

## 資料室 だより

## BISI Translation 紹介

— No 45 —

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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きます。

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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 694~697

**Physical structure of materials and crystallography**

BISI 11424 (P. I. Polukhin, et al)  
Investigation of the deformed state of a stretched specimen by means of the moire method.  
[Izv. VUZ. Chern. Met., 1973, (1), 108-111] (R)

BISI 11990 (L. E. Andreyuk.)  
The cold-state deformation resistance of steel and alloys.  
[Stal', 1973, (8), 731-734] (R)

**Physical metallurgy and metallography**

BISI 11766 (E. Schmidtmann, and H. Scherber.)  
The effect of strain rate on the characteristic values of the linear-elastic fracture mechanics determined on large and small specimens.  
[Materialprüfung, 1973, 15, (3), 73-81] (G)

BISI 11926 (G. D. Pigrova, and E. E. Levin)  
Carbide phases in nickel-based heat-resisting alloys.  
[Fiz. Metalloy. Mealloved, 1972, 33, (6), 1297-1301] (R)

**Physical properties and chemical analysis**

BISI 12038 (Yu. I. Nyashin, et al)  
Variational method of calculating the temperature fields in processes of treatment of metals by pressure.  
[Izv. VUZ. Chern. 1973, (9), 91-94] (R)

BISI 11560 (K. Slickers and H. Schulze)  
Phenomena occurring in the focus range during the optical emission spectral analysis with medium voltage excitation in argon.  
[Ardh. Eisen, 1972, 43, (1), 49-54] (G)

**Mechanical properties and material defects**

BISI 11597 (Euronorm)  
Bend test for steel.  
[Euronorm, 1955, April, 6-55] (F)

BISI 11367 (V. Bina, and Fr. Pech.)  
Statistical analysis of creep of low-alloy creep-resisting Cr-Mo-V steel.  
[Strojirenství, 1972, (9), 546-553] (C)

BISI 11401 (M. Vašek)  
Further development of creep testing machine of the vžkg system.  
[Strojirenství 1973, (1), 53-57] (C)

BISI 11599 (Euronorm)  
Bend test for steel sheet and strip less than 3mm thick.  
[Euronorm, 1955, October, 12-55] (F)

BISI 11598 (Euronorm)  
Cupping test with clamped specimens.  
[Euronorm, 1967, March, 14-67] (F)

BISI 11600 (Euronorm)  
Rockwell hardness test for steel scale B and scale C.  
[Euronorm, 1955, April, 4-55] (F)

BISI 11916 (G. Faringer, and U. Hartmann.)  
Physical principles of quantitative X-ray phase analysis.  
[Hart. Techn. Mitt., 1972, 27, 233-244] (G)

BISI 11983 (A. A. Shalomeev, et al)  
Distribution of the inclusions in large 09G2 and St3sp killed steel ingots.  
[Stal'. 1973, (8), 701] (R)

BISI 12157 (A. A. Get'man, et al)  
Size and nature of the location of shrinkage cavities in iron castings.  
[Izv. VUZ. Chern. Met., 169-170] (R)

**Corrosion and corrosion testing**

BISI 11914 (H. J. Ratzler-Scheibe and H. E. Feller)  
The effects of specific adsorption of halide ions on the electrochemical behaviour of the nickel electrode.  
[Corros. Sci., 1973, 13, 11-22] (G)

**Protection of materials**

BISI 11924 (G. Gawrilov and E. Ovtsharova)

The chemical deposition of coatings with Ni-P and Ni-B matrices. Embedding of oxides: titanium dioxide.

[Galvanotechnik, 1973, 64(1), 23-28] (G)

BISI 12008 (P. Funke)

The adherence of zinc coatings of hot dip galvanized steel wire.

[Stahl u. Eisen, 1972, 92, (18), 867-873] (G)

BISI 11511 (H. Jennewein)

Clarification of neutralised effluent in metal-working plants.

[Bänder Bleche Rohre, 1973, 14, (3), 116-119] (G)

BISI 12060 (F. Kirnbauer)

The new "ferun" metal pickling process.

