

## 資料室だより

### BISI Translation 紹介

— No 44 —

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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。

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BISI Translations List No 689~693

#### Management planning and control

BISI 11405 (L. von Bogdandy)

Development trends in the iron and steel industry.  
[Stahl Eisen, 1972, 92, Oct. 26, 1069-1077] (G)

BISI 11419 (G. I. Tseshnatii)

Linear programming used for the volume-calendal planning of the running of a sheet mill  
rep. 1.  
[Izv. VUZ. Chern. Met., 1973, (1), 183-187]  
(R)

BISI 11764 (F. J. Weisweiler et al)

A model for site selection investigations for iron and steelworks with further-processing facilities.

[Stahl und Eisen, 1973, June 6 th, 93, (12), 517-533] (G)

BISI 11907 (Unsider)

Hot-rolled unalloyed steel sheet. Sheet supplied such or in coils (wide strips) for general purposes. Qualities, requirements and tests.  
[Italian Standard UNI. 6659-70, March, 1970]  
(I)

#### Physical Structure of Materials and Crystallography

BISI 10751 (J. Man et al)

The effect of microstructure on embrittlement of low-carbon steel-1  
[Kovové Mat., 1972, (3), 261-276] (C)

BISI 11282 (J. Veselko)

Changes in mechanical properties of CSN 11343 steel induced by deformation in the temperature range below A<sub>1</sub>.  
[Hutnické Listy, 1972, 8, 572-576] (C)

BISI 11290 (J. Holub and M. Koutnik)

Changes of dislocation arrangement during the fatigue process in a low-carbon steel.

[Kovové Materiály, 1972, 4, 352-364] (C)

BISI 11771 (J. Albrecht et al)

The permeability of sheet steel as a criterion of the tendency of enamels to undergo scaling.  
[Mitt. Ver. Deutsch. Emailfachleute, E. V., 1971, 3, (19), 21-25] (G)

BISI 12034 (R. M. Gabidullin and V. A. Yakhnev)

Distribution of hydrogen in iron.  
[Izv. VUZ. Chern. Met., 1973, (9), 54-67] (R)

BISI 12110 (H. Bühl and E. H. Schulz)

Reduction of residual stresses resulting during the cold drawing of metal bars by means of re-drawing.  
[Metall, 1951, 5, (9/10), May, 194-198] (G)

#### Physical metallurgy and metallography

BISI 11967 (M. S. Petrushevskii and P. V. Gel'd)

Evaluating the surface energy of binary solutions with slight deviations from the law of Raoult.

[Izv. VUZ. Chern. Met., 1973, (8), 9-14] (R)

#### Physical properties and chemical analysis

BISI 9884 (S. Morel)

Survey of construction and application of plasma furnace.

[Problemy Projektowe, 1969, (10), 301-308]  
(P)

BISI 11000 (C. Ciuča and D. Varzea)

Process and hook-up system for determining the temperature variation during the cooling of sturdy steel parts.  
[Matalurgia, 1972, 24, (7), 478-481] (R)

BISI 11291 (L. Brháček)

Sampling methods for establishing oxygen content in steelmaking.  
[Hutnické Listy, 1972, 9, 616-621] (C)

BISI 11420 (A. A. Skvortsov and P. I. Vershinin)

Solidification and cooling of flat castings in chill moulds with forced cooling.

[Izv. VUZ, Chern. Met., 1973, (1), 169-172] (R)

BISI 11711 (E. S. Filippov)

Determination of the heats of phase transformations and mixing in liquid metals and alloys from the light radiation.

[Izv. VUZ. Chern. Met., 1973, (5), 112-118] (R)

BISI 11781 (A. K. Mashkov and D. A. Zavgorodnev)

Special features of the breakdown of high-strength cast iron during thermal fatigue.

[Izv. VUZ. Chern. Met., 1973, (6), 114-117] (R)

#### Mechanical Properties and Material Defects.

BISI 11076 (L. Obluk)

A new method of eliminating shrinkage cavities and porosity.

[Slévárenství, 1972, (5/6), 217-220] (C)

BISI 11078 (J. Březina)

On the question of causes of some defects found on the honed surfaces of grey iron castings.

[Slévárenství, 1972, (5/6), 227-229] (C)

BISI 11079 (J. Weiss)

Prospects of testing of structural properties of grey iron castings by magnetic and electrical methods.

