

資料室だより

BISITS Translation 紹介

— No 12 —

BISITS Translation の特長

英國鉄鋼業界、BISRA および英國鉄鋼協会は共同で BISITS を運営しています。この BISITS は BISITS Translations を発行しています。BISITS Translations は世界各国（英米語を使用する以外の国）の主要鉄鋼技術誌および学術誌のうち主要論文を全文英訳したもので、これらの論文は、世界各国が発刊する多数の Journals から選択されており、鉄鋼関係の研究者向きの論文を網羅しています。

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ります。

BISITS Translations を利用すれば英國米国、以外の主要製鉄国の主要論文をきわめて容易に知ることが可能で、これによる時間的利得は非常に大きいと考えられます。

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。なお、「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

(List Nos. 523～525)

Mineral Sources, Ores, Mining & Treatment

BISI 7487 (V. A. Glembotskii, et al.)

The feasibility of using ultrasound for freeing mineral particles of the absorbed layer of reagents in the flotation process for ore beneficiation. [IZV. Akad. Nauk SSSR. Otdel. Tekh. Nauk, 1957, (10), 111-112] (R)

BISI 7564 (A. Blazek, et al.)

Processing of lateritic iron ore by selective reduction. [Huth. Listy, 1968, 23, (12), 835-842] (Cz)

BISI 6877 (E. Mazanek and M. Wyderko)

Effect of the silicate phase on the properties of iron ore sinters. [Arch. Eisenh., 1968, 39, June, 433-438] (G)

Fuel Preparation, Properties and Uses

BISI 7887 (J. Burton)

Standard gas mixtures and their use in ferrous metallurgy. [Rev. Met. Mem. Sci, 1967, 64, Jan., 73-80] (F)

Refractory Materials

BISI 7850 (H. Wysocki, et al.)

Wear of the refractory lining of a blast furnace of 7.5m hearth diameter. [Stahl Eisen, 1969, 89, (7), 342-349] (G)

BISI 8195 (W. Rodl)

New developments in basic linings for electric arc furnaces a comparison practice in europe and the USA. [Radex Rund., 1969, (5), 729-739] (G)

BISI 8198 (H. W. Ludwig & H. Schneider)

Development of ladle linings formed by ramming and slinging at the ruhrort steelworks of August Thyssen Hutte AG. [Stahl Eisen, 1969, 89, Oct. 2, 1096] (G)

Blast Furnace Practice & Production of Pig Iron

& Ferro Alloy

BISI 7408 (P. Dancoisne)

Theoretical limitation of the use of hot blast furnaces. [C. D. S. Circ., 1968, (10), 2187-2215] (F)

BISI 7491 (J. Tripsa & O. Hatarascu)

Contribution to ironmaking from ores by direct reduction using gases resulting from the conversion of methane by carbon dioxide. [Met. Ital., 1968, 60, (9) 815-821] (I)

BISI 8294 (J. C. Cochery, et al.)

Use of statistical methods for the dynamic study of the blast furnace. [C. D. S. Circ., 1969, (9), 1965] (F)

Production of Steel

BISI 7456 (K. Stransky)

Conditions for chemical inhomogeneity of basic arc furnace baths. [Slevarenstvi, 1969, 17, (2), 72-77] (Cz)

BISI 7525 (G. Grenier)

Casting special steel ingots. [Echo Mines and Metall., 1957, (11), 651-652] (R)

BISI 7770 (I. V. Kulikov, et al.)

Effect of the oxygen content in rimming steel on ingot structure. [IZV. VUX Chern. Met., 1969, (1), 30-34] (R)

BISI 7825 (K. Riha)

Deep lancing with oxygen to reduce evolution of brown fumes in the oxygen open-hearth process. [Hutnik, 1969, 19, (7), 256-259] (Cz)

BISI 7937 (G. Mix)

The formation of macroscopic inclusions in rimming steel: possibilities for their prevention.

[Radex Rund., 1969, Sept., 618-638] (G)

BISI 7951 (J. Prek)

Vacuum treatment of steel at the iron and steel

plant in trinec.

[Hutnik, 1969, 19, (8), 302-306] (Cz)

BISI 7967 (J. Prek)

Mathematical-statistical evaluation of the time of steel solidification in the ingot moulds on the rolling yield on a blooming mill.

[Hutnik, 1969, 19, (9), 339-342] (Cz)

BISI 8008 (W. Poppmeir and B. Tarmann)

The primary crystallisation of steel during continuous casting.

