

NEGREANU, M.

if the club is the only one of its kind in the world
Center B. 14. 11. 1964

NEGREANU, M.

What about the supplying? Constr Buc 16 n.o.769:3
3 Oct '64

REGREANS, P.

Author: P. Regreans, et al. (1967).
Contract: 71967-121-9...

SFARTZ, M.; NEGREANU, M.; PAVLOVICI, Aurel, coresp.

Constructors and constructions in Bucharest. Constr Buc 17 no.790:4
27 F '65.

NEGREANU, M.; BUTE, Constantin, comu.,

The enthusiasm of socialist competition. *Comrade* 12:11 p. 22.
1 24 Ap '65.

NEGREANTI, M.

Phase control, the guarantee of responsibility
no. 797-3 17 Ap 195.

NEGREANU, M.

Notes on labor ~~protection~~ themes. Constr. Buc 17 no. 792:3
13 Mr '65.

MEGHEAN, M.; BOGHI, A., Georgia, Tennessee

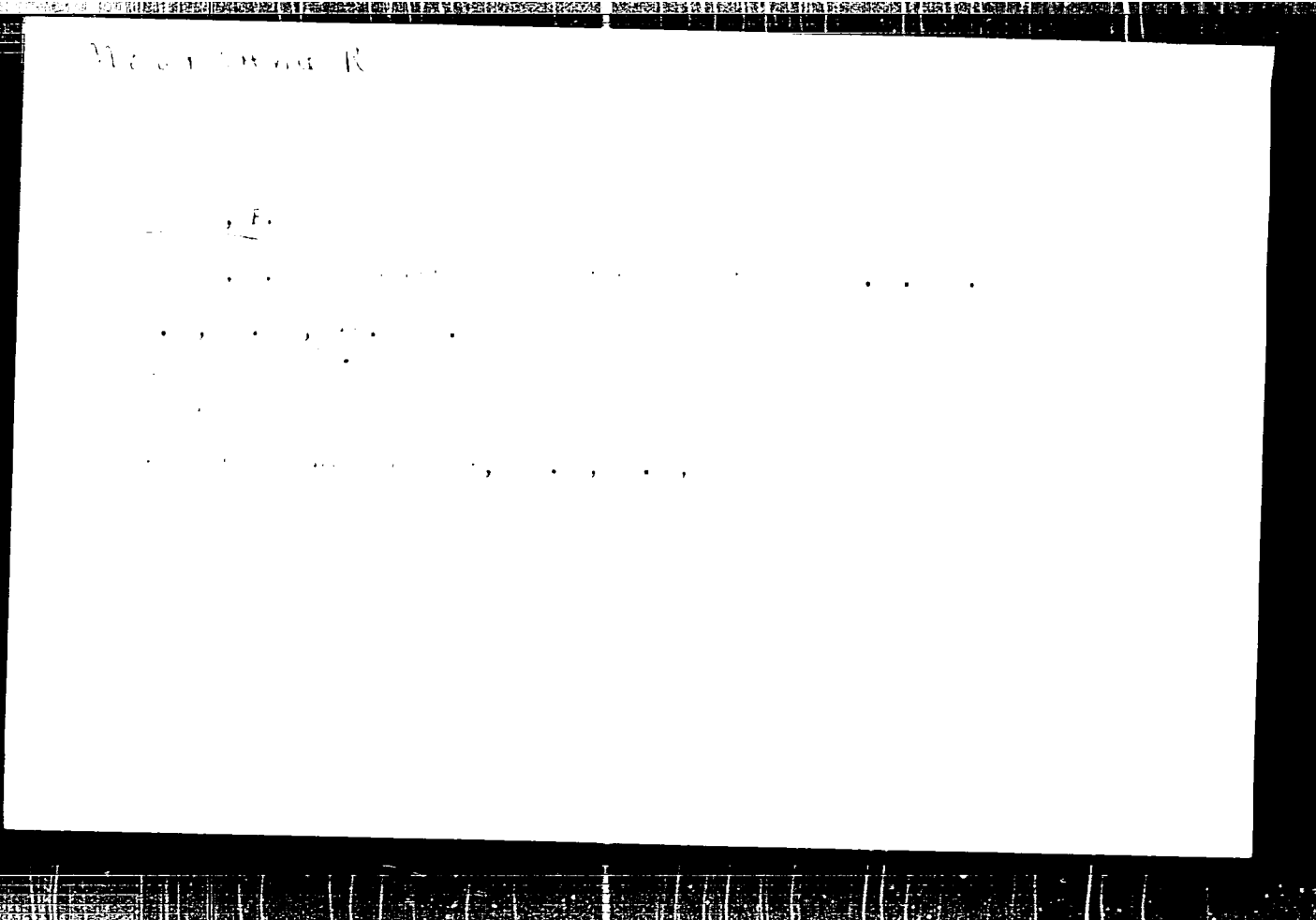
comfort, a number of...
17... 17...

M. Negreanu

At the new production unit of great capacity in Romania.
Constr. Bur. 17 no. 200:1-8 My '65.

NS:GRF ANU, M.

constant rate for carrying out the obligations. 1951-52
17 no.20:1 22 My '65.



URBAN, ...

... ..

PASCU, D.; TIGABERU, H.; LLEFTERESCU, A.; POPA, E.; NEGRELEANU, V.

Influence of the lyophilizing process on the virulence and immunizing power of "H" virus. Stud. cercet. in. r. microbiol. Bucur. 12 no. 3: 205-215 '61.

(NEWCASTLE DISEASE Immunology) (POULTRY diseases)
(VACCINES)

VOICULESCU, M., Prof.; RUSS, M., dr.; ~~NIGHEANU, W., dr.~~; CAMUESCU, Victoria,
dr.; ADLERSBERG, R., dr.; MICHEL, P., dr.

Antibiotics and chemotherapy in acute dysentery in adults;
comparative value of various therapeutic schedules. Med. int.,
Bucur. 9 no.4:525-535 Apr 57.

1. Clinica de boli contagioase I.M.F. din Bucuresti.
(DYSENTERY, therapy
antibiotics & chemother., in adults, comparative results
of various combinations)
(ANTIBIOTICS, ther. use
dysentery, acute, in adults, with chemother. in various
combinations)
(CHEMOTHERAPY, in various diseases
dysentery, acute, in adults, with antibiotics in various
combinations)

MITROIU, O.; POPA, M.; NEGREANU, W.; BILCU, M.; POPPER, M.; KAUFMANN, S.;
NICULESCU, V.; VANCOV, Z.

Differential diagnosis of jaundice appearing in the course of treatment
with para-aminosalicylic acid, by means of serum aldolase determination.
Rumanian M. Rev. no.3:11-12 J1-3 '60.

(ALDOLASE blood) (JAUNDICE diagnosis)
(PARA-AMINOSALICYLIC ACID toxicology)

Negrebetskii, A. A.

Abstrakti nauki i tekhn. Laboratoriya avtomaticheskogo
svyazi, 1956, No. 1, p. 10.

Study, see 8; Shchegolev V. I. (Moscow) and Negrebetskii A. A. (Moscow).
The All-Union Interdepartmental Conference on Aerial Surveying, 25
November-1 December 1956. Moscow, Gosgizmatizdat, 1959. 300 p.
5,000 copies printed.

Ed. of Publishing House: V. G. Filatov; Trans. Ed.: O. A. Chernov,
Editorial Commission: B. G. Sall', Corresponding Member, Academy of
Sciences USSR; A. A. Logunov, V. P. Shchegolevskii (Resp. Md.),
and B. S. Shchegolev.

ABSTRACT: This publication is intended for photogrammetrists, geologists,
geographers, and other scientific and technical personnel concerned
with aerial photography.

CONTENTS: This issue of the Transactions of the Laboratory of Aerial
Survey Methods contains the second part of a book as presented at
the 7th All-Union Interdepartmental Conference on Aerial Surveying
which took place in Leningrad, November 25 through December 1, 1956.
Articles treat problems dealing with the construction and application
of aerial survey methods in geological, geomorphological, and geo-
physical investigations. Special attention is directed to methods
of aerial photography. Special attention is directed to methods of
aerial photography under different conditions. The techniques of joint
aerial-terrestrial surveying and aerial photography are described.
References accompany individual articles.

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See, A. A. [Institute of Geography, Academy of Sciences USSR]. Significance of Aerial Photography in the Reconstruction of the Topography of the Lower Am-Dar'ya Basin	193
Shchegolev, V. I. [Laboratory of Aerial Survey Methods, Academy of Sciences USSR]. Current Problems of the Recent Photogrammetry of the Soviet Part of the Caspian Sea (Based on Aerial Photographs) of the USSR, V. I. Shchegolev, V. I. Shchegolevskii [Central 1957 meeting, Moscow]. Scientific-Research Institute for Aerial Surveying, Moscow, 1957. 100 p. (Includes bibliography, maps, and Precisions in Aerial Surveying). Application of Aerial Survey Methods to Prospecting and Exploring All-Union General Deposits	216
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Shchegolev, V. I. [Ministry of Geology, Academy of Sciences USSR]. Ministry of Geology and Minerals. Investigation of the USSR. Publication Principles of the Theory and Methodology of Aerial Photogrammetry Surveying and Mapping	243

NEGREBETSKIY, G.; SEMIKHATOVA, N.

Upper Tertiary and Quaternary pebbles of steppe and piedmont
Crimea. Zemlevedenie 4:246-248 '57. (MLRA 10:9)
(Crimea--Pebbles)

NEOREBETSKIY, S.S., fel'dsher (selo Yaltukhi Khmel'nitskoy oblasti)

Further remarks on the "Medical reference book for feldshers."
Fel'd. 1 akush. 21 no.10:62 0 '56. (MLRA 9:12)
(MEDICINE—HANDBOOKS, MANUALS, ETC.)

NEGREBETS'KA, I. V.

