

KOROLEV, L. I.: STAROSEL'SKIY, Ya. Yu.

Herbicides

New preparations for weed control. Agrobiologiya, No. 4, 1952.

Monthly List of Russian Accessions. Library of Congress November 1952 UNCLASSIFIED.

*Korolev L.I.*  
USSR/Chemistry - Herbizides

FD-1728

Card 1/1 : Pub. 50-4/18

Authors : Korolev, L. I., Starosel'skiy, Yu. Ya.

Title : ~~XXXXXXXXXXXXXXXXXXXX~~ The effectiveness of chemical agents used in the extermination of weeds

Periodical : Khim. prom., No 1, 15-18, Jan-Feb 1955

Abstract : Discuss the properties and effectiveness of salts and esters of chlorophenylacetic acids, of nitrophenols and their salts, of phenyl carbamates, and of dichloralurea. State that one of the compounds enumerated (2,4-D) is used as a weed killer in USSR agriculture, while the others are being tested on a production or experimental scale. The nitrocompounds are to be used for the extermination of parasitic plants of the genus Cuscuta, which damage various crops in the USSR. Six tables.

Institution : Scientific Research Institute of Fertilizers and Insectofungicides

**COUNTRY** : USSR  
**CATEGORY** : Weeds and Weed Control  
**ORIG. JOUR.** : Sov. Biol., No. 12, 1956, No. 60641 N  
**AUTHOR** : Korolov, L.I.  
**TITLE** : The Problem of the Application of Herbicides.  
**ORIG. PUB.** : Vestn. s.-kh. nauki, 1956, No. 2, 27-35 (rez. angl., nem.)  
**ABSTRACT** : The author gives a survey of the contemporary state of the production and application of herbicides and points out the necessity of the agriculture in USSR to have the following assortment of herbicides: 1) Compounds of phenoxyacetic acids - sodium salts, ethers including butyl ether; amino salts, including triethanolamino salt (2,4-D); sodium and potassium salts 2M-4X; 2,4,5-T compounds (chiefly amine salts and ethers); 2) Anti-grass herbicides (chlor-IPK, IPK, TBA, tetrachlorobenzene in limited amounts, dichloro-urea); 3) Herbicides with contact action (preparations of dinitroortho-cresol (DNC), dinitrophenol (DNP), pentachloro-

Card: 1/2

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M  
**Abs Jour** : Ref Zhur Biol., No 13, 1958, 82432  
**Author** : Korolev, L.I., Voytekhnova, V.A., Stonov, L.D.  
**Inst** : Uzbek Scientific Research Institute of Cotton Raising  
**Title** : Testing New Preparations on Pre-Harvest Removal of Cotton Plant Leaves.  
**Orig. Pub** : V sb.: Materialy MezhrEsp. Soveshchaniya po koordinatsii nauchno-issled. rabot po khlopkovodstvu, 1957, Tashkent, AN UzSSR, 1957, 215-218  
**Abstract** : In 1955-1956 the Plant Protection Laboratory of NIUIF conducted tests on a series of chemical compounds for the purpose of finding new defoliant and desiccants. More than 100 new chemical compounds were tested. As the result of the tests, 7 prospective preparations were separated the greater part of which is represented by

Card 1/2

KOROLEV, L.I.

Studying new chemicals and preparations (defoliants) for preharvest  
defoliation of cotton and for accelerating the ripening of plants.  
[Trudy] NIUIF no.164:81-85 '59.. (MIRA 15:5)  
(Defoliation) (Cotton)

KOROLEV, L.I.

Studying new chemicals (herbicides) for controlling weeds and  
undesirable vegetation. [Trudy] NIUIF no.164:85-90 '59.  
(MIRA 15:5)

(Herbicides)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810019-8"

KATALIMOV, M.V., otv.red.; KOROLEV, L.I., red.; SOKOLOV, A.V., red.;  
TURCHIN, F.V., red.; UNANYANTS, T.P., red.; DOLGOPOLOV, M.I.,  
red.; GRIGOR'YEVA, A.I., red.; BALLOD, A.I., tekhn.red.

[Manual on mineral fertilizers; theoretical and practical  
aspects of their use] Spravochnik po mineral'nyh udobreniam;  
teoriia i praktika primeneniia. Moskva, Gos.isd-vo sel'khoz.  
lit-ry, 1960. 551 p. (MIRA 14:1)

(Fertilizers and manures)

STONOV, Leonid Dmitriyevich; KOROLEV, L.I., red.; ODERBERG, L.N., red.;  
KOGAN, V.V., tekhn. red.

[Defoliants and desiccants; chemicals for the defoliation and desiccation of agricultural plants before harvesting] Defolianty i desikanty; khimicheskie sredstva dlia preduborochnogo udalenia list'ev i vysushivaniia sel'skokhoziaistvennykh rastenii. Pod red. L.I.Koroleva. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 99 p. (MIRA 14:10)

(Defoliation)

(Drying agents)

KOROLEV, L.I.

Promising herbicides. Zashch. rast. ot vred. 1 bol. 6 no.10:  
28-29 0 '61. (MIRA 16:6)

1. Zaveduyushchiy laboratoriyey ispytaniya gerbitsidov i defoliantov Nauchno-issledovatel'skogo instituta pe udobreniyam i insektofungisidam imeni Ya.V. Samoylova.  
(Herbicides)

ACCESSION NR: AP4031192

S/0056/64/046/004/1507/1508

AUTHORS: Rode, V. Ye.; Germann, R.; Korolev, L. M.

TITLE: Investigation of temperature dependence of saturation of Gd

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 4, 1964, 1507-1508

TOPIC TAGS: gadolinium, saturation magnetization, saturation magnetization temperature dependence, energy gap, Bloch law

ABSTRACT: The temperature dependence of the saturation magnetization of Gd was investigated at low temperatures (from 4.2 to 30K), using a procedure described in detail earlier (PTE, no. 1, 173, 1964). The specimen was a cylinder made of polycrystalline gadolinium 110 mm long and 8 mm in diameter, containing iodine, calcium, iron, and copper impurities. The measurements were made in a field of 18,600 Oe. The jump in the magnetization was determined accurate to 5%, and the temperature measurement was 7--5% from 4.2 to 10--12K and 2% above

Card 1/3

ACCESSION NR: AP4031192

12K. The curve drawn through the experimental point can be described by the formula

$$I = I_0 - AT^k \exp(-\Delta/T).$$

which does not coincide with the Bloch formula  $I = I_0(1 - CT^{3/2})$ .

The results indicate that a gap of 30K exists in the energy spectrum wave in gadolinium. Orig. art. has: 1 formula and 2 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: 01Feb64

DATE ACQ: 07May64

ENCL: 01

SUB CODE: EM, SS

NR REF SOV: 002

OTHER: 001

Card 2/3



*Александр Н.*

*1 copy to JLE*

3932

ON SOME PROBLEMS OF MACHINE TRANSLATION

S. D. Abramov, L. N. ...  
Russian is the intermediary ...

Korolev, LN

*Am* Zelenko, I. N. Korolev and S. A. ...  
Precision ...  
Scientific ...

**AUTHOR:** KOROLEV, L.N. PA - 3033  
**TITLE:** The Codification and Abbreviation of Codes. (Kodirivaniye i svertivaniye kodov, Russian)  
**PERIODICAL:** Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 4, pp 746-747 (U.S.S.R.)  
 Received: 6 / 1957 Reviewed: 7 / 1957  
**ABSTRACT:** General rules: First, some basic principles are defined. By an alphabet a finite number of elements is here understood, and these elements are called letters. The number of letters in the alphabet is described as basis. The word of a given alphabet is an ordered finite quantity, where to each element only one single letter is assigned. The length of a word here means the number of all the letters in this word. Every symbol of the number of words of the same or any other alphabet is here described as codification, and the symbols are described as codes of the corresponding words. The remaining part of this paper only deals with a certain finite sub-amount of all the words of a given alphabet, and this sub-amount is here called "dictionary". By volume of a dictionary the number of words it contains, and as length of the dictionary the sum of the lengths of all lengths it contains is understood.  
Theorem 1: There exists a number  $d(r, N)$ , which depends only on the basis  $r$  of the codified alphabet and on the volume  $N$  of the dictionary, so that the length  $l$  of the dictionary obtained in the case of any reciprocally unique codification is greater than or equal to  $d$ .

Card 1/2

PHASE I BOOK EXPLOITATION 711

Akademiya nauk SSSR. Institut tochnoy mekhaniki i vychislitel'noy tekhniki  
 Vychislitel'naya tekhnika (Computer Engineering) Moscow, Izd-vo AN SSSR,  
 1958. 150 p. 4,500 copies printed.

Responsible Ed.: Lebedev, S. A., Academician; Ed. of Publishing House:  
 Grigor'yev, Ye. N.; Tech. Ed.: Prusakova, T. A.

