L 0905-66 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5016635 UR/0138/65/000/006/0019/0024
678.046.2.002.2.001.4

AUTHORS: Zuyev, V. P.; Gilyazetdinov, L. P.; Gyul'misaryan, T. G.; Safronov, N. Ya.; Vernshteyn, I. D.; Glagolev, V. I.; Tsygankova, E. I.; Sokolova, V. V.; Bystrov, K. M.; Khokhlov, B. P.

TITLE: Some peculiarities of the production of carbon black PM 70 in cyclone-type reactors by using thermocatalytic gas oil

SOURCE: Kauchuk i rezina, no. 6, 1965, 19-24

TOPIC TAGS: gas oil fraction, carbon black, catalytic cracking / PM 70 carbon black

ABSTRACT: The production of active carbon black PM-70 from a 1:1 mixture of thermocatalytic gas oil and green oil was investigated to correct certain technological parameters and to determine the behavior of carbon black during its recovery and processing. The tabulated physico-chemical properties of green oil, and their mixture show that the thermocatalytic gas oil is distinguished by a high polycyclic aromatic hydrocarbon content. The analysis of several gas oil fractions showed that its kinematic viscosity at 50C varies over a range of

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9.5-11.8 x 10^{-2} m^2/sec. The viscosity of the 1:1 mixture varies from 3.6 to 3.9 x 10^{-2} m^2/sec. The kinematic viscosity plotted against heating temperature shows that the green oil and gas oil have the same viscosity only at a temperature of 280-300C. The viscosity value of 1.05 x 10^{-2} m^2/sec is reached for green oil only at 100C, and for gas oil and green oil mixture at 140C. Pure gas oil has this viscosity at 185C. The high viscosity, high boiling point, and the wide fractional composition of the gas oil make it necessary to preheat it by 80-100C higher than the green oil at minimum 160C before its introduction into the reactors. The average diameter of the droplet of raw material is plotted against the vaporizing air flow rate and the temperature before the atomizer. With an increase in the air flow rate from 0.45 to 1.0 m^3/kg, the diameter of the droplet decreased 2.0-2.2 times. During the experiments the gas oil content in the mixture, the heating temperature, and the specific flow rate of vaporizing air were varied. The other technological parameters were almost constant (total specific air flow rate of 4.8-5.1 m^3/kg, gas flow rate of 0.25-0.28 m^3/kg of raw material, reactor temperature of 1395—1400C). Tabulated data show that by increasing the air flow rate and temperature the specific surface and the oil content of carbon black were increased, while the optical density of the benzene extract of carbon black decreased. The technological data and properties of carbon black PM-70

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are tabulated and discussed. It was established that the carbon black yield is almost the same as that obtained from pure green oil. The thermophysical properties of the gaseous reaction products of carbon black formation are compared. Vulcanizates obtained with PM-70 carbon black have a higher tear strength due to the larger specific surface and oil content. Experimental data show that a carbon black plant equipped with cyclone-type reactors and a dry system of carbon black recovery can be altered to use a mixture of gas oil and green oil. An increase in the vaporizing air flow rate leads to an increased dispersal and oil content of PM-70 carbon black and to the decrease in coking of reactors. It is recommended to increase the air flow rate to 1.0 m^3/kg oil. The addition of gas oil to green oil results in the stabilization of the granulation operation on the ASA 1 drums. Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute for the Tire Industry); Novo-Yaroslavskiy sazhevyy zavod (Novo-Yaroslavl Carbon Black Plant)

SUBMITTED: 00 ENCL: 00 SUB CODE: FP, GC

NO REF SOV: 005 OTHER: 001

Card 3/3 DP

VERONSKIY, G.I. (Novosibirsk, ul. Lermontova, d.45, kv.70)

Splenoportographic determination of the spreading of stomach tumors. Vop. onk. 10 no.2:28-34 '64. (MIRA 17:7)

1. Iz kafedry gospital'noy khirurgii (zav. kafedroy - dotsent B. A. Vitsyn) Novosibirskogo meditsinskogo instituta (rektor-zasluzhennyy deyatel' nauki prof. G.D. Zalesskiy).

ANTONYUK, P.P., VERNYAYEV, O.; YERSHOV, P.

Cultivator for mulberry shrub plantations. Trakt. i sel'khozmash. no.12:24-25 D '58. (MIRA 11:12)
(Cultivators) (Mulberry)

ANTONYUK, P.P.; YERSHOV, P.G.; VERNYAYEV, O.V.

KSSh-5 mounted wide-range orchard cultivator. Trakt. i sel'khozmash. no.4:36-37 Ap '59. (MIRA 12:5)

1.Zavod "Krasnyy Aksay." (Cultivators)

VERNYAYEV, O.V.

Working parts of the cultivator. Trakt. i sel'khozmash. no.12:22-25 D '59. (MIRA 13:3)

1.Rostovskiy-na-Donu institut sel'skokhozyaystvennogo mashinostroyeniya.

(Cultivators)

VERNYAYEV, O. V., Cand Tech Sci -- (diss) "Theory, construction, and study of the performance of the active functioning part of the cultivator." Khar'kov, 1960. 23 pp; with charts; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Khar'kov Polytechnic Inst im V. I. Lenin); 150 copies; free; list of author's works at end of text (11 entries); (KL, 52-60, 119)

VERNYAYEVA, T.I. assistent

Treatment of peritonitis according to data from the medical and sanitary section of the Textile Combine. Med. zhur. Uzb. no;11: 69-70 N '61. (MIRA 15:2)

1. Iz kafedry obshchey khirurgii sanitarnogo i pediatri:heskogo fakul'tetov (zav. - prof. A.M.Geller) Tashkentskogo gosudarstvennogo meditsinskogo instituta i medsanchasti Tashkentskogo tekstil'nogo kombinata (glavnyy vrach - A.K.Kamalov).
(TASHKENT--PERITONITIS)

DONSKOY, S.M.; ZEMSKOV, N.Ya.; OSENOV, V.I.; POTAPOV, A.I.; UDALIKHINA, A.S.; YAROSHUK, D.Ya.; VAYNER, M.S.; VERNYI, Ye.A.; CHURKIN, D.I.; GERASIMOV, K.A.; ZIBRIN, D.A.; AYKHENVAL'D, Ye.L.; KOZLOV, A.I.; BULANOV, A.G.; OSTROVSKAYA, L.N.; TAUBES, I.S.; PETROV, Z.I.; POTEPALOV, V.A.; PECHONYY, A.D.; TROFIMOVA, A.S., tekhn. red.

[Development of power engineering in the Tatar A.S.S.R.] Razvitie energetiki Tatarskoi ASSR. Kazan', Tatarkoe knizhnoe izd-vo, 1961. 145 p. (MIRA 15:2)

1. Tatar A.S.S.R. Sovet Narodnogo khozyaystva. Upravleniye energeticheskoy promyshlennosti.
(Tatar A.S.S.R.--Power engineering)

VERNYY, A.I.

Preparation of the adhesive for labeling machines. Spirt. prom. 25 no.4:39-40 '59. (MIRA 12:7)
(Adhesives) (Liquor industry--Equipment and supplies)

VERNYI, A.N.

Automatic stamp making aluminum caps. Spirt.prom. 27 no.1:32-34 '61. (MIRA 14:2)

(Machine tools)

VERNYY, A.N.; GOFSHTEYN, B.Ya.

Industrial plant for the production of feed biomycin. Spirt. prom. 29 no.6:31-32 '63. (MIRA 16:10)

1. Khabarovskiy sovet narodnogo khozyaystva.
(Starch industry—By-products)
(Chlortetracycline)

VERNYY, A.N. Prinimal uchastiye: LUKIN, B.S., slesar'; MAMONTOVA, O.K., red.; FILATOVA, G.M., tekhn. red.

[Automatic equipment for liqueur and vodka distilleries]Avtomaticheskoe oborudovanie likero-vodochnykh zavodov; rukovodstvo po ekspluatatsii i naladke. Blagoveshchensk, Amurskoe knizhnoe izdvo, 1960. 62 p. (MIRA 15:12)

1. Russia (1917- R.S.F.S.R.)Amurskiy ekonomicheskiy administrativnyy rayon. Zavodoupravleniye spirtovodochnykh predpriyatiy. 2. Glavnyy inzhener zavodoupravleniya spirtovodochnykh predpriyatiy Amurskogo sovnarkhoza (for Vernyy).
(Amur Province--Distilling industries--Equipment and supplies)
(Machinery, Automatic)

VERNYY, A.N.; ZHURAVLEVA, S.S., vedushchiy red.

[Modernization of the Blagoveshchensk Liqueur and Vodka Plant] Opyt rekonstruktsii Blagoveshchenskogo likero-vodochnogo zavoda. Moskva, Gos.nauchno-issl.in-t nauchn. i tekhn.informatsii, 1959. 6 p. (MIRA 13:6)
(Blagoveshchensk (Amur Province)--Liquor industry)

VERNYY, S.S., tekhnik po zashchite rasteniy

Worries of a collective farm mechanic. Zashch. rast. ot vred. i bol. 8 no.2:9 F '63. (MIRA 16:7)

1. Kolkhoz "Druzhba" Poltavskogo rayona, Poltavskoy oblasti.
(Plants, Protection of)

VERNYY, Ye.; FEDYANIN, M.

The operation of the hourly bonus system. Sots.trud no.8:78-80 Ag '56. (MLRA 9:10)

1. Nachal'nik planovo-ekonomicheskogo otdela Kazanskoy Teplovoy elektricheskoy tsentral'noy stantsii no.1 (for Fedyanin). 2.Starshiy inzhener (for Fedyanin).
(Electric power plants) (Bonus system)

MARKOV, V.K., doktor khim. nauk, prof.; VERNYY, Ye.A., kand. fiz.-mat. nauk; VINOGRADOV, A.V., kand. khim. nauk; YELINSON, S.V., kand. khim. nauk; KLYGIN, A.Ye., kand. khim. nauk; MOISEYEV, I.V., kand. khim. nauk; PANASENKOVA, Ye.I., red.; ALYAB'YEV, A.F., red.

[Uranium; methods for its determination] Uran; metody ego opredeleniia. Izd.2., ispr. i dop. Moskva, Atomizdat, 1964. 502 p. (MIRA 17:12)

VERNYI, E.A.

V 1618

SPECTRUM AND ENERGY LEVELS OF THE POLONIUM ATOM. E. A. Vernyĭ, A. N. Zaĭdel and K. G. Shvebel'blit. ( )
Doklady Akad. Nauk S.S.S.R. 104, 710-12(1955) Oct. 11
(In Russian)

A detailed study of the Po spectrum at 400 to 500°C was made. Discharge of Po vapors was used as the source of light. Registration of spectra in ultraviolet and visible areas was done on a two-meter spectrograph with diffraction grating. Instruments of high dispersion permitted the determination of the wave length of most of the lines with the accuracy up to 0.01 A. (R.V.J.)

SOV/51-6-2-33/39

AUTHORS: Vernyy, Ye.A. and Yegorov, V.N.

TITLE: Isotopic Shifts in the Spectrum of Thorium Th^{232}-Th^{229} (Izotopicheskiye sdvigi v spektre toriya Th^{232}-Th^{229})

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 2, pp 262-263 (USSR)

ABSTRACT: Isotopic shifts in the spectrum of thorium were measured in a sample containing Th^{229} and Th^{232} in the ratio 1:1. The thorium spectrum was excited in an alternating current arc at 5 A. To suppress cyanogen bands the thorium sample was excited in an atmosphere of carbon dioxide. A two-metre spectrograph with a diffraction grating in the Paschen mounting was employed. The linear dispersion of the instrument was 3.4 Å/mm in the first order. Isotopic shifts were observed in over 250 lines in the region 2600-4400 Å. The results of measurements on 76 lines, in which the shift could be observed most clearly, are given in a table on p 263. This table gives also the ratio of the shifts $\Delta G(232\text{-}229)/\Delta G(232\text{-}230)$ which are related to the even-uneven effect. Values of the isotopic shifts between Th^{232} and Th^{230} lines were taken from a paper by Stukenbroeker and McNally (Ref 1). For the majority of the lines this ratio lies between the limits of 1.6 and 1.8, which agrees with the general nature of even-uneven shifts in heavy elements (Refs 2-4). For

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Isotopic Shifts in the Spectrum of Thorium Th^{232}-Th^{229}

certain lines this value is somewhat higher and the difference is greater than the experimental error; the reasons for such departures are not clear. Spectra of samples with Th^{229} and Th^{232} in the ratios 1:1 and 1:20 were also photographed by means of a diffraction autocollimating spectrograph in the fifth order. Linear dispersion of this spectrograph was about 1 Å/mm. Broadening of 4019.137, 4273.363, 4282.044 and 4331.114 Å Th^{229} lines, because of hyperfine structure, was observed. This structure could not be resolved by means of the diffraction spectrograph used. The width of the hyperfine structure was 0.3-0.4 cm^{-1}. Investigations of the isotopic shifts and the hyperfine structure of Th^{229} lines are being continued. Acknowledgments are made to V.K. Markov and M.F. Korinfskaya for separation and purification of Th^{229}. There are 1 table and 4 English references.

