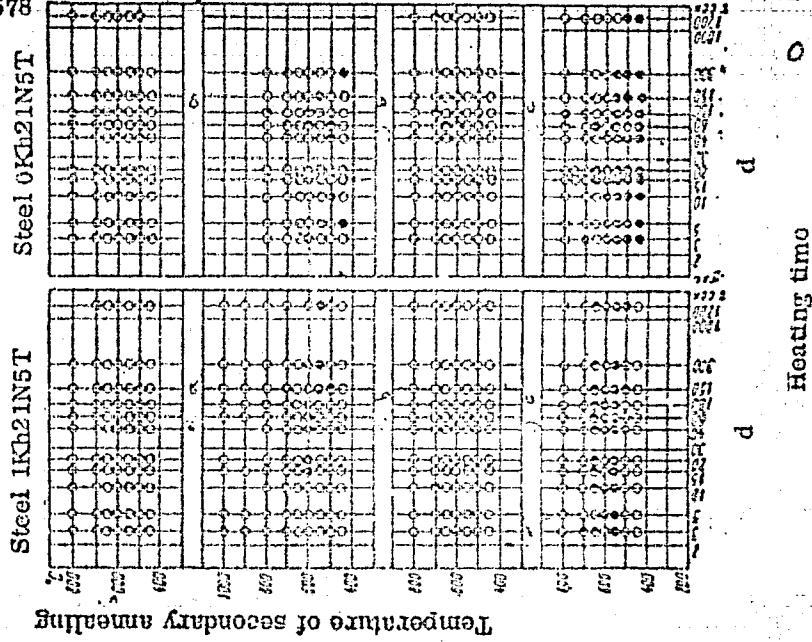
OTHER: 001

Card 2/4

L 25692-65

ACCESSION NR: AP5003578

Enclosure: 01



Card 3/4

L 25692-65

ACCESSION NR: AP5003578

Enclosure: 02

Steel 0Kh21NGM2T

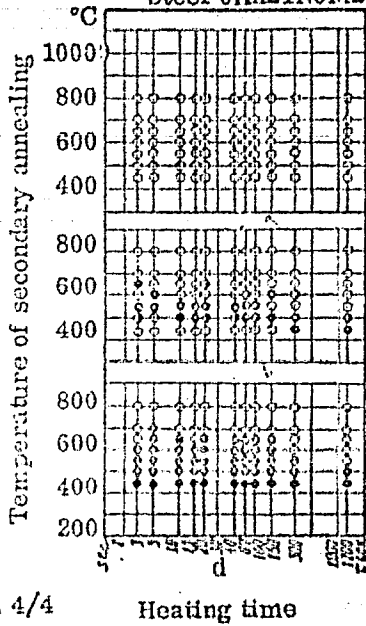


Figure 1. The effect of thermal treatment and repeated heating on the resistance of steel to intercrystalline corrosion:

- a. without thermal treatment (in the initial state);
- b. after 15 min. tempering at 1100C;
- c. after 3 min. tempering at 1100C;
- d. after 3 min. tempering at 1250C;
- o. no intercrystalline corrosion;
- . intercrystalline corrosion

Card 4/4

FROLIKOVA, E. YA.

AID P - 2592

Subject : USSR/Hydraulic Engineering

Card 1/1 Pub. 35 - 15/20

Author : Frolikova, E. Ya., Eng.

Title : ~~On the irregularity of distribution and pulsation of the flow beyond the hydraulic jump~~  
On the irregularity of distribution and pulsation of the flow beyond the hydraulic jump

Periodical : Gidr stroi, 4, 40-42, Ap 1955

Abstract : The author criticizes N. N. Belishevskiy's article (No. 3, 1955, this journal) and presents a mathematical analysis using the pressure equation and the Bernouilli theorem with curves. A further study of the problem, especially for river beds subject to erosion, is recommended. Eight Russian references, 1935-1954, and 1 German, 1936.

Institution : None

Submitted : No date

FROLIKOVA, Ye. Ye. Amshener.

Surface and bottom systems of juncture and soil scour created by  
an inclined stream. Gidr. stroi. 26 no.2:36-39 F '57. (MLRA 10:4)  
(Dams) (Hydraulic engineering)

NIKITIN, I.K., kand.tekhn.nauk; FROLIKOVA, Ye. Ya., mladshiy nauchnyy  
sotrudnik

Relation between the height of wind waves and the velocity of wind  
according to observations in situ in reservoirs of Central Asia.  
Trudy SANIIRI no.99:3-13 '59. (MIRA 14:5)

(Waves)  
(Winds)  
(Soviet Central Asia—Reservoirs)



FROLIKOVA, Ye.Ya., mladshiy nauchnyy sotrudnik

Transformation of wind waves in shallow water. Trudy SANIIRI  
no.99:15-19 '59. (MIRA 14:5)  
(Waves)

FROLIKOVA, Ye. Ya., mladshiy nauchnyy sotrudnik

Problems in the technical operation of irrigation reservoirs in  
Central Asia. Trudy SANIIRIm.101:3-45 '59. (MIRA 14:5)  
(Soviet Central Asia--Reservoirs)  
(Irrigation)

FROLIKOVA, Ye. Ya., maldshiy nauchnyy sotrudnik

Specific features of the operation of Tedzhen Reservoir.  
Trudy SANIIRI no.101:46-56 '59. (MIRA 14:5)  
(Tedzhen Reservoir)

FROLIKOVA, Ye.Ye.

Study and calculation of wind waves in the shallow waters of a coastal area. Vop. gidr. no. 12:61-67 '63. (MIRA 17:5)