

## 資料室だより

### BISI Translation 紹介

— No 40 —

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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。

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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、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 671～675

##### **Management planning and control**

BISI 10426 (V. Fuschlberger)

Transport costs in Iron and steel works.  
[BHM, 1972, Mar., 59-68]. (G)

BISI 10850 (M. Jokl)

The minimal work/rest requirements in hot plants.  
[Arbeit Leistung, 1970, 24, (5)] (G)

SBII 11046 (L. Smid, et al.)

Application of simulation in the organisation of steel plant operation.  
[Hutnik, 1972, (6), 228-232] (—)

BISI 11484 (R. Friendl)

The optimum control of energy supply in steel works.  
[Stahl Eisen, 1971, March, 256-261] (G)

BISI 11714 (Anon)

Special carbon steels and alloy steels for surface hardening  
[Ital. spec. UNI 5333-64, 1964] (I)

BISI 11720 (Anon)

Hot rolled sheet products  
[Ital. spec. UNI 6012-67, 1967] (I)

BISI 11722 (Anon)

Semifinished steel products-dimensions and tolerances  
[Ital. spec. UNI 7063-71, 1972] (I)

BISI 11723 (Anon)

Round bars of plain carbon or alloy steel drawn or scalped and rolled  
[Ital. spec. UNI 5945-67, 1967] (I)

##### **Physical Structure of Materials and Crystallography**

BISI 11555 (M. Nacken, et al.)

Investigations on the effect of dissolved carbon and nitrogen on the damping and strength properties of a rimmed low carbon steel.

[Arch. Eisenh., 1970, 41, (7), 629-637.] (G)

##### **Physical metallurgy and metallography**

BISI 11131 (J. Just. and W. Altgeld.)

Electrolytic and mechanical polishing of iron-carbon alloys.

[Z. Metallk., 1961, 52, (6), 410-413.] (G)

BISI 11364 (R. Freiwillig. and J. Kudrman.)

Effect of step transformation on growth kinetic of bainite.

[Kovové Materiály, 1972, (5), 443-456.] (C)

##### **Physical properties and chemical analysis**

BISI 10182 (H. Neumann)

Measurement of coercive force  $H_c$

[Arch. Techn. Messen, 1939, V957-1, Feb.] (G)

BISI 10183 (H. Neumann)

Measurement of coercive force  $H_c$

[Arch. Techn. Messen, 1939, March, 957-2] (G)

BISI 10953 (M. Guinnet et al.)

Contribution to sampling and determination of hydrogen in liquid steel.

[Extract from "L'Hydrogen dans les Metaux", Volume 1, 1-9] (F)

BISI 11618 (N. I. Yalovoi, et al.)

Temperature changes in semi-finished rolled Products during rolling in a 1700 mill.

[Izu. VUZ. Cheen. Met. 1973, (4), 109-112] (R)

BISI 11627 (M. K. Kleiner et al.)

Local flows of heat in an enclosed space with a Variable wall temperature.

[Izv. VUZ. Chern. Met.. 1973 (4) 153-157] (R)

BISI 11632 (V. I. Yavoiskii, et al.)

Continuous monitoring of the carbon content in steelmaking units.

[Stal, 1973, (4), 318] (R)

BISI 11670 (E. Sebastiani, et al.)

Results of the atomising method using measured volumes of liquid samples by A-A-S.

[Z. Anal. Chem 1973 264 105-109] (G)

**Mechanical Properties and Material Defects.**

- BISI 8677 (Z. Bužek, et al.)  
Effect of deoxidation methods on mechanical Properties, type and composition of sulphide inclusions in electric steel for castings [Slevarenství, 1969, 17, (10), 398-404] (C)
- BISI 10446 (J. Kermes)  
Low-cycle fatigue of some czechoslovak carbon and creep-resisting steels. [Strojirenství, 1972, (2), 90-95] (C)
- BISI 10485 (I. Hrvnak.)  
Metallurgical aspects of hot crack formation in welded joints of micro-alloy steels [Zvaranie 1972, (4) 104-108] (C)
- BISI 10874 (B. Vyslotski & S. Shymura.)  
Domain structures around non-metallic inclusions in the alloy Fe-3. 25% Si. [Acta Physical Polonica, 1971, A39, (6), 727-30] (R)
- BISI 11068 (Z. Ministr.)  
Sterology and mercury porosimetry. [Pokroky Práskové Met., 1971, (3), 3-17.] (C)

