

資料室だより

BISI Translation 紹介

— No 34 —

BISI Translation の特長

英国鉄鋼業界, BISRA および英国鉄鋼協会は共同で 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 Journal of The Iron and Steel Institute 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国, 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。

なお、今回から Group の仕方が少し変わりましたのでご了承下さい。“資料室だより”の別印ご希望の方は本会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 638~642

Management Planning and Control

BISI 10487 (J. Heidepriem)

The prospects for the use of process control computers in the steel industry.

[Stahl Eisen, 197, 91, (22), 1248-1254] (G)

BISI 10507 (A. Weber)

A Selection of special materials control investigations with respect to quality and yield control.

[Stahl Eisen, 1972, 92, (9), 411-416] (G)

BISI 10555 (S. Bottcher)

The Effect of dynamic loads and their time-histories on the service life and availability of metallurgical plant and equipment.

[Stahl Eisen, 1972, 92, (8), 347-356] (G)

BISI 10910 (G. June and H. Kuspert)

A Contribution to the design of natural ventilation systems for foundries.

[Giesserei, 1972, 59, (19), Sept. 21, 576-9] (G)

Physical Structure of Materials and Crystallography

BISI 10502 (B. F. Rothenstein and C. Anghel)

Magnetoelastic method for determining the microscopic parameters characterizing internal stresses in ferromagnetic metals.

[Metallurgia, 1972, (2), 82-85] (Ru)

BISI 10888 (M. A. Krishtal, et al.)

Multi-Phase diffusion with free surface exchange.

[Izv. VUZ Chern. Met., 1972, (8), 5-9] (R)

Physical Metallurgy and Metallography

BISI 10439 (J. Mrovč and M. Jakešová)

Some problems of microplastic deformation and isothermal transformation in Fe-Ni-C alloys-IV

[Kovove Mat., 1972, (1), 86-96] (C)

BISI 10826 (K. M. Konvalova, et al.)

The effect of the $\alpha \rightleftharpoons \gamma$ transformation of the corrosion resistance of OKh17N7Yu1.

[Stal', 1972, (7), 649-650] (R)

Physical Properties and Chemical Analysis

BISI 9688 (D. Trojka and K. Jasiok)

Appreciation of Accuracy of chemical analyses of sinter.

[Hutnik, 1971, (3), 85-89] (C)

BISI 10138 (J. Krusina)

Surface tension in quaternary CaO-SiO₂-Al₂O₃-CaF₂.

[Hutn. Listy, 1971, (11), 783-786] (C)

BISI 10551 (E. S. Levin and G. D. Ayushina)

Influence of iron and chromium on the viscosity of Fe-Cr-Al melts.

[Izv. VUZ Chern. Met., 1972, (4), 22-7] (R)

BISI 10870 (German 'Standard)

The testing of vitreous enamel. Determination of the thermal shock resistance of enamelled cooking utensils.

[German Standard DIN 51158, 1966, Nov] (G)

Mechanical Properties and Material Defects

BISI 10222 (L. Dobrovský and J. Skala)

On the origin of oxide inclusions in the Fe-O-Al system at a temperature of 1,600°C.

[Hutn. Listy., 1971, (12), 844-848] (C)

BISI 10233 (J. Hruby and B. Velicka)

Testing thermal fatigue of cast iron for ingot moulds.

[Hutn. Listy, 1972, (1), 20-24] (C)

BISI 10560 (J. Fritsch, et al.)

The effect of certain residual elements on the hardenability of steels with 0.70% carbon.

[Rev. Met., 1970, Sept., 739-759] (F)

BISI 10583 (W. Bottcher)

The possibility of simultaneous excitation of several lamb wave modes in plates up to 10

mm. thick and the influence of this type of excitation on the identification of defects.

[Hoesch Ber., 1971, 6, (1), 14-28] (G)

BISI 10869 (German Standard)

The testing of enamel. Impact test.

[German Standard DIN 51155, 1960. Feb.] (G)

BISI 10884 (V. V. Andreeva, et al.)

Mechanical properties of silicon spring steels after high temperature thermomechanical treatment in production conditions.

[Stal', 1972, (8), 748-740] (R)

BISI 10886 (A. B. Gur'ev, et al.)

Investigation of the mechanical properties of corrosion resistant composite wire.