**PURPOSE:** This book is intended for specialists engaged in the design and use of electronic computers.

**COVERAGE:** A number of problems of computer engineering is discussed in this collection of articles. The power supply system of high-speed electronic computers of the USSR Academy of Sciences, new computer components and devices, and methods of controlling arithmetic units are covered in this publication. Methods of selecting the necessary word from the mechanical dictionary in machine translation and the terminology of modern computing machines are also presented. For references see Table of Contents.

## TABLE OF CONTENTS:

From the Editor

Card 1/3

KOROLEV, L. N., Candidate Phys-Math Sci (diss) -- "Some problems in the theory of a machine dictionary". Moscow, 1959. 8 pp (Inst of Precision Mechanics and Computer Tech of the Acad Sci USSR), 300 copies (KL, No 24, 1959, 126)

PHASE I BOOK EXPLOITATION

SOV/4086

Beda, L. M., L. N. Korolev, N. V. Sukhikh, and T. S. Prolova

Programma avtomaticheskogo differentsirovaniya dlya mashiny BESM (Automatic Differentiation Program for the BESM [High-Speed Electronic Computer]) Moscow, 1959. 19 p. (Series: Elektronnaye vychislitel'nyye mashiny) 500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut tochnoy mekhaniki i vychislitel'noy tekhniki.

PURPOSE: This booklet is intended for programmers and engineers working in the field of computer technology.

COVERAGE: The booklet contains a general description of a program and method for the analytical differentiation of functions on the Soviet high-speed digital computer BESM. The method and program were worked out at the Institute of Precise Mechanics and Computer Technology, Academy of Sciences USSR. At the end of the book are found block-diagrams for BESM solution of the following mathematical problems: the representation of a mathematical expression by a sequence of pairs; the derivation of the derivatives of elementary pairs; and the synthesis of

Card 1/2

SMIRNOV-TROYANSKIY, P.P.; TROYANSKIY, Petr Petrovich [deceased]; BEL'SKAYA, I.K.; KOROLEV, L.N.; PANOV, D.Yu.; GUBOV, K.P., red.izd-va; MARKOVICH, S.G., tekhn.red.

[P.P.Troianskii's translating machine; a collection of papers on a translating machine, proposed by P.P.Troianskii in 1933, for translating from one language to another] Perevodnaia mashina P.P.Troianskogo; sbornik materialov o perevodnoi mashine dlia perevoda s odnogo iazyka na drugie, predlozhennoi P.P. Troianskii v 1933 g. Moskva, Izd-vo Akad.nauk SSSR, 1959.  
(MIRA 12:7)  
50 p.

1. Akademiya nauk SSSR.  
(Translating machines)

KONSTANTINOV, B.A. dotsent, kand.tekhn.nauk; AYZENBERG, B.L., dotsent, kand.tekhn.nauk; KLEBANOV, L.D., kand.tekhn.nauk; NIKOGOSOV, S.N., dotsent, kand.tekhn.nauk; BARDIN, M.I., inzh.; KOROLEV, V.A., inzh.; PRINTSEV, A.A., inzh.; SOKOLOVA, K.I., inzh.; SHULYAT'YEVA, G.N., inzh.; ROZENBERG, B.I., prof., doktor tekhn.nauk [deceased]; BYKOV, N.G., inzh.; ZWYLIGER, A.N., inzh.; ZABRODINA, A.A., tekhn.red.

[Collected information data regarding the power factor ( $\cos \varphi$ )]  
Sbornik informatsionnykh materialov po koeffitsientu moshchnosti ( $\cos \varphi$ ). Pod red. B.A.Konstantinova. Moskva, Gos.energ.isd-vo, 1959. 141 p. (MIRA 12:12)

1. Leningrad. Leningradskiy inzhenerno-ekonomicheskij institut.
2. Leningradskiy inzhenerno-ekonomicheskij institut (for Konstantinov, Aysenberg, Klebanov, Nikogosov).
3. Energosbyt Lenenergo (for Bardin, Korolev, Printsev, Sokolova, Shulyat'yeva).
4. Leningradskiy politekhnicheskij institut (for Rosenberg).
5. Leningradskoye ot-deleniye instituta "Teploelektroproyekt" (for Bykov, Zeyliger).  
(Electric engineering)





16(1)

AUTHOR:

Korolev, L.N.

SOV/20-125-3-4/63

TITLE:

On the Switching Function of an Equipment for Finding Table Values (O pereklyuchayushchey funktsii ustroystva poiskov po tablitse)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 3, pp 482-484 (USSR)

ABSTRACT:

The author constructs a switching scheme, to the input of which a dually coded word of a given finite dictionary is delivered, and which gives the number of this word in the dictionary in the output, i.e. the scheme carries out the finding in a given table. It is supposed that the table is a matrix A with m rows and n lines, the elements of which are 0 and 1. The line numbers are representable as a matrix B with n lines and  $k = E(\log_2(n-1)) + 1$  rows. In analogy with ordinary matrix equations it is written

$$A * X = B ,$$

where  $X = (X_1, X_2, \dots, X_k)$ ,  $X_i$  are Boolean functions. It is stated that

Card 1/2

On the Switching Function of an Equipment for  
Finding Table Values

SOV/20-125-3-4/63

$$X_j = \sum_{i=1}^n b_{ij} \prod_{r=1}^{i-1} \left( \sum_{l=1}^m a_{rl} \bar{A}_l \right) \cdot \prod_{s=1}^m (\bar{a}_{is} + A_s)$$

where  $a_{ij} \in A$ ,  $b_{ij} \in B$  and  $A_l$  are rows of  $A$ .

ASSOCIATION: Institut tochnoy mekhaniki i vychislitel'noy tekhniki AN SSSR  
(Institute of Precision Mechanics and Computation Technics AS  
USSR)

PRESENTED: December 16, 1958, by S.A. Lebedev, Academician

SUBMITTED: December 13, 1958

Card 2/2

20-00000, 2, 2

PHASE I BOOK EXPLORATION 507/A157

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Shorruk standartnykh i tipovykh program dlya BESM (collection of Standard and Typical Programs for the BESM [High-Speed Electronic Computer]). Moscow, 1960. 73 p. Errata slip inserted. 5,000 copies printed.

Resp. Ed.: V.M. Kuroshkin, Candidate of Physics and Mathematics; Ed. of Publishing House: M.V. Yakovlev; Techn. Ed.: I.P. Kul'man.

PURPOSE: This book is intended for digital computer programmers.

COMMENTS: The book is a collection of 10 articles giving 10 programs for the solution of various mathematical and numerical problems using the BESM (High-Speed Electronic Computer). No personalilities are mentioned. There are no references.

TABLE OF CONTENTS:

Yezhov, A.P. Matrix Inversion	21
Chaykovskaya, K.M. Quadratic Interpolation by Newton's Formula with Difference Quotients	27
Chaykovskaya, K.M. Cubic Interpolation by Newton's Formula with Difference Quotients	30
Platonov, A.Ya. M.I. Chapshev's Method for Computing the Coefficients of an Approximating Polynomial by the Method of Least Squares	33
Stogoylova, A.I. Program for the Interpolation of a System of Ordinary Differential Equations by the Runge-Kutta Method with Automatic Step Selection	39
Knopov, L.N. Main Program for Computing With Complex Values	45
Vorishak, V.V. Program for Double Precision Arithmetic	55

AVAILABLE: Library of Congress.

Card 3/3

AG/m/lp  
6-22-80

16.6800

S/044/61/000/007/050/055  
C111/C222

AUTHOR:

Korelev, L.N.

TITLE:

Master program for the calculations with complex magnitudes

PERIODICAL: Referativnyy zhurnal. Matematika, no. 7, 1961, 47,  
abstract 7 V 311. ("Sb. standartn. i tipovykh programm dlya  
B $\supset$ (M" (BESM). M., AN SSSR, 1960, 45-54)

TEXT: The author proposes an auxiliary program which facilitates the programming in the case where it is necessary that the calculations must be carried out with complex numbers. The program is realized in the form of single blocks which realize the performance of the necessary operation with the complex numbers. The author gives a list of equations which determine the basic operations with the complex numbers.

[Abstracter's note : Complete translation.]

Card 1/1

VB

GOLUBKOV, Yu.A.; KOROLEV, L.N.; LEBEDEV, A.V.

[Concerning the choice of a programming system for a computing and logic machine with a floating point] O vybore sistemy komand dlia trekhadresnoi vychislitel'noi i logicheskoi mashiny s plavaiushchei zapiatoi. Moskva, In-t tehnnoi mekhaniki i vychislitel'noi tekhniki Akad. nauk SSSR, 1961. 40 p. (MIRA 14:8)  
(Programming(Electronic computers))

KOROLEV, L.V., inzh.; KOROVIN, N.N., kand. tekhn. nauk

Study of the function of a socketlike joint of a column with  
a foundation. Bet. i zhel.-bet. 9 no.10:459-462 0 '63.  
(MIRA 16:12)

KOROLEV, L.V., inzh.

New method for sealing flanged couplings of pipes. Mashinostroenie  
no. 2:28-29 Mr-Apr '64. (MIRA 17:5)

KOROLEV, L.V., inzh.; KOROVIN, N.M., kand. tekhn. nauk

Problems in the calculation and manufacture of sockets for precast  
reinforced concrete columns with footings. Prom. stroi. 41 no.6:  
44-48 Ke '64. (MIRA 17:9)



KOROLEV, M.