[Montan-zeitung, 1951, 67, (11), 199-202] (G)

### Rolling

BISI 11836 (Z. Zamyslovsky.)

The study of metal Flow in the roll gap.

[Sbornik VŠB Ostrava, 1971, (2), 37-55] (C)

BISI 11851 (J. Konvičný, and M. Hajduk.)

Optimum speed rates in heavy reversing mills.

[Hutnické Listy, 1973, (2), 99-104] (C)

BISI 11261 (Z. Mutina)

Measurement and measuring instruments in plate rolling mills.

[Hutník, 1972, (11), 420-427] (C)

### Metal working excluding rolling

BISI 11058 (R. Bartoček, et al)

Checking the forging of rolls from cooled surface ingots.

[Hutn. Listy, 1972, (10), 698-704] (C)

BISI 11837 (O. Pejčoch.)

Investigation into the effect of residual elements upon the workability of carbon pipe steels.

[Sbornik vědeckých prací VŠB Ostrava, 1971, (2), 101-114] (C)

BISI 12113 (F. O. Koch)

Effect of stress testing a pipeline on the mechanical properties of spiral weld pipe.

[Bänder Bleche Rohre, 1973, 14, (1), 7-13] (G)

BISI 1191 (P. Kleem, and G. Naumann.)

Development and production of high-grade dynamo sheet.

[Neue Hütte, 1973, 18, (8), 469-475] (G)

BISI 11840 (V. Kasala.)

Compression techniques with powder metallurgy

[Strojirenství, 1973, (3), 166-175] (C)

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

BISI 11739 (G. Tamann and Ad. Ruhrenbeck)

Decomposing metal compounds.

[Zeitschrift für anorganische und Allgemeine Chemie, 1935, 223, 288-296] (G)

BISI 11179 (German Patent)

Process for the production of steel sheet for magnetic applications.

[German Patent 2, 219, 059, 2.11.72] (G)

Temperatures are specified for hot rolling (to prescribed thicknesses), coiling, annealing and temper-rolling to a specified elongation.

BISI 11585 (French Patent)

Si-steel material for use as sheet and strip for electrical steels, manufactured by a continuous casting process and method for production of such material.

[French Patent 2, 138, 867, Publ. 5. 1. 73] (F)

BISI 11011 (M. Barbu, et al)

Investigation regarding the improvement of the nitrided steel grade of the Mo-Cr-Al type, through additional alloying with 1 percent Ni.

[Metalurgia, 1972, 24, (9), 616-20] (Ru)

BISI 11417 (E. S. Kainnikov, et al)

The quality of ShKH15 ball-bearing steel produced in the open hearth.

[Stal', 1973, (1), 23-26] (R)

BISI 11369 (V. Pilous)

Heat resistance of welds on ferritic chromium steels.

[Zváranie, 1972, (9), 264-267] (C)

BISI 11396 (E. Janda)

Anomalies of eddy current losses in grain-oriented transformer sheets.

[Hutn. Listy, 1973, (1), 39-42] (C)

BISI 11817 (Euronorm)

Weldable fine grained structural steels.

[Euronorm 113, November, 1972] (F)

BISI 11819 (Euronora)

General structural steels.

[Euronorm, 1972, November, 25-72] (F)

BISI 11385 (F. Adámek, et al)

The quality of killed steels made in vitkovice iron and steel works tandem furnaces.

[Hutník, 1972, (12), 447-451] (C)

BISI 11462 (E. Yu. Kulpishon, et al)

The melting of steel for rotors for large turbo-generators.

[Stal', 1973, (2), 116-117] (R)

BISI 11845 [A. Zapletáček)

Failures in equipment made from high-alloy steels.

[Zvaranie, 1973, (3), 76-85] (C)

BISI 11818 (Euronorm)

Alloy steel plate and strip for boilers and pressure vessels: grades and qualities.

[Euronorm 43-72, November 1972] (F)

BISI 11904 (French Standard)

Alloy steel plates for boilers and pressure vessels.

[French Standard NF, A36-206, January, 1973] (F)

BISI 11917 (G. Hausch, and H. Warlimont.)

