

## 資料室だより

## BISI Translation 紹介

— No 29 —

## 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. 611~615

**Management Planning and Control**

BISI 8006 (Linder, H. & Seibring, H.)

Self-ignition of organic substances on insulators.  
[Chemie-Ing. Techn., 1971, (11), 667-671] (G)

BISI 9799 (W. H. Mieth)

Tasks and organization of technico-economic staff departments in the German Steel Industry.  
[Stahl Eisen, 1971, 91, 1020-29] (G)

BISI 9848 (J. Lemfeld)

Application of dynamic programming to an organizational model of the metallurgical industry, [Hutn. Listy, 1971, (6), 382-6] (Cz)

BISI 10099 (G. Macchioni)

Spare parts management.  
[Ricerca Operativa, 1971, (4), 5-10] (I)

BISI 10127 (German Standard)

Iron and steel systematic designation.  
[German Standard DIN 17 006 Sheet 4, 1949, Oct.]

BISI 10172 (German Standard)

Breaking off and rounding of deciman numbers.  
[DIN 1333, 1969, May]

BISI 10175 (Anon.)

Conventional designation of steels. Supersedes UNI 3344 [Ital. Standard UNI 5372-64, Mar. No. 7 tabelle] (I)

BISI 10176 (Italian Spec.)

Mechanical testing of metals. symbols and definitiong. [Italian Spec. UNI 552-64 No. 19 tabelle]

**Physical Structure of Materials and Crystallography**

BISI 9812 (M. Židek & B. Kubičkova)

The effects of temperature, chemical composi-

tion and structural state on the deformation strength of steel.

[Sbornik VSB Ostrava, 1969, (3), 19-46] (Cz)

BISI 10032 (Obolenskii, V. I. et al.)

The structural recrystallisation and properties of medium-carbon steel communication-1 [Izv. VUZ' Chern. Met., 1971, (11), 158-161] (R)

BISI 10261 (V. I. Obolenskii et al.)

Structural recrystallization and the properties of medium-carbon steel-Rep. 2.  
[Izv. VUZ' Chern. Met., 1972, (1), 148-151] (R)

**Physical Metallurgy and Metallography**

BISI 8016 (S. Gunnarson)

Sturcture anomalies in the surface zones of gas-carburized, case-hardened steel.  
[Jernkon. Ann., 1962, 146, (5), 383-402] (Sw)

BISI 9857 (A. Kalivoda)

Effect of reheating rate on carbidic reactions in martensite tempering.  
[Hutn. Listy, 1971, (4), 288-291] (Cz)

BISI 10260 (M. I. Linchevskaya)

Electron microscope study of structure in 15kh MFKR-steel after heat treatment simulating a welding cycle. [Izv. VUS Chern. Met., 1972, (1), 132-135] (R)

**Physical Properties and Chemical Analysis**

BISI 9858 (M. Hartl, et al.)

Analysis of solid pig iron samples by means of a vacuum quantometer.  
[Hutn. Listy, 1971, (4), 301-303] (Cz)

BISI 9985 (Shevelev, V. M. and Berdnikov, V. I.)

Formation of gas bubbles in porous plugs.  
[Izv. VUZ. Chern. Met., 1971, (10), 48-53]