The Second All-Union Conference on the Preparation and Analysis of High-Purity Elements, held on 24-28 December 1963 at Gorky State University im. N. I. Lobachevskiy, was sponsored by the Institute of Chemistry of the Gorky State University, the Physicochemical and Technological Department for Inorganic Materials of the Academy of Sciences USSR, and the Gorky Section of the All-Union Chemical Society im. D. I. Mendeleev. The opening address was made by Academician N. M. Zhavoronkov. Some 90 papers were presented, among them the following:

V. T. Chuyko, A. I. Gavrilyuk, and I. V. Negrebets'ka. Coprecipitation of traces (Ni, Cd) with iron hydroxide.

Z. G. Fratkina and V. S. Shebynin. Spectrochemical analysis of metal impurities concentrated as volatile fluorides.

(Zhur ANAL Khim, 19 No 6, 1964 p 777-79)

NEGRECU, T.

The present state and possibilities of development of the elaboration
of steel alloys in Rumania.

p. 181

Suppl. to v. 3, 1955

ANALELE

Bucuresti

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 5, no. 12
December 1956

MIRON, Radu, conf, univ.; NEGREI, Veronica; MANOLIU, Lucia; POLIZU, Lucia;
VISA, Eugen; HAIVAS, M.; GLIGOR, I.; FUCHS, I.; ZOIGAN, Voicu;
BAGHINA, V., prof.; HADIRCA-BREAZA, I.; IVANESCU-TIRGOVISTE, C.;
NEGREA, M.; SPIRIDON, I.; SZABO-PLOIESTI, T.; GRIGORE-PLOIESTI, I.,
prof.; BAZACOV, Gh., prof.; PAUNESCU, Al.; MORARU, I.; SAHAGIA, C.;
UDREA, V., prof. (Galati); NIMITAN, I. (Suceava)

Observations on the Analytic Geometry Manual for the 11th grade.
Gaz mat fis 15 no.6:298-321 Je '63.

1. Societatea de Stiinte Matematice si Fizice, Filiala Iasi (for Miron).
2. Societatea de Stiinte Matematice si Fizice, Filiala Craiova (for Negrei, Manoliu, Polizu).
3. Societatea de Stiinte Matematice si Fizice, Filiala Timisoara (for Visa, Haivas, Gligor, Fuchs).
4. Societatea de Stiinte Matematice si Fizice, Subfiliala Petroseni (for Zoican).
5. Societatea de Stiinte Matematice si Fizice, Filiala Ploiesti (for Baghina, Hadirca-Breaza, Ivanescu-Tirgoviste, Negrea, Spiridon, Szabo-Ploiesti, Grigore-Ploiesti).
6. Societatea de Stiinte Matematice si Fizice, Subfiliala Tg. Severin (for Bazacov, Paunescu, Moraru, Sahagia).

~~SECRET~~

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GELBERG, A.; NEGRESCU, I.; RINGHIOPOL, I.

The beta spectrometer with the longitudinal and homogeneous field.
Studii cerc fis 11 no.4:1041-1047 '60. (EPAI 10:8)

1. Institutul de fizica atomica, Bucuresti.
(Spectrometer) (Beta rays) (Magnetic fields)

NEGRESCU, I., ing.

Economic and technical considerations connected with the maintenance workshop activity in 1961 at the Karl Liebknecht Cardboard and Pasteboard Plant. Cel. hirtle. 10 no.2: 1-2 F1.1

NEGRESCU, L.

Some systems of linear inequalities with nonnegative solutions. Comunicarile AR 13 no. 9:761-764 S'63

1. Academia R.P.R., Filiala Cluj, Institutul de matematica.
Comunicare prezentata de academician T. Popoviciu.

NEGRESCU, Nicolae, ing.

Theory of repair cycles; wear coefficients, classes and costs of repairs. Metalurgia constr mas 13 no.9:813-823 S '61.

(Machinery in industry—Repairing)

PROPERTIES AND PROPERTIES INDEX

6-7 5

BC

Composition of the system $SiO_2 + FeO + Fe_2O_3 + CaO + MgO$. J. S. Schaeffer and W. J. Coster (Bull. Acad. Sci. Roumanie, 1958, 11, 67-73). Synthetic slags have been prepared by fusing SiO_2 , Fe_2O_3 , and CaO in air at 1600°, when MgO is taken up as an impurity (from the crucible). Analysis reveals the presence of silicoferrite, Fe_2SiO_4 , $FeSiO_3$, magnetite, manganite, and ilmenite of CaO and MgO , pyroxenes, wüstite, diopside, Fe_2SiO_4 , hematite, fayalite, and olivine of the entire diagram + kurosilite. The slags may be classified into 12 groups and are represented on a quasi-ternary diagram. It is inferred that Fe_2O_3 exists as such in the slags from steel works, and plays the part of an acid more ferrous than SiO_2 . CaO displaces SiO_2 , and hence most of the slags contain free FeO ; the progressive displacement is discussed for slags rich and poor in Fe.

R. S. B.

METALLURGICAL LITERATURE CLASSIFICATION

BC

1-5

Relation between the composition of slag and
 their role in the formation of steel. T. Nishizawa
 and W. J. Cost (J. Inst. Met., London, 1960,
 58, 74-78; cf. preceding abstract).—The position of
 the orthicly prepared slag on the tetrahedral quad-
 rilateral diagram corresponds with $2Fe_2O_3 + SiO_2$
 $- 2FeO = 0$ (calc.) to within 1.1%. On putting
 $f = FeO$, $v = Fe_2O_3$, $P = \text{total } Fe$, $s = CaO + MgO$,
 and $e = SiO_2$, it is found that $2v + e - 4f = 0$,
 and $10v + s - 4f = 0$, and $2v + e - 4f = 0$. When
 $s = 0$, $Fe_2O_3 = 2FeO$, i.e., on heating Fe_2O_3 at 1650°
 the product has the composition $Fe_2O_3 \cdot 2FeO$. The
 practical application of the diagram concerning the
 role of slag is discussed with reference to the operations
 in steel works, viz., decarburization, reduction of slag,
 addition of CaO and SiO_2 , removal of P and S , and the
 influence of Mn .
 R. S. B.

ASG 31.4 METALLURGICAL LITERATURE CLASSIFICATION

NEGRESCU. T.

"Desulfurizing power of blast furnace slag. Note 1. The sulfur absorbing capacity of silico-calco-aluminous slag at 1500° C.p. 85." BULLETIN SCIENTIFIC, Vol.3, No.2-4, Apr./Dec. 1951. Bucuresti, Rumania.

SC: Monthly List of East European Accessions, L. Vol. 2, No.11, Nov. 1953.
Uncl.

Negrescu, Traian

Metals

The desulfurizing effect of blast-furnace slag II. Absorption capacity of silicon-calcium-magnesium slag for sulfur at 1500°. Traian Negrescu. Acad. rap. populare Române, Bul. (titul., Sec. II) chim. 4, 271-82 (1952); cf. *ibid.* 3, 386 (1951).—Synthetic slags (Si) were prepd. by melting mixts. of Si (10 g.), Mg, and pure CaO in the presence of a synthetic melt (21 g.), in an elec. furnace at 1500°. Upon detg. the max. S proportion which can be absorbed by the slags belonging to the system SiO₂-CaO-MgO, a linear relation between these S proportions and the percentage contents of each of the three constituents was found. This proportion is defined as "desulfurization equil. graph" for 1500°. Discussion of the graph led to a series of more important conclusions: (a) In slags where the ratio MgO:SiO₂ does not exceed 0.64, corresponding to the existence of an inactive entity from the desulfurization standpoint and which comprises 4 Mg⁺⁺ ions for 5 SiO₄⁴⁻ ions, Ca exclusively is responsible for the desulfurization. (b) Similarly, the desulfurizing effect of Ca is represented by the same numerical values in the case of the system SiO₂-CaO-Al₂O₃ at 1500°. (c) Si counteracts the desulfurizing effect of Ca by partially reacting in the form of an inactive entity, comprising 4 Ca⁺⁺ ions for 7 SiO₄⁴⁻ ions. (d) The neg. effect of Si against Ca is counteracted by Mg, thus removing a part of the Si and forming an inactive entity. The Ca is then responsible for the desulfurization. (e) The decomposition of the Si-Ca entity is similar to Si-Mg added to smelted SiO₂-CaO slags resulting in the liberation of CaO, thus promoting desulfurization. (f) Owing to these substitutions, the Mg adds, not more than 64% by wt. of the Si, increase indirectly the desulfurization of Si-Ca slags. An addn. of 1000 parts Mg has the same effect as 193 parts of CaO (by wt.). The equation of equil. can be applied for evaluating the desulfurization of a slag, if it is sufficiently fluid. T. Z. Denisov

OL

NEGRESCU, TRAIAN

The oxidizing power of slags obtained in steelworks. Traian Negrescu (Inst. Politeh., Bucharest), *Rev. chim. C.T.P.* *politeh. Bucuresti, Ser. chim. nat.* No. 4-5, 177-80 (1954). — In a previous paper (cf. *C.A.* 30, 5638) the author has established a quant. relation between the mole % of FeO (f) — Fe₂O₃ (r) and SiO₂ (s) for a range of synthetic slags melted at 1850°: $2r:f - 1$ where $r:2(f - (1/4)s)$ (cf. *C.A.* 31, 6104; Crook, *Thesis, Bucharest, 1936*). This paper presents the results obtained in the study of synthetic slags melted at 1850° in absence of metallic Fe, and having the compn.: SiO₂ — CaO — MgO — FeO — Fe₂O₃. It was found that to the above mentioned equation a correction should be added including the participation of MgO to the equilibrium: $7r:14f - (s + 6.2m)$ where: $r:2(f - (3/7)s - (21/20)m)$, r, f, s , and m representing mole% of Fe₂O₃, FeO, SiO₂, and MgO. From these equations a practical formula was finally established: $6r:2(f - (3/7)s - (21/20)m)$, where F is the content in total Fe. The following conclusions were drawn: In the slags contg. Si and Mg is compd. having a considerable stability and corresponding to 20MgO.21SiO₂ is formed. The excess of SiO₂ is bound to the Fe oxide of the slag producing a stable compd. against oxidation and having the formula 3FeO.7SiO₂. The excess in Fe oxides will be found in the slag in the form of FeO.2Fe₂O₃. The CaO added to any of the slag is without activity on the equil. reactions described above. R. M. (redneanu)

NEGRESCU, T.