[Z. Metalk., 1969, 60, Apr., 266-271] (G)

BISI 8031 (C. Matysik)

Measurement of molten steel level in the continuous casting mould by thermocouples

[Prace Inst., Hutn., 1968, 20, (5), 271-3] (Po)

BISI 8107 (W. Holzgruber)

Operating results from an industrial electroslag remelting unit.

[International Congress on Electro-heat, Brighton, 1968, 13-18 May, of the British National Committee for Electroheat paper No. 139] (G)

BISI 8186 (L. Hannon and P. Dauby)

Controlling the sulphur content of steel in the L/D plant of cockerill-ougree-providence in serraig commission of oxygen steelmills.

[C. D. S. Circ., 1969, (7/8), 1761-1780] (F)

BISI 8359 (A. Bungeroth and H. vom Ende)

Types of defect occurring in continuous casting

[Mannesmann Forschungsber., 1968, (465), 7] (G)

Foundry Practice

BISI 7969 (A. Sprencle)

New trends in the manufacture of ingot moulds from primary pig iron.

[Hutnik, 1969, 19, (9), 348-354] (Cz)

BISI 8303 (T. E. Norman)

Wear-resistant castings: present state and development

[Giessereipraxis, 1969, (20), 359-364] (G)

Heat-Treatment, Heat-Treatment Furnace, Reheating Furnace & Soaking Pits

BISI 7659 (H. Borchers, et al.)

Contribution to the study of heat treatment from the heat of shaping.

[Arch. Wisenh., 1969, 40, (5), 437-444] (G)

BISI 7831 (K. Obrouchka)

A contribution to the problem of scaling reduction in heating furnaces

[Sbornik V. S. B. Ostrave, 1968, 14, (2), 93-98] (Cz)

BISI 8384 (J. Brand)

Bright annealing of high-quality steel strip after cold reduction.

[Bander Bleche, 1970, 11, Feb., 73-78] (G)

Forging, Pressing, Drawing, Extrusion, Swaging & Stamping

BISI 7843 (ph. Vagnieux, et al.)

Contribution to the study of the plastic deformation of iron.

[Rev. Met. Mem. Sci., 1969, 66, Mar., 189-

196] (F)

BISI 8085 (J. Solar)

Effective utilisation of steel sheet.

[Strojirenska Vyroba, 1969, 17, (1), 36-39] (Cz)

BISI 8206 (R. Seigel & G. Fritzsch)

The flow curve its mathematical representation and metallographic discussion.

[Sbornik prednasek z knonference v tatranske lmonici, Rijna, 1967, article (6), 24-27] (G)

Rolling & Rolling Practices

BISI 8046 (J. Bouvard, et al.)

Automating the hot rolling of plates on a reversing stand. Preliminary data on the mass rolling of steels with identical properties

[Rev. Met., 1969, 66, June, 433-445] (F)

BISI 8194 (M. Vater & H. Sax)

Hot rolling of steel section in one pass

[Draht-Welt, 1968, 54, (10), 676-683] (G)

BISI 8258 (K. H. Weber & M. Budner)

Heating of the stock and the rolls during cold rolling in a medium-strip four-high reversing stand.

[Neue Hütte, 1968, 13, (8), 464-470] (G)

BISI 8261 (P. Funke & K. Bosenberg)

Investigations concerning the process of cooling rolled stock on the runout table.

[Stahl Eisen, 1969, 89, Dec. 25, 1446-1452] (G)

BISI 8339 (W. Esche and A. Drevermann)

The economic fabrication of fine-grained, weldable structural steels of high strength by control of temperatures during rolling.

[Stahl Eisen, 1970, 90, Feb. 19, 179-184] (G)

Welding

BISI 7665 (O. Libra)

Properties of welded joints in MN VN steel

[Zvaranie, 1969, 18, (5), 137-143] (Cz)

BISI 7941 (F. Bonner, E. Bettenworth)

The continuous seam welding of strip-galvanised metal sheet.

[Blech. Coburg, 1969, 16, (8), 390-394] (G)

Plating, Protective Coatings, Cleaning Picking

BISI 7517 (A. Dietzel)

The adherence mechanism in one-coat direct-ion-enamelling.

[Ver. Deutscher Emailfachleute Mitt., 1968, 16, (5), 27-32] (G)

BISI 7979 (H. W. Dettner)

Present state of the art of the electrodeposition of zinc.

[Bander Bleche, 1969, 10, May, 271-274] (G)

Properties and Tests

BISI 7799 (O. Voskovsky)

Influence of strain rate and temperature on the mechanical properties of structural steel.

[Strojirensty, 1969, 19, (7), 443-450] (Cz)

BISI 7834 (M. Zidek)

Effect of the main alloying elements on the properties and on the hot-forming property of medium-alloy steels.