- (R)  
 BISI 10004 (T. K. Willmer & K. Zimmermann)  
 The determination of the forms of combination of nitrogen in alloy steels.  
 [Arch. Eisenh., 1971, 42, Dec. 877-882] (G)
- BISI 10045 (Jamar, J.)  
 Considerations the kinetics of solidification.  
 [Fonderie Belge, 1971, (6/7), 139-149] (F)
- Mechanical Properties and Material Defects**
- BISI 9932 (J. Jech and J. Hajek)  
 Testing and evaluation of the quality of rolling-contact-bearing steels.  
 [Hutn. Listy, 1971, (10), 716-723] (Cz)
- BISI 10307 (A. I. Stroganov et al.)  
 The behaviour of non-metallic inclusions in circulating currents of metal.  
 [Izv. VUZ Chern. Met., 1972, (2), 64-67] (R)
- BISI 10312 (L. S. Livshits, et al.)  
 Influence of structural state on crack propagation energy in low alloy steels.  
 [Stal', 1972, (2), 167-169] (R)
- Corrosion and Corrosion Testing**
- BISI 9936 (S. Nemeček)  
 Cyclic accelerated tests indicating the resistance of materials to cavitation and corrosion.  
 [Strojirenstvi, 1971, (10), 616-619] (Cz)
- Protection of Materials**
- BISI 10159 (French Standard)  
 Hot dip galvanized steel tubes. specification for zinc coatings. [NF A 91-141, 1968, Dec]
- BISI 10180 (E. Kunze)  
 The pickling mechanism for unalloyed steels in inhibited and inhibitor-free acids.  
 [Corrosion Week, Budapest, 1968, Oct. 213-224] (G)
- BISI 10162 (German Standard)  
 Zinc coating on steel tubes, technical conditions of delivery. [DIN 2444, 1971, July]
- BISI 10173 (German Standard)  
 Steel pipes-formulae for calculating wall thicknesses of pipes subjected to internal pressure.  
 [German Standard DIN 2413, 1970, Jan]
- BISI 10335 (P. Tardy)  
 The hot dip galvanizing of steels'.  
 [Vasipari Kutato' Intezet, 1967, 3, 658-668] (Hun)
- Rolling**
- BISI 9779 (G. D. Del', et al.)  
 Investigation of stresses in the stock in sheet rolling. [Izv. VUZ Chern. Met., 1971, (8), 90-94] (R)
- BISI 9816 (Z. Zamyslovsky)  
 Effect of hot rolling conditions on the mechanical properties of universal mill plate.  
 [Sbornik VSB Ostrava, 1969-192] (Cz)
- BISI 9998 (A. F. Chekmarev, et al.)  
 Changes in deformation resistance along the length of the deformation zone during the hot rolling of low-carbon structural steels.  
 [Inst. Chern. Met. Prok. proizvod., 1970, 34, 62-71] (S)
- BISI 10250 (Starchenko, D. I. et al.)  
 Improvement in the bulb-strip steel rolling process. [Stal' 1972, (1), 65-66] (R)
- BISI 10258 (V. N. Vydrin and L. A. Barkov)  
 Consumption of energy and efficiency of rolling on a smooth barrel in multiple-roll passes.  
 [Izv. VUZ Chern. Met., 1972, (1), 100-103] (R)
- BISI 10309 (D. I. Starchenko et al.)  
 The effect of cold rolling conditions on strip roughness [Izv. VUZ Chern. Met, 1972, 15, (2), 93-95] (R)
- BISI 10310 (A. I. Grishkov)  
 Rolling radius when rolling in passes.  
 [Stal', 1972, (2), 144-146] (R)
- BISI 10316 (V. A. Shilov and V. K. Smirnov)  
 The reduction coefficient, specific pressure and deformation torque during the square pass rolling of a hexagonal bar [Izv. VUZ Chern. Met., 1972, 15, (2), 104-109] (R)
- BISI 10321 (B. A. Tsifrinovich, et al.)  
 Change in the longitudinal gauge variation of the strip in a wide strip mill during a variable speed procedure [Stal', 1972, (2), 137-140] (R)
- BISI 10322 (J. Dupont)  
 Improvements to a merchant bar mill.  
 [CDS. Circ., 1972, (2), 475-486] (F)
- Metalworking, Excluding Rolling**
- BISI 9802 (K. H. Fonck)  
 Stretch extrusion a new method of manufacturing cans. [Neue Verpackung, 1970, 33, (11), 1592-1594] (G)
- BISI 9813 (O. Pejcoch)  
 An analysis of the deformation zone in a roll piercing mill from the point of view of oblique rolling kinematics.  
 [Sbornik VSB Ostrava, 1969, (3), 47-61] (Cz)
- BISI 9815 (Endrle M.)  
 Non-uniform deformation in shearing plates and its effect. [Sbornik VSB Ostrava, 1969, (3), 103-130] (Cz)
- BISI 10024 (N. N. Nesterova et al.)  
 The production of tubes from high-alloy steels using cast ingots.  
 [Sta', 1971, (11), 1029-1030] (R)
- BISI 10042 (Grechko, et al.)  
 Improvement in the end shape of billets for continuous rolling mills.  
 [Inst. Chern. Met. prok. proizvod., 1970, 34, 40-45] (R)
- BISI 10160 (Anon.)  
 Seamless tubes of superior quality in unalloyed steel for pipework, headers and other parts of boilers and pressure vessels.  
 [G. A. P. A. V. E. Technical Spec. No. 421-67] (F)
- BISI 10179 (Anon)  
 New simplified principle of electro-erosion.  
 [Formage Trait Met. 1970, (19), Nov., 33-35, 67, 98] (F)
- BISI 10197 (Netherlands Patent)  
 Method for continuously welding longitudinal

fins on tubes.

[Netherlands Patent 133-915]

BISI 10253 (A. M. Vainzof et al.)

Volume-scheduling of the production of cold-worked tubes. [Stal', 1972, (1), 84-86] (R)

BISI 10256 (Severdenko, V. P. et al.)

Dimension of mosaic blocks in steel deformed with ultrasonic vibrations.

[Izv. VUZ. Chern. Met., 1972, (1), 73-75] (R)

BISI 10308 (V. N. Vydrin and V. K. Lomma)

Power in the pilger rolling of tubes.

