

## 資料室だより

## BISI Translation 紹介

— No 52 —

## BISI Translation の特長

英国鉄鋼業界、BISRA および The Metals Society 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 Ironmaking and Steelmaking 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。

“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。Tel. (279) 6021

## BISI Translations List No 721~722, 724~725

**Management planning and control**

## BISI 12520 (E. I. Masterovoi)

Detoxification of cyanide-containing waste water and aludges in the recycled-water supply system of gas-cleaning installations in ferro-chromium production.

[Stal', 1974, (4), 378-380] (R)

**Physical structure of materials and crystallography**

## BISI 11835 (M. Tvrđy, et al.)

Present aspects of resistance against failure in high strength steels.

[Sbornik VSB Ostrava, 1971, (3), 159-82] (C)

**Physical metallurgy and metallography**

## BISI 12579 (V. A. Grigoryan, et al.)

Dynamic surface effect of dissolution of pyrographite in Fe-C and Ni-C melts.

[Izvest. VUZ Chern. Met., 1974, (5), pp. 55-58] (R)

## BISI 12582 (E. S. Filippov)

Reasons for the grouping formation, destructuring melting and boiling of molten metals.

[Izvest. VUZ Chern. Met., 1974, (5), pp. 115-121] (R)

## BISI 12479 (M. Gergely)

A suggested method for the calculation of hardening strains on the basis of transformation properties of the steel.

[HTM, 1972, 27, (3), 184-186] (G)

## BISI 11844 (M. Slesar, et al.)

Micromechanism of cementite function in embrittlement of low carbon steels.

[Kovove Mat., 1973, (2), 163-172] (C)

**Physical properties and chemical analysis**

## BISI 12166 (W. Schwenzfeier, et al.)

Contact-less speed measurements.

[BHM, 1972, 117, (Nov.), 445-451] (G)

## BISI 12071 (R. Rejc)

The determination of the coefficient of thermal conductivity of metal and ceramic materials.

[Sbornik VSB Ostrava, 1972, (2), 81-87] (C)

## BISI 12527 (V. M. Vozdvizhenskii, et al.)

The possibility of using the micro-hardness method to investigate the process of thermal-fatigue failure.

[Izv. VUZ Chern. Met., 1974, (4), 136-139] (R)

**Mechanical properties and material defects**

## BISI 11932 (M. Hempel)

The effect of some technological factors on the fatigue strength of steels.

[Draht, 1960, 11, (9), 589-600] (G)

## BISI 11933 (A. Buch)

Evaluation and assessment of the effect of size in fatigue tests on unnotched specimens and components.

[Arch. Eisen, 1972, 43, 895-900] (G)

## BISI 12561 (J. Chvojka)

Ultrasonic inspection of plate, and the effect of steelmaking technique on the occurrence of defects.

[Hutník, 1974, 24, (1), 18-22] (C)

## BISI 12518 (A. V. Leites &amp; E. I. Akimova)

A metallographic method of evaluating the susceptibility of carbon steel to hot cracking.

[Stal', 1974, (4), 357-358] (R)

## BISI 12528 (A. Ya. Kharnov)

Investigation of the special features of the dynamic failure of cast irons.

[Izv. VUZ. Chern. Met., 1974, (4), 140-143] (R)

**Corrosion and corrosion testing**

## BISI 11828 (V. Cihal)

A potentiodynamic method for assessing the sensitivity of stainless steels to intercrystalline

corrosion.

[Kovove Mat., 1973, (1), 86-89] (C)

BISI 6982 (A. Bartoh & Z. Bartohova)

Results and evaluation of an atmospheric corrosion test on steel, copper, and zinc in a czechoslovakian testing.

[Kor. Och. Mat., 1968, 12, (4), 69-74] (C)

BISI 12360 (K. Barton, et al.)

Calculation of atmospheric corrosion rate from meteorological and aero-chemical data.

[Koroze a ochr. Mat., 1973, 17, (5), 85-89] (C)

### Protection of materials

BISI 12309 (W. Pappert)

Ternal-a new surface-treated sheet.

[Estel-Berichte aus Forschung und Entwicklung unserer Werke. 1974, (1), 24-32] (G)

BISI 12505 (M. Novak)

Research into the protective coatings applied to eliminate scale formation and decarburization in steel.

[Strojirenstvi, 1973, (3), 599-601] (C)

BISI 11910 (R. Massini)

Influence of steel composition on the corrosibility of tinplate in weakly acidic media containing organic acids.

