

資料室だより

BISITS Translation 紹介

— No 3 —

BISITS Translation の特長

英国鉄鋼業界、BISRA および英国鉄鋼協会は共同で 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 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ます。

BISITS 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極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参りました。

次に列記致しました Title は最近入手したものです。

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。

(List Nos. 475~480)

Mineral Sources, Ores, Mining & Treatment.

BISI 6785 (G. Thaning)
Studies of the strength in a reducing atmosphere of cold-bound and sintered iron ore agglomerates. [Jernkon. Ann., 1967, 151, (10-11), 705-748] (Sw)

BISI 6956 (J. Mojžišek)
Prepelletization of sinter burdens. [Sborník VZKG zpracování železorudných koncentrátů, Mezinárodní vědecko-technické konf., III, 1967, och., 24-34] (Cz)

BISI 7245 (J. Wscieklica)
Thermal aspects of sintering with wood charcoal. [Bol. ABM., 1962, 18, Nov., 939-958] (Po)

BISI 7096 (G. Sironi)
Advances in the pelletisation of iron oxides. [Chim.Ind., 1968, 50, Juiy, 758-768] (I)

BISI 6071 (C. Archer and J.L. Gatelais)
Reductive melting of prereduced products and ores by the bouchet process. [paper F1 presented at the Evian conference on the production and use of prereduced materials, international congress at Evian, 1967, May 29-31] (F)

BISI 6182 (A. Poos and A. Decker)
Softening point of ores and agglomerates [R.U.M., 1959, 15, Nov., 773-783] (F)

BISI 6725 (J. Michard and F. Paschal)
Value of the iron point as a function of the richness of the ore. [C.D.S. Circ., 1968, (2), 413-437] (F)

BISI 7232 (S. Majerčák)
Agglomeration with a large fraction of roast rudňany concentrates. [Hutník, 1968, 18, (4), 159-161] (Cz)

BISI 7082 (J. Hančl)
Note on the theory of the optimum preparation

of the sinter mix [Hutn. Listy, 1968, 23, (9), 611-614] (Cz)

BISI 6500 (J. Gunther)
A new method for computing ventilation networks. [Rev. Ind. Minérale, 1967, 49, Nov., 797-802] (F)

BISI 6960 (J.J. Rovenskij)
The work of the mekhanoberchermet institute in the field of pelletization of iron and manganese ore concentrates. Sbornik V.Z.K.G. Zpracování železorudných Koncentrátů, Mezinárodní vědecko-technické Konf., III, 1967, Oct., 199-194] (Cz)

Fuel preparation, Properties and uses.

BISI 6755-11 (N. S. Dukhan)
Combustion of gaseous fuels. [Primenenie prirodnogo gaza v chernoi metallurgii (Using natural gas in ferrous metallurgy), Metallurgiya, Moscow, 1966, 20-32 - II] (R)

Air pollution & Smoke

BISI 6946 (H. Trzensiok and W. Martin)
Experience with dust removal from an 80 t ARC furnace. [Stahl Eisen, 1964, 84, Aug., 27, 1136-1144] (G)

Refractory materials.

BISI 6250 (K. Kónopicky, et al.)
A contribution to the problem of refractoriness under load at high-temperature and of creep for aluminosilicate Bricks. [Bull. Soc. Francaise Céram., 1967, 75, Apr. -June, 41-50] (F)

BISI 6256 (R. Euler)
Mineralogical investigations of the wear of tar-dolomite and tar-magnesite bricks in oxygen converters. [Ber. Dtsch. Keram. Ges., 1967, 44, (7), 345-347] (G)

Blast furnace practice & Production of pig iron & Ferro alloy.