'Invar' and 'elinvar': alloys with controllable thermal expansion and elastic properties.

[Z. Metallk., 1973, 64, 152-160] (G)

### Casting and cast metals

BISI 11647 (I. Jelc, et al)

Possibilities of reducing ingot mould consumption.

[Hutník, 1972, (9), 331-335] (C)

### Heat treatment

BISI 11811 (J. C. Chevrier)

Quest for a general definition of the cooling power of a quenching liquid.

[Mem. Sci. Rev. Mét., 1972, 49, (9), 623-632] (F)

BISI 11173 (Vallourec, Usines a Tubes de Lorraine-Escout et Vallourec Réunies, Paris.)

Process for stress-relieving the weld of continuously welded metal tubes and apparatus for the execution of the process.

[German Patent 2, 146, 423] (F)

BISI 11867 (A. Puskar, and V. Paur.)

Tempering of hardened antifriction bearing steel in ultrasonic field.

[Hutnické listy, 1973, (6), 421-425]. (C)

#### Fuel combustion and refractories

BISI 11283 (J. Dolezel)

Burner with radially propagating flame.

[Hutn. Listy, 1972, 27, (8), 577-581] (C)

BISI 11751 (J. M. Pariel, et al)

Combustion of emulsified fuels-aerodynamics and thermal performance of an incinerator for liquids and sludges.

[B. G. T., 1972, 130, October, 979-991] (F)

#### Welding and joining

BISI 11734 (G. Bernard. and M. Prudhomme.)

Study of thermal phenomena in welded joints.

[Rev. Mét., 1972, July-Aug., 483-496] (F)

BISI 11939 (K. H. Piehl)

The welding behaviour of pressure vessel steels

[Stahl u. Eisen, 1973, 93, (13), 568-577] (G)

#### Ores and minerals handling and beneficiations

BISI 12161 (J. A. Varoquaux)

Future prospects for European iron ores.

[Rev des Ingenieurs, 1973, 26, (231), Sept/Oct., 11-19] (F)

BISI 11460 (P. I. Gurin)

Investigation of strength in the reduction of slowly cooled sinters obtained with heated air.

[Stal', 1973, (2), 105-109] (R)

BISI 11881 (E. F. Vegman and M. I. Lakoza)

Special features of the behaviour of the melt during the sintering of sintering mixes.

[Izv. VUZ. Chern. Met., 1973, (7), 25-28] (R)

#### Ironmaking and ferro-alloys

BISI 12014 (A. G. Bardadym, and A. F. Kravtsov.)

System for controlling blast humidity with the aid of a highly accurate hygrometer.

[Stal', 1973, (9), 788-790] (R)

BISI 10987 (D. Schulz and D. Bulter)

The effect of injecting fuel oil on the operation of the blast furnace.

[Stahl Eisen, 1972, 92, (23), 1179-1188] (G)

#### Steelmaking

BISI 11726 (K. A. Shtets and L. G. Verzhikovskaya)

Assessment of the degree of rhythm in open hearth furnace operation.

[Izv. VUZ. Chern. Met., 1973, (5), 186-188] (R)

BISI 11979 (V. F. Evtushenko et al)

Formalization of experience in open hearth melt charging.

[Izv. VUZ. Chern. Met., 1973, (8), 171-174]

(R)

BISI 12141 (M. A. Magidson et al)

Combustion of separate flows of gaseous and liquid fuels in open-hearth furnaces.

[Stal' 1973, (11), 1046-1047] (R)

BISI 11970 (V. I. Grankovskii et al)

Oxidising capacity of an open hearth furnace with oxygen injection of the bath.

[Izv. VUZ. Chern. Met., 1973, (8), 35-40] (R)

BISI 11725 (M. A. Glinko, et al.)

Evaluation of average significance of operating parameters in oh furnaces finishing periods.

[Izv. VUZ Chern. Met., 1973, (5), 178-180]. (R)

#### Extraction and refining

BISI 12017 (E. I. Malinovskii et al)

Structural steel quality resulting from the use of silicon-containing discards in the charge.

