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20- 114-4-25/65

AUTHORS: Kurdyumov, G. V., Member of the Academy, Maksimova, O. P., Nikonorova, A. I.

TITLE: The Activating Influence of Plastic Deformation on Martensite Transformation (Ob aktiviziruyushchem vliyanii plasticheskoy deformatsii na martensitnoye prevrashcheniye)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 4, pp. 768-771 (USSR)

ABSTRACT: The present paper is intended, among other things to confirm the opinions on the influence exercised by stresses on the activation of the transformation. The authors investigated the rules of the restoration of the original stability of austenite on the occasion of annealing at gradually increasing temperature. The change of the stability of the austenite resulting from a plastic deformation or from the following annealing was judged by the strength of the magnetometric effects in the temperature domain below room temperature on the occasion of the transformation of austenite into martensite. It was assumed that the activating influence exercised by the deformation can easily be determined in such alloys which possess sufficiently marked elastic properties. The authors

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137-58-6-13268

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 300 (USSR)

AUTHORS: Maksimova, O.P., Golovchiner, Ya.M., Lyubov, B.Ya., Nikonorova, A.I.

TITLE: Fundamental Trends in Investigations of the Theory of Martensite Transformation (Osnovnyye napravleniya issledovaniy v oblasti teorii martensitnykh prevrashcheniy)

PERIODICAL: Sb. tr. In-t metalloved. i fiz. metallov Tsentr. n.-i. in-ta chernoy metallurgii, Trans. Amer. Soc. Metals, 1957, Nr 49, pp 427-444. Discuss. 1958, Vol 5, pp 147-160

ABSTRACT: Fundamental problems of the study of laws governing the martensite transformation (MT), the effect of various factors on it, and the control of the process of MT, also means and methods for the investigation of MT are formulated. Bibliography: 80 references.

L.V.

1. Martensite--Analysis 2. Martensite--Theory 3. Metals--Transformations

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Regularities in the kinetics of martensitic transformations. (Cont.)

speed of transformation of austenite into martensite is a characteristic feature of all phase transformations. Thermal oscillations of atoms in the lattice are therefore one of the basic factors determining the kinetics of martensite transformations. "Athermal" transformations are in reality the result of thermal formation of nuclei which takes place at very high speed under certain conditions (low work of formation of the nuclei at large degrees of super-cooling, high energy of the thermal oscillations at temperatures which are not low enough). Presence of locations which are "prepared" for forming nuclei lead only to an increase in the temperature at which nuclei would form at these locations owing to thermal fluctuations.
There are 5 figures and 38 references, 24 of which are Slavic.

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Regularities in the kinetics of martensitic transformations. (Cont.)

Steel containing 0.95% C and 3.5% Mn. (Fig.2 ref.14). Isothermal formation of martensite in this steel was observed in the whole temperature interval of martensite transformation. This case is denoted by 95Г3$_5$ in Fig.2. Maximum of N' occurs at +25°.

Fe-Ni-Mn alloys (shown in the table on p.7 where the first column gives the Russian designation of the alloy and the last column gives the martensite point). Fig.3 shows the initial parts of curves of isothermal martensitic transformation of the alloy H24Г3 (23.8% Ni, 3.2% Mn) - where M is the amount of martensite, t - is the time in minutes. Fig.4 shows the temperature dependence of the initial speed of isothermal martensitic transformation N, for Fe-Ni-Mn alloys having different martensite point T_m; t is the time in seconds. The changes in T_m have no effect on the position of the lower temperature limits of the transformations (for the three alloys), they all lie near the boiling point of nitrogen.

On the basis of their own results and literary data, the authors conclude that it can be considered as a well proved established fact that the temperature dependence of the

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Regularities in the kinetics of martensitic transformations. (Cont.)

increasing work of formation of the nuclei, with increasing temperature, is the corresponding factor on the high temperature side as shown in earlier work of the authors(6,7). Steel 85ГС2, containing 0.85% C and 2.2% Mn, see Fig.2 (6,7, 13). If the cause which makes possible observation of isothermal transformation in the temperature range approaching the martensite point is the high work of formation of martensite nuclei, an increase of the transformation speed should occur with decreasing temperature. To elucidate the problem the experiments were made with this steel, the martensite point of which is about 155 C. It was found that in this steel the initial reduced speed of isothermal transformation N' increases at first with decreasing holding temperatures below the martensite point and then becomes unusually high in the range between room temperature and -50 C, dropping sharply with further decreases in temperature (Fig.2). It is concluded that the absence of isothermal transformation at room temperatures, and the occurrence of the transformation on cooling only, is conditioned not by some non-thermal process, but by the higher speed of thermal formation of martensite crystals.

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Regularities in the kinetics of martensitic transformations. (Cont.)

the process of formation of the nuclei. Thus, thermal motion appears to be one of the main factors which govern the kinetics of martensitic transformation, as well as other phase transformations.

The alloy of iron and 23% Ni, 34% Mn (5). Isothermal transformation was investigated in the range room temperature to -130 C. As the temperature decreases, the initial reduced speed of isothermal transformation, given by

$$N' = \frac{1}{V'_0} \left(\frac{dV}{dt}\right)_{t=0}^{100}$$

at first increases, at -50 C it reaches a maximum, and thereafter decreases and has very small values below -160 C (Fig.1; where V - volume of martensite, formed at the starting moment of the isothermal process (in %), V'_0 - that part of the volume of the specimen which can be transformed at the given temperature (in %), t - duration of the isothermal process). If the low energy of thermal oscillations is the factor limiting the speed of formation of nuclei on the low temperature side of the maximum, then the rapidly

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MAKSIMOVA, O.P

AUTHORS: Kurdyumov, G. V. and Maksimova, O. P. (Moscow). 24-6-2/24

TITLE: Regularities in the kinetics of martensitic transformations. (O zakonomernostyakh kinetiki martensitnykh prevrashcheniy).

PERIODICAL: "Izvestiya Akademii Nauk, Otdeleniye Tekhnicheskikh Nauk" (Bulletin of the Ac.Sc., Technical Sciences Section), 1957, No.6, pp.4-11 (U.S.S.R.)

ABSTRACT: In earlier work (1 and 2) the authors have shown that at sufficiently low temperatures the speed of martensitic transformations is measurable. Researches carried out by the present authors indicate that in some steels with a low martensitic point T_m (temperature at which martensitic transformation begins) the transformation of austenite into martensite can be completely halted by rapid cooling in liquid nitrogen, and isothermal transformation of austenite into martensite can be observed at temperatures above the boiling point of liquid nitrogen (3 and 4). It was shown that a definite energy of thermal vibrations of atoms is necessary for the formation of martensite nuclei. At insufficient energy the speed of formation of nuclei is practically zero; as the energy of vibrations increases the speed of formation increases proportionally to $\exp(-U/RT)$, where U can be considered as the energy of activation of

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MAKSIMOVA, O.P., kand.tekhn.nauk; NIKONOROVA, A.I.; POGORELOV, G.K.

Effect of hot plastic deformation on the kinetics of martensite transformation in high nickel alloy steels. Probl. metalloved. i fiz. met. no.4:198-204 '55. (MIRA 11:4)
(Nickel steel--Metallography) (Deformations (Mechanics) (Martensite)

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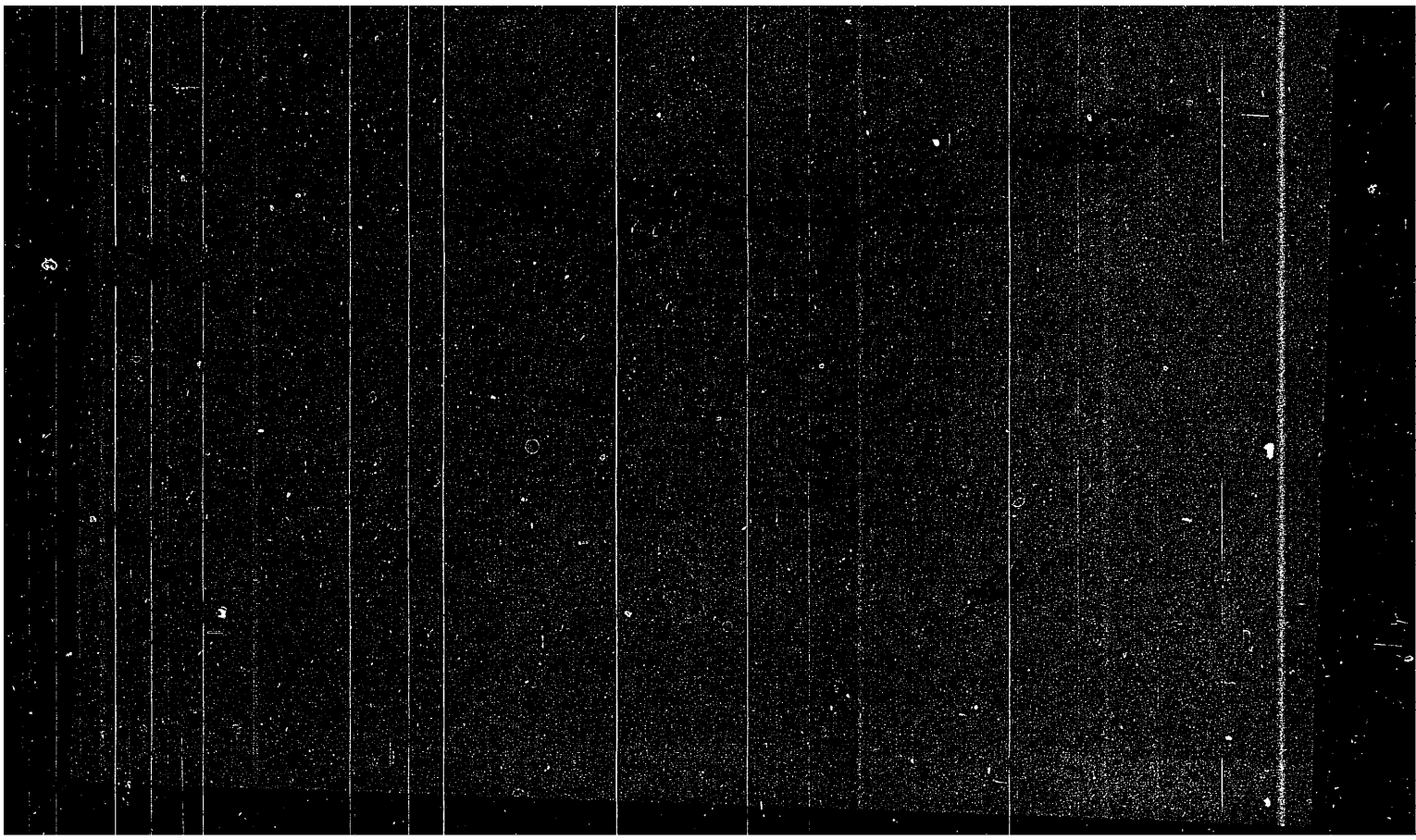

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MAKSIMOVA, O.P., kand.tekhn.nauk; NIKONOROVA, A.I.; POGORELOV, G.K.

Effect of deformation on the rate of isothermal martensite transformation in iron-nickel-manganese alloys. Probl. metalloved. i fiz. met. no.4:144-164 '55. (MIRA 11:4)
(Deformations (Mechanics)
(Iron-nickel-manganese alloys--Metallography)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, O.P., kand.tekhn.nauk; NIKONOROVA, A.I.

Microstructural investigation of martensite transformation. Probl. metalloved. i fiz. met. no.4:123-143 '55. (MIRA 11:4)
(Steel alloys--metallography) (Martensite)

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MAKSIMOVA, O. P.

MAKSIMOVA, O. Kinetics of changes in martensite. Tr. from the Russian. p. 193.
Method of determining austenite granules in medium-carbon and alloy steel by welding the affected area. p. 214.

Vol. 5, No. 3, 1954.
STROJNOELEKTROTECHNICKY CASOPIS
TECHNOLOGY
Bratislava, Czechoslovakia

So: East European Accessions, Vol. 5, No. 5, May 1956

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MAKSIMOVA, O. P.

Kinetics of martensitic transformation at temperatures above room temperature. G. V. Kurdyumov and O. P. Maksimova. *Doklady Akad. Nauk S.S.S.R.* 81, 565–8 (1951).—The rate of conversion of austenite to martensite was investigated by the thermomagnetic method in the temp. range from −196 to +155° on steel contg. 0.8% C and 2.2% Mn, and having a martensite point t_m at 155°. The temp. curve of the rate has a max., like the previously studied Ni 23, Mn 3.4% steel (*C.A.* 45, 3310*f*), but in this case the max., at around 0°, corresponds to immeasurably fast conversion, i.e. practically infinite rate. Isothermal conversion at a measurable rate is found only on both sides of the "infinite-rate" interval; one range of measurably slow isothermal transformation extends approx. from room temp. to about 150°, the other lies below −50°. In the high-temp. range the rate decreases with increasing temp., whereas in the low-temp. range the rate decreases with decreasing temp. The general formula for the temp. dependence of the rate $N = Ae^{-U/RT}e^{-W/RT}$, where U = activation energy of the transformation, and W = work of formation of crystn. nuclei, simplifies in the low-temp. range to $N = Ae^{-U/RT}$, with U temp. independent. In the high-temp. range, the role of the $e^{-W/RT}$ becomes preponderant, and W increases rapidly with rising temp. This accounts for the 2 branches of the rate curve on both sides of the max. Steels with martensitic points not all too high above room temp. can undergo intense and prolonged martensitic transformation after quenching. N. Thon

Inst. Metallophys., Cen. Sci. Res. Inst. Ferrous Metallurgy

Effect of deformation on the kinetics of martensitic trans-

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BTR

4094 The Question of the Influence of Deformation on the Kinetics of the Martensite Transformation. (In Russian) O.P. Maksimova and A.I. Nikonorova. Doklady Akademii Nauk SSSR, new ser., v. 81, Nov. 11, 1951, p. 183-186.
The effect of temperature and amount of deformation on the martensite transformation was studied for various Ni and Mn steels. Data are discussed and charted.