[Industria Conserve, 1972, 47, (4), 255-264] (I)

BISI 12437 (G. Prassler)

Evaluation of the influence of the electrolyte constituents on the polarisation of nickel anodes.

[Neue Hutte, 1973, 18, (6), 342-346] (G)

BISI 12519 (V. A. Golomazov and Yu. V. Fecktistov)

Small component production: Accelerating the production of brass-coated wire for metal cord.

[Stal', 1974, (4), 367-369] (R)

BISI 12572 (F. I. Matveenkov)

Production of steel-copper sheet composites.

[Stal', 1974, (5), 435-436] (R)

BISI 12451 (F. Weber)

The manufacture and properties of hot-dip aluminised sheet.

[Stahl und Eisen, 1974, 94, (5), 28th Feb., 187-193] (G)

BISI 11757 (German Patent)

Device for the retention of liquid on fast-running metal strip.

[German Patent 2, 147-180, 29th March 1973] (G)

### Rolling

BISI 12523 (B. M. Ilyukovich)

The theoretical investigation of the process of rolling passes.

[Izv. VUZ Chern. Met., 1974, (4), 69-73] (R)

BISI 11948 (I. Frantiu)

Determination of rolling forces in the manufacture of heavy austenitic steel plates.

[Metalurgia, 1973, 25, (3), 113-118] (Ru)

BISI 12461 (J. Heidepriem, et al.)

Present state and development trends in the use of process computers for rolling heavy plates.

[Stahl Eisen, 1974, 94, (8), 336-343] (G)

BISI 11873 (Z. Zamyslovsky & J. Konvicny)

Methods of calculating the streed in rolling.

[Sbornik VSB Ostrava, 1972, (1), 1-31] (C)

BISI 12650 (P. Jargstorf & H. Hartman)

On the problems regarding the difference in the degree of elongation over the width of cold-rolled plate and strip.

[Neue Hutte, 1974, (5), 275-282] (G)

BISI 12167 (F. Kusters, et al.)

Roll pass designs and roll accessories for continuous cooling Mills.

[Klepszig Fachber 80, (10), 128, 1972, 477-484] (G)

### Metal working excluding rolling

BISI 12417 (P. I. Polukhin, et al.)

Investigation of the process of longitudinal rolling of tubes in vacuum.

[Izv. VUZ Chern. Met., 1974, (3), 65-68]

BISI 12573 (O. A. Troitskii)

The electroplastic stretching and drawing of steel.

[Stal', 1974, (5), 450-453] (R)

BISI 12352 (G. Oehler)

Deformations occurring on deep-drawing of flat parts strengthened with ribs from sheet steel.

[DFBO Mitt., 1969, 20, (12), 241-247] (G)

BISI 11854 (J. Papcun)

The influence of technological conditions in production upon the change of  $\gamma$ -value.

[Hutnicke listy, 1973, (2), 128-132] (C)

BISI 12710 (W. Heiss)

High speed grinding in the ball bearing industry.

[Fachberichte-fur Oberflachentechnik, 1973, (12), 23-25] (G)

BISI 12469 (Z. Marchiniak, et al.)

New cold forming process for machine components.

[VDI-Z, 1973, 115, (8), 9-11] (G)

### Steel and alloys (technical applications and methods of production) cermets

BISI 12481 (W. Bartholme, et al.)

Determination of the machinability of free-cutting steels by means of the cross-milling process.

[Stahl und Eisen, 1972, 92, (9), 405-411] (G)

BISI 12438 (A. B. Mende & R. Oppenheim)

Studies of the recrystallization behaviour of cold-formed X10NiCrAlTi 32 20 (thermax 21/33).

[D. E. W. Tech. Ber., 1973, 13, (1), 19-22] (G)

BISI 12435 (A. P. Bond, et al.)

Comparative investigations on the corrosion of stainless steels in chloride-containing waters.

[DFBO Mitt., 1973, 24, 86-90] (G)

BISI 11860 (E. Janda, et al.)

Effect of perfection in texture on the magnetic properties of transformer sheet.

[Hutnicke Listy, 1973, 28, (3), pp. 202-209] (C)

BISI 11846 (F. Sicha)

Present state and development of steels for welded structures and equipment.

