

資料室だより

BISITS Translation 紹介

—No 4—

BISITS Translation の特長

英國鉄鋼業界、BISRA および英國鉄鋼協会は共同で BISITS を運営しています。この BISITS は BISITS Translations を発行しています； BISITS Translations は世界各国の主要鉄鋼技術誌および学術誌のうち主要論文を全文英訳したもので、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き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ます。

BISITS Translations を利用すれば英國、米国以外の主要製鉄国の主要論文を極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参りました。

次に列記いたしました title は最近入手したものです。

なお、“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。

(List Nos. 481～485)

Mineral Sources, Ores, Mining & Treatment

BISI 6494 (P. Perrot)

Reaction between calcium oxide and pure iron II oxide as well as a solid solution. II-The Fe-Mg-Ca-O system. [Rev. Chimie Minérale, 1967, 4, (2), 478-493] (F)

BISI 6505 (J. Astier)

Pelletizing-final goal or transitional stage in the preparation of iron ores. [Rev. Ind. Minérale, 1967, 49, Nov., 745-762] (F)

BIBI 6852 (D. Robert)

Electrostatic sorting in fluidized bed of minerals conditioned by cationic wetting agents. [Rev. Ind. Minérale, 1968, 50, May, 363-374] (F)

BISI 6880 (M. Boucraut, et al.)

Fluidised-bed magnetising roasting on semi-industrial scale. [8th International Congress on Ore Preparation, Leningrad, 1968, Paper B-5, pp. 8] (R)

BISI 7164 (H. Kister)

Burst testing of iron ore by heating. [Stahl Eisen, 1968, 88, Dec. 12, 1427-1428] (G)

BISI 7222 (M. Snejdar)

Mixing of the charge ahead of the homogeniser in the sinter plant. [Hutnik, 1968, 18, (9), 417-422] (Cz)

BISI 7386 (P. Hohenstein)

The “grangesberg” ore deposphorizing process. [Z. Erz. Met., 1967, 20, July, 217-220] (G)

BISI 7399 (M. Boucraut and R. Rochas)

Sintering of iron ores on grates. [Rev. Mé., 1968, 65, Dec., 835-844] (F)

Fuel preparation, Properties and Uses

BISI 6755-111 (N. S. Dukhau)

Gas burners. primenie Prirodno gaza v chernoi metallurgii, (Using natural gas in ferrous metallurgy) [Metallurgiya, Moscow, 1966, 33-52-111] (R)

BISI 6755-I (N. S. Dukhan, et al.)

Some characteristics of gaseous fuels. [Primenie prirodno gaza v chernoi metallurgii (Using gas in ferrous metallurgy), Metallurgiya, Moscow, 1966, 9-19-I]

BISI 6813 (S. B. Chowdhury and S. Banerjee)

Preheating of coal in the fluidised bed and its effect on the economy of the coking process. [Brennst. -Chem., 1968, 49, June, 169-170] (G)

BISI 6742 (C. -G. Thibaut and J. P. Thibaut)

The nature of coal and the quality of coke. [C. D. S. Circ., 1968, 25, (1), 175-186] (F)

Refractory materials

BISI 6257 (E. Kupzog, et al.)

Investigations on the bonding of refractories with a solution of monoaluminium phosphate. [Ber. Dtsch. Keram. Gas., 1967, 44, (9), 445-452] (G)

Blast furnace practice & Production of pig iron & ferro alloy

BISI 7163 (R. Ebert and K. Scheidtg)

Problems of optimum blast furnace output. [Neue Hütte, 1968, 13, Sept., 518-523] (G)

BISI 7244 (J. Burrel and J. Wscieklica)

Nature and effects of volatile charcoal materials used in the monlevade high blast Furnaces. [Metallurgia, 1961, 17, July, 645-666] (P)

BISI 7248 (H. Bergström)