[Slévárenství, 1972, (5/6), 234-236] (C)

BISI 11399 (V. Schindlerová and Z. Bužek)

The effect of deoxidation with cerium and misch metal on the composition and type of sulphuric inclusions in casting steel.

[Slevárenství, 1972, (12), 492-494] (C)

BISI 11594 (Euronorm)

Conventional rockwell hardness tests for steel sheet and strip.

[Euronorm, June 1963, 26-63] (F)

BISI 11596 (Euronorm)

Vickers hardness test for steel.

[Euronorm, 5-55, 1955 April] (F)

BISI 11601 (Euronorm)

Brinell hardness test for steel.

[Euronorm, 3-55, 1955, April] (F)

BISI 11994 (N. V. Stetsenko et al)

Development of non-destructive methods of inspection at dneproprostsskal' works.

[Stal, 1973, (8), 756-758] (R)

BISI 12000 (D. Daub et al)

Trials to improve the life of helical springs by controlled sulphide formation.

[Hoesch 1973, (3), 116-122] (G)

#### Protection of materials

BISI 11029 (A. Dvorák and L. Vrobel)

A contribution of the study of internal stresses in nickel coatings.

[Koroze a ochrana Mat., 1972, (1) 4-6] (C)

BISI 11032 (H. Bahenska and J. Kotsch)

Recovery of chromium plating solutions by the use of cation exchanger.

[Koroze a ochrana mat., 1972, (3), 67-69] (C)

BISI 11712 (I. N. Kidin et al)

Diffusion chromising of 08 kp steel during heating in paste.

[Izv. VUZ. Chern. Met., 1973, (5), 133-136] (R)

BISI 11754 (French Patent)

Process and apparatus for the manufacture of steel sheets coated with a layer of aluminium powder.

[French Patent 2 149 301 : 30.3.73] (F)

BISI 11755 (Belgian Patent)

Process for the continuous production of enamelled sheet.

[Belgian Patent 790 958; 1.3.73] (B)

BISI 11940 (J. Rones)

Demands on pickling inhibitors and their control.

[Bänder Bleche Rohre, 1972, 13, (8), 396-400] (G)

#### Rolling

BISI 11262 (K. Styblo)

Effect of dynamic load on the change in reversible deformation of roll stand and the accuracy of rolled product.

[Hutník, 1972, (11), 428-430] (C)

BISI 11386 (E. Cerveny et al)

Present possibilities in czechoslovakia for Rolling 1000 millimetres wide steel bands of austenitic steel grades.

[Hutník 1972, (12), 452-457] (C)

BISI 11394 (J. Brabec)

Twenty-high mills for precision strip rolling manufactured by the škoda works.

[Hutník Listy, 1973, (1), 23-30] (C)

BISI 11407 (J. Heidepriem)

Plant engineering in modern rolling mills and plants for the further treatment.

[Stahl Eisen, 1973, 93, (5), 169-175] (G)

BISI 11425 (V. V. Glukhov and A. V. Semeka)

Mathematical formalization and Algorithm for the calculation of roll stocks of section-rolling plant.

[Izv. VUZ. Chern. Met., 1973, (1), 78-81] (R)

BISI 11426 (V. G. Sinitsyn, et al)

Theoretical investigation of the process of asymmetric rolling.

[Izv. VUZ. Chern. Met. 1973, (1), 69-72] (R)

BISI 11681 (V. Piispanen)

The theory of simulated sliding for flat rolling.

[Arch. Eisen, 1973, 44, April, (4), 261-265] (G)

BISI 11694 (E. M. Kroz and A. V. Safonov)

Reduction of the edging passes on a roughing stand during the rolling of a bar.

[Stal' 1973, (5), 438] (R)

BISI 11705 (V. Bolunov et al)

Compensation of the effect of wobble of mill rolls in regulating sheet thickness.

[Izv. VUZ. Chern. Met., 1973, (5), 61-62] (R)

