

## 資料室だより

### BISI Translation 紹介

— No. 85 —

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またこの翻訳論文の刊行準備のできたものの Title, Abstract および出典について Translations Available (Weekly) が刊行されたり、また Ironmaking and Steelmaking に掲載され、事前にどんな論文が出るかわかるようになります。

BISI Translations を利用すれば英國米国、以外の主要製鉄国的主要論文をきわめて容易に知ることが可能で、これによる時間的利得は非常に大きいと考えられます。

資料委員会では 1965 年より業界の協力のもとに共同購入してまいりました。

次に列記いたしました Title は最近入手したもので、複写は禁止されておりますので閲覧のみに限ります。

“資料室だより”の別刷ご希望の方は調査課までご連絡下さい。無料でさし上げます。Tel. (279) 6021

BISI Translations List Nos. 857~860

#### **Management Planning and Control**

BISI 15963 (B. A. Zikov.)

Manual labour eliminated by improving technologies, organization of production, and equipment.

[Stal' 1977, (3), 268—273] (R)

BISI 15974 (V. A. Shcherbadov, and L.A. Sapochnikov) Synthesis of algorithms for the control of steelmaking processes allowing for delays and disturbances within the control system contour. report 1.

[Izv. VUZ. Chern. Met., 1977, (3), 59—62] (R)

BISI 15926 (H. Hanis.)

The development of power and energy economy in iron and steel manufacture: some aspects of rationalization of the power and energy economy.

[Hutnik (Praque), 1977, 27, (2), 74—78] (C)

#### **Physical Structure of Materials and Crystallography**

BISI 15842 (S. V. Zemskii, and V. I. Grigorkin.) Self-diffusion of iron in iron-manganese alloys.

[Izv. VUZ. Chern. Met., 1977, (2), 110—113] (R)

BISI 15853 (M.N. Fedorov, and L. P. Vakulina.) Method of calculating schedules for strengthening I-beams on roller-straightening machines.

[Izv. VUZ. Chern. Met., 1977, (2), 181—184] (R)

BISI 15948 (N. Nikov.)

Tensions and deformations when welding 0.9 g steel.

[Mashinostroenie, 1976, (9), 395—398] (Bu)

#### **Physical Metallurgy and Metallography**

BISI 15872 (C. G. Nestler, et al.)

Metallographic investigation technique for further rust phase analysis.

[Neue Hütte. 1976, 21, 567] (G)

BISI 15873 (H. Baum.)

Quantitative x-ray phase analysis of rusts.

[Neue Hütte, 1976, 21, (9), 568—569] (G)

BISI 15874 (G. Fritzsche, et al.)

Quantitative phase analysis of rust and the influence of the actual structure of the magnetic phase on the rusting process.

[Neue Hütte, 1976, 21, (9), 570—571] (G)

BISI 15904 (L. Eles.)

The effect of sulphur on the toughness and brittle fracture properties of steels.

[Banyasz. Kohasz. Lapok (Kohasz.), 1977, 110, (2), 59—63] (H)

BISI 15968 (S. I. Filippov, and S. G. Mel'nik.)

Decarburization intensification parameters of iron melts in the absence of a surface active medium.

[Izv. VUZ. Chern. Met., 1977, (3), 7—13] (R)

BISI 15970 (O. N. Kallistratov, and S. I. Filippov)

State of the carbon in Fe-C melts from ultrasonic measurements.

[Izv. VUZ. Chern. Met., 1977, (3), 18—20] (R)

#### **Physical Properties and Chemical Analysis.**

BISI 15844 (M. I. Avaliani, et al.)

Viscosity of alloys of iron with carbon.

[Izv. VUZ. Chern. Met., 1977, (2), 123—126] (R)

BISI 15956 (G. D. Lubyanitskii.)

Effect of constructional-technological methods on the power effectiveness of ultrasonic equipment for cleaning strip.

[Stal', 1977, (3), 231—236] (R)

BISI 15969 (G. D. Molonov, and L. S. Kharlashin)

Surface activity of arsenic in liquid iron-arsenic melts.

[Izv. VUZ Chern. Met., 1977, (3), 14—17] (R)

BISI 15848 (A. I. Zolotarev, et al.)

Calculating the temperature and stresses in a cylinder with a varying heat flow.