[Zvarnanie, 1973, (4), 97-99] (C)

BISI 12524 (Yu. G. RUFANOV)

The mechanism by which steels are decarburized during vacuum-hydrogen-vacuum cycles.

[Izv. VUZ. Chern. Meth., 1974, (4), 114-115] (R)

BISI 12374 (K. Wangnick)

The choice of favourably-priced materials for sea water desalination plants.

[Tech. Mitt. Krupp. Werksber, 1972, 30, (4), 175-182] (G)

BISI 1244 (I. Opik)

Corrosion resistance of superheater steels under the influence of ash deposits.

[VGB Kraftwerkstech., 1973, 53, (8), 539-542] (G)

### Casting and cast metals

BISI 12401 (L. A. Charikhov, et al.)

Automatic regulation of the steel level in the tundish of a continuous steel casting plant.

[Stal', 1974, (3), 213-215] (R)

BISI 12376 (T. Pelli and H. Zoller)

The development of internal stresses and structural deformations during the continuous casting of aluminium alloys.

[Metall. 1972, 26, (3), 214-218] (G)

BISI 12547 (A. Trautwein, et al.)

Whirlgate for the manufacture of large steel castings.

[Giesserei, 1974, 61, (10), 304-310] (G)

BISI 12488 (P. Sykora)

Nodular iron quality dependent on the time elapsed from inoculation and on the wall thickness of castings under full-scale conditions at the CKD works, Prague.

### Heat treatment

BISI 12472 (C. Amsallen)

Influence of surface treatment by electrolysis in fused salts on the resistance to seizure and wear of a close hardened steel.

[Rev. Met., 1970, Nov. 945-957] (F)

### Heating, heating furnaces and electric heating

BISI 12571 (N. N. Rykalin)

Plasma processes in the metallurgy of steels and alloys.

[Stal', 1974, (5), pp. 425-428] (R)

### Fuel combustion and refractories

BISI 10013 (H. Wierich and H. E. Schwiete)

Influence of furnace atmosphere on the hot compression strength of different refractories.

[Ber. Dt. Keram. Ges., 1971, 48, (5), 210-215] (G)

BISI 11055 (Z. Medricky)

Possibilities of stabilisation of the mechanical properties of coke.

[Hutnik, 1972, (9), 321-326] (C)

BISI 12069 (M. Rédr and A. Říman)

The determination of theoretical temperature in metallurgical furnaces.

[Sbornik VSB Ostrava 1972, (2), 57-69] (C)

BISI 12350 (E. Forster, et al.)

Mathematical model of coke gasification.

[Arch. Eisen, 1974, 45, (3), 197-205] (G)

BISI 12068 (M. Rédr)

On the optimalization of heating furnace linings.

[Sbornik VSB Ostrava 1972, (2), 43-56] (C)

BISI 12586 (I. P. Fominykh, et al.)

Fireclay rich in aluminium oxide for investment casting.

[Izvest. VUZ Chern. Met., 1974, (5), pp. 160-162] (R)

### Welding and joining

BISI 12489 (A. Zapletalek)

Operational failures of weld joints of high-alloy steels.

[Zvaranie, 1973, (12), 363-368] (C)

BISI 12685 (B. V. Danil'chenko)

Selecting the optimum composition for a nickel-based erosion-resistant hard facing alloy.

[Avtomaticheskaya Svarka, 1974, (2), 32-34] (R)

BISI 12683 (I. I. Sushchuk-Slyusarenko, et al.)

Some ways of increasing output in electroslag welding.

[Avtomaticheskaya Svarka, 1974, (2), 46-48] (R)

BISI 12684 (G. V. Ksendzyk)

Calculating the speed of cylindrical electroslag hard facing with a large-section electrode.

[Avtomaticheskaya, 1974, (2), 35-36] (R)

BISI 12686 (V. M. Semyonov, et al.)

Deformation in electroslag welding of alloy steels.

[Avtomaticheskaya Svarka, 1973, (10), 52-54] (R)

BISI 12681 (V. M. Shekera, et al.)

Stresses in electroslag weld-facing of cylindrical parts.

[Avtomaticheskaya Svarka, 1974, (1), 32-35] (R)

### Ores and minerals handling and beneficiations

BISI 12567 (V. A. Utkov, et al.)

Strengthening sinter with red mud.

[Stal', 1974, (5), pp. 397-400] (R)

BISI 12082 (A. E. Lebedev)

Determination of the optimum carbon content in the mix for two-mix sintering with the use of an electronic computer.

