

資料室だより

BISI Translation 紹介

— No 25 —

BISI Translation の特長

英国鉄鋼業界、BISRA および英国鉄鋼協会は共同で BISI を運営しています。この BISI は BISI Translations を発行しています。BISI 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す。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け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っていきます。

BISI Translations を利用すれば英国米国、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す。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、今回から Group の仕方が少し変わりましたのでご了承下さい。“資料室だより”の別刷ご希望の方は本会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. 591-595

Management Planning and Control

BISI 8715 (S. Ptacek)

Application of monte carlo simulation in solving the organization of production in a steel mill. [Hutn. Listy, 1970, 25, (6), 390-392] (Cz)

Physical Structure of Materials and Crystallography

BISI 9643 (V. I. Popescu)

Investigation regarding the interdependence between degree of deformation in forging and degree of plastic deformation under various forging conditions. [Metalurgia, 1971, 23, (3), 149-153] (Rum)

BISI 9010 (E. Hornbogen, et al)

Recrystallization of iron containing 6% of nickel. [Arch. Eisenh., 1970, 41, Sept, 883-888] (G)

BISI 9642 (M. Adran & A. Ungureanu)

Estimations of the friction coefficient in steel strip cold rolling [Metalurgia, 1971, 23, (≡), 147-148] (Rum)

BISI 9529 (J. Elfmark)

Natural Hot deformation resistance of CrNi Steels. [Hutn. Listy, 1971, (2), 107-113] (Cz)

Physical Metallurgy and Metallography

BISI 9283 (E. S. Filippov & S. A. Filppov)

The nature and theoretical determination of activities for binary alloys. [Izv. VUZ. Chern. Met., 1967, (1), 9-15] (R)

BISI 9646 (M. Riza & B. Bende)

Investigation of rapid processes in the isothermal transformation of austenite. [Metalurgia, 1971, 23, (5), 287-290] (Rum)

BISI 9328 (A. Vetiska and J. Cech)

Contribution to the evaluation of mechanical properties of nodular cast iron. [Slevarenstvi, 1970, (12), 509-513] (Cz)

Physical Properties and Chemical Analysis

BISI 8486 (W. Durr, et al)

On the Suitability of a mass spectrometer for the control of a blast furnace. [Report on 73rd session on the chemical select committee, Dusseldorf, 27 June, 1969,] (G)

BISI 9477 (V. Terzic)

Contribution on the determination of heat conduction in tight coils of cold rolled steel strip during annealing in pot and bell-type furnaces. [Arch. Eisenh., 1971, 43, Jan, 13-17] (G)

Mechanical Properties and Material Defects

BISI 9326 (J. Crha, et al)

Study of crack growth conditions in high strength steels. [Kovove Mat., 1970, (6), 588-604] (Cz)

BISI 9036 (H. Dietrich & W. Schmidt)

The creep of austenitic cast iron at room temperature. [Z. Wirt Fert., 1970, 65, 459-464] (G)

BISI 9611 (K. Gerscher & W. Schmidt)

What are the consequences of introducing the newton as unit of force for brinell, rockwell and vickers hardness testing? (Materialprufung, 1971, (6), 199-200) (G)

Corrosion and Corrosion Testing

BISI 9119 (M. Prazak)

Causes of reduced corrosion resistance in chromium steel products. [Strojirenstvi, 1970, 20, (11), 677-680] (Cz)

Protection of Materials

BISI 9113 (G. Le Moan and M. Chaigneau)

Research on the pyrolysis of materials made of plastics II—Characterising compounds which are capable of being condensed. [Annales pharmaceutiques Francaises, 1970, 28, (1), 39-40] (Fr)

BISI 9649 (V. Tirziu & P. Vacarescu)
Some aspects of pack chromizing steel parts. [Metalurgia, 1971, 23, (4), 215-218] (Rum)

BISI 7870 (F. Biancoconi)
The passivation of iron in the steel container industry. [Double Liaison, 1969, May, (165), 255/91-262/98] (F)

BISI 9187 (S. Palminger)
Galvanized sheet and its surface treatment. [Korrosion och Ystkydd, 1969, (1-2), 23-26] (Sw)

Rolling

BISI 9199 (A. Kohn)
Gamma ray inspection of blooms at blooming mill exit. [Rev. Met., 1970, 67, 609-617] (F)

BISI 9710 (J. Behringer & H. Mistecki)
Development testing and introduction of high-efficiency emulsions for the cold-rolling of steel strip—I. [Neue Hutte, 1970, 15, (10), 590-595] (G)

BISI 8343 (L. Bohlin)
The cooling of rolls during hot rolling. [Jernkont. Forskning, Series B, 1969, (220), Mar 3, Forskningsuppgift No. 582/1967] (Sw)

BISI 9251 (G. Fritsch, et al)
Optimum automatic hot rolling methods on a reversing mill. [Int. Conf. on Automation in the Iron and Steel Industry, 1970, Dusseldorf.] (Ger.)

