

## 資料室だより

## BISI Translation 紹介

— No 35 —

## 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 643~647

**Management Planning and Control**

BISI 10943 (K. H. Caspers)

Standard variation as an essential controlling feature in the foundry

[Giesserei, 1972, 59, (11), 369-373] (G)

BISI 10955 (P. M. Fourt)

Some reflections on innovation in an industrial company using creusot-loire as an example.

[Annales des Mines, 1972, Feb., 21-32] (F)

**Physical Structure of Materials and Crystallography**

BISI 10289 (K. Woltron)

Weld embrittlement in ferritic chromium steels.

[BHM, 1971, 116, Nov., 426-437] (G)

BISI 10644 (T. Dumitrescu)

Considerations of the elastic modulus of nodular cast irons alloyed with silicon.

[Metallurgia, 1972, (3), 152-154] (Ru)

BISI 10908 (A. Iroost and P. Koller)

Extension of the elementary theory of elasto and plastostatics in plane deformation.

[Arch. Eisenh., 1972, 42, May, 325-34] (G)

BISI 10959 (L. N. Davydov, et al.)

Increasing the resistance of steel 17G1s to brittle fracture after refining in the ladle with a molten synthetic slag.

[Stal', 1972, (9), 795-98] (R)

BISI 10961 (L. V. Andreyuk and G. G. Tyulenev)

Analytical dependence of resistance to metal deformation on the temperature, rate and degree of deformation.

[Stal', 1972, (9), 825-828] (R)

**Physical Metallurgy and Metallography**

BISI 8275 (J. Haas)

The effect of quenching and tempering as well as strain aging on the transition temperature of low-carbon rimmed and fully aluminium-killed

steel.

[Prace Inst. Hutn. 1968, 20, (2), 63-75] (Po)

BISI 9603 (O. Kastanek and Z. Hucikova)

Metallographic resolution of the main carbides in cast high-speed steels with the addition of Ti. [Zb. ved. prac. VST Kosice, 1969, 2, 99-106] (C)

BISI 9800 (H. Hoffmann)

Looking into enamel with microscope and microprobe.

[7th International Congress in Vitreous Enamelling, 1971, Scheveningen] (G)

BISI 10905 (German Standard)

Microscopical examination of special steels for non-metallic inclusions using standard micrograph charts.

[Stahl-Eisen Prüfblatt 1570, 2nd edition, 1971, Aug] (G)

**Physical Properties and Chemical Analysis**

BISI 10341 (L. Cochet, et al)

Possible applications of electromagnetic fields in the transport, treatment and control of liquid pig iron and steel.

[Rev. Met., 1972, 69, (1), 55-69] (F)

BISI 10444 (J. Galas)

Industrial measurements of the magnetic properties of test bars.

[Hutn. Listy, 1972, (2), 124-129] (C)

BISI 10602 (O. I. Fomichev et al.)

The crystallization of Fe-B-C alloys.

[Stal', 1972, (5), 446-447] (R)

BISI 10835 (P. Mani Mathew et al.)

Thermodynamic relations on the deoxidation of iron by manganese.

[Arcch Eisenh., 1972, 43, (5), 389-396] (G)

BISI 10979 (Yu. D. Zheleznov, et al.)

Effect of rolling speed and the rate of response of micrometers on the quality of measurement

of sheet thickness.

[Izv. VUZ Chern. Met., 1972, (9), 94-97] (R)

BISI 10982 (E. G. Nevzorova, et al.)

Magnetic susceptibility of nickel and iron at high temperatures.

[Izv. VUZ Chern. Met., 1972, (9), 108-109] (R)

BISI 10986 (V. V. Zubov, et al.)

Research into the spectral radiation characteristics of high-temperature materials.

[Izv. VUZ Chern. Met., 1972, (9), 155-157] (R)

### Mechanical Properties and Material Defects

BISI 9837 (A. Ieremia and L. Bireescu)

The phenomenon of flake-like cracks in soft steel. [Metallurgia, 1971, (8), 479-482] (Ru)

BISI 10940 (German Standard)

Certificates for materials testing.

[Din 50, 049, 1969, Sept.,] (G)

### Corrosion and Corrosion Testing

BISI 9493 (K. J. Vetter and H. H. Strehblow)

The formation and nature of corrosion pits produced during the pitting of iron, and theoretical consequences in respect of pitting corrosion. [Ber. der Bunsen-Gesellschaft, 1970, 74, 1024-35] (G)

### Protection of Materials

BISI 9981 (F. Reinhart)

Protective coatings on ceramic bodies.

