"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 58862-65 EPF(n)-2/EWP(z)/EWA(c)/EWT(m)/EWP(b)/T/EWA(d)/EWP(w)/EWP(t)
ACCESSION NR: AR5015193 JD/JG UR/0137/65/000/005/I085/I085

SOURCE: Ref. zh. Metallurgiya, Abs. 5I561

AUTHOR: Yunash, V. M.; Sandler, N. I.

TITLE: Electronographic investigation of the carbide phase of low alloy steels during tempering

CITED SOURCE: Sb. tr. Ukr. n.-i. un-t metallov, vyp. 10, 1964, 417-424

TOPIC TAGS: electronography, carbide phase, low alloy steel, tempering, steel microstructure, manganese steel, steel, carbon, sulfur, steel hardness, metal hardness, manganese containing alloy, silicon containing alloy, phosphorus containing alloy, columbium containing alloy, vanadium containing alloy, tungsten containing alloy, metallography, alpha phase, carbide, annealing, cementite crystal

TRANSLATION: An electronographic method was used to study the process of separation of the carbide phase in tempering hardened manganese steel containing (in %). 0.14-0.20 carbon, 1.28-1.49 manganese, 0.019-0.050 sulfur, 0.21-0.34

Card 1/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 58862-65
ACCESSION NR: AR5015193 3

silicon, and 0.019-0.024 phosphorous, and further alloying additions of columbium, vanadium, and tungsten, in the amounts of 0.29, 0.54, and 1.55% respectively. At the same time, measurements were made of H_V at a load of 10 kg Billets from a rolled strip were quenched in water from 1200C and were subjected to annealing at 200, 300, 400, 500, 550, and 600C for 3 hours. Metallographic slides were prepared from the billets. Etching was done with a 2% solution of nitric acid in ethyl alcohol for a period of 2-8 sec or with a 1% alcohol solution of hydrochloric acid for a period of 10-20 sec (up to the moment of appearance of ferrite grain boundaries). The article describes the method of investigation. Electronograms were obtained on a Type EM-4 electronograph with an accelerating voltage potential of 30-50 kilowatts. Exposure was from 25 sec to 4 min. On the electronograms for all the steels investigated in the hardened state, only the lines of the alpha phase appeared. Lines representing the formation of complex carbides appeared at an annealing temperature of 400C for steels containing columbium and vanadium, and at 600C for steels containing tungsten. The intensity of the lines increases with an increase in annealing temperature. For the electronograms of samples annealed at 600C, the values of the intersurface distances

Card2/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 58862-65

ACCESSION NR: AR5015193

and the intensity of the lines correspond to tabulated values. With annealing in the interval 200-400C, a slow lowering of hardness was observed for all steels investigated; this is due to the separating out and growth of cementite crystals. With an increase in annealing temperature up to 600-700C, the hardness of steels with columbium and tungsten declines sharply due to the appearance of carbides. For steels with vanadium, at an annealing temperature of 550C there is a maximum corresponding to secondary hardness. I. Levin

SUB CODE: MM ENCL: 00

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 41275-65 EWP(e)/EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/
EWA(c) Pf-4 IJP(c) MJW/JD/HW/JG

ACCESSION NR: AP5002242 S/0021/64/000/012/1595/1599

AUTHOR: Dobruskina, Sh. R., Sandler, N. I. Zadorozhnya, L. K. (Zadorozhnya L.K.) Fel'dman, E. I.

TITLE: Addition of small amounts of hafnium to low-carbon manganese steel

SOURCE: AN UkrSSR. Dopovidi, no. 12, 1964, 1595-1599

TOPIC TAGS: alloy steel, hafnium steel, low carbon steel, steel mechanical property, steel structure, manganese steel, hafnium admixture/15G2 steel

ABSTRACT: It is of practical importance to investigate the effect of small concentrations of hafnium on the properties of steel. In this work, a study was made of small additions of hafnium to 15G2 manganese steel. The hafnium was introduced into the melt by the techniques of powder metallurgy, using iron-hafnium briquets. The content of hafnium in the briquets was 78-82%. The microstructure of the experimental hot-rolled steel is shown in a photograph. It is apparent that the microstructure in the hot-rolled state consists of ferrite and perlite and that the presence of hafnium does not affect the structure. The mechanical properties of the steel are also not affected by small additionsof hafnium, but the growth of austenite is impaired above 1150C. From the chemical analysis and the x-ray dif-

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 41275-65

ACCESSION NR: AP5002242

fraction data the following hafnium containing phases were found: hafnium carbide (HfC), hafnium oxide (HfO_2) and hafnium nitride (HfN). "The chemical analyses of the steel samples were performed by junior scientists L. A. Kvichko and O. M. Kirzhner in the Laboratoriya metalurgichnoyi khimiyi Instytutu metaliv (Laboratory of Metallurgical Chemistry of the Institute of Metals)." Orig. art. has: 2 tables and 2 figures.

ASSOCIATION:. Ukr. n-d. instytut metaliv (Ukrainian Scientific Research Institute of Metals)

SUBMITTED: 19Nov63 ENCL: 00 SUB CODE: MM

NO REF SOV: 001 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 34551-65 EWT(m)/EWP(w)/EPF(n)-2/EWA(d)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) Pf-4/
Pu-4 IJP(c) MJW/JD/HW/JG

ACCESSION NR: AP5005851 S/0133/65/000/002/0160/0162

AUTHOR: Sandler, N.I.; Dobruskina, Sh. R.; Zaykov, S.T.; Zadorozhnaya, L.K.; Fel'dman, E.I.; Zhigulin, V.I.; Rubinskiy, P.S.; Asnis, A.Ye.

57
50
B

TITLE: Low-alloy manganese steel with niobium, smelted in an oxygen converter

SOURCE: Stal', no. 2, 1965, 160-162

TOPIC TAGS: steel smelting, oxygen converter, low alloy steel, manganese steel, niobium steel, steel rolling, steel mechanical property, K10G2B steel, 09G2 steel, MSt. 3 steel

ABSTRACT: Alloying of K10G2B steel, containing 0.02-0.05% Nb, raises its strength characteristics as compared to 09G2 steel by 10-12 kg/mm^2 (98-117 Mn/m^2), or 20-25%, permitting an appreciable reduction in the weight of the structures. Rolled products made of K10G2B steel are characterized by high tensile strength, plasticity, and impact strength. Another important advantage of the new steel is a higher vibration resistance of the weld joints than that of other low-alloy steels or even MSt. 3 steel. The making of low-alloy manganese steels in oxygen converters is very effective, since their deoxidation and alloying thus requires smaller quantities of expensive ferroalloys containing manganese than in the case of other steelmaking processes. "S.I. Lifshits, P.Ya. Ryzhkov,

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 34551-65

ACCESSION NR: AP5005851

and I. G. Goryuchka (Petrovskiy plant), B. V. Nikiforov and V. Ye. Koval' (Ukrainian metals scientific research institute), and A. K. Nazarenko (Electric welding institute) also took part in the work." Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: Ukrainskiy n.-i. institut metallov (Ukrainian metals scientific research institute); Zavod im. Petrovskogo (Petrovskiy plant); Institut elektrosvarki im. Ye. O. Patona AN UkrSSR (Electric Welding Institute, AN UkrSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 001 OTHER: 007

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 9642-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) LIP(c) WW/JD/HW

ACC NR: AP5027705 SOURCE CODE: UR/0129/65/000/011/0021/0022

43
41
B

AUTHOR: Popova, N. N.; Sandler, N. I.; Butko, N. I.
44,55 44,55 44,55

ORG: Ukrainian Scientific Research Institute of Metals (Ukrainskiy nauchno-issledovatel'skiy institut metallov)
44 55

TITLE: Effect of rare-earth metals of the cerium subgroup on the critical cold brittleness of carbon steel
44,55,14 27,55

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 11, 1965, 21-22

TOPIC TAGS: rare earth metal cerium, carbon steel, cold brittleness, ductiliby

ABSTRACT: The results of a comparative investigation of the carbon steels 20, St. 3, and KGt. 3 with and without addition of cerium are presented. REM (rare earth metals) were added to the molten steel following its deoxidation. The REM were added in the form of ferrocerium or mischmetal containing 50-70% Ce, in proportions of 0.05, 0.07, 0.10, 0.15, 0.30, and 0.40% Ce by weight of melt. Subsequent investigation of the effect of Ce on the crystallization of the steel ingots, performed by means of macro- and micrographic and autoradiographic examination as well as by measuring the microhardness of the dendrite axes and interaxial dendrite spaces revealed the following: the addition of 0.10-0.15% Ce improves the macrostructure of steel, markedly reduces its content of sulfur and oxygen, and enhances its ductility and plasticity in the presence of high temperatures, and it also reduces the critical temperature of the

