

## 資料室だより

## BISI Translation 紹介

— No. 83 —

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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.

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BISI Translations List Nos. 846, 849~852

**Management Planning and Control**

BISI 15602 (A. A. Berlin, et al.)

Algorithms for assessing the effectiveness of an operative control.

[Izv. VUZ Chern. Met. 1976, (12), 138-142]

(R)

BISI 15611 (H. Kahnwald.)

Dust emission during transloading and storing of fine grained bulk goods and measures for its reduction. [Stahl Eisen. 1977, 97, (2), 79-84] (G)

BISI 15603 (S. M. Kulakov, et al.)

Rolled product certification using prediction models.

[Izv. VUZ Chern. Met., 1976, (12), 143-146]

(R)

**Physical Structure of Materials and Crystallography**

BISI 15421 (I. O. Khazanov, and Yu. P. Egorov)

The effect of reheating and deformation practice on the variation in grain size and on the austenite grain in R18 steel.

[Izv. VUZ Chern. Met., 1976, (11), 140-143]

(R)

BISI 15551 (A. Masin, and B. Straka)

Mechanism of the origin of high-temperature temper brittleness

[Hutn. Listy, 1976, 31, (9), 642-647] (C)

BISI 15570 (A. V. Tret'yakov, et al.)

The resistance to deformation of metals and alloys in hot and cold rolling.

[Stal'. 1976, (12), 1108-1110] (R)

BISI 15583 (B. P. Burylev)

Solubility of hydrogen in strongly interacting systems.

[Izv. VUZ Chern. Met., 1976, (12), 12-15]

(R)

BISI 15588 (B. V. Kucheryaev, et al.)

Modelling the unsteady-state deformation zone

of the tube process.

[Izv. VUZ Chern. Met., 1976, (12) 57-59]

(R)

BISI 15613 (J. Pavlossoglou)

Mathematical modelling computer simulation and optimization techniques in metallurgical diffusion processes-Part II.

[Technology, 1976, (7), 9-21] (G)

BISI 15674 (P. I. Denisev, and S. A. Tulupev)

Method of interpreting a shadow moire pattern with a point light source.

[Izv. VUZ Chern. Met., 1977, (1), 90-92] (R)

BISI 15509 (J. Gobrecht)

Gravity segregation of iron, manganese and chromium in aluminium-silicon alloys.

[Giesserei, 1976, 63, (20), 558-561] (G)

**Physical Metallurgy and Metallography**

BISI 15717 (R. Justus, et al.)

Determining the viscosity of high-melting metals and alloys and measuring the viscosity in the Fe-C system.

[Radex Rundschau, 1964, (4), 233-247] (G)

**Physical Properties and Chemical Analysis**

BISI 15250 (W. Böhm, and H. Wolf.)

Use of weldable high-temperature strain gauges for measurements of static operation stresses up to 530°C on large turbine components.

[Materialprüfung, 1976, 18, (12), 457-461] (G)

BISI 15619 (V. N. Zamaraev, et al.)

Viscosities of molten iron alloyed with germanium.

[Izv. VUZ Chern. Met., 1976, (12), 8-11] (R)

BISI 14916 (G. Bobok, and J. Zambo.)

Heat losses in liquid steel after the start of teeming.

[Bany. Koh. lapok. (Kohaszat), 1974, 107, (10), 456-461] (H)

BISI 15586 (A. D. Drozin, et al.)

Investigation of thermodynamic behaviour of the

generation of deoxidation products in liquid iron.  
[Izv. VUZ Chern. Met., 1976, (12), 35-38]  
(R)

BISI 15685 (V. K. Orlov, et al.)  
Errors in determining the absorptivity of a flame  
by the schmidt method.  
[Izv. VUZ Chern. Met., 1977, (1), 166-168]  
(R)

BISI 15686 (V. B. Shcherbatskii, et al.)  
Rate of heat transfer in an irregularly blown  
moving layer.  
[Izv. VUZ Chern. Met., 1977, (1), 169-172]  
(R)

BISI 15524 (H. Fahlenbrach)  
Amorphous metallic materials and their future  
importance in magnetism.  
[Metall, 1976, 30, (12), 1162-1164] (G)