One micron size triode. IUn.tekh. 8 no.11:76-77 N '63.

(MIRA 16:12)

NOVIKOV, V.; MATVEYEV, Yu.M.; RUZHINSKIY, M.B.; BATIST, A.I.; IOSSEL', G.;  
KOROLEV, M.; IVANTSOV, V.; ARONOV, I.; SVETLAKOV, V.; ZAYONCHIK,  
I.Z.; RASPOPOV, I.V.; SERDYUKOV, G.V.; GRISHKOV, A.I.; MAKEYEV, I.F.;  
DELLO, A.A.; SHUMNAYA, V.A., inzh.; SPIRYAGIN, L.P., inzh.; GRISHKOV,  
A.I.; KARDONOV, B.A.; BURDIN, V.M., kand. tekhn. nauk; MOLGACHEV,  
D.A., inzh.; MUZALEVSKIY, O.G.; RIVKIN, A.A.; KEYS, N.V.; KOMISSAROV,  
A.I.

New developments in research. Stal' 25 no.8:842-845 S '65.  
(MIRA 18:9)

KOROLEV, M., KRIVONOS, Sh.

A day on the fireboat. Posh.delo 3 no.2:16-17 P '57.

(Caspian Sea--Fireboats)

(MLRA 10:4)

KOROLEV, M.

Effect of the reduction method on steel structure (From: "Steel"  
no.3, 1945). Stal' 7 no.2:177-180 '47. (MLRA 9:1)  
(Steel--Metallography)

KOROLEV, M.,

The thickness of Martin furnace hearths (From: "Industrial Heating" 1945. E.B.Snow). Stal' 7 no.2:180 '47. (MLRA 9:1)  
(Open-hearth furnaces)

KOROLEV, M.

Mechanization of labor consuming tasks in open-hearth furnace  
plants (From: "Steel" April 8, 1946). Stal' 7 no.2:180-181 '47.  
(United States--Open-hearth process) (MIRA 9:1)

KOROLEV, M., referent

Fairless Works open hearth plant. (From: Iron and Steel Engineer, 1954, vol.31, no.6 p. 62-92 and Open Hearth Proceedings, 1953, ATMB, vol.36, p. 200-15.) Stal' 15 no.7:662-664 J1 '55.  
(MIRA 8:9)

(United States--Metallurgical plants)

KOROLEV, M., ref.

Development of the Bessemer process in Western Europe (From: "Blast  
Furnace and Steel Plant." no.9 and no.10. 1954) Stal' 15 no.9:849-  
852 S'55. (MIRA 8:12)

(Europe, Western--Bessemer process)



KOROLEV, M., referent

New developments in open hearth furnace firing (from "Iron and  
Steel Engineer" December 1957). Stal' 18 no. 7:607-608 J1 '58.

(MIRA 11:7)

(Granite City, Mo.---Open-hearth process)

L 36829-66 EWT(d)/EWP(1) IJP(c) GG/BB

ACC NR: AP6017929

SOURCE CODE: UR/0378/66/000/002/0057/0102

AUTHOR: Korolev, M. A.; Kuz'min K. S.; Lavrov, S. S.; Letichevskiy, A. A.;  
Stolvarov, G. K.; Shura-Bura, M. R.

55  
52  
B

ORG: None

TITLE: Report on the ALGEK algorithmic language 160

SOURCE: Kibernetika, no. 2, 1966, 57-102

TOPIC TAGS: algorithmic language, economics, information processing, computer application, machine translation

ABSTRACT: This paper presents a description of an algorithmic language termed ALGEK (algorithmic language for economic problems). It extensively uses the data on the ALGOL-60 language, the SUBSET ALGOL-60 (IFIP) language, and the input-output procedures developed for ALGOL. The present work also makes use of the ideas of COBOL-60 language and the input-output procedures developed elsewhere (D. E. Knuth, L. L. Bumgarner, P. Z. Ingerman, J. H. Werner, D. E. Hamilton, M. P. Lietzke, D. T. Ross, A Proposal for Input - Output Conventions in Algol-60 (A Report of the Subcommittee on ALGOL of the ACM Programming Languages Committee). Communications of the ACM, V.7, N 5, May 1964.) The proposed language may be utilized for the composition of pro-

Card 1/2

UDC: 681.142.001:330.115

L 36829-66

grams for some typical problems in the processing of economic information and makes it possible to start the development of translators. The preliminary versions of the language were discussed at several conferences and seminars. The draft of the language was sent out to several organizations. The present publication has been approved by the Group of Algorithmic Languages for Processing Economic Information attached to the Commission for Multilateral Cooperation Between Academies of Sciences of Socialist Countries on the Problem of "Scientific Problems in Computing Technology" (Gruppa algoritmicheskikh yazykov po pererabotke ekonomicheskoy informatsii (GAYaPEY) pri komissii mnogostoronnego sotrudnichestva mezhdru akademiymi nauk sotsialisticheskikh stran po probleme "Nauchnyye voprosy vycheslitel'noy tekhniki") and is being recommended for a description of economic problems and for the creation of translators in the cooperating countries. GAYaPEY recommends that the authors of the language perform work on the creation of an input-output apparatus and retains the right to insert corrections into the language. The following are treated in great detail: the structure of the language; fundamental symbols, identifiers, digits, quotations, and fundamental concepts; expressions; and operators. Comrades Yu. Ya. Bazilevskiy, M. N. Yefimova, and A. S. Frolov rendered a great deal of assistance in the work, and the authors express their gratitude to them. Orig. art. has: 9 tables and 3 figures.

SUB CODE: 05/ SUBM DATE: 04Dec65/ ORIG REF: 000/ OTH REF: 007

ms  
Card 2/2

SOV/121-58-9-8/21

**AUTHORS:** Shishkin, Ye.I. and Korolev, M.A.  
**TITLE:** The Modernisation of Longitudinal Planing Machines  
(Modernizatsiya prodol'no-strogal'nykh stankov)  
**PERIODICAL:** Stanki i Instrument, 1958, Nr 9, pp 24 - 28 + 4 plates  
(USSR)

**ABSTRACT:** The modernisation carried out by Uralmashzavod on a "Waldrich" planer is described. Comparing the 1932 "Waldrich" model with a modern machine, namely, Model 7A256 of the Novosibirskiy stankostroitel'nyy zavod imeni Yefremova (Novosibirsk Machine Tool Works imeni Yefremov) the main drive power has been increased from 37 to 100 hp whilst the speed range has been widened from 9-27 to 6-75 m/min. The modernised drive has a Ward-Leonard set permitting control down to low cutting speeds (4.5 m/min). A reversible magnetic amplifier with a DC output is arranged in the generator excitation circuit (Figure 2). The feed mechanism, nominally attaining 17 mm/(double stroke) always suffered from jerky motion beyond 10 mm. A new electromechanical feed mechanism (Figure 3) has now been installed. The feed step is determined by the number of revolutions performed by the motor before it is disconnected by a contact drum. The feed adjustment takes

Card1/2

87596

S/019/60/000/022/045/161  
A156/A026

9.4300(1160, 1143, 1150)

AUTHORS: Korolev, M.A., and Dikovskiy, V.I.

TITLE: A Method for Manufacturing Weld Contacts Between the Lead-out Wire and the Surface of a Semiconductor Instrument

PERIODICAL: Byulleten' izobreteniy, 1960, No. 22, p. 24

TEXT: Class 21g, 11<sub>02</sub>. No. 133530 (657706/26 of Mar 10, 1960). This method is based on letting the current pulse pass through an intermediary contact between the given semiconductor and a lead-out wire pressed to the latter. In order to simplify the manufacturing process, a semiconductor is alloyed, according to this novel method, with, for example, a silicon-gallium, and the current pulse is sent from the semiconductor to a lead-out (made, for example, from gold) in order to obtain an ohmic contact. A rectifying contact is obtained by means of passing the current pulse in the opposite direction.

Card 1/1

*KOROLEV, M.*  
IVANOV, Yu.: KOROLEV M

Organizational forms of machine accounting.  
no.7:33-36 J1 '57.

(Machine accounting)

Buking.uchet 14  
(MIRA 10:7)

*Korolev, M.*  
KOROLEV, M.

Permanent perforated cards and their use. Bukhg.uchet 24  
no.4:25-31 Ap '57. (MIRA 10:12)  
(Card system in business)

VOL'SON, I.; KOROLEV, M.

Use of an electronic calculating machine in planning and accounting for labor and wages. *Biul.nauch.inform.: trud i zar.plata*  
no.11:26-33 '59. (MIRA 13:5)

(Electronic calculating machines)  
(Moscow--Automobile, Industry--Accounting)

VOLKOV, Sergey Ivanovich; KOROLEV, Mikhail Antonovich; ROSHAL', Ya.,  
red.; MEDVEDEVA, R., red.; TELEGINA, T., tekhn.red.