- BISI 7250 (I. Bohm)
The swedish charcoal furnaces. [Jernkon. Ann., 1967, 151, (6/7), 445-458] (Sw)
- BISI 6352 (J. Michard)
Coming developments in blast furnaces. [Ann. Mines, 1967, Feb., 67-86] (F)
- BISI 6973 (A. Gaško)
Selected technical and organizational procedures in repair work on blast furnace No. 1 in the East Slovak steelworks. [Hutník, 1968, 18, (7), 323-325] (Cz)
- BISI 7197 (A. Oberhäuser and R. Haack)
Weighing and measuring of bulk materials [Klepszig Fachber., 1968, 76, Sept., 563-567] (G)
- BISI 7299 (J.H. Brouwer)
Expansion at the koninklijke Nederlandsche hoogovens en staalfabrieken (K.N.H.S.) N.V. in ijmuiden No. 6 blast furnace of the K.N.H.S. N.V. in ijmuiden. [De Ingenieur, 1967, 79, Dec. 1, A704-A715] (Du)
- BISI 6712 (G. Warynski)
Evolution of the dimensions of blast furnaces in the world and existing or projected units of more than 9 m hearth diameter. [C.D.S. Circ., 1968, (2), 439-462] (F)
- BISI 7223 (V. Tatak and F. Gajda)
Cost accounting to assess gains arising from improved blast-furnace performance. [Hutník, 1968, 18, (9), 422-425] (Cz)
- BISI 7085 (V. Lukeš and K. Hrabica)
Precise research measurements on the blast pre-heater in the klement gottwald steelworks. [Hutník, 1968, 18, (8), 370-372] (Cz)
- BISI 6258 (J. Szczeniowski)
Considerations relating to the energy balance of a blast furnace plant. [Rev. Met., 1967, 64, Apr., 333-348] (F)
- BISI 6755-IV (N.S. Dukhan)
Use of natural gas in blast furnaces. [primenenie prirodneho gaza v chernoi metallurgii (Using natural gas in ferrous metallurgy), Metallurgiya, Moscow, 1966, 53-64-IV] (R)
- BISI 7059 (J. Michard)
The feasibility of installing large-capacity blast furnaces in lorraine. [Rev. Mét., 1968, 65, Oct., 627-649] (F)
- Production of steel.**
- BISI 7200 (H. Schenck, et al.)
Influencing the equilibria between carbon and oxygen in molten iron by means of nickel, chromium and silicon. [Arch. Eisenh., 1968, 39, Nov., 803-808] (G)
- BISI 7366 (W. Burgmann, jun., et al.)
Contribution to investigation of the iron-sulphur system restricted to the region of iron mono-sulphide (Pyrrhotite). [Rev. Mét. Mém. Sci., 1968, 65, July-Aug., 567-578] (G)
- BISI 7111 (Anon)
Continuous refining of pig iron to steel. [Usine Nouv., 1968, Oct. 31, 129] (F)
- BISI 7018 (W.E. Schwabe, et al.)
Techniques for high productivity in an electric arc furnace. [Met. ABM, 1968, 24, June, 437-441] (Do)
- BISI 7113 (H. Lausch and W. Fix)
Research on the possibilities of preventing the reduction of phosphorous during the tapping and teeming of steel under phosphate slags saturated with lime. [Stahl Eisen, 1968, 88, Dec. 26, 1468-1475] (G)
- BISI 6709 (P. Detrez)
Relation between the oxide compounds in killed steels and the deoxidants used. [C.D.S. Circ., 1968, (3), 777-795] (G)
- BISI 7377 (M. Wahlster, et al.)
Technical and economical aspects of the production of low-sulphur steels in the oxygen converter. [Stahl Eisen, 1969, 89, May 1, 478-486] (G)
- BISI 7395 (W. Groetschel, et al.)
Contribution to the question of the economy of hearth melting processes-III. [Stahl Eisen, 1969, 89, May 1, 471-478] (G)
- BISI 5835 (R.F. Rinesch and A. Krausz)
Results of trials carried out by vöest of a novel process for the direct production of liquid steel (with disc.) [Berq.-Hütten. Monatsh, 1966, 111, Nov., 563-578] (G)
- BISI 6705 (G. Violi and A. Ramacciotti)
Metallurgical parameters of the Ld refining process and their control according to steel quality. [Met. Ital., 1967, 59, (9), 770-778] (I)
- BISI 6759 (Anon)
A process for making steel for sheets of enamelling iron not subject to aging. [Belgian Patent 622, 975, 1-9] (F)
- BISI 6858 (J. Dumont-Fillon and M. Viola)
Continuous measurement of temperature of liquid steel-application to the evolution of steel temperature in the ladle during casting [C.D.S. Circ., 1968, (6), 1553-1568] (F)
- BISI 6859 (A. Maubon)
Results of operation of the dunkirk Ld steelworks from 1963 to the beginning of 1967. [C.D.S. Circ., 1968, (4), 983-996] (F)
- BISI 6912 (H.W. Fritze)
The structure of slags formed over steel melts in the system $\text{FeO}_n\text{-P}_2\text{O}_5\text{-CaO}$ after solidification. [Radex Rund., 1968, (3), 168-177] (G)
- Foundry Practice.**
- BISI 6249 (J. Szczeniawski)
The effect of sand grain size on the casting properties of synthetic sand mixes. [Prz. Odlew., 1967, 17, June, 177-183] (Po)
- BISI 6908 (S. Tunder)
The liningless water-cooled hot blast cupola with pressure siphon. [paper presented at the foundry Conference of the Gesellschaft für Hüttenwerksanlagen GmbH Düsseldorf, 1968, June] (G)
- BISI 6911 (C. Dalmazio)
Report of experience with the cupola plant of the fiat firm, carmagnola. [Paper presented at the Foundry Conference of the Gesellschaft für