[Sbornik V. S. B. Ostrave, 1968, 14, 22, 119-134] (Cz)

- BISI 7911 (M. Holzmann and J. Mann)
Criteria evaluating the resistance of steel to brittle fracture.
[Strojirenstvi, 1969, 19, (9), 568-580] (Cz)
- BISI 8039 (A. Graef)
Determination of the elastic properties and their variation with temperature using an ultrasonic pulse method.
[Jernkont. Ann., 1969, 133, (4), 181-187] (Sw)
- BISI 8240 (L. Bretin & M. Toitot)
Hydrogen embrittlement of two martensitic steels. Testing procedures and results.
[Paper to symposium on Hydrogen in Metals, Valduc, 1967, Sept., 64-82] (F)
- BISI 8251 (L. Roesch and G. Henry)
Influence of tempering conditions and test temperature on the mechanical behaviour of maraging steel.
[Rev. Met., 1969, 66, Nov. 725-739] (F)
- BISI 8321 (N. L. Kuklyak, et al.)
The influence of high temperature thermo-mechanical on the mechanical properties of steel 45 KhNMFA during torsion.
[Fiz. Khin. Mekhan. Met., 1968, 4, (2), 128-132] (R)
- BISI 8347 (E. Amedick)
Study on the shaping of large crankshafts and the stresses to which they are subject
[Stahl Eisen, 1967, 87, Oct., 5, 1189-1198] (G)
- Clad Steel, Powder Metallurgy & Hardfacing**
- BISI 8375 (G. Rossi and A. Perin)
The formation of metallic structures by the plastic deformation of powders.
[Met. Ital, 1969, 61, June, 260-266] (I)
- Corrosion**
- BISI 7516 (Anon)
New work on the problem of corrosion of cans
[Revs. Conserve, 1968, 24, (2), 143-151] (F)
- BISI 8250 (C. B. Sonnino, et al.)
Experimental investigation of the stress corrosion behaviour of maraging steels in various media.
[Rev. Met., 1969, 66, Nov. 741-748] (F)
- BISI 8382 (R. Laban)
An exhaust system for 100,000 kilometers : stainless chromium steel reduces corrosion of car silencers.

- [VDI Nachrichten 1970, 24, Mar. 18, 1] (G)
- Metallography**
- BISI 7575 (A. Rose, et al.)
Segregation of the alloying elements during the denoritic solidification of ferrous metals.
[Arch. Eisenh., 1968, 39, Nov. 829-836] (G)
- BISI 7848 (C. Rossard, et al.)
Work hardening and recrystallization of steels by plastic deformation at high temperature.
[Rev. Met Mem. Sci. 1969, 66, Apr., 263-70] (F)
- BISI 8101 (J. Kudrman, et al.)
Study of the sub-structure of lower bainite
[Kovove Mat., 1969, 7, (3), 208-218] (Cz)
- BISI 8147 (L. Weigel, et al.)
Internal stress measurements by X-ray techniques on martensite and residual austenite in case-hardened steels.
[Harterei-Techn. Mitt., 1969, 24, 225-232] (G)
- BISI 8211 (M. Esponhahn, et al.)
The influence of zirconium on the conformation and deformability of aluminides in plain structural steel.
[Thyssenforschung, 1969, 1, (4), 136-143] (G)
- BISI 8214 (K. H. Wiedemann)
The effectiveness of boron containing grain-refining agents on the grain size of solidified pure aluminium melts.
[Metall, 1961, 15, (3), 221-224] (G)
- Analysis**
- BISI 7424 (M. Moucka)
X-ray spectrographic analysis of ore fines
[Hutn. Listy, 1969, 24, (4), 302-304] (Cz)
- BISI 8166 (C. Gattelier, et al.)
Determination of the oxygen dissolved in liquid iron and steel using electro chemical cells.
[Rev. Met., 1969, Oct., 673-693] (F)
- Miscellaneous**
- BISI 7306 (A. Danihelka)
Activity and plans of the research institute for ferrous metallurgy
[Hutn. Listy, 1968, 23, (11), 763-773] (Cz)
- BISI 8043 (J. Glibert and R. Breckpot)
Zinc removal from cobalt-containing solutions in an electro-extraction circuit.
[ATB met. 1969, 9, (12), 69-81] (F)

Henry Bratcher Metallurgical Translations 紹介

Henry Bratcher Metallurgical Translations は英語以外の冶金関係の学術技術論文を英訳出版したもので、1926年 Henry Bratcher 氏によつて始められました。原典は英語を使用していない、鉄鋼を製造しているあらゆる国から100点以上の刊行物が収集され、それらの中から優秀な論文が選択されて出版されています。