[Machine accounting in an enterprise] Mekhanizirovannyi uchet  
na predpriatii. Moskva, Gosfinizdat, 1960. 181 p. (MIRA 13:12)

(Machine accounting)




S/118/60/000/008/002/002

AUTHOR: Korolev, M.A., Candidate of <sup>Economic</sup> ~~Technical~~ Sciences  
TITLE: Production Control<sup>14</sup> Needs Electronic Computers<sup>16</sup>  
PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, 1960, No 8,  
pp 47 - 51

TEXT: The expanding Soviet industrial installations are employing 10 million administrative personnel. The author stresses the need of electronic computers in the office and repeatedly refers to foreign practice (West German "Quelleversandhaus" mail order house, Chicago stores, General Electric Company). The punch card system machines in the USSR are not available in complete sets (including computing, reproducing, sorting and decoding machines), and there are no composite machines with alphabetical and digital symbols. Great losses are being caused by production delays, wrong decisions are made by the lack of data. The Soviet government is taking measures: electronic computers will be produced and during the Seven-Year-Plan 200 special electronic computers will be supplied to work and to computing centers serving groups of works and organizations. The first such computer is designed by NIISchetmash and nearly ready. It will work at the Moskov-

Card 1/3




Production Control Needs Electronic Computers

S/118/60/000/008/002/002

skiy avtomobil'nyy zavod im. Likhacheva (Moscow Automobile Plant imeni Likhachev). Another special computer for processing administrative information is being developed. Enterprises of medium size are to be equipped with over 900 medium computers consisting of standardized interchangeable units, and with over 600 smaller computers. Punch card machines and keyboard machines with electronic systems will be produced. In combination with the major electronic computers they will form computing centers. About 2 million alphabetic-digital tabulators have to be produced before the end of the Seven-Year-Plan and over 1700 book-keeping machines (including electronic ones). Measures are being taken for the development of machines controlling the operation of machine tools and conveying equipment with simultaneous process information. Yet, the availability even of the most perfect computers is no guarantee for full success, as the obtaining of primary information and its recording (documents, punched cards and tapes, etc.) is not yet mechanized and at present takes 1.5 times more than the processing of data. There is no guarantee for the reliability of final data as long as the initial information is not reliable. And it is far from being that; besides, intentional exaggeration of figures is not seldom. Further transfer of information and its multiplication must also be mechanized, and this requires large numbers of pick-ups, counters, various devices converting information into discrete

Card 2/3



ISAKOV, Vasilii Ivanovich, prof.; KOROLEV, Mikhail Antonovich, dotsent; KO-  
ROTKOVA, L., red. izd-va; TELEGINA, T., tekhn. red.

[Over-all accounting mechanization using accounting-punched card  
machines] Voprosy kompleksnoi mekhanizatsii ucheta (s primeneniem  
schetno-perforatsionnykh mashin). Moskva, Gosfinizdat, 1961. 293 p.  
(MIRA 14:8)

(Machine accounting) (Punched card systems)

KOROLEV, Mikhail Antonovich; MISHNAYEVSKAYA, G.V., red.

[Processing of economic information using electronic machines; theoretical problems] Obrabotka ekonomicheskoi informatsii na elektronnykh mashinakh; teoreticheskie voprosy. Moskva, Ekonomika, 1964. 284 p.

(MIRA 17:12)

ISAKOV, Vasiliy Ivanovich; KOROLEV, Mikhail Antonovich; ZHAK,  
D.K., kand. ekon. nauk, retsenzent; TVERDOKHLEB, N.G.,  
retsenzent; CHIZHEVSKAYA, K.M., red.

[Principles of designing the mechanization of accounting  
and planning work] Osnovy proektirovaniia mekhanizatsii  
uchetno-planovykh robot. Moskva, Statistika, 1965. 250 p.  
(MIRA 18:5)

L 9828-66 E.A.(h)

ACC NR: AP6003970

SOURCE CODE: UR/0104/65/000/005/0093/0093

AUTHOR: Sarkisov, M. A.; Rokotyan, S. G.; Uspenskiy, B. S.; Sharov, A. N.;  
Zhulin, I. V.; Fedoseyev, A. M.; Korolev, M. A.; Kheyfits, M. E.; Yermolenko, V. M.;  
Petrov, S. Ya.; Azar'yev, D. I.; Krikunchik, A. B.; Polyakov, I. P.; Sazonov, V. I.;  
Khvoshchinskaya, Z. G.; Kartsev, V. L.; Smelyanskaya, B. Ya.; Kozhin, A. N.;  
 Losev, S. B.; Dorodnova, T. N.; Rubinchik, V. A.; Smirnov, E. P.; Rudman, A. A.

ORG: none

TITLE: Abram Borisovich Chernin

SOURCE: Elektricheskiiye stantsii, no. 5, 1965, 93

TOPIC TAGS: electric engineering, electric engineering personnel

ABSTRACT: An engineer since 1929, A. B. Chernin has worked for years in developing new techniques and equipment for relay protection of electric power systems. In this 60th birthday tribute, he is credited with leading the group which produced the directives on relay protection, contributing to the development of a method for calculating transient processes in long distance 400-500 kv power transmission lines and with aiding in planning of the electric portions of power stations, substations and power systems. The results of his engineering and scientific work have been published 46 times, he is a doctor of technical sciences (since 1963), and has taught for 30 years at the Moscow Power Institute. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09 / SUEM DATE: none

HW  
Card 1/150  
B

Modernization of Metal-cutting Equipment 1045

TABLE OF CONTENTS:

Shishkin, Ye.I. Basic Trends in Modernization of Metal-cutting Equipment at the Ural Machine-building Plant	3
Kurochkin, V.M., and Shishkin, Ye.I. Modernization and Development of Engineering Capabilities of Large and Special-purpose Lathes	15
Shishkin Ye.I., and <u>Korolev, M.A.</u> Modernization of Heavy Vertical Boring and Turning Lathes	52
Shishkin, Ye.I., and <u>Korolev, M.A.</u> Modernization of Planing Machines	72
Krayzinger, F.V. Modernization of Small Lathes	90
Tarakhtiy, V.D. Use of Universal Machine Tools for Special Purposes	102
Dulesov, G.K.; Dubovikov, M.P. Taruntayev, A.M.; and Fleysher, M.M. Modernization of Lathes to Be Used for Special Purposes	108

Card 2/3

KOROLEV, M.B.; SHESTOPALOVA, N.M.; CHUMAKOVA, M.Ya.

Electron microscopic study of dividing cells in a transformed  
tissue culture. Dokl. AN SSSR 166 no.3:716-718 Ja '66.  
(MIRA 19:1)

1. Institut poliomyelita i virusnykh entsefalitov AN SSSR.  
Submitted March 30, 1965.



KOROLEV, M.F.

MAKIYENKO, Nikolay Ivanovich; NOVIKOV, Mikhail Pavlovich; GLADILIN, A.N.,  
kandidat tekhnicheskikh nauk; dotsent, retsenzent; KOROLEV, M.F.,  
inzhener; retsenzent; KOPEVSKIY, D.Ya., redaktor; OSTRELOV, F.S.,  
tekhnicheskiy redaktor

[Assembly of machinery] Sbornik promyshlennoi produktsii. Moskva,  
Vses. uchebno-pedagog. izd-vo Trudrezervizdat, 1954. 363 p.  
(Machinery) (MIRA 8:6)

MURAV'YEV, K.N.; KONYUKHOV, S.M., dotsent; VUL'FIN, Z.B.; FEDOROV, B.F.,  
inzhener, retsenzent; KOROLEV, M.F., inzhener, retsenzent.

[Machine shop practice] Slesarno-sbornochnoe delo. Pod red. S.M.Koniukhova. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry,  
1955. 403 p. (MIRA 8:4)

(Machine-shop practice)

*Korolev, M. F.*

MURAV'YEV, K.N.; KONYUKHOV, S.M., dots., red.; VUL'FIN, Z.B.; FEDOROV, B.F.,  
inzh., retsenzent; KOROLEV, M.F., inzh., retsenzent; DUGIN, N.A.,  
tekhn. red.

[Work of mechanic and fitter] Slesarno-sborochnoe delo. Pod red.  
S.M. Koniukhova. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.  
lit-ry, 1956. 397 p. (MIRA 11:7)

(Machine-shop practice)

KOROLEV, M.F.

Metallic foreign body remaining ten years in the middle ear. Vest.  
oto-rin. 18 no.5;109 S-0 '56. (MIA 9:11)

1. Iz oto-laringologicheskogo otdleniya (nachal'nik - zasluzhennyy  
vrach RSFSR M.M.Filippov) Glavnogo voyennogo gosпитalya imeni N.N.  
Burdenko.

(EAR--FOREIGN BODIES)

KOROLEV, M.F.