[Izv. VUZ. Chern. Met., 1977, (2), 144—147] (R)

BISI 15849 (K. D. Il'chenko, et al.)

Experiment planning used for investigation the thermal and physical properties of a dispersed material.

[Izv. VUZ. Chern. Met., 1977, (2), 148—152] (R)

BISI 15850 (A. L. Serokhovstov)

Determining the angular coefficients of radiation for a system of coaxial bodies.

[Izv. VUZ. Chern. Met., 1977, (2), 153—157] (R)

BISI 15973 (P. F. Zavgorodnii, et al.)

Calculation of the distribution of an impurity in a crystallizing ingot.

[Izv. VUZ. Chern. Met., 1977, (3), 47—50] (R)

BISI 16015 (M. Stiebler, et al.)

The correlation between the properties of magnetic steel sheet and the characteristic data of the electric machines.

[Stahl Eisen., 1977, 97 (10), 495—504] (G)

BISI 15521 (P. Laurenceau, et al.)

A new method for determining the electrostatic potential distribution in dielectrics.

[C. R. Hebd. Seances Acad. Sci. Ser. B, 1976, 283, 20 Sept., 135—138] (F)

#### Mechanical Properties and Material Defects

BISI 15913 (Verlag Stahleisen mb H)

Microscope testing of free-cutting in respect of sulphide inclusions by means of a series of pictures.

[Stahl-Eisen Prufblatt. 1572 Issue 1] (G)

BISI 15940 (I. Saxl, et al.)

Slip along the grain boundaries and intercystalline fracture in high-temperature creep.

[Kovove materialy, 1976, (5), 552—566] (C)

BISI 15942 (A. Puskar)

The effect of external factors on the high-frequency load fatigue limit.

[Kovove materialy, 1977, (1), 63—76] (C)

BISI 15845 (A. P. Lyubchenko, et al.)

Micro-distribution of Mg and Si in remelts of high-magnesium cast iron.

[Izv. VUZ. Chern. Met., 1977, (2), 127—130] (R)

BISI 15858 (G. M. Itskovich)

The use of rare earth metals to control the composition and morphology of non-metallic inclusions in steel deoxidized with aluminium.

[Stal', 1977, (2), 125—130] (R)

BISI 15891 (H. Weiss)

The influence of a rare earth calcium alloy on inclusion morphology and notch toughness of hot-rolled wide strip for spiral weld tubes of high tensile steel.

[Stahl Eisen, 1977, 97, (10), 477—486] (G)

BISI 15955 (N. V. Stetsenko, et al.)

Development of a technique for the treatment of D122 and D123 alloy tool steel ingots.

[Stal', 1977, (3), 230—231] (R)

BISI 15957 (A. E. Krivosheev, et al.)

Effect of solidification conditions on the formation of shrinkage defects in cast iron mill rolls.

[Stal', 1977, (3), 241—242] (R)

#### Corsion and Corrosion Testing

BISI 15943 (V. Cihal, et al.)

An electrochemical method for determining the sensitivity of stainless steels to intercrystalline corrosion.

[Kovove materialy. 1977, (1), 111—122] (C)

BISI 15869 (V. V. Kalmykov, et al.)

Investigation of the properties of quenched and tempered reinforcing rod in different conditions of testing.

[stal', 1977, (2), 175—177] (R)

#### Protection of Materials

BISI 15578 (A. I. Vitkin, and B. L. Grinberg)

Electrical properties and phase composition of a zinc coating with jet and roller regulation.

[Stal', 1976, (12), 1134—1136] (R)

#### Rolling

BISI 15835 (V. V. Timofeev, et al.)

Some of the problems in the surface formation quality of H-beams. report 1.

[Izv. VUZ. Chern. Met., 1977, (2), 47—50] (R)

BISI 15836 (V. I. Mazur)

Rational method for calculating on a computer the parameters of light-gauge sheet rolling.

[Izv. VUZ Chern. Met., 1977, (2), 54—59] (R)

BISI 15840 (V. P. Polukhin, and V. N. Skorokhodov)

Calculation of the parameters of the asymmetric light-gauge strip rolling process rpt 1.

[Izv. VUZ. Chern. Met., 1977, (2), 81—85] (R)

BISI 15852 (Yu. V. Petrov, et al.)

Effect of strengthening strip metal on the force of drawing it through an undriven roller-straightening machine.

