

## 資料室だより

## BISI Translation 紹介

— No 55 —

## BISI Translation の特長

英国鉄鋼業界, BISRA および The Metals Society は共同で BISI を運営しています。この BISI は BISI Translations を発行しています。BISI Translations は世界各国 (英米語を使用する以外の国) の主要鉄鋼誌および学術誌のうち主要論文を全文英訳したものです。これらの論文は, 世界各国が発刊する多数の Journals から選択されており, 鉄鋼関係の研究者向けの論文を網羅しています。

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っていきます。

BISI Translations を利用すれば英国米, 以外の主要製鉄国の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す。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 No 735~739

**Physical Structure of Materials and Crystallography**

BISI 12622 (P. Slysko)

The Effect of the supersaturation of the solid solution of alpha-iron and the cooling rate on the embrittlement of “kosil”-type steel.

[Zvaranie, 1974, (1), pp. 22-28] (C)

BISI 13007 (V. N. Peretyat'ko and V. I. Bazaikin.)

Investigation of deformation in the propagation of a plastic wave in type st 10 steel.

[Izv. VUZ Chern Met., 1974, (10) 78-81] (R)

BISI 13009 (N. A. Chelyshev and A. Chervov)

Investigation of the high-speed deformation and rupture of solid boobies.

[Izv. VUZ Chern Met., 1974, (10) 96-98] (R)

**Physical Metallurgy and Metallography**

BISI 12634 (P. Chráska and J. Dubsky)

The effect of the austenite grain size on the kinetics of the bainite transformation.

[Kovové Mat., 1974, (1), 10-17] (C)

BISI 12758 (R. K. Dubey et al.)

Observation in intermediate isothermal transformation in low alloy steel containing nickel, manganese and chromium.

[Metallurgia ABM, 1974, May, pp. 311-319] (P)

BISI 13012 (A. M. Petrichenk et al.)

Machanism of the deglobularizing action of antimony on the graphite phase of high-strength cast iron.

[Izv. VUZ Chern. Met., 1974, (10), 126-131] (R)

**Physical Properties and Chemical Analysis**

BISI 11901 (R. Severin and R. Peach)

Three-dimensional calculation of the solidification of ingots and their re-heating in soaking pits.

[Stahl u. Eisen., 1973, 93, (18) 834-837] (G)

BISI 12708 (A. Stetter et al.)

Panel reports on the application of the X-ray fluorescence analysis in the laboratories of the iron and steel works.

[Stahl u. Eisen., 1974, 94, (16) 744-756] (G)

BISI 12794 (A. M. Skrebtsov)

On the mechanism of metal movement in the liquid core of a solidifying ingot of killed steel.

[Izv. VUZ Chern Met., 1974, (8), 35-38] (R)

BISI 12885 (D. Sh. Radzhabova and D. K. Belashchenko)

Study of metallic melt diffusion processes in small diameter capillaries.

[Izv. VUZ Chern Met., 1974, (9) 5-9] (R)

BISI 12886 (P. P. Arsen'ev et al.)

Viscosity particulars of molten complex composition Alloys.

[Izv. VUZ Chern Met., 1974, (9) 17-21] (R)

BISI 12896 (Yu. P. Poruchikov and V. K. Batrakov.)

Average translatory speed of a flow of melts over the surface of a mould.

[Izv. VUZ Chern Met., 1974, (9), 141-145] (R)

**Mechanical Properties and Material Defects**

BISI 12510 (Z. Klimes)

Electromagnetic structural analysis as a theoretical basis for a project of of the equipment for nondestructive inspection of the csn 14208 bearing steel heat treatment.

[Förm, 1973, (5), 175-179] (C)

BISI 12736 (Anon)

Instruction sheets for testing packaging sheet II: test method for can lacquers part 5: impact bend testing.

[Verpackungs-Rundschau, 1974, (6), 47-48] (G)

BISI 12816 (W. H. Greenbaum)

Nem equipment for surface control of hot and cold strip.

[Stahl u. Eisen., 1974, 94, (5) 198-200] (G)

BISI 12825 (F. Blascik and E. Szabó)

The influence of tinning upon the deep-drawing properties of sheet made in the east slovakian iron works.