Hüttenwerksanlagen GmbH Düsseldorf, 1958, June]. (G)

BISI 6977 (R. Kamenský)

Segregation of additions in the solidification of pure and indefinite chill in iron castings.

[Hutn. Listy, 1968, 23, (6), 383-390] (Cz)

BISI 6909 (W.W. Szubinski)

Experience with the pressure siphon cupola, with special reference to the simultaneous casting of different types of iron. [Paper presented at the Foundry Conference of the Gesellschaft für Hüttenwerksanlagen GmbH Düsseldorf, 1968, June] (G)

BISI 6996 (A. Wittmoser and R. Hofmann)

The full mould-casting process as a means of producing castings in large quantities. [35th International Foundry Congress, Kyoto, 1968, Oct., 1-11] (G)

Heat-treatment furnace, Reheating furnace & Heat-treatment, Soaking.

BISI 6828 (R. Breloer and H. Kornfel)

Notch toughness of heavy plates produced from fine grain steels in various treatment conditions [Arch. Eisenh., 1968, 39, May, 395-398] (G)

BISI 7062 (H.-J. Eckstein and W. Lerche)

Investigations on the Acceleration of Nitriding in the Gas phase. [Neue Hütte, 1968, 13, Apr., 210-215] (G)

BISI 6363 (A. Rose and H. P. Hougardy)

The possibility of increasing the strength of steel by thermomechanical treatment. [Z. Metallk., 1967, 58, Nov., 747-752] (G)

Forging, Pressing drawing, Extrusion, Swaging and Stamping

BISI 7129 (V. B. Liberman)

Automatic control of forgings manufacture [Kuznechno-Shtampov., 1968, 10, (4), 38-41] (R)

BISI 6632 (M. P. Braun, et al.)

A steel on a chromium-manganese base for heavy forgings. [Izv. VUZ Chern. Met., 1961, (8) 108-111] (R)

BISI 7132 (V. I. Goryanov and V. I. Kozevinkov)

Research on speed parameters of a forging manipulator with load capacity 30t. [Kuznechno-Shtampov., 1968, 10, Aug., 35-37] (R)

BISI 7196 (V.G. Soboliev)

Practical experience of flashless hammer forging [Kuznechno-Shtampov., 1968, 10, (10), 44-46] (R)

Rolling and Rolling practices.

BISI 6872 (S. Machnik)

Computer control systems for soaking pit production for a slabbing/blooming mill. [Hutnik, 1968, 35, (5), 246-252] (Po)

BISI 6837 (W. E. Baltz)

Measurement of reduction in cold rolling mills. [Blech, 1968, 15, Feb., 80-82] (G)

BISI 6971 (J. Jedlička)

The cooling time of thick sheet. [Hutník, 1968, 18, (6), 281-286] (Cz)

BISI 6975 (M. Barszcz)

Cold forming of seamless precision tubes made from Ak steels. [Hutník, 1968, 18, (7), 335-339] (Cz)

BISI 7007 (P. Pawelski and H. Schroeder)

