

## 資料室だより

## BISI Translation 紹介

— No 28 —

## 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 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, 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" の別刷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. 606~610

**Management Planning and Control**

BISI 9448 (H. Spitzer)

Classification by occupation of technical staff at iron and steel works. [Stahl Eisen, 1971, 91, (2), 80-89] (G)

BISI 9954 (J. A. Kruyt)

Systems analysis in maintenance service [Stahl Eisen, 1971, 91, (21), 1183-1187] (G)

BISI 9973 (Anon)

Iron and steel products: general technical conditions for the supply of steel. [French Standard NF A 03-115, 1966, Mar.] (F)

BISI 9974 (Institute Belge de Normalisation)

General technical conditions for the supply of steel products, 2nd edition, March 1964 [Standard N.B.M. 150, 1964] (F)

BISI 9975 (Euronorm)

General technical conditions for the supply of steel products [Standard Euronorm 21-62] (F)

**Physical Structure of Materials and Crystallography**

BISI 8535 (B. Drube &amp; H. P. Stuwe)

The structure of face-centered cubic metals on hot working. [Z. Metallik., 1967, 58, (11), 799-804] (G)

BISI 9600 (R. Dušek, et al.)

New method of evaluating material susceptibility to brittle fracture. [Kovové Mat. 1971, (1), 38-46] (CZ)

BISI 9971 (J. Loose and H. Junghans)

On the surface microstructure of low carbon cold rolled steel strip [Neue Hutte, 1971, 16, July, 414-419] (G)

**Physical Metallurgy and Metallography**

BISI 9677 (P. Pahuta et al.)

A contribution to the dynamics of martensitic transformation. [Kovové Mat. 1971, (4), 293-306] (CZ)

**Physical Properties and Chemical Analysis**

BISI 8467 (R. H. Busso)

Automatic sampler for fines or granulated coal and coke dust C. D. [S. Circ., 1967, (11), 2455-2462]. (F)

BISI 9405 (W. Poppmeier, et al.)

Investigations on the transcrystalline solidification of steel. [Berg. Hutten. Monatsh, 19, 115, (9), 227-231]. (G)

BISI 9602 (S. Črenoch)

Contribution to the development of heat process thermodynamics of a furnace. [Zb. ved. prac VŠT Košice, 1969, 2, 85-98] (Cz)

BISI 9604 (A. Šalák)

Influence of natural strain aging of low carbon steel on electrical resistance. [Zb. ved. prac VŠT Košice, 131-136] (Cz)

BISI 9820 (K. Boček)

Special methods of measurement and devices with logical elements. [Hutn. Listy, 1971, (8), 566-569] (Cz)

BISI 10088 (P. A. Cerkasov et al.)

Oxygen permeability of solid electrolytes and its effect on the electrochemical determination of the activity of oxygen in gases and liquid metals. [Arch. Eisenh., 1971, 41, (12), 873-876] (G)

**Mechanical Properties and Material Defects**

BISI 9681 (F. Paňáček)

Testing resistance to abrasion of steels used for press dies [Strojirenska výroba, 1971, (5), 322-326] (Cz)

BISI 9902 (T. Van Kau et al.)

Mathematical planning of experiments in investigating plasticity on the plastometer<sup>-1</sup> [Izv. VUZ Chern. Met., 1971, (9), 83-86] (R)

#### Protection of Materials

BISI 9687 (Z. Klika)

Alkaline baths of potassium permanganate for speeding up pickling in sulphuric and hydrochloric acids. [Hutnik, 1970, (11), 426-8] (Cz)

BISI 9697 (J. Teindl and B. Dždinová)

Effect of Aluminium in zinc hot-dip galvanizing. [Hutnik, 1971, (4), 141-145] (Cz)

BISI 9821 (J. Teindl)

Aluminium coatings on steel compete with other coatings. [Hutn. Listy, 1971, (8), 570-576] (Cz)

BISI 10070 (Anon.)

Instructions for supply of steels and non-ferrous metals as round or profiled wire. [Citroen Standard 3 EB1, 1965, June] (F)

#### Rolling

BISI 9577 (H. G. Haumann and G. Schäfer)

Temperatures and thermal stresses in rollers and rolls [Stahl Eisen, 1971, (12), 678-689] (G)

BISI 9579 (J. Billigmann, et al.)