UDC: 669.85.86:620.178.2:669.141

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 2042-66

ACC NR: AP5027705

cold brittleness of steel from approximately -35°C to -65°C. For steel MSt. 3, notch sensitivity and proneness to mechanical aging, as well as weldability and vibration resistance of welded joints of this steel, remain the same with or without the addition of Ce. It is important to emphasize that, on the other hand, the addition of 0.3% Ce to steel reduces its ductility and markedly raises its critical temperature of cold brittleness. Hence, in order to improve the ductility of steel at low temperatures the amount of REM added to the steel must be rigorously controlled. Orig. art. has: 1 figure.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

ACC NR: AP5027706 EWT(m)/EWP(w)/EPF(n)-2/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD/JG

SOURCE CODE: UR/0129/65/000/011/0023/0024

AUTHORS: Zadorozhnaya, L. K.; Sandler, N. I.; Dobruskina, Sh. R.; Fel'dman, Z. I. 59

ORG: none

TITLE: Effect of carbon and manganese content on the properties of low-alloy steel containing small amounts of niobium

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 11, 1965, 23-24, and insert facing p. 40

TOPIC TAGS: niobium steel, carbon steel, manganese steel, tensile strength, impact strength, ductility, solid solution

ABSTRACT: The article presents the results of an investigation of the effect of Nb on the properties of various ferritic-pearlitic steels containing various amounts of C (0.08 to 0.32%) and Mn (0.81 to 2.02%). On the basis of tests of the tensile strength, impact strength, and hardness of the specimens it is established that, given a fixed content of Nb, the content of C and Mn markedly affects the strength characteristics of the investigated steels. The lower the C content is, the more beneficial is the effect of the addition of Nb on the strength characteristics. Increasing the Mn content from 0.8 to 2% in steel containing 0.11% C and 0.04% Nb enhances the steel's strength by 15-20%. The addition of small amounts of Nb (0.02-0.05%) is parti-

Card 1/2

UDC: 669.15-194'74'293

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

ACC NR: AP5027706

cularly beneficial to steels of the 10G and 10G2 types. Since the added Nb -- as shown by chemical analysis of the carbide phase -- is present not only in the NbC carbide but also in the solid solution, it considerably increases the strength of the ferrite and the general strength of the steel without detriment to the plasticity and ductility of the steel. Increasing the C content to 0.30% or the Mn content to 2% leads to the appearance of a substantial amount of the bainitic component, which influences the properties of steel regardless of the presence or absence of Nb. Nb reduces proneness to deformation aging in hot-rolled manganese steels, which is of major significance to their use in weldments. Orig. art. has: 1 figure.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

DOBRUSKINA, Sh.R.; SANDLER, N.I.; ZADOROZHNAYA, L.K.; FEL'DMAN, E.I.; YUNASH, V.M.

Hafnium as an inoculator of low-carbon steel. Sbor.trud. UNIIM no.11:262-266 '65. (MIRA 18:11)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, N.I.; TRISHEVSKIY, I.S.; YUSHANOVA, L.F.

Investigating the distribution of deformations in the thickness of bent section elements. Sbor.trud. UNIIM no.11:277-284 '65. (MIRA 18:11)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

ZADOROZHNAYA, L.K.; SANDLER, N.I.; DOBRUSKINA, Sh.R.; FEL'DMAN, E.I.

Effect of carbon and manganese content on the properties of low-alloy steel with a small addition of niobium. Metalloved. i term. obr. met. no.11:23-24 N '65. (MIRA 18:12)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 27614-66 EWT(m)/T/EWA(d)/EWP(w)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6018479 SOURCE CODE: UR/0133/66/000/003/0265/0266

AUTHOR: Sandler, N. I.; Dobruskina, Sh. R.; Zadorozhnaya, L. K.

ORG: Ukrainian N.-I. Institute of Metals (Ukrainskiy N.-I. institut metallov)

TITLE: Effect of rolling temperature on the properties of low-alloy manganese steel with niobium

SOURCE: Stal', no. 3, 1966, 265-266

TOPIC TAGS: low alloy steel, manganese steel, niobium containing alloy, brittleness, ductility, induction furnace, solid mechanical property, steel, solid solution, metal rolling/10G2B steel

ABSTRACT: Steels with small additions of niobium have rather low ductility and a rather high critical temperature of brittleness. In order to increase the impact ductility, a study was made at the Ukrainian Scientific Research Institute of Metals on the effect which rolling temperature has on the structure and physical and mechanical properties of 10G2B steel melted in a 200-kg induction furnace with a basic lining. The composition of the melts with respect to components with and without niobium was practically identical:

Grade	C	Mn	Si	S	P	Nb
A 10G2	0.08	1.35	0.27	0.021	0.018	---
B 10G2B	0.09	1.43	0.47	0.026	0.035	0.04

Card 1/2 UDC: 669.15.004.12

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 27614-66

ACC NR: AP6018479

It was found that a high rolling temperature (about 1300° C) results in a considerable strength increase with a slight reduction in ductility and flow and a slight increase in the cold shortness threshold. Rolling at lower temperatures (1100-1150° C) gives the optimum combination of strength, ductility and flow. Raising the rolling temperature increases the quantity of niobium in the α-solid solution with a simultaneous increase in the unordered state of this solution. High rolling temperatures also result in the appearance of submicroscopic precipitation of niobium carbides or carbonitrides which are coherently bonded to the ferrite lattice. Orig. art. has: 2 tables and 1 figure. [JPRS]

SUB CODE: 11, 13, 20 / SUBM DATE: none

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 45898-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG
ACC NR: AR6016752 SOURCE CODE: UR/0277/66/000/001/0009/0009

AUTHOR: Dobruskina, Sh. R.; Sandler, N. I.; Zadorozhnaya, L. K.; Fel'dman, E. I.; Yunash, V. M.

36
B

TITLE: Hafnium as a modifier in low-carbon steel

SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruktsii i raschet detaley mashin. Gidroprivod, Abs. 1.48.53

REF SOURCE: Sb. tr. Ukr. n.-i in-t metallov, vyp. 11, 1965, 262-266

TOPIC TAGS: hafnium, low carbon steel, austenite

ABSTRACT: The authors study the effect of 0.023 and 0.052% Hf on the properties of 15G2 steel. The steel was subjected to mechanical tests in the hot-rolled, quenched and annealed states. The addition of Hf in the given quantities has no considerable effect on the mechanical properties and microstructure, but retards austenite grain growth noticeably at temperatures >1150°C. Bibliography of 2 titles. I. Strebkov. [Translation of abstract]

SUB CODE: 11

Card 1/1 UDC: 669.297:669.14.018

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 04312-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6018390 (N) SOURCE CODE: UR/0133/66/000/006/0540/0543

AUTHORS: Sandler, N. I.; Dobruskina, Sh. R.; Zadorozhnaya, L. K.; Bondarev, V. P.; Fel'dman, E. I.

ORG: Ukrainian Scientific Research Institute for Metals (Ukrainskiy n.-i. institut metallov); Factory "Red October" (Zavod Krasnyy Oktyabr')

54
B

TITLE: Low alloy manganese sheet steel containing niobium

SOURCE: Stal', no. 6, 1966, 540-543

TOPIC TAGS: alloy steel, niobium, sheet metal, metallurgic research / 10G2B alloy steel

ABSTRACT: The effect of small additions (0.033% and 0.035%) of niobium to steel 10G2B on the mechanical properties and microstructure of the latter was investigated. The investigation supplements the results of an earlier study by N. I. Sandler, Sh. R. Dobruskina, and S. T. Zaykov i dr. (Stal', 1965, No. 2). The specimens were obtained from 60- and 150-ton Martin steel furnaces of the "Red October" steel plant. The experimental results are presented in graphs and tables (see Fig. 1). It was found that steel 10G2B with 0.033% Nb smelted in 60- and 150-ton Martin furnaces possesses satisfactory mechanical properties and may be recommended for use in construction of agricultural machines and automobiles.