Measurement of the flattening of the rolls of a four-high stand during rolling. [Arch. Eisenh., 1968, 39, Oct., 747-754] (G)

BISI 6928 (K. Springmann)

The present state of surface roughness of bright steel bars. [Stahl Eisen, 1968, 88, Sept., 19., 1043-1051] (G)

BISI 7029 (A. Lovay and H. Kreulitsch)

Production of wide strip from low-carbon steel [Stahl Eisen, 1967, 87, Mar. 9, 264-272] (G)

BISI 7101 (P. Hainke)

Report on a study of the transport of semis and finished products from a rolling mill. [Stahl Eisen, 1968, 88, Oct. 31, 1224-1228] (G)

BISI 7294 (E. Fiebig)

Integrated automation of a rolling mill. [Stahl Eisen, 1969, 89, Feb. 20, 160-165] (G)

Machinery, Maching Machinability and Services for iron and steel plant.

BISI 6735 (F. Kottmeier)

Efficiency and costs of scalping machines with carbide tools. [Stahl Eisen, 1964, 84 July 2, 849-858] (G)

BISI 7325 (G. Gsell)

Requirements regarding the organization and personnel for a rational transport system in iron and steel works. [Stahl Eisen, 1969, 89, Jan. 23, 63-67] (G)

Welding

BISI 6708 (J. Thouvenin)

Influence of the various characteristic factors of a crack on its detectability by ultrasonic or dye penetrant testing (with discussion). [Soud. Techn. Connexes, 1968, 22, Jan.-Feb., 5-20] (F)

BISI 6678 (R. J. Schliekelmann)

The adhesive bonding of steel. [Machine Moderne, 1967, Jan., 41-45] (F)

Plating, Protective coatings, Cleaning Pickling.

BISI 7136 (J. Siewert)

Special chromium-plated light sheet for packaging. [Techn. Forschung, 1968, 21, Aug. 21, 494-496] (G)

BISI 7106 (A. Paris)

New polymers. [Ind. Chim. Belge, 1967, Apr., 91-100] (F)

BISI 7242 (J. Teindl, et al.)

Structure and properties of the interlayer formed in the hot tinning And electrolytic tinning of steel sheet. [Hutn. Listy, 1968, 23, (10), 707-713] (Cz)

Properties and Tests.

BISI 6740 (G. Bierett)

The working strength of welded and Riveted steel joints-a proposal for the systematic treatment of short-and long-term fatigue strength data. [Stahl Eisen, 1967, 87, Nov. 30, 1465-1472] (G)