- BISI 11264 (A. Mores and V. Chvála)  
The Effect of Internal Defects on the Mechanical Properties of Castings [Slévárenství, 1972, (11), 451-456] (C)
- Corrosion and corrosion testing**

- BISI 8640 (J. Honzák.)  
Occurrence of sulphate nests in rust during the atmospheric corrosion of steel-1. [Werkstoffe Korr., 1970, 21, (5), 342-346.] (G)
- BISI 11249 (J. Venczel & G. Wranglein.)  
Electrochemical investigations of soft carbon steel under mechanical load in corrosive alkali and nitrate solutions [Corros. Sci., 1964, 4, 137-158] (F)

**Protection of materials**

- BISI 10284 (E. Meckelburg.)  
Production and use of plastic coated strip and sheet made of steel. [Blech Rohre Profile 1972, 2, 53-56.] (G)
- BISI 10721 (G. Gurtler and K. Sagel.)  
Growth layers in the reaction of solid iron with melts of aluminium and aluminium alloys. [Z. Metallk., 1955, 46 (10), 738-741] (G)
- BISI 10722 (E. Gebhardt and W. Obrowski)  
Reactions of solid iron with melts of aluminium and aluminium alloys. [Z. Metallk., 1953, 44, 154-160] (G)
- BISI 10723 (T. Heumann and S. Dittrich)  
Kinetics of the reaction of solid and liquid aluminium with iron [Z. Metallk., 1959, 50, (11/10), 617-625] (G)
- BISI 10731 (H. Klammer.)  
General principles for the selection of the Heating installation and the construction of galvanising furnaces. [Stahl und Eisen 1972, 92 (10) 11th May 439-445] (G)

- BISI 10949 (U. Tenhaven and B. Meuthen)  
Pretreated steel sheet for one coat enamelling [Werkestoffe Korr., 1972, 23, (8), 664-667] (G)

- BISI 11319 (W. Stegmaier.)

- The enamellability of steel. [Metalloberfläche, 1967, 21, (12), 632-64] (G)
- BISI 11434 (German Standard)  
Polyethylene coatings of steel tubes for gas- and water supply.

**Rolling**

- BISI 11226 (M. Populus.)  
The 4-stand tandem mill and continuous pickling line at biache-saint-vaast works. [Rev. Met 1972 68 (10) 687-692] (F)
- BISI 11281 (M. Hajduk, et al.)  
Establishing the mean values of inherent deformation resistance in basic steel types for hot rolling. [Hutn. Listy, 1972, 8, 567-571] (C)
- BISI 11307 (W. Schwenzfeier.)  
Possibilities and limitations of modern rolling mill technology [Arch. Eisen., 1971, 12, (10), Oct. 707-712] (G)
- BISI 11308 (J. Plante.)  
Hydraulic screw-down and control of thickness. [CDS. Circ. 1972 29 (1) 227-234] (F)
- BISI 11582 (W. Niedertrake.)  
Back up for plate rolling [Stahl Eisen, 1973, Apr., 345-351] (G)
- BISI 11602 (H. Kammerreck et al.)  
High strip speed as plant technology problem in strip processing lines, conditions for speed exploitation. [Stahl. und Eisen 1973 93 (10) 421-429] (G)
- BISI 11617 (V. A. Nikolaev, et al.)  
Apparatus and procedure of determination of the power and force parameters during rolling on a three-stand test mill. [Izv. UVZ Chern. Met., 1973, (4), 123-126] (R)

- BISI 11642 (J. Loose et al.)  
Influence of temper rolling on surface roughness of cold rolling strip. [Neue Hütte 1973 May (5) 307-312] (G)

- BISI 11719 (Anon)

- Hot rolled bar tolerances.