UDC: 669.15-194:669.74:669.293

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

GOLIK, V.R.; DUBROV, V.A.; SANDLER, N.I.; KUKOL', V.V.

Effect of vanadium on phase transformations in manganese steel. Fiz. met. i metalloved. 10 no.5:786-790 N '60. (MIRA 14:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov.
(Manganese steel--Metallography) (Vanadium)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, N.I.

PHASE I BOOK EXPLOITATION SOV/5525

Bagaryatskiy, Yuriy Aleksandrovich, Doctor of Physics and Mathematics; Yakov Mendelevich Golovchiner; Vera Alekseyevna; Emmanuil Zel'manovich Kaminskiy, Candidate of Physics and Mathematics; Viktor Mikhaylovich Kardonskiy; Vladislava Kazimirovna Kritskaya, Candidate of Physics and Mathematics; Leonid Ivanovich Lysak, Doctor of Technical Sciences; Yuriy Andreyevich Osip'yan; Mark Davydovich Perkas, Candidate of Technical Sciences; Vladimir Moiseyevich Rosenberg, Candidate of Technical Sciences; Naum Isaakovich Sandler, Candidate of Technical Sciences; Nadezhda Trofimovna Travina, Candidate of Physics and Mathematics; and Lev Markovich Utevskiy, Candidate of Technical Sciences.

Rentgenografiya v fizicheskom metallovedenii (Radiography in Physical Metallography) Moscow, Metallurgizdat, 1961. 368 p. 5,200 copies printed.

Sponsor' , Agencies: Gosudarstvennyy nauchno-ekonomicheskiy Sovet SSSR. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I.P. Bardina. Institut metallovedeniya i fiziki metallov.

Ed. (Title page): Yu. A. Bagaryatskiy; Ed. of Publishing House: Ye.N. Berlin; Tech. Ed.: Ye.B. Vaynshteyn.

Card 1/7

PURPOSE: This handbook is intended for x-ray technicians working in plant laboratories of the metallurgical and machine-manufacturing industry. It may also be useful to technical personnel in the field of applied x-ray diffraction analysis employed at scientific, technical, and educational institutions.

COVERAGE: The handbook contains basic information of the methods employed in metallography. It consists of four parts. Part I contains descriptions of methods for the study of polycrystals, including the special features of the work with sharp-focused tubes and ionization counters, preparation of specimens, and choice of radiation sources, filters, cameras, and geometry of the picture. Data on the photometering of x-ray pictures and on the application of electron diffraction techniques to metal science are also presented. Part II contains a detailed description of stresses and deformations in crystals of metal, as well as of new methods for measuring the size of grains and areas of coherent scattering. The material also contains data on methods for studying the recrystallization of metals for determining textures. Part III is devoted to x-ray phase analysis to be carried out with the aid of tables included in the appendix. Part IV deals with x-ray studies of steel that has been variously treated by thermal and thermochemical methods. No personalities are mentioned. There are 282 references: 199 Soviet, 55 English, 26 German, and 2 French.

Card 2/7

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, N.L.; SVISTUNOVA, V.I., vrach-ordinator

Peculiarities in the clinical course of influenza in the period of outbreak in 1957 and 1959 as revealed by material from the Mogilev Province Hospital. Zdrav. Belor. 6 no. 5:31-32 My '60. (MIRA 13:10)

1. Iz Mogilevskoy oblastnoy bol'nitsy (glavnyy vrach - zaslushennyy vrach BSSR S.T. Il'in). 2. Zaveduyushchiy infektsionnym otdeleniye (for Sandler). 3. Infektsionnoye otdleniye Mogilevskoy oblastnoy bol'nitsy.(for Svistunova).
(MOGILEV PROVINCE—INFLUENZA)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SAMOYLOV, Yuriy Sergeyevich; BIRYUKOV, V.K., spets. red.; SANDLER, N.V., red.; KOTLYAKOVA, O.I., tekhn. red.

["Gants-Endrashik" 8 ChR21,6/31,0 marine engines] Sudovye dvigateli 8 ChR21,6/31,0"Gants-Endrashik." Leningrad, Izd-vo "Morskoi transport," 1958. 167 p. (MIRA 11:7)

(Marine diesel engines)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, N.V.

DUKEL'SKIY, Aleksandr Iosifovich, prof., doktor tekhn.nauk; SOKOLOV, Mark Aleksandrovich, dotsent; SANDLER, N.V., red.; DROZHZHINA, L.P., tekhn.red.

[Mechanization of loading and unloading operations] Mekhanizatsiia peregruzochnykh rabot v morskikh portakh. Izd.2., perer. Leningrad, Izd-vo "Morskoi transport," 1959. 302 p. (MIRA 13:3)
(Harbors) (Cargo handling)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

S/080/60/033/007/008/020
A003/A001

AUTHORS: Romanov, V. V., Lukovtsev, P. D., Kharchenko, G. N., Sandler, P. I.

TITLE: The Nickel-Zinc Storage Cell

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 7, pp. 1556-1563

TEXT: The results of investigations into the properties of a nickel-zinc storage cell with insoluble zinc electrode were presented and an evaluation of this type of storage cell compared to other alkali storage cells is given. The oxide-zinc electrodes were porous plates made by sintering powder-like nickel. The pores were filled with $Ni(OH)_2$. The negative electrodes were plates pressed from a mixture of zinc oxide with spongy zinc and an addition of starch. The cell was filled with a solution of caustic soda with a density of 1.30 and an addition of 10 g/l lithium hydroxide. The voltage during charging of the cell varied from 1.75-2.1 v, during 8-hour discharging from 1.8-1.5 v. The capacity of the cell decreases with an increase in the intensity of the discharge current according to Morozov's formula (Ref. 5). With a lowering of the temperature the capacity and the voltage decrease noticeably attaining at -10°C only 50% of the value at room temperature. At -40°C zinc-nickel cells break down. The average

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

self-discharge per day attains 2%. After 24-70 cycles of charging and discharging the capacity decreases and finally the cells break down completely. The cause of the breakdown is the destruction of the separation film between the electrodes and the formation of zinc dendrites. Nickel-zinc storage cells hold an intermediate position between cadmium-nickel and silver-zinc storage cells as to specific energy which is lower than that of СЦД-12 (STsD-12) silver-zinc cells, but 40-50% higher than that of cadmium-nickel cells. Their life, preservation in the filled state and efficiency at low temperature, however, is considerably inferior to cadmium-nickel cells. The self-discharge is determined by the self-discharge of the zinc electrode. An investigation carried out by the Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry of the AS USSR) makes it probable that the high self-discharge is due to small amounts of cobalt introduced into the positive electrode as activating additive. Nickel-zinc storage cells can be used only in those cases, in which the requirements concerning life, preservation and efficiency at low temperatures are only moderate. There are 5 graphs, 2 tables, 1 diagram and 6 references: 4 Soviet, 1 English and 1 German.

SUBMITTED: September 14, 1959

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, P.YE.

AUTHOR: Gershengorn, A. I., Engineer, 105-58-5-2/28
Rokotyan, S. S., Engineer, Sandler, P. Ye., Engineer

TITLE: Comparative Economic Evaluation of A. C. and D. C. Long-Distance Transmission (Sravnitel'naya ekonomicheskaya otsenka dal'nikh peredach postoyannogo i peremennogo toka)

PERIODICAL: Elektrichestvo, 1958, Nr 5, pp. 8-12 (USSR)

ABSTRACT: For the purpose of determining the limits of economy in using d. c.- and a. c. long-distance transmission, the Department for Long-Distance Transmission of the Teploelektroproyekt performed comparative calculations of equivalent d. c.- and a. c. transmissions. In this connection the following kinds of transmission were investigated: 1) Intermediate-system transmissions without intermediate stations. 2) Transmissions without intermediate outputs which connect the great hydroelectric plants with the systems. 3) Transmissions with intermediate output, which connect great hydroelectric plants with the power supply systems. It was assumed that the circuits lead