BISI 15726. (P. Deimel, et al.)  
Grain size dependence of the barkhausen-effect  
of iron at 300°, 77°K.  
[J. Magnetism and Magnetic Materials, 1977,  
(4), 235-241] (G)

BISI 15638 (L. Papp, and D. Demeny)  
Investigation of the interaction of elements in  
the emission spectral analysis of steels.  
[Banyasz, Kohasz. Lapok (Kohasz.), 1976, 109,  
(11), 482-484] (H)

#### Mechanical Properties and Material Defects

BISI 15604 (V. M. Grebenik, et al.)  
Evaluation of the parameters of fatigue curves  
and the lives of equipment components with a  
prescribed probability of failure.  
[Izv. VUZ. Chern. Met., 1976, (12), 150-155]  
(R)

BISI 15625 (M. Liphardt, et al.)  
Influence of specimen form, specimen prepara-  
tion, testing velocity and amount of straining on  
the determination of strain ratio values.  
[Materialpruf., 1976, 18, (12), 465-467] (G)

BISI 14965 (German Standard)  
Non-destructive testing; electromagnetic methods  
(eddy current methods); Generalities.  
[Din 54 140, Part 1. April 1976] (G)

BISI 15357 (V. Schmitz, and P. Holler)  
Flaw size reconstruction with ultrasonic hologra-  
phy.  
[Materialprüfung, 1976, 18, (9), 308-311] (G)

BISI 15366 (A. Erhard, et al.)  
The influence of the coupling layer on the sound  
transmission in ultrasonic testing with an inclined  
beam.  
[Materialprüfung, 1976, 18, (9), 312-315] (G)

BISI 15506 (R. Pohlman, et al.)  
A novel ultrasonic radiator with interference-  
suppressed near field.  
[Arch. Eisenhüttenwes, 1977, 48, (3), 185-190]  
(G)

BISI 15620 (S. A. Kiseleva)  
Sixth plenary session of the seminar on steel and  
non-metallic inclusions.  
[Stal', 1976, (12), 1098-1100] (R)

#### Corrosion and Corrosion Testing

BISI 15522 (D. Bohm)

Corrosion and active corrosion protection in  
shipbuilding.  
[Freiberger Forschungsh., 1976, B189, 25-37]  
(G)

BISI 15744 (M. Belilos)  
Various stages of corrosion in the salt spray test  
on several electrolyte coatings.  
[Corrosion-Traitements-Protection-Finitien. 1970  
18. (1)] (F)

BISI 15355 (S. Mennenöh)  
Behaviour of submerged arc-welds in sea water.  
[Estel-Ben., 1975, (2), 69-77] (G)

#### Protection of Materials

BISI 15219 (G. Kreysa, and E. Heitz)  
Reactions and process technology aspects of  
electrochemical fixed and fluidized bed cell.  
[Chem.-Ing.-Tech., 1976, 48, (10), 852-860]  
(G)

BISI 15545 (K. Barton)  
Quality specification and testing methods for  
electroplated coatings.  
[Povrchove Upravy, 1976, (1), 5-8] (C)

BISI 15703 (V. A. Val'kov)  
A method of determining the main structural  
parameters of industrial apparatus for the vibra-  
tion pickling of wire rod.  
[Stal', 1977, (1), 69-71] (R)

#### Rolling

BISI 14728 (J. B. Martinelli, and J. M. Nascimento)  
Rolling mill rolls: characteristics and applica-  
tions.  
[Metal. ABM. 1974, 30, (202), 611-620] (P)

BISI 14960 (T. Neff)  
Roller levelling machines-typology and charac-  
teristic features.  
[Bander, Bleche, Rohre, 1976, 17, (6), 223-227]  
(G)

BISI 15327 (H. Kreulitsch, and H. Rauchwarter)  
The levelling process when flattening plate on  
roller levelling machines.  
[Bander Bleche Rohre. 1976, 17, (11), 443-447]  
(G)

BISI 15442 (B. J. Aalderink, and M. W. G. de jong)  
Automatic surface inspection of cold rolled sheet  
on a temper mill.  
[Stahl Eisen, 1976, 96, (25/26), 1312-1316]  
(G)

BISI 15498 (D. Popov, and I. Petrov)  
The regulation of the thickness of the strip in hot  
rolling.  
[Tekhnicheska Mis'l, 1976, (4), 67-75] (Bu)

BISI 15591 (V. M. Klimenko, et al.)  
Mathematical model of a four-high mill roll  
assembly with power profiling of the work and  
backup rolls.  
[Izv. VUZ Chern. Met., 1976, (12), 77-80]  
(R)

BISI 15592 (V. P. Polukhin, and V. N. Skorokhodov)  
Contact action between the metal and rolls during  
the asymmetric rolling of fine-gauge strip. report 1  
[Izv. VUZ Chern. Met., 1976, (12), 81-84]  
(R)

BISI 15610 (J. Schwarzer, et al.)