[Izv. VUZ Chern. Met., 1972, (2), 79-83] (R)

BISI 10314 (S. P. Burkin et al.)

Research into the force parameters of drawing wire with torsion. [Stal', 1972, (2), 182-3] (R)

### Steel and Alloys (Technical Applications and Methods of production), Cermets

BISI 9721 (W. Heller)

Permanent way conference, september, 1970 [Stahl Eisen, 1971, 91, (7), 399-403] (G)

BISI 10156 (German Standard)

Steels for high-pressure hydrogenation vessel (HPHV steels) [Stahl Eisen Werkstoffblatt, 590-61, 2nd Edit. Dec. 1961]

BISI 10219 (French Standard NF A 35-052)

Iron and steel products. plain carbon steel. wire rod for welded mesh.

[Afnor Tour Europe, Cedex 7, Paris 92]

BISI 10326 (German Standard)

Cold and hot-rolled unoriented electrical sheet and strip Technical conditions of delivery.

[Din 46 400, Draft, 1971, Sept.] (G)

### Casting and Cast Metals

BISI 9733 (F. Stebel)

Compressed sand for lining ladles.

[Hutnik, 1959, 9, (4), 129-132] (Cz)

BISI 9795 (M. Flick)

High-capacity continuous casting plants.

[Techn. Mod., 1970, Dec. 507-512] (F)

BISI 9881 (Anon)

ATH's continuous casting plant at ruhrort works.

[Klepzig Fachber., 1971, 79, (2), 109-110] (G)

BISI 10262 (K. I. Vashchenko and V. K. Larin)

Skin formation on spheroidal-graphite cast iron

[Izv. VUZ Chern. Met., 1972, (1), 156-159] (R)

### Heat Treatment

BISI 10315 (Gruzin, P. L. et al.)

Diffusion of sulphur in transformer steel during annealing in various atmospheres. [Izv. VUZ. Chern. Met., 1972, (2), 120-124] (R)

### Fuel, Combustion and Refractories

BISI 9882 (I. Csurgay, et al.)

The use of basic concrete in rolling mill furnaces. [Neue Hutte, 1971, 16, Feb. 97-99] (G)

BISI 9997 (M. Drozd, et al.)

Refractory concrete in the construction of reheating furnaces.

[Wiadom Hutn. 1970, 26, (9), 279-282] (P)

### Welding and Joing

BISI 10201 (Wellinger, K. et al.)

Dynamic strength of welded tubular lattice joints' [Schweissen Schneiden, 1971, 23, (6), 215-217] (G)

### Ores and Minerals Handling and Beneficiation

BISI 8341 (A. T. Yu.)

Two high speed boat unloading processes in the U.S.A.

[Fordern Heben, 1970, Jan, 24-26] (G)

BISI 9917 (Grebe, K. and Kister, H.)

Examinations on the occurrence and effect of grain disintegration of sinter in the experimental blast furnace at Ougree.

[Stahl Eisen, 1971, 91, (14), July 8, 825-33] (G)

BISI 9983 (Rusakova, A. G. and Kopyrin, I. A.)

Influence of firing temperature and schedule on the structure-formation and strengthening processes of fluxed iron-ore pellets. Communication 2. [Izv. VUZ. Chern. Met., 1971, (10), 25-29] (R)

BISI 10002 (E. Karapetyan and A. Rodina)

Phase chemical analysis of highly  $\gamma$ -basic sinter. [Obagaschenie Rud., 1968, 13, (5), 38-39] (R)

BISI 10150 (N. G. Makhanev, et al.)

Use of fine fractions of fluxed sinter in pellet production. [Izv. VUZ Chern. met, 1971, (12), 30-34] (R)

BISI 10301 (G. N. Namyatov and V. K. Gruzinov)

Quantitative estimation of convective heat transfer under sinter-cooling conditions in a laboratory sintering pot.

[Izv. VUZ Chem. Met., 1972, (2), 24-27] (R)

### Ironmaking and Ferro-Alloys

BISI 9846 (K. Engel.)

Report on the 3rd international Blast furnace refractories conference, Paris, oct. 1970

[Stahl Eisen, 1971, 91, (19), Sept. 16, 1103-1105] (G)

BISI 9999 (W. Wenzel et al.)

Comparative investigations to determine the effect of formed coke on gas flow through the blast furnace charge.

[4th Internat Cont. on Ironmaking, VZKG, Ostrava, 1970, Nov.] (Cz)

BISI 10224 (G. A. Panev et al.)

Equipment for the coal-dust line and blast-furnace operating conditions with coal-dust and natural-gas injection.

[Steel'. 1972, (1), 10-14] (R)

BISI 10304 (A. I. Kuprin et al.)

Experimental investigation of the gravity hydraulic conveying of sinter spillage.