[Hutnické Listy., 1974, (5) 360-365] (C)

BISI 12845 (W. Muschenborn et al.)

The production-determined, cold forming characteristics of cold rolled sheet.

[Thyssenforschung, 1972, 4, (1+2), 43-55] (G)

BISI 13014 (A. Ya Khrapov et al.)

Research into the special features of the breakdown of grey cast iron and magnesium cast iron at high temperatures.

[Izv. VUZ Chern Met., 1974, (10), 142-145] (R)

#### Protection of Materials

BISI 12236 (German Patent DOS 2258589)

Process for the application of protective coatings on steel sheet or strip by dipping.

[Nippon Steel Corporation, Tokyo] (G)

BISI 12405 (G. A. Gladkov et al.)

The descaling of hot-formed round steel.

[Stal', 1974, (3), 239-242] (R)

BISI 12661 (E. L. Bosker et al.)

Speed of the spread of boro-silicate melts over metal surfaces.

[Izvest. VUZ Chern Met., 1974, (6), 8-10] (R)

BISI 13046 (C. M. Vlad and K. Klimpel)

Microalloyed continuously galvanized sheet grades with good cold formability.

[IDDRG 8th Biennial Congress. Goteborg 23-27 Sept. 1974, 163-176] (G)

BISI 13047 (The Electricity Council, London.)

Electroplating cell.

[German Patent DOLS 2 217 879] (G)

#### Rolling

BISI 12496 (A. Srba.)

Designing a new type of rolling mill without common stand.

[Hutnické listy, 1974, (9), 651-655] (C)

BISI 12590 (Anon)

Automation of the 4-high mill at creusot (creusot-loire).

[Rev. Met., 1972, 69, (10), 693-699] (F)

BISI 12595 (J. Jancarik and S. Krauz)

A modern rolling mill for wire rods.

[Hutnik, 1974, 24, (1), 23-30] (C)

BISI 12638 (H. G. Baumann and A. Wagner)

Methodical planning and designing of rolling mill stands.

[Bänder Bleche Rohre, 1974, 15, (4), 153-160] (G)

BISI 12747 (B. Fazan)

Optimization of rolling on a universal slabbing mill.

[CDS Circ. d'Inf. Tec., 1973, 30, (3) 791-797] (F)

BISI 12767 (DNA)

Steel bars, hot rolled hexagons: dimensions, weights and tolerances.

[Din 1015, Nov, 1972] (G)

BISI 12785 (N. A. Gurov et al.)

On-stream forced cooling of the section rolled product on light-section mills.

[Stal' 1974, (8), 716-719] (R)

BISI 12795 (K. N. Bogoyavlenskii et al.)

Stressed state of the strip during deformation in the rolls of a section bending mill.

[Izv. VUZ Chern Met., 1974, (8), 50-54] (R)

BISI 12815 (H. Henschen)

The importance of coolant-lubricants in cold rolling, especially in multi-roll stands.

[Bänder Bleche Rohre, 15, (2), pp. 66-69] (G)

BISI 12846 (L. Schippert)

Effect of tensile forces on forward flow during strip cold-rolling.

[Bany. Koh. Lopok, 1973, 106, (12) 558-563] (G)

BISI 12876 (N. G. Bochkov et al.)

Production of thin-walled angle sections on a 350 semi-continuous mill.

[Stal', 1974, (9) 820-823] (R)

BISI 12891 (V. S. Smirnov and G. S. Kazakevich)

Solution of the two-dimensional contact problem of rolling theory. Communication 1.

[Izv. VUZ Chern Met., 1974, (9), 85-88] (R)

BISI 12892 (V. P. Polukhin et al.)

Assessment of the reliability of the tread fitting of back-up rolls.

[Izv. VUZ Chern Met., 1974, (9), 100-104] (R)

BISI 12903 (O. W. Buchholtz)

Relationship between residual stresses and flatness defects in the cold rolling of sheet material.

[Industrie-Anzeiger, 1974, 96, (46), 1045-1046] (G)

BISI 12995 (A. A. Kugushin et al.)