- BISI 11706 (Yu. D. Zhelezov, et al)  
Calculation of the rolling forces during hot rolling.  
[Izv. VUZ. Chern. Met., 1973, (5), 63-67] (R)
- BISI 11708 (M. N. Potoshuev)  
Spread due to reduction inhomogeneity during rolling.  
[Izv. VUZ. Chern. Met., 1973, (5), 81-83] (R)
- BISI 11709 (N. P. Plichko et al)  
Calculation of the resistance to deformation of steel in hot-rolling.  
[Izv. VUZ. Chern. Met., 1973, (5), 98-101] (R)
- BISI 11710 (A. P. Chekmarev et al)  
Investigation of the interstand deformation during the rolling in light section mills.  
[Izv. VUZ. Chern. Met., 1973, (5), 102-105] (R)
- BISI 11792 (I. A. Rozentreter, et al)  
Investigation of the influence of the forms of fuel on the structure and properties of roll cast irons.  
[Stal', 1973, (6), 495-497] (R)
- BISI 11820 (F. Siegmeier)  
New roll gap measuring and control equipment and their results in operation.  
[Blech Rohre Profile, 1972, 19, (8), 347-353] (G)
- BISI 11875 (V. I. Meleshko et al)  
Calculation of optimum consumption of lubricant in rolling.  
[Stal', 1973, (7), 633-636] (R)

#### Metal working excluding rolling

- BISI 10790 (J. Madej, et al)  
Optimalisation in calibrating rollers of oblique piercing rolling mills.  
[Hutnik, (3), 143-154] (Po)
- BISI 11422 (V. I. Zalesskii and A. V. Siezovskii)  
Glass coatings used in the hot pressing of kh 18 NIOT steel.  
[Izv. VUZ. Chern. Met., 1973, (1), 122-125] (R)
- BISI 11605 (A. Troost)  
On the elementary theory of asymmetrical forward extrusion : determination of geometry and force using variation calculations.  
[Arch. Eisen, 1973, 44, (4), 315-320] (G)
- BISI 11667 (O. Pawelski and G. Kaiser)  
Studies on the straightening of steel wire by means of a roller straightening machine.  
[Stahl Eisen, 1972, 92, (24), 1215-1223] (G)
- BISI 11802 (L. L. Zusman)  
Comparative economic effectiveness of using different types of ferrous metal blank machine construction.  
[Stal', 1973, (6), 555-557] (R)
- BISI 11915 (N. A. Belozerskii et al)  
Fine polycomponent carbonyl iron-nickel powders.  
[Poluch. Svoistva Primen. Tonikh, Metal Porosh. Dokl 1970, 63-69] (R)
- BISI 11973 (S. Yu. Vigdorchik and R. A. Vais-

- burd)  
Calculation of the final deformation and mathematical simulation of the kinetics in the unsteady state processes of the treatment of metals by pressure.  
[Izv. VUZ. Chern. Met., 1973, (8), 80-83] (R)
- BISI 11992 (N. A. Bogatov et al)  
Bending moments, stresses and the deformation of the strip on spiral pipe welding mills.  
[Stal', 1973, (8), 742-743] (R)
- BISI 11997 (A. N. Leshchiner et al)  
Residual stresses and production processes for cold-drawn heat-resistant alloy wire.  
[Stal', 1973, (8), 769-771] (R)
- BISI 12022 (S. I. Orlov and V. A. Orlov)  
Drawing parts with removal of residual stresses.  
[Stal', 1973, (9), 829] (R)
- BISI 12035 (N. A. Chelyshev and Yu. P. Gints)  
Effect of vibrations of additional force on the upsetting process.  
[Izv. VUZ. Chern. Met. 1973, (9), 75-77] (R)
- BISI 12056 (A. Blume)  
Layout of stretch reducing tube mills with aid of diagrams.  
[Arch. Eisen, 1973, 10, Oct, 797-802] (G)
- BISI 12109 (H. Bühler)  
Reduction of residual stresses in cold drawn work through planishing  
[Stahl und Eisen, 1951, 71, (10), 33-34] (G)
- Steel and alloys (technical applications and methods of production) cermets**
- BISI 11014 (M. Trusculescu and I. Mitelea)  
Considerations for the selection of the structural steel grade on the basis of the hardenability values.  
[Metalurgia, 1972, 24, (9), 636-639] (R)
- BISI 11077 (O. Kastanek)  
The effect of titanium on the crystallization of alloyed steels for casting.  
[Slévárenství, 1972, (5/6), 221-223] (C)
- BISI 11390 (B. Borsky and J. Petros)  
The effect of purity of oxygen on the nitrogen content in tandem furnace steel and on the mechanical properties of such steel.  
[Huth. Listy, 1972, (12), 849-856] (C)
- BISI 11413 (A. P. Babich, et al)  
Properties of chromium-silicon steel rails after molten salt bath-hardened.  
[Stal', 1973, (1), 63-66] (R)
- BISI 11698 (O. D. Monich)  
The non-metallic inclusions in rails rolled from continuous cast billets, and their mechanical properties.  
[Stal', 1973, (5), 457-458] (R)
- BISI 11909 (Euronorm)  
Sheets and coils for welded steel gas cylinders (BOTTLES).  
[Euronorm 120-72. December] (F)
- BISI 11993 (D. S. Barkaya et al)  
Service life of kh 2 ON 8 ON-Alloy in relation to

melting method and microalloying.  
[Stal', 1973, (8), 746-749] (R)