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MAKSIMOVA, O.P.

KURDYUMOV, G.V.; MAKSIMOVA, O.P., kand. tekhn. nauk; TAGUNOVA, T.V.

Effect of plastic deformation on the kinetics of austenite transformation to martensite. Probl. metalloved. i fiz. met. no.2: 135-152 '51. (MIRA 11:4)

1. Chlen-korrespondent AN SSSR (for Kurdyumov)
(Deformations (Mechanics)) (Metallography)

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MAKSIMOVA, O.P.

KURDYUMOV, G.V.; MAKSIMOVA, O.P., kand. tekhn. nauk.

Martensite nuclei formation process. Probl. metalloved. i fiz. met. no.2:129-134 '51. (MIRA 11:4)

1. Chlen-korrespondent AN SSSR (for Kurdyumov).
(Metal crystals) (Martensite)

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MAKSIMOVA, O.P.

KULDYUMOV, G.V.; MAKSIMOVA, O.P., kand. tekhn. nauk,

Transformation of austenite to martensite at low temperatures.
Probl. metalloved. i fiz. met. no.2:64-97 '51. (MIRA 11:4)

1. Chlen-korrespondent AN SSSR (for Kurdyumov).
(Metals at low temperature) (Phase rule and equilibrium)

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Transformation of deformed austenite into martensite. G. V. Kurdyumov, O. P. Maksimova, and T. V. Tagunova. *Doklady Akad. Nauk* 73, 307-10(1950); cf. *C.A.* 43, 80e.

The effect of plastic deformation on the martensite reaction in a 0.6 C, 7.1 Mn steel and in a 23% Ni, 3.4 Mn alloy of Fe was studied to test the hypothesis that this reaction proceeds by nucleation and growth. The steel and alloy were deformed by compression just before testing in a magnetometer. The deformed specimens were then cooled to cause the martensite reaction to proceed, and the amt. of reaction was detd. by a magnetometer. The results were verified by x-ray and micrographic studies. Deformed specimens of the steel showed 3 effects. Above about 3% deformation some transformation occurred during deformation and reached 32% transformation at about 60% deformation. The martensite point was lowered from about −50° to −80° and leveled off at this value at about 30% deformation. The martensite reaction became sluggish in the deformed specimens. The total amt. of martensite formed as a result of both deformation and cooling was 40% at 0% deformation, decreased to 18% at about 25% deformation, and increased to 32% at 56% deformation. At about 60% deformation no formation of martensite occurred during cooling. Deformed specimens of the alloy showed similar, more pronounced effects except that no lowering of the martensite point was observed. At 20% deformation only about 0.2% as much total transformation occurred as at 0% deformation. The kinetics of the isothermal martensite reaction at temps in the range −15 to −196° were studied on specimens of the alloy deformed 0% and 14%. At all temps. the 14% alloy showed an initial rate that was about 0.1 as fast as the 0% alloy, but the final amt. of reaction was comparable for the two specimens. The activation energy was 900 cal./mol. for both. Thus, the essential nature of the reaction is not changed by deformation.

A. G. Guy

1951

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9

Work of formation of martensite nuclei. G. V. Kurdyumov and O. P. Maksimova. *Doklady Acad. Nauk S.S.S.R.* **73**, 95-8(1950); cf. *C.A.* **43**, 80c.—The temp. dependence of the velocity of isothermal transformation from austenite to martensite of an alloy of Fe with 23% Ni and 3.4% Mn was studied. On continuous cooling at 10°/min. transformation began at −17°, which was taken as the martensite point. Kinetic curves at higher const. temps. showed transformation. The velocity of tapering off of the transformation was a max. at −47°. A plot of the logarithm of the initial rate of transformation *vs.* $1/T$ was a straight line at temps. below −50°, but deviated from this line at higher temps. The activation energy for nucleation was 600 cal./mole. The work of nucleus formation was 0 at −50°, 100 cal./mole at −40°, 700 at −30°, and 1400 at 0°. Thus, martensite formation is a typical phase transformation. Near the martensite point the velocity of transformation is slow because of the large value of the work of nucleus formation.

A. G. Guy

1951

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MAKSIMOVA, O. P.

B.T. B.M.I. 2581

G. V. Kurdyumov, O. P. Maksimova and T. V. Tagunova, On the Transformation of Deformed Austenite into Martensite, DOKLADY AKADEMII NAUK SSSR, vol. 73, 1950, No. 2, pp. 307-310; 2200 words.

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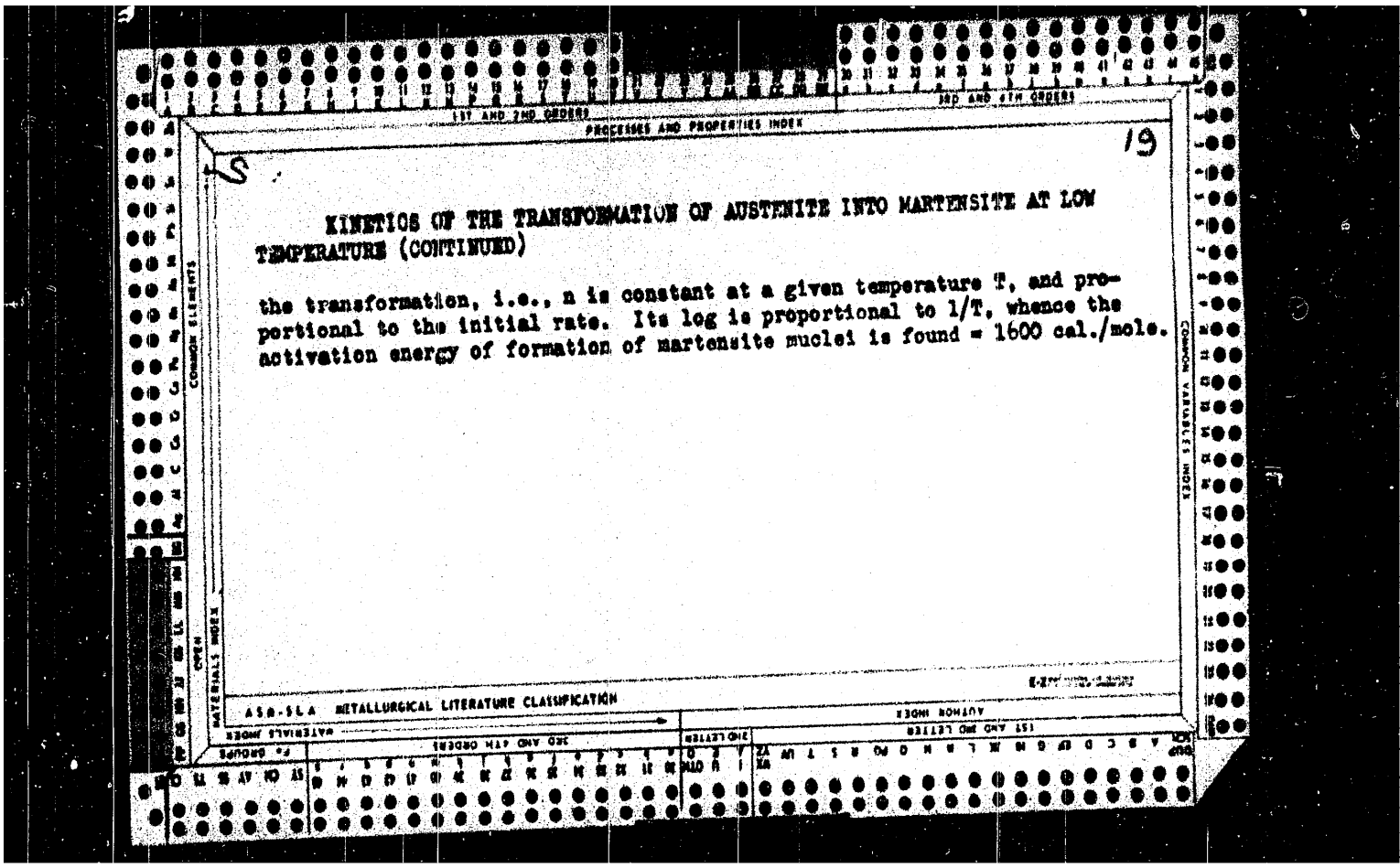

19

KINETICS OF THE TRANSFORMATION OF AUSTENITE INTO MARTENSITE AT LOW TEMPERATURE (CONTINUED)

the transformation, i.e., n is constant at a given temperature T, and proportional to the initial rate. Its log is proportional to 1/T, whence the activation energy of formation of martensite nuclei is found = 1600 cal./mole.

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amount of martensite is formed isothermally. The kinetic curves of the degree of transformation as a function of time, increase in steepness and height with the temperature falling from —84° to —133°, then decrease with further falling temperature. At temperatures above the optimum temperature, the process comes to a halt soon and at a fairly early stage of the transformation; on approaching the optimum temperature (from either side), the decay of the transformation sets in progressively later and proceeds progressively slower, i.e., the initial rate is preserved longer; thus at —166°, the rate remains constant during 10 min. The summary degree of transformation, in all arrests was about 20%. Similar curves, with a maximum of rate and of final degree of transformation at a given temperature, were found with various other manganese steels with different manganese and carbon contents. Inhibition of the austenite—martensite tranformation through rapid cooling to —194°, and its renewal through stepwise warming up, were also observed on plain steel with 1·6% carbon, quenched in alkaline iced water so as to contain about 50% austenite; the summary transformation in all arrests on stepwise warming up amounted to about 10%. Transformation begins to be observable at about —100 ; rates and extents of transformation are perfectly measurable at —125, —135, and —138°.

If n is the number of nuclei formed in unit time per unit volume, v = mean volume of the martensite crystals, V = volume of martensite formed in the isothermal arrest over the time t, Vo = limiting volume of martensite which can be formed at the given temperature, then $1-(V/Vo) = e^{-nvt}$. This equation is in agreement with the experimental data, at least over the first half of

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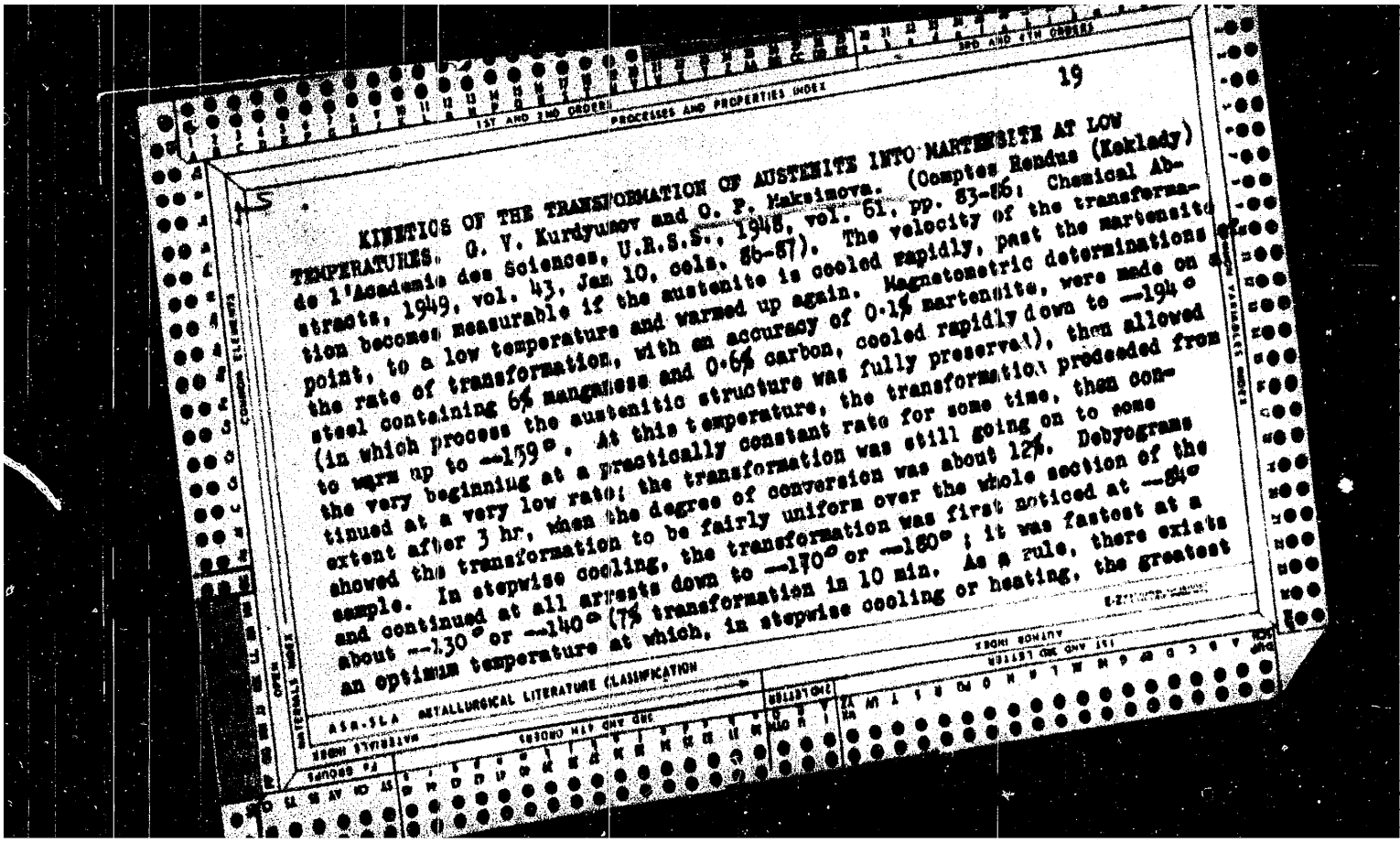