このたび Henry Bratcher 氏より 1970年2月以降出版されたものおよび今後出版されるものについて寄贈されることになりました。については広く会員皆様のご利用をお待ちしております。

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Mineral Sources, Ores, Mining & Treatment,

- HB 7828 (A. N. Pokhvisnev, et al.)
Influence of size grading of limestone on the strength of fluxed pellets.
[IZVEST. VUZ-CHERN. MET., vol. 12, 1969, No. 3, 25-28] (R)

Refractory Materials

- HB 8090 (A. K. Karklit, et al.)
Service performance of zircon(Tundish) nozzles for the continuous casting of steel.
[OGNEUPORY, vol. 34, 1969, No. 12, 10-15] (R)

Blast Furnace Practice & Production of Pig Iron & Ferro Alloy

- HB 7768 (A. N. Pokhvisnev, et al.)
Ladle desulfurization of pig iron by injection of powdered lime with an air jet.
[IZVEST. VUZ-CHERN. MET., vol. 12, 1969, No. 1, 144-149] (R)
- HB 7884 (I. I. Shestopalov et al.)
Desulfurization of pig iron with magnesium metal in ladles.
[Metallurgich. i cronoruden. promyshlennost', vol. 10, 1969, #2, 6-8] (R)

Production of Steel

- HB 8045 (V. E. Roshcin, et al.)
Conditions of removal of titanium and zirconium nitrides from steel.
[IZVEST. VUZ-CHERN. MET., vol. 12, 1969, No. 10, 43-45] (R)
- HB 7904 (V. I. Simonov, et al.)
Technology of treating liquid steel with powdered materials. Part 1.
[IZVEST. VUZ-CHERN. MET., vol. 13, 1970, No. 1, 52-55] (R)
- HB 7922 (V. V. Sukharev, et al.)
The refining of liquid steel by injection of powdered materials.
[IZVEST. VUZ-CHERN. MET., vol. 12, 1969, No. 5, 62-66] (R)
- HB 8077 (V. P. Kudel'kin, et al.)
Action of ultrasonic vibrations on the crystallization (of steels and alloys) in electroslag remelting.
[IZVEST. VUZ-CHERN. MET., vol. 12, 1969, No. 11, 64-70] (R)
- HB 8099 (S. I. Popel', et al.)
Some special features of the deoxidation of

steel with silico-calcium.

- [IZVEST. VUZ-CHERN. MET., vol. 12, 1969, No. 7, 38-41] (R)

- HB 8080 (M. F. Sidorenko et al.)
The problem of automating the temperature schedule of electric furnace heats.

- [IZVEST. VUZ-CHERN. MET., vol. 12, 1969, No. 11, 60-63] (R)

- HB 8046 (V. I. Zhalybin et al.)
Composition changes of nonmetallic inclusions during the melting and pouring of high-alloy steel.

- [IZVEST. VUZ-CHERN. MET. VOL. 12, 1969, No. 9, 50-54] (R)

- HB 7769 (E. V. Vygovskii, et al.)
On the factors governing the process of ultrasonic treatment of liquid and solidifying alloys.

- [IZVEST. VUZ-CHERN. MET., vol. 12, 1969, No. 1, 150-153] (R)

- HB 8122 (L. F. Vygodner, et al.)
Casting a directionally-solidifying ingot. (Part I)

- [IZVEST. VUZ-CHERN. MET., vol. 13, 1970, No. 1, 48-51] (R)

- HB 7913 (G. V. Samsonov, et al.)
Contact interaction between silicon and boron carbides and their compounds with liquid metals.

- [DOPOVIDI AN UKRSR, 1969, No. 5, 468-471] (Ukrainian)

Machinery, Machining Machinability & Services for Iron and Steel Plxnt.

- HB 7761 (N. F. Kalashnikov and A. A. Govorov.)
Influence of the original structure on the service performance of cast cutting tool.

- [IZVEST. VUZ-CHERN. MET., vol. 11, 1968, No. 12, 120-122] (R)

Plating, Protective Coatings, Cleaning Pickling

- HB 8041 (E. P. Ponomarenko, et al.)
Structure of plastic diffusion layers on steel (vacuum) chromized from a sublimated phase.

- [IZVEST. VUZ-CHERN. MET., vol. 12, 1969, no. 10, 93-97] (R)

Properties and Tests

- HB 8091 (M. I. Chernyak, et al.)
Effect of plastic deformation upon the strength of martensitic stainless steel.