- [Ital. spec. UNI 5401-64 1964] (I)

**Metal working excluding rolling**

- BISI 10221 (K. Papež)  
Cutting forces measuring in lathe-turning work [Strojirenství 1971, (12), 739-746] (C)
- BISI 10386 (J. Brockhaus. and H. Singer.)  
Countercut-strip steel its characteristics and deformation properties. [Blech Rohre Profile., 1972, (4), 137-42.] (G)
- BISI 10445 (J. Tichý.)  
Effect of cold working rate on plastic properties and strengthening of MnNb steel for helically formed welded tubes. [Hutn. Listy, 1972, (2), 130-33] (C)
- BISI 10482 (V. Zabavnik, et al.)  
Increasing the useful life of the forging tools in multistep forging machines. [Strojirenství, 1972, (3), 160-164] (C)

## BISI 10499 (N. Matei.)

Influence of some factors upon flaw generation on the internal face of tubes manufactured by automatic rolling

[Metalurgia, 1972, (1), 17-21] (Ru.)

## BISI 11036 (Z. Pešek)

Changes in roughness of the surface of cold/rolled steel sheet as related to relative elongation.

[Strojirenstvi, 1972, (8), 582-487] (C)

## BISI 11151 (V. I. Chekhonadskikh)

Methods of heating forging dies

[Kuzn. Shtamp. Proizv., 1972, (3), 47-48] (R)

## BISI 11158 (C. Oehler)

The use of complex aluminium bronzes in making dies for forming sheet

[Ind. Anz., 1971, 93, Oct. 8, 2080-4] (G)

## BISI 11234 (N. Matei and Gh. Avram)

Manufacture of high-alloy (stainless) steel on a stossbank Mill-train.

[Metalurgia, 1972, (11), 740-41] (Ru.)

## BISI 11343 (German Patent)

Process for the extrusion of steel sections using vitreous lubricant viscous at extrusion temperature.

[German Patent 1 124 309] (G)

## BISI 11352 (German Patent)

Process and apparatus for the manufacture of single-weld shaped tubes.

[German Patent 2.214 070, 1972, Nov., 23] (G)

## BISI 11431 (H. Kaiser.)

Possibilities of testing lubricants for use in the cold and hot extrusion of steel.

[Industrie-Anzeiger, 1971, 93, 5th Nov. 2311-2313] (G)

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

## BISI 6733 (F. Schwier and H. J. Bockenhoff)

The behaviour of high-strength steel wire under multi-Axial fatigue stresses.

[Stahl. Eisen. 1968, 88, (10) 492-499] (G)

## BISI 8581 (B. Zacharzewski. and C. Lesniak.)

Regeneration of constituents of sintered carbide scrap.

[Hutnik, 1953, 20, (3), 83-93.] (Po)

## BISI 9919 (H. Rachmantio, et al.)

Study of the magnetic aging of steels with additions of niobium, titanium or zirconium.

[Arch. Eisenh., 1970, 41 (11), 1095-1102.] (G)

## BISI 10447 (D. Kohút)

Mechanical properties of austempered Cr-Si steel.

[Strojirenstvi, 1972, (2), 105-108] (C)

## BISI 10449 (N. Dragan, et al.)

Investigation into the influence of technological factors upon the mechanical properties of niobium-and-nitrogen microalloyed structural steels.

[Metalurgia, 1971, 23, (12), 773-778]. (Ru)

## BISI 10480 (F. Beneš and P. Škvor)

Effect of copper and tin on the creep-resistance properties of CrMoV steels

[Hutn. Listy, 1972, (3), 197-200] (C)

## BISI 10486 (M. Zidek.)

Effect of carbon content on mechanical properties of stainless austenitic steels.

[Hutn. Listy, 1971, (12), 867-873] (C)

## BISI 10497 (A. Kundacgian, et al.) (from Rom.)

Carbon steel, with or without low chromium and nickel contents, microalloyed with boron

[Metalurgia, 1972, (1), 6-11] (Ru)

## BISI 10713 (W. Heller.) (from Ger.)

The development and further development of the quality and service properties of modern rail steels

[ETR-Eisenbahntechn. Rdsch, 1971, (1/2), Jan-Feb., 71-78] (G)

## BISI 10792 (O. Kastanek.)

The effect of titanium on structure and properties of cast high-speed steels with 9% W.

[Hutn. Listy, 1972, (3), 172-8.] (C)

## BISI 11403 (N. Geru, et al.)

Influence of heat treatments upon the structure and thermal expansion of invar type Fe-Ni Alloys.

[Bul. Inst. Polytechnic Gheorghe-Dei, Bucharest 1971, 5, Sept./Oct., 137-44]. (Ru)

## BISI 11502 (B. Bersch and G. Juretzko)

Weldability of pearlite-free higher-strength structural steels.