Recovery from primary cancer of the middle-ear. Vest.oto-rin. 18  
no.5:110-111 S-0 '56. (MIRA 9:11)

1. Iz oto-laringologicheskogo otdeleniya (nachal'nik - zasluzhennyy  
vrach RSFSR M.M.Filippov) Glavnogo voyennogo gosptalya imeni N.N.  
Burdenko:

(EAR--CANCER)

*KOROLEV M.F.*  
KOROLEV, M.F. (Moskva)

~~Imenin~~ in the treatment of postoperative wounds in otorhinolaryngology  
[with summary in English]. Vest.oto-rin. 20 no.1:87-89 Ja-F '58.  
(MIRA 11:3)

1. Iz otolaringologicheskogo otdeleniya (nach.-zasluzhennyy vrach  
RSFSR M.M.Filippov) Glavnogo voyennogo gosptalya imeni akad.  
N.H.Burdenko.

(OTORHINOLARYNGOLOGICAL DISEASES, surg.

postop. wds. disinfect. with imenin (Bus)

(ANTISEPTICS, ther. use

imenin, in postop. wds. in otorhinolaryngol. surg. (Bus)

KOROLEV, M.F., polkovnik meditsinskoy sluzhby; BOKSHTEYN, M.Ye., podpolkovnik meditsinskoy sluzhby, kand.med.nauk; GAL'PERIN, Yu.B., podpolkovnik meditsinskoy sluzhby

Some problems in the differential diagnosis of chronic rhinosinoritis.  
Voen.-med.zhur. no.12:54-57 '59. (MIRA 14:1)  
(SINUSITIS)

FILIPPOV, M.M., general-major meditsinskoy sluzhby; KOROLEV, M.F.,  
polkovnik meditsinskoy sluzhby

Chronic tonsillitis and current methods of treating it.  
Voen.-med. zhur. no.4:27-33 Ap '61. (MIRA 15:6)  
(TONSILS--DISEASES)



BOGOMOLOV, S. A.; KOROLEV, M. F.

Potentiated combined intratracheal anesthesia in the extirpation  
of the larynx. Vest. otorin. no.4:31-36 '61.

(MIRA 15:2)

1. Iz Otorinolaringologicheskogo otdeleniya (nach. - polkovnik  
meditsinskoy sluzhby M. F. Korolev, anesteziolog gosptalya -  
mayor meditsinskoy sluzhby S. A. Bogomolov, konsul'tant-otorino-  
laringolog - general-mayor meditsinskoy sluzhby M. M. Filippov)  
Glavnogo voyennogo gosptalya imeni akad. N. N. Burdenko, Moskva.

(LARYNX--SURGERY) (INTRATRACHEAL ANESTHESIA)

KOROLEV, M. F.

Glomangioma of the retropharyngeal space. Vest. otorin. no.5:83-85  
'61. (MIRA 14:12)

1. Iz otorinolaringologicheskogo otdeleniya (nach. - polkovnik meditsinskoy sluzhby M. F. Korolev) Glavnogo voyennogo gospitalya imeni akad. N. N. Burdenko (konsul'tant-otorinolaringolog - zasluzhenny vrach RSFSR reneral-mayor meditsinskoy sluzhby M. M. Filippov), Moskva.

(PHARYNX--TUMORS)

KOROLEV, M.F.; BOGOMOLOV, S.A.

Anesthesia in the excision of fibromas from the base of the skull. Vest. oto-rin. 25 no.4:27-31 J1-Ag '63.

(MIRA 17:1)

1. Iz otorinolaringologicheskogo otdeleniya (konsul'tant - general-mayer meditsinskey sluzhby M.M. Filippov) i anesteziologicheskogo otdeleniya Glavnogo voyennogo gospi'talya imeni N.N. Burdenko, Moskva.

KREKOV, B.S., podpolkovnik med. sluzhby, kand. med. nauk; KOROLEV, M.F.,  
polkovnik meditsinskoy sluzhby

Improving the organization of otorhinolaryngologic service to the  
armed forces of the U.S.S.R. Voen.-med. zhur. no.6:93-94 '64.  
(MIRA 18:5)

*Korolev, M. I.*

*21*  
Apparatus for Determining Coefficients of Thermal Expansion Over a Wide Temperature Range. S. F. Borlakov and M. I. Korolev. *Zhurnal Khimicheskoy Fiziki*, 1955, 21, 1336-1337. In Russian. Accurate data for constructing dilatometric curves for the temperature range 0-1000°C can be obtained in protective atmospheres with the aid of the apparatus described. --S. K.

*HA* *2*

*GP*

ACCESSION NR: AP4044139

S/0129/64/000/008/0039/0041

AUTHOR: Burlakov, S. F.; Korolev, M. I.

TITLE: Heat treatment of invar-group alloys

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 8, 1964, 39-41

TOPIC TAGS: alloy heat treatment, invar, iron nickel cobalt alloy, quenching, tempering, thermal expansion, phase transformation, alloy aging, nickel steel / alloy E1630A

ABSTRACT: The effect of quenching and tempering conditions on alloy properties (1), the dependence of the coefficient of thermal expansion on the ingot cross section dimensions (2), and the changes in ingot size and the coefficient of thermal expansion during natural and artificial aging (3) were investigated in a study of the conditions of heat treatment as a factor influencing the service qualities of the E1630A ferronickelcobalt alloy containing 31.6% Ni, 3.9% Co and 0.03% C. (1) The coefficient of thermal expansion (from -60 to +60C) and the location of the  $M_n$  point were determined from dilatometric curves at +100 to -183C in 5 x 100 mm cylindrical samples, annealed at 600-1100C in a salt tub and quenched in water. As shown in Fig. 1 of the Enclosure, the coefficient initially decreases as the

Card 1/3

ACCESSION NR: AP4044139

temperature rises, and remains nearly constant beyond 850-900C, while the position of the  $M_n$  point appears to be unaffected. (2) Cylindrical samples of different cross section, prepared from ingots 10, 60, 110 and 140 mm in diameter and 120-200 mm long, were examined. The effect of temperature on the coefficient was found to be more marked in ingots of smaller cross section. In ingots 10 mm in diameter the coefficient fell from  $1.2 \times 10^{-6}$  to  $0.5 \times 10^{-6}$  after quenching while in ingots 110 mm in diameter it fell only to  $0.7-0.8 \times 10^{-6} \text{ deg}^{-1}$ . (3) A change in ingot size due to residual stresses was found only in samples which had not been tempered at 300C. The coefficient of thermal expansion of annealed samples was found to be unchanged after aging for 60,000 hrs. at room temperature or 100 hrs. at 70-90C. Parts made from the E1630A alloy, given optimum heat treatment (i.e., quenched from 870 and tempered at 300C), were found to have highly stable dimensions and coefficients of thermal expansion. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL.: 01

SUB CODE: MM

NO REF SOV: 000

OTHER: 002

Card 2/3

ACCESSION NR: AP4044139

ENCLOSURE: 01

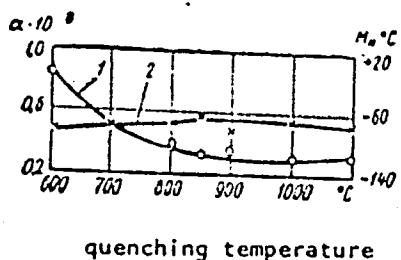
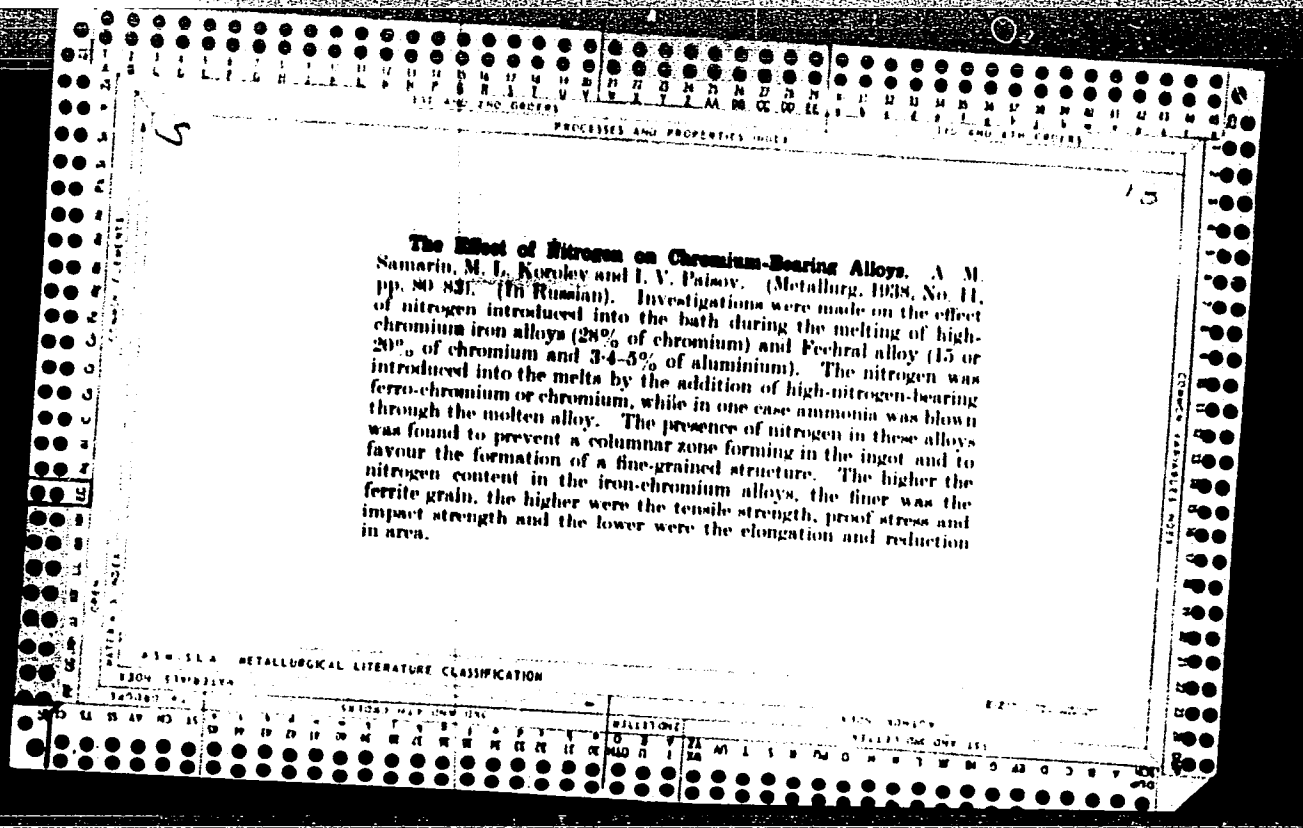