[Stal', 1972, (8), 767-768] (R)

Corrosion and Corrosion Testing

BISI 9659 (E. L. Koehler)

Corrosion processes through and under organic coatings.

[Werks. Korr., 1970, 21, (7), 554-559] (G)

BISI 9801 (S. Mennenoh and U. Tenhaven)

Studies of corrosion processes taking place on oiled sheet iron.

[Hoesch Ber., 1970, (3), 103-108] (G)

BISI 10376 (P. Delbourg)

Scaling of steels.

[Corrosion-Rueil-Malmaison Fr., 1971, 19, 256-64] (F)

BISI 10483 (K. Barton et al.)

Resistance of technical products to the effects of atmosphere. meaning and purpose of the investigation.

[Strojirenstvi, 1972, (3), 179-184] (C)

BISI 10526 (J. Boroska)

Heavy haulage ropes: corrosion and protection.

[Rudy, 1972, (4), 116-118] (C)

BISI 10907 (F. Gobin)

Statistical study on the intercrystalline corrosion of 18-8 type stainless steel.

[Corrosion and Anti-corrosion, 1961, 9, Apr., 119-131] (R)

Protection of Materials

BISI 10343 (J. Albrecht et al.)

Hot-dip aluminised sheet.

[Blech, 1972, (2), 41-44] (G)

BISI 10794 (German Patent)

Process for the pre-treatment of steel sheets for one coat enamelling.

[German Patent 1802183] (G)

BISI 10864 (Netherlands Patent)

Process for cladding of sheet metal.

[Patent 7115254, 1971, June 11, (768), 457] (Ho)

BISI 10889 (T. V. Zakharova and S. I. Popel')

Surface tension of zinc, its wetting of iron and the adhesion of phases.

[Izv. VUZ Chern. Met., 1972, (8), 17-20] (R)

Rolling

BISI 9629 (V. Tuong)

Scientific basis of metal-working I-Theoretical method of analysis is plastic condition II-App-

lications to some metal-forming problems

[Mecanique, 1970, Nov. 34-45]

[Mecanique, 1970, Dec. 40-48] (F)

BISI 9939 (O. Pawelski)

Calculating the temperature field in the work rolls of hot and cold rolling mills.

[Arch. Eisenh., 1971, Oct., 713-720] (G)

BISI 10556 (M. Endrle)

Effect of width on the non-uniform deformation of slabs.

[Hutn. Listy, 1971, 26, (5), 329-332] (C)

BISI 10565 (W. Gorecki, et al.)

Operational measurements constituting a basis for evaluation of a four-high narrow strip cold rolling mill performance.

[Prace Inst. Hutniczych, 1971, 23, (1), 45-55] (P)

BISI 10587 (E. Schneider)

A modern medium section mill.

[Stahl Eisen, 1972, (1), 461-464] (G)

BISI 10646 (I. Tamas)

Diamond-square roll-design for continuous primary mill-trains.

[Metallurgia, 1972, (3), 177-179] (Ru)

BISI 10800 (E. A. Garber, et al.)

Mathematical simulation of the temperature profiles of the rolls on a skin-pass mill.

[Izv. VUZ Chern. Met., 1972, 15, (7), 65-68] (R)

BISI 10801 (A. P. Chekmarev, et al.)

Neutral angle and forward flow when rolling in three-roll passes with tension.

[Izv. VUZ Chern. Met., 1972, (7), 76-79] (R)

BISI 10802 (I. A. Pyzhenkov, et al.)

The radial deformation of four-high mill rolls.

[Izv. VUZ Chern. Met., 1972, 15, (7), 83-85] (R)

BISI 10804 (Ya. L. Vashkin, et al.)

Wall thickness variation of hollows during reduction in a cross-helical rolling mill.

[Izv. VUZ Chern. Met., 1972, (7), 101-103] (R)

BISI 10805 (V. N. Brinza and V. I. Pogreb)

Calculation of the temperature in cold-rolled sheet.

[Izv. VUZ Chern. Met., 1972, (7), 107-109] (R)

BISI 10871 (W. Klug)

The technical state of rolling production.

[Klepzig Fachber., 1972, 80, (7), 372-74] (G)

BISI 10895 (O. S. Lekhov)

Dynamics of the gripping of stock by the rolls under conditions of slip.