SUBMITTED: August 30, 1956

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VERNYY, Ye.A.; YEGOROV, V.N.

Isotopic shifts in the thorium Th^{232} - Th^{229} spectrum. Opt. i spektr. 6 no.2:262-263 F '59. (MIRA 12:4)
(Thorium--Spectra)

S/051/60/009/006/002/018
E201/E191

AUTHORS: Vernyy, Ye.A., and Yegorov, V.N.

TITLE: The Isotopic Effect in the Thorium Spectrum

PERIODICAL: Optika i spektroskopiya, 1960, Vol.9, No.6, pp 692-702

TEXT: The isotopic shift in the thorium spectrum was studied by Stukenbroeker and McNally (Ref.1); they used Th^{232} and Th^{230}. The present paper deals with the Th^{232}--Th^{229} isotopic shift. A sample had equal proportions of Th^{232} and Th^{229}. The spectrum was excited in an a.c. arc, using currents of 4-6 A. A solution of thorium chloride was deposited by evaporation on a carbon electrode. To avoid interference from cyanogen bands in the 2600-4400 Å region, the thorium spectrum was excited in carbon dioxide. The spectrum was recorded with a two-metre diffraction spectrograph using Paschen's mounting. Individual lines were studied with a self-collimating diffraction spectrograph ДФС (DAS). The isotopic shift was recorded for 247 thorium lines: 178 of them were ascribed to Th II, 20 lines were due to Th I, and 49 were not identified. The shifts of the Th I lines are given in Table 1 and those of the Th II lines are given in Tables 2A and 2Б. The

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The Isotopic Effect in the Thorium Spectrum

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E201/E191

Th^{232}--Th^{229} shift was 1.2 times greater in the Th II lines than in the Th I lines. It was always positive, i.e. the Th^{229} lines were displaced towards shorter wavelengths. Table 3 lists the mean isotopic shifts of uranium lines, taken from Striganov and Korostyleva's work (Ref.9). Table 4 gives the maximum and minimum shifts for various electronic configurations of Th I and Th II. The results given in Table 4 were used to derive the most probable identification of some thorium lines (Table 5). The relative isotopic shifts of individual Th II lines are listed in Tables 6A and 6B; Table 7 gives the relative shifts of the Th I lines. From the results obtained the even--odd effect was deduced and the deformation of the Th^{229} nucleus was calculated. Acknowledgements are made to V.K. Markov and M.F. Korinfskaya for separation and purification of Th^{229} and to Yu.P. Dontsov for his advice.
There are 7 tables and 22 references: 7 Soviet, 12 English, 1 German, 1 Dutch and 1 Danish.

SUBMITTED: March 7, 1960

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5.5310

77743
SOV/75-15-1-5/29

AUTHORS: Vernyy, Ye. A., Yegorov, V. N.

TITLE: Spectral Determination of Aluminium in Uranium

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol 15, Nr 1, pp 24-26 (USSR)

ABSTRACT: A description of a new method of spectral determination of aluminium in uranium (from 1×10^{-3} to 3×10^{-2}% Al) based on fractional distillation with a carrier is given. Construction of the electrode used is important. The electrode, shown in Fig. 1, was found to be most suitable for the determination.

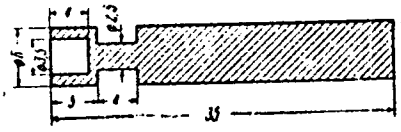

Fig. 1.

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The electrode shown in Fig. 2 was used for the investigation of the effect of barium on the intensity of aluminium lines.

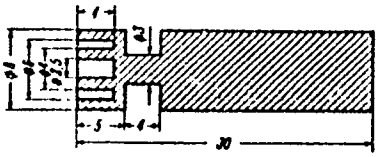

Fig. 2.

AgCl, $SrCO_3$, and $BaCO_3$ were tested as carriers. $BaCO_3$ was finally selected and used. Spectra were taken on the ISP-51 spectrograph with a UF-85 A camera. Exposure time, 30 sec, current, 18 amp; a mixture consisting of 1 g U_3O_8, 100 mg of $BaCO_3$, and 50 mg of carbon powder was used. The sample placed on the carbon electrode (see Fig. 1) weighed 25 mg. Calibration graphs were used. Sensitivity: 1×10^{-3}% Al. Results of the investigation are given in

Tables 1 and 2.

Comparison of the results of Al determination by spectral and chemical methods Table 1

Sample	Method: Chemical	Method: Spectral	Sample	Method: Chemical	Method: Spectral
1	5×10^{-3}	6×10^{-3}	4	3.8×10^{-2}	3.3×10^{-2}
2	1.1×10^{-2}	1.3×10^{-2}	5	2.3×10^{-2}	2.2×10^{-2}
3	4×10^{-3}	4.5×10^{-3}	6*	9×10^{-3}	1×10^{-2}

* Sample contained 1.3% Mo

There are 2 figures; 2 tables; and 6 references, 1 U.S., 5 Soviet. The U.S. reference is: Sribner, B. F., Mullin, H. R., J. Res. Nat. Bur. Stand., 37, 379 (1946).

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SUBMITTED: January 5, 1959

Spectral Determination of Aluminium in Uranium

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SOV/75-15-1-5/29

Table 2

Influence of third elements on the Al determination

(1) Element; (2) not introduced; (3) admixtures introduced (in %); (4) Na in form of Na_2CO_3; (5) Fe in form of Fe_2O_3; (6) Mo in form of MoO_3.

(1)	(2)	(3)							
		0,1	0,3	1,0	1,3	3	5	7	10
(4)	$9 \cdot 10^{-3}$	$8,3\ 10^{-3}$	$8,5 \cdot 10^{-3}$	$9,1 \cdot 10^{-3}$	—	$9,5 \cdot 10^{-3}$	—	—	—
Cal-3	$9 \cdot 10^{-3}$	$9,7 \cdot 10^{-3}$	$8,6 \cdot 10^{-3}$	$9,2 \cdot 10^{-3}$	—	$9,8 \cdot 10^{-3}$	—	—	—
(5)	$9 \cdot 10^{-3}$	$8,7 \cdot 10^{-3}$	$9 \cdot 10^{-3}$	$6,5 \cdot 10^{-3}$	—	—	—	—	—
(6)	$9 \cdot 10^{-3}$	—	—	—	$9,1\ 10^{-3}$	$8,8 \cdot 10^{-3}$	$8,3 \cdot 10^{-3}$	$8,2 \cdot 10^{-3}$	$6,4 \cdot 10^{-3}$

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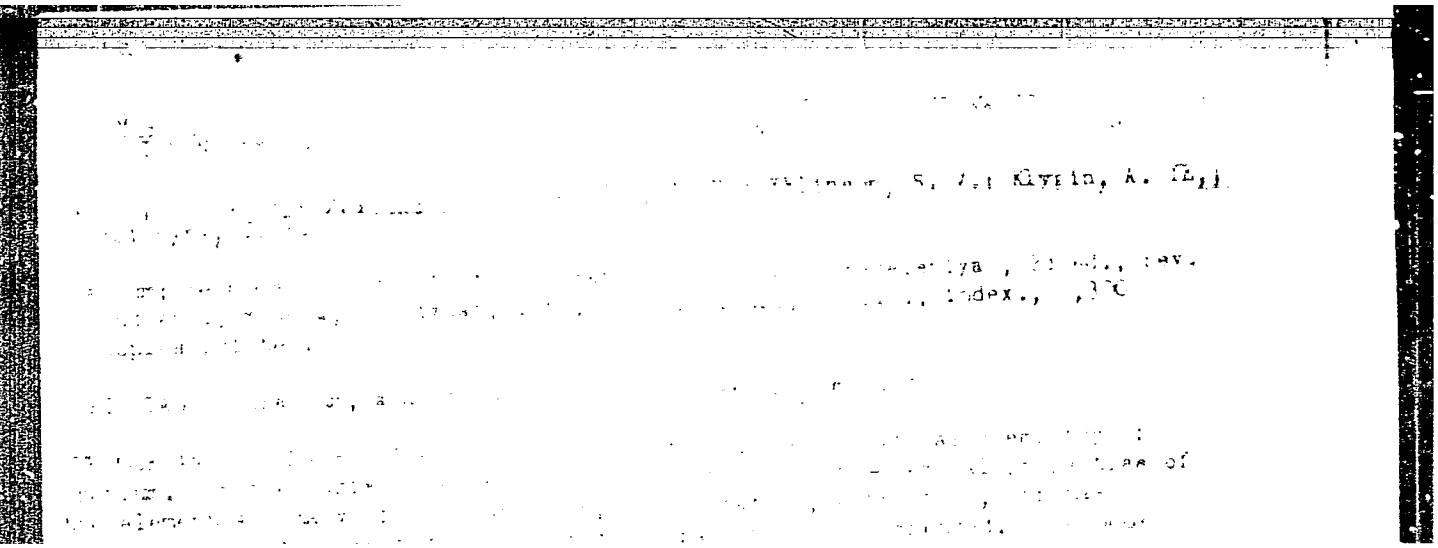

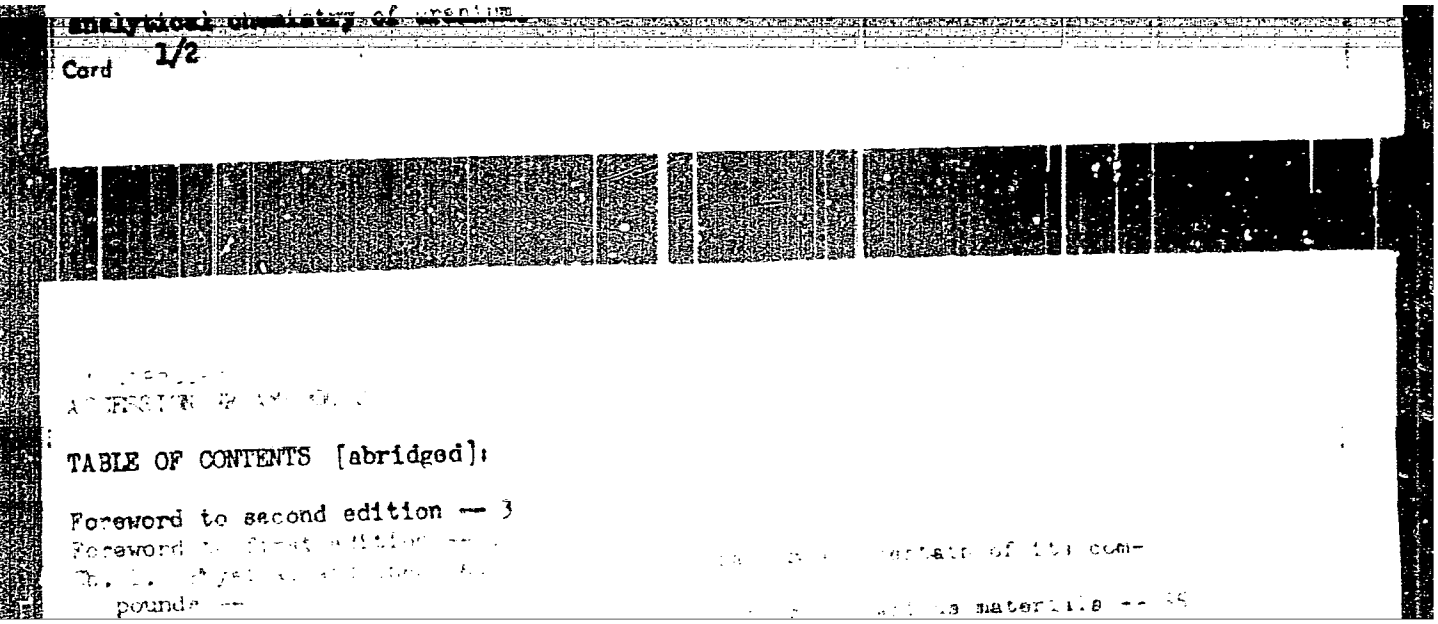

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TABLE OF CONTENTS [abridged]:

Subject Index — 489

SUBMITTED: 21Sep64 SUB CODE: GC

NO REF SOV: 470 OTHER: 607

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VERO, E.