- "The elasto-statics-element method to determine the elastic behaviour of a four-high stand and its application to strip rolling."  
[Arch Eisenhüttenwes, 1976, 47, (12), 725-730] (G)
- BISI 15627 (W. Bottcher, et al.)  
Flatness control of cold rolled wide strip by tension and temperature measurement.  
[Stahl Eisen, 1977, 97, (4), 151-154] (G)
- BISI 15673 (V. F. Potapkin)  
Graphical determination of stresses in deformation zone during rolling.  
[Izv. VUZ. Chern. Met., 1977, (1), 82-85] (R)
- BISI 15675 (V. T. Zhadan, et al.)  
Analytical determinations of the dimensional deviations of section profile during various disturbances. report 1.  
[Izv. VUZ. Chern. Met., 1977, (1), 93-95] (R)
- BISI 15677 (Yu. V. Akulich, et al.)  
Optimization of the technological process of rolling sections. Communication 2.  
[Izv. VUZ Chern. Met., 1977, (1), 99-101] (R)
- BISI 15681 (Yu. D. Zheleznov, et al.)  
Stability of thin strip during continuous rolling. Communication 2.  
[Izv. VUZ Chern. Met., 1977, (1), 124-126] (R)
- BISI 15708 (P. S. Livshits)  
Increasing the reliability in service of electric drives of rolling production  
[Stal', 1977, (1), 89-91] (R)
- BISI 15782 (O. Palzer, and J. Makes)  
Automation of a 450 medium-section rolling train.  
[Hutn Listy, 1976, 31, (11), 788-794] (C)
- Metalworking, Excluding Rolling**
- BISI 15574 (A. V. Saf'yanov, et al.)  
Improvement in the piercing of tube billet in non-table-state conditions.  
[Stal', 1976, (12), 1115-1117] (R)
- BISI 15701 (A. V. Aranovich, et al.)  
Determining the resistance of the metal to plastic deformation when tubes are drawn without a mandrel.  
[Stal', 1977, (1), 63-67]. (R)
- BISI 15676 (S. P. Yakovlev, et al.)  
Extrusion of an anisotropic tube.  
[Izv. VUZ Chern. Met., 1977, (1), 96-98]. (R)
- BISI 15575 (N. P. Zhuk, and L. A. Simakova)  
Phosphating steel wire for drawing.  
[Stal', 1976, (12), 1121-1123]. (R)
- BISI 15471 (K. Takac, et al.)  
Abrasion-resistant materials for exposed parts of grit blasting devices.  
[Slevarenstvi, 1976, 24, (7), 272-274]. (C)
- BISI 1524 (M. Reihle)  
Influence of grain size on the surface topography of deep drawn cups.  
[Mitt. Forschungsgesellschaft Blechverarbeitung, 1961, (12/13) 142-150]. (G)
- BISI 15801 (C. O. Bauer)  
Screw damage—an expensive lesson : part 1: coupling of incorrect materials.  
[Verbindungstechnik, 1977, 9, (1/2)]. (G)
- BISI 15802 (C. O. Bauer)  
Screw damage—an expensive lesson. part 11: faults in the material.  
[Verbindungstechnik, 1977, 9, (3)]. (G)
- BISI 15803 (C. O. Bauer)  
Screw damage—an expensive lesson. part 111: use of incompatible parts.  
[Verbindungstechnik, 1977, 9, (5)] (G)
- BISI 15804 (C. O. Bauer)  
Screw damage—an expensive lesson. part IV: processing errors.  
[Verbindungstechnik, 1977, 9, (7)]. ((G)
- Steels and Alloys (Technical Application and Methods of Production), Cermets**
- BISI 15683 (K. F. Starodubov, et al.)  
Applicability of the law of additivity for determining the properties of certain structural steels.  
[Izv. VUZ Chern. Met., 1977, (1), 150-153] (R)
- BISI 15687 (A. M. Ptitsyn et al.)  
Radiation properties of transformer steel.  
[Izv. VUZ. Chern. Met., 1977, (1), 173-175] (R)
- BISI 15745 (K. H. Schmitz)  
The inco injection process—a new method for reducing refining costs in stainless steel production  
[Rev. Mét., Feb. 1977, (2), 91-95]. (F)
- Casting and Cast Metals**
- BISI 14449 (W. D. Mahler)  
Material selection for injection moulding of abrasive thermoplastic on the basis of shortterm experiments.  
[Industrie Anzeiger, 1973, 95, (60), 1399-1402]. (G)
- BISI 15361 (G. Bauer, et al.)  
The continuous slab casting plant at August thyssen-hütte's oxygen steelworks at beeckerwerth: a description of the plant and operating results for the first two years.  
[Stahl und Eisen, 1977, 97, (1), 17-22]. (G)
- BISI 15466 (J. Sajgal, and J. Vrzal)  
Production of grey cast-iron casting in all furane moulds and experience gained from recovery of mixture.  
[Slevarenstvi, 1976, 24, (2/3), 46-49] (C)
- BISI 15541 (F. Havlicek)  
Shrinkage stress in a cast cylinder.  
[Slevarenstvi, 1976, 24, (11), 452-456] (C)
- BISI 15558 (L. Broda)  
Deformation of the working surface of nodular cast iron moulds.  
[Hutnik (Prague), 1976, 26, (10), 369-371] (C)
- BISI 15597 (A. M. Petrichenko, and Z. Kh. Glizer)  
The gating systems of multi-position metal moulds.  
[Izv. VUZ. Chern. Met., 1976 (12), 115-118]. (R)
- BISI 15696 (V. M. Manov)  
Assessment of the strength reliability of the trun-

