

資料室だより

BISITS Translation 紹介

— No 11 —

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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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(List Nos. 518~522)

Mineral Sources, Ores, Mining & Treatment

BISI 7461 (J. Hanc)l

Continuous homogenization of sinter mix.

[Hutn. Listy, 1969, 24, (2), 77-85] (Cz)

BISI 7823 (L. Chlebek and D. Trojka)

On the problems of moistening sinter mixes.

[Hutnik, 1969, 19, (7), 247-250] (Cz)

BISII 7996 (G. Schwabe)

Effect of type and grain size of ore and sinter mixes on the operational results of sinter plants.

[Stahl Eisen, 1969, 89, Oct. 30, 1191-94] (G)

BISI 8023 (J. Inglot and M. Kawecka)

Rapid methods for the determination of Fe, SiO₂ and CaO in the operational analysis of raw sinter mix [Prace Inst. Hutn., 1969, 20, (6), 381-385] (Pol.)

BISI 8123 (A. A. Gontarenko, et al.)

Use of superheated steam for the dewatering of fine iron ore concentrates

[Gornyi Zh. 1969, 145, (7) 63] (R)

BISI 8282 (V. M. Vityugin, et al.)

The calculation of optimum moisture content of dispersed materials before pelletizing.

[Izv. VUZ Chern. Met., 1969, (42), 42-43] (R)

Fuel Preparation, Properties and Uses

BISI 7318 (M. Echterhoff)

The effect of very high coking on the properties of coal. [Brennstoff-Chemie, 1968, 49, 294-302] (G)

BISI 7660 (G. Juranek, et al.)

Temperature measurements in coke ovens with bundled thermocouples.

[Glückauf Forsch., 1969, 30, (2), 79-83] (G)

BISI 7961 (S. Cejnoch)

Factors determining the thermal balance of

furnaces.

[Strojirenstvi, 1969, 19, (9), 552-556] (Cz)

BISI 8295 (M. Orlik)

The effect of moisture content and granulation of a coke charge on its bulk density.

[Tuha Paliva, 1969, 2, (4/5), 107] (Cz)

BISI 8340 (H. Ernst, et al.)

Relation between the proportion of sulphur in the coal charge, its properties, coking conditions and the proportion of sulphur in the coke in high temperature caronisation in the horizontal chamber oven.

[Glueckauf Forschungshefte, 1969, 30, Aug., 197-202] (G)

BISI 8395 (W. Borschel)

Concentration of coal haulage by a rising cable-belt conveyor between the mines camphausen and luisenthal.

[Gluckauf, 1969, 105, Oct. 2, 971-80] (G)

Air Pollution & Smoke

BISI 7966 (J. Bartecek)

Dust removal from the combustion products in oxygen intensified open hearth furnaces.

[Hutnik, 1969, 19, (9), 334-337] (Cz)

Refractory Materials

BISI 7459 (J. Becvar)

The advantages of rammed tundish linings.

[Hutnik, 1969, 19, (1), 14-15] (Cz)

BISI 7661 (H. E. Schwiete and K. D. Dohm)

Thermal conductivity of light-weight fireclay bricks in various gases.

[Arch. Eisenh., 1969, 40, Jan., 41-45] (G)

BISI 8266 (A. Masson)

An example of research on the friability of material.

[Silicates Industriels, 1969, 34, Sept., 239-241] (F)