Investigations into the rolling of very thin strip on a three-stand cold-rolling tandem mill. [Stahl Eisen, 1971, 91, (11), 629-641] (G)

BISI 9597 (J. Neuhaus)

On the deformation behaviour of steel in flat rolling and in rolling through a roll pass [Arch. Eisenh., 1971, June, 391-397] (G)

BISI 10048 (Anon.)

Presentation in form of bars and sections. steel C2 [Citroen Standard 1BD2 C2, 1966, Apr.] (F)

BISI 10055 (Anon.)

Presentation in form of bars and sections. steel F3 [Citroen Standard 3BD2 F3, 1966 Apr.] (F)

BISI 10060 (Anon.)

Presentation in form of bars and sections. [Citroen Standard 2BD2 C48, May 1970] (F)

BISI 10077 (Anon.)

Presentation in form of bars and sections [Citroen Standard 2BD2 14 NC 11, May 1970] (F)

BISI 10080 (Anon.)

Presentation in form of bars and sections, steel K8 [Citroen Standard 2BD2 K8, 1966, Apr.] (F)

BISI 10082 (Anon.)

Presentation in form of bars and sections. steel LF4 [Citroen Standard 2BD2 LF4, 1964, July] (F)

BISI 10083 (Anon.)

Presentation in form of bars and sections. steel EO [Citroen Standard 2BD2 EO, 1970 May]

(F)

BISI 10145 (Starchenko, D. I. et al.)

Rolling of large-section unequal-arm angle, steel with a symmetrical pass design. [Stal, 1971, (12), 1095-1098] (R)

BISI 10147 (V. I. Zyuzin et al.)

Investigation of the thermo-technological parameters of laminar and jet systems of cooling sheet on a 2000 continuous wide-sheet mill. [Stal', 1971, (12), 1128-1131] (R)

BISI 10152 (V. F. Potapkin et al.)

The deformed state in the deformation zone during the rolling of light and medium gauge strip. [Izv. VUZ Chern. Met., 1971, 14, (12), 87-90] (R)

BISI 10249 (A. A. Parshin, et al.)

Improving the surfaces of plates [Stal', 1972, (1), 62-3] (R)

BISI 10255 (V. P. Polukhin and E. V. Sigitov)

Solution of the volumetric problem of rolling sheet metal with an electronic computer. [Izv. VUZ Chern. Met. 1972, (1), 56-61] (R)

#### Metalworking, Excluding Rolling

BISI 9678 (A. Šalák et al.)

Saturation of iron compacts with nitrogen during sintering in a nitrogen-containing atmosphere. [Kovové Mat., 1971, (4), 345-353] (Cz)

BISI 10067 (Anon.)

Presentation in form of wire stainless steel Z6 CN 18-10. [Citroen Standard 2BD5 Z6 CN 18-10, 1966, May] (F)

BISI 10146 (E. S. Kalinnikov, et al.)

Experience in the production of cryogenic pipe from refined, nitride hardened steel. [Stal', 1971, (12), 1115-1118] (R)

BISI 10158 (Anon.)

Seamless headers of high temperature steels. [Stahl-Eisen Delivery Conditions L610-63 1963, Jan. 2nd Edit] (G)

BISI 10257 (I. M. Pavlov, et al.)

The direction of the friction force vector during piercing on a mill with mushroom-type rolls [Izv. VUZ Chern. Met., 1972, 15, (1), 87-90] (R)

BISI 10259 (V. L. Kolmogorov & G. L. Kolmogorov)

Tool calculation for the hydrodynamic friction (liquid lubricant drawing system) [Izv. VUZ Chern. Met., 1972, 15, (1), 108-11] (R)

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

BISI 9840 (R. Oppenheim & Laddach)

The mechanical and technological properties of high-chromium ferritic steels of the super-ferrite grade. [Dew Techn. Ber., 1971, 11, 71-77] (G)

BISI 9879 (H. Fabritius, et al.)

The effect of nitrogen and aluminium on creep behaviour and graphite formation in 15 Mo 3 steel. [Stahl Eisen, 1971, 91, (19), 1073-80]. (G)

BISI 10009 (Anon.)