"Changing Shifts in the Machine Industry Without Work Stoppage." P. 24. (TOBBTERMELES, Vol. 7, No. 1, Jan. 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955, Uncl.

VERO-HETENYI, M. (Mrs)

Adjustment of point interpolation through distance measurements using the method for the adjustment of conditional observations. Acta techn Hung 47 no. 1/2:229-239 '64.

1. Geodatisches Forschungslaboratorium der Ungarischen Akademie der Wissenschaften, Sopron.

VERO, I.

Distr: 4Elc 8

106 **Design of the television tower in Budapest.** I. Verő. *Magyar Építőipar.* Vol. 6, 1957, No. 9—10, pp. 305—317, 12 figs.

The approx. 55 m high television tower consists of 14 storeys including ground floor and basement, the latter accommodates the lift engines and the cable gallery. Owing to the very short time allotted for building — 3 to 4 months — a steel frame structure has been used. As a fire prevention measure all steel columns were encased in concrete. This also resulted in economies in steel since the columns had to bear only the dead weight of the empty steel framing. The floors were constructed partly of precast reinforced concrete elements. The weight of the riveted steel structure is approx. 240 tons, the area of the precast floors is 2000 sq. m. The construction of the foundations, column encasements and other monolithic structures involved the pouring of 600 cu. m of site concrete. Site joints for the tower were bolted throughout. A wind pressure of 120 kg per sq. m and a form coefficient of 1.20 were adopted in strength computations. The floors were designed for a uniformly distributed live load of 500 kg per sq. m. The tower is built on dolomite rock with a maximum pressure of 8.10 kg per sq. cm. Tensile stresses in the columns are absorbed by anchoring the bases into the foundations. The steel structures were mounted according to a previously determined schedule. As revealed by the comparative cost analysis, a corresponding structure in reinforced concrete would have been significantly cheaper, but the time required for the construction would have been unacceptably long.

VERO, Imre

"Dimensioning; numerical tables and examples" by Loser. Reviewed by Imre Vero. Melyepitestud szemle 13 no.10:466 O '63.

VERO, Imre

"Handbook of the construction industry" by Kardos, Valko.
Reviewed by Imre Vero. Melyepitestud szemle 13 no.5:223
My '63.

VERŐ, Imre

"Modern sheeting methods" by Laszlo Mohacsi. Reviewed by Imre Vero. Melyepitestud szemle 13 no.2/3:93 F-Mr '63.

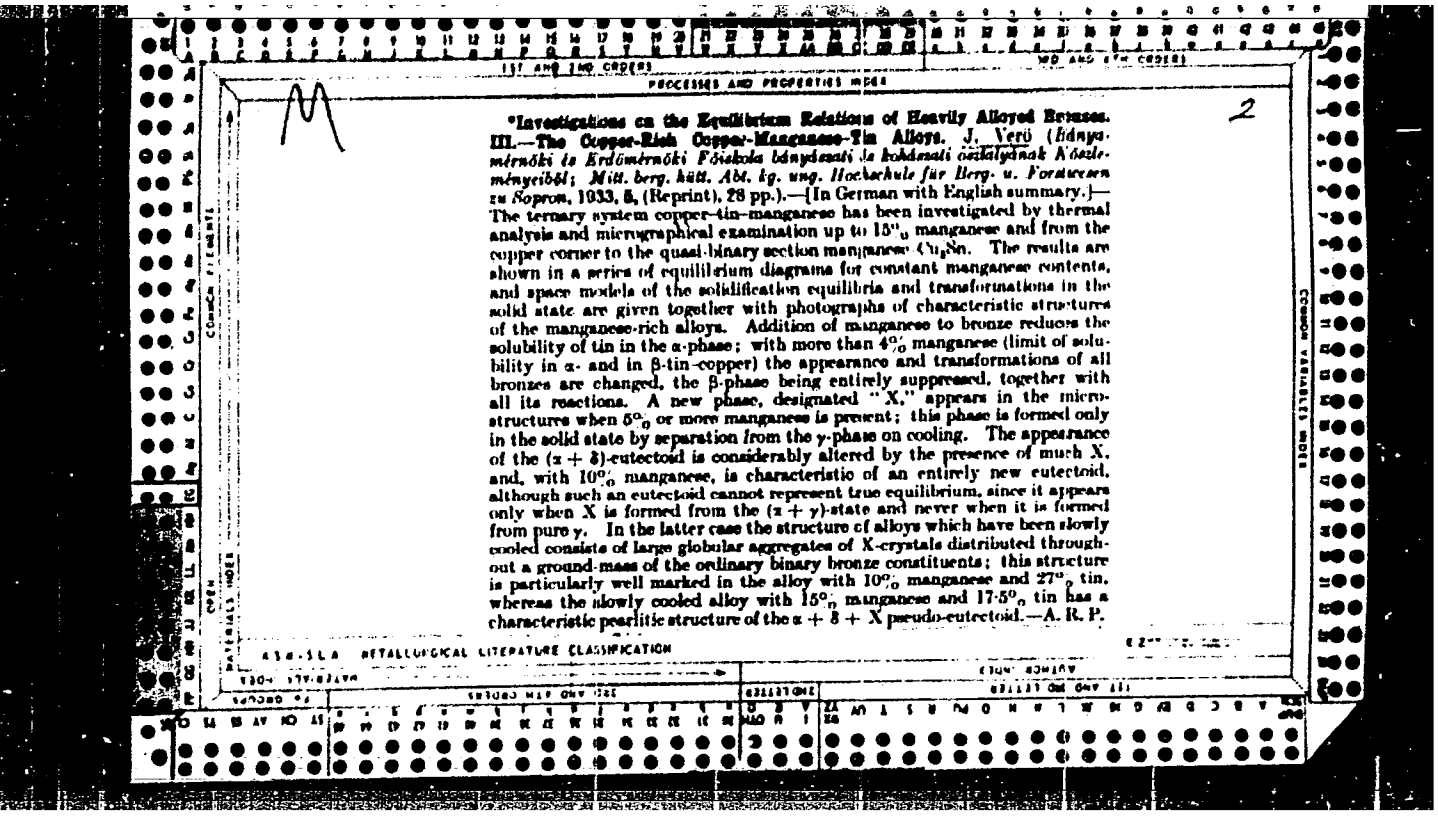
VERO, Imre

"Statica" by Lorand Tobias, Zoltan Visy. Reviewed by Imre Vero. Melyepitestud szemle 13 no.2/3:100 F-Mr '63.

VERO, Istvan, okleveles kohomernok

Hungarian experiences in manufacturing pig iron by means of acid slag. Koh lap 97 no.12:573-576 D '64.

1. Danubian Ironworks.



PROCESSES AND PROPERTIES INDEX

M

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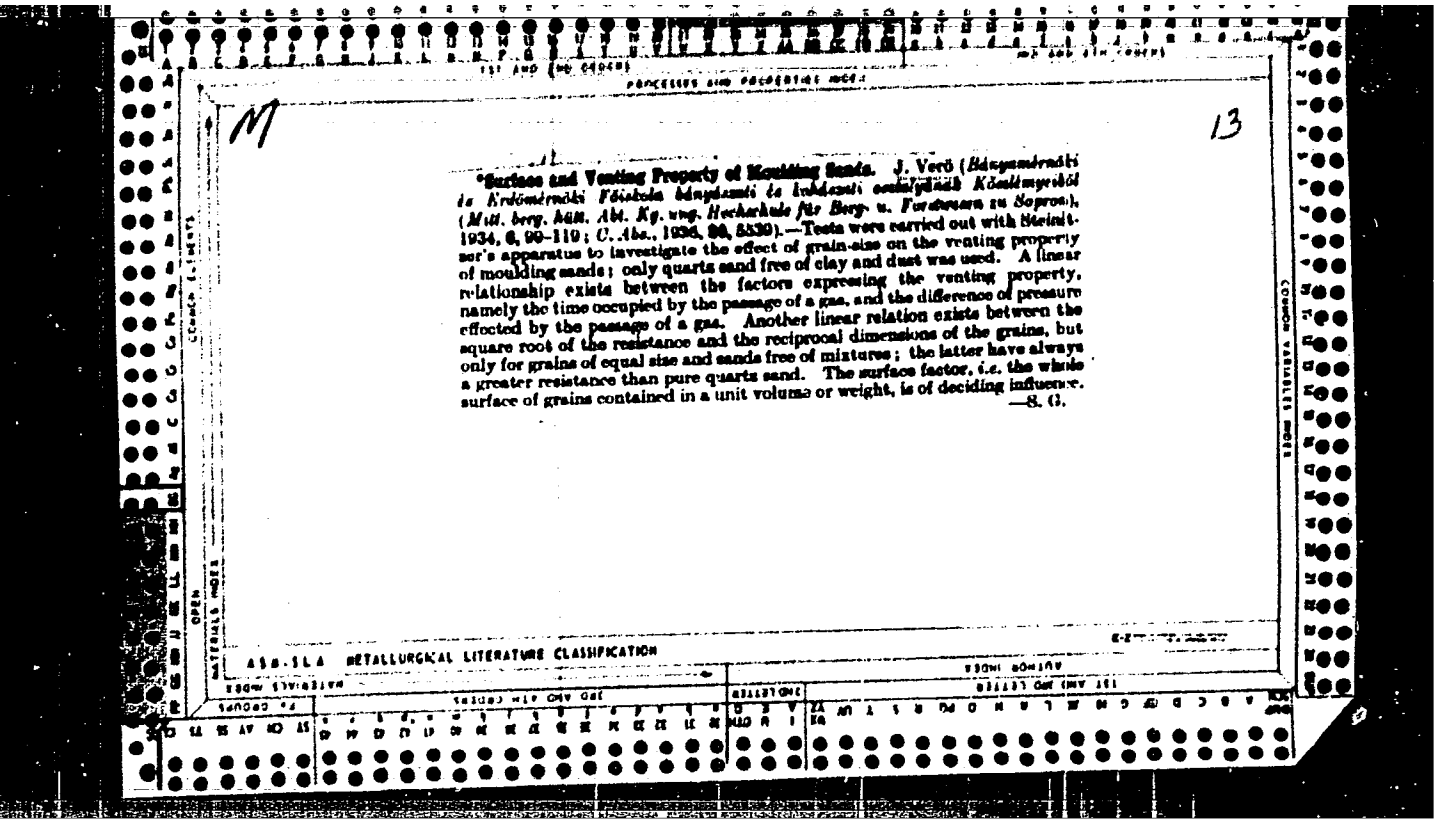
***Investigations on the Equilibrium Relations of Heavily Alloyed Bronzes. III.—The Copper-Rich Copper-Manganese-Tin Alloys.** J. Verő (*Bánya- mérnöki és Erdőmérnöki Főiskola bányászati és kohászati osztályának Közlemányeiből; Mitt. berg. hütt. Abt. kg. ung. Hochschule für Berg- u. Forstwesen zu Sopron*, 1933, 5, (Reprint), 28 pp.).—[In German with English summary.]—The ternary system copper-tin-manganese has been investigated by thermal analysis and micrographical examination up to 15% manganese and from the copper corner to the quasi-binary section manganese-Cu_3Sn. The results are shown in a series of equilibrium diagrams for constant manganese contents, and space models of the solidification equilibria and transformations in the solid state are given together with photographs of characteristic structures of the manganese-rich alloys. Addition of manganese to bronze reduces the solubility of tin in the α-phase; with more than 4% manganese (limit of solubility in α- and in β-tin-copper) the appearance and transformations of all bronzes are changed, the β-phase being entirely suppressed, together with all its reactions. A new phase, designated "X," appears in the microstructures when 5% or more manganese is present; this phase is formed only in the solid state by separation from the γ-phase on cooling. The appearance of the (α + δ)-eutectoid is considerably altered by the presence of much X, and, with 10% manganese, is characteristic of an entirely new eutectoid, although such an eutectoid cannot represent true equilibrium, since it appears only when X is formed from the (α + γ)-state and never when it is formed from pure γ. In the latter case the structure of alloys which have been slowly cooled consists of large globular aggregates of X-crystals distributed throughout a ground-mass of the ordinary binary bronze constituents; this structure is particularly well marked in the alloy with 10% manganese and 27% tin, whereas the slowly cooled alloy with 15% manganese and 17·5% tin has a characteristic pearlitic structure of the α + δ + X pseudo-eutectoid.—A. R. P.