Card 1/4

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

to regions, which correspond to the second glazed-frost region. The wind velocity for the calculation amounted to 30 m/sec. Based on the investigations the following was determined: 1) The circuit length at which the transmission indices of d. c. and a. c. become equal, depend on the power, the quantity of the transmitted energy, the voltage, the transmission type, and the presence of intermediate stations. 2) At a small quantity of the transmitted power and energy (500 MW, 2,5 milliard kW hours/year), the limit of economy for the use of d. c. and a. c. lies with in the range of 900 - 1000 km. 3) Equal capital investments for d. c.- and a. c. transmissions are quoted at circuit lengths (without intermediate plants) of not less than 700 - 900 km. An increase of the transmitted power and energy hardly influences the position of the limit of economy with respect to capital investments. 4) The limit of economy with respect to the energy transmission costs shifts in the direction of the greater distances compared to the limit determined according to capital investments. This displacement amounts

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

to 100 - 400 km, the lower numbers being valid for the transmission of a greater energy. 5) The resulting limit of economy at 750 MW/circuit and more, without intermediate plants, lies at 850 - 1000 km. 6) In the case of an energy transmission from a great hydroelectric plant and a combination of the transformer substation with the electric devices of a hydroelectric plant the limit of economy displaces itself, compared to the boundary for an intermediate-system-transmission with equal limit transformer substations, by about 100 km in the direction of the smaller distances. 7) In varying the costs for the transmitted energy the limit of economy displaces itself by 100 - 150 km. 8) In transmissions with intermediate plants 250 - 300 km each, the limit of economy lies at 1300 - 1500 km, which essentially extends the domain of using a. c. There are 5 figures and 6 tables.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

Comparative Economic Evaluation of A. C. and D. C. 105-58-5-2/28
Long-Distance Transmission

ASSOCIATION: Teploelektroproyekt

SUBMITTED: January 10, 1958

AVAILABLE: Library of Congress

1. Electrical networks--Effectiveness 2. Direct current--Transmission 3. Alternating current--Transmission

Card 4/4

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

BUKHARIN, Yevgeniy Mikhaylovich; LYALIN, Feliks Isayevich; SANDLER, Polina Yevseyevna, SHLYAPIN, Igor' Andreyevich; ROKOTYAN, S.S., red.; DEMKOV, Ye.D., red.; BORUNOV, N.I., tekhn. red.

[Survey and comparison of foreign standards for designing the structural section of electric power transmission systems] Obzor i sravnenie zarubezhnykh norm na proektirovanie konstruktivnoi chasti linii elektroperedachi. Pod obshchei red. S.S. Rokotiana. Moskva, Gos. energ. izd-vo, 1960. 143 p. (MIRA 14:5)

(Electric power distribution)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

FORSBLOM, G.V.; SANDLER, R.A.

The CO^2 content in anodic gases as a method of checking the electrolytic process of alumina-cryolite smelting. TSvet.met.29 no.6: 47-56 Je '56. (MLRA 9:9)
(Aluminum industry) (Carbon dioxide) (Electrometallurgy)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, R.A.

AUTHOR: Niderkorn, I. 136-2-17/22

TITLE: Notes on the Article of G.V. Forsblom and R.A. Sandler "CO_2 Content of Anodic Gases as a Method for Controlling the Process of the Electrolysis of Cryolite-Alumina Melts." (Zamechaniya k stat'ye G.V. Forsbloma i R.A. Sandlera "Soderzhaniye CO_2 v anodnykh gazakh kak metod kontrolya protsessa elektroliza kriolit-glinozemnykh rasplavov)

PERIODICAL: Tsvetnyye Metally, 1957, No.2, pp. 83 - 84 (USSR)

ABSTRACT: In Tsvetnye Metally 1956, No.6, Forsblom and Sandler suggested that electrolysis in aluminium-producing electrolysers could be controlled from CO_2 - determinations in the anode gases. The present author rejects their views on the mechanism of CO - formation from CO_2 and on the effects of current density, alumina concentration and other factors on anode-gas analysis.
There are 5 Slavic references.

1/1

ASSOCIATION: Mintsvetmetzoloto.

AVAILABLE: Library of Congress

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

S/136/60/000/010/004/010
E071/E333

AUTHORS: Forsblom, G.V. and Sandler, R.A.

TITLE: The Influence of Some Technological Parameters on the Indices of the Process of Magnesium Thermal Reduction of Titanium Tetrachloride

PERIODICAL: Tsvetnyye metally, 1960, No. 10, pp. 62 - 67

TEXT: The results of a laboratory investigation on the influence of temperature, rate of feed of titanium tetrachloride (expressed in g/cm^2 of the cross-sectional area of the reaction vessel, per hour) and partial pressure of argon in the reaction vessel, are reported. The experiments were carried out in a reactor (shown in Fig. 1), in two types of a reaction vessel: a screened (broken lines in Fig. 1) and an open vessel. As a reducing agent, a standard magnesium in ingots was used. The ingot was preliminarily annealed in a furnace and then cleaned with wire brushes until the metal was shining. The total charge of magnesium amounted to 400 g. Temperatures and pressure in the reaction vessel were recorded. In experiments on the determination of the maximum

Card 1/5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

S/136/60/000/010/004/010
E071/E333

The Influence of Some Technological Parameters on the Indices of the Process of Magnesium Thermal Reduction of Titanium Tetrachloride

possible coefficient of utilisation of magnesium, the reduction process was stopped as soon as there was a sharp and stable increase of the pressure inside the reactor. In other experiments the process was stopped when a given and constant quantity of Mg was used up. Depending on the rate of feeding $TiCl_4$ a given constant temperature in the reactor was maintained either by the furnace or by cooling with air in the furnace. For feed rates above 50-60 g/cm^2 the reactor was placed outside the furnace and water-cooled. The influence of the feeding rate of titanium tetrachloride on the yield of the sponge and the degree of utilisation of magnesium (at 850 °C) is shown in Fig. 2 (top for screened and bottom for unscreened reaction vessel). With the screened vessel the feed rate of titanium tetrachloride has no influence on the yield of sponge which amounted to 97-99%; with the unscreened vessel such a yield can be obtained only at moderate velocities. The influence of the feeding rate on the degree of utilisation of magnesium in the screened reaction vessel at temperatures of 850, 920 and 1000 °C is shown in Fig.3. The dependence of the yield of sponge on the

Card 2/5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

S/136/60/000/010/004/010
E071/E333

The Influence of Some Technological Parameters on the Indices of the Process of Magnesium Thermal Reduction of Titanium Tetrachloride

coefficient of utilisation of magnesium (Fig. 4) indicates that a decrease in the yield begins at 68-70% utilisation of magnesium. Thus, in order to obtain a high yield of sponge the process should be stopped before a stable increase in pressure occurs. The influence of the rate of feed on the yield of fine fractions of sponge at the above temperatures is shown in Fig. 5. With increasing temperature the influence of the feeding rate decreases. Sponge produced at high feeding rates of $TiCl_4$ is more porous, more branched and can be removed more easily from the reaction vessel. The influence of the partial pressure of inert gas (argon) on the reduction process is shown in Fig. 6. Increasing pressure of the inert gas decreases the yield of sponge and the coefficient of utilisation of magnesium and increases the proportion of fine fractions in the sponge produced. The negative influence of increasing pressure of argon is explained by the formation of a larger proportion of lower titanium chlorides.

Card 3/5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

S/136/60/000/010/004/010
E071/E333

The Influence of Some Technological Parameters on the Indices of the Process of Magnesium Thermal Reduction of Titanium Tetrachloride

At an argon pressure below 0.2 - 0.3 atm. abs., the formation of lower titanium chlorides was not observed. An increase in the partial pressure of argon is accompanied with an increase in the iron content in the sponge, e.g. at a pressure of 0.16 - 0.18 atm. abs., the iron content was 0.98% and at 2.85 - 3.0 atm. abs., the iron content increased to 4.6% (more data are given in the text). The influence of the feeding rate of $TiCl_4$ on the content of iron and chlorine in the sponge produced is shown in Fig. 7. With a decreasing feeding rate, the content of the above elements increases. It is concluded that:

1) an increase in the partial pressure of inert gas during the reduction process decreases the utilisation of titanium tetrachloride, promotes the formation of lower chlorides, increases the content of iron in sponge;

2) an increase in the feeding rate of titanium tetrachloride into the reactor decreases the content of iron and chlorine in

Card 4/5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, R.A.; KRASOVSKIY, L.F.

Set-up for the study of the rates of high temperature heterogeneous processes. Zav.lab. 26 no.3:365-367 '60. (MIRA 13:6)

1. Vsesoyuznyy alyuminiyevo-magniyevyy institut.
(Chemical reaction, Rate of)
(Metals, Effect of temperature on)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

S/080/60/033/005/003/008

AUTHOR: Sandler, R.A.