- BISI 8296 (H. E. Schwlete and F. Schinnerling)
Physical properties, thermal expansion and creep of magnesite bricks.
[Arch. Eisenh., 1969, 40, Nov., 881-883] (G)
- Blast Furnace Practice & Production of Pig Iron & Ferro Alloy**
- BISI 7581 (R. Jon)
Influence of the slag composition on the blast furnace production of ferromanganese.
[Paper presented at the Conference on Manganese, Paris, 1969, June, 1-9] (F)
- BISI 7820 (Z. Puncoschar)
Possibilities of reducing the sulphur content in open-hearth pig iron.
[Techn. Zpravy, 1968, (3), 41-57] (Cz)
- BISI 7948 (I. Kudelka and J. Radl)
Reconstructing the blast furnace division of the iron and steel plant in trinec.
[Hutnik, 1969, 19, (8), 287-289] (Cz)
- BISI 7958 (J. Skala, et al.)
Desulphurizing iron by gaseous oxygen.
[Hutn. Listy, 1969, 24, (7), 480-485] (Z)
- BISI 7976 (L. Luckers)
Humidity measurement for coke and blast furnace gas.
[Rev. Met., 1969, 66, July/Aug., 557-562] (F)
- BISI 8281 (E. I. Arzmashev, et al.)
Refining of pig iron outside the blast furnace with spent open hearth slag.
[Izv. VUZ Chern. Met., 1969, (8), 56-60] (R)
- Production of Steel & Slags**
- BISI 7275 (G. Husson, et al.)
Comparison of different methods of atomising fuel oil in the open hearth furnace.
[C. D. S. Circ. 1956, 555-568] (F)
- BISI 7580 (T. Kootz and H. Schmeidel)
Development of the oxygen blowing process up to continuous refining.
[Thyssenforschung, 1969, 1, (2), 49-60] (G)
- BISI 7710 (Z. Buzek and J. Petros)
Kinetics of (direct) deoxidation in depth of iron and steel.
[Sbornik V. S. B Ostrave. Rada Hutnicka, 1967, 13, paper 389 45-54] (Z)
- BISI 7721 (K. Riha)
The influence of oxygen concentration in the lan-
cing mixture on the rate of evolution of brown.
fumes in the intensified open-hearth process.
[Hutnik, 1969, 19, (6), 210-213] (Cz)
- BISI 7845 (G. Trömel, et al.)
Equilibria between iron and lime-saturated
sulphur-bearing iron oxide slags at 1400 and
1600°C.
[Arch. Eisenh., 1969, 40, Feb., 87-98] (G)
- BISI 7863 (M. Mouck, et al.)
Determination of basicity and FeO content of
steel slag by measurement of the heat of re-
action.
[Hutn. Listy, 1965, (3), 207-209] (Cz)
- BISI 7935 (M. M. Klyuev and Yu. M. Mironov)
On the surface of interaction during electroslag
remelting.
[Akad. Nauk. Inst. Met. Baikov, F. K. Osnovy
Proizv. Stali, 1967, 256-260] (R)
- BISI 7949 (K. Riha)
Improved oxygen blowing technique in the
open-hearth process (at trinec).
[Hutnik, 1969, 19, (8), 290-295] (Cz)
- BISI 7952 (J. Uricar and P. Pohl)
Manufacturing high-grade steels in 230-ton MB
furnaces and their teeming into large ingots at
the iron and steel plant in trinec.
[Hutnik, 1969, 19, 307-310] (Cz)
- BISI 7956 (E. Pant, et al.)
Inhomogeneity of chromium steel ingots.
[Slevarenstvi 1969, 17, (8), 317-319] (Cz)
- BISI 7959 (Z. Buzek and V. Schindlerova)
Effect of definite elements on sulphur solubility
in molten iron.
[Hutn. Listy, 1969, 24, (7), 493-497] (Cz)
- BISI 8036 (G. Nectoux, et al.)
Use of an equivalence between time and tem-
perature in studying oxidation and decarburiza-
tion of low alloy steels.
[Rev. Met., 1969, April, 283-290] (F)
- BISI 8094 (G. Grenier)
The LD process in Japan.
[Mines Met., 1969 May, 143-144, June, 173-
174, 176] (F)
- BISI 8109 (L. Smrha, et al.)
Development and use of carbon free synthetic
slags for the bottom casting of ingots.
[V.Z.K.G. Proc. 140th Annvi. Foundation, 1968,
67-69] (Cz)
- BISI 8114 (J. Dieudonne)
Basic Bessemer steelworks committee the treat-
ment of hot metal by blowing or bubbling
argon into the furnace or ladle.
[C.D.S. Circ., 1969, (7-8), 1781-1821] (F)
- BISI 8132 (A. Majdic)
The application of electromagnetic techniques
to steel production and the requirements of
refractories.
[Dtsch. Ber. Keram. Ges., 1969, 46, (7), 375]
(G)
- BISI 8151 (D. Mansuy)
Basic Bessemer commission.
[C.D.S. Circ., 1969, (9), 2015-2036] (F)
- BISI 8189 (G. Trömel, et al.)
The constitutional diagram FeO-MnO-CaO-
P₂O₄ in air at 1600 and 1630°C.
[Arch. Eisenh., 1969, 40, Sept. 673-9] (G)
- BISI 8260 (A. Majdic, et al.)
Nitrogen pick-up of slags in the system CaO-
SiO₂-Al₂O₃.
[Arch Eisen 1900, 41, Jan. 11-17] (G)
- BISI 8280 (M. J. Langhammer, et al.)
Application of a transitory slag practice to the
industrial desulphurization of pig iron.
[Stahl Eisen, 1969, 89, Oct., 16, 1137-46] (G)
- Foundry Practice**
- BISI 7645 (R. Kamensky and J. Piskor)
Longitudinal cracks in chilled cast-iron rolls.
[Hutnik, 1966, 16, (6), 289-292] (Cz)