19

KINETICS OF THE TRANSFORMATION OF AUSTENITE INTO MARTENSITE AT LOW TEMPERATURES. G. V. Kurdyumov and O. P. Maksimova. (Comptes Rendus (Doklady) de l'Academie des Sciences, U.R.S.S., 1948, vol. 61, pp. 83-86; Chemical Abstracts, 1949, vol. 43, Jan 10, cols. 86-87). The velocity of the transformation becomes measurable if the austenite is cooled rapidly, past the martensite point, to a low temperature and warmed up again. Magnetometric determinations the rate of transformation, with an accuracy of 0.1% martensite, were made on steel containing 6% manganese and 0.6% carbon, cooled rapidly down to —194° (in which process the austenitic structure was fully preserved), then allowed to warm up to —159°. At this temperature, the transformation proceeded from the very beginning at a practically constant rate for some time, then continued at a very low rate; the transformation was still going on to some extent after 3 hr, when the degree of conversion was about 12%. Debyograms showed the transformation to be fairly uniform over the whole section of the sample. In stepwise cooling, the transformation was first noticed at —84° and continued at all arrests down to —170° or —180°; it was fastest at a about —130° or —140° (7% transformation in 10 min. As a rule, there exists an optimum temperature at which, in stepwise cooling or heating, the greatest

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MAKSIMOVA, O.F; OKHRIMENKO, A.P.; KUBYAK, O.D.

Improvement of work processes in modern steel smelting establishment. Vrach.delo no.3:110-112 Mr '63. (MIRA 16:4)

1. Kiyevskiy institut gigiyeny truda i professional'nykh zabolevaniy.

(SMELTING--HYGIENIC ASPECTS)

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ZHIRNOVA, G.Ye., kand.med.nauk; MAKSIMOVA, O.F., kand.med.nauk; MEN'SHOV, A.A., kand.med.nauk; BAKALINSKAYA, Ye.D., nauchnyy sotrudnik

Sanitary and hygenic condition of modern open-hearth plants and health measures. Vrach.delo no.12:1305-1307 D '59.

(MIRA 13:5)

1. Kiyevskiy institut gigiyeny truda i professional'nykh zabolevaniy.

(STEEL INDUSTRY--HYGIENIC ASPECTS)

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MAKSIMOVA, O.F. [Maksymova, O.F.]

Changes in basic cortical processes with the aging of man [with summary in English]. Fiziol. zhur. [Ukr.] 4 no.2:156-161 Mr-Ap '58. (MIRA 11:5)

1.Kiivs'kiy institut gigiyeni pratsi i profzakhvoryuvan', fiziologichniy viddil.

(CEREBRAL CORTEX) (AGE)

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MAKSIMOVA, O.F., kand.med.nauk

Peculiarities of the acoustic motor reaction in persons of different ages. Vrach.delo no.1:1305-1306 D '58. (MIRA 12:3)

1. Kievskiy institut gigiyeny truda i professional'nykh zabolevaniy.
(REACTION TIME (PSYCHOLOGY))

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MAKSIMOVA, O.F.

Effect of dynamic work on muscle capacity in man at various ages. Fiziol. zhur. (Ukr.) 1 no.4:64-69 Jl-Ag '55. (MLRA 9:11)

1. Kiivs'kiy institut gigieni pratsi i profzakhvoryuvan', viddil fiziologii.

(MUSCLES, physiology,
eff. of work on musc. working capacity in various ages)
(WORK, effects,
on musc. working capacity in various ages)
(AGING, physiology,
age factor in musc. response to work)

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MAKSIMOVA, O.F.

Changes in the capacity for muscular work in people of various ages during and after static work. Fiziol.zhur. (Ukr.) 1 no.1:91-97 Ja-F '55. (MLRA 9:9)

1. Kiivs'kiy institut gigiyeni pratsi i profzakhvoryuvan', Viddlil fiziologii.
(AGE) (FATIGUE) (MUSCLES)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, O. F.

"Growth Changes in the Work Capability of Man." Cand Med Sci, Kiev Inst of Labor Hygiene and Occupational Diseases, Kiev, 1954. (RZhBiol, No 4, Apr 55)

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

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

KHVOSTOVA, V.A.; MAKSIMOVA, N.V.

New find of ixiolite. Dokl. AN SSSR 148 no.2:424-426 Ja '63.
(MIRA 16:2)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov. Predstavleno akademikom D.I. Shcherbakovym.
(Kalba Range--Ixiolite)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

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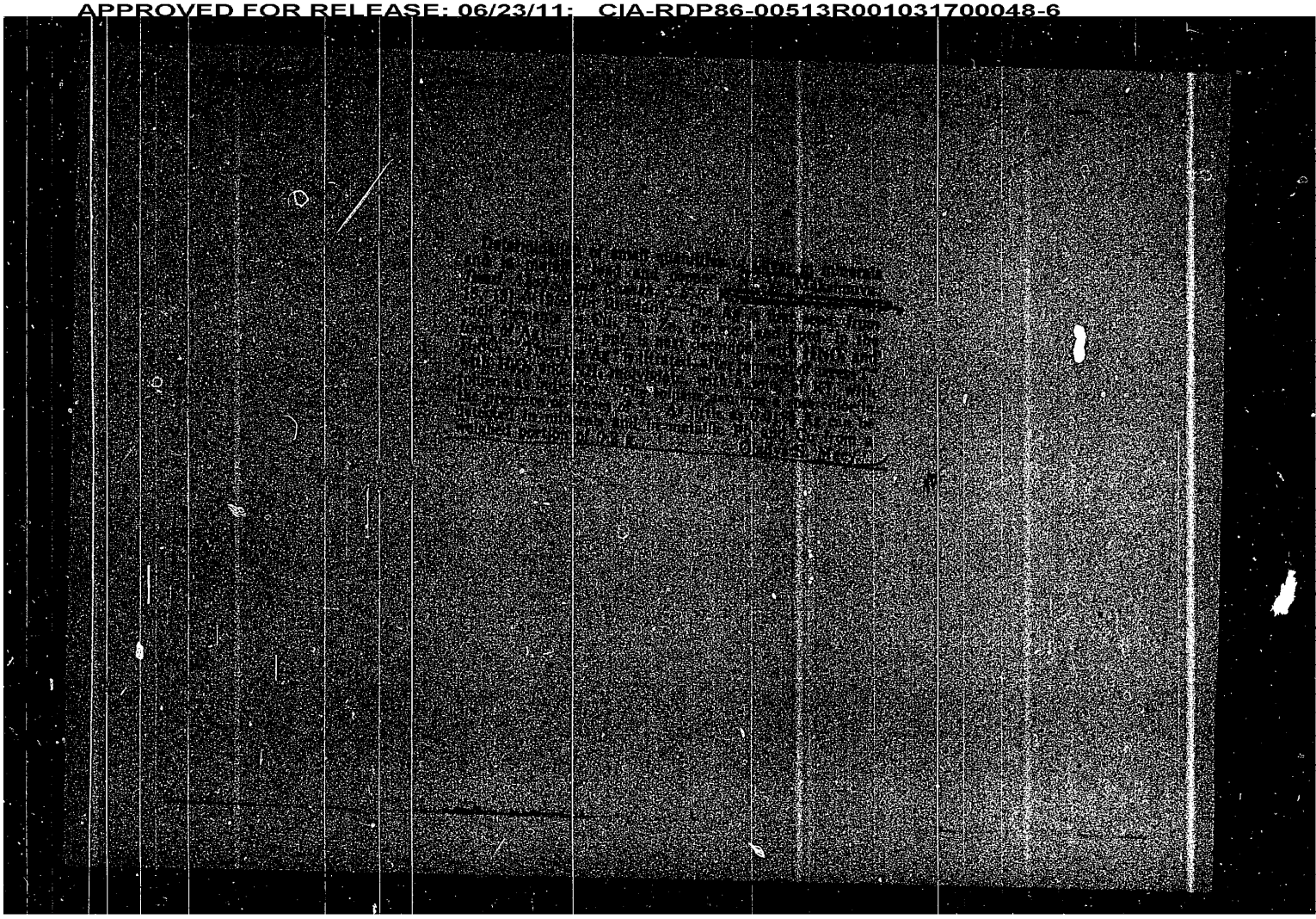

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N.S.; MAYDIN, D.P.

About the international stratigraphic dictionary. Sov.geol. 2 no.12:130-132 D '59. (MIRA 13:5)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Geology, Stratigraphic--Dictionaries)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

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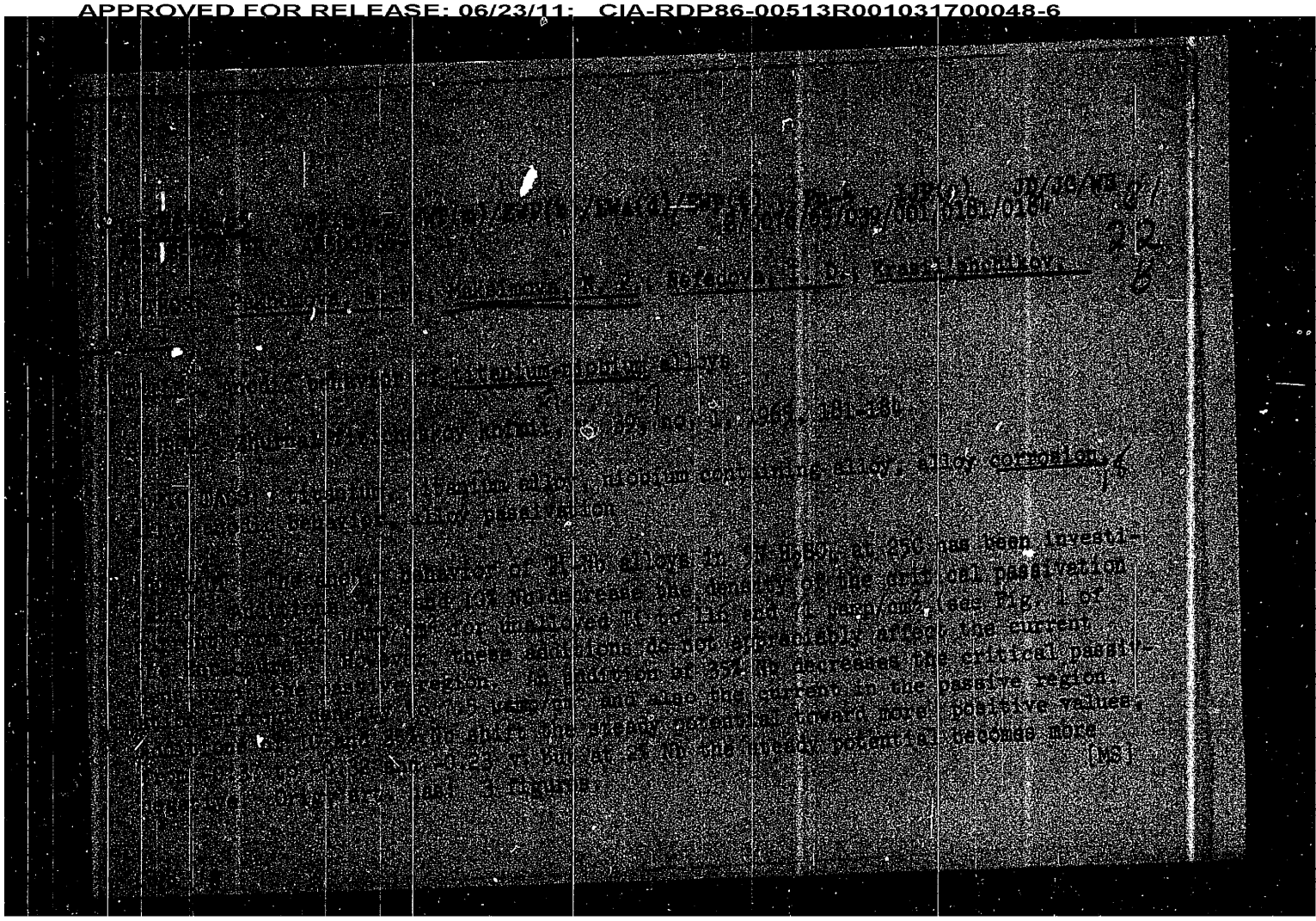

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N. P.