[Glas-Email-Keramo-Technik, 1971, 22, (9), 319-25] (G)

BISI 10724 (M. F. Sorokin et al.)

Effect of  $\gamma$ -radiation on some epoxide resins.

[Lakokrasochnye Materialy i ikh primenenie, 1965, (2), 1-6] (R)

BISI 10757 (French Standard)

Qualities of continuous galvanised steel sheet (coil, flat sheet, corrugated and ribbed sheet) [French Standard NF A 36-321, 1969, Dec.,] (F)

### Rolling

BISI 8399 (P. Blain, and G. Namy)

Continuous levelling of thin strip.

[Fils. Tubes, Bandes, et Profiles, 1967, (1), 3-8] (F)

BISI 8551 (G. Wiethoff, et al.)

New results of process automation in a heavy and medium plate mill.

[International Conference on Iron and Steel, 1970, 'Automation in Iron and Steel Works'] (G)

BISI 10191 (A. Lederer)

Technological features of the plate rolling mill in galatz-I.

[Klepzig Fachber., 1971, (9), 531-537] (G)

BISI 10842 (R. Kopp)

Material flow in three-roll flow turning.

[Arch, Eisenh., 1972, 43, (5), 397-404] (G)

BISI 10894 (V. M. Moskvina)

Transitional processes and optimum control with acceleration (deceleration) of a continuous cold-rolling mill.

[Izvest. VUZ Chern. Met., 1972, (8), 81-87] (R)

BISI 10944 (French Standard)

Iron and steel products clad plates.

[NF A 36-250, 1968, March] (F)

BISI 10945 (German Standard)

Technical conditions of supply. clad steel plates [Stahl-Eisen-Lieferbedingungen 075-54, 1st. edition May, 1954] (G)

BISI 10962 (B. M. Ilykovich and S. E. Merkur'ev)

The rolling of merchant section of constant wall and flange thicknesses.

[Stal', 1972, (9), 828-829] (R)

BISI 10967 (I. K. Lazarev)

Effects of the properties of the initial wire on the dimensional accuracy of flattened strip.

[Stal', 1972, (9), 858-860] (R)

BISI 10977 (V. V. Mal'tser, et al.)

Reaction of the outlying portions of a strip to inhomogeneous reduction during light-gauge sheet rolling.

[Izv. VUZ Chern. Met., 1972, (9) 76-79] (R)

BISI 10981 (V. N. Vydrin, et al.)

Rolls for cold rolling in multiple roll passes.

[Izv. VUZ Chern. Met., 1972, (9), 105-107] (R)

### Metalworking, Excluding Rolling

BISI 8531 (H. Thijssen)

Rough machining of steel using ceramic cutting tools.

[Werkstatt und Betrieb., 1969, 102, 79-82] (G)

BISI 9140 (H. J. Pahnke)

Comparison of water and oil drives in open-die forging presses.

[Olhydraulik und Pneumatik, 1970, Oct., (10), 454] (G)

BISI 9141 (H. J. Pahnke)

Development of new open-die forging plants.

[Industrie-Anzeiger, 1970, (84), Oct., 6, 2015-2022] (G)

BISI 10843 (ANON)

The cold working of steel tubes by drawing or rolling. [Rev. Met. 1972, June, 427-430] (F)

BISI 10896 (G. E. Arkulis, et al.)

Use of the videoplastic method to determine the contact and interlayer tangential stresses during the upsetting of a bimetal.

[Izv. VUZ Chern. Met., 1972, (8), 102-105] (R)

BISI 10951 (French Standard)

Iron and steel products plain carbon wire rod for wire drawing and cold rolling grades and qualities.

[NF A 35-051, 1971, March] (F)

BISI 11165 (H. Buchholtz)

Modern methods of Manufacturing iron powder, the raw materials used, and economic aspects. [Stahl Eisen, 1949, 69, Apr 14, 247-256] (G)

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

BISI 10293 (F. Heisterkamp, et al)

Technological properties, workability and applications of pearlite-reduced structural steels.

[Thyssenforschung, 1971, (1/2), 66-76] (G)

BISI 10550 (Yu. A. Geller, et al.)