Metalworking, Excluding Rolling

BISI 9338 (M. Sodeik & Siewert)
The seamless tinplate can. [From a paper given at the "Tinplate" Conference, Braunschwig, 1970, Dec. 3.] (G)

BISI 9896 (I. K. Nikolaev, et al)
The drawing of heat-resistant steel wire in roller draw plates with the system round-oval-round. [Stal', 1971, (9), 860-861] (Russ.)

BISI 9450 (M. Michalke & W. Scholz)
The production of alloyed and unalloyed iron powders by melt atomization. [Chemie-Ing. Techn., 1969, 41, 16-22] (G)

BISI 9037 (W. Kuppers & D. Schultz)
The behaviour of thin stainless sheet during cold-working. (Stahl-Eisen, 1970, 90, 1072-1077) (G)

BISI 9510 (J. Lefevre, et al)
Machinability of resulphurised stainless steel.

BISI 9763 (E. Gorissen)
Internal stresses in welded tubes. [Bander Bleche, 1971, 12, (3), 99-105] (G)

BISI 9763 (E. Gorissen)
Internal stresses in welded tubes. [Bander Bleche, 1971, 12, (3), 99-105] (G)

BISI 9790 (V. M. Ivashchenko, et al)
The cutting of high-strength rolled stock. [Stal', 1971, (8), 742] (R)

Steels and Alloys (Technical Applications and Methods of Production), cermets

BISI 9226 (O. Bohusova)
Effect of structural changes on the strength of steel used for manufacture of pressure vessels for nuclear reactors. [Strojirenstvi, 1970, 20, (12), 725-730] (Cz)

BISI 9584 (Anon)
Material data sheets of the "verein deutscher eisenhüttenleute" low temperature steels. [Stahl-Eisen Material Data Sheet 680-70, 2nd Edition, 1970, Jan.] (G)

BISI 9895 (V. N. Nikitin, et al)
Production of high strength hardened and tempered steel with a yield strength of 60 kg/mm² for welded structures. [Stal', 1971, (9), 836-838] (R)

Casting and Cast Metals

BISI 9532 (B. Borsky)
Effect of chemical analysis of slag on steel dephosphorization in a tandem. [Hutn. Listy, 1971, (1), 12-20] (Cz)

BISI 9736 (R. Chudzikiewicz)
Technological properties of loose self-hardening masses. [Prz. Odlew., 1971, (1), 14-18] (Pol.)

BISI 9013 (B. Lux)
The theory of the formation of spheroidal graphite in cast iron I—Experimental observations of spheroidal graphite formation during solidification of cast iron. [Giesserei Forsch., 1970, 22, 65-80] (G)

BISI 9894 (N. K. Davil' brkov and V. S. Karle)
Optimum configuration for the bottom portion of slabbing ingots. [Stal', 1971, (9), 829-30] (R)

Heat Treatment

BISI 9221 (J. Dirhan & J. Buza)
Grit blasting effect on some mechanical properties of steel sheet. [Sbornik VST Kosciach, 1969, (1), 93-102] (Cz)

BISI 9495 (W. di Marco & L. Verdini)
The effect of %C on the recrystallization of mild steel annealed in a continuous furnace. [Met. Ital., 1970, 62, (10), 401-404] (I)

Fuel, Combustion and Refractories

BISI 9400 (J. Szuba & B. Malecki)
Determination of heat of coking of some coal blends as a basis for defining the thermal efficiency of coke oven batteries. [Kosk-Smola-Gas, 1970, (3), 61-66] (Po)

BISI 9650 (D. M. Stefanescu & G. Bolintineanu)
Investigation regarding the replacement of standard coke by other fuels' [Metalurgia, 1971, 23, (4), 229-233] (Rum)

BISI 9714 (M. Orlik)
Preheating of coking coal. [Hutn Listy, 1971, 26, (4), 238-245] (Cz)

BISI 9754 (S. Rosinski, et al)
Stabilization of lump size and strength of blast furnace coke by mechanical treatment. [Koks. Smola Gaz., 1970, 15, (10), 282-286] (Po)

BISI 9392 (Anon)