Outstanding Soviet scientist N. A. Chernogubov. Vest. vener., Moskva no.4:34-35 July-Aug 1951. (CIML 21:1)

1. Student. 2. Of the Clinic for Skin Diseases (Director -- Prof. F. N. Grinchar), Second Moscow Medical Institute imeni I. V. Stalin.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MIRONOV, V.F.; MAKSIMOVA, N.G.

High-temperature condensation of silicochloroform and chloroform with some organic compounds. Izv. AN SSSR. Ser. khim. no.12: 2193-2196 '65. (MIRA 18:12)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
Submitted April 2, 1965.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

IVANOV, V.S.; MAKSIMOVA, N.M.

Reversal of the crotonization of acetaldehyde over S.V.Lebedev's catalyst. Zhur.ob.khim. 30 no.10:3171-3174 O '61. (MIRA 14:4)

1. Leningradskiy gosudarstvennyy universitet.
(Acetaldehyde) (Crotonaldehyde)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

IVANOV, V.S.; MAKSIMOVA, N.M.

Reversibility of the reaction of crotonization over the S.V.Lebedev catalyst. Vest LGU 16 no.22:151-153 '61. (MIRA 14:11)
(Crotonaldehyde) (Acetaldehyde) (Catalysts)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N.M.

Planning the biology curriculum and scientific and practical work in agriculture for grades 5 and 6. Biol. v shkole no. 6:52-56 N-D '60. (MIRA 14:1)

1. Tomskiy institut usovershenstvovaniya uchiteley.
(Agriculture--Study and teaching)
(Biology--Study and teaching)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

ZUYKOV, V.Ya.; IVANOV, A.M.; KRISTALL, Z.B.; MAKSIMOVA, N.K.; NOVIKOV, O.P.; POTKOV, G.A.; KRIKUNOV, A.Ye., red.; SELEKHOV, P.M., red.; SHUVALOVA, N.S., red.; ZORINA, G.V., red.; VINOGRADOV, Ye.A., tekhn. red.

[Liquid separators for the food industry; handbook-catalog]Separatory zhidkostnye dlia pishchevoi promyshlennosti; katalog-spravochnik. Moskva, 1962. 86 p. (MIRA 15:10)

1. Moscow. TSentral'nyy institut nauchno-tekhnicheskoy informatsii mashinostroyeniya. 2. Vsesoyuznyy nauchno-issledovatel'skiy i eksperimental'no-konstruktorskiy institut prodovol'stvennogo mashinostroyeniya (for Zuykov, Ivanov, Kristall, Maksimova, Novikov, Potkov).

(Separators (Machines))

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

TITKOV, N.I.; MAKSIMOVA, N.I.; KORZHUYEV, A.S.; SFERINA, I.D.

Method for determining the strength and character of the adhesion of polymers to rocks. Burenie no.5:16-17 '64. (MIRA 17:5)

1. Institut geologii i razrabotki goryuchikh iskopayemykh, Moskva.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N.I.; TITKOV, N.I.; KORZHUYEV, A.S.

Strength of cohesion between some resins and clays. Koll. zhur. 26 no.3:396-397 My-Je '64. (MIRA 17:9)

1. Institut geologii i razrabotki goryuchikh iskopayemykh, Moskva.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N.I.

Use of cement grouting with a water glass additive for plugging fractured rocks. Neft. khoz. 39 no.2:20-22 F '61. (MIRA 17:2)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N.I.; SERB-SERBINA, N.N.; TITKOV, N.I.; KORZHUYEV, A.S.

Changes in strength of argillaceous rocks subjected to electrochemical treatment. Koll.zhur. 23 no.5:605-614 S-O '61. (MIRA 14:9)

1. Institut geologii i razrabotki goryuchikh iskopayemykh, Moskva.

(Clay) (Electrochemistry)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

Accelerated Method for Determining the Mineral Type of Clay 132-1-14/15

ASSOCIATION: Trest "Mosbassuglegeologiya"

AVAILABLE: Library of Congress

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N. I.

132-1-14/15

AUTHOR: Mikhaylova, Ye. V.

TITLE: Accelerated Method for Determining the Mineral Type of Clay (Uskorennyy metod opredeleniya mineral'nogo tipa glin)

PERIODICAL: Razvedka i Okhrana Nedr, 1958, # 1, pp 59 (USSR)

ABSTRACT: In the periodical "Razvedka i Okhrana Nedr", # 3, 1956, an article written by N.A. Maksimovich and N.I. Maksimova was published, in which the authors recommended the application of the stepped-up method of determining the mineral type of clay, based on their different absorption properties with regard to alkalies. A comparison of results obtained when determining the mineral type of clay by means of the absorption method and the electronic-microscopic method, showed that from a total of 15 analyses only six tallied, while the results deviated considerably during the ninth analysis. Determination of the type of clay by means of the absorption method and with the aid of color agents did not give comparable data. Consequently, the quick method of determining the mineral type of clay by its absorption indicator has but a limited degree of applicability, and the results obtained must be checked by other methods.

Card 1/2

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Method of Cementing Test Holes Under Difficult Drilling Conditions

cement of the brand "500", 800 liters of water. Waterglass (90 liters) was used as an agent for speeding up the setting process. Three bore holes were successfully treated by this method.

There is 1 table and 1 figure.

ASSOCIATION: Gosplan RSFSR VIMS Petroleum Institute AS USSR (Institut nefti AN SSR)

AVAILABLE: Library of Congress

Card 2/2

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N. I.

AUTHORS: Volokitenkov, A.A., Kogan, D.M., and Maksimova, N.I. 132-1-8/15

TITLE: Method of Cementing Test Holes Under Difficult Drilling Conditions (Sposob tsementatsii razvedochnykh skvazhin dlya oslozhnennykh usloviy bureniya)

PERIODICAL: Razvedka i Okhrana Nedr, 1958, # 1, pp 46-48 (USSR)

ABSTRACT: In some bore holes at the Belgorod district, the flushing liquid was completely absorbed by porous Carboniferous limestone layers. The usual methods of tamping with clay and cement did not plug the crevices. Thus the necessity arose to cement the porous zones by quick-hardening mixtures. As the conveying of quick setting concrete could not be done fast enough through one pipe, a proposal was advanced by Maksimovich, Maksimova and Yermakov, according to which two pipes transported a cement mixture and an agent for speeding up the hardening process to the place of cementing.

According to this method, a tamping device was lowered to the end of the drill stem; the cement mixture was pumped into the porous zone by the conventional manner. The author gives a description of the tamping device and its application. The process of hardening can thus be reduced from the original 48 - 72 to 12 hours.

The following mixture is used: (for 1.5 - 1.6 cu m) 1,400 kg of building cement of the brand "200", 300 kg of aluminum

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MAKSIMOVICH, N.A.; MAKSIMOVA, N.I.

Rapid method for determining the mineral type of clays. Razved. i okh.nedr. 22 no.3:35-38 Mr '56. (MLRA 9:7)
(Clay--Testing)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

ZIN'KOVSKAYA, S.I.; MAKSIMOVA, N.I.

Drying of coke-oven gas producing shops of the Yasinovka Coke and Coal Chemicals Plant. Koks i khim. no.11:42-44 '63. (MIRA 16:12)

1. Yasinovskiy koksokhimicheskiy zavod.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

L 47382-66 EWT(m)/EWP(j) RM

ACC NR: AP6029021 (A) SOURCE CODE: UR/0413/66/000/014/0023/0023

INVENTOR: Maksimova, N. G.; Mironov, V. F.

ORG: none

TITLE: Method of obtaining m-fluorophenylsilanechlorides. Class 12, No. 183746

SOURCE: Izobret prom obraz tov zn, no. 14, 1966 23

TOPIC TAGS: fluorosilane, silicon hydride

ABSTRACT: An Author Certificate has been issued for a method of obtaining m-fluorophenylsilanechlorides. To simplify the process, the mixture of silicon hydrides and m-fluorochlorobenzene is passed through a heater quartz tube at a temperature of 580—620C. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 22Mar65/

Card 1/1 mjs UDC: 547.419.5.07

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

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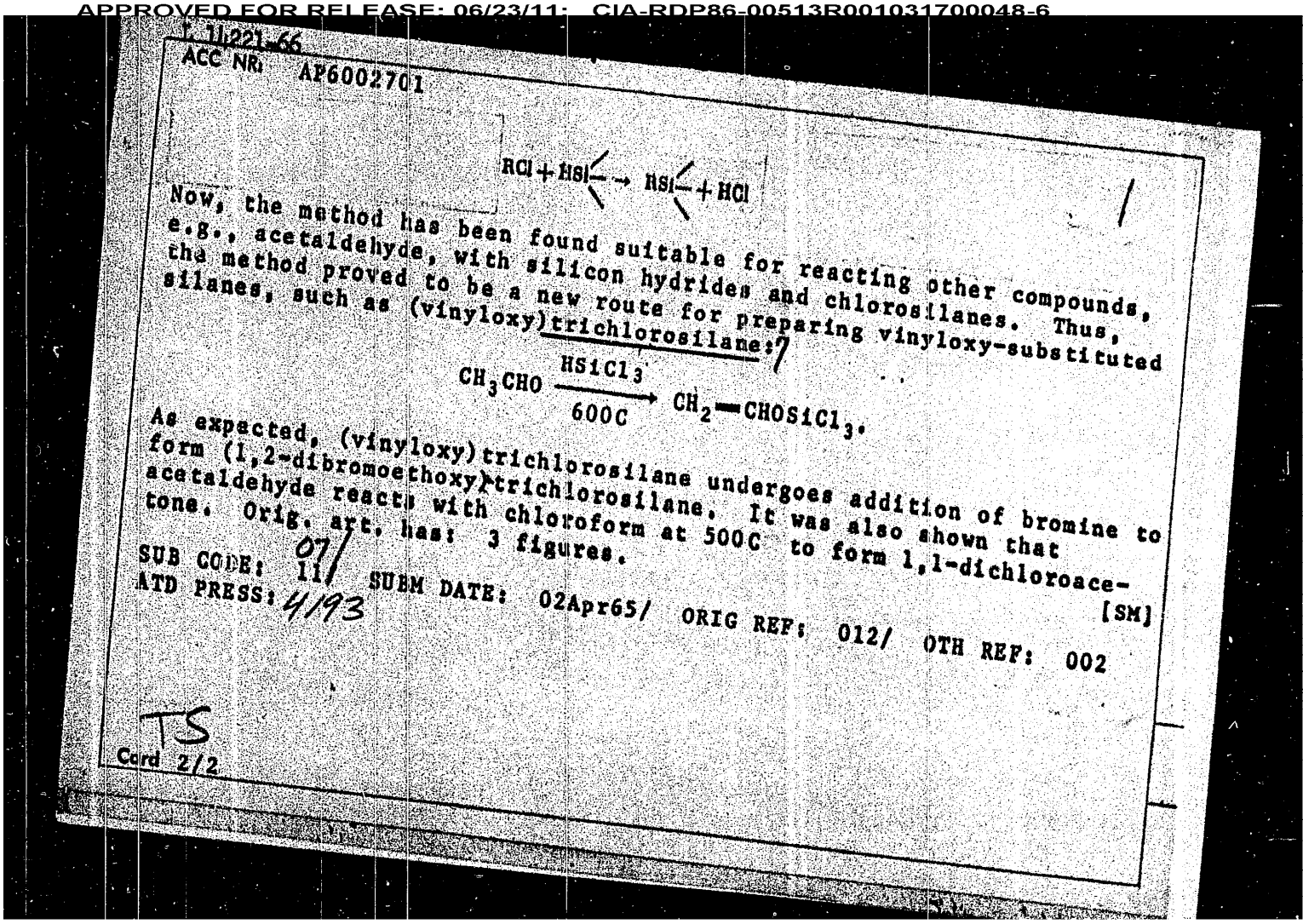

11221-66
ACC NR: AP6002701

$$RCl + HSi\equiv \rightarrow RSi\equiv + HCl$$

Now, the method has been found suitable for reacting other compounds, e.g., acetaldehyde, with silicon hydrides and chlorosilanes. Thus, the method proved to be a new route for preparing vinyloxy-substituted silanes, such as (vinyloxy)trichlorosilane:

$$CH_3CHO \xrightarrow[600C]{HSiCl_3} CH_2{=}CHOSiCl_3.$$

As expected, (vinyloxy)trichlorosilane undergoes addition of bromine to form (1,2-dibromoethoxy)trichlorosilane. It was also shown that acetaldehyde reacts with chloroform at 500C to form 1,1-dichloroacetone. Orig. art. has: 3 figures. [SM]

SUB CODE: 07/ 11/ SUBM DATE: 02Apr65/ ORIG REF: 012/ OTH REF: 002

ATD PRESS: 4193

TS

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

L 11221-66 EWT(m)/EWP(j) RM

ACC NR: AP6002701 (A) SOURCE CODE: UR/0062/65/000/012/2193/2196

AUTHOR: Mironov, V. F.; Maksimova, N. G.

ORG: Institute of Organic Chemistry im. N. D. Zelinskiy, Academy of Sciences SSSR (Institut organicheskoy khimii Akademii nauk SSSR)

TITLE: High-temperature condensation of trichlorosilane and chloroform with certain organic compounds

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 12, 1965, 2193-2196.