- BISI 7732 (K. Traub)
Price planning in foundries.
[Giesserei 1968, 55, 26th Sept., 617-620] (G)
- BISI 8000 (W. Weis and K. Orths)
Factors bearing on the mechanical properties of flake graphite iron after allowing for effects given by composition.
[Giesserei-Forschung, 1969, 21, (3), 113-124] (G)
- BISI 8139 (M. Scheibe)
Sample taking methods for the determination of carbon in spheroidal graphite cast iron.
[Giessereitechnik, 1969, 15, (5), 143-146] (G)
- BISI 8169 (E. Kistermann)
New methods of insulation for coreless induction furnaces.
[Giesserei-Praxis, 1968, (11), 181-186] (G)
- Hot-Treatment, Heat-Treatment Furnace, Reheating Furnace & Soaking Pits**
- BISI 8135 (W. Goehring)
New knowledge on application and production of combustion gases as a furnace atmosphere in the heat-treatment of steel.
[B. M. M., 1969, 114, Sept., 279-285] (G)
- Forging, Pressing, Drawing, Extrusion, Swaging & Stamping**
- BISI 7441 (D. Kohut)
The influence of forging temperatures on the notch impact-strength of csn 16720 steel.
[Mutnik, 1969, 19, (1), 21-22] (Cz)
- BISI 7828 (A. Jicha and V. Vondrasek)
Automation in czechoslovak and foreign forges.
[Hutnik, 1969, 19, (7) 269-274] (Cz)
- BISI 8143 (O. Pawelski and R. Kopp)
Measurement of the distribution of temperatures during the drawing of round bars.
[Stahl Eisen, 1969, 89, Nov. 27, 1345-53] (G)
- Rolling & Rolling Practices**
- BISI 7115 (A. Engel, et al.)
Conversion of the mechanical and electrical equipment of a heavy plate mill in preparation for automation.
[Stahl Eisen, 1968, 88, Aug. 22, 920-930] (G)
- BISI 7338 (N. I. Paimov)
On the rational relationships between the speeds of bite and discharge, acceleration and deceleration during rolling on reversing mills.
[Izv. VUZ Chern. Met., 1963, (12), 90-98] (R)
- BISI 7419 (V. Richter)
Diagram of rolling train control system.
[Mutn. Listy, 1969, 24, (4), 266-270] (Cz)
- BISI 7826 (K. Matuska)
The effect of thickness, rolling schedules and heat treatment on the properties of thick steel sheet.
- Machinery, Machining Machinability & Services for Iron and Steel Plant**
- BISI 8030 (E. Hanke and E. Endemann)
New information on the surface grinding of quenched steels.
[Rev. Met., 1969, Apr. 291-302] (F)
- Plating, Protective Coatings, Cleaning Pickling**
- BISI 7532 (U. Zorll and W. Funke)
Measurement of the adhesive strength of coating films to metallic substrates.
[Mitt. debo, 1969, 20, Jan. 15, 13-17] (G)
- BISI 8299 (P. Rocquet and Ph. Aubrun)
Study and prevention of sulphide discolouration in tin cans.
[Comite international Permanent de la Conserve, Premiere Rencontre Internationale des Industriels de la Conserve, Marrakesh (Morocco), 1969, Oct., Article CS 25] (F)
- Properties and Tests**
- BISI 7518 (J. Teindl, et al.)
Notes on titanium steels for enamelling and their development.
[Hutn. Listy, 1968, 23, (4), 232-238] (Cz)
- BISI 7562 (W. Nicodemi)
Temper brittleness in carbon steels.
[Met. Ital., 1969, (1), 8-6] (I)
- BISI 7793 (G. Robiller and C. Strassburger)
The bauschinger effect in plain carbon steels.
[Materialpruefung, 1969, 11, Mar., 85-95] (G)
- BISI 7923 (A. Kochendorfer, et al.)
Experiments on the effect of grain size and stress state on the transition temperature of steel.
Comparison of the results with those obtained from the dislocation theory of brittle fracture.
[Stahl Eisen, 1969, 89, Sept. 18, 1053-1061] (G)
- BISI 7924 (M. Wahlster, et al.)
Effect of non-metallic inclusions on the anisotropy of the mechanical properties of heavy plate after different types of deformation.
[Stahl Eisen, 1969, 89, Sept. 18, 1037-44] (G)
- BISI 8035 (P. Ravizza)
Behaviour in torsion tests of nickel steels for cables.
[Rev. Met., 1969, Apr., 303-309] (F)
- BISI 8149 (K. Bungardt and W. Spyra)
The development of stainless maraging steels.
[DEW Techn. Ber., 1969, 9, 361-369] (G)
- BISI 8181 (G.S.A. Shawki)
Plastic anisotropy as an important criterion for assessing the deep drawability of sheet steel.
[Blech, 1969, 16, (10), 547-555] (G)
- BISI 8269 (Ye. Ya. Zarvin, et al.)
Effect of the amount of additive and residual aluminium on impurities and fatigue properties of rail steel.
[Izv VUZ chern. Met., 1969, (6), 76-79] (R)
- BISI 8335 (G. Soltysik, et al.)
Effect of thermal demagnetization below the curie point on the magnetic permeability of transformer sheets.
[Prace Inst. Hutn., 1969, 21, (1), 69-71] (Pol.)
- Corrosion**
- BISI 7523 (K. E. Meusler)
Dissolution of passive iron in sulphuric acid studied by the rotating disc-ring electrode.