[Izv. VUZ Chern. Met. 1972, (8), 88-92] (R)

BISI 10903 (V. I. Shiryayev and V. V. Chernyshev)

Investigation of the rigidity of rolling stand frames from models.

[Izv. VUZ Chern. Met., 1972, (8), 176-177] (R)

Metalworking, Excluding Rolling

BISI 9829 (E. Dudrova and A. Salak)

How sulphur additions affect some properties

of sintered steel.

[Pokroky praskove metallurgie, 1971, (1), 19-28] (C)

BISI 10490 (K. H. Weber)

Examination of the hydrodynamic drawing theory.

[Neue Hutte, 1971, 16, (4), 235-238] (G)

BISI 10491 (A. Kneschke, et al.)

Hydrodynamic theory of wire drawing.

[Neue Hutte, 1971, 16, (4), April] (G)

BISI 10515 (German Patent Innocenti Soc. Gern. Per L'Industria Metallurgica e Meccanica)

Continuous seamless tube mill

[German Patent 2 131 713, Publ. 3.2.72] (G)

BISI 10554 (East German Patent DL 87 290)

Process for the manufacture of small bore precision tubing.

[East German Patent DL 87 290, 1972, 20 Jan.] (G)

BISI 10614 (A. P. Kolikov, et al.)

Investigati of the tool life of piercing mills.

[Izv. VUZ Chern. Met., 1972, (5), 94-7] (R)

BISI 10799 (G. Ya. Gun, at al.)

A method of constructing a coordinate grid in the flow zone for solution of the plane extrusion problem.

[Izv. VUZ Chern. Met., 1972, 15, (7), 61-64] (R)

BISI 10803 (P. I. Denisov and L. D. Velyuga)

Determining the coefficient of inter-layer friction during the upsetting of composite metals.

[Izv. VUZ Chern. Met., 1972, (7), 94-96] (R)

Steel and Alloys (Technical Applications and

Methods of production), Cermets

BISI 10705 (H. Bauer)

The production of special steel in Japan.

[Stahl Eisen, 1972, 92, July, 725-733] (G)

BISI 10719 (D. Cosma and N. Dragan)

Aspects of research over recent years on weldable structural steels.

[Metallurgia, 1972, (4), 1-11] (Ru)

BISI 10851 (Verein Deutscher Eisenhüttenleute-Specifications for iron and steel)

Weldable fine-grained structural steels: Quality requirements.

[Stahl Eisen Werkstoffblatt 089-70, 1970, July, 1st Edition]

Casting and Cast Metals

BISI 9717 (J. C. Percheron and L. Septier)

Study of the treatment of spheroidal graphite cast irons.

[Rev. Met., 1971, 68, May, 365-378] (F)

BISI 10368 (Belgain Patent 768 632)

Centrifugal casting mould for pipes composed of three coaxial layers, and process for the manufacture of the mould.

[Belgain Patent 768 632 Cerman Patent application 2 030 514.0-24] (B)

BISI 10645 (A. M. Petricenco and L. A. Solntev)

Improvement in the properties of graphite nodular cast iron by alloying and heat treatment

[Metallurgia, 1972, (3), 155-62] (Ru)

BISI 10667 (I. Macasek, et al.)

[Some properties of coatings for cores manufactured in hot core boxes.

[Slevarenstvi, 1970, 18, (12), 485-9] (C)

BISI 10899 (A. Ya. Khrapov, et al.)

A study of synthetic cast irons using the mossbauer effect.

[Izvest, VUZ Chern. Met., 1972, (8), 140-142] (R)

BISI 10900 (I. E. Illarionov, et al.)

The magnetic treatment of moulding sands and clays.

[Izv. VUZ Chern. Met., 1972, (8), 151-153] (R)

Heat Treatment

BISI 10128 (J. Sklenarova and K. Mazanec)

Contribution to the study of structural changes during tempering of martensite in an Fe-Ni-C alloy.

[Kovove Mat., 1971, (6), 453-461] (C)

BISI 10699 (L. Gruzin, et al.)

The effect of various factors on sulphur redistribution during the processing of transformer steel.

[Izv. VUZ Chern. Met., 1972, 14, (6), 124-8] (R)

Heating, Heating Furnaces and Electric Heating

BISI 10672 (G. Balazsovices)

The natural gas fired, roller-hearth, plate normalising furnace at lorincl rolling mills.