434-51A METALLURGICAL LITERATURE CLASSIFICATION



M

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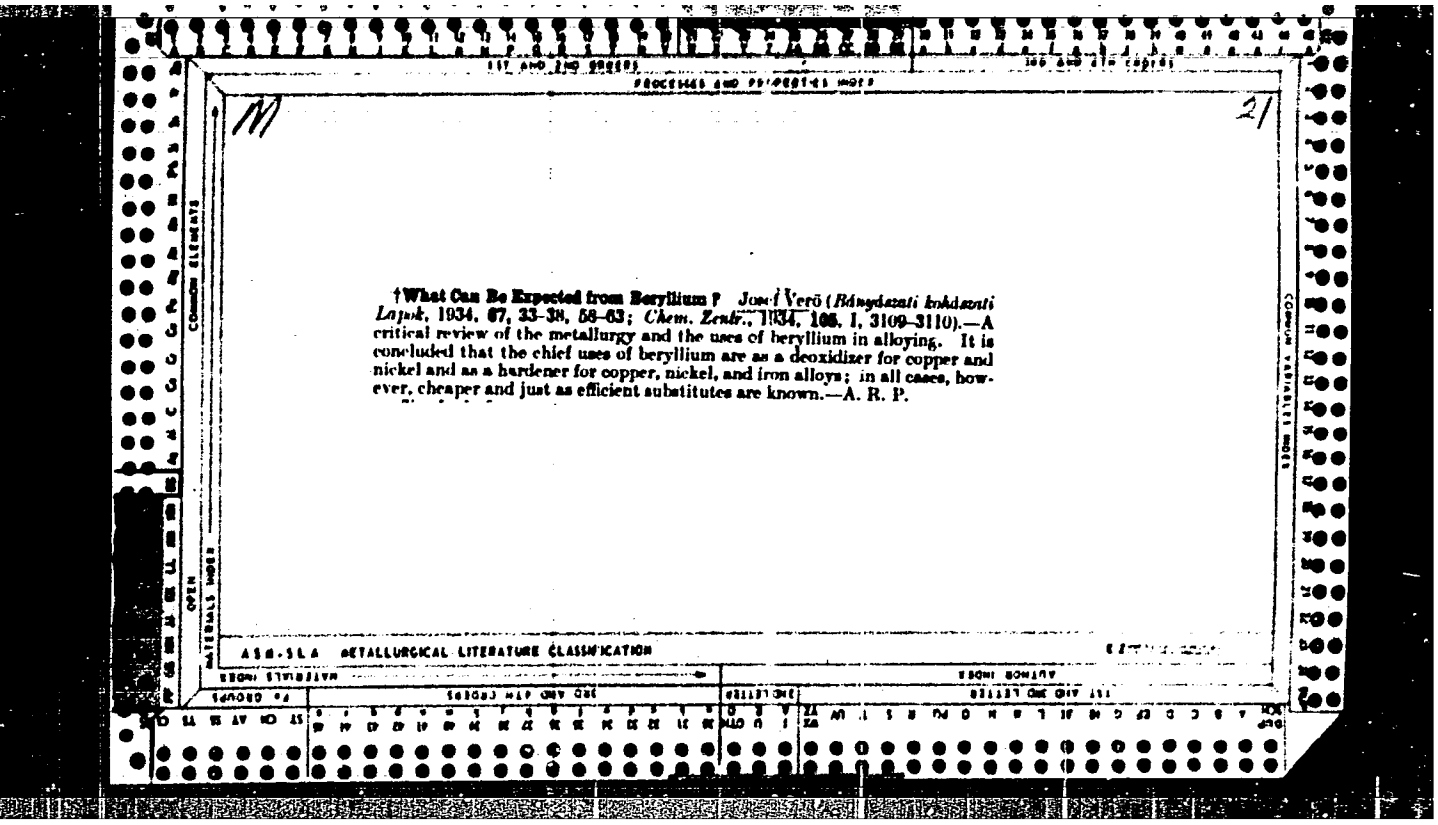
Surface and Venting Property of Moulding Sands. J. Verő (*Bányamérnöki és Kohómérnöki Főiskola bányászati és kohászati osztályának Közleményeiből* (*Mitt. berg. hütt. Abt. Kg. ung. Hochschule für Berg- u. Forstwesen zu Sopron*), 1934, **6**, 99–119; *C. Abs.*, 1936, **30**, 5539).—Tests were carried out with Steinitzer's apparatus to investigate the effect of grain-size on the venting property of moulding sands; only quartz sand free of clay and dust was used. A linear relationship exists between the factors expressing the venting property, namely the time occupied by the passage of a gas, and the difference of pressure effected by the passage of a gas. Another linear relation exists between the square root of the resistance and the reciprocal dimensions of the grains, but only for grains of equal size and sands free of mixtures; the latter have always a greater resistance than pure quartz sand. The surface factor, i.e. the whole surface of grains contained in a unit volume or weight, is of deciding influence.
—S. G.

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION



†**What Can Be Expected from Beryllium?** *Josef Verő* (*Bányászati kohászati Lapok*, 1934, **67**, 33–38, 58–63; *Chem. Zentr.*, 1934, **105**, I, 3109–3110).—A critical review of the metallurgy and the uses of beryllium in alloying. It is concluded that the chief uses of beryllium are as a deoxidizer for copper and nickel and as a hardener for copper, nickel, and iron alloys; in all cases, however, cheaper and just as efficient substitutes are known.—A. R. P.

CA

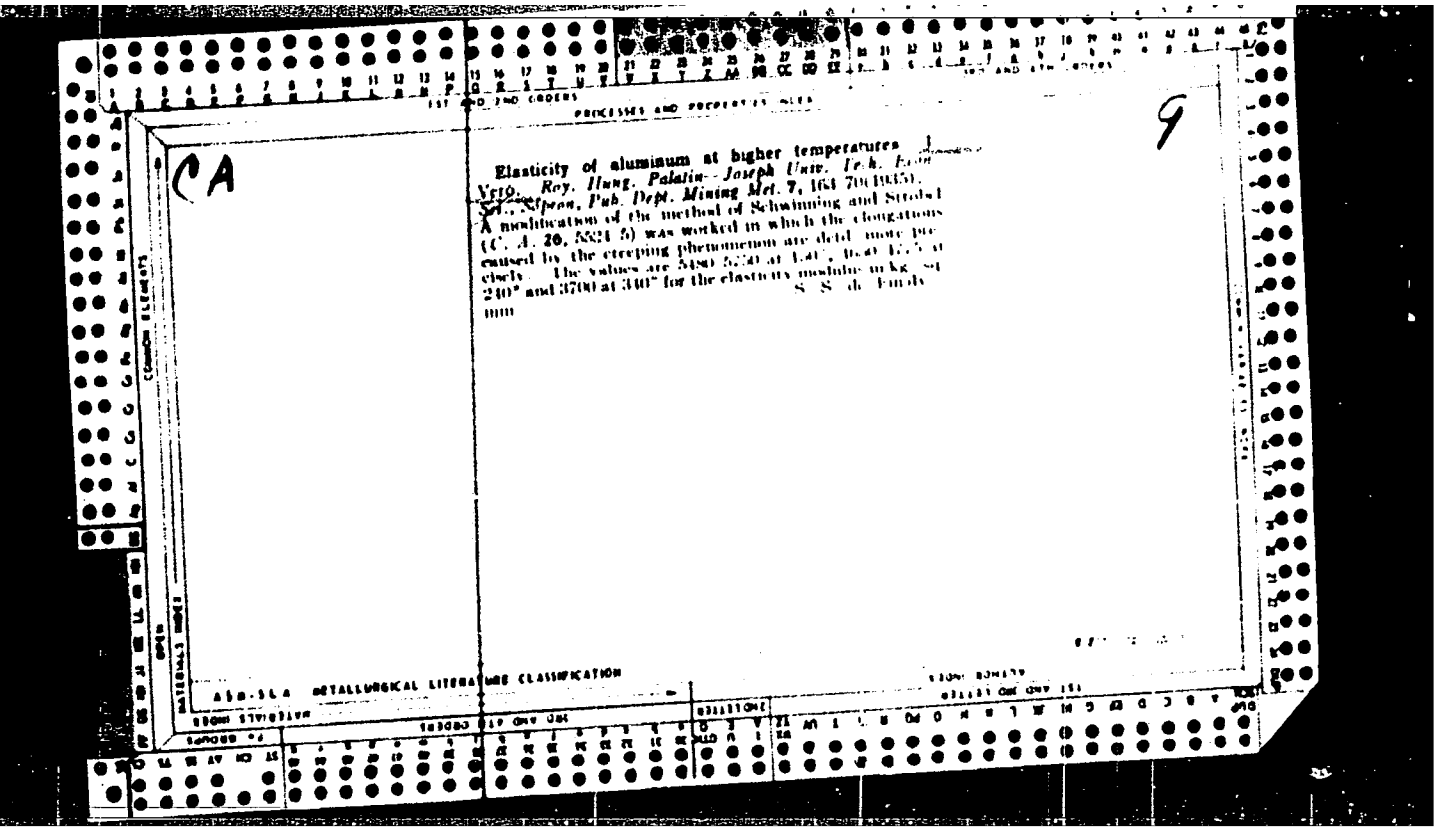
9

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Hot-shortness of aluminum alloys in die castings J. Vero. *Roy. Hung. Palatin-Joseph Univ. Tech. Econ. Sci., Sopron, Pub. Dept. Mining Met.* **7**, 138-62(1935). Hot shortness is defined as the tendency of an alloy to form cracks during cooling in the mold. It is proposed that the extent of hot shortness be expressed numerically by the frequency of cracks occurring in castings of simple shape, given as a percentage of the cracked samples to all castings. In alloys contg. more than 12-13% of liquid at the temp. of the critical pasty state possible cracks can be prevented. Data on strength and hardness are not always sufficient to est. hot shortness of an alloy. The influence of temp., wt. and cooling factor of the mold and of pouring temp., etc., is discussed and possibilities of avoiding cracks are shown. S. S. de Finaly

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

CA

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The effect of the cooling rate upon the quantity of hyper-eutectoid ferrite. J. A. Veró. *Roy. Hung. Palatin-Joseph Univ. Tech. Econ. Sci., Pub. Dept. Mining Met.* 9, 192-200(1937); cf. C. A. 31, 7823. The amt. of structural constituents was detd. by the method of Rosiwal on samples of unalloyed steels heated to a temp. of 50° above the A_3 point for 1 hr. and cooled at varying ranges. The slow cooling used in practice produces unequal conditions. Industrial steels always contain less ferrite than is to be expected from equil. diagrams. The relation of amt. of ferrite to C content is a straight line in equil. In other cases various curves are formed. Steels consisting of nearly equal amts. of ferrite and pearlite are most affected by the variations in cooling rate. A simple relation seems to exist between the quantity of constituents and the type of structure produced. S. S. de Finaly