[Izv. VUZ. Chern. Met., 1977, (2), 177—180] (R)

BISI 15863 (Ya. P. Ogan'yan)

The problem of specialization of continuous sheet mills.

[Stal', 1977, (2), 142—144] (R)

BISI 15864 (M. Meerovich, et al.)

Investigation of a 2000 continuous wide strip mill.

[Stal', 1977, (2), 151—155] (R)

BISI 15921 (J. Ihlefeldt, et al.)

Control of the width of hot-rolled strip in the entry end of a pickling line with the aid of diode line detectors and adapted data processing.

[Stahl Eisen, 1977, 97, (4), 147—150] (G)

BISI 15924 (B. Borsky)

Transfer of the melting process of steel for pipes with 0.2% C to tandem furnaces.

[Hutnik (Praque), 1977, 27, (1), 8—13] (C)

BISI 15925 (J. Vescicik)

Experimental verification of the passes for 1—12 beams by the modelling technique.

[Hutnik (Praque), 1977, 27, (1), 17—22] (C)

BISI 15961 (V. V. Parusov, et al.)

Rapid cooling and secondary processing of SnKh15 steel rod.

[Stal', 1977, (3), 259—263] (R)

BISI 15976 (V. P. Polukhin, and V. N. Skorokhodov)

Calculation of the parameters of the finegauge

strip asymmetric rolling process.

[Izv. VUZ. Chern. Met., 1977, (3), 75—78] (R)

BISI 15977 (N. G. Bochkov, et al.)

Method of calculating the shape parameters of flat rolled semiproduct and the basis.

[Izv. VUZ. Chern. Met., 1977, (3), 79—83] (R)

BISI 15982 (R. V. Lel' et al.)

Radial flattening of four high mill work rolls.

[Izv. VUZ. Chern. Met., 1977, (3), 101—105] (R)

### Metalworking Excluding Rolling

BISI 15983 (P.V. Kamnev, et al.)

Standardization of forging work under free-forging hammers.

[Izv. VUZ. Chern. Met., 1977, (3), 106—108] (R)

BISI 15939 (M. Snasel)

Kinetics of the rotary piercing process, practical measurements and calculation of coefficients of slip.

[Hutn. listy, 1977, 32, (2), 103—106] (C)

BISI 15958 (Ya. E. Osada, et al.)

Development of the production of cold rolled tube on KnPT-250 mills.

[Stal', 1977, (3), 244—247] (R)

BISI 15919 (D. G. Fuchs)

Industrial tests on hot drawing of high strength steels.

[Stahl Eisen, 1977, 97, (4), 154—158] (G)

BISI 15959 (S. I. Shapovalov, et al.)

Influence of welding and heat treatment on the properties of cable wire.

[Stal', 1977, (3), 251—254] (R)

BISI 15927 (V. Gajdosech)

Improving the productivity of working operations when drawing CrNi steel.

[Strojirenska vyruba, 1977, (1), 27—35] (C)

BISI 15949 (E. Muftiyev)

The role of friction in deep drawing cold rolled steel sheets.

[Mashinostroenie, 1976, (10), 443—446] (Bu)

### Steels and Alloys (Technical Application and Methods of Production), Cermets

BISI 15579 (I. V. Yunakova, et al.)

Effects of the nature of the non-metallic inclusions in structural steel on its resistance to deformation and fracture.

[Stal', 1976, (12), 1136—1137] (R)

BISI 15903 (I. Czinege, and T. Reti)

Analysis of the relation between the chemical composition and the price of alloyed structural and tool steels by means of regression analysis.

[Banyasz Kohasz Lapok (Kohasz), 1977, 110, (1), 21—24] (H)

BISI 15953 (N. V. Shcherbina, et al.)

Rational melting practice for the production of ShKh15 ball-bearing steel.

[Stal', 1977, (3), 223—225] (R)

BISI 15880 (J. Pietrzyk, and S. Lepiarczyk)

The aging process in sheets of rimming converter steel after cold work in the finishing pass.

[Hutnik (Katowice), 1974, 41, (7/8), 357—365] (P)

### Casting and Cast Metals

BISI 15598 (A. G. Kolesnichenko, et al.)

Influence of boron on the structure and properties of iron castings.