Investigation of the transition process on a high-speed rod mill.

[Stal', 1974, (10), 920-921] (R)

BISI 12996 (A. K. Solovkov et al.)

The application of work roll prestressing on a 1400 sheet mill.

[Stal', 1974, (10) 921-923] (R)

BISI 13006 (V. B. Lyashkov et al.)

Effect of tension on kinematics of the process of rolling bimetal and laminated packs.

[Izv. VUZ Chern Met., 1974, (10), 75-78] (R)

#### Metalworking, Excluding Rolling

BISI 12467 (H. Schelosky and W. Kramer)

Comparative investigation of spinning wall ironing and drawing wall ironing.

[DFBO Mitt., 1970, (1), 7-15] (G)

BISI 12499 (B. Sommer)

Length extension of surface cooled ingots.

[Hutnické listy, 1973, (11), 771-780] (C)

BISI 12729 (E. F. Khairtdinov and V. D.

Yakovlev)

Wear mechanism of punches of hot-stamping presses.

[Izv. VUZ Chern Met., 1974, (7), 94-97] (R)

BISI 12796 (V. I. Sokolovskii et al.)

Determining the width of the curvilinear pass

grooves on cold rolling mills.

[Izv. VUZ Chern Met., 1974, (8), 58-61] (R)

BISI 12840 (J. Česánek)

Machinability of L-ROL, L-ROL-N and V-ROL-N steels and the oxidation-induced wear on carbide tools.

[Strojirenská výroba, 1974, (2), 102-109] (C)

BISI 12878 (N. M. Fedosov et al.)

Effect of the amount of deformation on the micro-roughness of electric-welded cold-deformed carbon tubes.

[Stal', 1974, (9), 833-834] (R)

BISI 12882 (A. V. Gur'ev et al.)

The plastic deformation of clad steel wire by drawing.

[Stal', 1974, (9), 862-863] (R)

BISI 12890 (P. I. Polukhin et al.)

Investigation of processes of rolling tube billets in vacuum. Communication 2.

[Izv. VUZ Chern Met., 1974 (9), 80-84] (R)

BISI 13005 (V. M. Klimenko and V. I. Chikalov)

Certain drawing tool movement patterns ensuring alternate loading from them.

[Izv. VUZ Chern Met., 1974, (10) 69-72] (R)

BISI 13015 (B. V. Trukhin et al.)

Concentration of inertia stresses at the outer edge of a toothed disc-saw blade.

[Izv. VUZ Chern Met., 1974, (10) 175-176] (R)

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

BISI 12764 (Nippon Steel Corporation)

A Process for the production of cold-rolled non-oriented electrical steel sheet.

[German Patent 2 114 949; 4.11.1971] (G)

BISI 12838 (M. Vallo and A. Simon)

Phase transformations in isotropic silicon dynamo made in the east slovakian iron and steel works. [Hutn. listy, 1974, (3) 198-202] (C)

BISI 12870 (A. Kulmborg)

Properties of a new eutectic steel with 12% chromium and 3% carbon.

[International Meeting on Iron Alloys of High Chromium and Carbon Content St. Etienne, Nov. 8-9, 1973, pp. 475-490] (F)

BISI 12902 (J. Adams and W. H. Janzen)

High-strength, fine-grained steels for pipelines. [Thyssen Technische Inf. "Offshore-Technik, 22-26] (G)

BISI 12920 (M. Thiele)

Off shore technology as example for the application of heavy plates with special properties in thickness direction.

Thyssen-Offshore-Technik, 1974, 4-9] (G)

BISI 13016 (H. J. Kostler)

Validity of measurements of manganese sulphide shape using quantitative micrographic analysis.

[Arch. Eisen, 1974, 45, (11) 813-816] (G)

#### Casting and Cast Metals

BISI 12509 (A. Rusnak)

Abrasion resistance of Austenitic chrome cast

iron.

Stevarenstvi, 1973, (9), 374-377] (C)

BISI 12626 (M. Betus and J. Hirjak)

Determination of optimum shape of the bottom parts of slab ingots by modelling the rolling process.

[Hutnik, 1974, 28, (2) 59-62] (C)

BISI 12733 (I. P. Fominykh et al.)