Optimum composition of vanadium high speed steels. [Stal', 1972, (4), 355-7] (R)

BISI 10616 (O. A. Kaibyshev et al.)

Relationship between structure and properties in el 929-alloy.

[Izv. VUZ Chern. Met, 1972, (5), 125-128] (R)

BISI 10711 (German standard Deutscher. Normenausschuss, Berlin 30)

Concrete reinforcement steel: reinforcement bars-testing. [Ger. Standard DIN 488 Blatt 3, 1972, Apr.,] (G)

BISI 10712 (German Standard Deutscher Normenausschuss, Berlin 30)

Concrete reinforcement steel matting: tests. [DIN 488 Blatt 5, 1972, Apr.,] (G)

BISI 10717 (B. Rotenstein, et al.)

Influence of some alloying elements and of heat treatment upon the mechanical properties at normal temperature of steels with 9% Cr and other alloying elements for uses at high temp. [Metallurgia, 1972, (4), 1-7] (Ru)

BISI 10933 (DNA)

Hot formed square or rectangular hollow steel sections for structural engineering; dimensions weights, tolerances, static values.

[DIN 59410, 1972, September Draft] (G)

#### Casting and Cast Metals

BISI 9368 (K. Dahlborg)

Rapid determination of silicon in grey cast iron. [Giuteriet, 1965, 55, (5), 87-90] (Sw)

BISI 9832 (L. Jablonsky, et al.)

Heat resistance of cast iron.

[Strojirenstvi, 1971, (7), 413-421] (C)

BISI 10880 (V. N. Zhuchin et al.)

The effect of teeming on the macro-structure of a plane continuously billet.

[Stal, 1972, (8), 709-10] (R)

BISI 10985 (O. S. Komarov)

Crystallization of spheroidal-graphite cast iron. [Izv. VUZ Chern. Met., 1972, (9), 139-142] (R)

BISI 11164 (A. V. Kuksa)

Model investigation of the deformation of ingot mould walls due to heat.

[Izv. VUZ Chern, Met., 1967, (1), 50-54] (R)

#### Heat Treatment

BISI 10344 (P. Funke et al.)

Effect of high rates of heating and cooling on the strip properties in the process-annealing of plain rimming-steel cold strip.

[Stahl Eisen, 1972, 92, (5), 186-95] (G)

BISI 10601 (A. E. Krivosheev et al.)

Heat treatment and mechanical properties in 180KhNM-steel.

[Stal', 1972, (5), 444-446] (R)

BISI 10617 (I. N. Kidin et al.)

Structure and phase composition of a layer

during diffusion of chromium in armco iron.

[Izv. VUZ Chern, Met., 1972, (5), 132-135] (R)

#### Heating, Heating Furnaces and Electric Heating

BISI 9068 (R. Courdille)

Resistor-heated furnaces.

[C. D. S. Circ., 1962, 19, (6), 1485-1503] (F)

BISI 10934 (C. di Ciccio, et al.)

The control of heating operations in soaking pits with special reference to fore.

(Met. Ital. 1971, (12), 597-604] (I)

BISI 10965 (A. V. Ivanchenko and M. I. Sorokin)

Chromatographic determination of hydrogen in slow-cooling soaking pits.

[Stal', 1972, (9), 849] (R)

#### Fuel, Combustion and Refractories

BISI 10034 (S. Scholze and H. Eckardt)

Investigations of heating oils and heating oil additives. [Freiberger Forsch. 1966, A360, 91-113] (G)

#### Ores and Minerals Handling and Beneficiation

BISI 8967 (W. Gudenau)

Production of iron ore pellets of high strength [Aufbereitungs-Tech., 1968, (4), 145-151] (G)

BISI 10786 (A. Bragard and L. Mathieu.)

Experiences with pelletization of self-fluxing ore mixtures.

[Stahl Eisen., 1972, 92, (3), Feb., 106-112] (G)

BISI 10787 (K. V. Haverkamp and P. D. Harnickell)

Influence of secondary screening of hot return material on the operating results of a sinter plant.

[Stahl Eisen, 1972, 92, (13), June 15-22] (G)

BISI 10831 (G. Frlenstadt)

Df- Screening machine.

[Aufbereitungs Tech., 1972, July, 7, 432-434] (G)

BISI 10833 (J. Wessel et al.)

Mathematical determination of separation results on a sizer according to the mogensen formula. [Aufbereitungs Techn., 1972, (7), 417-421] (G)

BISI 10834 (F. R. Block)

The thermal processes which occur during down-draft sintering.