Fig. 1. Dependence of the coefficient of thermal expansion and the position of the  $M_n$  point for alloy EI630A on quenching temperature:  
 1 - coefficient of thermal expansion;  
 2 - phase transition temperature.

Card 3/3





**PROCESSES AND PROPERTIES INDEX**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

**COMMON ELEMENTS**

**MATERIALS INDEX**

**AS 0 514 METALLURGICAL LITERATURE CLASSIFICATION**

**1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100**

**1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100**

mm

Absorption of nitrogen by ferrochromium. A. M. Samarin and M. A. Koryev. *Metallurg* 13, No. 2, 77-84 (1938).—NH<sub>3</sub> was passed through molten high- and low-C ferrochromium. Approx. 0.05% N was absorbed in 100 min.

H. W. Rathmann

9

PROCESSES AND PROPERTIES INDEX

9

*ea*

Production and use of ferrochromium of high nitrogen content. A. M. Samarin and M. L. Korolev. *Trudy Moskov. Inst. Stali im. I. V. Stalin* 1959, No. 12, 3/23 (as given in *Chem. Zentr.*); *Chem. Zentr.* 1959, II, 3477-R; cf. *C. A.* 53, 1648P.—Ferrochromium of high N content (up to 0.65%) was produced by blowing NH<sub>3</sub> through the molten bath. In both high- and low-C ferrochromium the rate and degree of satn. with respect to N depended upon the rate at which the NH<sub>3</sub> was supplied and the time it was supplied, the N content of the bath being a linear function of the time. When the NH<sub>3</sub> was supplied at a const. rate, the degree of satn. of the Cr alloys with respect to N was in direct proportion to the Cr content of the alloy. The higher the Cr content the more energetically was the N taken up. The coeff. of N enrichment in the alloy was lower the greater the rate at which the N was supplied. In the C-free ferrochromium the grain size decreased as the N content of the alloy increased. Annealing at high temps. increased the grain size, although the N content tended to hinder grain growth. With high-Cr alloys which had been melted with the addn. of Cr or ferrochromium high in N, the N content made it possible to eliminate transcrystn. and to produce a fine-grained structure. In the alloy Furodite (Cr 27.38-29.55, Mn 0.56-0.9, Si 0.29-0.35, N 0.14-0.49%) the N content increased the strength and reduced the forgeability. Moreover, the ferrite grain size was reduced by the N. The higher the N content of Furodite the finer the ferrite grains and, as a result thereof, the higher are the tensile strength, the creep limit and the impact resistance (notched-bar test) and the lower the values for necking and elongation. M. G. Moore

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

M. G. Moore

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

11 AND 120 ORDERS

PROCESSES AND PROPERTIES INDEX

*ca*

**The production of ball-bearing steel.** M. L. Korolev. *Trudy Mashin. Inst. Stalim. P. V. Stalim. 1030*, No. 12, 103-11; *Chem. Zentr.* **1030**, 11, 3743. Operation data are given on the melting of ball-bearing steel as well as measures to be taken for the prevention of nonmetallic inclusions, carbide liquation and flake formation. A summary of the mech. properties of ball-bearing steel is also given. M. G. Moore

9

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

STEEL DIVISION

EXPERIMENTAL DATA

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

KORILEV, M L.

USSR .

The structure and  
function of the

Korolev, M. L.

Effect of nitrogen on the properties of structural components of chromium and ferrochrome. M. L. Korolev. *Sbornik Statei Vsesoyuz. Zash. Politekh. Inst.* 1955, No. 5, 67-77; *Referat. Zhur., Khim.* 1955, No. 8028. -- This study was carried out on 2 alloys, the first contg. Cr 97 and N 2.5, and the 2nd C 0.05, Cr 70.42, Si 0.23, Al 0.82, S 0.01, and N 0.93%, and the rest Fe. Electrolytic treatment in aqua regia (a.c., 0.25 amp. at 6 v.) revealed dark areas and large light needles in the N-contg. ferrochrome. Data on microhardness are given. It is assumed that the needles are nitrides Cr<sub>3</sub>N which undergo structural transformations upon heating and cooling. In N-contg. Cr (Cr 97%) were found the same structures as in the ferrochrome (70.42% Cr). These high-hardness structure suggests the advisability of study the double diffusion treatment of surfaces requiring high hardness and wear resistance, chromation (thermo-diffusion), and nitridation. Cf. C.A. 49, 5076a.

M. Hosen

0004

1

DM

LFI

URUK EV, M.L.

meta

The structure and Properties of Chromium Nitride and  
 Ferrochromium. M. L. Korolev. *Izvestiya Akademi Nauk  
 S.S.S.R., Otdelenie Fizicheskikh Nauk*, 1933, (10), 1465-  
 1470. [In Russian]. The influence of nitrogen on the  
 properties of chromium steels ~~is investigated~~. The pro-  
 perties of chromium and ferrochromium containing nitrogen  
 were investigated. In nitrogen-chromium alloys an acicular  
 phase is present. This needle like component is characterized  
 by its very high hardness which is higher than that of the  
 chromium carbides. It is assumed that this phase is a  
 nitride compound. The nitride phase has a variable composi-  
 tion and, on heating, undergoes transformations accompanied  
 by changes in hardness. The presence of nitrogen in the  
 alloys investigated is related to transformations of the lattice  
 structure accompanied by the appearance of two hardness  
 maxima. An increase in hardness at higher temperatures  
 corresponds to an increase in hardness of the needle-like phase.  
 It is assumed that the first maximum corresponds to the  
 precipitation of nitride phases and the second to the trans-  
 formation of a nitride phase. — v. a.

1

of

Review B-86350  
 Evaluation B-76608

KOROLEV, M.L. AND BUEYANOV, V.F.

"A manual on the designing of foundry workshops." Vestnik Vysshey Shkoly. Vol. 12,  
No 4, pp 59, 1954.

SO: D- 81919, 25 Aug 1954.



2000 65 Y 1 M 1

Nitrogen in high-speed steel. M. L. Croisy  
The effect of N on the properties of high-speed steel was studied. N was introduced as a Cr-N contg. 2.5% N formed by passing NH<sub>3</sub> over Cr at 800-900°. Steel contg. 4% Cr retained 0.04-0.05% N increasing the content of carbide and nitride phases. The forgeability was not affected, whereas the growth of the grain was retarded so that smaller grain resulted on hardening. Steel contg. N could be heated 15-20° higher than that without N, more uniform solid solus. were obtained and the red hardness was improved. A part of the N dissolved in the austenite at higher temps. etc. the solid solus. and increasing the proportion of austenite when hardened. The addn. of nitride-forming elements (Al, Ti) together with N did not increase the red hardness to the same extent and did not increase the fineness of the grain to the same degree as when N alone was present.

1. Benzowing

KOROLEV, M.L.

137-58-2-4114

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 264 (USSR)

AUTHOR: Korolev, M.L.

TITLE: The Effect of Nitrogen on the Cutting Properties of Medium-tungsten High-speed Steel (Vliyaniye azota na rezhushchiye svoystva srednevol'framovoy bystrorezhushchey stali)

PERIODICAL: Sb. statey Vses. zaoch. politekhn. in-ta, 1955, Nr 11, pp 3-9

ABSTRACT: Investigations made of structure, red hardness, and cutting properties showed that nitrogen is an inexpensive alloy component and that it greatly improves the quality of high-speed steel. The durability of cutting tools made from a nitrogen-containing steel R9 exceeded that of tools made from the same steel containing no nitrogen by 44-75 percent. The nitrogen content of standard medium-tungsten steel R9 should fall within the range 0.03 - 0.04 percent. Its hardening temperature when nitrogen is present is 15-20° higher than when it is not. Hardening under these conditions improves red hardness without producing a noticeable increase in grain size.