BISI 11999 (C. Fink et al)

The effect of production conditions on the properties of sulphur-alloyed free-cutting steels.  
[Berg. Huttenm. Monatsh, 1972, 117, (9), 301-307] (G)

BISI 12061 (H. Brugger et al)

Plastic deformation occurring in 16 MnCr tensile bars after various heat treatments and prior deformation.  
[HTM., 1971, December, 26, (5), 348-353] (G)

### Casting and case metals

BISI 11073 (R. Kloda)

Reversal casting of crankshafts.  
(Slévárenství, 1972, (5/6), 199-201] (C)

BISI 11109 (A. Bolbrinker and G. Peuker)

Temperature and expansion measurements on an 80 p hot metal ladle.  
[Stahl Eisen, 1972, June, 613-620] (G)

BISI 11156 (F. Henke)

Heat resistant cast irons : part 1 : high silicon cast iron-high chromium cast iron.  
[Giesserei-Praxis, 1969, (13), 232-40] (G)

BISI 11738, (M. Decrop)

Spheroidal graphite iron : production and properties.  
[Report Issued by the International Pig Iron Secretariat at Essen.] (F)

BISI 11928 (H. M. Hiller)

Pressure casting dies-technological considerations.  
[Giesserei, 1973, 60, (8), 206-215] (G)

BISI 11978 (I. V. Gavrilin et al)

Nomogram for determining the optimum amount of micro-coolers for suspension pouring.  
[Izv. VUZ. Chern. Met., 1973, (8), 139-141] (R)

### Heat Treatment.

BISI 11697 (N. I. Sandler et al)

Hardening and Tempering of oil well casings of 20 khG2B steel.  
[Stal', 1973, (5), 450-451] (R)

BISI 11775 (H. Preisendanz et al)

Studies on the factors affecting depth of hardness penetration and their importance in the inductive feed hardness of cold rolls.  
[DEW-Technische Berichte, 1970, 10, (1), 14-26] (G)

BISI 11974 (Yu. N. Moskalenko)

Alteration in coercive force in the first stage of the tempering of quenched Fe-Cr-N and Fe-Cr-C system alloys.  
[Izv. VUZ. Chern. Met., 1973, (8), 109-111] (R)

BISI 12079 (H. W. Honervogt)

An indirect heated annealing furnace for the annealing in a protective atmosphere of stainless and acid-resistant cold-rolling strip.  
[Stahl und Eisen, 22nd November, 1973, 1152-1157] (G)

### Heating, Heating Furnaces and Electric Heating

BISI 11896 (E. A. (Roslik and E. M. Gol'dsarb)

Heating billets in straight-through furnace with prolonged mill shutdowns.  
[Izv. VUZ. Chern. Met., 1973, (7), 176-178] (R)

### Fuel combustion and refractories

BISI 10750 (M. Kozlovský and K. Berka)

Some technical aspects of the effects of phosphates in magnesia refractories.  
[Sikikaty, 1972, (2), 143-154] (C)

BISI 11471 (V. I. Lobanov and S. G. Bratchikov)

Gas combustion in a packed bed of iron-ore pellets. Communication 2  
[Izv. VUZ. Chern. Met., 1973, (2), 25-27] (R)

BISI 11809 (R. Helion and M. Boussicaud)

New combustion processes for fuel oils emulsified with water.  
[Chauff. Vent. Condit., 1971, Aug./Sept. 47, 13-35] (F)

BISI 12006 (G. Reiner and G. Mortl)

Refractory problems and operation of aod vessels.  
[Radex Rundschau, 1973, Oct. (4), 630-651] (G)

BISI 12010 (W. Schulle et al)

The effect of the type and method of lime addition on the properties of silica products.  
[Silikattechnik, 1966, 19, (12), 393-396] (G)

### Welding and joining

BISI 11664 (H. D. Steffens)

Corrosion phenomena in welded joints in shipbuilding steels.  
[Arch. Eisen, 1973, Sept., 43, 705-717] (G)

BISI 11693 (A. G. Monid, et al)