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

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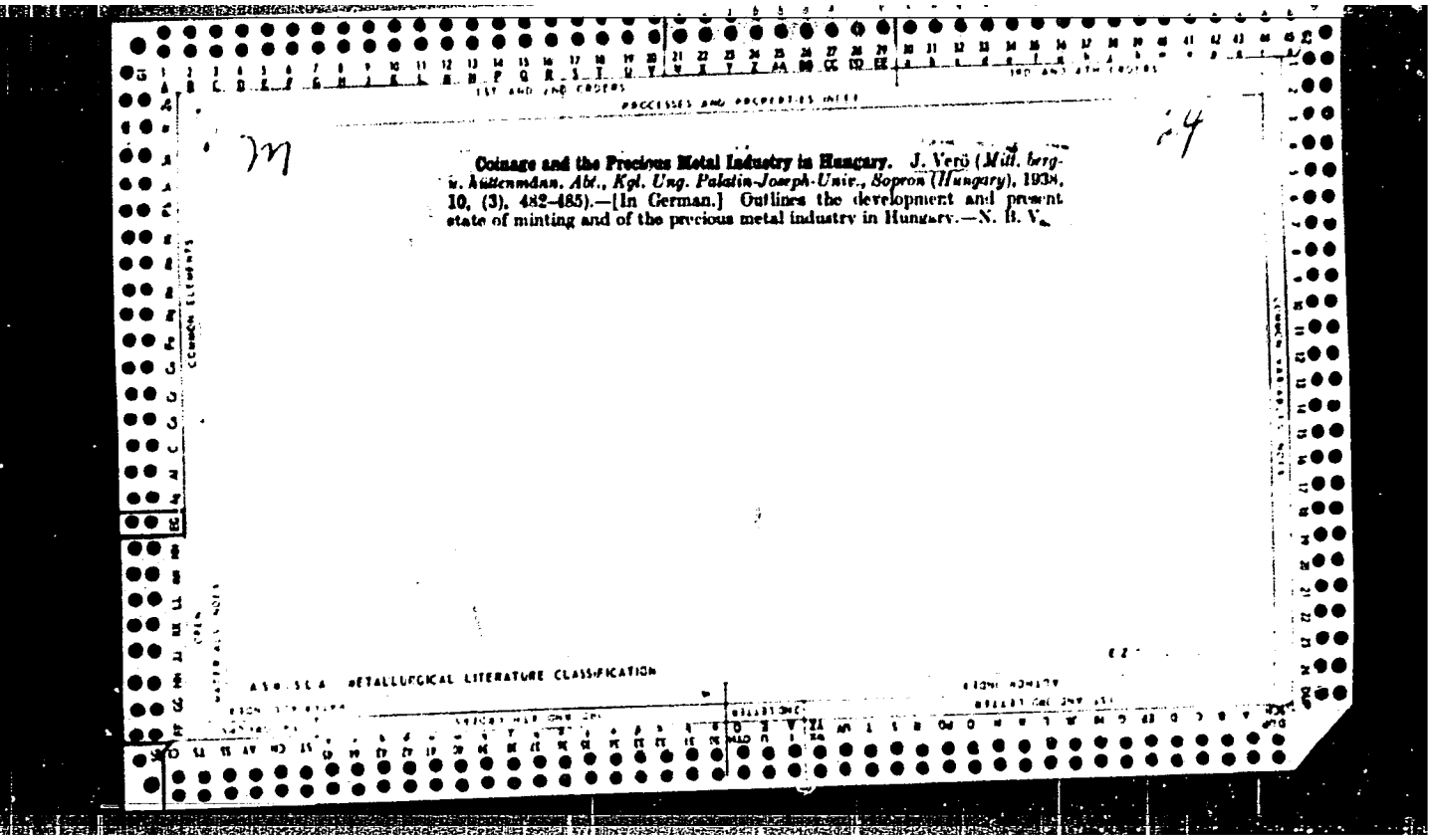
9

Effect of velocity of cooling on the amount of hypo-eutectoid ferrite. *József Verő. Bányász. Kohász. Lapok* 70, 245 53(1937). Ordinary slow cooling in metallurgical practice is not slow enough to produce equil. in the metal. The theoretical equil. diagram thus cannot be used for com. steels. The relation of C content to the amount of structural elements can be represented by a linear equation in equil. Outside the equil. the relation seems to be a curve, deviating the more from the linear, the more rapid the cooling procedure. The change of velocity of cooling affects most those steels that contain almost the same amounts of ferrite and pearlite. There is a simple relation between the structure and the amt. of hypo-eutectoid ferrite. S. S. de Finaly

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

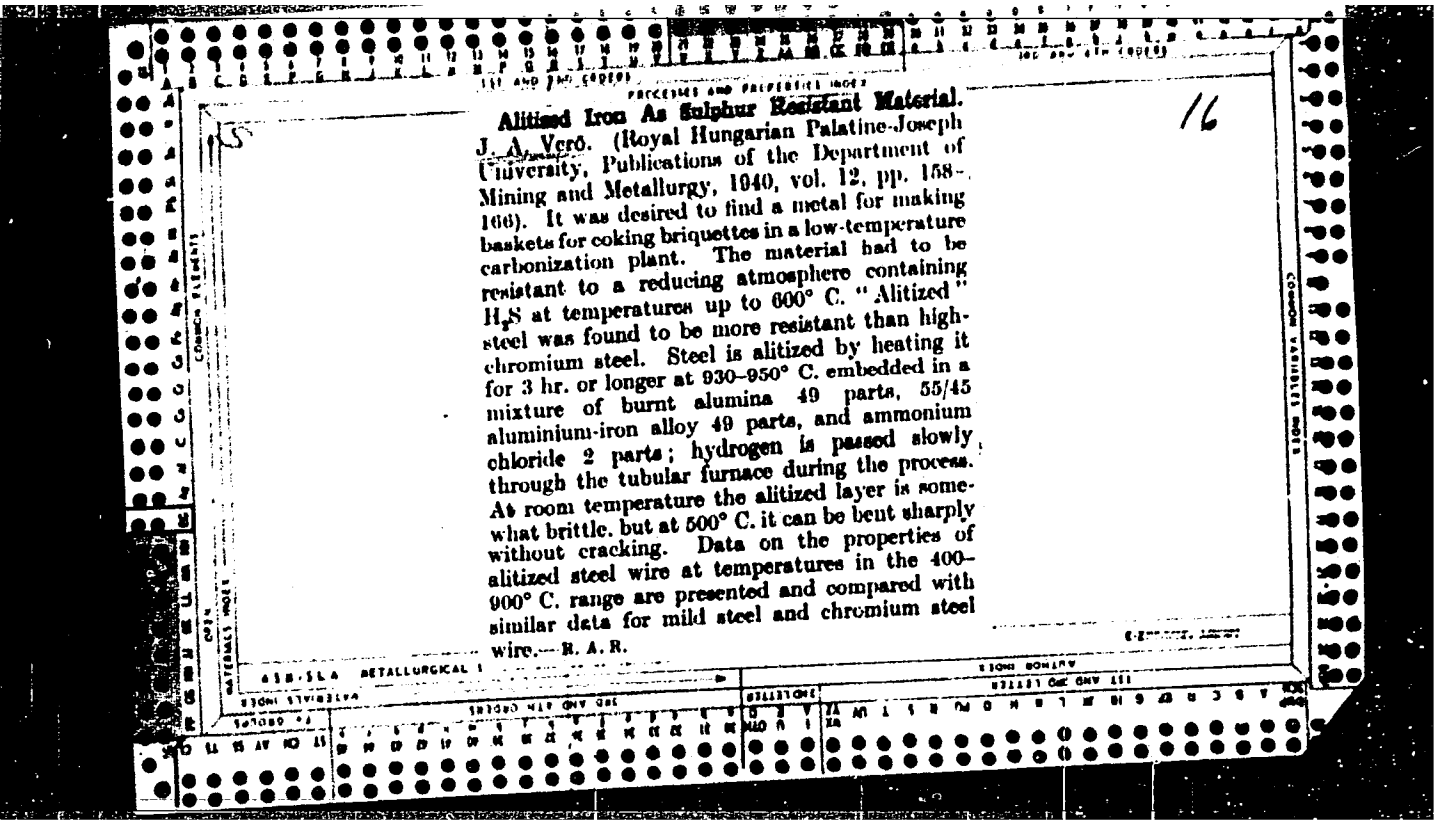


Coinage and the Precious Metal Industry in Hungary. J. Verő (*Mill. berg- u. hüttenmänn. Abt., Kgl. Ung. Palatin-Joseph-Univ., Sopron (Hungary)*, 1938, 10, (3), 482–485).—[In German.] Outlines the development and present state of minting and of the precious metal industry in Hungary.—N. B. V.

The nomenclature of the structural components of
steels. J. A. Verö. *Bányász. Kohász. Lapok* **72,** 371-5
(1939).—As the present names of structural elements of
steels are not sufficiently clear, the following proposals
are made: (1) Pearlite is a eutectoid consisting of alter-
nate layers of ferrite and cementite the structure of which
can be resolved by an objective at an aperture of 0.3 by a
magnification of 250. (2) Sorbite is a lamellar eutectoid
consisting of ferrite and cementite the structure of which
cannot be resolved by an objective at an aperture of
0.3 by a magnification of 250, but can be resolved at an
aperture of 1.0 by a magnification of 1000. (3) Troostite
is a lamellar eutectoid the structure of which cannot be
resolved at an aperture of 1.0 and a magnification of 1000.

S. S. de Finály

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



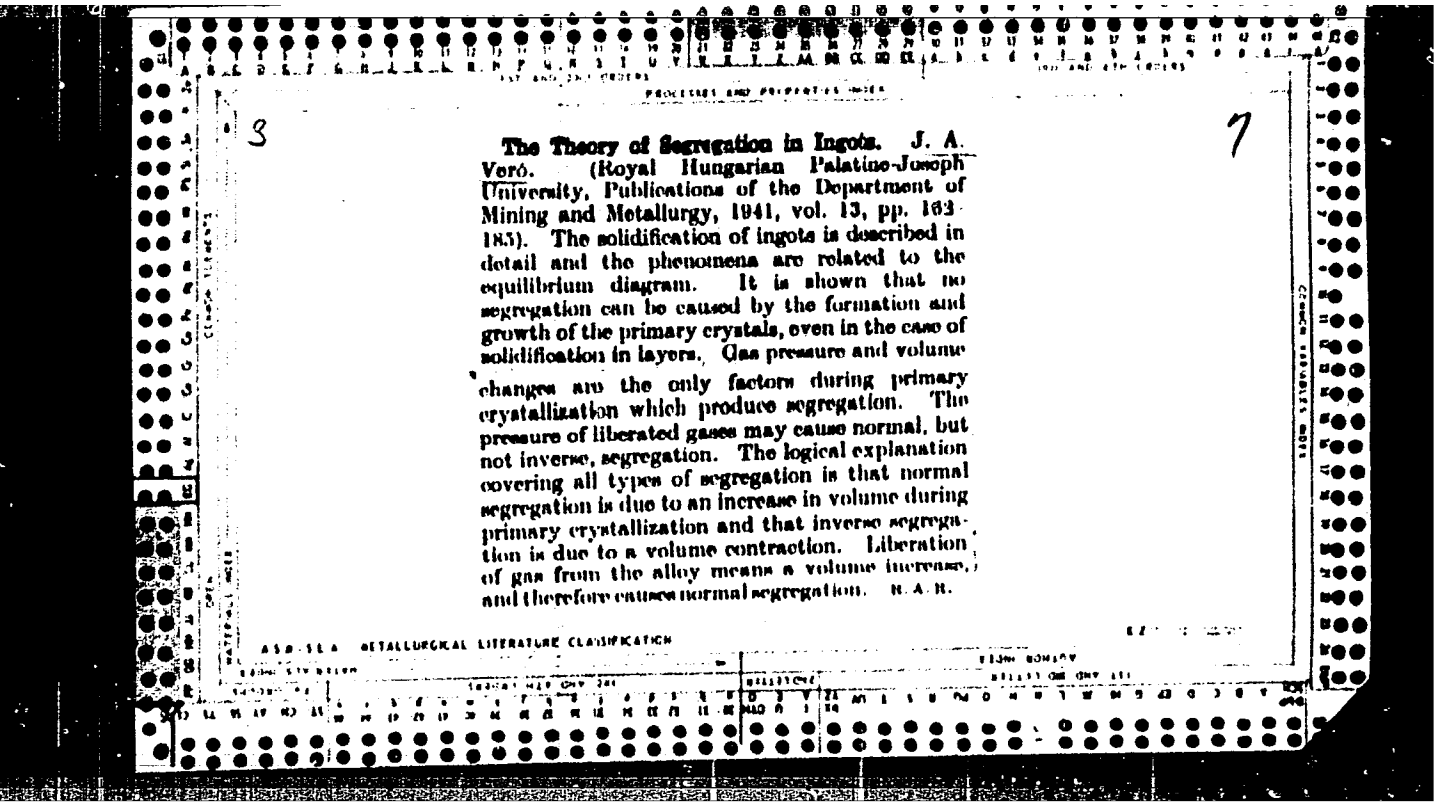
Alitised Iron As Sulphur Resistant Material. J. A. Verő. (Royal Hungarian Palatine-Joseph University, Publications of the Department of Mining and Metallurgy, 1940, vol. 12, pp. 158–166). It was desired to find a metal for making baskets for coking briquettes in a low-temperature carbonization plant. The material had to be resistant to a reducing atmosphere containing H_2S at temperatures up to 600° C. "Alitized" steel was found to be more resistant than high-chromium steel. Steel is alitized by heating it for 3 hr. or longer at 930–950° C. embedded in a mixture of burnt alumina 49 parts, 55/45 aluminium-iron alloy 49 parts, and ammonium chloride 2 parts; hydrogen is passed slowly through the tubular furnace during the process. At room temperature the alitized layer is somewhat brittle, but at 500° C. it can be bent sharply without cracking. Data on the properties of alitized steel wire at temperatures in the 400–900° C. range are presented and compared with similar data for mild steel and chromium steel wire.—R. A. R.