[Izv. VUZ. Chern. Met., 1973, (10), 36-39] (R)

BISI 12511 (B. T. Petrovskii and I. I. Tselikovskii)

Automatic water supply to a pelletizing drum on an impulse provided by the presence of mix on the inclined conveyor belt.

[Stal', 1974, (4), 304] (R)

BISI 11841 (V. Mihalik & R. Duda)

Mineralographic examination of the products of magnetic separation of a spathic iron ore.

[Rudy, 1973, 21, (4), 97-100] (C)

### Steelmaking

BISI 12577 (M. A. Glinkov, et al.)

Investigation of the dynamics of scrap melting in molten open-hearth bath.

[Izvest VUZ Chern. Met., 1974, (5), pp. 27-31]

(R)

BISI 12412 (N. I. Pevnyi, et al.)  
Some laws for the formation of oxides of nitrogen in open-hearth furnaces.

[Stal', 1974, (3), 283-285] (R)

BISI 12587 (A. E. Abroximov & B. N. Okorokov)  
Some of the problems of controlling the oxygen converter process from the converter noise during the blow.

[Izvest. VUZ Chern. Met., 1974, (5), 180-185] (R)

BISI 12400 (G. I. Demin, et al.)  
Design and exploitation of oxygen roof lances.

[Stal', 1974, (3), 209-213] (R)

BISI 12569 (L. I. Koslov & M. A. Chernenko)  
Development of the design of twin-hearth steel-making furnaces.

[Stal', 1974, (5), 417-422] (R)

BISI 12354 (P. V. Riboud)

Study of fluxes for limes.

[C. D. S. Circ., 1974, (2), 399-411] (F)

BISI 12676 (L. Faletti and P. L. Noferi)  
Technical problems in the supply of electrical energy to the iron and steel industry.

[International Congress on the Electric Arc Furnace in Steelmaking (IRSID) 7-9 June, 1971] (I)

BISI 12363 (J. Antoine)

First results from irsid continuous electric furnace.

[CDS Circ., 1974, (2), 387-398]

#### Extraction and refining

BISI 12349 (I. I. Kobylyakov)  
Indices and methods of analysis of the effectiveness of utilizing reserves of capacity of existing metallurgical plants. Communication 2.

[Izv. VUZ. Chern. Met., 1974, (2), 183-186] (R)

BISI 12501 (J. Cizner & R. Krejci)

The effect of various techniques of final steel deoxidation on the morphology and chemical composition of non-metallic inclusions.

[Hutn. Listy, 1973, 28, (12), 847-856] (C)

BISI 12576 (E. V. Veitsman)

Some questions of the theory of carbon oxydation in an Fe-C melt.

[Izvest VUZ Chern. Met., 1974, (5), pp. 13-20] (R)

BISI 12578 (G. N. Elanskii, et al.)

The Process of removing non-metallic inclusions during the boil in the open-hearth furnace bath.

[Izvest VUZ Chern. Met., 1974, (5), pp. 44-48] (R)

BISI 11687 (Voest AG)

Enamelling steel.

[West German Patent 2 151 058, 5th April 1973] (G)

BISI 12521 (S. I. Filippov & C. V. Laktionov)

Kinetic parameters of the combined oxidation of carbon and chromium with extensive oxidising refining of a metal bath.

[Izv. VUZ Chern. Met., 1974, (4), 14-20] (R)

BISI 12757 (K. Knop & H. W. Rommerswinkel)

Kinetics of deoxidation and desulphurization of steels melts by calcium.

[Arch. Eisenh., 1974, 45, (8), 493-497] (G)

BISI 12522 (E. I. Kadinov, et al.)

Optimizing the control parameters for the argon-oxygen refining of a high alloy melt.

[Izv. VUZ Chern. Met., 1974, (4), 51-54] (R)

BISI 12570 (V. A. Medvedev)

Improvement in metal scrap preparation quality for steelmaking units.

[Stal', 1974, (5), 424] (R)

BISI 12180 (Lesur and Loubert)

Use of plant by-products as raw materials in pig iron production.

[Bull. Tec. Usinor., 1973, (3), 79-82] (F)

#### Engineering

BISI 12244 (D. Naudeix and J. Quinton)

The operating efficiency of boiler installations.

[Gaz d'aujourd' hui, 1973, 97, (2), 49-55: 55-58] (F)