[Arch. Eisenh., 1972, 43, (2), 83-91] (G)

BISI 10878 (V. M. Antonov, et al.)

Metallurgical assessment of kachkanar pellets and the adoption of a technology for their use in the blast furnace.

[Stal', 1972, (8), 681-688] (R)

BISI 10890 (M. S. Bykov et al.)

Sinter from concentrate of high-magnesia content. [Izv. VUZ Chern. Met., 1972, (8), 34-46] (R)

BISI 10956 (H. Bauer and D. Mewes)

The mathematical interrelationships governing the fluidization and the mass and heat transfer in single-stage fluidised Beds.

[Chemie Ing. Technik, 1972, 44, (3), 141-44] (G)

**Ironmaking and Ferro-Alloys**

- BISI 8873 (A. Heuer)  
Observations on combustion chamber linings in hot blast stoves.  
[Berg-Hutten. Monatsh., 1967, Supp. 1, Mar., 176-204] (G)
- BISI 9581 (F. Himber)  
Dynamic phenomena related to gas flow in the blast furnace-I.  
[IRSID Report-Ore-Coke-Iron Report No. RP 60, 1961, May, 48] (F)
- BISI 10214 (Yu. N. Ovchinnikov, et al.)  
Particulars of the calculation of coke replacement equivalents in blast furnace smelting by fuels injected into the tuyeres.  
[Izv. VUZ Chern. Met., 1965, (12), 29-35] (R)
- BISI 10785 (E. Forster, et al.)  
Mathematical formulation of the ore reduction for a blast furnace model.  
[Arch Eisenh., 1972, 43, (1), Jan., 15-22] (G)
- BISI 10856 (S. Piekutowski and E. Ryszka)  
A study of blast furnace cooling plates.  
[Hutnik, 1972, 39, (1), 1-5] (Po)
- BISI 10958 (M. I. Rovenskii and I. L. Dyshlevich)  
Participation of cyanogen in the direct reduction of iron in the blast-furnace hearth.  
[Stal', 1972, (9), 785-786] (R)

**Steelmaking**

- BISI 9157 (M. A. Glinkov)  
Continuous processes.  
The Thermal Operation of Steelmaking Baths, Izdat ['Metallurgiya' Moscow, 1970, 377-397] (R)
- BISI 10579 (H. Ottmar, et al.)  
Operating results from a 50t electric arc furnace and the probable development of the uhp process. [International Conf. on the Electric Arc Steelmaking, Furnace, Cannes, 1971, June] (F)
- BISI 10841 (H. Moller)

Natural gas-fired scrap preheaters for electric arc furnaces.

- [Gas Warne Int., 1971, 20, (4), 131-1] (G)
- BISI 10893 (A. V. Geineman)  
The temperature factor in slag formation in an open-hearth furnace during the meeting period  
[Izv. VUZ Chern. Met., 1972, (8), 52-55] (R)
- BISI 10901 (V. P. Tsymbal, et al.)  
The efficiency of analog computers in open-hearth furnace shops.  
[Izv. VUZ Chern. Met., 1972, (8), 168-172] (R)
- BISI 10902 (S. M. Kulakov and T. V. Kiseleva)  
The use of exponential smoothing for forecasting the duration of the oh melt.  
[Izv. VUZ. Chern. Met., 1972, (8), 173-175] (R)
- BISI 10974 (G. D. Surguchev + A. V. Il'enok.)  
A mathematical model of the processes taking place in a two-bath furnace.  
[Izv. VUZ Chern. Met., 1972, (9), 41-44] (R)
- BISI 11093 (M. Ya. Madzhibozhskii, et al.)  
An experimental determination of the coefficient of heat transfer in a rimming steelmaking bath.  
[Izv. VUZ Chern. Met., 1972, (10), 52-55] (R)

**Extraction and Refining**

- BISI 10783 (K. Meyer and J. Kruge)  
Raw materials for the production of nickel and processes used for it.  
[Stahl-Eisen., 1972, 92, (3), 113-120] (G)

**Engineering**

- BISI 10506 (E. Bahke)  
Transport  
[Stahl Eisen., 1972, 92, (8), 357-64] (G)
- BISI 10887 (V. N. Ermolaev)  
Study of heat transfer at high pressures in scrubbers.  
[Stal', 1972, (8), 769-771] (R)