CA

9

The development of the structure of cast steel with de-
pendence upon the velocity of cooling.—L. A. Veto. *Roy.
Hung. Palatine-Joseph Univ. Tech. Econ. Sci., Publ. Dept.
Mining Met.* 12, 167-91(1940). A study was made both
in the cast and in the reheated state of the structure and
some phys. properties of common acid steel castings hav-
ing C contents of 0.12-0.58% and cross sections from 10 ×
150 mm. to 150 × 150 mm. The nature of the primary
structure depends chiefly upon the melting temp., by
which the distribution of particles which may act as nuclei
upon solidification, is probably effected. The size of the
primary crystals varies with the rate of cooling and the
depth of the columnar zone with the casting temp. Distri-
bution of nonmetallic inclusions differs with compn. and
m.p. of the steel, but not with the nature of the primary
structure. Expt. shows that C is forced to migrate
towards the center of the austenite crystals by P enrich-
ment. The dendrites and globular crystals have a remark-
able similarity in regard to the secondary crystn. Upon
reheating, in order to prevent the cast steel from assuming
the original structure, the austenite must be first homog-
enized by suitable heating; even after homogenization,
traces of the original structure may appear if the steel is
heated at a low temp. and cooled slowly. The character
of the primary structure does not exert any appreciable
effect upon phys. properties but the known effect of
primary crystal size appears very clearly. Homogeniza-
tion on reheating is found to be of advantage. Proper-
ties of hard steels are influenced by the manner of heat-
treatment to a greater extent than those of soft ones,
which are almost indifferent to the mode of heat-treatment
with the exception of the temp. of heating. Cf. *C.A.*
33, 4563[a]. M. P. Quaely

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



3

The Theory of Segregation in Ingots. J. A. Verő. (Royal Hungarian Palatine-Joseph University, Publications of the Department of Mining and Metallurgy, 1941, vol. 13, pp. 163-183). The solidification of ingots is described in detail and the phenomena are related to the equilibrium diagram. It is shown that no segregation can be caused by the formation and growth of the primary crystals, even in the case of solidification in layers. Gas pressure and volume changes are the only factors during primary crystallization which produce segregation. The pressure of liberated gases may cause normal, but not inverse, segregation. The logical explanation covering all types of segregation is that normal segregation is due to an increase in volume during primary crystallization and that inverse segregation is due to a volume contraction. Liberation of gas from the alloy means a volume increase, and therefore causes normal segregation. R. A. R.

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ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

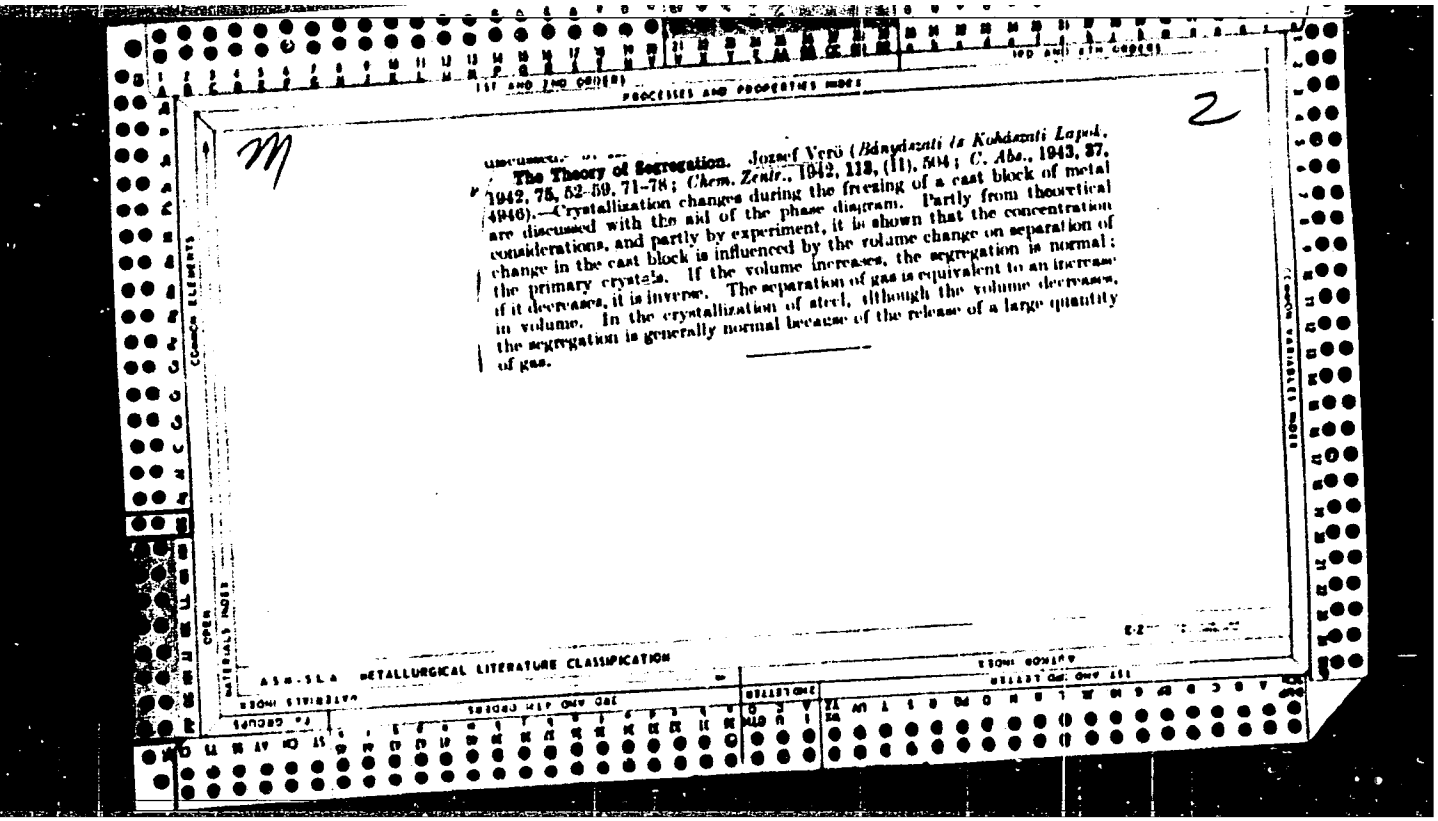
CA

2

The solidification of solid solutions. J. A. Verő (Metallurgical Inst., Palatine-Joseph Univ.). *Roy. Hung. Palatine-Joseph Univ. Tech. Econ. Sci., Pubs., Dept. Mining Met.* 14, 256-67(1942).—Theoretical. It is incorrect to assume that when a solid soln. crystallizes, there is a liquid phase contg. a higher concn. of the alloying element than the value indicated by the liquidus curve, even though the crystals do not show the final compn. The assumption that the liquid phase always has the concn. indicated by the liquidus curve was not proven experimentally because it was felt that fully convincing results could not be obtained. The only method suggested is to cool an alloy at a relatively high rate, to prevent diffusion, until a certain temp. is reached, and then change the cooling rate (by quenching) at that instant, so that the liquid present at that point would solidify in a structure that is plainly distinguishable from that of the previously formed crystals. Formulas are derived for the relation of the liquid phase to the temp. and for the mean concn. of the crystals existing at every temp.