On-line bloom scarfing machine operation on a continuous billet mill.  
[Stal', 1973, (5), 435-437] (R)

BISI 11903 (French Standard)

The effect of post weld heat treatment on the mechanical properties of plain carbon steels for boilers and pressure vessels.  
[French Standard. A 35-200, April, 1973] (F)

### Ore and minerals handling and beneficiations

BISI 11750 (E. di poggio et al)

Technical developments in iron ore sintering.  
[Met. ABM., 1972, 28, June, 407-412] (P)

BISI 11981 (V. I. Kritinin et al)

The functions of a hot-sinter breaker.  
[Stal', 1973, (8), 691-692] (R)

### Ironmaking and Ferro-Alloys.

BISI 11392 (H. Schmidt)

The effect of the properties of fines in sinter on the results obtained in blast furnace operation in the east slovak iron and steel works (VSZ).  
[Hutn. Listy, 1973, (1), 9-12] (C)

BISI 11470 (N. L. ZHilo, et al)

Slag conditions in blast-furnace operation on pellets from the sokolovka-sarbai mining-beneficiation combine (SSGOK).

- [Izv. VUZ. Chern. Met., 1973, (2), 19-24] (R)  
 BISI 11526 (L. A. Byalyi)  
 Optimum natural gas consumption in blast-furnace operation.  
 [Stal', 1973, (3), 197-203] (R)  
 BISI 11749 (G. Sommer)  
 Modern blastfurnace ironmaking practice.  
 [Revist (ILEA) Latinoamer Sid., 1972, May, (145), 20-28] (Sp)  
 BISI 11763 (H. O. Beyer et al)  
 Gasification of coke with CO-CO<sub>2</sub> mixtures.  
 [Arch. Eisen, 1972, 43, (8), August, 597-601] (G)  
 BISI 11937 (F. Oeters and W. Pluschkell)  
 Desulphurization-kinetics of pig iron with lime and natural gas.  
 [Arch. Eisen, 1973, 44, (10), Oct, 727-733] (G)
- Steelmaking**
- BISI 11067 (A. Salak, et al)  
 Kinetics of the reduction of scale by a solid reducing agent.  
 [Sbornik VST Kosiciach, 1971, 177-190] (C)  
 BISI 11348 (H. P. Haastert et al)  
 Treating titaniferous pig iron in the oxygen converter for producing low-nitrogen steel.  
 [Stahl Eisen, 1973, (3), 100-107] (G)  
 BISI 11696 (B. S. Kurapin et al)  
 Raising the effectiveness of combustion of industrial carbon monoxide above the bath of an open-hearth furnace.  
 [Stal', 1973, (5), 447] (R)  
 BISI 11774 (M. Fenne)  
 Pneumatic addition of lime and coal in the electric arc furnace.  
 [Stahl und Eisen, 1973, 93, (16), 2nd August] (G)
- BISI 11794 (D. I. Turkenich, et al)  
 Calculating converter charges and evaluating current carbon contents.  
 [Stal', 1973, (6), 501-502] (R)  
 BISI 11796 (E. E. Merker et al)  
 Controlling the end of lancing metal with oxygen.  
 [Stal', 1973, (6), 506-508] (R)  
 BISI 11882 (G. S. Kolganov et al)  
 Mass transfer in the converter baths.  
 [Izv. VUZ. Chern. Met., 1973, (7), 36-40] (R)
- Extraction and refining**
- BISI 11074 (L. Lhotka)  
 Deoxidation by aluminium precipitation in steel making in electric arc furnaces.  
 [Slévárenství, 1972, (6), 210-212] (C)  
 BISI 11713 (M. K. Kadirov)  
 Pulsation of a gas bubble in liquid steel under vacuum.  
 [Izv. VUZ. Chern. Met., 1973, (5), 166-169] (R)  
 BISI 11968 (a. n. Korneeva, et al)  
 Structural changes of interference-coloured oxide films on iron, nickel, and copper during their reduction by hydrogen and carbon monoxide.  
 [Izv. VUZ. Chern. Met., 1973, (8), 21-26] (R)
- Engineering**
- BISI 11578 (K. H. Möllers)  
 Review of the possible growth of containerised transport in metallurgical works.  
 [Stahl Eisen, 1972, 92, 840-843] (G)  
 BISI 11812 (G. Kollert)  
 Electro-mechanical weighing equipment in steelworks.  
 [Siemens-Zeitschrift. 1972, 46, (11), 873-878] (G)