Research into the runner and feeder system for investment casting.

[Izv. VUZ Chern Met., 1974, (7), 152-157] (R)

BISI 12889 (G. N. Oiks et al.)

Oxidation of the steel stream during pouring. [Izv. VUZ Chern Met. 1974, (9), 63-66] (R)

BISI 12991 (P. I. Stovpchenko et al.)

Increasing the life of ingot moulds from magnesium pig iron with improvement in their construction.

[Stal', 1974, (10) 900-902] (R)

#### Heat Treatment

BISI 12842 (D. Hobusch et al.)

Continuous annealing furnace integrated into a continuous forging machine line.

[BHM, 1974, (9), 371-376] (G)

BISI 12880 (I. Kh. Antsis, et al.)

Influence of fluidized bed heat treatment on the properties of springs

[Stal', 1974, (9) 845-847] (R)

BISI 13010 (P. V. Sklyuev and I. N. Yushkova)

Effects of overheating and recrystallization on the mechanical properties of 34KhN3M, 34Kh NZMF1 and 34KHM3MF2 steels.

[Izv. VUZ Chern Met., 1974, (10) 102-104] (R)

BISI 13011 (S. V. Grachev et al.)

Step (two-stage) patenting of alloy steel wire. [Izv. VUZ Chern Met., 1974, (10) 115-117] (R)

#### Heating, Heating Furnaces and Electric Heating

BISI 12770 (R. Haupt)

Design and use of gas-fired rapid heating furnaces.

[Gaswärme Intl., 1974, 23, May/June (5/6) 184-188] (G)

BISI 12907 (E. Calamari)

Incorporated-channel introduction furnace.

[Industria Italiana Elettrotecnica ed Elettronica, 1973, 25, (6), 506-510] (I)

BISI 13035 (V. N. Blinov et al.)

Electromagnetic forces acting on parallel dc electric arcs.

[Fiz, Khim, Obrab. Mat., 1974, (3), 10-12] (R)

#### Fuel, Combustion and Refractories

BISI 12367 (M. Lieske)

Safety devices for industrial gas-fired furnaces. [Gaswärme Int., 1973, 22, (2) 50-51] (G)

BISI 12899 (M. Esnault et al.)

The behaviour of fused-cast basic bricks in electric furnaces.

[Stahl Eisen, 1974, 94, (22), 1052-1057] (G)

#### Welding and Joining

BISI 12477 (H. J. Schuller et al.)

Cracking in the weld region of shaped components in hot steam lines-materials investigations.