TOPIC TAGS: silane

ABSTRACT: It was shown earlier (1958-1962) that the "high-temperature condensation method" is not only a general preparative method for organosilicon compounds, but also a new route for the formation of the C-Si bond. The method involved the reaction of hydrocarbons or of chloro derivatives of unsaturated or aromatic hydrocarbons with silicon hydrides on passing of the stoichiometric mixture through a quartz tube heated to 500—650C:

$$RH + HSi\equiv \rightarrow RSi\equiv + H_2$$

Card 1/2 UDC: 546.28

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

ACCESSION NR: AP4019022

Orig. art. has: no figures, 4 formulas, no tables.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinski Akademii nauk SSSR (Institute of Organic Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 23Dec63 DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: OC NO REF SOV: 002 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

ACCESSION NR: AP4019022 S/0062/64/000/002/0394/0395

AUTHOR: Mironov, V. F.; Maksimova, N. G.

TITLE: A new method of synthesizing vinyl substituted silanes

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 2, 1964, 394-395

TOPIC TAGS: vinyl substituted silane, trichlorosilane, acetaldehyde, silane, synthesis

ABSTRACT: In the search for a new method which is different from that of Nesmeyanov et al. (Dokl. AN SSSR, 128, 551, 1959) for producing vinyl substituted silanes, the authors found that passing a mixture of trichlorosilane with acetaldehyde (1:2) at a rate of 20 g/hr through an empty quartz tube (length 1000 mm, diam. 20 mm) heated to 650C, vinyloxytrichlorosilane is formed with a yield of 46%.

$$CH_3CHO + HSiCl_3 \xrightarrow{650^\circ} Cl_3SiOCH{=}CH_2 + H_2 .$$

Other silicon hydrides also enter in similar reactions with acetaldehyde.

Card 1/2

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

Interaction between phenyl...

SUBMITTED: December 25, 1962

S/062/63/000/002/020/020
B144/B186

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

S/062/63/000/002/020/020
B144/B186

AUTHORS: Mironov, V. F., and Maksimova, N. G.

TITLE: Interaction between phenyl acetylene and trichlorosilane

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 2, 1963, 387 - 388

TEXT: Between silicon hydrides and acetylene or its derivatives not only does the known addition reaction take place, but an additional substitution reaction was observed at 500 - 600°C: $RC{\equiv}CH + HSi \longrightarrow RC{\equiv}CSi- + H_2$. When a stoichiometric mixture of phenyl acetylene and trichlorosilane was passed through a quartz tube heated to 500°C, the yields were 16% trichloro-silyl styrene and 18 % trichloro-silyl-phenyl acetylene. Formation of trichloro-silyl-phenyl acetylene by dehydrogenation of β-trichloro-silyl styrene could be excluded. The silylation of acetylene compounds by substitution represents a new way of forming Si-C bonds.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

Card 1/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

Reaction of trichlorosilane...

hydrocarbon mixtures such as petroleum ether, gasoline, etc. can also be used for high-temperature condensation. The resulting products always contain up to 30% CH_3SiCl_3 and $CH_2{=}CHSiCl_3$ whatever the hydrocarbon used. The experiments show that the new reaction of $HSiCl_3$ with hydrocarbons of the paraffin and cycloparaffin series is a simple method of producing organosilicon compounds. There is 1 table.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: January 3, 1962

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

S/062/62/000/007/009/013
B117/B180

AUTHORS: Mironov, V. F., and Maksimova, N. G.

TITLE: Reaction of trichlorosilane with hydrocarbon at high temperatures

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 7, 1962, 1303 - 1305

TEXT: The reaction of trichlorosilane with hydrocarbons in a continuous-flow system (high-temperature condensation) was studied at ~600°C. With isobutylene condensation occurred and with divinyl only addition. With cyclohexene and cyclohexane dehydrogenation and deep pyrolysis of the corresponding hydrocarbon yielded a mixture of organosilicon compounds. From the latter, methyl trichlorosilane (22 and 19%), vinyl trichloro-silane (10 and 20%), and phenyl trichloro-silane (16 and 15%) were separated, and, with cyclohexane, 6% allyl trichlorosilane. When hexane and nonane were used, the yields of organosilicon $RSiCl_3$-type compounds were more than 60% the theoretical. The yields obtained with methane, propane, butane, and isooctane were somewhat lower. It was shown that

Card 1/2

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

KUL'BA, F.Ya.; MIRONOV, V.Ye.; TROITSKAYA, G.S.; MAKSIMOVA, N.G.

Complexing of bivalent lead with sodium bromide. Zhur.neorg.khim. 6 no.8:1865-1867 Ag '61. (MIRA 14:8)

1. Leningradskiy tekhnologicheskiy Institut imeni Lensoveta kafedra obshchey khimii.

(Lead compounds) (Sodium bromide)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

Synthesis of Unsaturated Organosilicon Compounds on Propargyl Alcohol Bases

86482
S/062/60/000/011/013/016
B013/B078

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: April 26, 1960

Card 4/4

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

Synthesis of Unsaturated Organosilicon Compounds on Propargyl Alcohol Bases

S/062/60/000/011/013/016
B013/B078

γ-(diethyl methyl silyl)propyl alcohol, the Raman spectra coincide with the exception of the weakest lines. Propargyl oxytrimethyl silane (III) $C_6H_{12}SiO$ - boiling point 110.8°C (757 mm) - yield 47%. In a similar manner were synthesized: $C_2H_5(CH_3)_2SiOCH_2C{\equiv}CH$ - boiling point 134.8°C (745 mm); $(CH_3)_2Si(OCH_2C{\equiv}CH)_2$ - boiling point 73°C (10 mm); $C_2H_5Si(OCH_2C{\equiv}CH)_3$ - boiling point 118°C (10 mm).
β-(γ-trichlorosilyl allyloxy)propionitrile (V) - $C_6H_8NOCl_3Si$ - boiling point 140°C (7 mm). The methylation of CH_3MgCl leads to
β-(γ-trimethyl silyl allyl oxy)propionitrile (VI) - boiling point 94°-96°C (6 mm) - yield 50%. The Raman spectra were taken by L. A. Leytes.
A. D. Petrov and M. F. Shostakovskiy are mentioned. There are 12 Soviet references.

Card 3/4

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

86482

Synthesis of Unsaturated Organosilicon Compounds on Propargyl Alcohol Bases

S/062/60/000/011/013/016
B013/B078

Special reference is made to the order of addition of R_3SiH to propargyl alcohol, which does not agree with the order of addition of these silicohydrides on $(CH_3)_2C(OH)C\equiv CH$ (Refs. 2 and 3).

$R_3SiH + CH\equiv C-\overset{CH_3}{\underset{CH_3}{C}}-OH \rightarrow CH_2=C-\overset{CH_3}{\underset{R_3Si}{C}}-OH$. Proceeding from propargyl alcohol, the following products were obtained: γ-(trimethyl silyl)propargyl alcohol (I) - $C_6H_{12}SiO$ - boiling point 65°C (10 mm) - yield 43.5%. γ-(diethyl methyl silyl)allyl alcohol (II) - $C_8H_{18}SiO$ - boiling point 99°-100°C (10 mm) - yield 67.5%. The products of the addition of acrylonitrile to alcohol (II) yielded $C_{11}H_{21}SiNO$ - boiling point 155°C (20 mm) - yield 60%. γ-(diethyl methyl silyl)propyl alcohol (IV) - $C_8H_{20}SiO$ - boiling point 86°C (9 mm). Although the refractive index and boiling point of this alcohol somewhat diverge from the established

Card 2/4

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86482

S/062/60/000/011/013/016
B013/B078

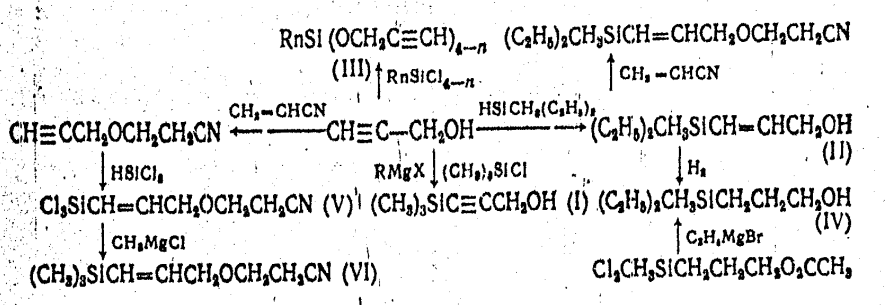
5.3770

AUTHORS: Mironov, V. F., Maksimova, N. G.

TITLE: Synthesis of Unsaturated Organosilicon Compounds on Propargyl Alcohol Bases

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 11, pp. 2059 - 2061

TEXT: This is a brief report on the investigation of the conversions of propargyl alcohol according to the scheme attached:



Card 1/4

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L [illegible]

ACCESSION NR: AP50 [illegible] 2616

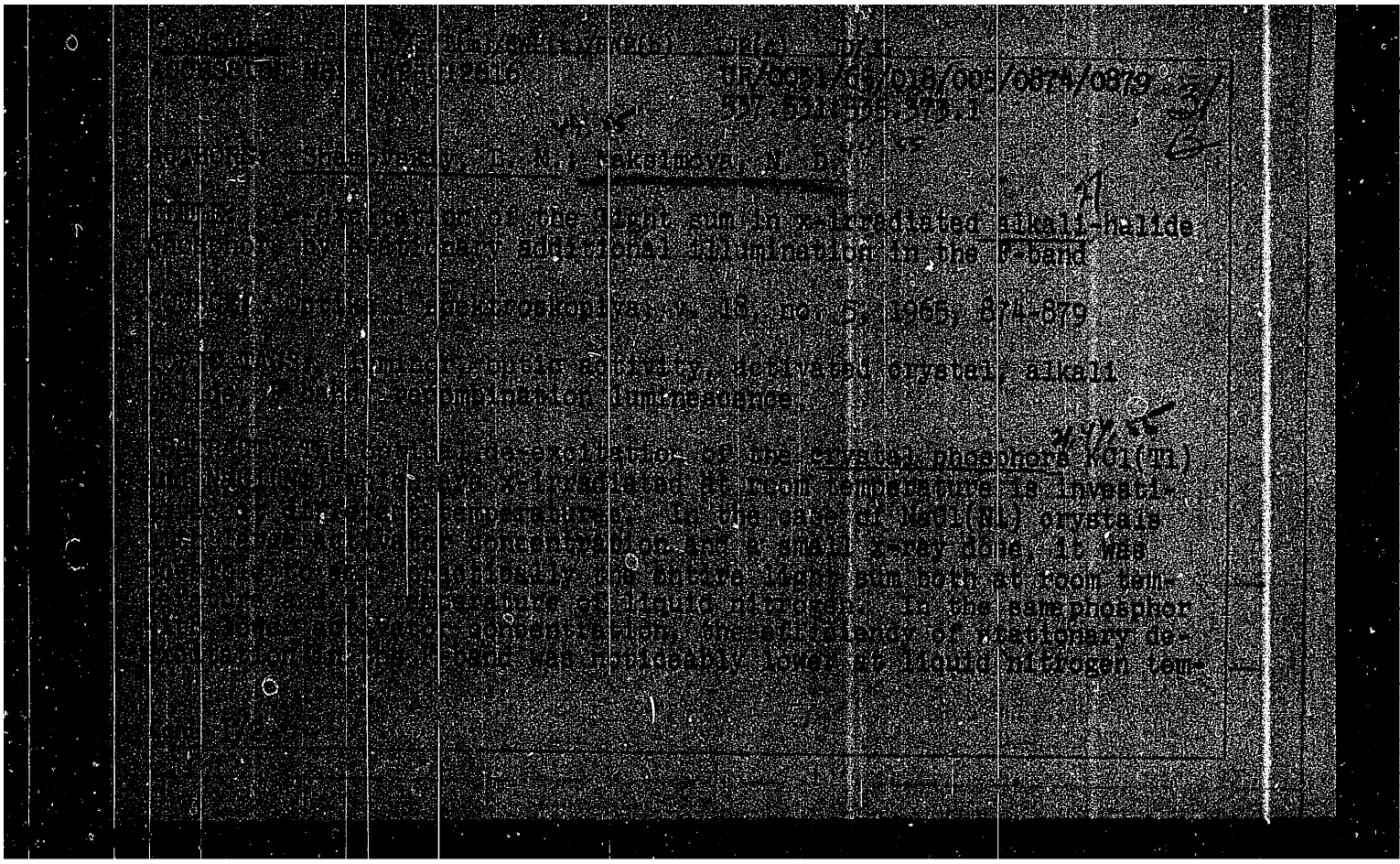
[illegible] at room temperature. In KCl(Tl) under analogous ex[illegible] conditions, an appreciable fraction of the light sum is [illegible]. No noticeable time delay, other than the delay due [illegible] was observed in the de-excitation light pulse. The [illegible] on the basis of the hole recombination luminescence [illegible] proposed by one of the authors earlier (with P. A. [illegible], ser. fiz. v. 25, 31, 1961). A new mechanism [illegible] de-excitation of crystal phosphors is proposed, in which [illegible] from the V_2 centers and recombine with the [illegible] (M^+). Various processes which make this mechanism [illegible] described. Orig. art. has: 3 figures.