[Izv. VUZ Chern. Met., 1972, (2), 33-37] (R)

BISI 10305 (T. I. Slamchinskaya and I. D. Semikin)

Influence of burden iron content on blast furnace productivity.

[Izv. VUZ Chern. Met., 1972, (2), 42-47] (R)

BISI 10318 (I. I. Koblyakov and A. B. Ermakov)

Combined influence of technological factors on the economic indices of operation of modern blast furnaces.

[Izv. VUZ Chern. Met., 1972, (2), 174-9] (R)

### Steelmaking

- BISI 9842 (B. Mahner)  
Process control in an electric steel works.  
[Klepzig Fachber., 1971, 79, 99-104] (G)
- BISI 9855 (Vanicek, V.)  
Effect of quality lime and pig iron on the tandem furnace steelmaking process.  
[Hutn. Listy, 1971, (4), 262-265] (Cz)
- BISI 9862 (Kafka, V. and Bužek, Z.)  
New method of determining the production costs of electric steelmaking.  
[Hutn. listy., 1971, (3), 171-179] (Cz)
- BISI 9915 (R. Reinders and W. Heller)  
Production of rail steels of low hydrogen content according to the basic oxygen converter process. [Stahl Eisen, 1970, 90, (26), 1489-1496] (G)
- BISI 10126 (Demin, G. I. et al.)  
On the choice of the optimum parameters for oxygen lances.  
[Izv. VUZ. Chern. Met., 1967, (5), 158-162] (R)
- BISI 10245 (S. M. Baranov, et al.)  
The melting of low temperature open hearth-steel (17gs grade) deoxidized without silicon.  
[Stal', 1972, (1), 40] (R)
- BISI 10246 (Troskunov, Ya. L. et al.)  
Features of the 55pp steel production process.  
[Stla', 1972, (1), 42-43] (R)
- BISI 10247 (L. S. Rybakov)  
Yield of molten steel from open-hearth furnaces increased by improving the slag conditions.  
[Stal, 1972, (1), 48] (R)
- BISI 10313 (Yu. G. Strel'chenko, et al.)  
Electric arc reformer for the fuelling of oh furnaces. [Stal', 1972, (2), 177-178] (R)
- BISI 10320 (V. I. Yakushin, et al.)  
Quality of 08Yu steel melted in an intensively oxygen-lanced twin-bath furnace.  
[Stal' 1972, (2), 122] (R)

### Extraction and Refining

- BISI 10171 (K. Guddas and B. Gerstenberg)  
Electrolytic desulphurization of iron.  
[Stahl Eisen, 1968, 88, 1476-77] (G)
- BISI 10190 (Anon.)  
The largest steel degassing plant in the world

is at bruckhausen B.O.S. plant.

- [Unsere ATH, 1971, 17, June-July, 7] (G)
- BISI 10200 (Belgian Patent Centre de Recherches Metallurgiques.)  
Desulphurizing process for iron and steel using a coated granular additive.  
[Belgian Patent 768-210]
- BISI 10252 (B. S. Natapov et al.)  
The effect of additions on the formation of the structure of 08Yu steel thin sheet rolled stock.  
[Stal, 1972, (1), 82-83] (R)
- BISI 10306 (V. I. Baptismanskii et al.)  
Kinetics of hydrogen removal from the boiling metal (bath) [Izv. VUZ Chern. Met., 1972, (2), 52-55] (R)

### Engineering

- BISI 10157 (A. Kohler)  
Steel supports of hollow structural sections for heavy loads.  
[Bander Bleche, 1972, (1), 36-37] (G)
- BISI 10174 (German Standard)  
Steel waste pipes and fittings with spigot and socket joints.  
[German Standard DIN 19530, 1970, Oct.]
- BISI 10206 (German Standard)  
Screwed steel pipe fittings. [DIN 2987 sheets 1 and 2, 1962, June DIN 2990, 1962, June DIN 2988, 1959, Aug]
- BISI 10211 (German Standards)  
Screwed steel pipe fittings.  
[DIN 2991, 1963, Apr. DIN 2993, 1962, Aug. Oin 2986, 1959, Aug. DID 2990, Draft, 1970, July. DIN 2991, Draft, 1970, July.]
- BISI 10248 (Pimenov, A. F. et al.)  
Industrial lubricant for the cold-rolling of tin-plate. [Stal', 1972, (1), 59-62] (R)
- BISI 10273 (Verein Deutscher Ingenieure)  
Pipelines in chemical installations. summary of regulations and standards.  
[Draft VDI-Richtlinien 2770, 1971, May, 11pp] (G)
- BISI 10288 (J. Ulbricht.)  
Progressive helical compression springs with variable wire diameter for vehicle construction.  
[ATZ, 1969, 71, (6), 198-201] (G)