Systematic nomenclature, plain carbon steels. [Steel Spec. DIN 17006, 1949, 2nd Oct.] (G)

BISI 10015 (Anon)

Codification of standardized steels [Steel Spec. A 02-105, 1970, Oct.] (F)

BISI 10018 (Anon)

Steels: definition and classification [Steel Spec. UNE 36 004 2nd Revised Edit] (G)

BISI 10074 (Anon)

Steels in general [Citroen Standard 2BD1-Z] (F)

BISI 10104 (Anon)

Addendum to A.P.-R.N.U.R. association specifications, structural steels. [Addendum to A.P.-R.N.U.R. Association specifications structural steels. 1971, Sept. 2nd Edit.] (F)

BISI 10108 (Anon)

High-grade medium-hard steels with guaranteed hardenability 42C2-42C2E. [Peugeot Spec. 11-01-206] (F)

BISI 10110 (Anon)

High-grade medium-hard carbon steels XC32-XC32A. [Peugeot Spec. 11-01-204] (F)

BISI 10111 (Anon)

High-grade medium-hard carbon steels XC42-XC42A-XC24E. [Peugeot Spec. 11-01-201] (F)

BISI 10113 (Anon)

High-grade medium-soft chromium-molybdenum steel 20CD4-20CD4E. [Peugeot Spec. 11-02-203.] (F)

#### Casting and Cast Metals

BISI 9766 (T. Dumitrescu)

Nodular castiron with a medium silicon content, a new wear-resistant material. [37th International Foundry Congress, Brighton, September 1970, Paper 11] (F)

BISI 9771 (W. Nickel and W. Spieckermann)

The solidification behaviour of austenitic S. G. iron. [Giesserei, 1971, 58, 457-465] (G)

BISI 9937 (H. G. Baumann and H. D. Faber)

Continuous steel casting plants-arrangement in electric steelworks. [Bander Bleche, 1971, (10), 434-439] (G)

BISI 10014 (J. Papaterra)

Graphite calculation of cupola charge. [Fonderie, 1971, 306, Nov., 371-9] (F)

BISI 10151 (L. S. Rudoi & A. p. Konyaki)

Effects of ferrostatic pressure on the contact between continuous cast billets and the mould walls. [Izv. VUZ Chern. Met., 1971, (12), 41-6] (R)

#### Heat Treatment

BISI 9708 (A. L. Schumacher)

Investigation of oxide edge formation in annealing cold-rolled strip in a bell-type furnace. [Arch. Eisenh., 1970, 41, (7), 685-695; discussion 694.] (G)

BISI 9772 (H. Krzyminski and K. Kretschmar)

The nitriding of iron and steel powder compacts by the tenifer process [Z. wirt. Fert. 1970, 65, 273-281] (G)

#### Heating, Heating Furnaces and Electric Heating

BISI 8896 (L. Apa)

Manganese behaviour during vacuum arc-remelting of steel. [Metalurgia, 1970, 22, (4), 209-213] (Rum)

BISI 9794 (R. Knaak)

Pusher furnaces with hot skids. [Klepzig Facher., 1971, 79, (1), 9-12] (G)

BISI 10154 (E. M. Gol'dfarb & V. S. Ibryaev)

Optimum heating schedule for metal using the criterion of minimum total cost for fuel consumption and metal losses by oxidation. [Izv. VUZ Chern. Met., 1971, (12), 144-148]. (R)

#### Fuel, Combustion and Refractories

BISI 9804 (G. Konig et al.)

Wear of refractory blast Furnace walls. New concepts and their applications [Stahl Eisen, 1971, 91, Jan. 21, 63-69] (G)

BISI 9817 (V. Masek)

New findings in the properties of solid emissions from metallurgical coking plants. [Hutn. listy, 1971, (8), 542-547] (Gz)

BISI 10144 (B. A. Sharov et al.)

The protection of slag pocket linings from the action of slag. [Stal', 1971, (12), 1082] (R)

#### Ores and Minerals Handling and Beneficiation

BISI 8349 (L. Ivanier)

High-power dry magnetic separation of oolitic iron ores'. Study of principal control parameters. [Rev. Ind. Miner ale, 1969, 51, (5), 443-454] (F)

BISI 9445 (R. Matheus)

Determination of the mineral content of fine-grained iron ores and mineralogical changes in magnetite and hematite ore samples when heated up to sintering temperature. [Aufbereitungstechn., 1970, (10), 587-598] (G)

BISI 9625 (F. Kruse & E. E. Hofmann)

The effect of wetting on the performance of ore sintering. [Stahl Eisen, 1971, 91, (14), 833-839] (G)

BISI 9823 (Z. Demčik)

Processing of waste sludges in sintering plants. [Hutn. listy, 1971, (7), 468-472] (Cz)

BISI 9918 (W. Jacobs)

Recent advances in the art of dressing iron ores [Stahl Eisen, 1971, 91, (14), 801-808] (G)

BISI 10142 (A. G. Astakhov & V. I. Kirillov)

Investigating the return-fines Regime under production conditions. [Stal', 1971, (12), 1065-1069] (R)

BISI 10143 (V. N. Letimin et al.)