The present stage and possibilities of development of the elaboration of steel alloys in Rumania. p. 181. Academia Republicii Populare Romine. ANALELE. Bucuresti. Suppl. to v. 3, 1955.

SOURCE: East European Accessions List (FEAL) Library of Congress.
Vol. 5, no. 9, Sept. 1955

137.1958-2-2350

Translation from Referativnyi zhurnal Metallurgiya 1958 No. 2 p. 22 USSR

AUTHORS Negresku Trayan Tr Boldzhu. Mariva

TITLE Experimental Investigations of the Oxidizing Ability of Converter Slags (Eksperimental'nyye issledovaniya oksislitel'nykh sposobnosti peredel'nykh shlakov)

PERIODICAL Zh metallurgii 1956 Vol 1 pp 5-24

ABSTRACT A study is made of the equilibrium of slags at 1550-1650° in a furnace atmosphere devoid of any metallic Fe. The oxidizing ability of SiO₂-MgO-(Fe oxides) and SiO₂-CaO-MgO-(Fe oxides) molten slags was determined at 1550° and 1650°. Equations were worked out whereby the ratio of the number of gram-moles of Fe₂O₃ to the quantity of the other components of an SiO₂-MgO-(Fe oxides) slag could be computed. The equations applied to SiO₂-CaO-MgO-(Fe oxides) slags also. It was thus made clear that the addition of CaO exerted no influence on the equilibrium of FeO and Fe₂O₃ in the abovementioned slag system. On the basis of the experiments and calculations performed it was assumed that there existed in the molten slags groupings which in chemical composition corresponded to the eutectics. Within a

Card 1/2

Experimental Investigations of the Oxidizing Ability of Slags

1958-2-2387

... broad range of temperatures the groupings were stable as far as the chemical action of certain substances was concerned (SiO₂ and the like) and they lost their individuality only at the moment of solidification, having formed stable phases at the respective temperatures

N. V.

1. Slags--Oxidation
2. Equilibrium--Analysis

Card 2/2

(1) Equilibrium power of steel-making slags. (2) Equilibrium relation
exists in liquid FeO-FeO·FeO·FeO (3,4), slag, melted in open
at 1850 and 1880° in absence of metallic iron.
Alfaro and M. Rojas. (Rev. Ad. Hall, *Quimica*, 1958, 1, 5-32).
 Experiments with a series of synthetic slags yielded the following
 quantitative relationship: $5r = 7f - f(1 - fm)$, where r = mol-% FeO, f
 = mol-% FeO, m = mol-% SiO₂, and m = mol-% SiO₂. This
 relation holds good for all slags of this system between the two
 temperatures. Its physico-chemical interpretation is discussed. (14)

J.S.C.
 1/1

Desulphurizing power of this slag is class III. Capacity of sulphur absorption at slag of the system silica-alumina-lime, in liquid slag, at 1400° and 1450°. IV. Influence of additions of magnesia on desulphurizing power at temperatures of 1525° and

1575°. T. I. Negrescu (*Studii Cerc. Metal., Bucharest, 1958, 1, 49-64, 283-296*). III. A series of synthetic slags of the $SiO_2-Al_2O_3-CaO$ system, with a synthetic melt (non-Mn) containing 6-8% S, was examined after melting at 1400 and 1550°. Detailed analytical results are plotted in triangular diagrams and the following equation is derived: $100S = h_1(c - q_0)$, where S, c, and q are the % contents, respectively, of S, CaO and SiO_2 , and h_1 is a temp. coeff. which has the values 4.084 at 1460°, 4.781 at 1510°, and 5.719 at 1550°. The const. q_0 , in the conditions studied, had the value 0.583. Converted to mol. proportions, the relationship takes the form $1S = c - q_0$, where $x = 4$ at 1460°, 12 at 1500° and 10 at 1550°. These results confirm that a compound $5CaO \cdot 8SiO_2$ is formed in the system and that the desulphurizing power of the slag is due to combination of S with the excess CaO and is not affected by the Al_2O_3 content except to the extent that Al_2O_3 favours the reaction by lowering the viscosity of the slag.

IV. The system $SiO_2-Al_2O_3-CaO-MgO$ was investigated and the following equation developed: $100 S = h_2 [c - (0.583s - 1.462 m)]$, where $m = \% MgO$ and h_2 is a temp. coeff. which has the same value as h_1 . At higher temp., h_2 has the values 5.198 (at 1525°) and 6.534 (at 1575°). Addition of MgO to the $SiO_2-Al_2O_3-CaO$ system results in the preferential formation of $4MgO \cdot 8SiO_2$ at the expense of $5CaO \cdot 8SiO_2$, and therefore releases CaO which can combine with S. A further equation is developed to show the desulphurizing power in relation to abs. temp., viz., $100s(1 + c/5) = 4.25(2843 - T_1)/T_1$, where $T_1 =$ temp. in °K. The temp. composition curve in respect of the CaO-S compounds formed is determined by the progressive lowering of the m.p. of CaO by B additions. The rôle of MgO in the desulphurizing process is the indirect one of liberating CaO from the $5CaO \cdot 8SiO_2$ complex. (From French summary.) J. S. C.

NEGRESCU, T.

"Desulfurizing power of blast-furnace slags. V. Capacity of the slags of the SiO_2 -CaO-FeO system in liquid state at $1500^{\circ}C$ to absorb sulfur."

p. 57 (Studii Si Cercetari De Metalurgie) Vol. 3, no. 1/2, 1957
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) SO. Vol. 2, no. 1,
April 1958

V. G. NEGRESCU, *Trinity*

Distr: 4E4J

✓ Absorption capacity for sulfur and constitution in the
 liquid state, of blast furnace slags. *Trilian T. Negrescu*
 (Ecole polytech. Bucharest). *Rev. met., Ann. rep. popu-*
laire Roumaine 2, 6-60(1957).—Exptl. detns. were made of S
 held in various slags at cast iron-slag equil. Al has no di-
 rect influence on desulfurizing power of slags, nor has Si, but
 active Ca, i.e., Ca not linked to Si, plays the decisive role in
 desulfurizing. Mg can be important by substituting for Ca
 in Ca silicate slags and releasing Ca for desulfurizing. Mn
 is slightly less efficient than Ca as a desulfurizer. In liquid
 slags S ions attach themselves to that part of the lime which
 is less strongly linked to a slag lattice. Capacity for satn. in
 S may not be the same as capacity for absorption of this ele-
 ment. Distribution coeff. should take into account capacity
 for absorption of S. In silicate melts, ions are not entirely
 free, and an important thing in ionic groups is the role of elec-
 trostatic charges and ionic radii. Structural arrangements
 are considered, and comparisons made of silicate melts with
 dil. and concd. solns. R. S. Young

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100-35500, 100-40, 100-100

1/ Desulfurizing power of blast-furnace slags. VII. The sulfur-absorption capacity of slags of the system $\text{SiO}_2\text{-CaO}$ in the liquid state at 1500°. *Tran. T. N. Polytechn. Inst., Bucharest. Acad. rep. populare Romania, Ser. 2, 447-63 (1957); cf. C.A. 52, 127000.*

2/ The equation derived earlier is enlarged by introducing a term which takes into consideration any Ba present. Ba^{++} can assoc. in liquid slags with the ions Si^{+++} and O^{--} , so as to form $\text{BaO} \cdot 2\text{SiO}_2$ (I), which resists any action of S. I actually corresponds to the eutectic in the system $\text{SiO}_2\text{-BaO}$. The Ba^{++} is displaced in I by Mg^{++} , Fe^{++} , Mn^{++} , or Ca^{++} , as all these ions are smaller than Ba^{++} and attract O more strongly. For practical purposes this means that, since the industrial slags contain enough oxides, especially CaO, to bind all the Si present, all the BaO present is active in the desulfurization. This is why a term representing the Ba is introduced into the equation. An equation was derived also for the changes of the binding power for S by BaO as a function of the temp., which is similar to the equation derived earlier for CaO and furnishes numerical values which agree with the exptl. results obtained by Thibaut and Astier (C.A. 49, 9401f) and also agree qualitatively with older views by Osann (*Lehrbuch der Eisenhüttenkunde*, 1923, 794 pp. (C.A. 16, 1207)) about the behavior of BaO in the fusion zone of blast furnaces. 18 references. W.-J.

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Distr: hEhJ

NEGRESCU, T.

"Desulfurizing power of blast-furnace slags. VI. Absorption capacity, for sulfur, of slags of the SiO_2 -CaO-MnO system, in liquid state at a temperature of 1425°C."

p. 265 (Studii Si Cercetari De Metalurgie) Vol. 2, no. 3, 1957
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 1,
April 1958

Distr: 4E2c

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Oxidizing power of slagging slags. IV. Equilibrium relations in liquid $\text{SiO}_2/\text{CaO}/\text{MgO}/\text{FeO}/\text{Fe}_2\text{O}_3$ slags molten in open crucibles at 1550 and 1630° in the absence of metallic iron. *Travaux Neeracru and Marla Bolgu. Bul. inst. chim. Belgie*, IV, No. 1-3, 1-30(1957); cf. *C.A.* 50, 16316c. — It was found by investigating slags free from MgO that any CaO present in amts. of less than 35.0% is bound in a compd. $3\text{CaO} \cdot 8\text{SiO}_2$ (I), and any CaO present beyond the amt. of 35.0% will be available for the formation of other compds.; thus, e.g., it will act as desulfurizing agent. It is, however, possible to release more CaO from I, by adding FeO, which will be used up to form a compd. $3\text{FeO} \cdot 8\text{SiO}_2$ (II). Once enough FeO has been added to use up all the SiO_2 with II formation, it will become oxidized, thus forming a compd. $8\text{FeO} \cdot 7\text{Fe}_2\text{O}_3$ (III). If now MgO is added to any such melt, it will displace both CaO and FeO in I and II, and a compd. is formed $4\text{MgO} \cdot 8\text{SiO}_2$ (IV) and the FeO liberated is oxidized to form more III. If SiO_2 is added to any slag, it will first combine with the MgO to form IV, and only in absence of sufficient MgO the II will be formed; the FeO to make up the formula is derived from FeO available as such, from III, and even from Fe_2O_3 . I will be formed only if MgO and FeO are available in insufficient amts. Within the limits of analytical error it seems that the compns. of I, II, and IV are the same as one of the eutectics found in the corresponding binary systems. The fact that the slags of certain compns. can act as desulfurizers or can take up O from the furnace shows that these slags are neither perfect ionic solids, nor regular solids, in the thermodynamic sense of these expressions.