[illegible] None

SUBMITTED: [illegible] ENCL: 00 SUB CODE: OP

NO REF SOV: 007 OTHER: 004

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6



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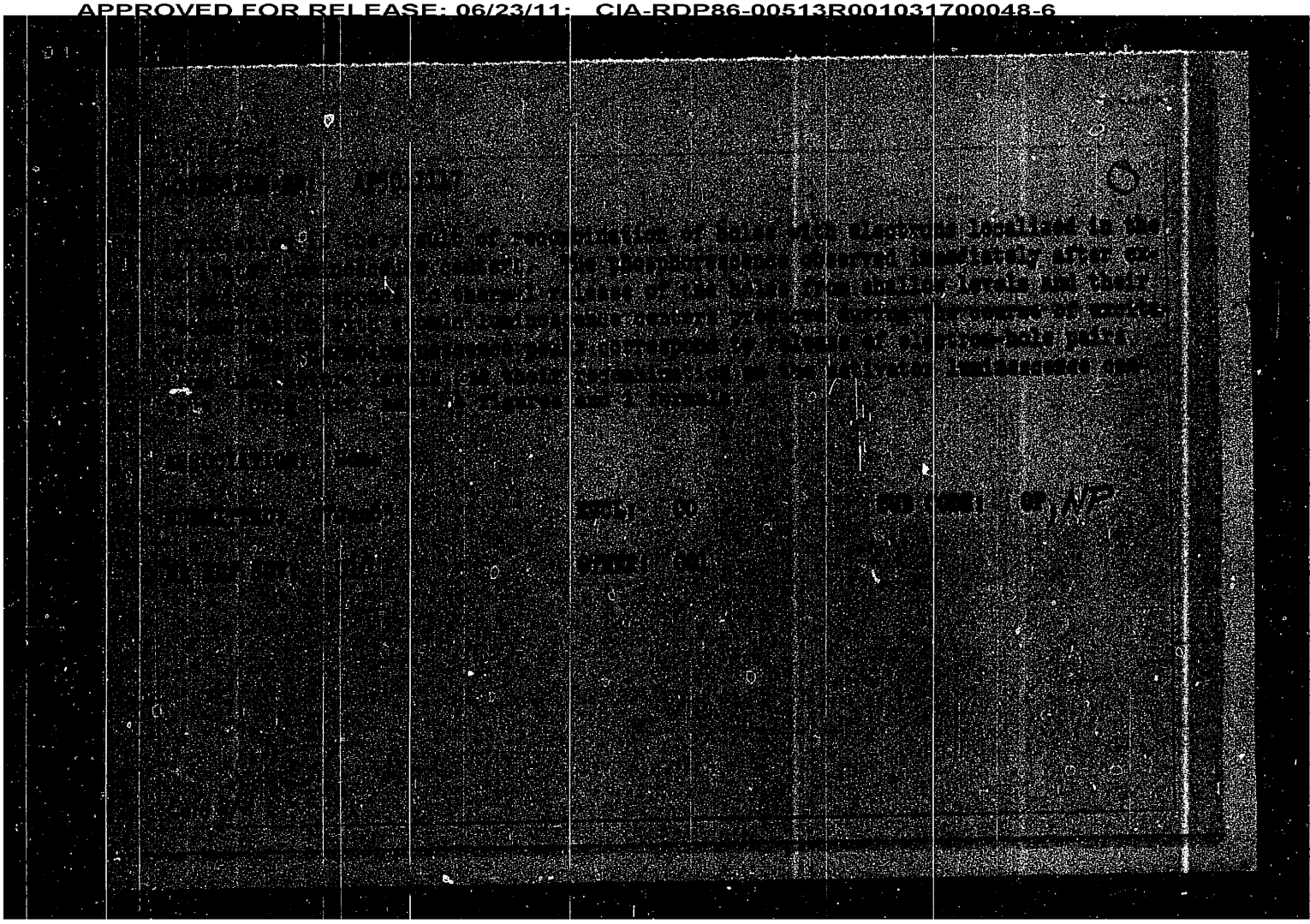

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

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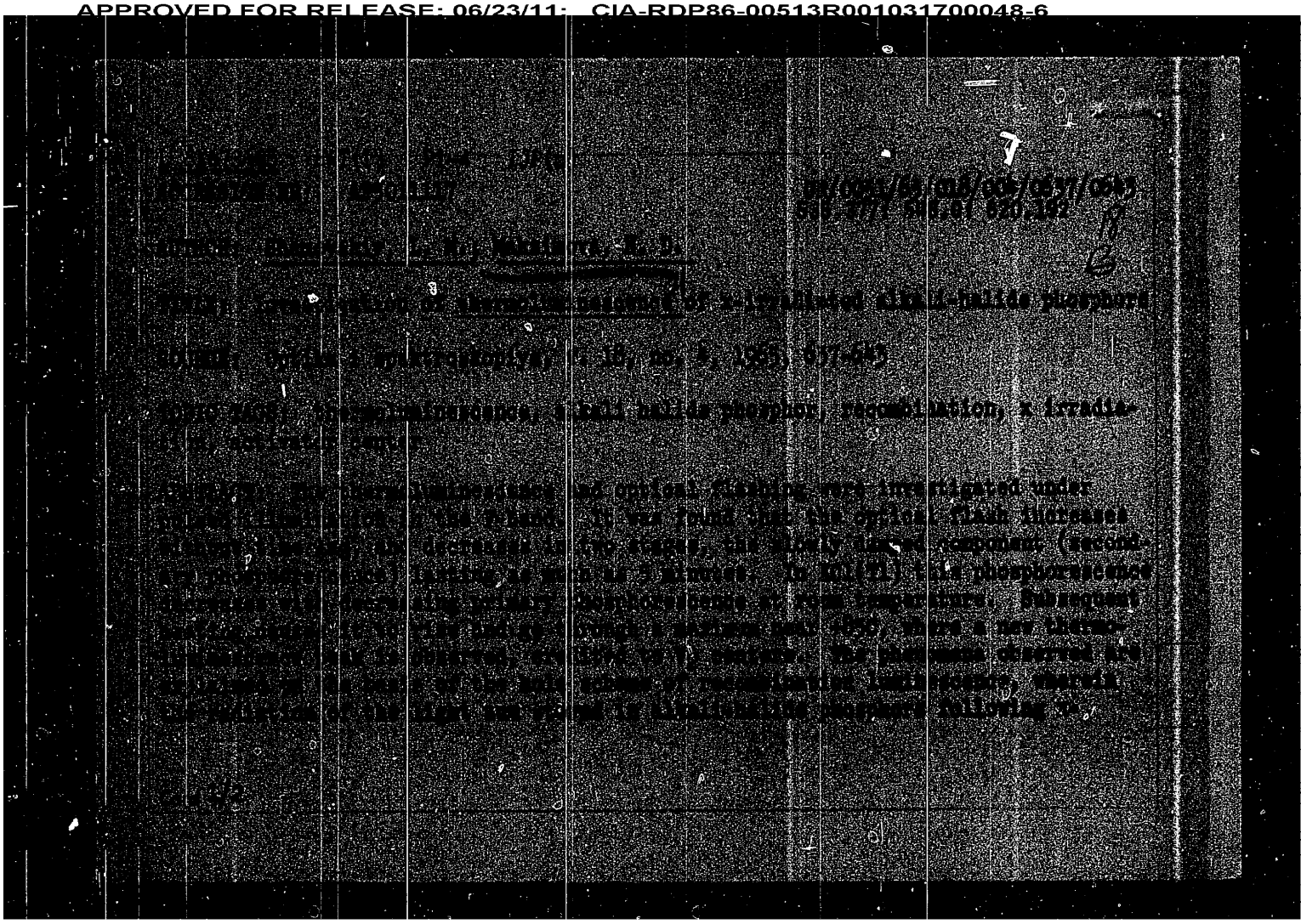

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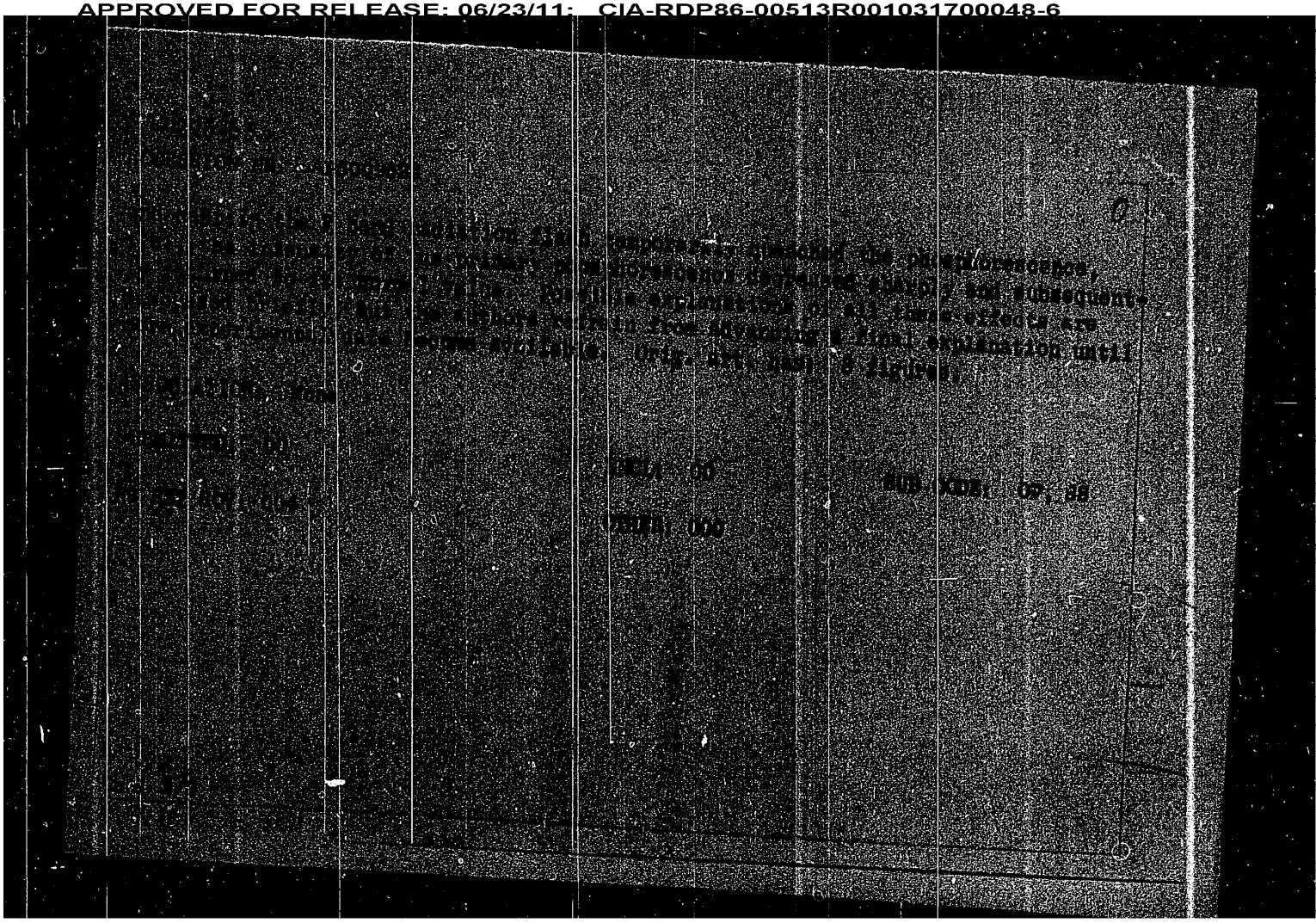

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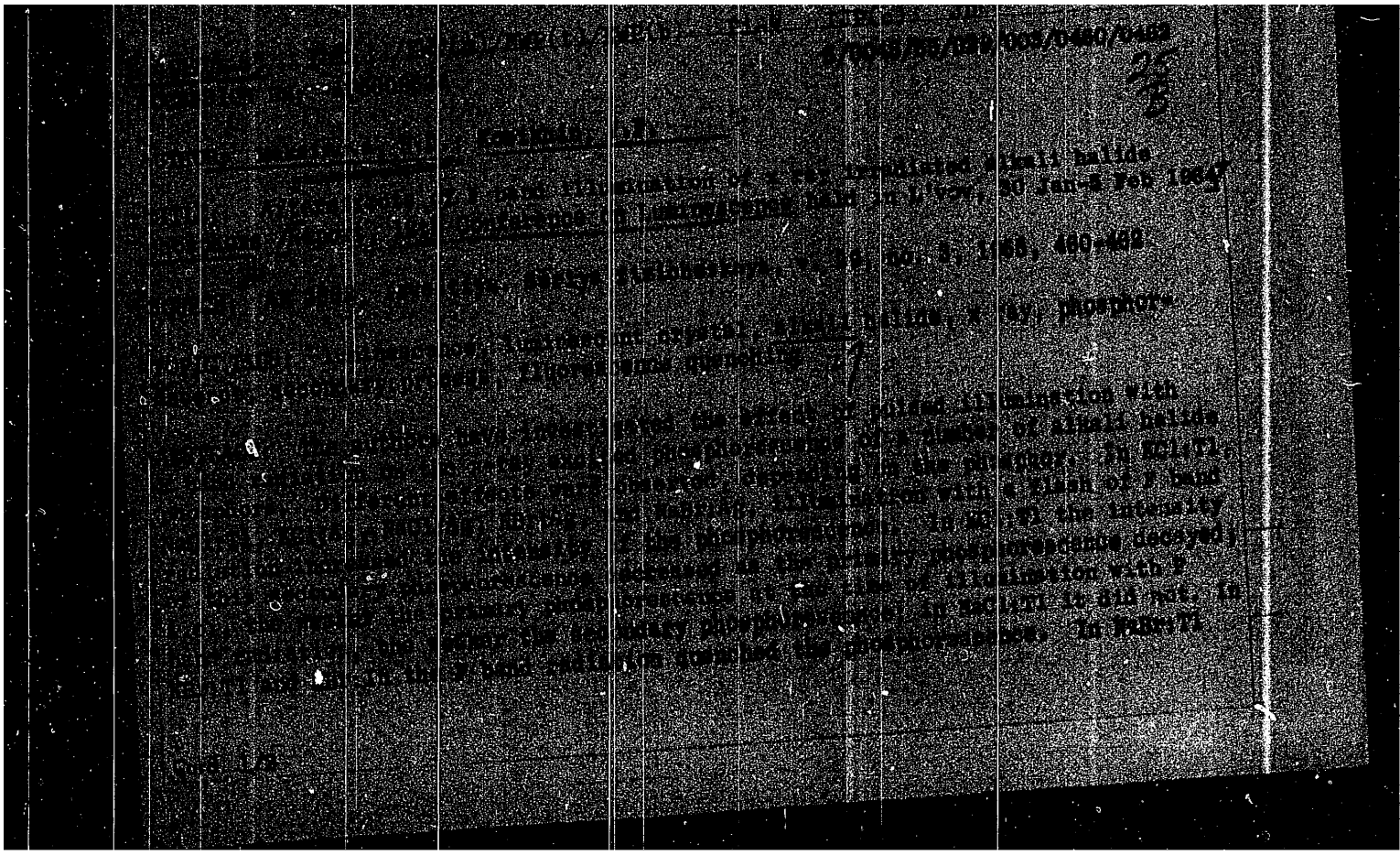