The value of charcoal for blast furnace opera-

- tion. [Jernkon. Ann., 1938, 122, June, 221-242] (Sw)
- BISI 7312 (L. R. Ziatkova and I. Ya. Cherniavski) Effect of temperature on the evolution of nitrogen from blast furnace slag. [Izvest. AN SSSR, Metally, 1968, (4), 38-41] (R)
- BISI 7343 (G. BJORLING) The alloy supply situation for the steel industry. II-Production of ferro-alloys (with disc.) [Jernkon. Ann., 1968, 152, (8), 372-386; discussion 412-419] (Sw)
- Production of steel**
- BISI 6255 (K. Mamro and J. Taborski) Investigations of the kinetics of deoxidation of steel by precipitation. [Hutnik, 1967, 34, (7-8), 302-307] (P)
- BISI 6495 (R. Rinesch) From the Melting of chromium-bearing iron ores to the production of cold-rolled, rimming, age-resistant deep-drawing sheet containing 0.2-0.4% chromium. [Bera-Hütten: Monatsh., 1967, 112, Nov., 402-412] (G)
- BISI 6814 (M. Imai, et al.) Clean steel production by stirring steel in the ladle with a propeller. [Rev. Mét., 1968, 65, June, 409-416] (F)
- BISI 6934 (P. Kozakevitch and J. P. Chiola) The part played by surface phenomena in elimination of solid inclusions from a metal bath. [Rev. Mét., 1968, 65, Sept., 589-598] (F)
- BISI 7118 (R. Hoff, et al.) Study of the changes in the nitrogen content of the metal between the melt mixer and the casting of the steel in the basic bessemer process. [C. D. S. Circ., 1968, (11), 2451-2483] (F)
- BISI 7150 (E. Kunze & H. Brandis) Control of production of high-speed steel. [DEW-Techn. Ber., 1964, 4, (2), 98-105] (G)
- BISI 7162 (D. Boyadzhiev, et al.) The use of statistical methods for mathematical description and construction of algorithms for control of the basic-oxygen converter process at mk-kremikovsk. [Rudodobiv Met., 1968, 23, (8), 35-39] (B)
- BISI 7174 (G. Haljet) Oxygen steelworks commission. Converter shells and their deformation. [C. D. S. Circ., 1968, (11), 2505-2510] (F)
- BISI 7210 (Z. Böhm, et al.) Experience with the operation of the 150 ton tandem furnace in the steel mill of the NHKG plant in ostrava-kuncice. [Hutu. Listy, 1968, 23, (1), 16-20] (C)
- BISI 7255 (K. Brotzmann) The bottom-blown oxygen converter-A new method of steelmaking. [Technik Forschung, 1968, 21, Nov. 6, 718-720] (G)
- BISI 7256 (H. W. Kreutzer) Increasing importance of the electric arc furnace. [Technik Forschung, 1968, 21, Nov. 6, 716-717] (G)
- BISI 7281 (I. Tietz)
- Modern scrap preparation processes-steel scrap preparation. [Neue Hütte, 1968, 13, Aug., 449-453] (G)
- BISI 7344 (W. A. Fischer, et al.) Electrochemical and electrical studies in the system "iron-phosphorus-oxygen-lime". I-The activity of phosphorus in iron-phosphorus melts and the free enthalpy of phosphorus. [Arch. Eisenh., 1966, 37, Nov., 853-862] (G)
- BISI 7367 (W. A. Fischer and D. Janke) Electrochemical and electrical studies of the iron-phosphorus-oxygen-lime system. II-The specific electrical conductivity of solid and liquid calcium phosphates. [Arch. Eisenh., 1966, 37, Dec., 963-970] (G)
- BISI 7385 (M. Wahlsser and H. -H. Reichel) Hydrogen solubility in slags of the system CaO- FeO - SiO_2 . [Arch. Eisenh., 1969, 40, Jan., 19-25] (G)
- BISI 7396 (K. Müller, et al.) Progress of temperature in killed steel ingots during solidification, cooling and reheating in the pit furnace. [Stahl Eisen, 1969, 89, Apr. 17, 404-411] (G)
- BISI 7414 (M. G. Frohberg and J. Pötschke) Reflections on the deoxidation of metallic melts. [Scheizer Arch., 1968, 34, Oct., 318-324] (G)
- BISI 7427 (H. Schenck and H. Hinze) The equilibria of the system iron-carbon-oxygen in the temperature and concentration range of molten steel and the effect of phosphorus, manganese and sulphur on them. [Arch. Eisenh., 1966, 37, July, 545-550] (G)
- BISI 7463 (H. -U. Hopp and E. Piske) On the kinetics of the deoxidation of molten iron with aluminium and manganese. [Hoesch Ber. Forsch. Entwickl., 1966, 1, (3), 21-24] (G)
- Foundry practice**
- BISI 7022 (A. Collaud) Structural anisotropy, mechanical properties and standardisation of grey cast iron. [Giess. Techn. -Wiss., 1955, May, 767-799] (G)
- BISI 7124 (J. Czikel and G. Zebisch) Contribution to the problem of classifying castings. [Freiberger Forschungsh. Met., 1966, B105, 11-46] (G)
- BISI 7191 (D. Junghans and G. Schwarz) Faults occurring with chill casting (permanent mould casting). [Giessereitechn., 1959, 5, June, 179-185] (G)
- Heat-treatment, Heat-treatment furnace, Reheating furnace & Soaking pits**
- BISI 7183 (G. Lautenbusch, et al.) The problem of heat-treating cold-formed tube bends made from heat-resistant steels. [Arch. Eisenh., 1969, 40, Feb., 131-138] (G)
- BISI 7314 (M. Rosiers, et al.) Contributions to study of temperature evolution in slabs passing through furnaces. [Association Technique de la Siderurgie française, 1964, Oct.] (F)