H. F. Pool

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

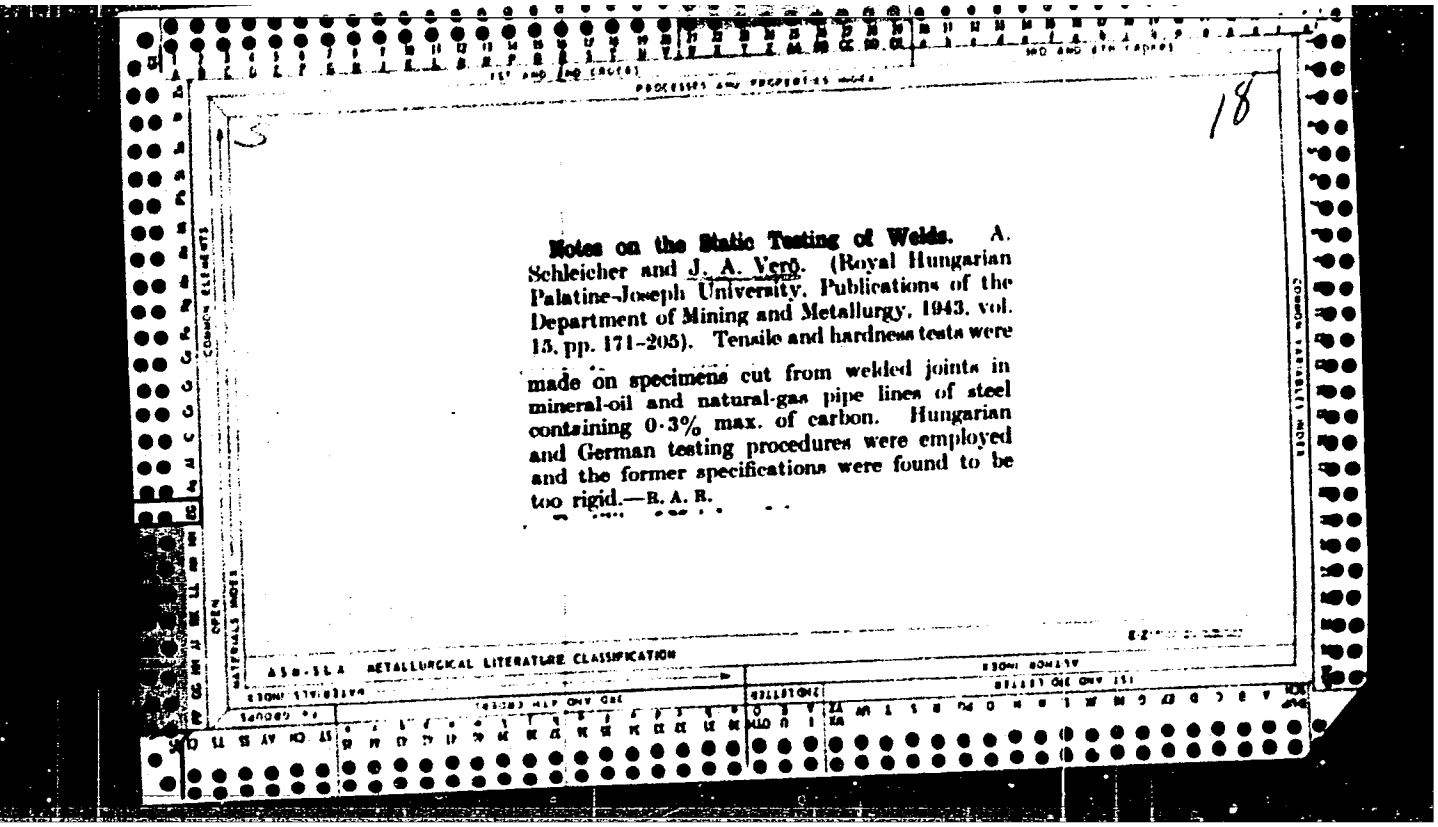


PROCESSES AND PROPERTIES INDEX

2

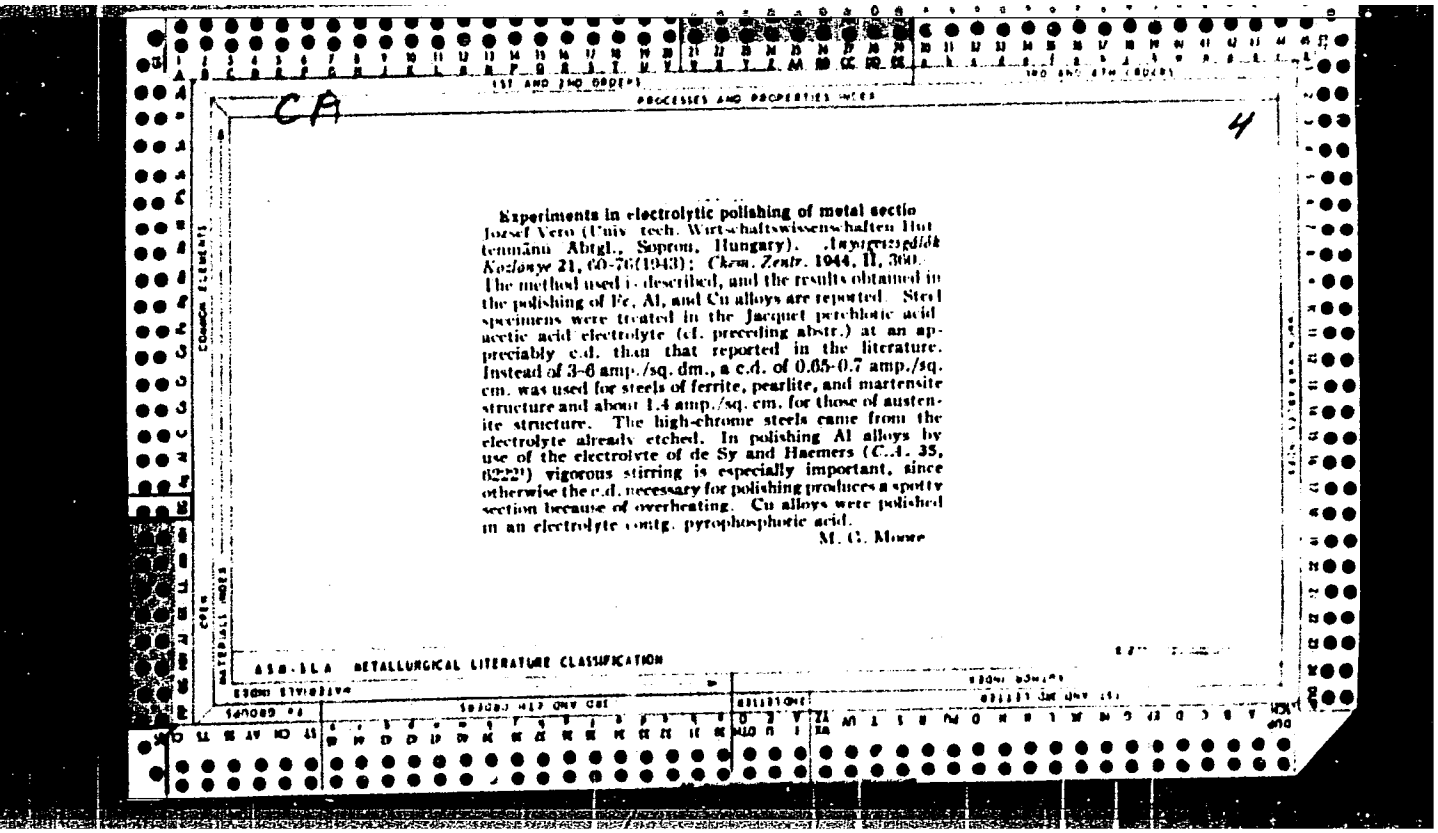
The Theory of Segregation. Jozsef Verő (*Bányászati és Kohászati Lapok*, 1942, 75, 52–59, 71–78; *Chem. Zentr.*, 1942, 113, (II), 504; *C. Abs.*, 1943, 37, 4946).—Crystallization changes during the freezing of a cast block of metal are discussed with the aid of the phase diagram. Partly from theoretical considerations, and partly by experiment, it is shown that the concentration change in the cast block is influenced by the volume change on separation of the primary crystals. If the volume increases, the segregation is normal; if it decreases, it is inverse. The separation of gas is equivalent to an increase in volume. In the crystallization of steel, although the volume decreases, the segregation is generally normal because of the release of a large quantity of gas.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



18

Notes on the Static Testing of Welds. A. Schleicher and J. A. Verő. (Royal Hungarian Palatine-Joseph University. Publications of the Department of Mining and Metallurgy. 1943. vol. 15. pp. 171–205). Tensile and hardness tests were made on specimens cut from welded joints in mineral-oil and natural-gas pipe lines of steel containing 0·3% max. of carbon. Hungarian and German testing procedures were employed and the former specifications were found to be too rigid.—R. A. R.



CA

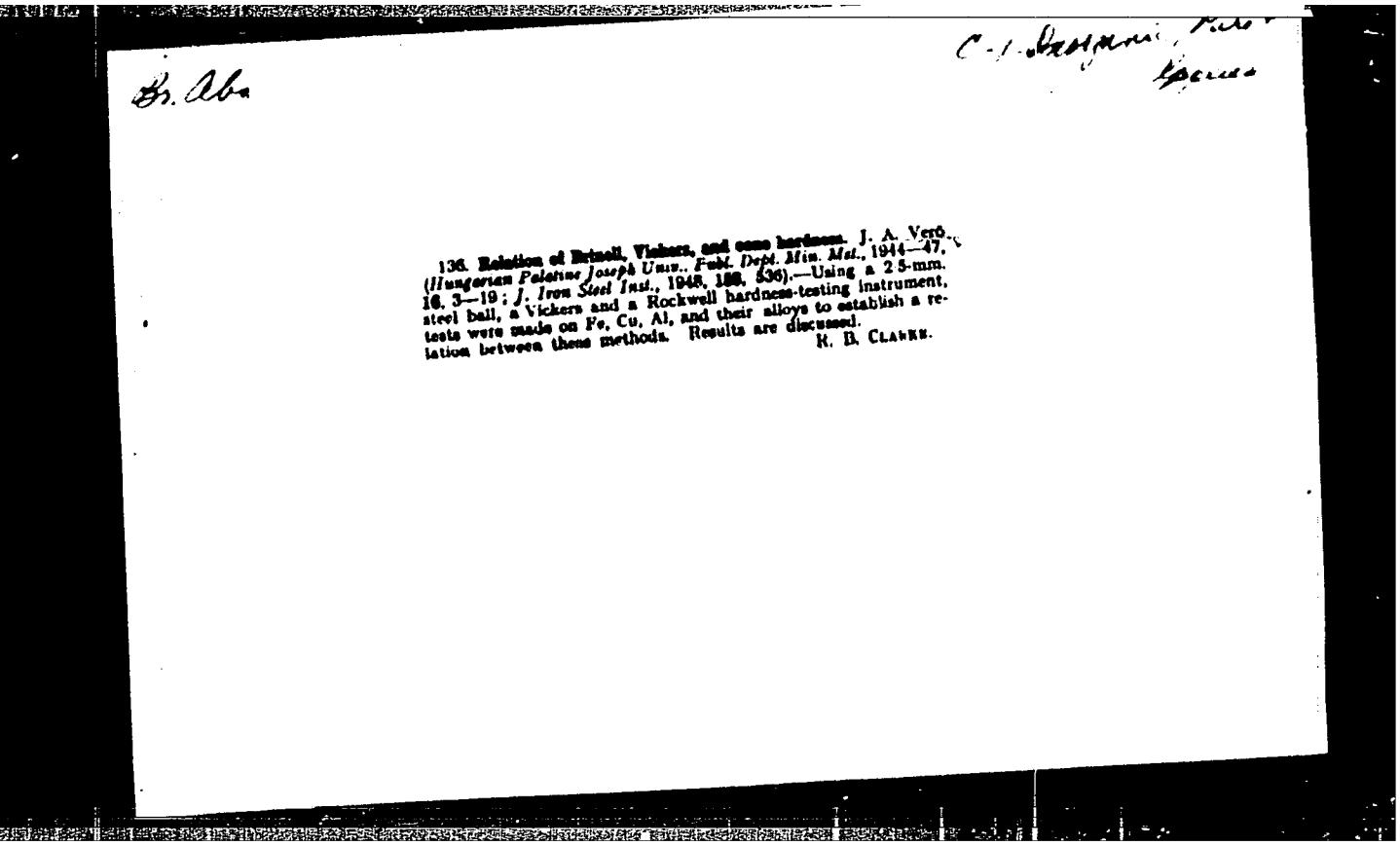
4

Experiments in electrolytic polishing of metal sectio

Jozsef Vero (Univ. tech. Wirtschaftswissenschaften Hut temnäu Abtgl., Sopron, Hungary). *Anyagvizsgálók Kozlonye* 21, 60-76(1943); *Chem. Zentr.* 1944, II, 300. The method used is described, and the results obtained in the polishing of Fe, Al, and Cu alloys are reported. Steel specimens were treated in the Jacquet perchloric acid acetic acid electrolyte (cf. preceding abstr.) at an appreciably c.d. than that reported in the literature. Instead of 3-6 amp./sq. dm., a c.d. of 0.05-0.7 amp./sq. cm. was used for steels of ferrite, pearlite, and martensite structure and about 1.4 amp./sq. cm. for those of austenite structure. The high-chrome steels came from the electrolyte already etched. In polishing Al alloys by use of the electrolyte of de Sy and Haemers (*C.A.* 35, 0222) vigorous stirring is especially important, since otherwise the c.d. necessary for polishing produces a spotty section because of overheating. Cu alloys were polished in an electrolyte contg. pyrophosphoric acid.

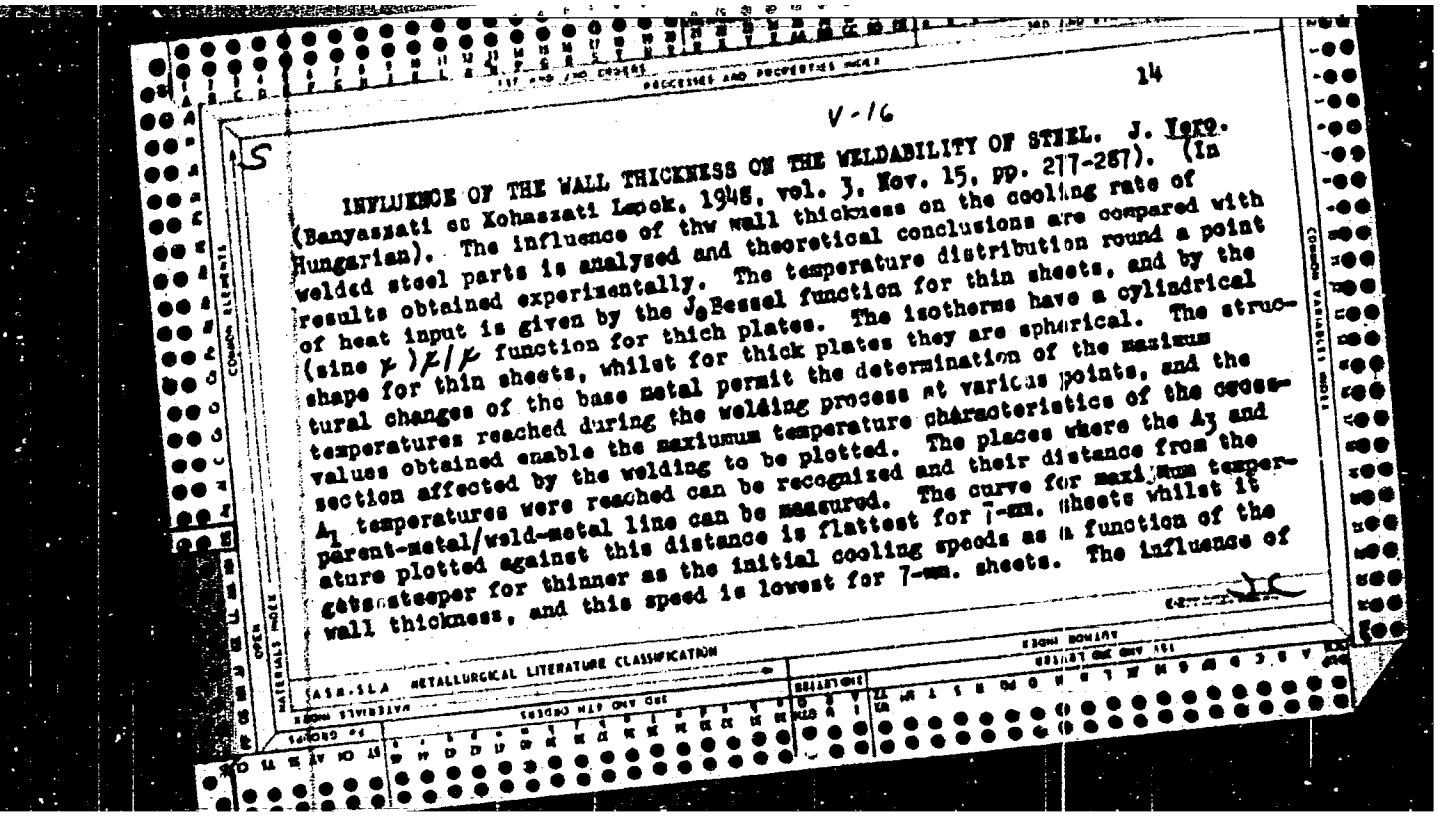
M. G. Moore

A58-51A METALLURGICAL LITERATURE CLASSIFICATION



136. **Relation of Brinell, Vickers, and some hardness.** J. A. Verő. (*Hungarian Palatine Joseph Univ., Publ. Dept. Min. Met.*, 1944—47, **16**, 3—19; *J. Iron Steel Inst.*, 1948, **158**, 536).—Using a 2·5-mm. steel ball, a Vickers and a Rockwell hardness-testing instrument, tests were made on Fe, Cu, Al, and their alloys to establish a relation between these methods. Results are discussed.