TITLE: The Problem of the Interaction Mechanism of Titanium Tetrachloride With Magnesium and the Optimum Temperature Condition of the Reduction Process

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, No 5, pp 1013 - 1019

TEXT: - The reduction of titanium tetrachloride by magnesium is one of the most important methods of producing titanium sponge. This process is still insufficiently studied. It is assumed that the reaction of reduction proceeds on the surface of the growing sponge or on the walls of the reaction vessel. In the experiments described here a hermetic apparatus was used, made of stainless steel, with an inner reaction vessel. The reduction was carried out in an atmosphere of purified argon. The total magnesium charge was 400 g. The temperature was measured by a chromel-alumel thermocouple and was recorded on an EPP-09 potentiometer. It was shown that with an increase in the supply rate of titanium tetrachloride or in the partial pressure of argon, the content of titanium and magnesium metal in the precipitates decreases

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

S/080/60/033/007/001/020
A003/A001

AUTHOR: Sandler, R. A.

TITLE: The Interaction Rate Between Titanium Tetrachloride and Magnesium

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 7, pp. 1465-1470

TEXT: The macro-rate of the interaction of $TiCl_4$ with magnesium was studied by the static method which is closer to the conditions of the industrial magnesium-thermal process. Gaseous titanium tetrachloride was mixed in a stainless steel reactor with magnesium which was placed into the reactor in a separate hermetically sealed tumbler. After opening the tumbler the pressure in the reactor drops. This makes it possible to determine the rate of interaction. Total losses of $TiCl_4$ due to side processes, as judged by pressure drop, were reduced by this method to 0.1-0.15 mm Hg per sec which is about 1-1.5% of the total rate of the process. The activation energy of the process was found to be 21,500 cal and at the end of the interaction 15,300 cal. The total reaction rate increases with the $TiCl_4$ concentration. At high concentrations (more than $3 \cdot 10^{-2}$ mole/l) the reaction rate becomes independent of the concentration. At a $TiCl_4$ concentration of $(1.0-1.5) \cdot 10^{-2}$ mole/l the rate obeys the reaction equation of the second order. The constant reaction rate at high $TiCl_4$

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

S/080/60/033/007/001/020
A003/A001

The Interaction Rate Between Titanium Tetrachloride and Magnesium

concentrations points to the interaction taking place in the transitional or diffusion region, where magnesium passing through the capillaries of the titanium sponge into the reaction zone is an inhibiting factor. The character of the interaction changes at a $TiCl_4$ concentration higher than $1.7 \cdot 10^{-2}$ mole/l or at more than 30 $g/cm^2 \cdot hr$ based on the cross section area of the magnesium tumbler. Of all the components of the gaseous phase under reduction conditions (800-900°C), $TiCl_2$ (1-3 mm Hg) and $MgCl_2$ (4-7 mm Hg) have the lowest vapor pressure. The pressure of Mg vapors is higher by a factor of 10-20 and that of $TiCl_3$ by 100-200 times. The author thanks V. A. Sukhodskiy for his advice. There are 4 graphs, 1 diagram, 1 table and 3 Soviet references.

ASSOCIATION: Vsesoyuznyy alyuminiyevo-magniyevyy institut (All-Union Aluminum-Magnesium Institute)

SUBMITTED: January 6, 1960

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

FORSBLOM, G.V.; SANDLER, R.A.

Effect of certain technological parameters on the indices of the magesiothermic process for the reduction of titanium tetrachloride. TSvet. met. 33 no.10:62-67 O '60. (MIRA 13:10)

1. Vsesoyuznyy alyuminiyevo-magniyevyy institut.
(Titanium chloride) (Titanium--Metallurgy)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, R. A.

Cand Tech Sci - (diss) "Study of the reduction of titanium tetrachloride." Leningrad, 1961. 20 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Order of Lenin and Order of Labor Red Banner Mining Inst imeni G. V. Plekhanov); 150 copies; price not given; (KL, 5-61 sup, 192)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

24010
S/080/61/034/006/013/020
D247/D305

16 3100

AUTHORS: Voynitskiy, A.I., Perfil'yev, O.V., P'yankov, V.A., and Sandler, R.A.

TITLE: Some temperature peculiarities during the reduction of titanium tetrachloride by sodium

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 6, 1961, 1351 - 1354

TEXT: A large industrial scale reactor was used for the work mentioned in the title. Titanium tetrachloride was added continuously and rapidly; liquid sodium was added periodically when the previous quantity of reducing agent had been 95-98 % used. There was no inner reaction flask and the reactor surface was air cooled from a fan. The inner wall temperature was measured by a five-junction chromel-alumel thermo-couple, housed in a protective stainless steel case. The surface temperature was measured by a single-pointed thermo-couple passing through the roof. The outer wall

Card 1/5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

24010

Some temperature peculiarities ... S/080/61/034/006/013/020
D247/D305

temperature by welded thermocouples close to the wall. In the early stages of the reaction the temperature rises from bottom to top of the reactor. Addition of titanium tetrachloride causes a rapid rise in the temperature in the upper part of the reactor so that in 15-20 minutes, feeding of tetrachloride must cease to avoid melting of the thermocouple coverings and screen. When 60-75 % of the reducing agent has been used up the maximum temperature moves to the central region. As more sodium is used the fusion temperature rises sharply and the temperature above the fusion bath falls. The cycle is repeated on adding more reducing agent. The characteristic time-temperature curves for this reaction are given graphically. These temperature changes are related to the utilization coefficient of the reducing agent and depend on two things: the high sodium vapor tension at the given temperature and the ability of sodium to dissolve in the considerable amounts of sodium chloride formed. A sodium surplus leads to vaporization of the reducing agent, as a result of which the reaction continues in the gaseous phase. Therefore, the temperature above the fusion rises. The more

Card 2/5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

sodium chloride is formed, the more sodium is dissolved. When no surplus sodium remains vaporization ceases and reduction only continues through the interaction of titanium tetrachloride and the fusion containing the dissolved sodium. The utilization coefficient can be calculated as follows: The maximum coefficient is assumed to be x. Then the amount of sodium remaining is 1-x; the amount of sodium chloride formed according to the reaction $4Na + TiCl_4 = 4NaCl + Ti$ will be 2.55x. If the solubility of sodium in sodium chloride is P(wt. %) then

$$1 - x = \frac{P}{100} \cdot 2.55x, \text{ whence } x = \frac{1}{1 + 0.0255P}. \quad (1)$$

The high temperature may lead to overheating and melting of parts of the apparatus. This can be avoided by slowing the addition of titanium tetrachloride. The cases of the inner and screen thermocouples are worst placed. The external thermocouples show the wall temperature more accurately; the inner give a comparatively higher reading and thereby hinder any intensification of the process. The

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

24010

Some temperature peculiarities ... S/080/61/034/006/013/020
D247/D305

discrepancy is small (50-70°) on the fusion level at low speeds, but increases with rise in speed (to 100-150°). Above the fusion level the discrepancy may reach 200-220°, though the wall temperature does not exceed 600-700°. Experiments using 10 thermocouples confirmed this. Therefore, when controlling the temperature by three or four vertically placed thermocouples there must be a reserve of 100-150° in the temperature band in the fusing region. The wall temperature must not exceed 800-820° with air cooling. The wall temperature at the fusion level must be watched and, with periodic filling, the screen temperature. If the utilization coefficient is kept above 90-92° by continuous feeding of sodium simultaneously with titanium tetrachloride the need for screen temperature control will decline because the unused sodium will dissolve in the salt and there will be a minimum of reaction in the gaseous phase. The reduction process can thus be intensified. There are 4 figures, 1 table and 1 non-Soviet-bloc reference. The reference to the English-language publication reads as follows: M.A. Breding, I.W. Johnson, J.A. Chem. Soc., 77, 307, 1955.

Card 4/5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

24010

Some temperature peculiarities ... S/080/61/034/006/013/020
D247/D305

ASSOCIATION: Vsesoyuznyy alyuminiyevo-magniyevyy institut (All-Union Institute of Magnesium and Aluminum)

SUBMITTED: July 2, 1960

Card 5/5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

S/070/62/007/002/002/022
E132/E160

AUTHORS: Gal'perin, Ye.L., and Sandler, R.A.