BISI 7443 (H. -J. Pohle and H. Machold)
Experience with the operation of metallic recuperators for soaking pits. [Stahl Eisen, 1969, 89, May 1, 487-496] (G)

Forging, Pressing, Drawing, Extrusion, Swaging & Stamping

- BISI 6225-11 (H. Ufermann)
Advantages and limitations in the use of large weight units in wire processing. 11-Use of heavy coils in the drawing plant. [Stahl Eisen, 1967, 87, July 13, 838-846] (G)
- BISI 6503 (F. E. Listhuber)
Expérience with the working of chromium-containing cold-rolled thin sheet. [Berg-Hütten. Monatsh., 1967, 112, Nov., 412-419] (G)
- BISI 7195 (M. E. Popov and M. G. Shtanko)
Optimal stability of forging dies. [Kuznechno-Shtampov., 1968, (3), 11-13] (R)
- BISI 7429 (P. Souffrant)
Prospects of using maraging steels for large forgings. [Estam. Forge, 1968, 6, Sept., 21-26] (F)

Rolling & Rolling practices

- BISI 6622 (P. Funke and M. Heinritz)
Effect of cooling on the mechanical descaling of wire rod. [Stahl Eisen, 1968, 88, Mar. 21, 270-279] (G)
- BISI 7219 (T. Schmidt)
New wire-rod and merchant bar mill for high grade and special steels. [Stahl Eisen, 1966, 86, July 14, 877-887] (G)
- BISI 7295 (K. E. Mayey, et al.)
Automation of a heavy and medium plate tandem mill-planning, design and first results of operation. [Stahl Eisen, 1969, 89, Feb. 20, 178-185] (G)
- BISI 7310 (R. Stammbach)
Beam and rail rolling in 3-stands or continuous mills by the universal mill method. [Der Kalibreur/Le Calibreur, 1968, Sept., 25-48] (G & F)
- BISI 7328 (U. Stahl and W. Heinz)
Computation and seating of rolling mill rolls with reverse bending. [Stahl Eisen, 1968, 88, Nvv. 28, 1367-1370] (G)