[Stal', 1973, (9), 808-809] (R)

BISI 11785 (K. N. Demidov, Yu. P. Nikitin, and N. S. Mikhailets.)

The reaction between solid ferrosilicon and molten slag.

[Izvest. VUZ Chern. Met., 1973, (6), 37-40] (R)

BISI 12015 (I. P. Kazachkov, et al)

The melting of complex FKhmN500 alloys from low grade iron-manganese ores and their application

[Stal', 1973, (9), 800-801] (R)

BISI 11971 (M. Ya. Medzhibozhskii, et al)

Approximate process modelling of the assimilation of lime by the slag process phase.

[Izv. VUZ. Chern. Met., 1973, (8), 41-45] (R).

BISI 12044 (S. M. Popov, et al)

Pulsation of a gas bubble in molten steel as it surfaces.

[Izv. VUZ. Chern. Met., 1973, (9), 175-178] (R)

BISI 12046 (M. Ya. Medshibozhskii)

Theory and practice of steelmaking processes.

[Sb. Nauch. Tr. Met. Inst., 1971, (14), 30-40] (R)

BISI 11276 (M. Macoszek and Z. Buzek)

The effect of boron on oxygen activity and solubility in steel at 1600°C.

[Hutn. Listy, 1972, (11), 700-797] (C)

BISI 11440 (W. A. Fischer and D. Janke)

Investigation into the oxygen solubility and phosphorus deoxidation in copper melts.

[Metall, 1972, (11), 1123-1128] (G)

BISI 11577 (B. Korousic and V. Presern)

The phase system  $\text{CaF}_2\text{-Al}_2\text{O}_3$ .

[Radex-Runds., 1973, (2), 450-454] (G)

BISI 11986 (V. P. Nemchenko et al)

The gas blowing of steel in porous bottom ladles.

[Stal' 1973, (8), 715-716] (R)

BISI 12064 (H. Maas and H. Abratis)

Reaction of high-chromium melts with refractory materials containing silica.

[Arch. Eisen, 1972, 43, (12), 873-877] (G)

- BISI 12011 (E. Mumme)  
Development of equipment for injecting solids  
intr molten steel.  
[Neue Hütte, 1963, January, (1), 41-42]. (G)
- BISI 12012 (R. Peters, et al)  
Pre-oxidation and alloying of steel melts by  
means of the injection process.  
[Neue Hütte, 1963, January, (1), 43-47] (G)
- BISI 12033 (V. P. Luzgin and V. I. Yavoiskii)  
Activity as a characteristic of interaction between  
particles in equilibrium and non-equilibrium.  
[Izv. VUZ. Chern. Met, 1973, (9), 50-53] (R)
- BISI 11988 (V. G. Pirkolov)  
Production of charge billets from the metal  
abrasion residues of high-temperature alloys.  
[Stal', 1973, (8), 724-725] (R)
- Engineering**
- BISI 11480 (German Standard)  
Cranes, steel structures calculation principles.  
[German Standard No 15018] (G)
- BISI 11380 (DNA)  
Isometric trapezoidal external screw threads  
105-300mm diameter limits.  
[DIN 103 Sheet 8 Draft Oct. 1972] (G)
- BISI 11381 (DNA)  
Isometric trapezoidal external screw threads 8-  
100mm diameter limits.  
[DIN 103 Sheet 7, Draft Oct. 1972] (G)
- BISI 11382 (DNA)  
Isometric trapezoidal internal screw threads  
105mm-300mm diameter limits.  
[DIN 103 Sheet 6, Draft Oct. 1972] (G)
- BISI 11383 (DNA)  
Isometric trapezoidal internal, screw threads 8-  
100mm diameter limits.  
(DIN 103 Sheet 5, Draft Oct. 1972] (G)
- BISI 11912 (H. Weigand and K. H. Illgner)  
Durability of bolted joints with iso thread profile.  
[Konstruktion, 1967, 19, (3), 81-91] (G)
- BISI 12142 (P. A. Grinval'd, et al)  
Experiences of two-stage gas purification beyond  
an open-hearth furnace.  
[Stal', 1973, (11), 1058-1058] (R)