- BISI 6199 (M. Mazzanti and R. Passeri)
The effect of nitrogen and aluminium on the ductility and drawability of high carbon steel for large diameter drawn wires. [Met. Ital., 1967, 59, (6), 445-452] (I)
- BISI 7292 (K.-H. muhr)
Effect of residual stresses on the behaviour of steel springs under alternating stresses. [Stahl Eisen, 1968, 88, Dec. 26, 1449-1455] (G)
- BISI 6254 (J. Mondot)
Elements for the fabrication of ultrasonic probes [C.D.S. Circ., 1967, (7-8), 1821-1828] (F)
- BISI 6681 (H. Wiegand and K. H. Beelich)
Relaxation during static stressing of bolted connections. [Draht Welt, 1968, 54, (5), 306-322] (G)
- BISI 6962 (A. Šalak)
Determining deep-drawability. [Strojirenská Výroba, 1968, 16, (3), 161-165] (Cz)
- BISI 7201 (H. E. Exner)
Evaluation of strength values of brittle Materials by means of extreme-value statistics. [Materialprüfung, 1965, 7, (10), 375-379] (G)
- BISI 6629 (O. Schulte)
The influence of small rates of deformation on the resistance to deformation of steels with various alloy contents and of non-ferrous metals at hot-working temperatures. [Forschungsber. nordrhein-Westfalen, 1966, (1190), pp. 92 (G)]
- BISI 6668 (G. Odin, et al.)
Influence of tellurium on the forgability of structural steels in the as-cast and as-worked states (with discussion). [Rev. Mét., 1968, 65, May, 363-376] (F)
- BISI 5745 (H. Wiegand and G. Tolash)
The influence of surface oxidation on the formation of surface zones and the fatigue strength of case-hardened specimens. [Werkstatt Betrieb, 1966, 99, (5), 327-333] (G)
- BISI 6498 (E. Yu. Zarvin, et al.)
The influence of deoxidation and modification on the contamination in and on some properties of rail steel. [Izv. VUZ Cher. Met., 1967, (11), 51-59] (R)
- BISI 6757 (J. Vrtel)
The toughness of welded joints on steels with increased yield point. [Zvaranie, 1968, 17, June, 161-166] (Cz)
- BISI 6999 (H. Lange and H. van Kempen)
The dry and use of integration amplifiers for purposes of magnetic measurement. [Z. tur angew. Physik, 1963, 16, (5), 342-347] (G)
- BISI 7090 (O. Vosikovsky)
Selecting steel for constructions operating under low temperatures. [Strojrenství, 1968, 18, (8), 587-593] (Cz)
- BISI 7288 (A. A. Dinnik)
Yield point during hot deformation of carbon and alloy steels. [Obrab. Metallov Davleniem, 1967, 52, 232-238] (R)
- Clad steel, Powder metallurgy and Hardfacing.**
- BISI 7004 (G.V. Samsonov)
The physical-chemical properties of the production of powder metallurgical products with pre-ste properties. [2nd European Symposium on Powder Metallurgy, Stuttgart, 1968, 1, May, 8-10, 2, pp. 17 (G)]
- BISI 7005 (W. Thomma and F. Thummler)
Combustion in sintering behaviour of iron alloys [2nd European Symposium on Powder Metallurgy, Stuttgart, 1968, 1, May, 8-10, 1.11, pp. 23] (G)
- BISI 6624 (G. Zapf and B. D. Hahn)
New developments in copper-and nickel-bearing sintered steels, with special reference to applications of such steels. [2nd European Symposium on Powder Metallurgy, Stuttgart, 1968, 2, May 8-10, 1-30, Paper 6.20] (G)
- BISI 7354 (H.G. Appel)
Use of sintered metals in the automobile industry. [2nd European Symposium on Powder Metallurgy 6.9 Stuttgart, 1968, 1-8] (G)
- BISI 7355 (H.E. Exner and G. Petzow)
Remarks on the toughness testing of cemented carbides by means of the crack length method. [2nd European Symposium on Powder Metallurgy, Stuttgart, 1968] (G)
- Corrosion**
- BISI 6331 (V. Cihal and M. Kaspar)
The diagnosis of corrosion in a saturation column for synthesis gas. [Werks. Korros., 1967, 18, (12), 1027-1032] (G)
- BISI 6195 (E. Herzog)
Some experiments on the role of rust in the process of corrosion of steel in aqueous media [Mét.-Corros.-Ind., 1967, 42, Apr., 133-151] (F)
- BISI 6472 (K. Bungardt, et al.)
The corrosion resistance of austenitic chromium-nickel steels in phosphoric acid. [Dew-Techn. Ber., 1967, 7, June, 96-108] (G)
- BISI 6689 (W. Schwenk and H. Ternes)
Corrosion rate of plain carbon and low-alloy structural steels. [Stahl Eisen, 1968, 88, Apr. 4, 318-321] (G)
- Metallography**
- BISI 6188 (F. Henke)
Eutectic solidification of iron-carbon alloys. [Gießerie-Praxis, 1967, Nov., 391-407] (G)
- BISI 6521 (K.L. Maurer and R. Rossegger)
Electron-Microscope study of deformation processes of pearlitic structures during wire drawing. [Berg.-Hütten. Monatsh., 1966, 111, Setp., 412-420] (G)
- BISI 6691 (G. Schulze)
Evaluation of literature dealing with high strength steels completely transformed to bainitic structure. [Schweissen Schneiden, 1968, 20, May, 228-230] (G)
- BISI 6531 (L. Illgen)
Metallographic techniques for obtaining cross sections with optimum edge sharpness. [Freiber-