A.B.

Card 1/1

1. Steel--Properties--Nitrogen effect 2. Cutting tools--Applications

SOV/137-57-1-1405

Translation from: Referativnyy zhurnal. Metallurgiya, 1957, Nr 1, p 186 (USSR)

AUTHOR: Korolev, M. L.

TITLE: Mechanical and Physical Properties of Stainless Chromium Steel Alloyed With Nitrogen (Mekhanicheskiye i fizicheskiye svoystva khromistoy nerzhavayushchey stali, legirovannoy azotom)

PERIODICAL: Sb. statey Vses. zaoch. politekhn. in-ta, 1956, Nr 14, pp 3-29

ABSTRACT: The author investigated the effect of N (up to 0.35%) on the mechanical and physical properties of 1Kh13, Kh17, and Kh28 steel with reference to heat treatment. Introduction of N improves sharply the mechanical properties of steel: In 1Kh13 steel  $\sigma_b$  increases from 65 to 75 and  $\sigma_s$  from 40 to 50 kg/mm<sup>2</sup> (after quenching from 950° and tempering at 720°); in Kh17 steel  $\sigma_b$  increases from 52 to 68,  $\sigma_s$  from 30 to 45 (after quenching and tempering at 750°); in Kh28 steel  $\sigma_b$  from 55 to 77,  $\sigma_s$  from 42 to 63 (in the annealed state);  $\delta$  and  $a_k$  do not change. Electric resistivity increases, magnetic saturation decreases. Introduction of N widens the  $\gamma$  range in 1Kh13 steel in proportion to the temperature and in Kh17 steel in proportion to temperature and concentration. The effect

Card 1/2

SOV/137-57-1-1405

Mechanical and Physical Properties of Stainless Chromium Steel (cont.)

of N is caused by the refinement of the grain size during preheating before quenching and by the separation of fine carbonitride particles during tempering. The optimum N contents for steel are as follows (in %): 1Kh13 0.15 - 0.20, Kh17 0.19 - 0.22, and Kh28 0.30 - 0.35.

N. S.

Card 2/2

KOROLEV, M.L. Doc Tech Sci (diss) "Nitrogen as an alloy component  
in chrome steel." Mos, 1957 23 pp 22 cm. (USSR Min Higher Ed)

Moscow Order of Labor Red Banner Inst of Steel in I.V. Stalin)

120 copies

(KL, 12-57, 104)

SOV/137-58-10-21646

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 171 (USSR)

AUTHOR: Korolev, M.L.

TITLE: The Influence of Nitrogen on Heat-resistant Properties of High-chromium Steel (Vliyaniye azota na zharoprochnost' vysokokhromistoy stali)

PERIODICAL: Sb. statey Vses. zaochn. politekhn. in-ta, 1957, Nr 18, pp 3-11

ABSTRACT: Investigations were performed in order to determine how nitrogen affects the  $\sigma_{pl}$  of steels Kh17 and Kh28 at a temperature of 550°C. It was established that heat-resistant properties of the steels indicated are improved as a result of introduction of N. The optimal N content amounts to 0.15-0.20% in the case of the steel Kh17, and 0.25-0.35% in the case of the steel Kh28.

1. Heat resistant alloys--Properties  
--Metallurgical effects

2. Nitrogen

T.F.

Card 1/1

KOROLEV, M. L.

137-58-5-10555

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 239 (USSR)

AUTHOR: Korolev, M. L.

TITLE: Effect of Nitrogen on the Creation of the Sigma Phase in High-chromium Steel (K vliyaniyu azota na vydeleniye sigma-fazy v vysokokhromistoy stali)

PERIODICAL: Sb. statey Vses. zaochn. politekhn. in-ta, 1957, Nr 19-20, pp 132-141

ABSTRACT: Steels 1Kh13, Kh17, and Kh28, containing up to 0.17, 0.22, and 0.57% N, respectively, were investigated. Hardness was measured after long heating at 550°C, and the microstructure was studied. After holding for 100 hours, no increase in hardness was observed in 1Kh13 and Kh17 steels regardless of N content, whereas a considerable rise in hardness was observed in Kh28 steel (with and without N), testifying to the appearance of a sigma phase. With Kh28 steel the N content does not affect the formation of a sigma phase either. Thus, addition of up to 0.5-0.6% N to steel with 13-28% Cr does not shift the region in which the sigma phase exists toward the lower Cr concentrations.

Card 1/1

1. Chromium alloys--Phase studies 2. Nitrogen L. V.  
--Metallurgical effects 3. Chromium alloys--Structural analysis

13(7)

AUTHOR:

Korolev, M. L.

SOV/163-58-4-29/47

TITLE:

Sigma Phase in Steels With High Chrome Content With Nitrogen (at the Introduction of Nitrogen) (Sigma-faza v vysokokhromistykh stalyakh s azotom)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 4, pp 174-177 (USSR)

ABSTRACT:

Experimental results are given on the influence of nitrogen on the precipitation of the  $\sigma$ -phase in steels with a high chrome content. The following steels were examined: 1Kh 13, Kh 17, and Kh 28. The following statement was made in the examination: 1) Introduction of nitrogen into a steel with 17 %, and the more with 13 % Cr does not bring about a precipitation of the  $\sigma$ -phase. Thus, nitrogen does not shift the ranges of formation of this brittle phase in the direction of low chrome concentrations. 2) Nitrogen introduced into the steel with 27-30 % Cr-content (steel Kh 28) does not intensify the precipitation of the  $\sigma$ -phase, nor does it deteriorate the steel properties on continuous heating in the range of 400-600°, i. e. under conditions which cause the precipitation of this phase. An increase of the nitrogen content in steel

Card 1/2

Sigma Phase in Steels With High Chrome Content  
With Nitrogen (at the Introduction of Nitrogen)

SOV/163-58-4-29/47

from 0.3 up to 0.5-0.6 % does not change the character of  
the nitrogen influence. There are 2 tables and 5 references,  
3 of which are Soviet.

ASSOCIATION: Vsesoyuznyy zaachnyy politekhnicheskiy institut (All-Union  
Polytechnic Correspondence Institute)

SUBMITTED: November 14, 1957

Card 2/2



85812

S/148/60/000/003/017/018  
A161/A029

181156

1454

AUTHOR: Korolev, M.L.

TITLE: Heat-Resistance of High-Chrome Steel <sup>18</sup> Containing Nitrogen <sup>18</sup>

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. - Chernaya metallurgiya,  
1960, No. 3, pp. 153 - 158

TEXT: Chrome steel grades X13 (Kh13)<sup>18</sup>, X17 (Kh17)<sup>18</sup> and 28X (Kh28)<sup>18</sup> with 13, 17 and 28% Cr content were investigated. Nitrogen was introduced by the method described in Reference 3 with nitrous chrome and nitrous ferrochrome into the molten metal. МН-2 (IP-2) TsNIITMASH test machines were used for testing specimens at constant stress and temperature (550°C). The results are illustrated by graphs. In general, the results have shown that nitrogen affects the heat resistance of high-chrome steel differently at a different nitrogen and chrome content. In steel with 13% Cr it lightly reduced the creep resistance, but in Kh 17 and particularly in Kh28 the creep resistance was higher. The found interdependence between the nitrogen content and creep resistance is shown (Fig. 4). There are 4 figures and 6 references: 5, Soviet; 1 German.

Card 1/2

PHASE I BOOK EXPLOITATION

SOV/5553

Korolev, Makariy Lavrent'yevich

Azot kak legiruyushchiy element stali (Nitrogen as the Alloying Element in Steel) Moscow, Metallurgizdat, 1961. 161 p. 3,200 copies printed.

ED.: A. M. Rabinovich; Ed. of Publishing House: Ye. I. Levit;  
Tech. Ed.: M. R. Kleyzman.

PURPOSE : This book is intended for technical personnel of the metallurgical and machine industries and may also be of use to students at metallurgical schools of higher education.

COVERAGE: The effect of nitrogen as an element for improving the structure and properties of high-chromium steels is analyzed. The author discusses the effect of nitrogen in pearlitic steels with 12-14% chromium, semiferritic steels with 17% chromium, ferritic steels with 28% chromium, austenitic steels with 18-25% chromium and 9-20% nickel, and in martensitic steels with high carbon content. The effect

Card 1/3

KOROLEV, M. M.

PA 160T29

USSR/Engineering - Concrete  
Water, Effects of

May 50

"Deformations in Concrete on Wetting Its Surface  
With Water," M. M. Korolev, Engr, 4 1/2 pp

"Gidrotekhn Stroi" No 5

Describes experiments for determining values of  
deformations in contraction and swelling of con-  
crete, and for studying effect of water. Concrete  
cylinders and beams were used for experiments.  
Deformations measured during investigation process

160T29

USSR/Engineering - Concrete (Contd)

May 50

are of theoretical and practical interest for un-  
derstanding performance of concrete and formation  
of cracks in it under action of water.