[Schweißen Schneiden, 1972, 24, Nov., 440] (G)

## BISI 11503 (H. W. Grasshof, et al.)

Effect of cooling conditions from the rolling temperature and of subsequent heat treatment on the mechanical properties and structure of titanium-containing weldable high-strength fine grained cold and hot structural steel strip.

[Heosch Ber., 1971, 6, (4), 136] (G)

## BISI 11531 (T. V. Senina, et al.)

Properties of tube rounds and tubes of EP 752-steel

[Stal., 1973, (3), 269-271] (R)

## BISI 11641 (R. Oppenheim)

Investigation of a ferritic 13% Cr-Al-Si-Ti steel for exhaust gas purification units.

[DEW-Tech.. Berichte 1973 13 (1) 11-18] (G)

## BISI 11700 (S. I. Shapovalov)

The effect of variation in the chemical composition of 10-steel on the quality of cold-headed wire.

[Stal 1973 (5) 467-468] (R)

## BISI 11715 (Anon)

Tonnage steels for forging.

[Ital. spec. UNI 673-674 1938] (I)

## BISI 11721 (Anon)

Plain carbon or low-alloy general Purpose steel semifinished products for open-die forging and drop-forging.

[Ital. spec. UNI 6783-71. 1971] (I)

**Casting and case metals**

## BISI 10528 (M. Mikulčák.) (from Cz.)

Equipments for ascertaining the quality of cast iron by means of cooling curves, type CE 520

[Slevarenstvi, 1971, (12), 486-488] (C)