The use of alumina sinter and iron ore pellets in open hearth melting. [Stal', 1971, (12), 1080] (R)

#### Ironmaking and Ferro-Alloys

BISI 8670 (J. Cobut)

The granulation of the esperance-longdoz pig iron. [C. D. S. Circ., 1962, (3), 655-668] (F)

BISI 9552 (L. E. Rohde et al.)

New investigations into the aluminium-oxygen

equilibrium in iron melts. [Arch Eisenh., 1971, 42, (3), 165-174] (G)

BISI 9803 (E. Schurmann et al.)

Effect of oxygen enrichment on the temperature profile and the reduction process in the ferromanganese blast furnace [Stahl Eisen, 1968, 88, (3), 665-673] (G)

BISI 10006 (W. Cronert)

Design and heat engineering aspects of high temperature hot blast stoves. [Paper presented at Colloquium on Blast Furnaces & Stoves, Aachen, 1971, Oct.] (G)

BISI 10038 (G. König, et al.)

Blast furnace lining wear. [Stahl Eisen, 1971, 91, (2), 63-69] (G)

BISI 10254 (I. S. Solomakhin, et al.)

Optimizing the long-range planning of pig-iron production. [Izv. VUZ Chern. Met., 1972, (1), 31-34] (R)

### Steelmaking

BISI 9695 (V. Kafka & Z. Buzek)

Critical review on the present evaluation of rationalization measures in electric steel-making. [Hutnik, 1971, (4), 125-130] (Cz)

BISI 9797 (P. Gosselin, et al.)

Operating results from two 45-ton UHP furnaces with continuous casting plant for high quality and special steels. [International Conference on the Electric Arc Steelmaking Furnace, Cannes, 7-9th June 1971] (F)

BISI 9875 (H. Georges et al.)

Sulphur movement in the open hearth furnace during the refining period when using high- and low-sulphur fuel oils. [Stahl Eisen, 1970, 90, (23), 1309-15] (G)

BISI 9947 (I. Cioca)

Intensified steelmaking regime in electric-arcfurnaces using oxygen-gas recycling-type burners. [Cerc. Met., 1971, (12), 193-203]

(Rum)

BISI 10155 (L. S. Beitel'man et al.)

Use of the structural analysis of curves in investigating the converter process. [Izv. VUZ Chern. Met., 1971, (12), 149-152] (R)

### Extraction and Refining

BISI 9691 (B. Ružička)

Effect of lime quality on melting process in tandem furnaces and oxygen converters. [Hutnik, 1971, (3), 98-101] (Cz)

BISI 9818 (L. Kodrle)

Possibilities of dephosphorization in 75-ton double-hearth furnace. [Hutn. Listy, 1971, (8), 548-554] (Cz)

BISI 10148 (N. I. Krasavtsev, et al.)

Thermodynamics of the gaseous reduction of iron from liquid oxides; communication I [Izv. VUZ Chern. Met., 1971, (12), 5-8] (R)

BISI 10163 (Yu'A. Gruzdev et al.)

The viscosity and melting temperature of slags used in teeming steel' [Izv. VUZ Chern. Met., 1970, (5), 51-55] (R)

### Engineering

BISI 9605 (J. Boroška)

Analysis of the durability of cables in relation to the loading and lifting frequency. [Zb. ved Prac. VST Kosike, 179-190] (Cz)

BISI 9925 (P. Koch)

Production and application of vibration absorbing structural components' [VDI-Zeitschrift, 1971, 113, (8), 617-621] (G)

BISI 9979 (Vde)

Seamless drums for stern plants technical delivery conditions. [Stahl-Eisen delivery conditions L 600-52, 1st edition Jan. 1952] (G)

BISI 9980 (Vde)

Seamless drums for steam plant. [Stahl Eisen Material Data Sheet W600-52, 1st Edition, Jan. 1952] (G)