Werner Jacobson

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K. I. Jesmanzky and L. J. ... (Iranite); a ... review. In ...

... (A ...) ...

... (SAC) ...

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41

Structural and thermodynamic basis of the reactions of
liquid metallurgy. *Travaux de l'Institut National de la Recherche Scientifique, Acad.
rep. populaire Roumaine, Studiul pe cercetari de metalurgie B,*
141-202 (1968).—Review with 26 references. F. D. G.

011.

Scuturirea...

Lista cu traficul de arme...

Academia Republicii Socialiste. Centrul de Cercetari...

Monthly list of East European Accessions (SAMI) IC, Vol. 3, no. 1, 1968
Encl.

0.

24(8) **PHASE I BOOK EXPLOITATION** 30V/2117
Serebrenniye po eksperimental'noy tekhnika i metoda vysokotemperaturnykh issledovaniy, 1956

Experiments'nye tekhnika i metody issledovaniy pri vysokikh temperaturakh; trydy sverkhmaniya [Experimental Techniques and Methods of Investigation at High Temperatures]; Transactions of the Conference on Experimental Techniques and Methods of Investigation at High Temperatures, Moscow, AN SSSR, 1959, 789 p. (Series: Akademiya nauk SSSR, Institut metallurgii, Komissiya po fiziko-khimicheskoi osnova proizvodstva stali) 2,200 copies printed.

Beep, Ed.: A. R. Samarin, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House, A. I. Zhuravskiy, engineers.

PURPOSE: This book is intended for metallurgists and metallurgical engineers.

COVERAGE: This collection of scientific papers is divided into six parts: 1) thermodynamic activity and kinetics of high-temperature processes; 2) constitution diagrams studies; 3) physical properties of liquid metals and slags; 4) new analytical methods and questions of pure metals; 5) pyrometry, and 6) general questions. For more specific coverage, see Table of Contents.

Experiments: Techniques and Methods (Cont.) 30V/2117
Gremenko, V. M., O. V. Zudilova, and L. A. Gayevskaya. Constitution Diagram of the System Chromium-Eutectium 228

Kevescu, I. Quantitative Relationships Existing Between Components Under Conditions of Equilibrium of Slags in the Blast-Furnace Hearth 237

III. PHYSICAL PROPERTIES OF LIQUID METALS AND SLAGS

Page 237 and O. A. Fein, Methods of Measuring the Surface Tension of Liquid Metals and Slags 257

A comparison of the results obtained in measuring the surface tension of slags of the systems CaO-SiO₂-Al₂O₃ and CaO-SiO₂-MgO by the sessile-drop method and the sessile-drop method. The replacement of SiO₂ by CaO (with constant Al₂O₃ content) in the system CaO-SiO₂-Al₂O₃ leads to an increase in surface tension. An increase in the content of Al₂O₃ (with a constant ratio of CaO to SiO₂) also results in higher surface tension. This is explained by a breaking-down of silicate anions. It was shown that the replacement of CaO by MgO in the system CaO-SiO₂-MgO has practically no effect on surface tension.

NFGRESCU, V.

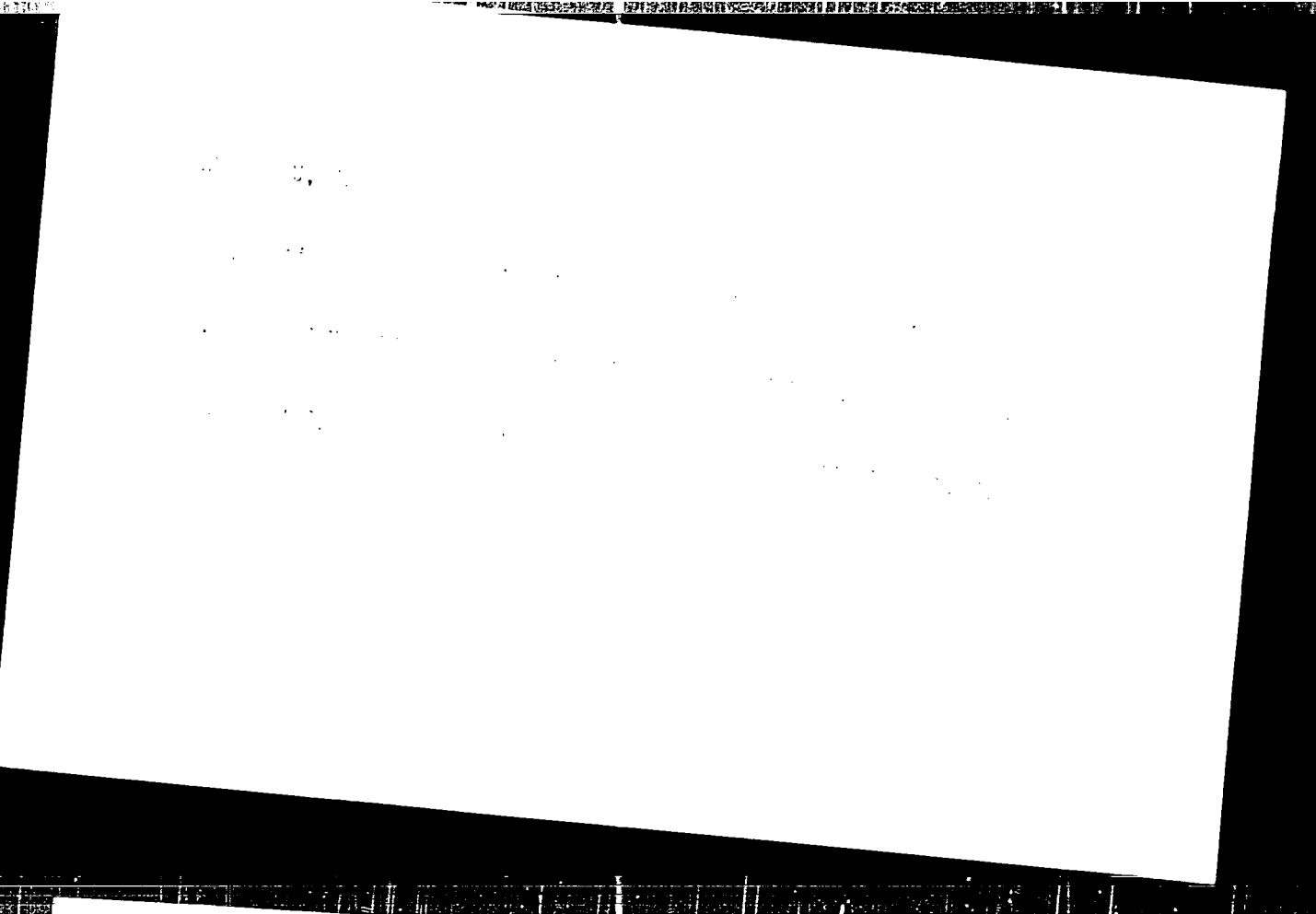
New binding material for foundry cores produced in Rumania. p. 58.

METALURGIA SI CONSTRUCTIA DE MASINI

Vol. 8, no. 1, Jan. 1956

Rumania

Source: EAST EUROPEAN LISTS Vol. 5, no. 10 Oct. 1956



VAROPIN, V., Ing.; WNESK... ing.; ...
ing.; MARGARITEN... ing.; ...
C., Ing.

Aspects of the reflection selected in the
Moesian Platform. ... -5...

[Faint, illegible text, possibly bleed-through from the reverse side of the page]

CREANGA, C.; DIMITRESCU, F.; NEGRESCU, V.; CARAIANI, V.; NEACPU,
P.; RADULESCU, S.

Rumanian crude oil in the "Carpathica" classification.
Rev chimie 7 no. 1: 111-126 '62.

1. Chaire de Chimie du Pétrole Institut de Pétrole, de
Gaz et de Géologie Bucarest.

BURDEA, M., dr.; BOLDESCU, Ioana, dr.; FETEA, D., dr.; GOLBA, Liviu, dr.;
SWART, Sell, dr.; TEBEL, Verica, dr.; MISAARU, Victoria, dr.

Contribution to the study of the...
... (1954-55) ...

... ..

NEGRESKU, V.; MEL'NICHUK, N., red.; TEL'PIS, V., tekhn. red.

[Health resorts of Moldavia] Kurorty Moldavii. Kishinev, Kartia
Moldoveniaske, 1961. 119 p. (MIRA 15:6)
(MOLDAVIA--HEALTH RESORTS, WATERING-PLACES, ETC.)

MEGRESKO, V. Ya.; KOZHEN'ER, I. S.; TISHCHENKO, I. P.

"Dysentery in winter," Testy, D. Kladov. By Mashina, 1952, pp. 51-52.
Gosudarstvennogo Meditsinskogo Instituta, 1952, pp. 51-52.

NEGRESKU, V. Ya.

Treatment of children with the sequelae of poliomyelitis at
sanatoriums. Zdravookhranenie 5 no.1:50-51 Ja-7 '62.

(MI A 15:4)

1. Iz kafedry infektsionnykh bolezney (zav. dotsent I. I. Drozhinskiy)
Kishinevskogo meditsinskogo instituta.

(POLIOMYELITIS) (HEALTH RESORTS, WATERING-PLACES, ETC.)

11 18 5

... on the base of ...

... abstract 11133 ("In₂O₃ ...") ...

TEXT: ... In₂O₃ ... Y-ray diffraction and microstructure studies have shown, that in the wide region of solid solution, are absent and no new ...