- [Dopovidan ukrsr, no. 6, series A, 1968, 565-

- 568] (Ukraine)
 HB 8169 (A. Hein and W. Carius)
 Ultrasonic testing of heavy plate in ausomatic equipment.
 [Materialprufung, vol. 12, 1970, No. 2, 53-55] (G)
 HB 8181 (W. Michel)
 Thermal conductivity of several cemented carbide compositions at elevated temperatures.
 [Technische mitteilungen Krupp, forschungsberichte, vol. 27, 1969, Nos. 3/4, 79-82] (G)
 HB 7967 (V. I. Gerasimov, et al.)
 Susceptibility of austenitic chrome-nickel steels to intercrystalline corrosion as related to corrosion cracking.
 [FIZ.-KHM. MEKH. MAT., vol. 5, 1969, No. 2, 165-169] (R)
 HB 7917 (A. E. Volkov and V. A. Boyarshinov)
 Some results of an investigation of the dendritic inhomogeneity of ball-bearing steel.
 [IZVEST. VUZ-CHERN. MET., vol. 12, 1969, no. 5, 143-144] (R)
 HB 7831 (D. Ya. Povolotskii, et al.)
 Effect of rare-earth metals on the properties of austenitic steel.
 [IZVEST. VUZ-CHERN. MET., vol. 12, 1969, No. 3, 132-137] (R)
 HB 8075 (W. Koster and W. -D. Haehl)
 Changes of state in the heat treatment of iron-cobalt-nickel alloys with nickel contents of up to 40% and their effect on the alloy properties.
 [ARCHIV EISENHUTTENWESEN, vol. 40, 1969, No. 7, 575-583] (G)
 HB 8084 (V. D. Evdokimov)
 Investigation into the stresses in contact friction in relation to the direction of sliding.
 [FIZ.-KHM. MEKH. MAT., vol. 4, 1968, no. 5, 606-608] (R)
 HB 8071 (V. M. Finkel', et al.)
 Some methods of investigating the influence of the composition of nonmetallic inclusions upon the strength of steel.
 [VUZ-CHERN. MET., vol. 12, 1969, No. 8, 120-123] (R)
- Clad Steel, Powder Metallurgy & Hardfacing**
 HB 8097 (G. F. Tikhonov and A. V. Sivov)
 Densification of Bimetals in the process of compaction.
 [Poroshkovaya metallurgiya, vol. 9, 1969, no. 11 (83) 12-15] (R)
- Corrosion**
 HB 8155 (H. P. Haastert, et al.)
 Study of the scaling of several types of steel.
 Thyssenforschung, vol. 1, 1969, no. 4, 127-135 (G)
 HB 7975 (Ya. M. Sirak)
 Function of the material of contact-bonded parts in the resistance to corrosion fatigue fracture of steel.
 [Fiz.-khim. mekh. mat., vol. 5, 1969, No. 2, 161-4] (R)
- Industrial Uses & Application**
 HB 8089 (A. P. Chekmarev, et al.)
 First industrial installation for feeding technological lubricants for the hot rolling of steel.
 [Metallurg. i gornorudn. promyshlennost' vol. 5, 1969, No. 2 17-20] (R)
- Miscellaneous**
 HB 8042 (B. G. Chernov and P. Ya. Ageev.)
 Removal of nonferrous metals from liquid nickel and alloys by bubbling argon through them under vacuum.
 [IZVEST. VUZ-CHERN. MET., vol. 12, 1969, no. 10, 5-8] (R)

Steel in the USSR の紹介

イギリス鉄鋼協会は 1959 年以来、ソ連の鉄鋼技術雑誌 “Stal” の英訳誌 “Stal in English” を発行してきましたが、1971年1月よりソ連の鉄鋼科学技術を紹介する “Steel in the USSR” として発行されることになりました。

- 内 容：“Steel in the USSR” は “Stal” と “Izvestiya Vysshikh Uchebnykh Zavedenii Chernaya Metallurgiya” の 2 つの雑誌より論文を選択して英訳出版するものです。新らしく英訳する Izvestiya Vysshikh Uchebnykh Zavedenii Chernaya Metallurgiya は鉄鋼冶金の理論を取扱っている雑誌です。“Steel in the USSR” はソ連の鉄鋼冶金をより正確に英語で紹介できるとのことです。（この英訳誌は Stal と Izv. VUZ Chern. Met. の発行日より約 80 日遅れて発行されます。すなわち原文の 1971 年 1 月号は 4 月に英訳出版されます。）
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- 申込先：The Iron and Steel Institute 39 Victoria Street, London S. W. 1 England