TITLE: On the crystal structure of $TiCl_2$

PERIODICAL: Kristallografiya, v.7, no.2, 1962, 217-219

TEXT: From X-ray powder photographs the structure of $TiCl_2$ has been confirmed as being of the CdI_2 type with a = 3.56 Å and c = 5.88 Å (± 0.01 Å) and with the single parameter near to 0.25. There were differences between the photographs obtained with Cu and with Mo radiation which were satisfactorily explained by differences between the textures of the material at the middle and at the outside of the specimen which produced differences for radiations of greater and lesser penetrating power.
There are 2 tables.

ASSOCIATION: Vsesoyuznyy alyuminiyevo-magniyevyy institut (All-Union Institute for Aluminium and Magnesium)

SUBMITTED: Initially, July 13, 1960, and after revision, September 11, 1961.

Card 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 00991-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5019971 UR/0136/65/000/008/0064/0068
669.295

AUTHOR: Rodyakin, V. V.; Garmata, V. A.; Sokolon, I. I.; Sandler, R. A.; Arutyunov, E. A.; Vlasov, V. A.; Ustinov, V. S.; Andreyev, A. Ye.

TITLE: Quality of the titanium sponge obtained by using different types of magnesium

SOURCE: Tsvetnyye metally, no. 8, 1965, 64-68

TOPIC TAGS: titanium sponge, raw electrolytic magnesium, refined magnesium, sponge block, condensate magnesium, titanium tetrachloride, spongy titanium, magnesium electrolysis

ABSTRACT: The article presents the findings of experimental-industrial comparison tests of the quality of parts of a block of spongy titanium obtained by using raw electrolytic magnesium, refined magnesium, and condensate magnesium (obtained by remelting the condensate of the vacuum separation of titanium). The tests were based on the use of titanium tetrachloride of a fixed composition. Analysis showed that the hardness of the refined part of the block, obtained by using refined magnesium is 6-8 units lower than the hardness of the same parts

Card 1/3

agent will increase. Analysis of the quality of the titanium sponge obtained with the aid of different types of magnesium has confirmed that the impurities

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 00991-66

ACCESSION NR: AP5019971

proved. Thus, the reduction of titanium from its tetrachloride is best accomplished with the aid of raw magnesium, but this requires prior improvements in the technology and equipment for transferring magnesium from electrolyzers to reduction. Orig. art. has: 1 figure, 3 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, R.A.; STRELETS, Kh.L.; GARMATA, V.A.; RODYAKIN, V.V.; ARUTYUNOV, E.A.; PETRUN'KO, A.N.; SOKOLOV, I.I.; Prinimali uchastiye: USTINOV, V.S.; KISELEV, O.G.; PEREPICHAY, A.G.; MARICHEV, A.A.; YELISEYEVA, I.B.; SMOL'SKIY, I.Ya.; GOLOV, A.G.

Effect of the rate of feeding titanium tetrachloride into the reactor on the indices of the magnesium thermic reduction process. Tsvet. met. 37 no.10:58-60 O '64. (MIRA 18:7)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 6400-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACC NR: AP5025720 SOURCE CODE: UR/0286/65/000/018/0074/0074

44
B

INVENTOR: Sandler, R. A.; Yelin, N. M.; Podzorov, B. N.; Abramov, D. S.
44,55 44,55 44,55 44,55

ORG: none

TITLE: A method of producing titanium-aluminum alloys. Class 40, No. 174792
44,55 27 44,55,2 18

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 74

TOPIC TAGS: alloy, titanium alloy, aluminum containing alloy

ABSTRACT: This Author Certificate introduces a method of obtaining titanium-aluminum alloys with 15--27% aluminum by reduction of titanium tetrachloride with magnesium. To simplify the process and reduce its cost, the titanium tetrachloride is first reduced with metallic aluminum in the presence of solid sodium chloride and then reduced with metallic magnesium or sodium. [ND]

SUB CODE: MM, IE/ SUBM DATE: 22May64/ ATD PRESS: 4140

Card 1/1 UDC: 669.295.018.5 090/1718

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 10990-66 EWT(m)/ETC(F)/EPF(n)-2/EWG(m)/EWP(j)/T/EWP(t)/EWP(b)/ETC(m) IJP(c)

ACC NR: AP6000682 SOURCE CODE: UR/0080/65/038/009/1962/1966

44 55

DS/JD/WM/JG/RM

AUTHOR: Sandler, R. A.

ORG: None

TITLE: Kinetics of the reduction process during feed of liquid titanium tetrachloride on the surface of fused magnesium

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 9, 1965, 1962-1966

TOPIC TAGS: chemical kinetics, chemical reduction, titanium compound, magnesium

ABSTRACT: The article considers the kinetics of the overall reaction:

$$TiCl_4 + 2Mg = Ti + 2MgCl_2, \quad (1)$$

The reactor used in the present experiments was charged (before assembling) with solid magnesium which had previously been pickled in 5% hydrochloric acid. The assembled reactor was evacuated three times, filled with purified argon, and then heated to the experimental temperature at which it was held for one hour. Then, a measured amount of liquid titanium tetrachloride was introduced. The amount of titanium tetrachloride fed varied from 6 to 36 grams. The feed rate was equivalent to 5 grams

Card 1/2 UDC: 546.824'131+546.46+66.094.2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 10990-66

ACC NR: AP6000682

per square centimeter of area of the horizontal cross section of the reaction vessel per hour. The pressure in the reactor was automatically recorded on an EPP-09 electronic potentiometer. A curve shows the typical character of the change of the overall pressure in the reactor after feeding of a portion of the titanium tetrachloride. The pressure at first rises, attains a maximum, and then gradually falls back to its original value. Tabulated data show the change in the average rate of the process during the first stage of the reaction as a function of the amount of titanium tetrachloride fed. The data indicate that the limit of the diffusion region depends on temperature: for example, at 750° the limit is a rate of 15-20 grams/cm^2-hr, while at 920-930° it lies within the limits of 120-130 grams/cm^2-hr. Orig. art. has: 1 formula, 6 figures, and 1 table.

SUB CODE: 07/ SUBM DATE: 31Jul63/ ORIG REF: 003/ OTH REF: 000

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, R.A.; PEREPICHAY, A.T.; KHOLMOVSKAYA, N.A.; MARICHEV, A.A.

Method of evaluating the quality of titanium tetrachloride on a laboratory scale. Zhur. prikl. khim. 38 no.11:2415-2421 N '65. (MIRA 18:12)

1. Submitted March 31, 1964.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

ACC NR: AP6019562 (N) SOURCE CODE: UR/0080/66/039/006/1243/1249

AUTHOR: Sokolon, I. I.; Sandler, R. A.; Tseluyko, I. M.; Rodyakin, V. V.; Arutyunov, E. A.

ORG: none

TITLE: Sources of contamination of magnesiothermic titanium sponge with carbon

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 6, 1966, 1243-1249

TOPIC TAGS: titanium, carbon

ABSTRACT: The distribution of carbon present as a contaminant was studied in various zones of a lump of titanium obtained by the magnesiothermic method. The main source of carbon contamination was found to be titanium tetrachloride. Originating from the latter, carbon becomes uniformly distributed over the entire lump of titanium. The peripheral zones of the titanium lump become additionally contaminated with carbon as a result of the transfer of carbon together with iron from the material of the reactor. The presence of carbon-rich films in the samples may lead to a significant distortion of the actual carbon content in industrial titanium sponge batches. Carbon contamination is most likely in the lining category of sponge, from which the films are not removed in practice. The metallic magnesium used in the titanium industry apparently has no effect on the carbon content in the various parts of the titanium lump. It is shown that during the separation process, no appreciable

Card 1/2 UDC: 669.295

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

ACC NR: AP6019562

contamination of the sponge with carbon from the vacuum systems takes place. Orig. art. has: 2 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: 27Jul64/ ORIG REF: 002/ OTH REF: 002

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

...ER, R. I.

Mbr., Gor'kiy Municipal Childrens Clinical Hosp., -c1948-. "Active Surgical Treatment of Oto-Antritis in Young Children," Vest. Oto-rino-laringol., No. 1, 1948.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

KOZLOVA, V.N., dots.; SANDLER, R.I.