Machinery, Machining Machinability & Services for iron and steel plant

- BISI 7352 (Z. Wieckowski)
Plastic forming of flat dies for rolling external threads. [Biul. Inform. Techn. Przem. Mototy-zac, 1965, 4, 236-238] (R)
- BISI 7442 (H. Weinberg)
Automatic balances and recording devices for furnace plant. [Klepzig Fachber., 1969, Fed., 88-95] (G)

Welding

- BISI 6853 (E. Theis)
Problems in the fabrication of heat treated fine grain structural steels. [Schweissen Schneiden, 1968, 20, (7), 323-330] (G)
- BISI 7013 (G. Schaumburg)
Surfacing by welding in the iron and steel

industry, applications, prospects. [Soud. Techn. Connexes, 1967, 21, Jan.-Feb., 21-20] (F)

BISI 7212 (D. Kohtz)
Shaping and welding of sound-insulating sandwich panels. [Schweissen Schneiden, 1968, (2), 72-77] (G)

BISI 7227 (M. Tvrđ & J. Balušek)
Plasma-arc cutting of high-strength steels. [Hutnik, 1968, 18, (9), 443-445] (Cz)

BISI 7298 (H. G. Kunz)
Principles of oxy-acetylene stress-relieving and requirements for its execution. [Schweissen Schneiden, 1955, (7), 1-8] (G)

Plating, Protective coatings, Cleaning, Pickling

BISI 7267 (W. Machu)
On the application of conversion coatings by the roller coating process. [Bänder Bleche, 1968, 9, (1), 9-13] (G)

Properties and Tests

BISI 6346 (H. Böhm and H. Schneider)
On the creep and stress-rupture properties of austenitic Cr-Ni steel in presence of sodium. [J. Nuclear Materials, 1967, 24, Nov., 188-197] (G)

BISI 6496 (J. de Fouquet, et al.)
Contribution to the study of aging after quenching and cold working of very low-carbon steels. [Rev. Mét. Mém. Sci., 1965, 62, Nov., 829-840] (F)

BISI 6808 (W. Jäniche)
Materials testing as an aid to quality control and the improvement of goods supplied. [Berg-Hütten, Monatsh., 1968, 113, Mar., 73-83] (G)

BISI 6809 (W. Schütz)
The fatigue strength of maraging 18/7/5 NiCoMo steel. [Techn. Mitt. Krupp, 1968, 61, Mar., 125-135] (G)

BISI 6953 (J. Vrtěl)
Evaluation of the resistance of steel to brittle fracture from the results of tests carried out with nitrided specimens. [Strojírenství, 1968, 18, (7), 520-527] (Cz)

BISI 6994 (J. Nixdorf)
Inorganic fibres. [Ber. deutschen Keram. Ges., 1968, 45, Apr., 141-148] (G)

BISI 7083 (J. Vršek, et al.)
Note on the technological problems in the manufacture of oriented transformer sheets. [Hutn. Listy, 1968, 23, (9), 620-628] (Cz)

BISI 7103 (H. H. Weigand and E. Haberling)
Influence of reduced nickel content on some properties of the extrusion die steel x 50 NiCrWV 13 13 (gse). [DEW Techn. Ber., 1968, 8, (3), 116-123] (G)

BISI 7104 (W. Reich)
Stainless steels. [Draht, 1968, 18, Jan., 1-7] (G)

BISI 7126 (H. Wiegand and K. H. Beelich)
Influence of superimposed alternating stress on the behaviour of screw fastenings at high temperatures. [Draht-Welt, 1968, 54, Aug., 565-570] (G)