KOROLEV, M.M., inzhener.

On stresses occurring in concrete subjected to alternate wetting  
and drying. Izv. VNIIG no.43:176-180 '50. (MLBA 10:2)  
(Concrete--Testing)

KOROLEV, M. M.

PA 197150

USSR/Engineering - Concrete, Testing

Mar 51

"String Extensometer, Constructed by Engineer M. M. Dorokhov," M. M. Korolev, Engr

"Gidrotekh Stroi" No 3, pp 47-48

Describes briefly extensometer for detn of deformations in concrete and discusses its advantages and defects. Indefinite coeff of instrument is chief shortcoming, which prevents its further use despite numerous pos qualities such as: hermetic insulation of piano wire and electromagnet coil from exterior moisture, stability of string indications at free state of extensometer, good acoustic property of string, etc.

197150

KOROLEV, M.M., inzh.

Equalizer of hydrostatic pressure in freezable tanks. Izv. VNIIG  
46:211-213 '51. (MIRA 12:5)  
(Hydrostatics)

KOROLEV, M.M.

AID P - 1751

Subject : USSR/Hydraulic Engineering Construction

Card 1/1 Pub. 35 - 10/21

Author : Mal'tsev, K. A. and Korolev, M. M.

Title : The problem of controlling the quality of concrete in structures

Periodical : Gidr. stroi., v.24, no.2, 30-32, 1955

Abstract : Various stages of control are discussed. The vertical core drilling is criticized. The proper way of shipping core specimens and various laboratory tests are described. Their experimenting with testing devices by the authors is explained and a few points on testing of concrete core specimens are suggested. Two schematic drawings and a photo are included.

Institution: None

Submitted : No date

KOROLEV, M.M., inzhener.

Preparing a disc to be used in determining the surface strength  
of concrete. Gidr.stroi. 26 no.6:46-47 Je '57. (MIRA 10:7)  
(Concrete--Testing)



*Korolev, M.M.*  
KOROLEV, M.M., inzh.

Methods of determining the strength of concrete in concrete products.  
Bet. i shel.-bet. no. 7:298 J1 '57. (MIRA 10:11)  
(Concrete--Testing)

*KOROLEV, m.m.*  
AUTHOR: Korolev, M.M., Engineer 98-58-5-9/33  
TITLE: Two Methods of Checking the Strength of Concrete (Dva metoda kontrolya prochnosti betona)  
PERIODICAL: Gidrotekhnicheskoye Stroitel'stvo, 1958, Nr 5, pp 36-38 (USSR)  
ABSTRACT: The author describes two of the most rational methods for checking the strength of concrete. There are 1 diagram, 2 tables, 1 photograph, and 6 references, 5 of which are Soviet and 1 German.  
AVAILABLE: Library of Congress  
Card 1/1

KOROLEV, M.M., insh.

Ice pressure on the flat sluice gates of the Dnieper Dam.  
Izv. VNIIG 60:172-177 '58. (MIRA 13:6)  
(Sluice gates) (Dnieper River--Ice)

CHUVASHEVA, Natal'ya Petrovna, doyarka, deputat Verkhovnogo Soveta RSFSR;  
KOROLEV, M.M., red.; VORONTSOVA, Z.Z., tekhn. red.

[For 7000 kg. of milk from our cows in a year] Za 7000 kologrammov  
moloka ot korovy v god. Izhevsk, Udmurtskoe knizhnoe izd-vo, 1959.  
22 p. (MIRA 14:12)

1. Kolkhoz im. Lenina Debesskogo rayona (for Chuvashva).  
(Milk)

KOROLEV, M. N.

Technology

Steel metallurgy; Open-hearth process. Trubin, K. G. Ed. M. N. Korolev, Moskva, Gos. nauchno-tech. izd-vo litery po chernoi i tsvetnoi metallurgii, 1951.

9. Monthly List of Russian Accessions, Library of Congress, June 195~~2~~ Unclassified.

Korolev, M.M.

SHMEYEROV, Ya.A.; MOROZOV, A.M.; KOROLEV, M.M., redaktor; ROZENTSVEYG, Ya.D.,  
redaktor izdatel'stva; EVKINSON, I.M., tekhnicheskiy redaktor

[Technology of open-heat smelting; generalisations from progressive  
experience] Tekhnologiya martenovskoi plavki; obobshchenie peredovogo  
opyta. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvet-  
noi metallurgii, 1957. 219 p. (MIRA 10:7)

1. Ukrainakiy institut metallov.  
(Open-hearth process)

PA - 2408

- 1) The Velocity of the Introduction of Oxygen During the Process of Smelting Stainless Steel when Using Scrap-Metal.
- 2) Weight Reduction of the Feed-Heads of Castings.

highly efficient admixtures is economical only if alloyed steel is cast. Therefore a method is being developed at present, according to which the exothermic mixture is applied only to the surface of the insulating material. (2 illustrations)

ASSOCIATION: Not given.

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress.

Card 2/2

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824810019-8"

KOROLEV, M.N., referent.

Reducing the weight of ingot riser heads (from BISRA Survey, 1956).  
Stal' 17 no.2:191 F '57. (MIRA 10:3)  
(Steel ingots)

SMOLYARENKO, Danil Abramovich; YEFANOV, Nikolay Ivanovich; MASLOVSKIY, P.M., retsensent; BORODULIN, A.I., retsensent; GONCHAROV, G.I., retsensent; SPIRIN, N.I., retsensent; KOROLEV, M.N., nauchnyy red.; ZINGER, S.L., red.izd-va; KARASEV, A.I., tekhn.red.

[Large-capacity open-hearth furnace plants] Martenovskie tsakhi s pechami bol'shoi emkosti. Izd.2., perer. i dop. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po cherno i tsvetnoi metallurgii, 1960. 356 p. (MIRA 13:9)  
(Open-hearth furnaces--Design and construction)



RYABIN'KIY, Bronislav Yakovlevich; BERLYAND, S.S., inzh., retsenzent; GERASIMENKO, V.F., inzh., retsenzent; GRUDSKIY, Ye.B., inzh., retsenzent; DASHEVSKIY, Ye.I., inzh., retsenzent; DVORIN, S.S., inzh., retsenzent; KAMALOV, O.M., inzh., retsenzent; KARPMAN, M.A., inzh., retsenzent; KASHCHENKO, D.S., inzh., retsenzent; KOROLEV, M.N., inzh., retsenzent; KORSAKOV, A.A., inzh., retsenzent; LISENKO, T.P., inzh., retsenzent; PEKELIS, I.B., inzh., retsenzent; REVIYAKIN, A.A., inzh., retsenzent; ROMANOVICH, N.D., inzh., retsenzent; PRIYMAK, I.A., prof., red.; AVRUTSKAYA, R.F., red.izd-va; ISLENT'YEVA, P.G., tekhn.red.

[Planning and economics of metallurgical plants] Planirovanie i ekonomika metallurgicheskikh zavodov. Izd.2., dop. i perer. Moskva. Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii. 1960. 736 p.

(Metallurgical plants)

(MIRA 13:2)

KOROLEV, M.K., referent

Use of a continuously functioning gas analyzer to control the completeness of fuel combustion in open-hearth furnaces [from "Open-hearth proceedings," v.42, 1959]. Biul. TSICHI no.5:52-53 '61. (MIRA 14:10)  
(United States—Open-hearth furnaces)

RYABIN'KIY, Bronislav Yakovlevich; ADARYUKOV, G.I., inzh., retsenzent;  
BERLYAND, S.S., inzh., retsenzent; GERASIMENKO, V.A., inzh.,  
retsenzent; GRUDSKIY, V.A., inzh., retsenzent; DASHEVSKIY,  
Ye.B., inzh., retsenzent; KARPMAN, Ya.I., inzh., retsenzent;  
KOROLEV, M.N., inzh., retsenzent; KORSAKOV, A.A., inzh.,  
retsenzent; LISENKO, T.P., inzh., retsenzent; PEKILIS, I.B.,  
inzh., retsenzent; REVIYAKIN, A.A., inzh., retsenzent;  
ROMANOVICH, N.D., inzh., retsenzent; FILIPPOV, S.M., inzh.,  
retsenzent; BRUSHTEYN, A.I., red.izd-va; DOBUZHINSKAYA, L.V.,  
tekh. red.

[Planning and the economics of metallurgical plants] Planirova-  
nie i ekonomika metallurgicheskikh zavodov. Izd.3., perer. i  
dop. Moskva, Metallurgizdat, 1963. 754 p. (MIRA 16:4)  
(Steel industry--Management)

KOROLEV, M.O. [Korol'ov, M.O.], kand.sel'skokhoz.nauk; MUKHIN, V.I.  
nauchnyy sotrudnik

Effect of ultraviolet irradiation on the productivity in sheep.  
Nauk.pratsi "Ask.-Nov." 9:51-54 '61. (MIRA 15:3)  
(Sheep) (Ultraviolet rays--Physiological effect)