Clinical significance of fibrinogen test in myocardial infarction and stenocardia. Terap. arkh. 30 no.12:22-24 D '58. MIRA 12:1)

1. Iz kafedry gospital'noy terapii (zav. - prof. V.G. Vogralik) Gor'-kovskogo meditsinskogo instituta.

(MYOCARDIAL MYOCARDT, blood in,
fibrinogen test (Rus))
(ANGINA PECTORIS, blood in
same)
(FIBRINOGEN, determ.
in angina pectoris & myocardial infarct (Rus))

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

POKALEV, G.M.; MOROZOVA, L.N.; SANDLER, R.I.

Dynamics of the protein spectrum of the blood during acupuncture. Sbor. trud. GMI no.9:137-141 '62.
(MIRA 17:2)

1. Kafedra gospital'noy terapii Gor'kovskogo meditsinskogo instituta imeni S.M. Kirova (zav. kafedroy prof. V.G. Vogralik.)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

POKALEV, G.M.; AGEYEVA, N.M.; SANDLER, R.I.

Dynamics of the coagulation indices of the blood in acupuncture. Sbor. trud. GMI no.9:142-147 '62.

(MIRA 17:2)

1. Kafedra gospital'noy terapii Gor'kovskogo meditsinskogo instituta (zav. kafedroy prof. Vogralik) i Oblastnaya stantsiya perelivaniya krovi (dir. - Klimova, N.Ya.), Gor'kiy.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

YEFIMOV, A.S., kand. med. nauk; SANDLER, R.I.; FUFAYEVA, R.A. (Gor'kiy)

"Goiter heart", its pathogenesis, clinical and electrocardiographic characteristics and classification. Probl. endok. i gorm. 9 no.6:64-71 N-D '63.

(MIRA 17:11)

1. Iz kafedry gospital'noy terapii (zav. - prof. V.G. Vogralik) Gor'kovskogo meditsinskogo instituta imeni S.M. Kirova.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, S., starshiy trener; SERGEYEV, S., master sporta.

Brake system of a motorcycle for races on a winding road. Voen.znan. 29 no.8:21 Ag '53. (MLRA 6:8)

1. Leningradskiy avto-motorklub Vsesoyuznogo dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu. (Motorcycles)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, S., konstruktor.

Equipment for the producers' cooperatives of everyday services. Prom. koop. no.12:24 D '57. (MIRA 10:12)

1. Artel' "Krasnyy metallist," Mogilev.
(Boots and shoes--Repairing)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, S., inzh.

Linear circuits. Tekh. i vooruzh. no.3:17-24 Mr '64. (MIRA 17:8)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

MIKHAYLOV, A.V. (Chitinskaya obl.); BEVZ, G.P. (Kiyev); GISIN, B.V., (Alma-Ata); SANDLER, TS.M. (Sumy); AVERBUKH, M.P. (Leninabad); SHNIPOR, B.N. (Vinnitsa); ZAKHAROV, V.L. (Minsk); YASINOVYY, E.A. (Kuybyshev); VOSKRESENSKIY, S.N. (Kuybyshev)

Problems. Mat.v shkole no.4:94-95 Jl-Ag '59. (MIRA 12:11)

(Geometry--Problems, exercises, etc.)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, V.

At the exhibition. Znan. sila 31 no.8:17-18 Ag '56. (MLRA 9:10)

(Moscow--Mechanical models--Exhibitions)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, V. [redacted]

Ohm's law. IUn. tekh. no.5:76-77 My '57. (MIRA 10:6)
(Ohm's law)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

ACC NR: AR7004873

hardening by stretching with an amount of deformation of 1—4%, reduces the strength characteristics of the sections by 2—4 kg/mm^2; change in the per unit elongation. No changes in mechanical properties occur following higher degrees of cold deformation. Repeated hardening does change the strength characteristics of the pressed sections from +1.7 to -11.6 kg/mm^2 and the per unit elongation from +0.9 to -4.5%. The negative effect of repeated hardening increases with increase in the extrusion ratio and the amount of cold deformation following primary and secondary hardening. Orig. art. has: 7 figures. [Translation of abstract] [AM]

SUB CODE: 11, 13/

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 46984-66 EWT(m)/EWP(t)/ETI IJP(c) JH/JD

ACC NR: AT6024912 (A,N) SOURCE CODE: UR/2981/66/000/004/0037/0048

AUTHOR: Mikhaylov, K. N.; Kovrizhnykh, V. G.; Archakova, Z. N.; Baranchikov, V. M.; Sandler, V. S.; Shvets, V. A.

ORG: none

TITLE: Preparation of pressed semifinished products from VAD23 alloy

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat resistant and high-strength alloys), 37-48

TOPIC TAGS: aluminum alloy, metal pressing, solid mechanical property / VAD23 aluminum alloy

ABSTRACT: In order to determine the possible applications of VAD23 alloy, the influence of various technological factors on its mechanical properties and structure was investigated. The optimum mechanical properties were found to be produced by pressing directly from an ingot which had first undergone homogenization. The optimum pressing temperature of sections with a flange thickness of 5 mm, 470-490°C, i. e., the temperature to which the blanks are heated, insures high strength characteristics and a comparatively good plasticity over the entire length of the section. The elongation per unit length of the sections is practically independent of the pressing temperature of the alloy and of the degree of primary recrystallization. A change in the pressing rate in the range of 0.5-5.0 m/min at pressing temperatures of 250-430°C does not af-

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 46984-66

ACC NR: AT6024912

fect the plasticity of VAD23 alloy, and increases the strength characteristics slightly. In order to slow down the recrystallization of the structure during heating for quenching of thin sections pressed at 470-490°C, it is necessary to prepare them with an elongation coefficient of no more than 25-30. Orig. art. has: 11 figures and 5 tables.

SUB CODE: 11/ SUBM DATE: none

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 46983-66 EWP(k)/EWT(m)/T/EWP(w)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AT6024914 (A, N) SOURCE CODE: UR/2981/66/000/004/0057/0064

AUTHOR: Archakova, Z. N.; Kovrizhnykh, V. G.; Sandler, V. S.; Shvets, V. A.; Lebedeva, N. S.

ORG: none

44
B+1

TITLE: Effect of heating conditions preceding quenching and of the degree of cold deformation after quenching on the mechanical properties and structure of pressed sections of VAD23 alloy

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat resistant and high-strength alloys), 57-64

TOPIC TAGS: METAL DEFORMATION, aluminum alloy, metal pressing, metal heat treatment / VAD23 aluminum alloy

ABSTRACT: The relationship between the structure, mechanical properties, and heating conditions prior to the quenching of pressed sections of VAD23 alloy was determined. The temperature of heating for quenching of pressed semifinished products should be maintained between 515 and 525°C. The elongation coefficient during pressing of sections with a flange thickness up to 10 mm should be between 15 and 25. Straightening of the sections after quenching by the extension method with a degree of deformation of 1-4% decreases the strength characteristics of sections of VAD23 alloy by 2-4 kg/mm^2 without much change in elongation per unit length. High degrees of cold deformation do

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, Ya.M.

Some observations on the nature of deposits on the right bank of the Cheremosh River in northern Bukovina. Geol.svor.[Lvov] no.1:37-38 '54. (MIRA 10:1)

Ukrainsky Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut, L'vov.
(Cheremosh Valley--Geology, Stratigraphic)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

USSR/Geology - Mineral deposits

Card 1/1 Pub. 22 - 52/63

Authors : Sandler, Ya. M.

Title : Chalk deposits in the Lvov depression

Periodical : Dok. AN SSSR 99/6, page 1083, Dec 21, 1954

Abstract : Geological data are presented regarding large chalk deposits in the Lvov depression running from Lublin (Poland) in a south-eastern direction to Rawa-Ruska. Three USSR references (1941-1953). Table.

Institution : .....

Presented by : Academician S.I.Mironov, October 5, 1954

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, Ya.M.; VORONA, G.P.

Brief lithological description of upper Jurassic deposits in the western provinces of the Ukraine. Nauk.zap.L'viv.nauk.pryrod.muz. AN URSR 4:55-58 '55. (MLRA 9:9)
(Ukraine--Geology, Stratigraphic)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, Ya.M.

SANDLER, Ya.M.; GLUSHKO, V.V.