- BISI 7127 (G. Lehnert and A. von der Steinen)
Chromized bolts having the properties of strength class 8.8. [Draht-Welt. 1968, 54, (12), 823-826] (G)
- BISI 7185 (W. Ruttman, et al.)
Creep testing of welded joints between heat (creep)-resisting steels. [Schweissen Schneiden, 1969, 21, (1), 8-17] (G)
- BISI 7251 (A. Barella)
Shortened fatigue tests-limitations and applications for the weibull distribution in industrial-type tests. [Acero Energ. (Barcelona), 1968, 25, May/June, 73-80] (S)
- BISI 7345 (E. Plénard)
Practical value of a new mechanical characteristic-the accommodation limit. [Rev. Mét., 1968, 65, Dec., 845-862] (F)
- BISI 7348 (Ya. V. Tikhomirov)
The influence of clearances in small and big end on fatigue safety factor in a connecting rod. [Avtomobil. Prom., 1964, (6), 31-34] (R)
- BISI 7349 (K. Fellcht)
Some problems relating to the use of prestressed concrete steel finally quenched and tempered in oil. [Stahlberatungsstelle Mitt., 1965, Nov., 10pp.] (G)
- BISI 7428 (K. Bungardt, et al.)
Effect of increased carbon contents on some properties of high speed steels containing approximately 2%V. [Stahl Eisen, 1969, 89, Apr. 17, 420-426] (G)
- BISI 7471 (G. Pomey and M. Grumbach)
Contribution to the study of the toughness test and brittle fracture. [Rev. Mét. Mém. Sci., 1966, 63, Sept., 709-729] (F)
- BISI 7472 (J. Perdijon)
Rapid and non-destructive determination of oxygen in steels by radioactivation. [C. D. S. Circ., 1966, 23, (11), 2537-2546] (F)
- Clad steel, Powder metallurgy & Hardfacing**
- BISI 6359 (G. Rossi, et al.)
New sources of iron powder for the sintering industry. [Met. Ital., 1967, 59, (7), 564-581] (I)
- BISI 7287 (G. Rossi and A. Perin)
Direct compaction of powder by plastic deformation inside a container. [Boll. Tecn. FINSIDER, 1968, Oct., (260), 683-693] (I)
- Corrosion**
- BISI 7269 (W. Schwenk)
The corrosion properties of hot dipped galvanized steel plating in soft warm water with a stream of CO_2 or O_2 . [Werks. Korros., 1966, 17, Dec., 1033-1039] (G)
- BISI 7270 (A. Ferro, et al.)
Oxidation and thermal etching of Fe-Si alloys in an atmosphere of hydrogen containing traces of water vapour. [Met. Ital., 1958, Nov., 484-494] (I)
- Metallography**
- BISI 6855 (P. Detrez, et al.)
Relation between the oxidized components present in killed steel and the deoxidants used. [Fonderie, 1968, Apr., 141-159] (F)
- BISI 6919 (P. Scqwaab and W. Leo)
Study of the recrystallization of an austenitic chromium-nickel steel by transmission electron microscopy. [Z. Metallk., 1964, 55, May, 256-261] (G)
- BISI 7215 (B. Passon)
Stroboscopical observations of ferro-magnetic domains by magnetisation in alternating fields up to 20 kHz. [Z. angew. Phys., 1968, 25, (2), 56-61] (G)
- BISI 7468 (W. Pitsch)
The crystallographic pattern of cementite precipitation in ferrite and in austenite. [Arch. Eisenh., 1963, 34, Aug., 641-645] (G)
- BISI 7470 (P. Detrez)
Illustration of the mechanism of the formation of sulphides. [Fonderie, 1966, Sept., 333-338] (F)
- BISI 7473 (W. Köster & W. Horn)
Damping measurements and electron microscopical investigation of nitrided pure iron. [Arch. Eisenh., 1966, 37, Feb., 155-160] (G)
- Analysis**
- BISI 6707 (P. Höller and K. Slickers)
Spectrochemical analysis of raw materials and slags by the tape method. [Arch. Eisenh., 1967, 38, Nov., 831-839] (G)
- Industrial uses & Application**
- BISI 7213 (H. Oberst)
The reduction of noise by the use of optimised vibration damping materials. [Sixth Congress of the International Council of the Aeronautical Sciences, Munich, No. 68-34, 1968 Sept., 9-13] (G)
- Miscellaneous**
- BISI 7123 (A. V. Adamovich and Ya. V. Tikhomirov)
Strength of connecting rods. [Avtomobil. Prom., 1959, 10, 19-22] (R)