Text 121

The first part of the paper is devoted to the study of the
 parameter λ (in the case of a linear system) and the
 mentioned λ is very close to the value of λ mentioned
 in the abstract. There are 10 references.

V. P. Ponomarev

[Abstracter's note: complete translation]

Card 1/1

L 16137-65 EWT(n)/EWP(t)/EWP(b) IJP(c)/ESD(t)/ESD(gs)/AFWL/ASD(a)-5/AFETR

JP
ACCESSION NR: AR4048237 S/0137/64/000/009/I003/I003

SOURCE: Ref. zh. Metallurgiya, Abs. 9122

AUTHOR: Negreskul, V. V. B

TITLE: Investigation of semiconductor alloys of the $GaP - Ga_2S_3$ system 27

CITED SOURCE: Tr. 3-y konferentsii molodykh uchenykh Moldavii. Yestestv.-tekhn. n. Vyyp. 1. Kishinev, Kartya Moldovenyaske, 1964, 35-36

TOPIC TAGS: semiconductor, alloy, gallium alloy, Ga, P, S 27

TRANSLATION: $GaP - Ga_2S_3$ alloys were investigated by the methods of microscopic and X-ray analysis, measurement of the microhardness and electrical conductivity, and determination of the width of the forbidden band. With addition of Ga_2S_3 to GaP in a concentration range of $0.3 < x < 1.0$, there are formed solid solutions with a sphalerite structure, the lattice spacing of which decreases in accordance with Vegard's Law. With the addition of 3-7% GaP to

Card 1/2

L 16137-65

ACCESSION NR: AR4048237

Ga_2S_3 , there are formed solid solutions with a wurtzite structure. The electrical conductivity of GaP increases with the addition of small quantities of Ga_2S_3 , reaches a maximum at $x=0.8$, and then decreases. The change in the width of the forbidden band in GaP - Ga_2S_3 alloys follows a curve with a minimum value.

SUB CODE: MM, SS

ENCL: 00

Card 2/2

ACCESSION NR: AP4041365

S/0048/64/028/006/1002/1006

AUTHOR: Negreskul, V.V.; Radautsan, S.I.

TITLE: Some properties of gallium phosphide solid solutions [Report, Third Conference on Semiconductor Compounds held in Kishinev 16 to 21 Sep 1963]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.6, 1964, 1002-1006

TOPIC TAGS: semiconductor, electric conductivity, Hall constant, solid solution, photoconductivity, gallium compound

ABSTRACT: The solubility of Ga_2S_3 , Ga_2Se_3 , and Ga_2Te_3 in GaP was investigated, and the conductivities, Hall constants, and photoconductivities of GaP and some of the GaP- Ga_2S_3 solid solutions were measured. The materials were produced by fusing and vibrating the purified components in evacuated quartz ampoules. The samples were ground to size with carborundum, and electrical contact was provided by vacuum deposited silver films or spark welded platinum conductors. The system $(GaP)_3x(Ga_2S_3)_{1-x}$ formed solid solutions with the zincblende structure for x between 1 and 0.3; Ga_2Se_3 formed solid solutions with GaP in all proportions; and Ga_2Te_3 and GaP proved to be mutually soluble only when the composition was close to that of one of the

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ACCESSION NR: AP4041365

compounds. The lattice constants of the solid solutions varied linearly with composition; that of the sulfide system was 5.45 \AA for $x = 1$ (GaP) and 5.32 \AA for $x = 0.3$. The conductivity and Hall constant of n-type GaP were measured at temperatures from 80 to 300°K . The carrier concentration was $2.2 \times 10^{16} \text{ cm}^{-3}$, and the mobility was $90 \text{ cm}^2/\text{V sec}$. These values are somewhat less than those reported by D.N. Nasledov and S.V. Slobodchikov (Fiz.tverdogo tela 4, 2755, 1962), but the temperature dependence of the mobility was similar to that found by these authors; the mobility decreased rapidly with increasing temperature. Calculations performed with the theory of D.J. Howarth and E.H. Sondheimer (Proc. Roy. Soc. 219A, 53, 1953) indicated that most but not all of the scattering was due to polar lattice vibrations. The Hall constant decreased with increasing temperature much more rapidly at temperatures above 220°K than at lower temperatures. This is ascribed to the presence of low impurity levels, the activation energies of which were found to be 1.02 eV and 1.48 eV. The room temperature conductivity of the $(\text{GaP})_{3x}(\text{Ga}_2\text{S}_3)_{1-x}$ solid solutions decreased rapidly with increasing sulfide content from $10^{-4} (\text{ohm cm})^{-1}$ for $x = 1$ to $10^{-7} (\text{ohm cm})^{-1}$ for $x = 0.3$. This is ascribed to the influence of the interstitial defects introduced into the lattice by the solute. The activation energy obtained from the temperature dependence of the conductivity increased from 1.02 eV for $x = 1.0$ to 2.0 eV for $x = 0.3$. Activation energies for the solutions with x between 1 and 0.6

2/3

ACCESSION NR: AP4041365

were obtained from the spectral distribution of the photoconductivity. These were in good agreement with those obtained from the temperature dependence of the dark conductivity. Orig.art.has: 6 formulas, 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: SS,IC

NR REF SOV: 013

OTHER: 007

Card
3/3

I 32205-65 EWP(m)/EWP(t)/EWP(b) IJP(c) JD/GS

ACCESSION NR: AT5005420

S/0000/64/000/001/0035/0036

AUTHOR: Negreskul, V. V.

16
13+1

TITLE: A study of semiconductor alloys of the gallium phosphide - gallium sulfide system

27 27 27

SOURCE: Nauchnaya konferentsiya molodykh uchanykh Moldavii, 3d. Trudy, no. 1: Yestestvenno-tekhnicheskiye nauki (Natural and technical sciences). Kishinev, Gosizdat Kartya Moldovenyashke, 1964, 35-36

TOPIC TAGS: semiconductor alloy, high melting semiconductor, electrical conductivity, alloy hardness, forbidden band width, gallium phosphide, gallium sulfide

ABSTRACT: The need for high-temperature stability of semiconductor-containing devices prompted a search for the most high-melting semiconductor substances. Such compounds include the phosphide and sulfide of gallium which can operate at temperatures as high as 800C (J. Mining, 254, 133, 1960). The present paper reports a study of the solid solutions in the system $(GaP)_{3x} - (Ga_2S_3)_{1-x}$; their solubility, microhardness, temperature dependence of the specific electrical conductivity, and the width of the forbidden bands. Solid solutions of the sphalerite type are formed in the range $0.3 \leq x \leq 1.0$; the hardness passes through a maximum,

Card 1/2

L 32203-65

ACCESSION NR: AT5005420

as does the electrical conductivity. 0

ASSOCIATION: None

SUBMITTED: 07Feb64

ENCL: 00

SUB CODE: 88

NO REF SOV: 001

OTHER: 003

Card 2/2

L 12655-65 EMT(m)/ENP(t)/ENP(b) IJP(c)/AFWL/ASD(a)-5/ESD(t) JD/HLK

ACCESSION NR: AT4044570

S/0000/64/000/000/0158/0163

AUTHOR: Radautsan, S. I., Candidate of physics-mathematical sciences, Negreskul, V. V.

TITLE: Solid solutions of gallium phosphidosulfides

SOURCE: AN MolSSR. Institut fiziki i matematiki. Issledovaniya po poluprovodnikam; novy*ye poluprovodnikovy*ye materialy* (Semiconductor research; new semiconductor materials). Kishinev, Gos. izd-vo Kartya Moldovenyashke, 1964, 158-163

TOPIC TAGS: gallium sulfide, gallium phosphide, semiconductor, pseudobinary alloy

ABSTRACT: In view of the high-level semiconductor characteristics of gallium phosphide and gallium sulfide, the $(GaP)_{3x} - (Ga_2S_3)_{1-x}$ system was selected as the base of solid solutions in an exploratory study of novel semiconductor materials. The 99.9% pure elements, vibrationally mixed in various combinations, were fused in vacuum quartz ampoules to produce 12 pseudo-binary alloys represented by the S-P Ga concentration diagram shown in Fig. 1 of the Enclosure. A copper-emission, nickel-filter, RKU-114 chamber was used for the x-ray and microstructural analyses and a PMT-3 device was used to measure the microhardness in investigations designed to identify the region of the existence of the solid solutions. The study proved a) solubility of Ga_2S_3 in GaP within the range of x from 1.0 to

Card 1/3

L 12655-65

ACCESSION NR: AT4044670

0.3, and b) the existence of gallium phosphide based solid solutions with a structure of the zinc blend type in the range of GaP concentrations up to 70 mol. %. The lattice constant "a" was found to decrease linearly from 5.45 Å for $x = 1.0$ to 5.34 Å for $x = 0.3$. The solid solutions are formed without additional phases immediately after synthesis and have semiconductor properties. Orig. art. has: 1 table and 3 figures.

ASSOCIATION: Institut fiziki i matematiki, AN MolSSR (Institute of Physics and Mathematics, AN MolSSR)

SUBMITTED: 13Dec68

ENCL: 01

SUB CODE: IC, EC

NO REF SOV: 012

OTHER: 006

2/3

Card

L 12655-65

ACCESSION NR: AT4044570

ENCL: 01

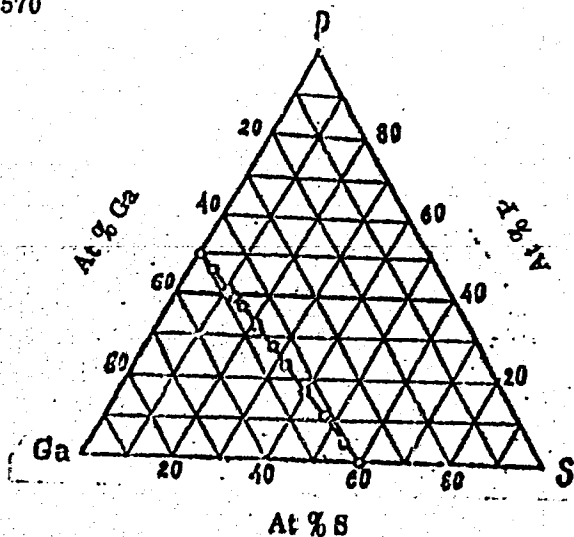


Fig. 1 - Position of investigated alloys in the pseudobinary $(GaP)_{3x} - (Ga_2S_3)_{1-x}$ system.