[Izv. VUZ. Chern. Met., 1976, (12), 119—121] (R)

BISI 15857 (V. Ya. Genkin, and M. I. Pikus)

Continuously-cast billets for the production of unit-rolled railroad wheels.

[Stal', 1977, (2), 121—124] (R)

BISI 15881 (R. Alberny)

present state of development of continuous casting.

[CDS C. I. T., 1977, (4), 913—923] (F)

BISI 15897 (R. Alberny, et al.)

The slab continuous casting mould and its thermal balance.

[Rev. Metal., 1976, (7—8), 546—556] (F)

BISI 15929 (V. Otahal)

Contribution to the use of surface chills in grey iron casting.

[Slevarenstvi, 1976, 24, (8), 323—328] (C)

BISI 15931 (Z. Ambroz, et al.)

Surface protection of moulds and cores by anhydrous coatings of czechoslovak manufacture.

[Slevarenstvi, 1977, 25, (2), 52—56] (C)

BISI 15933 (E. Ragan)

Contribution to the dynamics of mould cavity filling in gravity die castings.

[Slevarenstvi, 1977, 25, (2), 66—71] (C)

BISI 15934 (A. Svoboda)

Strength test of grey cast iron between wedges and its relation to the orthodox tensile test.

[Slevarenstvi, 1977, 25, (2), 72—75] (C)

BISI 15952 (V. I. Yavoiskii, et al.)

Factors affecting secondary oxidation of steel in a multi-strand billet caster.

[Stal', 1977, (3), 214—217] (R)

### Heat Treatment

BISI 14439 (B. Edenhofer)

Comparison of different methods of nitriding with particular reference to ionitriding.

[Fachber. fur Oberflachentechnik, 1974, 12, (4), 97—102] (G)

BISI 15813 (M. Geru, et al.)

Behaviour of rul-type steel (for bearings) during final heat treatment.

[Metalurgia, 1976, 28, (10), 555—558] (Ru)

BISI 15895 (V. M. Ivashchenko, et al.)

Influence of cooling conditions on the kinetics of supercooled austenite decomposition in 35 Gs reinforcing steel.

[Met. i Gorno. Prom., 1977, (2), 34—36] (R)

BISI 15941 (B. Million, et al.)

Diffusion of carbon, silicon, vanadium and tungsten in manganese steels.

[Kovové materialy, 1977, (1), 24—35] (C)

### Heating Heating Furnaces and Electric Heating

BISI 15859 (L. N. Kultygina, et al.)

Behaviour of nitrogen when melting steel in arc furnaces.

[Stal', 1977, (2), 135—136] (R)

BISI 15870 (I. I. Shakhov, et al.)