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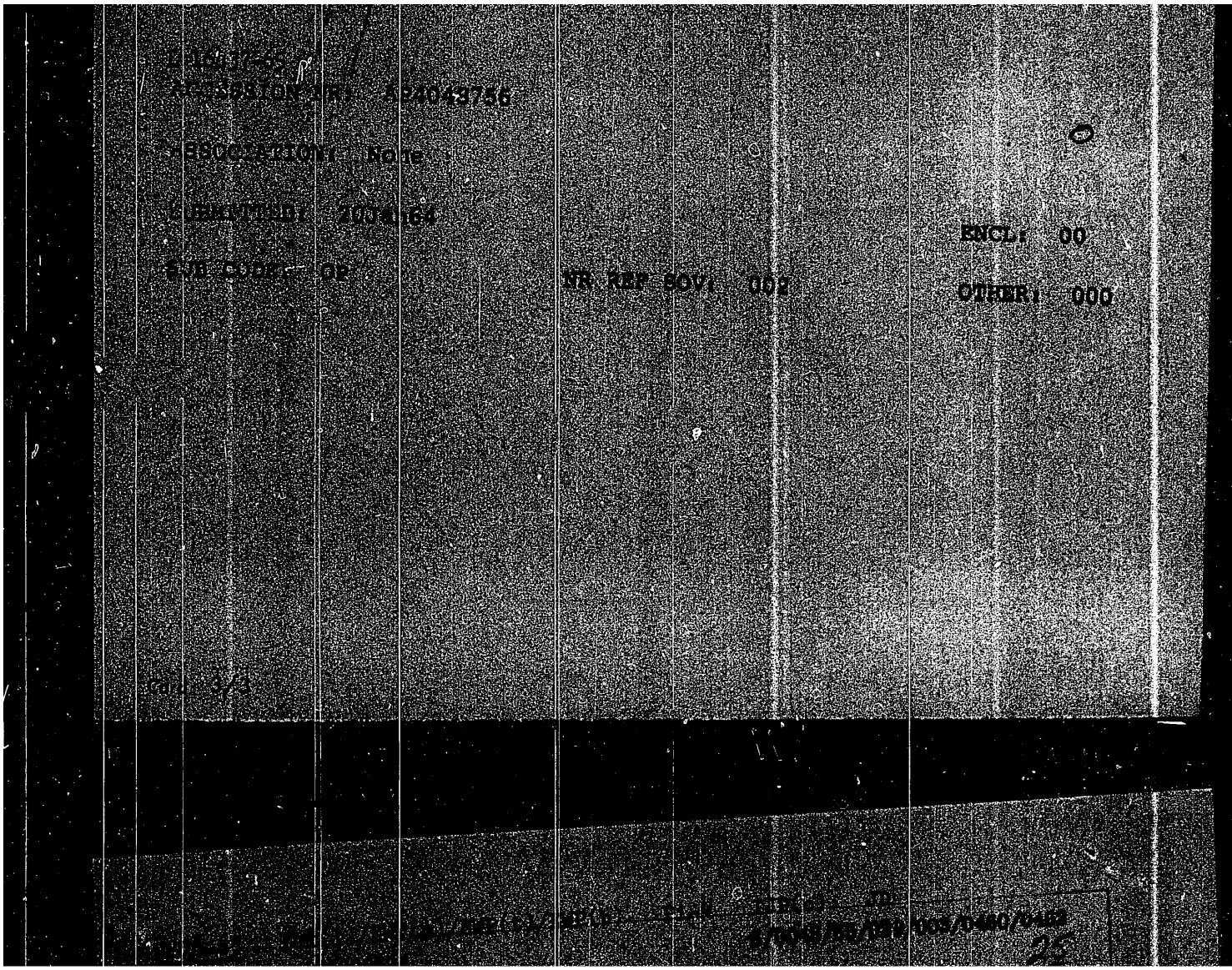

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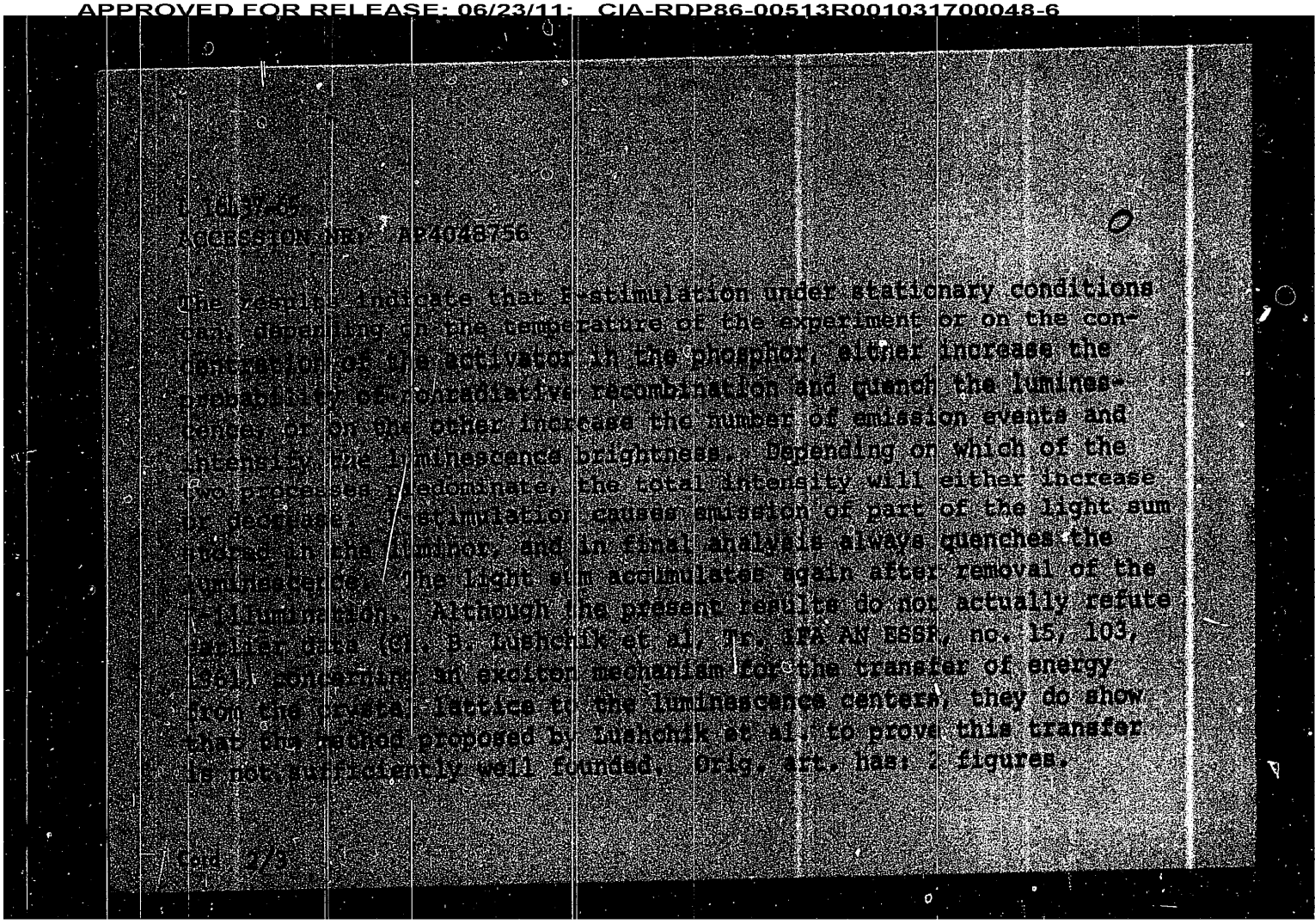
APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6



L 16137-65
ACCESSION NR: AP4048756

The results indicate that restimulation under stationary conditions can, depending on the temperature of the experiment or on the concentration of the activator in the phosphor, either increase the probability of nonradiative recombination and quench the luminescence or on the other hand increase the number of emission events and intensify the luminescence brightness. Depending on which of the two processes predominate, the total intensity will either increase or decrease. Stimulation causes emission of part of the light sum stored in the luminor, and in final analysis always quenches the luminescence. The light sum accumulates again after removal of the stimulation. Although the present results do not actually refute earlier data (cf. B. Bushchik et al., Tr. IRA AN ESSR, no. 15, 103, 1961) concerning an exciton mechanism for the transfer of energy from the crystal lattice to the luminescence centers, they do show that the method proposed by Bushchik et al. to prove this transfer is not sufficiently well founded. Orig. art. has: 2 figures.

Card 2/3

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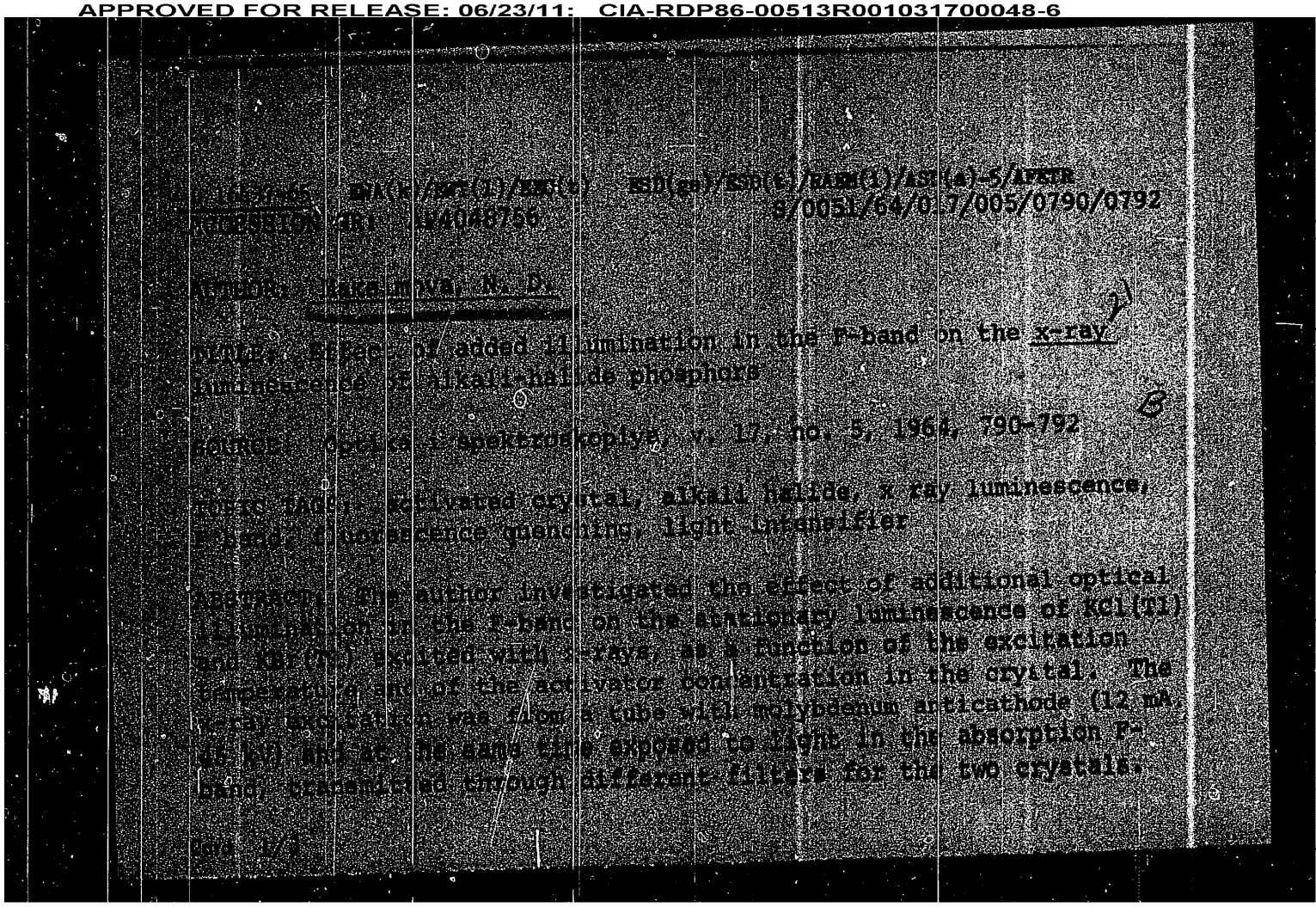

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

L 19479-63
ACCESSION NR: AT3002221

ness starts after heating the x-rayed phosphor NaCl-Ni. The authors also discuss the electron model of recombination luminescence. Orig. art. has: 5 formulas and 4 figures.