[Koh Lapok, 1968, 101, Sept., 356-61] (H)

Fuel, Combustion and Refractories

BISI 10530 (B. Sochor)

Refractories in steel foundries.

[Slevarenstvi, 1971, (12), 519-524] (C)

Welding and Joing

BISI 9656 (H. Stein, et al)

The determination of weldability of heat-treatable steels using synthetic weld specimens.

[ZIS Mitt., 1970, (12), 1921-39] (G)

Ores and Minerals Handing and Beneficiation

BISI 9934 (D. Kmetova et al.)

Decomposition of calcium chloride in segregation roasting of oxidic nickel ores.

[Hutn. Listy, 1971, 10, 737-741] (C)

BISI 10448 (A. Urseanu)

Influence of fine ores on sintering plant productivity.

[Metallurgia, 1971, 23, (12), 763-766] (Ru)

BISI 10643 (A. Urseanu)

Production of sinters with basicities ranging between 0.8 and 3.4.

[Metallurgia, 1972, (3), 150-151] (Ru)

BISI 10891 (B. Sh. Statnikov, et al.)

Mass-exchange processes in the roasting of fluxed pellets.

[Izv. VUZ Chern. Met., 1972, (8), 42-5] (R)

Ironmaking and Ferro-Alloys

BISI 10367 (L. Vroman)

Description of the hot metal runners of sidmar blast furnaces.

- [C.D.S. Circ., 1972, 29, (1), 169-187] (F)
 BISI 10474 (V. I. Bedarev)
 The combined effect of certain technological factors on the assimilation of magnesium in the modification of pig iron.
 [Izv. VUZ Chern. Met., 1972, (4), 142-5] (R)
 BISI 10496 (P. Dumitrascu et al.)
 Method of determining reference energy state for a computer-controlled blast furnace.
 [Metalurgia, 1972, (1), 1-5] (Ru)
 BISI 10536 (J. Zverovic and R. Pravda)
 Automation of homogenizers at the vitkovice steel works.
 [Hutnik, 1972, (1), 1-4] (C)
 BISI 10531 (B. Kolarz)
 Evaporative cooling of blast furnaces.
 [Hutnik, 1971, (12), 444-447] (C)
 BISI 10549 (V. A. Martynenko)
 Effect of physical and chemical properties of wetting agents on gas permeability of blast furnace burdens.
 [Stal', 1972, (4), 302] (R)
 BISI 10642 (P. Dumitrascu, et al.)
 A study of the possibility of predicting some complex blast-furnace parameters.
 [Metalurgia, 1972, (3), 145-149] (Ru)
 BISI 10702 (D. A. Storozhik, et al.)
 Method for calculating the big bell of blast-furnace charging gear.
 [Izv. VUZ Chern. Met., 1972, (6), 183-187] (R)
 BISI 10715 (M. Vladescu et al.)
 Contribution to the study of the viscosity of blast furnace slags.
 [Metalurgia, 1972, (4), 1-7] (C)

Steelmaking

- BISI 9822 (A. Salak)
 Reduction of sponge iron using a solid agent in separate layers.
 [Hutn. Listy, 1971, (7), 451-467] (C)
 BISI 10582 (W. Thumm, et al.)
 The reoxidation of sponge iron, and preventive measures.
 [Int. Conf. on Electric Steelmaking Furnace, Cannes, 7-9 June, 1971, Pre-print (condensed) of paper publ. in Proceedings, pp. 88-96] (F)
 BISI 10768 (H. Konig)
 Technical and economical problems in the treatment of sponge iron and prereduced ores
 [Klepziq Fachber., 1972, 80, H4, Eh63, 183-6] [G]
 BISI 10817 (G. S. Kolganov et al.)
 Action of the jet of oxygen on a converter bath.
 [Stal', 1972, (7), 599-601] (R)
 BISI 10852 (K. Kegel, et al.)
 Influence of doped graphite electrodes on the arc behaviour in steel melting arc furnaces.
 [Union International de Electrothermie, 1972, V II, 103] (G)
 BISI 10885 (G. P. Zakharov, et al.)
 Experience in the use of grid planning and control for the reconditioning of the open hearth

furnaces at the magnitogorsk iron and steel combine.