Card 8/8

L 50527-65 EWT(1) IJP(c) - 00

ACCESSION NR: AP5012534

UR/0181/65/007/005/1312/1314

AUTHORS: Goryunova, N. A.; Kesamanly, F. P.; Nasledov, D. N.;
Negreskul, V. V.; Rud', Yu. V.; Slobodchikov, S. V.

22
21
B

TITLE: Electric and photoelectric properties of $ZnSiP_2$

SOURCE: Fizika tverdogo tela, v. 7, no. 5, 1965, 1312-1314

TOPIC TAGS: zinc compound, electric conductivity, temperature dependence, photoconductivity, spectral distribution, electric field dependence

21

ABSTRACT: Most published data on $ZnSiP_2$ pertain to its physico-chemical properties only. The authors measured the temperature dependence of the electric conductivity and of the Hall constant of n- $ZnSiP_2$ in the temperature interval 80—670K, and the spectral distribution of the photoconductivity and its dependence on the electric field, the intensity of illumination, and temperature (80—290K).

Card 1/4.

L 50527-65

ACCESSION NR: AP5012534

The crystals were grown by a method devised by one of the authors (Rud', with E. O. Osmanov, Registration Certificate No. 38432 of 25 June 1963). The samples had a surface of natural brilliance, and their regular form was attained by grinding. The crystals had an electron density $\sim(1-2) \times 10^{17} \text{ cm}^{-3}$ at room temperature and a Hall mobility $\sim 70-100 \text{ cm}^2/\text{V-sec}$. The results are shown in Fig. 1 of the Enclosure. They are briefly analyzed from the point of view of the possible impurity level scheme and possible main transitions. The temperature dependence of the width of the forbidden band is found to have a constant $\alpha = -(7-8) \times 10^{-4} \text{ eV}/^\circ\text{K}$. It is noted that carrier capture is especially effective at low temperatures, when the relaxation time of the photoconductivity is of the order of several minutes and decreases with rising temperature. Orig. art. has: 2 figures. [02]

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR (Physico-technical Institute, AN SSSR)

Card 2/3

L 2506-66 ENT(m)/ETC/ENG(m)/EMP(t)/EMP(b) IJP(c) RDM/JD/
ACCESSION NR: AP3014616

UR/0181/65/007/006/1912/1915

AUTHOR: Nasledov, D. N.; Nagreskul, V. V.; Slobodchikov, S. V.

TITLE: On the electric properties of gallium phosphide doped with tellurium

SOURCE: Fizika tverdogo tela, v. 7, no. 6, 1965, 1912-1915

51
53
B

TOPIC TAGS: gallium compound, tellurium containing alloy, carrier scattering, carrier density, electron scattering, temperature dependence, Hall coefficient, electric conductivity

ABSTRACT: The tellurium-doped Gap crystals are grown from solution-melts by a method proposed earlier (G. Wolff et al., Bull. Am. Phys. Soc. v. 29, 16, 1954). The quantities measured were the Hall coefficient, the electric conductivity, and the temperature dependence of these quantities and of the electron mobility. The donor activation energy determined from the analysis of the data was found to be 0.11 eV. The maximum mobility at room temperature was found to be 170 cm²/V-sec for a sample with carrier 2 x 10¹⁶ cm⁻³. Increased doping with tellurium and the presence of compensating impurities reduce the mobility. The mechanism of electron scattering, which is governed by many still unknown factors, is discussed. Orig.

Card 1/2

L 2506-66

ACCESSION NR: AP5014616

art. has: 5 formulas and 2 figures.

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

SUBMITTED: 08Feb65

ENCL: 00

SUB CODE: 88

NO REF SOV: 001

OTHER: 008

FC
Card 2/2

L 14126-66 WT(1)/WT(a)/WT(t)/WT(b) LJP(c) JD/AT

ACC NR: AP6000883

SOURCE CODE: UR/0181/65/007/012/3671/3673

AUTHORS: Nasledov, D. N.; Negreskul, V. V.; Radautsan, S. I.; Slobodchikov, S. V. 69 64 8

ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR, Leningrad
(Fiziko-tehnicheskij Institut AN SSSR); Institute of Applied
Physics AN MSSR, Kishinev (Institut prikladnoy fiziki AN MSSR)

TITLE: Oscillations of photoconductivity in GaP

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3671-3673

TOPIC TAGS: gallium compound, photoconductivity, phonon interaction, energy band structure, carrier density

ABSTRACT: This is a ^{21,44,55} continuation of earlier work (FTT v. 6, 1781, 1964) on the photoconductivity spectrum and the band structure of GaP. In the present investigation, the authors studied GaP samples obtained by gas-transport reactions and doped with tellurium, in the

Card 1/2

L 11126-66

ACC NR: AP6000883

form of trihedral needles. The carrier density was $\sim 6 \times 10^{14} \text{ cm}^{-3}$ at 296K. The measurements were made at 80 and 296K. Both temperatures, peaks of photoconductivity were observed at approximately 44 and 51 nm, and in addition, regular oscillations were observed at wavelengths lower than 0.40 μ , attributed to strong interactions between the non-equilibrium carriers and longitudinal optical phonons. The results are qualitatively interpreted from the point of view of the band structure of GaP. The complicated nature of this band structure makes a quantitative analysis difficult. The reason why the oscillations were not observed at room temperature is that the over-all photo-response decreases with increasing temperature, owing to the intensification of thermal capture, reduction in the diffusion length of the electrons, and increased rate of surface recombination. The relative roles of the direct and indirect transitions are estimated. Authors thank G. Ye. Pikus and I. N. Yassiyevich for help in discussing the results. Orig. art. has: 2 figures

SUB CODE: 20/ SUBM DATE: 06Jul65/ ORIG REF: 002/ OTH REF: 005
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TS
 Card 2/2

E 61265-65 ENP(w)/ENG(m)/EHA(d)/T/ENP(t)/ENF(b) IJP(c) RDW/JD/JG
 GE/0030/65/010/001/0037/0043
 ACCESSION NR: AP5017939

AUTHOR: Nasledov, D. N.; Negreskul, V. V.; Radautsan, S. I.; Slobodchikov, S. V.

TITLE: The scattering mechanism of current carriers of tellurium-doped gallium phosphide

SOURCE: *Physica status solidi*, v. 10, no. 1, 1965, 37-43

TOPIC TAGS: gallium phosphide, tellurium doped semiconductor, Hall effect, semiconductor conductivity, semiconductor temperature effect, electron mobility, current carrier scattering

ABSTRACT: The Hall coefficient and specific conductivity were determined on single n-type tellurium-doped gallium phosphide crystals in the 77 - 600K temperature range to establish the temperature-dependence of these values and to gain further insight into the mechanism of carrier scattering. The temperature-dependence of the electrical conductivity in typical crystals is shown in Figure 1 of the Enclosure; the temperature-dependence of the Hall coefficient, in Figure 2 of the Enclosure. On the basis of the experimental data, the relation between electron mobility and temperature was determined. Typical results are presented in Figure 3 of the Enclosure. The main determining factor in the scattering mechanism is scattering on optical photons (polar scattering); however,

Card 1/5

L. 61965-65

ACCESSION NR: AP6017939

3

in the low end of the temperature range investigated and in instances where the crystal is grossly contaminated, other factors, such as space charge, also become significant. The temperature-dependence of the Hall effect suggests a donor level with an ionization energy of approximately 0.11 electron-Volt. Orig. art. has: 4 figures and 7 formulas.

ASSOCIATION: Physikalisch-Technisches Institut der Akademie der Wissenschaften der UdSSR (Institute of Physics and Technology, Academy of Sciences, SSSR); Institut für Angewandte Physik der Akademie der Wissenschaften der Moldauischen SSR (Institute of Applied Physics, Academy of Sciences, Moldavian SSR); Polytechnisches Institut, Kishinev (Polytechnical Institute)

SUBMITTED: 17Mar65

ENCL: 03

SUB CODE: SS, EC

NO REF SOV: 001

OTHER: 011

Card 2/5

L 61965-65

ACCESSION NR: AP5017039

ENCL: 01

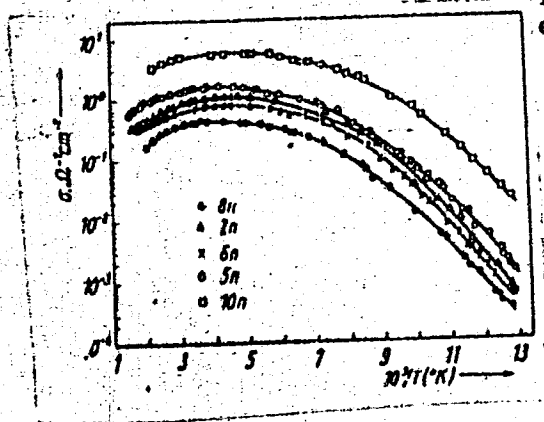


Figure 1. Temperature-dependence of the electrical conductivity in GaP.