Folded Silurian in the northeastern regions of the L'vov Province. Dokl. AN SSSR 103 no.4:685-688 Ag '55. (MLRA 8:11)

1. Ukrainskoye otdeleniye Vsesoyuznogo geologo-razvedochnogo neftyanogo instituta. Predstavleno akademikom S.I.Mironovym
(Lwov Province--Geology, Stratigraphic)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, Ya.M.

GLUSHKO, V.V.; SANDLER, Ya.M.

Western provinces of the Ukraine. Trudy VNIGRI no.101:249-265 '57. (MLRA 10:9)

(Ukraine--Geology)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

GIUSHKO, V.V.; SANDLER, Ya.M.

Oil-bearing prospects of western provinces of the Ukrainian S.S.R. Trudy VNIGRI no.111:48-62 '57. (MIRA 11:6)
(Ukraine, Western—Petroleum geology)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

GLUSHKO, V.V.; SANDLER, Ya.M.

Prospective petroleum and gas resources of Lvov Province. Trudy VNIGNI no.12:86-99 '58. (MIRA 12:3)
(Lvov Province--Petroleum geology)
(Lvov Province--Gas, Natural--Geology)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, Ya.M.

Age of dark-colored strata in the Kokhanovka (Lvov Province) region. Geol.zhur. 18 no.4:111-112 '58. (MIRA 12:1)
(Kokhanovka region (Lvov Province)--Geology, Stratigraphy)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, Ya.M.

Rava-Russkaya key well. Trudy VNIGNI no.24:243-283 '60. (MIRA 13:7)
(Lwov Province—Petroleum geology)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

ANASTAS'YEVA, O.M.; VYALOV, O.S.; SANDLER, Ya.M.

Jurassic stratigraphy of the southwestern border of the Russian Platform and the Carpathian piedmont fault. Trudy VNIGNI no.29:161-166 vol. 2, '61. (MIRA 14:7)
(Ukraine, Western—Geology, Stratigraphic)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, Ya.M.

Characteristics of middle Jurassic deposits in the southwestern outskirts of the Russian Platform and the adjacent part of the Ciscarpathian downwarping. Dokl. AN SSSR 141 no.5:1194-1197 D '61. (MIRA 14:12)

1. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy institut. Predstavleno akademikom A.L. Yanshinym.
(Russia, Southern—Geology, Stratigraphic)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDLER, Ya.M.

Characteristics of Jurassic sediments in the southwestern part of the Russian Platform and the Carpathian piedmont fault. Geol.zhur. 22 no.6:79-83 '62. (MIRA 16:2)

1. Ukrainskiy nauchno-issledovatel'skiy gornorudnyy institut.
(Russian platform--Geology, Stratigraphic)
(Carpathian Mountains--Geology, Stratigraphic)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

DMITRIYEVA, R.S.; SANDLER, Ya.M.; SEN', A.P.

Callovian-Oxford sediments of the western regions of the Ukrainian S.S.R. Trudy UkrNIGRI no.5:246-250 '63.

(MIRA 18:3)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

RIPUN, '.B.; SANDLER, Ya.M.; VORONA, G.P.

Ferruginous oolites of Jurassic sediments in the western provinces of the Ukrainian S.S.R. Lit. i pol. iskop. no.6:98-101 N-D '64. (MIRA 18:3)

1. Institut geologii goryuchikh iskopayemykh AN UkrSSR, L'vov.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

VEKSLER, B.A.; SANDLER, Zh.Ya.; SHIPUNOVA, N.S.

Refining of diatomite from the Zabaluyka deposit. Sakh. prom. 37 no.4:52-57 Ap '63. (MIRA 16:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut krakhmalo-patochnoy promyshlennosti.
(Zabaluyka--Diotomaceous earth)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

KRASNOBAYEV, A., inzh.; SANDLERSKIY, A., inzh.

Foundations made of chernozem and lime mixtures. Stroitel' no.7:21 Jl '58. (MIRA 11:9)

(Foundations)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

KRASNOBAYEV, A., inzh.; SANDLERSKIY, A., inzh; TIGERIS, A., inzh.

Sawdust-sand concrete. Stroitel' no.26-27 Mr '59. (MIRA 12:6)

(Concrete) (Wood waste)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDNER, H.

"Biological Fight Against Insects." p. 27, (PROBLEMY, Vol. 10, no. 1, Jan. 1954, Warszawa, Poland)

SO: Monthly Lists of East European Accessions, LC, Vol. 3, no. 5, May 1954/Uncl.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDNER, H.

Some unfavorable consequences of using chemical materials and efforts to prevent their appearance. p.95.

EKOLOGIA POLSKA. SERIA B. Warszawa, Poland. Vol. 1, no. 3/4, 1955.

Monthly List of East European Accessions Index (EEAI), LC. Vol. 8, No. 9, September 1959
Uncl.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDNER, H.

Ecologic Congress in Kiev. p.113.

EKOLOGIA POLSKA. SERIA B. Warszawa, Poland. Vol. 1, no. 3/4, 1955.

Monthly List of East European Accessions Index (EEAI), LC. Vol. 8, No. 9, September 1959
Uncl.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

XXXX
SANDNER, H.

SANDNER, H. Phenological Conference. p. 241

Vol. 2, no. 3, 1956
EKOLOGIA POLSKA, SERIA B.
SCIENCE
Warszawa, Poland

So: East European Accession vol 6, no. 3, March 1957

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDNER, H.

A Leningrad conference on biological methods of exterminating pests. p. 450. (KOSMOS BIOLOGIA. Vol. 6, no. 4, 1957. Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957. Uncl.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDNER, H.

Researches on the ecology of the lesser corn borer Rhizopertha dominica (F.) (Coleoptera: Bostrichidae) p. 181

EKOLOGIA POLSKA. SERIA B. (Polska Akademia Nauk. Komitet Ekologiczny) Warszawa, Poland. Vol 5, no. 2, 1959

Monthly list of East European Accession (EEAI) LC, Vol. 9, no. 1, Jan. 1960.

Uncl.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDNER, H.

The 6th International Symposium on Nematology in Ghent, July 24-28, 1961. Kosmos Biologia 11 no.2:246-248 '62

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

SANDOIU, D.; SLUSANSCHI, H.; RAIU, Ileana; MILITESCU, Livia

Influence of the experimental soil dryness in various vegetation stages upon the production and accumulation of chemical components in barley. Studii cerc biol veget 13 no.4:449-466 '61.

1. Comunicare prezentata de A. Vasiliu, membru corespondent al Academiei R.P.R.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

ROMANCHUK, M.A.; DEMINA, L.G.; LABENSKIY, A.S.; SANDOMIRSKAYA, G.A.

Separation of morphine from industrial wastes. Med. prom. 15 no. 4:54-57 Ap '61. (MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(MORPHINE)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 00715-66 EWP(m)/EWT(1)/FCS(k)/ETC(m)/EWA(d)/EWA(1) WW

ACCESSION NR: AT5013283 UR/3043/65/000/004/0077/0102

46
43
B+1

AUTHOR: Sergiyenko, A. A.; Sandomirskaya, I. D. 44,55
44,55

TITLE: The shaping of the supersonic portion of an axisymmetric optimum thrust nozzle

SOURCE: Moscow. Universitet. Vychislitel'nyy tsentr. Sbornik rabot, no. 4, 1965. Chislennyye metody v gazovoy dinamike (Numerical methods in gas dynamics), 77-102

TOPIC TAGS: axisymmetric nozzle, nozzle design, supersonic nozzle, supersonic flow, degeneracy 23,44,55

ABSTRACT: The problem of the optimum shaping of the supersonic portion of the nozzle is studied within the framework of the variational approach. Such degenerated variational problems are solved by means of the coupled variations at the different ends of the extremum curve which allow the positioning of the extremum curve through two assigned points. The basic relationships and the mathematical formulation of the problem are followed by a study of the extremum equation solution, the condition of transversality of the contour with fixed coordinate points, the presentation of the computational methods, a brief analysis of accuracy, and the presentation of the tabulated results. These show that the solution of the degenerated problem coincides with the solution obtained by means of

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0

L 00715-66

ACCESSION NR: AT5013283

the classical variational calculus of nondegenerate problems. Orig. art. has: 69 formulas, 7 figures, and 4 tables.

ASSOCIATION: Vychislitel'nyy tsentr, Moskovskiy universitet (Computer Center, Moscow University)

SUBMITTED: 00 ENCL: 00 SUB CODE: ME, MA

NO REF SOV: 007 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447110003-0"