- [Ber. Bunsenges. Phys. Chem., 1968, 72, (9-10), 1197-1205] (G)
- BISI 7613-111 (L. Marchesini and G. Scarinci)
The corrosion resistance of austenitic stainless steels in nitric acid environment 111-influence of molybdenum.
[Tecnica Italiana, 1968, 33, 429-437] (I)
- BISI 7827 (J. Teindl and O. Blahoz)
Corrosion of steel pipes for water and gas by stray currents.
[Hutnik, 1969, 19, (7), 265-268] (Cz)
- BISI 7912 (J. Baroch)
New steel with higher resistance to atmospheric corrosion.
[Strojirenstvi, 1969, 19, (9), 598] (Cz)
- BISI 8007 (M. Kaesche)
Electrode behaviour of zinc and iron in a solution of calcium hydroxide and in mortar.
[Werkstoffe Korr., 1969, Feb., 119-124] (G)
- BISI 8047 (W. Kesternich)
The significance of corrosion testing methods, with special reference to the SO₂ test in accordance with din 50018.
[Werks. Korr., 1965, 16, Mar., 193-201]
- Metallography**
- BISI 7486 (F. Jandos)
Nucleation of fibrous fracture in repeated quenching of 9-4-2 type high-speed steel.
[Hutn. Listy, 1969, 24, (2), 112-120] (Cz)
- BISI 7576 (V. A. Sarrak, et al.)
Interaction of dislocations with carbon atoms in martensite.
[Sb. Trud. Tsent. Nauchn. Issled. Inst. Chern. Met., 1968, (58), 151-157] (R)
- BISI 7623 (R. Kamensky)
Distribution of ingredients between phases of the Fe-Fe₃C eutectic.
[Kovove Mat., 1969, 7, (1), 31-40] (Cz)
- BISI 7681 (H. D. Wiesinger)
Causes and conditions for the formation of the (110) [001] texture in iron and silicon iron sheet.
[Neue Huette, 1969, 14, June, 361-365] (G)
- BISI 8179 (F. Haessner)
Texture determination and description.
[Proceedings of the international Conference on Textures, Tech. Univ., Clausthal-Zekkerfeld, Springer Verlag, Berlin, 1969, 1-23] (G)
- BISI 8192 (E. Pouillard and B. Osdoit)
Mechanism of roping in ferritic 17% chromium steels.
[Rev. Met., 1969, 66, Nov., 763-769] (F)
- Analysis**
- BISI 7865 (F. Möller, et al.)
Melting practice for spectrographic analysis: Automation and operational experience.
[Stahl Eisen, 1969, 89, Aug. 21, 948-995] (G)
- BISI 8171 (U. Grisar)
Contribution to the photometric determination of the vanadium content.
[Archiv. Eisenh., 1969, 40, Dec., 997-998] (G)
- BISI 8297 (N. Kozub, et al.)
Vapour-liquid phase equilibrium studies of the methanol-methyl system using a gas chromatographic method of analysis.
[J. Pract. Chemie, 1962, 17, 283-292] (G)
- BISI 8300 (E. Schöffmaun)
Contribution to the high-frequency combustion method of carbon and sulphur determination in metallic samples.
[Thyssenforschung, 1969, 1, (3), 121-123] (G)
- Economics and Statistics**
- BISI 7460 (Z. Puncochar)
Principles of complex quality control in the metallurgical industry.
[Hutnik, 1969, 19, (1), 3-5] (Cz)
- BISI 7947 (J. Sunkala)
Technical and economic operational data of the main divisions of the trinec iron and steel works.
[Hutnik, 1969, 19, (8), 282-286] (Cz)
- Miscellaneous**
- BISI 8037 (G. Vermeyfen, et al.)
Nickel-cobalt separation.
[ATB Met., 1969, 9, (2), 80-91] (F)