- [Der Maschinenschaden, 1974, 47, (1) 1-13] (G)
- BISI 12478 (W. Irmer and H. Smoktun)  
The influence of preheating in flame cutting of 13 CrMo 414 boiler steel.  
[Schweisstechnik, 1972, 22 (10) 450-453] (G)
- BISI 12562 (J. Otto et al.)  
Scarfig as a substitute for planing corrosion-resistant steel slabs.  
[Hutnik., 1974, 24, (1) 31-35] (C)
- Ores and Minerals Handling and Beneficiation**
- BISI 13003 (G. V. Korshikov et al.)  
Analytical expression for the temperature curve in the sintering of a mix.  
[Izv. VUZ Chern Met., 1974, (10) 30-33] (R)
- Ironmaking and Ferro-Alloys**
- BISI 12805 (V. G. Kapel'nitskii et al.)  
Investigation of the finely dispersed silicomanganese charge agglomerating process.  
[Stal', 1974, (8), 710-713] (R)
- BISI 12872 (B. I. Ginzburg)  
Transient processes in blast tuyeres and their relation with the working of the blast furnace hearth.  
[Stal', 1974, (9) 790-793] (R)
- BISI 12884 (P. A. Pochtman et al.)  
Use of air-cleaning facilities under conditions of a greater oxygen enrichment of the blast-furnace-blast.  
[Stal', 1974 (9) 866-867] (R)
- Steelmaking**
- BISI 12075 (J. Pětroš and K. Kalvoda)  
Problems of controlling the charge in tandem furnaces.  
[Hutn. listy. 1973, (7), 474-481] (C)
- BISI 12651 (A. N. Mirozov and Yu. N. Tuluevskii)  
An analysis of methods used for speeding up the open hearth heat.  
[Stal', 1974, (6), 494-502] (R)
- BISI 12755 (F. Bardenheuer et al.)  
Reduction of slag attack on the refractory linings of basic oxygen converters.  
[Arch. Eisen., 1973, 44, (6), 451-455] (G)
- BISI 12783 (G. S. Kolganov et al.)  
Development of a slag control practice in basic oxygen steelmaking, using manganese ore and sinter.  
[Stal', 1974, (8) 687-689] (R)
- BISI 12831 (Z. Berghauer et al.)  
The control of oxygen converter steel plants of the east slovakian iron and steel works by means of computing technique.  
[Hutnické listy, 1974, (3), 158-164] (C)
- BISI 12833 (J. Rusnák and D. Debnár)  
The development of the oxygen converter lining in steel plant no\* east slovakian iron and steel works, košice.  
[Hutnik, 1974, (3) 97-100] (C)
- BISI 12853 (P. Kehl and E. Forster)  
Operating results from the midland-ross direct reduction process.  
[Int. Iron and Steel Congress, Dusseldorf, 1974 1, (2) Paper 2.2.2.2. 16 pp] (G)
- BISI 12873 (B. L. Markov, et al.)  
Gas-oxygen injection of the open hearth bath.  
[Stal', 1974, (9), 798-800] (R)
- BISI 12888 (V. G. Antipin et al.)  
Investigation of changes in steel temperature during deoxidation outside the furnace and teeming.  
[Izv. VUZ Chern Met., 1974 (9) 59-62] (R)
- BISI 13004 (P. R. Kapalun, et al.)  
Effect of below parameters and geometric converter bath dimensions on mixing intensity.  
[Izv. VUZ Chern. Met. 1974, (10), 43-47] (R)
- Extraction and Refining**
- BISI 11815 (J. Calvo Gomez)  
Studies on the kinetics of vacuum degassing of cast iron and steel.  
[Revista Met. CENIM, 1971, 7, (3), 218-229] (Sp)
- BISI 12818 (R. Plessing, et al.)  
Melting and teeming measures aimed at improving the quality and reducing the costs of open die forgings.  
[BHM. 1974, (9), 344-352] (G)
- BISI 12827 (P. Cechura and V. Vanicek)  
Desulphurization of hot metal in the ladle.  
[Hutnické Listy, 1974, (5), 322-326] (C)
- BISI 12843 (Russisn Patent)  
Arrangement for determining volumetric changes in iron ore granules in the reduction process.  
[Russian Patent 397,828] (R)
- BISI 12875 (Ya. E. Katsnelson)  
Optimum pouring temperature for vacuum treated steel.  
[Stal', 1974, (9) 810-811] (R)
- BISI 12887 (V. Mikalich et al.)  
Determining the thermodynamic parameters of the process of deoxidation by the e.m.f. method. Report 1.  
[Izv. VUZ Chern Met., 1974, (9), 40-43] (R)
- BISI 12913 (H. Pircher)  
Effects of a new metallurgical method of production of plates with improved properties in the thickness direction.  
[Thyssen Technische Information, Offshore-Technik, 16-21] (G)
- BISI 13001 (G. G. Mikhailov)  
Thermodynamics of reactions occurring in the inter-action of vanadium and oxygen dissolved  
[Inv. VUZ Chern Met., 1974, (10), 5-7] (R)
- Engineering**
- BISI 12532 (Anon)  
Steelwork cranes-problems and solutions.  
[Fordern u. Heben, 1973, 23 (1) 40-42] (G)
- BISI 12533 (S. Bottcher et al.)  
Operational measurements on the hoist mechanisms of steelworks cranes: methods and objectives.  
[Antriebstechnik, 1972, 11. (11) 397-400] (G)
- BISI 12660 (G. M. Levin, et al.)  
Recycled water supply system for gas-cleaning plant on open-hearth furnaces operating with intensive oxygen lancing.  
[Stal', 1974, (6), 570-572] (R)