nions of large-capacity steel-casting ladles.

[Stal', 1977, (1), 36-37] (R)

BISI 15468 (P. Sykora, et al.)

The metallurgy of manufacture of ferritic and ferritic-pearlitic nodular cast irons in electric arc furnaces without heat treatment.

[Slévarenství, 1976, 24, (2/3), 61-65] (C)

BISI 15470 (D. Strasky)

Inoculation of cast iron with rare-earth metal complexes.

[Slévarenství, 1976, 24, (2/3), 78-81] (C)

BISI 15634 (J. Sandor et al.)

Testing cast irons for their thermal shock resistance.

[Banyasz. Kohasz. Lapok (Ontode), 1976, 27, (12), 253-259] (H)

### Heat Treatment

BISI 15595 (S. G. Chernyavskaya, et al.)

Calculating the temperature-stages homogenizing annealing of 28kh3SNMVFA steel.

[Izv. VUZ Chern. Met., 1976, (12), 97-100]. (R)

### Heating, Heating Furnaces and Electric Heating

BISI 15580 (V. I. Prokhorov, et al.)

Mathematical modelling of the induction reheating of metal before rolling.

[Stal', 1976, (12), 1142-1143] (R)

BISI 15671 (N. V. Velin, and V. M. Edemskii)

Voltage control of the electroslog remelting process.

[Izv. VUZ Chern. Met., 1977, (1), 67-71] (R)

### Fuel, Combustion and Refractories

BISI 15454 (N. V. Krishtapovich.)

The influence of the gas flow system on the temperature distribution in furnace chambers of coke oven batteries.

[Koks i Khim, 1976, (5), 16-19] (R)

BISI 15760 (K. Von Germersheim)

Pusher furnace operation with variable coke oven gas, natural gas, and liquid gas fuel mixtures in the wobbe index range 7,000 to 10,000.

[Stahl Eisen, 1977, 97, (5), 181-186]. (G)

### Ores and Minerals Handling and Beneficiation

BISI 15475 (Z. Ruzičková)

Conditions for the formation of hardening bond during the firing of siderite pellets.

[Rudy, 1976, 24, (7), 192-196]. (C)

BISI 15584 (V. M. Vityugin, and A. V. Vityugin)

Influence of pelletizability of iron-ore mixes on the operating efficiency of pelletizing discs.