Card 3/5

L 61965-65

ACCESSION NR: AP6017939

ENCL: 03

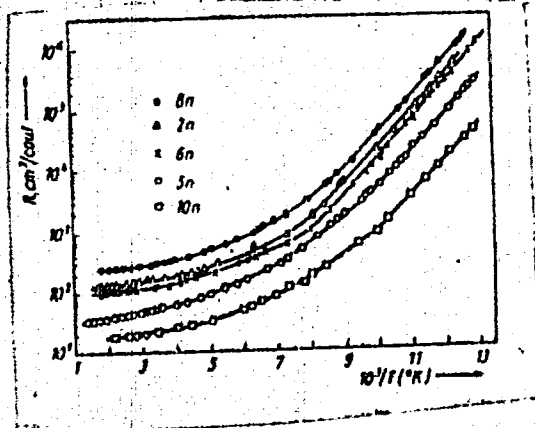


Figure 2. Temperature-dependence of the Hall coefficient in tellurium-doped GaP

Card 4/5

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ACCESSION NR: AP6017939

ENCL: 03

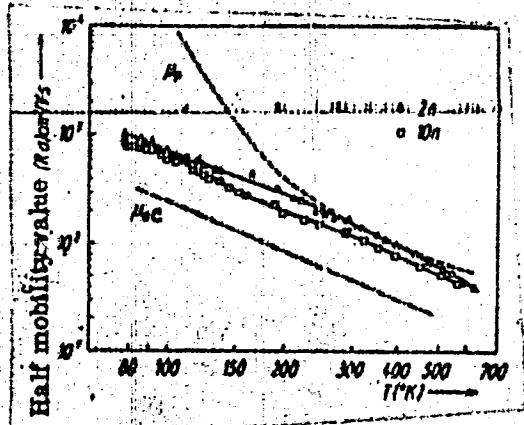


Figure 3. Temperature-dependence of electron mobility for samples 2n and 10n.

- = calculated mobility for the scattering on polar lattice oscillations
- - - - = calculated mobility for the scattering on acoustic lattice oscillations

Card 5/6

L 08318-67 EWT(m)/EWP(w)/EWP(t)/ETI IJP(o) JD/JG

ACC NR: AR6033787 SOURCE CODE: UR/0058/68/000/007/E065/E065

AUTHOR: Pyshkin, S. L.; Negreskul, V. V. 54

TITLE: Formation of solid solutions and some electric properties of gallium phosphide tellurides 21

SOURCE: Ref. zh. Fizika, Abs. 7E493

REF SOURCE: Sb. Materialy IV Konferentsii molodykh uchenykh Moldavii, 1964.
Sekts. fiz. -matem. Kishinev, 1965, 29-32

TOPIC TAGS: solid solution, electric conductivity, telluride, gallium phosphide, alloy, single phase alloy fusing, Hall coefficient

ABSTRACT: Single phase alloys $(\text{GaP})_{3x} - (\text{Ga}_2\text{Te}_3)_{1-x}$ with $x = 0.1$ and $x = 0.9$ are obtained by the method of direct melting of the initial components. Electric conductivity and the Hall coefficient are determined as a function of temperature within the 300-600K range. V. Shevchenko. [Translation of abstract]

SUB CODE: 20/

Card 1/1 nst

1977, p. 1.

Admelli, G. M.; Mezzetta, E. I.

"Preparation of Chromium Ferrate as an Analytical Reagent for the Spectrophotometric Determination." (p. 1977)

CC: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1977, 41, 1, p. 1.

6
C.A. NEGRETOV, B.P.

Products of thermal decomposition of chromium formate
M. K. Akhmedli and B. P. NEGRETOV (Azerbaijan State
Univ.), *J. Gen. Chem. USSR* 10, 2015 51(1950) Engl
translation. See C.A. 45, 3715d H. L. D.

AUTHOR: Koptev-Ivornikov, V.I.; Negrey, Ye.V.; et. al.

TITLE: Data on the distribution of scattered elements in the granitoids of Kazakhstan (Nekotoryye dannyye o raspredelenii rasseyannykh elementov v granitoidakh Kazakhstana)

PERIODICAL: Byulleten' Moskovskogo obshchestva ispytateley prirody, Otdel geologicheskii, 1958, Nr 3, pp 151-157, 2 figs.

ABSTRACT: The behavior of 16 additional elements has been studied in intrusive rocks of different-age complexes in the zone of Ordovician - γ_2 , lower Devonian - γ_3 , Middle Devonian - γ_4 , Early Hercynian - γ_5 of a region in Central Kazakhstan (Kz, Sn, Mo, Cr, Ba, Pb, Cu, Zn, Co, Ni, Ti, Cr, V, Mn, Sr and Be). The authors give a detailed description of the various elements and states that their irregular distribution is due to tendencies connected with differentiation and hybridization phenomena.

1. Geology--USSR 2. Rock--Chemical analysis 3. Minerals--Distribution 4. Geological time--Determination

Page 1 of 1

SCV-11-59-10-5/12

AUTHORS:

Keller, B.M., Krylov, I.N. and Ye.V. Negrey

TITLE:

Paleozoic Formations of the Western Part of the Balkhas Region near the Village of Mynaral (Baikhaskiy rayon, Ar. Baikhaskiy v. rayone poselka Mynarala)

PERIODICAL:

Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1958, Nr 10, pp 56 - 71 (USSR)

ABSTRACT:

The strata of Paleozoic formations observed in the western part of the Balkhas Region contain numerous fossils of paleozoic fauna and flora which exactly determine the age of the different layers and their relation to various epochs of the Paleozoic era. Study of the cross section showed that after the initial sagging of Archeian gneisses and granites and the formation of a Proterozoic-Cambrian series of sand-schist rocks, a general elevation of the region occurred, and it was subjected to an important pre-Ordovician orogenic movement. In the Ordovician system, deposits of Blauvirnian, Mandello and Caradoc stages were identified by fossilized fauna. In the same way deposits of the Silurian system were identified as belonging to Mandooverian, Wenlock and Ludlow stages. In some parts of the region, Tarannnian shales were also found. In general, the Silurian system is represented by volcanogenous-fragmental and

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Geological formations of the Mynarala region near the village of Mynarala.

reef series. The lower Paleozoic system of the region is represented by three particular rock formations, belonging respectively to the Lower Silurian and Upper Devonian systems. The following part of the system is represented by layers of conglomerates and tuffs, identified as usual by fossiliferous fauna. These layers are covered by layers of sandstones and aluminates. Intrusive bodies of various age found in the Mynarala region belong mainly to three groups: Archean granites and gneisses, Caledonian tonalites and early-Herzegovinian granites. The following geologist and paleontologists are mentioned for their research in this field: Yakovlev, I. I. (Ref. 6); A.M. Bebyarev, A. G. Bekkina, G. V. Vebey (Ref. 7); M. I. Klyafrova (Ref. 8); I. I. Starobin (Ref. 9); G. V. Vebey (Ref. 10); Koptev, V. P. (Ref. 11); M. I. Klyafrova (Ref. 12).

Card 2

Paleozoic Formations of the Eastern Part of the ...
Village of Myrara.

1. Paleozoic Formations of the Eastern Part of the ...
M. N. ...
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1. Geology--WORK Paleontology Analysis ...
-Determination ...

Card 37

NEGREY, Ye.V.; PAVLOV, V.A.

Vein rocks in the Sary-Tau and Kyzyl-Tau. *Biul. MOIP. Otd.*
geol. 34 no.6:132-133 N-D '59. (MIRA 14:3)
(Sary-Tau--Rocks, Igneous)
(Kyzyl-Tau--Rocks, Igneous)

KOPIEV-DVORNIKOV, V.S.; POLKVOY, O.S.; DISTANOVA, A.N.; DMITRIYEV, A.N.;
YEFREMOVA, S.V.; KOZLOV, A.V.; PAVLOV, V.A.; PLAMENEVSKAYA,
N.L.; NEGREY, Ye.V.; SHEYMAN, V.S., red.isd-va; DOROKHINA,
I.N., tekhn.red.

[Paleozoic intrusive complexes of granitoids in Bet-Pak-Dala]
Paleozoiskie intruzivnye kompleksey granitoidov Betpakdala.
Moskva, Izd-vo Akad.nauk SSSR, 1962. 295 p. (Akademiia nauk
SSSR. Institut geologii rudnykh mestorozhdenii, petrografii,
mineralogii i geokhimi. Trudy, no.54). (MIRA 1:5)
(Bet-Pak-Dala--Rocks, Igneous)

NEGREY, Ye.V.; PAVLOV, V.A.

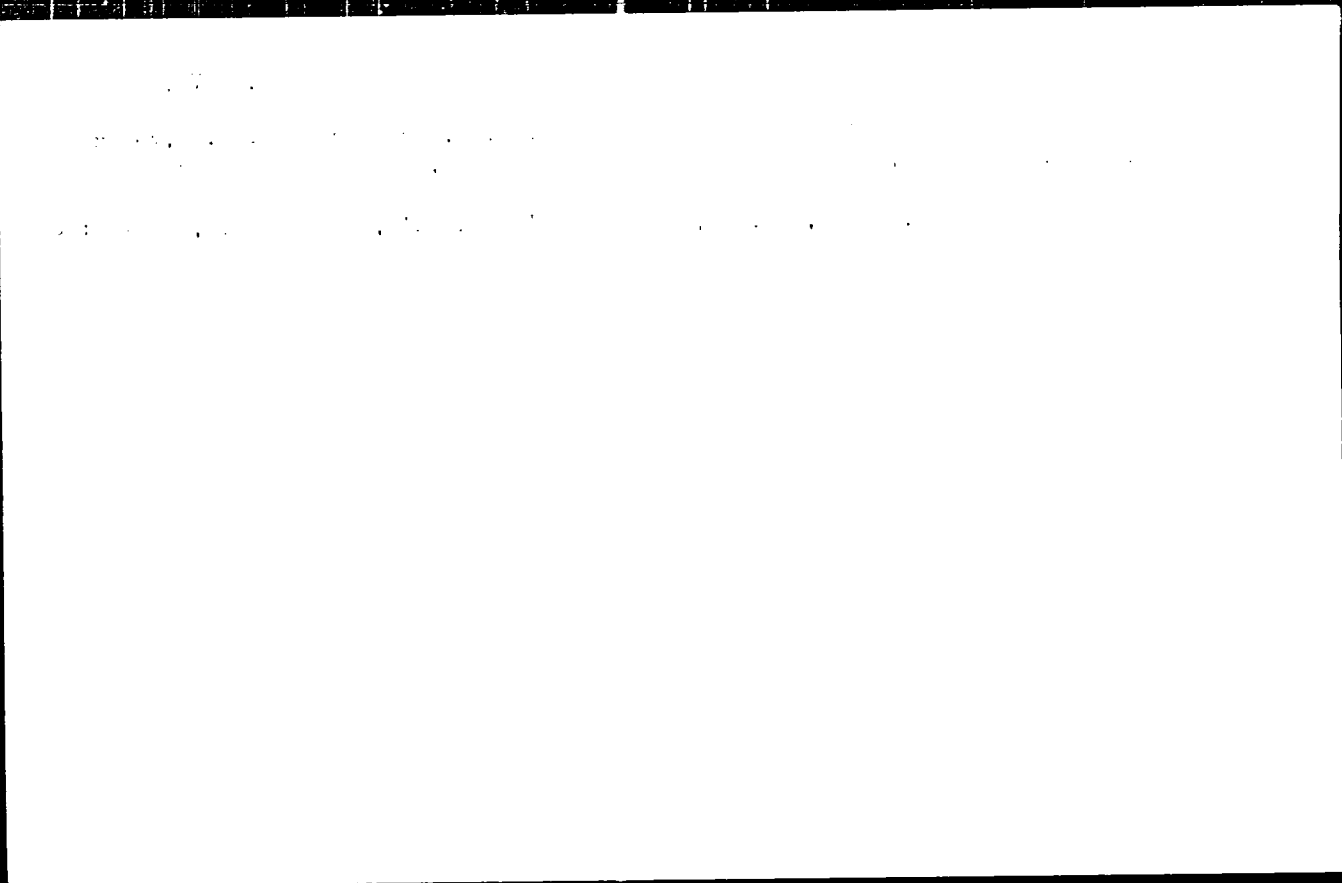
"Zonal" structure of Permian intrusives in central Kazakhstan.
Sov.geol. 7 no.2:153-157 F '64. (MIRA 17:3)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii

NEGREYEV, V. F.

Negreyev, V. F. and Znaychenko, S. G. "Fight against corrosion of the base openings of marine mining," Azerbaydzh. neft. khoz-vo, 1948, No. 11, p. 6-7

SO: U-3264, 1 April 53, (Istopsis Zhurnal 'nykh Statey, No. 4, 1949).



NEGREYEV, V.

Prevention of plugging of circular compressor tubes by accumulations of corrosion products. V. NEMCOV, D. OLSHANSKY, and B. RIMANOV. *Nesani Negiyuzet Tekh., Neftpromyshlennoe Delo* 1930, No. 6, 38-9. --The basic cause of corrosion in pipes is moist damp air. The corrosion process should be considered as electrochemical, in which the electrolyte is the fine thin moisture layer which is adsorbed at the metal surface. Dry air without any moisture does not cause corrosion. Large amounts of moisture in the air condense at high pressure and then cause intense corrosion. At higher pressure the corrosion likewise increases because the solubility of O₂ also increases in the air films. The chemical analysis of such films indicated a weak acid reaction. This is caused by dissolved volatile low-molecular weight acids such as HCOOH and AcOH. These acids are oxidation products of oil at high temperature and pressure. The pH of the condensate was 2.8-3.5, which corresponds approximately to 0.01-0.1N AcOH solution. The acidity of the condensate promotes the corrosion especially at high pressure and in air films saturated with O₂. The data verify fully that dehydration of the air is a radical means of preventing corrosion in the pipe system. A sufficiently good dehydration of water from air can be accomplished by means of cooling the air at the outlet of the compressor chamber, followed by separating the condensate in separators, situated after the refrigeration unit. H. G. V.

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NEGREYEV, V.

Prevention of the formation of salt deposits in the casing
of oil wells. V. Negreyev, A. Brodskii, and A. Baklanov.
Novosti Naftyanoi Tekhn., Neftepromyshlennoe Delo 1959, No. 6,
89-92.—Salt deposits in oil-well casing were found to con-
sist mainly of CaCO₃, 80-93, MgCO₃, 2-4, and CaSO₄, 0.9-
2.3%, together with sand and other admixts. The hard-
ness of the salt layer depended on the condition of its forma-
tion and on the presence of paraffin wax. A ppt. contg. 12-
14% of wax was porous, loose, and flaky and could easily
be removed mechanically while a salt deposit contg. only
2% of wax was very hard and difficult to remove. Forma-
tion of the deposits depended on the compn. of the water in
the producing formation, the CO₂ content of the air-gas
mixture, and the rate of flow of liquid and vapors, as well as
the production rate of the well. The formation of the de-
posits could be prevented easily by treating the water with
a dil. soln. of Na hexametaphosphate (2.5 ml./l.) which
inhibits the formation of microcrystals of the water-lac-
salts. H. G. Voelker.

NEG-REYEV, V.

The effect of corrosion inhibitors on the corrosion fatigue of steel in water accompanying petroleum deposits. E. Andreeva, V. Negrayev, and I. Farkas, *Neftiye Neftyanaya Tekhn.*, *Neftopromyshlennaya Delo* 1968, No. 8, 43-5.—The

combination of strain or pressure with the action of corrosive agents results in greater corrosion than is expected from the effects of either stress or chem. attack alone. Corrosion fatigue of steel rods in 2 different water samples and the effect of H₂S and of corrosion inhibitors was studied by placing a polished steel specimen in the center of a glass tube filled with the test soln. and crude oil, and exposing the system to varying pressures. Hard water was found to reduce greatly the fatigue of steel. By adding inhibitors such as Na chromate (8 g./l.), fatigue increases, 10-25 kg./sq. mm. In alk. water, H₂S (60 mg./l.), the fatigue resistance of the sample is approx. the same as in hard water. Alk. water contg. 200 mg. of H₂S/l. lowers considerably the resistance of the sample. Adding 50 mg. of HClO/l. to alk. water contg. H₂S increases the resistance of steel, and removal of H₂S further improves results. Addn. of Na chromate to alk. water free from H₂S does not improve the resistance of steel. The wetting properties of the corrosive solns. were found to be important; hard and alk. waters, contg. 200 mg. of H₂S/l., which were most corrosive, have better wetting properties than other water samples studied, while alk. water and hard water contg. inhibitors were less surface active. H. O. Voelker

NEGREYEV, V.

Corrosion of steel in water, occurring below petroleum deposits. V. Negreyev and A. Balayun. *Novosti Neftyanoi Tekhn., Neftpromyshlennoe Delo* 1950, No. 6, 40-7.—By studying the influence of the concn. of salts in underground waters on the rate of corrosion of steel it had been observed that a higher salt content causes less corrosion. The less effective corrosion of the steel in water with a greater salt content can be explained by its smaller cont. of O_2 . In alk. water under petroleum deposits a local or dotted corrosion of the steel was often observed. This can be explained by local disintegration of a protecting coating of the pipes which is caused by lixiviating reagents of Cl ions on steel which usually diffuse through the protecting film. The greatest corrosion was noticed in the presence of air and H_2S . In order to prevent or to minimize wide corrosion of steel, inhibitors should be added. Very good results for preventing steel corrosion on subsurface pumps, pipes, pistons, and other equipment were observed by adding $HCHO$ (40% aq. soln.). The amt. of $HCHO$ to be added to the water reservoir under the petroleum deposit depends on its compn., the presence of H_2S , and on the daily flow of the well. The av. consumption of $HCHO$ varies between 15 and 80 mg./l. of water. The $HCHO$ is periodically added once every 24 hrs. A Ni-austenitic steel (Cr 18, Ni 8%) showed the best resistance against corrosion in water contg. air and H_2S .

H. S. Voelker

MEGREYEV, V.

Influence of static pressure on the corrosion of steel in ground water accompanying petroleum deposits. V. Megreyev and E. Andreyeva. *Doklady Akad. Nauk SSSR*, No. 6, 48-51. From *Statisticheskoye Delo* 1950, No. 6, 48-51. From static pressure investigations, it was concluded that a method for the polarization of electrodes formed on the surface of corroding steel can be used to evaluate corrosion of steel in the water accompanying petroleum deposits. The method is very sensitive to corrosive gases, inhibitors in the water, and to stress or strain in the steel. By applying static stress, the electrode potential shifts over to the neg. side. The characteristics of the cathodic and anodic polarization curves showed that the application of static pressure activated the electrodes of the corrosion-producing couples. In the absence of gases which are also corrosion activators, such as H_2S and air, the rate of corrosion is very low. The most severe corrosion was observed in the presence of H_2S and large amounts of air. The corrosive action of H_2S alone in complete absence of air is considerably weaker. Addition of $HCHO$ to water contaminated by H_2S had a significant inhibiting effect. H. G. Yealder.

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NEGREYEV, V. F.

"Corrosion of Equipment in Oil Fields." Sub. 6 Dec 51, Inst of Petroleum, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow Univ. 1951.

SO: Sum. No. 110, 9 May 55.

NEORVNE:V.F:

Sea water corrosion of oil field equipment. Trudy kom. po ber'.
s korr.net. no.1:90-115 '51. (MLRA 10:8)
(Oil well drilling, Submarine)
(Oil fields--Equipment and supplies)
(Corrosion and anticorrosives)

NEOREYEV, V.F., dotsent, kandidat tekhnicheskikh nauk; OL'SHVANG, D.Ye.,
kandidat tekhnicheskikh nauk; RUSTAMOV, E.M., gornyy inzhener;
AMIROV, A.D., redaktor; GONCHAROV, I.A., tekhnicheskiy redaktor.

[Corrosion of compression well air vents, formation of ferrous plugs
and their prevention] Korroziiia vozdukhoprovodov kompressornykh
skvashin, obrazovanie sal'nikov i bor'ba s nimi. Baku, Gos. nauchno-
tekh. izd-vo neftiaroi i gorno-toplivnoi lit-ry, Azerbaidzhanskoe
otd-nie, 1952. 69 p. (MIRA 8:4)

(Condensate oil wells)(Pipe, Steel--Corrosion)

NEGREYEV, V.F.

Determination of the corrosiveness of soils by the polariza-
 tion-curve method. V. F. Negreyev. Trudy Nauch. Tekh.
 Spetskhim. po Zashchite Tselulozov i Kaciel ot Korrozii.
 1933. No. 7-10; Referat. Zhur. Khim. 1934. No. 12103.
 Methods for testing the corrosive activity of soils are de-
 scribed and compared. M. Ussach.

Sci Tech. Cong. Protection conduits - cables
 - corrosion