ASSOCIATION: none

SUBMITTED: 03Nov61 DATE ACQ: 19May63 ENCL: 00

SUB CODE: PH NO REF SOV: 004 OTHER: 005

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

L 19479-63 EWP(q)/EWT(m)/EWP(b)/BDS AFFTC/ASD JD S/2941/63/001/000/0198/0202

ACCESSION NR: AT3002221

AUTHORS: Shamovskiy, L. M.; Maksimova, N. D.

TITLE: Nature of flash brightness in NaCl-Ni under light stimulation from F-band

SOURCE: Optika i spektroskopiya; sbornik statey. v. 1: Lyuminestsentsiya. Moscow, Izd-vo AN SSSR, 1963, 198-202

TOPIC TAGS: phosphor, irradiation, M-center, recombination, optical flash

ABSTRACT: A study was made of the behavior of x-rayed NaCl-Ni phosphors under continuous and pulsed optical irradiation from the F-band. On the basis of data obtained a new interpretation is proposed of the Parfianovich effect (L. A. Parfianovich. Opt. i spektr. 2, 392, 1957). The experiment performed differed from that of Parfianovich in one respect only: the use of optical rather than thermal irradiation. It was found that under continuous F-center irradiation luminescence brightness diminishes irregularly with nickel concentration. Optical destruction of M-centers further diminishes the subsequent optical flashing, and heating the phosphor to 90-100C after destruction of M-centers results in a sharp increase in optical flash brightness. The enhancement of flashing bright-

Card 1/2

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L 16865-63
ACCESSION NR: AR3006309

ness pauses and heating. The question is discussed of the relation of the light sums that are realized in thermal and optical de-excitation. N. Maksimova.

DATE ACQ: 15Aug63 SUB CODE: PH ENCL: 00

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

L 16865-63 EWT(l)/EWP(q)/EWT(m)/BDS AFFTC/ASD/SSD Pad JD/HW
ACCESSION NR: AR3006309 S/0058/63/000/007/D082/D082

SOURCE: RZh. Fizika, Abs. 7D595

AUTHOR: Shamovskiy, L.M.; Maksimova, N.D.

TITLE: Investigation of the properties of the phosphor NaCl-Ni

CITED SOURCE: Sb. Fiz. shchelochnogaloidn. kristallov. Riga, 1962, 194-204. Diskus., 204-205

TOPIC TAGS: phosphor, NaCl-Ni, absorption, luminescence

TRANSLATION: It is found that in NaCl-Ni the absorption in the region 246 mμ and luminescence is due only to that part of the activating impurity which is localized in the structural lattice defects. The local distribution of the glow centers in the structural defects of the lattice is the cause of the growth in the initial brightness of the optical flash in x-ray exposed NaCl-Ni after dark-

Card 1/2

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

SAPANKEVICH, P.V.; MAKSIMOVA, N.A.; KHOMENKO, B.P.

Effect of aqueous extracts from the rhyzomes of Bermuda grass on the germination of some crop plant seeds and the growth of their rootlets. Agrobiologiia no.6:915-916 N-D '65.
(MIRA 18:12)

1. Uchebnoye khozyaystvo "Kommunar" Krymskogo sel'skokhozyaystvennogo instituta imeni M.I.Kalinina.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

KARTASHOV, A.K.; GOLOVNYAK, Yu.D.; ZHIZHINA, R.G.; MAKSIMOVA, N.A.

Using polyacrylamide in the sugar industry. Sakh. prom. 35 no.11: 17-23 N '61. (MIRA 15:1)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy promyshlennosti.
(Acrylamide) (Sugar manufacture)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

KHONIG, P.[Honig, Pieter], red.; GOLOVNYAK, Yu.D., inzh.[translator]; MAKSIMOVA, N.A., inzh. [translator]; ZHIZHINA, R.G., inzh. [translator]; Prinimali uchastiye: TROYNO, V.P. [translator]; GOROKH, V.N.[translator]; BENIN, G.S., kand. tekhn. nauk, red.; VOYKOVA, A.A., red.; KISINA, Ye.I., tekhn. red.

[Principles of sugar technology]Printsipy tekhnologii sakhara. Pod red. G.S.Benina. Moskva, Pishchepromizdat, 1961. 615 p. Translated from the English. (MIRA 15:12)
(Sugar manufacture)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

KARTASHOV, A.K.; GOLOVNYAK, Yu.D.; ZHIZHINA, R.G.; MAKSIMOVA, N.A.

Effect of the reaction of water used for diffusion on the operation of the juice-purification plant. Sakh.prom. 34 no.1: 9-11 Ja '60. (MIRA 13:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy promyshlennosti.
(Sugar manufacture)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

KARTASHOV, A.K.; IVANOVA, L.K.; MAKSIMOVA, N.A.

Determining glutamic acid content of feed molasses. Trudy TSINS no.7:87-102 '60. (MIRA 16:2)

1. Laboratoriya ochistki sokov i fil'tratsii TSentral'nogo nauchno-issledovatel'skogo instituta sakharnoy promyshlennosti.
(Molasses) (Glutamic acid)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

KARTASHOV, A.K.; GOLOVNYAK, Yu.D.; ZHIZHINA, R.G.; MAKSIMOVA, N.A.

Testing the method of multistage defecation-saturation. Trudy TSINS no.7:50-60 '60. (MIRA 16:2)

1. Laboratoriya ochistki sokov i fil'tratsii TSentral'nogo nauchno-issledovatel'skogo instituta sakharnoy promyshlennosti. (Sugar manufacture)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

KARTASHOV, A.K.; ZHIZHINA, R.G.; MAKSIMOVA, N.A.

Optimum reaction of the second carbonation juice. Trudy TSNIS no.7:25-49 '60. (MIRA 16:2)

1. Laboratoriya ochistki sokov i fil'tratsii TSentral'nogo nauchno-issledovatel'skogo instituta sakharnoy promyshlennosti. (Sugar manufacture)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

KARTASHOV, A.K.; GOLOVNYAK, Yu.D.; MAKSIMOVA, N.A.

Investigating the returning of an overcarbonated first saturation juice for defecation under factory conditions. Trudy TSINS no.7:19-24 '60. (MIRA 16:2)

1. Laboratoriya ochistki sokov i fil'tratsii TSentral'nogo nauchno-issledovatel'skogo instituta sakharnoy promyshlennosti. (Sugar manufacture)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

KARTASHOV, A.K.; GOLOVNYAK, Yu.D.; ZHIZHINA, R.G.; MAKSIMOVA, N.A.

Use of polyelectrolytes in the sugar industry. Sakh.prom. 33 no.10:24-29 O '59. (MIRA 13:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy promyshlennosti.
(Sugar manufacture) (Electrolytes)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N.A.

KARTASHOV, A.K.; GOLOVNYAK, Yu.D.; MAKSIMOVA, N.A.; ZHIZHINA, R.G.

Total alkalinity of first carbonation juice. Sakh. prom. 32 no.2:15-19 F '58. (MIRA 11:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy promyshlennosti.
(Sugar manufacture)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N.A.

KARTASHOV, A.K.; MAKSIMOVA, N.A.; ZHIZHINA, R.G.

More precise complexometric determination of calcium in sugar products. Sakh.prom.31 no.9:54-58 S '57. (MIRA 10:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy svekly.
(Sugar--Analysis and testing) (Calcium--Analysis) (Volumetric analysis)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N.A

KARTASHOV, A.K.; GOLOVNYAK, Yu.D.; ZHIZHINA, R.G.; MAKSIMOVA, N.A.

Effect of centrifugal pumps on the filtration properties of the juice of first carbonation and the concentrated suspension from sefting tanks. Sakh.prom. 30 no.9:9-14 S '56. (MLRA 10:3)

1. TSentral'nyy nauchno-issledovatel'skiy insitut sakharnoy promyshlennosti.

(Centrifugal pumps) (Sugar industry)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N.A.

KARTASHEV, A.K., kandidat tekhnicheskikh nauk; GOLOVNYAK, Yu.D., inzhener; ZHIZHINA, R.G., inzhener; MAKSIMOVA, N.A., inzhener.

Physicochemical properties of the sediments of the juice of first carbonation in connection with various methods of preliminary defecation. Trudy TSINS no.4:68-91 '56. (MLR 10:5)
(Sugar industry)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MIKHEYEV, N.I.; BULYGIN, I.P.; MAKSIMOVA, N.A.; FEDOTOV, V.P.

Apparatus for mechanical testing at temperatures up to 2000°C. Zav.lab. 29 no.3:371-375 '63. (MIRA 16:2)
(Metals at high temperatures)
(Testing machines)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

MAKSIMOVA, N. A.

USSR / Virology. Human and Animal Viruses. Viruses of the Pox Group. E-3

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 90662

Authors : Marennikova, S. S.; Uspenskiy, F. N.; Maksimova, N. A.
Inst : Moscow Scientific Research Institute for Vaccines and Serums.
Title : An Experiment in the Mass Application of a New Smallpox Vaccine (Egg Vaccine) in the City of Yaroslav.

Orig Pub : Tr. Mosk. n.-i. in-ta vaktsin i syvorotok, 1957, 9, 141-143.

Abstract : No abstract.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

S/659/62/008/000/005/028
I048/I248

Polymorphous transformations...

representing solid solutions based on the ε , δ, and γ modifications of Cr were found to exist, together with the $\varepsilon+\delta$ and $\gamma+\delta$ two-phase regions; the $\varepsilon+\delta$ region is associated with the $\varepsilon \rightleftarrows \delta$ transformation at 1830°C, while the $\gamma+\delta$ is associated with the $\gamma \rightleftarrows \delta$ transformation at 1650°. The simple ε phase occupies the region beneath the solidus curve, while the γ phase occupies the Cr-rich corner at temperatures below 1600°. An x-ray analysis of the 90% Cr alloy quenched from 1500°C showed that the ε -modification possesses a b.c.c. lattice with a=2.878 kX. There are 4 figures and 1 table.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700048-6

S/659/62/008/000/005/028
I048/I248

AUTHORS: Grigor'yev, A.T., Sokolovskaya, Ye.M., Sokolova, I.G., and Maksimova, M.V.

TITLE: Polymorphous transformations in chromium, and structure of the chromium-based solid solution in the system chromium-iron-molybdenum

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Issledovaniya po zhatoprochnym splavam. v.8. 1962. 42-46

TEXT: An isoplet through the Cr-Mo-Fe system radiating from the Cr corner and representing a fixed 3:1 (st:wt) Fe:Mo ratio was constructed on the basis of microstructural and x-ray analysis data for 33 different alloys. The total Fe+Mo content of the alloys studied did not exceed 45%; the alloy specimens were prepared in a W-arc furnace in argon atmosphere using Ti as the getter, and tempered at 1400-1700°C before the tests. The solidus temperatures were 1750, 1715, 1640, 1620, and 1620°C for the alloys containing 96, 86, 76, 62, and 58% Cr respectively. Three homogenous regions

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S/078/62/007/005/009/014
B101/B110

Solid-state conversions in...

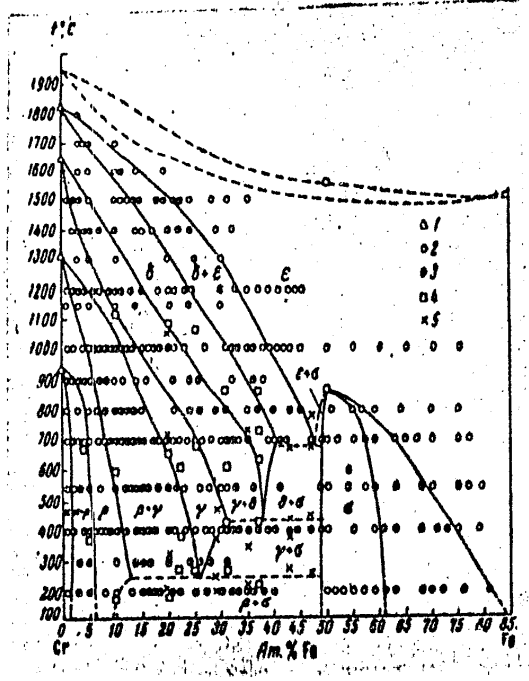

Fig. 3

Card 3/3

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Solid-state conversions in...

S/078/62/007/005/009/014
B101/B110

SUBMITTED: June 23, 1961

Fig. 3. Phase diagram of the system chromium-iron on the basis of the authors' results. (1) Polymorphous conversions; (2) thermal analysis; (3) electrical resistance; (4) one phase; (5) two phases.

Legend: Am.% Fe = at% Fe.

Card 2/3

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