[Izv. VUZ Chern. Met., 1976, (12), 19-22] (R)

BISI 15615 (C. Riccardi et al.)

Use of a computer as operator guide on the sintering plant at the italsider oscar sinigalia iron and steel works in genoacornigliano.

[Boll. Tech. Fin. Dec. 1976, (358), 737-743] (I)

### Ironmaking and Ferro-Alloys

BISI 15181 (H. Hille)

The present state of blast furnace technology in

north America.

[Stahl Eisen, 1975, 95, (22), 1017-1023]. (G)

BISI 15433 (K. R. Husing, and M. Koltermann)

Results of investigation of wear behaviour of blast furnace runner mixes on a semi-industrial test installation.

[Stal Eisen. 1977 97, (1), 23-28]. (G)

BISI 15600 (A. F. Mysik, et al.)

Calculation of the heating of coke, pig iron and slag in the lower part of the blast furnace

[Izv. VUZ Chern. Met., 1976, (12), 125-129] (R)

BISI 15616 (P. Barnaba, et al.)

High-temperature behaviour of sinters and pellets.

[Boll. Tec. Finsider Dec. 1976, (358), 744-753] (I)

BISI 15684 (V. E. Davidson)

Depth of penetration of gas jet into liquid during top blowing, with allowance for wave and viscous losses.

[Izv. VUZ Chern. Met., 1977, (1), 162-165]. (R)

BISI 15690 (B. M. Rakovskii)

Calculation of limiting volume and blast consumption in very large blast furnaces.

[Stal', 1977, (1), 6-9] (R)

BISI 15731 (J. Jurczyk)

Contribution to the chemical control of sintering and blast furnace processes by analytical methods using instruments.

[Stahl Eisen, 1977, 97, (4), (insert), 16-21] (G)

BISI 15733 (K. Haverkamp, et al.)

Steps to increase the durability of torpedo ladles taking operational limiting quantities into consideration.

[Tonindustrie, Z. 1976, 100, (4), 155-159] (G)

### Steelmaking

BISI 15456 (G. Meyer, et al.)

Processing of sponge iron according to the krupp sponge iron melting process.

[Stahl Eisen. 1977, 97, (1), 7-12] (G)

BISI 15568 (O. N. Chemeris, et al.)

Technology for the flame guniting of converters and its organization.

[Stal', 1976, (12), 1096-1097] (R)

BISI 15669 (G. N. Elanskii, et al.)

Minimum permissible carbon concentrations when melting technically pure iron.

[Izv. VUZ Chern. Met., 1977, (1), 42-45] (R)

BISI 15694 (Ya. A. Shneerov, et al.)

Developing steelmaking in basic oxygen furnaces and open hearth furnaces.

[Stal' 1977, (1), 24-28] (R)

### Extraction and Refining

BISI 15547 (V. Makovický)

The ring expansion test.

[Plyn, 1976, 56, (4), 110-113] (C)

BISI 15621 (German Standard)

Reduction gears, connections dimensions contour output torques.

[Din, 15053, Feb. 1976] (G)

BISI 15746 (J. Harbordt)

Stresses and fatigue of material in laminated friction bearings.

[VDI-Z., 1976, 118, (22), 1067-1070] (G)

BISI 15307 (F. Tschemmernegg)

Use of plastic and weatherproof steel together with rationalization of production in steel construction using as an example the development of maintenance-free, watertight expansion joints able to withstand high dynamic stresses.

[Der Bauingenieur, 1972, 47, 315-325] (G)

#### Engineering

BISI 15667 (G. G. Mikhailov, and E. M. Wilhelm)

Thermodynamics of the reactions of deoxidation of iron with silicon and carbon.

[Izv. VUZ Chern. Met., 1977, (1), 9-12] (R)

BISI 15670 (A. V. Yavoiskii, et al.)

Certain features of the reaction between free-falling droplets of Fe-C, Fe-Mn and Fe-Mn-C melts and oxygen.

[Izv. VUZ Chern. Met., 1977, (1), 53-57] (R)

BISI 15605 (A. F. Mets, et al.)

Mathematical formalization of price calculation for metallurgical scrap

[Izv. VUZ Chern. Met., 1976, (12), 162-165] (R)