- A rational schedule for heating up soaking pit linings of dinas refractory concrete.  
[Stal', 1977, (2), 183—184] (R)
- BISI 15871 (V. V. Tregubov, et al.)  
Investigation of the heating of loosened coils in single-stack bell-type furnaces.  
[Stal', 1977, (2), 184—185] (R)
- BISI 15886 (L. Tompe)  
Efficiency testing of soaking pit furnaces.  
[Banyasz. Kohasz. Lapok (Kohasz.), 1977, 110, (1), 13—16] (H)
- BISI 15890 (Z. Smij, et al.)  
Statistical study of the thermo-technical data of electric arc furnaces.  
[Banyasz. Kohasz. Lapok (Ontode), 1977, 28, 25—32] (H)
- BISI 15923 (J. Kubena, and J. Hliněný)  
Modernized controllers of the travel of electric-arc furnace electrodes.  
[Hutnik (Prague), 1976, 26, (11), 410—414] (C)
- BISI 15930 (J. Kubena, and J. Hliněný)  
Automatic control of processes in medium frequency melting furnaces.  
[Slévárenství, 1976, 24, (8), 328—331] (C)
- BISI 15947 (I. Rasheva, et al.)  
Results of the industrial implementation of an installation for electric slag melting of steels and alloys in the "Y. popov"-pernik steel and alloys melt plant.  
[Mashinostroenie, 1976, (7), 304—306]
- Fuel, Combustion and Refractories**
- BISI 15937 (V. Masek)  
Thermal properties of the flue dust in workplaces of coke oven plants in metallurgical works.  
[Hutn. Listy, 1977, 32, (2), 79—85] (C)
- BISI 15971 (I. I. Pronin)  
Combined control system for gas-mixing station.  
[Izv. VUZ. Chern. Met., 1977, (3), 26—31] (R)
- BISI 15889 (S. Simon, et al.)  
Effect of the refractory materials of casting armatures on the purity of steel.  
[Banyasz. Kohasz. Lapok (Kohasz.), 1977, 110, (2), 64—69] (H)
- Ores and Minerals Handling and Beneficiation**
- BISI 15854 (M. P. Avdonina, et al.)  
Development of mineral-formation process during firing of kachkanar mining-beneficiation combine pellets.  
[Stal', 1977, (2), 104—107] (R)
- BISI 15950 (F. M. Zhuravlev, et al.)  
Influence of the gangue mineral composition of a concentrate on pellet quality indices.  
[Stal', 1977, (3), 197—200] (R)
- Ironmaking and Ferro-Alloys**
- BISI 15668 (S. P. Koshelev, et al.)  
Special features of silicon reduction blast furnace of large and small volume. Communication 1  
[Izv. VUZ. Chern. Met., 1977, (1), 26—29] (R)
- BISI 15855 (B. A. Pavlenko, et al.)  
Investigating the operating of a Lk-35-EZTM bell winch.  
[Stal', 1977, (2), 112—113] (R)
- BISI 15856 (A. P. Kotov, et al.)
- Role of the rotating distributor in controlling peripheral distribution of gas and charge in the furnace.  
[Stal', 1977, (2), 114—116] (R)
- BISI 15861 (M. I. Gasik, et al.)  
Intensification of the low-phosphorus carbon ferrromanganese melting process.  
[Stal', 1977, (2), 138—140] (R)
- BISI 15887 (O. Farkas)  
Relation of the water gas reaction to the hydrogen reduction of iron oxides in the blast furnace.  
[Banyasz. Kohasz. Lapok (Kohasz.), 1977, 110, (1), 16—20] (H)
- BISI 15905 (O. Farkas)  
The participation of hydrogen in the reduction work of the blast furnace.  
[Banyasz. Kohasz. Lapok (Kohasz.), 1977, 110, (2), 70—74] (H)
- BISI 15938 (M. Pokorny, and I. Janousek)  
Computers in measuring circuits of blast furnaces.  
[Hutn. Listy, 1977, 32, (2), 86—91] (C)
- BISI 15954 (A. A. Tskitishvili, et al.)  
Carbon ferromanganese production employing a medium-carbon ferromanganese slag.  
[Stal', 1977, (3), 225—227] (R)
- Extraction and Refining**
- BISI 15565 (L. L. Levin, et al.)  
Viscosity of karaganda-combine slags.  
[Stal', 1976, (12), 1072—1074] (R)
- BISI 15851 (V. I. Grankovskii, et al.)  
Dynamic model of the steelmaking bath decarburization process.  
[Izv. VUZ. Chern. Met., 1977, (2), 168—170] (R)
- BISI 15862 (D. I. Sagomadze, et al.)  
Production of complex alloys from hare-earth metals.  
[Stal', 1977, (2), 140—141] (R)
- BISI 15888 (G. Karoly)  
High purity steel production by modern remelting processes.  
[Banyasz. Kohasz. Lapok (Kohasz.), 1977, 110, (2), 54—58] (H)
- BISI 15833 (D. Ya. Povolotskii, et al.)  
Volatility of melts of the  $\text{CaO}-\text{Al}_2\text{O}_3-\text{CaF}_2$  system.  
[Izv. VUZ. Chern. Met., 1977, (2), 40—42] (R)
- BISI 15928 (E. Kronrad)  
Utilizing metallurgical waste in cement manufacture.  
[7th International Ironmaking Conference Trinec Sept. 1976, 291—308] (C)
- Engineering**
- BISI 15879 (K. Matthaes)  
Investigating crankshaft failures.  
[Z. Metallk., 1975, 66, (10), 593—600] (G)
- BISI 15960 (R. F. Gimazetdinov, et al.)  
Production and use of steel cables with a polypropylene core.  
[Stal', 1977, (3), 254—255] (R)
- BISI 15966 (D. D. Myagkii, et al.)  
Preventing carbonate deposits in plant and piping for wet gas cleaning in oxygen-converter shops.  
[Stal', 1977, (3), 278—281] (R)