- ger Forschungsh., 1965, B111, 53-71] (G)
- BISI 6534 (W. Bernhardt)
New metallographic techniques. [Neue Hütte, 1966, 11, Mar., 167-711] (G)
- BISI 6782 (P. Huml, et al.)
On the kinetics and mechanism of bainitic ferrite growth. [Kovové Mat., 1968, 6, (3), 222-235 (Cz)
- BISI 6931 (J. Ruge)
Improved time-Temperature-Transformation diagrams for welding technology. [Stahl Eisen, 1968, 88, July 25, 824-825] (G)
- BISI 6932 (F. Schmidt, et al.)
The size and distribution of vanadium carbonitrides and aluminium nitrides in the structure of weldable structural steels with small vanadium contents. [Bänder Bleche, 1968, 9, Nov., 676-683] (G)
- BISI 5983 (R. Riman)
The scope of electron microscopy in studies of the structure of silicon steels. [Zprávy Vuhž, 1966, 10, 145-165] (Cz)
- BISI 6367 (F. Dept)
The iron-chromium-carbon system determination of the distribution coefficients of the Alloy elements chromium, copper and nickel by means of an electron probe microanalyser. [ATB Met., 1967, 7, (3), 89-105] (Du)
- BISI 7021 (H. Schumann)
Stability of the hexagonal ϵ -phase in iron alloys. [Neue Hütte, 1968, 13, Aug., 479-482] (G)
- BISI 6626 (R. Campos-Soares, et al.)
A description of techniques leading to the examination identification and analysis of the very fine precipitated phases in metallic materials. [Journal de Microscopie, 1968, 7, Jan., 17-37] (F)
- BISI 6366 (W. Peter and H. Finkler)
Investigation of the diffusion equilibrium of crystal segregations of the elements manganese, chromium, nickel, vanadium, phosphorus, sulphur and carbon and in test pieces containing artificial segregations. [Arch. Eisenh., 1967, 38, Oct., 775-783] (G)

Analysis

- BISI 6245 (G. Staats)
Sampling of pig and cast iron for spectrometric analysis by emissions. [Z. anal. Chemie, 1967, 230, (3), 184-188] (G)
- BISI 6358 (M. Cakon and M. Kovarik)
The determination of manganese, silicon and phosphorus in ferromanganese with one preparation. [Hutn. Listy, 1967, 22 (9), 634-635] (Cz)
- BISI 6669 (G. Herberg, et al.)
Removal processes and inter-element effects in optical emission spectrographic analysis of steel-II. [Spectrochim. Acta, 1968, 23B, 363-371] (G)
- BISI 7273 (B. Tomik and J. Tyl)
The use of ferromagnetic properties for analytical purposes-abridged. [Sbornik VSB Ostravé 1968, 14, (1), 75-88] (Cz)
- BISI 7253 (T.A. Kiss, et al.)
Successive determination of calcium and magnesium with edta in ethanol-containing solution. [Anal. Chim. Acta, 1968, 43, (2), 340-342] (G)

Economics and Statistics

- BISI 7209 (A. Friedrich)
Long-term management planning in a steel-producing and steel-processing group. [Stahl Eisen, 1969, 89, Jan. 9, 1-6] (G)
- BISI 7217 (R. Treffel)
Safety in coal dumps and silos. [Rev. Production, 1962, July, 41-45-1; Aug. 30-32-11] (F)

Miscellaneous

- BISI 7173 (K. Stölzle)
Flexible couplings. [Techn. Mitt., 1962, July, 316-325] (G)
- BISI 7176 (Anon)
Criteria for balancing rotating solid bodies. [VDI Report No 2060-Verein Deutscher Ingenieure] (G)
- BISI 7293 (K. Loske)
Reflections on and difficulties of integrated automation in iron and steel works. [Stahl Eisen, 1969, 89, Feb. 20, 153-159 (G)]

日本鉄鋼協会 九州支部特別講演会のお知らせ

本会九州支部では日本金属学会九州支部と共催で下記により特別講演会を開催いたしますので、多数ご来聴下さいますようご案内いたします。

記

1. 日時 昭和44年11月25日(火) 14:00~16:00
2. 場所 九州大学工学部内(福岡市箱崎町 3576)
3. 講演 Special Problems Involved in the Thermodynamics of Solid Phases of Variable Composition.

Prof. Ralph Hultgren