[Stal', 1972, (8), 755-757] (R)

- BISI 10892 (M. M. Chelyadin, et al.)
 Formation of dust when the metal in the bath of an oh-furnace is lanced. report 2.
 [Izv. VUZ Chern. Met., 1972, (8), 48-51] (R)

Extraction and Refining

- BISI 10137 (B. Borsky)
 Effect of bath temperature on steel dephosphorization in a tandem furnace.
 [Hutn. Listy, 1971, (11), 775-782] (C)
 BISI 10232 (L. Kodrle)
 A comparison of reactions between slag and steel in ladle during tapping and teeming of rimming steels made in fixed and tilting furnaces.
 [Hutn. Listy, 1972, (1), 1-19] (C)
 BISI 10280 (K. H. Obst, et al.)
 Borates as fluxes in steelmaking.
 [Stahl Eisen, 1972, 92, (6), Mar. 16, 260-2] (G)
 BISI 10297 (F. Cechura and E. Kaczmarczyk)
 Experiences with manufacture of vacuum treated rail steel having strength over 90 kp/mm².
 [Hutnik, 1971, (11), 404-411] (C)
 BISI 10653 (Z. Bužek and V. Schindlerová)
 Effect of complex deoxidizing agents on the type and composition of sulphide inclusions in electric steel for castings.
 [Slevarenstvi, 1972, (3), 113-117] (C)
 BISI 10674 (E. Kohler, et al.)
 Experiences with a vacuum-circulation plant in an oxygen steel plant.
 [Thyssenforschung, 1971, 3, (3/4), 97-103] (G)
 BISI 10764 (K. Kaup)
 Some problems of raw materials supply.
 [Stahl Eisen, 1971, 91, (25), 1428-37] (G)
 BISI 10780 (A. A. Kazakov, et al.)
 On the oxidation of impurities in the spray refining of hot metal.
 [Izv. Akad. Nauk SSSR. Metally, 1971, (6), 20-24] (R)
 BISI 10796 (G. M. Pis'menskaya et al.)
 Statistical-thermodynamic analysis of heterogeneous equilibria with the participation of the three-component spinel solution MgFe₂O-MgV₂O₄-Fe₃O₄ and a ferrous phase.
 [Izv. VUZ Chern. Met., 1972, (7), 5-7] (R)
 BISI 10879 (B. I. Emlin, et al.)
 Deoxidation of converter steel with electrothermic ferro-aluminium and fams alloys.
 [Stal', 1972, (8), 702-704] (R)
 BISI 10882 (V. G. Fedorov)
 Use of titanium scrap in steelmaking.
 [Stal', 1972, (8), 719-721] (R)

Engineering

- BISI 9969 (German Patent)
 Process for cleaning and cooling the waste gas from oxygen steelmaking plant using separate liquid circuits.
 [German Patent 1 433 657, 1971, Feb. 25] (G)

BISI 10420 (M. Woll)
Weighing at sinter plants and blast furnaces.
[Rev. Met., 1971, Mar., 165-169] (F)

BISI 10421 (G. Hallet)
Weighing at steelworks.
[Rev. Met., 1971, Mar., 171-177] (F)

新刊紹介

特別報告書 No 14

「わが国における最近の大形形鋼製造技術の進歩」

刊 行 案 内

ご承知の通り、大形形鋼は港湾、鉄道、道路、建設、造船、橋梁等用途はきわめて広範にわたっており、諸産業の経済発展に欠くべからざるものとなっております。

本会では昭和 39 年に大形分科会が設置され 8 年を経過しました。この間各社の共同研究、技術研鑽の場として、長年蓄積してきた大形形鋼製造技術の発表、検討が行なわれ、わが国のその製造技術ならびに設備の改善に大きな成果をおさめ、量産化設備による生産能率の増大、品質の安定がはかられたことは言うまでもありません。

しかし、わが国にはいまだ大形形鋼の製造法、設備、レイアウト、工場管理などに関し総合的にまとめられた資料はなく、大形分科会の資料を集大成することは、最新の技術情報および将来の技術指針として、非常に価値あるものと考え、ここに「わが国における最近の大形形鋼製造技術の進歩」を発行いたしました。

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日本鉄鋼協会編集課 (03-279-6021)

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