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書 評

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「鉄鋼の物性 I」 (鉄鋼工学講座 4)

金子秀夫・本間敏夫・安達健吾 共著

本書の内容は、鉄鋼の組織、熱力学および電子論について、入門的な説明のなかに、かなり高いレベルの基礎的知識を包含させてまとめられたものである。1. 鉄鋼の組織ではとくに炭化物、マルテンサイト変態の結晶学、 σ 相の3つのテーマについて重点的に書かれている。2. 鉄鋼の変態の熱力学では拡散型変態と無拡散型変態における自由エネルギー変化と速度論を簡潔にまとめ、3. 鋼の統計熱力学では侵入型固溶体の熱力学函数を示し炭素鋼の準安定系状態図と、鉄中の炭素の活量に及ぼす第三元素の影響を述べている。4. 鉄の電子論は、一般的な基礎知識から説き起こして短い経路で tight binding 近似, APW 法, グリーン函数法, さらに強磁性についての集団電子模型にまで及んでいる。

鉄鋼に関するいわゆる材料科学的な研究およびその応用を志す学生, 若い研究者・技術者にとって, 鉄鋼の物性工学および組織学の現状の主要な部分を概観的に把握し, 将来の研究への足がかりとするために座右の書としていただきたい書物である。(阿部秀夫) (A 5 版, 285 ページ, 定価 1800 円, 朝倉書店)