France's supply of coking coal and coke. [Rev. Francaise de l'Energie, 1970, May, (221), 367-368] (F)

Ores and Minerals Handling and Handling and Beneficiation

BISI 9446 (A. N. Pokhisnev, et al)

The use of combined fuel when sintering iron ore from the kursk magnetic anomaly. [Forschungsinst. Roheisenzeugung, 1968, Lecture Series IX part 1. 28-37] (G)

BISI 9447 (A. Maslanka, et al)

Search for effective methods of increasing sinter strength. [Forschungsinst Roheisenzeugung, 1968, Lecture Series IX, Part 1, 58-73] (G)

BISI 9775 (I. K. Boriskin, et al)

Certain technico-economic indices for the production and use of sinter metallized during sintering. [I. K. Boriskin, et al]

BISI 9547 (B. Fagerberg et al)

Degradation of ores in handling and transport. [Jernkon. Ann.; 1970, 154, 369-389] (Sw)

Ironmaking and Ferro-Alloys

BISI 9589 (F. Himber, et al)

Synaptic phenomena related to gas flow in the blast furnace-III [IRSID-Minerals-Coke-Iron Report No. RP60, 1961, May, 58] (F)

BISI 9631 (I. Bradac)

Modern design of cast house in blast furnace plant. [Hutnik, 1970, 20, (12), 445-450] (Cz)

BISI 9746 (V. A. Mchedlishili, et al)

Oxide inclusions in ferrotitanium and ferroniobium. [Stal', 1971, (7), 614-615] (R).

BISI 9388 (C. Barbier, et al)

Charging tests at no. 1 blast furnace at thionville using different qualities of sinter. [CDS Circ., 1970, (5), 1239-1248] (F)

BISI 9716 (A. Antonioli)

The potential role of nuclear energy in the development of conventional iron making. [Met. Ital, 1971, 63,(2), 49-60] (I)

Steelmaking and Ferro-Alloys

BISI 9367 (E. Friedl)

Derivation of new characteristic values for LD converter design. (Radex Rund., 1971, (1), 351-367) (G)

Extraction and Refining

BISI 9777 (Yu. Shchekalev & L. A. Smirnov)

Influence of slag composition on the sequence of the oxidation of impurities in vanadium-containing pig iron. [Izv. VUZ Chern. Met., 1971, (8), 63-66] (Russ.)

BISI 9787 (Yu. V. Gerasimov, et al)

Molten high-chromium metal vacuum-blown with argon. [Stal', 1971, (8), 731-2] (Russ.)

書評

X線マイクロアナライザ

内山 郁, 渡辺 融, 紀本 静 著

本書の本文は原理、装置、試料、測定、補正、応用の各章のほかに 50 ページに及ぶ数表がつけられている。EPMA (マイクロアナライザ) が非常に普及しているのに専門書が少ないのが遺憾であったが、米国で Birks の著書の新版と相前後して、日本文の最初の著書が出たのは嬉しいことである。本会の会員の中には実際に EPMA を使う人も多いが、それよりも結果を利用する人ははるかに多いので、これらの人たちに大いに役立つことと思われる。

つぎに本書を読むに当たって注意すべき点を指摘しておこう。本書は 3 人の共著だけに統一を欠く点が目につき r と Z の関係なども 2・20, 5・10, 6・26 の 3 か所に同じ図が出ていて、 r についても反射率、後方散乱係数と用語も一定していない。この種の書物では読者の利用目的によつてどの章を読んだらよいかを解説してあることが望ましいが、本書にはそれが欠けている。原理の章はおもに 60 年頃までの資料について書かれているようで大した誤りはないが不完全も免れない。X線分光と測定に関係したところでは分光結晶として何が使えるかは書いてあつても、どんな結晶がよいかは書かれていないこと、エネルギー分散法はおもに欠点が挙げられていて利点と最近の目覚ましい発展が欠けているのは物足りない。補正の章には多くのページ数を割き、相当よく纏めてあるが、現在では延べる必要のないもの、同じ著書の論文でも古いものしか引用のないのが目につく。補正の問題には Bethe の式の再吟味、X線発生結晶方位依存性など本質的な問題が提起されているので、今までのやり方で細かい点をつつよりコンピュータを活用するとか、豊田中研発行の EPMA 定量補正図表を利用する時代で、本書はこれらの点が不備である。参考図書の中の過半数は論文または解説集で編と著とが区別されていないのでわかりにくい。Advances in X-RAY ANALYSIS の Vol. 9 は 1965 年会議のもので、(1964) は誤りである。(篠田軍治)

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