- BISI 11152 (D. B. Wolter)  
Annual review of alloyed cast iron  
[Giesserei, 1967, 54, Mar. 16th, 161-5] (G)
- BISI 11416 (V. I. Bedarev, et al.)  
Effect of the composition of inoculated molten conversion pig iron on ingot mould life.  
[Stal', 1973, (1), 32-33.] (R)
- BISI 11716 (Anon.)  
Ingots, blooms billets and slabs,  
[Ital. spec. UNI 2638.] (I)
- BISI 11717 (Anon.)  
Billets and blooms.  
[Ital. spec. UNI. 2639.] (I)
- BISI 11718 (Anon.)  
Rectangular blooms billets and slabs.  
[Ital. Spec. UNI 2640.] (I)
- Heat Treatment.**
- BISI 11345 (German Patent.)  
Process and apparatus for hardening the internal surfaces of hollow bodies.  
[German Patent 2 126 874, 1972, Dec., 7.] (G)
- BISI 11372 (A. Morlani and W. Nicodemi)  
Effect of stress relieving treatment of the mechanical properties of pearlite steels for containers used at low temperatures.  
[La Metallurgia Italiana 1970 (7) 275-282] (I)
- BISI 11552 (J. Parisot, et al.)  
Study of the precipitation in iron-carbon nitrogen alloys by measurement of the internal friction by means of a B1-frequency pendulum.  
[Rev. Mét. Mém. Sci., 1969, 66, (2), 105-115.] (F)
- Fuel combustion and refractories**
- BISI 11615 (M. N. Kucheryavyi, et al.) (from Russ.)  
Effect of the quality of refractories and technological factors of basic Oxygen converter heats on the lining life of 250 tonne converters.  
[Stal., 1973, (4), 329] (R)
- BISI 11729 (L. Ciupka.)  
Research on the use of formed coke in blast furnace burdens  
[Koks Smola, Gaz 1972, part 1 (7/8), 206-212  
II (9), 258-264] (Po)
- Welding and joining**
- BISI 10954 (F. Jargon & E. Maschke.) (from Ger.)  
Influence of the chromium passivation layer on the solderability of electrolytic tinplate  
[Verpackungs-Rund., 1972, (9), 1064-66] (G)
- BISI 11338 (T. Salagean et al.)  
Stress relief cracking of welded steel structures  
[Constructia de Masini R.S.R., 1972, (9), 503-507] (Ru.)
- Ores and minerals handling and benefications**
- BISI 10295 (D. Trojka) (from Cz.)  
Operational pre-conditions for adopting automatic sinter quality control.  
[Hutnik, 1971, (11), 396-401] (C)
- BISI 10926 (B. Schett. and K. Hedemann.)  
Modern ore processing plant with sintering section preceding blast furnace works.  
[Aufbereitungs-Technik, 1972, (8), 493-497.] (G)
- BISI 11554 (J. Koblyecki and S. Kuc) (from Pol.)
- Exploitation results of hydro-transport with pressurized tubes in the mines of PW (coal industry)  
[Waid. Gorn., 1967, 7, 195-201] (Po)
- BISI 11581 (G. Bernstein)  
The use of bulk transportation means with increasing consumption of ores.  
[Stahl Eisen, 1973, Apr. 26, 391-395] (G)
- Ironmaking and Ferro-Alloys.**
- BISI 10327 (R. Kunkele, et al.)  
Use and properties of refractory materials in high-temperature hot blast stoves.  
[Stahl Eisen., 1972, 92, (4), 149-154.] (G)
- BISI 10784 (O. Abel. and H. J. Schultz)  
Coefficients of resistance of formed coke shapes as measured on model bodies of different forms and surface conditions.  
[Arch. Eisenh., 1972, 43, (1), 1-10] (G)
- BISI 10872 (German Patent)  
Method and device for injecting fuel oil into a blast furnace  
[DOLS 2,051, 676 31.5.72, 9ppl] (G)
- BISI 11028 (V. Pešat)  
Protection of blast furnace auxiliaries from burn-off and wear during furnace operation.  
[Hutnik, 1972, (10), 389-393] (C)
- BISI 11228 (H. P. Haastert, et al.)  
Making of titaniferous hot metal and its processing to low-nitrogen steel.  
[Thyssenforsch., 1972, 4, (3-4), 106-112] (G)
- BISI 11692 (D. Z. Kyryukin, et al.)  
Improvement in the technology of producing ferrosilicoboral.  
[Stal 1973 (5) 423-425] (R)
- BISI 11703 (D. Vymetal, et al.)  
Calculations of the dynamic characteristics of the upper part of the blast furnaces.  
[Izv. VUZ. Chern. Met., 1973 (5) 32-34] (R)
- BISI 11730 (F. Roll.)  
On the decomposition of an iron-aluminium alloy  
[Z. Metallkunde, 1934, 26, (9), 210/211] (G)
- Steelmaking**
- BISI 10576 (W. Pollehn)  
Acoustic method for controlling blowing processes in basic oxygen steel converters.  
[Stal Eisen, 1968, 88, (9), 457-9] (G)
- BISI 10623 (R. Leroy, et al.)  
The IWS process  
[Rev. Met., 1972, 69, (3), Mar., 187-195] (F)
- BISI 10921 (B. Borsky, et al.)  
Experience with the manufacture of mild killed steels in tandem furnaces  
[Hutnik, 1972, (2/3), 55-60.] (C)
- BISI 11377 (A. T. Barnaba)  
Direct reduction and mini-steelworks.  
[Danieli Symposium, Buttrio 1971 Oct.] (I)
- Extraction and refining**
- BISI 10675 (R. A. Weber, et al.)  
Investigation of decarburization by the vacuum recycling process  
[Thyssenforschung, 1971, 3, (3/4), 104-117] (G)

- BISI 10868 (R. H. Parker)  
The kinetics of the deoxidation of liquid steel  
[Met. ABM, 1972, 28, (174), May, 331-340]  
(Port.)
- BISI 11702 (V. B. Okhotskii, et al.)  
Study of the process of carbon burn-off in the  
the O. H. furnace by means of cinematography.  
[Izv. VUZ. Chern. Met., 1973 (5) 24-27] (R)
- Engineering**
- BISI 11059 (J. Jech.)  
On the service life of anti-friction bearings  
[Hutn. Listy, 1972, (10), 705-709] (C)
- BISI 11344 (S. Baar and F. Hick.) (from French)
- Interaction of overall and local buckling in  
slender members with thin wall  
[Construction Met., 1973, (3), 17-30] (F)
- BISI 11446 (J. Witzany.)  
Apartment housing with new construction of  
thin walled steel profiles.  
[Intern. Assoc. for Bridge and Struct. Engrg. sym-  
posium Praque, 1971, 205-210.] (G)
- BISI 11610 (A. I. Sapko, et al.)  
Collection and utilization of industrial emissions  
during sintering of ore concentrates.  
[Stal', 1973, (4), 379-380]. (R)