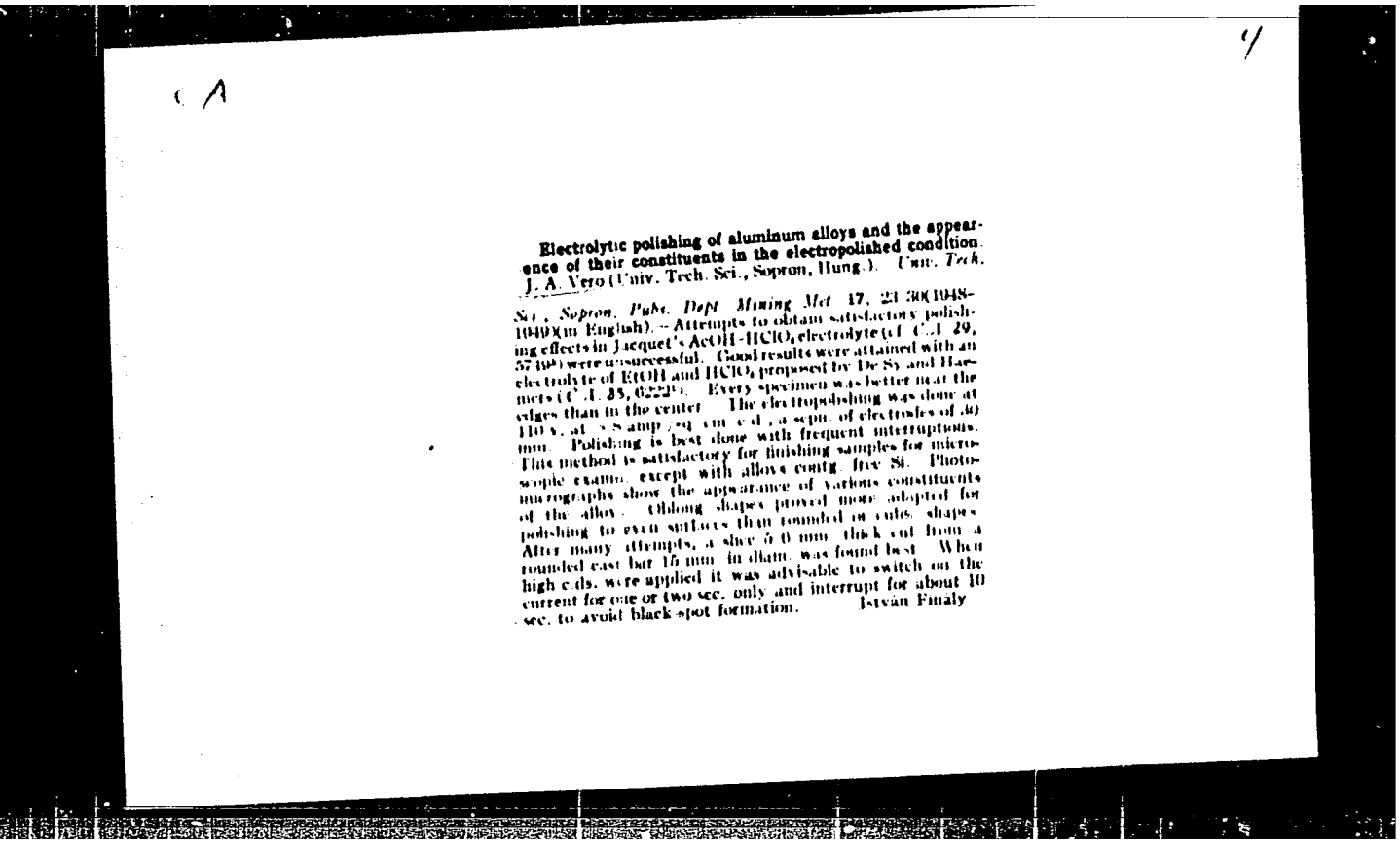
R. B. Clarke.



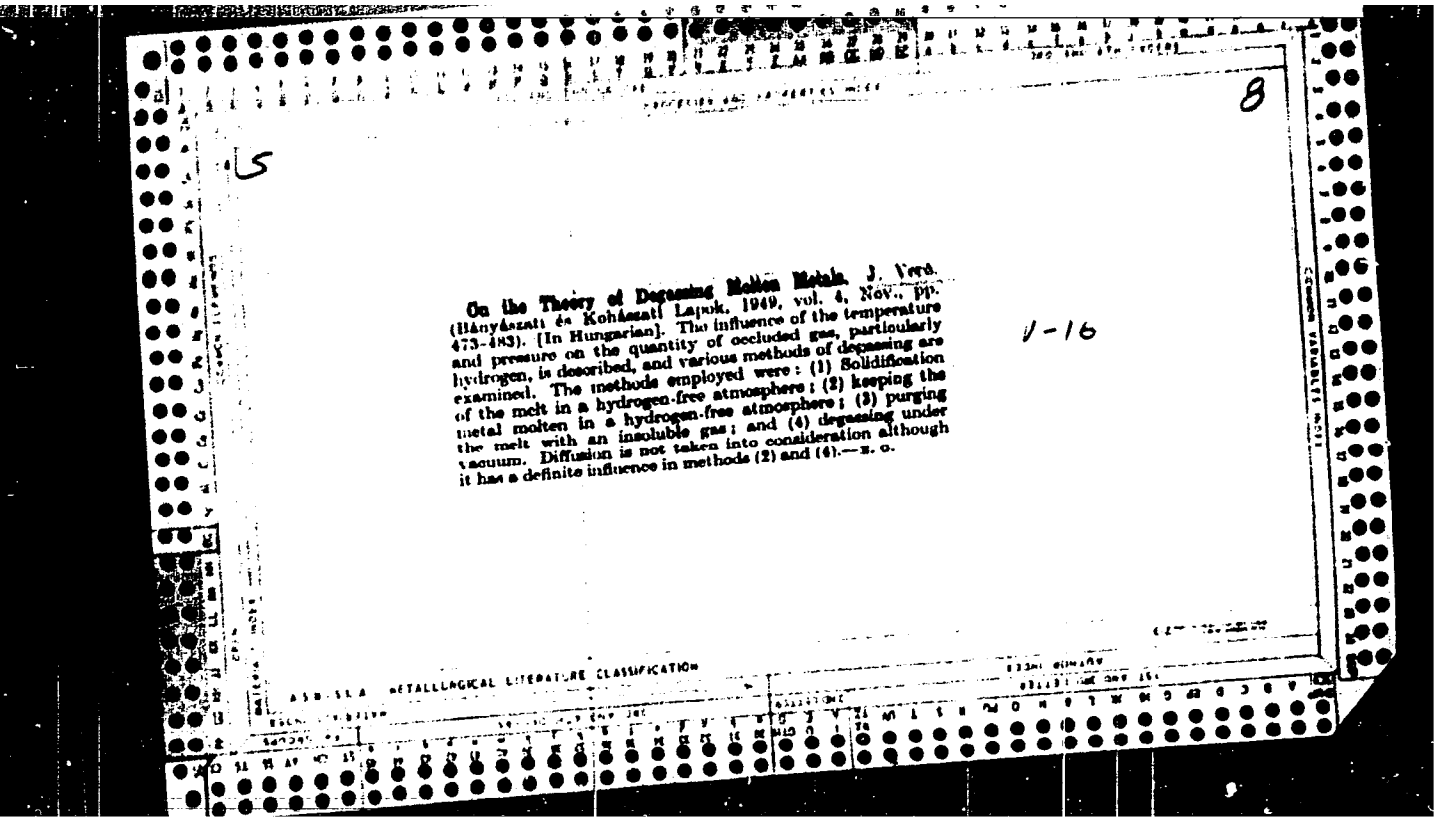
14

V-16

INFLUENCE OF THE WALL THICKNESS ON THE WELDABILITY OF STEEL. J. Verő. (Banyaszati es Kohaszati Lapok, 1948, vol. 3, Nov. 15, pp. 277-287). (In Hungarian). The influence of thw wall thickness on the cooling rate of welded steel parts is analysed and theoretical conclusions are compared with results obtained experimentally. The temperature distribution round a point of heat input is given by the J_0 Bessel function for thin sheets, and by the $(\sin \varphi)/\varphi$ function for thich plates. The isotherms have a cylindrical shape for thin sheets, whilst for thick plates they are spherical. The structural changes of the base metal permit the determination of the maximum temperatures reached during the welding process at various points, and the values obtained enable the maximum temperature characteristics of the cross-section affected by the welding to be plotted. The places where the A_3 and A_1 temperatures were reached can be recognized and their distance from the parent-metal/weld-metal line can be measured. The curve for maximum temperature plotted against this distance is flattest for 7-mm. sheets whilst it gets steeper for thinner as the initial cooling speeds as a function of the wall thickness, and this speed is lowest for 7-mm. sheets. The influence of



Electrolytic polishing of aluminum alloys and the appearance of their constituents in the electropolished condition. J. A. Vero (Univ. Tech. Sci., Sopron, Hung.). *Univ. Tech. Sci., Sopron, Publ. Dept. Mining Met.* 17, 21-30(1948-1949)(in English).—Attempts to obtain satisfactory polishing effects in Jacquet's AcOH-$HClO_4$ electrolyte (cf. *C.A.* 39, 5748) were unsuccessful. Good results were attained with an electrolyte of EtOH and $HClO_4$ proposed by De Sy and Haemers (*C.A.* 35, 6222⁹). Every specimen was better near the edges than in the center. The electropolishing was done at 110 v. at 0.8 amp./sq. cm. cathodic, a separation of electrodes of 40 mm. Polishing is best done with frequent interruptions. This method is satisfactory for finishing samples for microscopic examn. except with alloys containing free Si. Photomicrographs show the appearance of various constituents of the alloys. Oblong shapes proved more adapted for polishing to even surfaces than rounded or cubic shapes. After many attempts, a slice 6.0 mm. thick cut from a rounded cast bar 15 mm. in diam. was found best. When high c.ds. were applied it was advisable to switch on the current for one or two sec. only and interrupt for about 10 sec. to avoid black-spot formation. Istvan Finaly



On the Theory of Degassing Molten Metals. J. Verő. (Bányászati és Kohászati Lapok, 1949, vol. 4, Nov., pp. 473-483). [In Hungarian]. The influence of the temperature and pressure on the quantity of occluded gas, particularly hydrogen, is described, and various methods of degassing are examined. The methods employed were: (1) Solidification of the melt in a hydrogen-free atmosphere; (2) keeping the metal molten in a hydrogen-free atmosphere; (3) purging the melt with an insoluble gas; and (4) degassing under vacuum. Diffusion is not taken into consideration although it has a definite influence in methods (2) and (4).—E. O.

1-16

CA 9

Removal of gases from molten metals. József Vero. *Bányász. Kohász. Lapok* **82**, 473-83(1949).—Math. discussion of 4 methods for gas removal: (1) freezing the molten metal in an atm. free from H, (2) storing the molten metal in an atm. free from H, without freezing it, (3) leaching out the molten metal with a gas insol. in the metal, (4) melting the metal *in vacuo*. The discussion considers practically exclusively the removal of H occluded by metals. For quick degassing, methods (3) and (4) seem to be most suitable.

I. Pinkly

VERÉ, J.

The Theory of the Degassing of Molten Metals. J. Verő. (Acta Technica Academiae Scientiarum Hungaricae, 1960, 1, 1, 130-155). (In Russian).

The occlusion of hydrogen by metals is discussed and formulae representing general relationships between the amount of occluded hydrogen, its partial pressure, and the temperature of the metal are derived. The methods and mechanism of degassing metal are reviewed and the theoretical limits of degassing under different conditions are expressed by general formulae. On theoretical grounds it is shown that the only practical method of degassing is by blowing an inert gas through the molten metal; in all other methods the diffusion of hydrogen through the metal is the controlling factor in the velocity of degassing. E25

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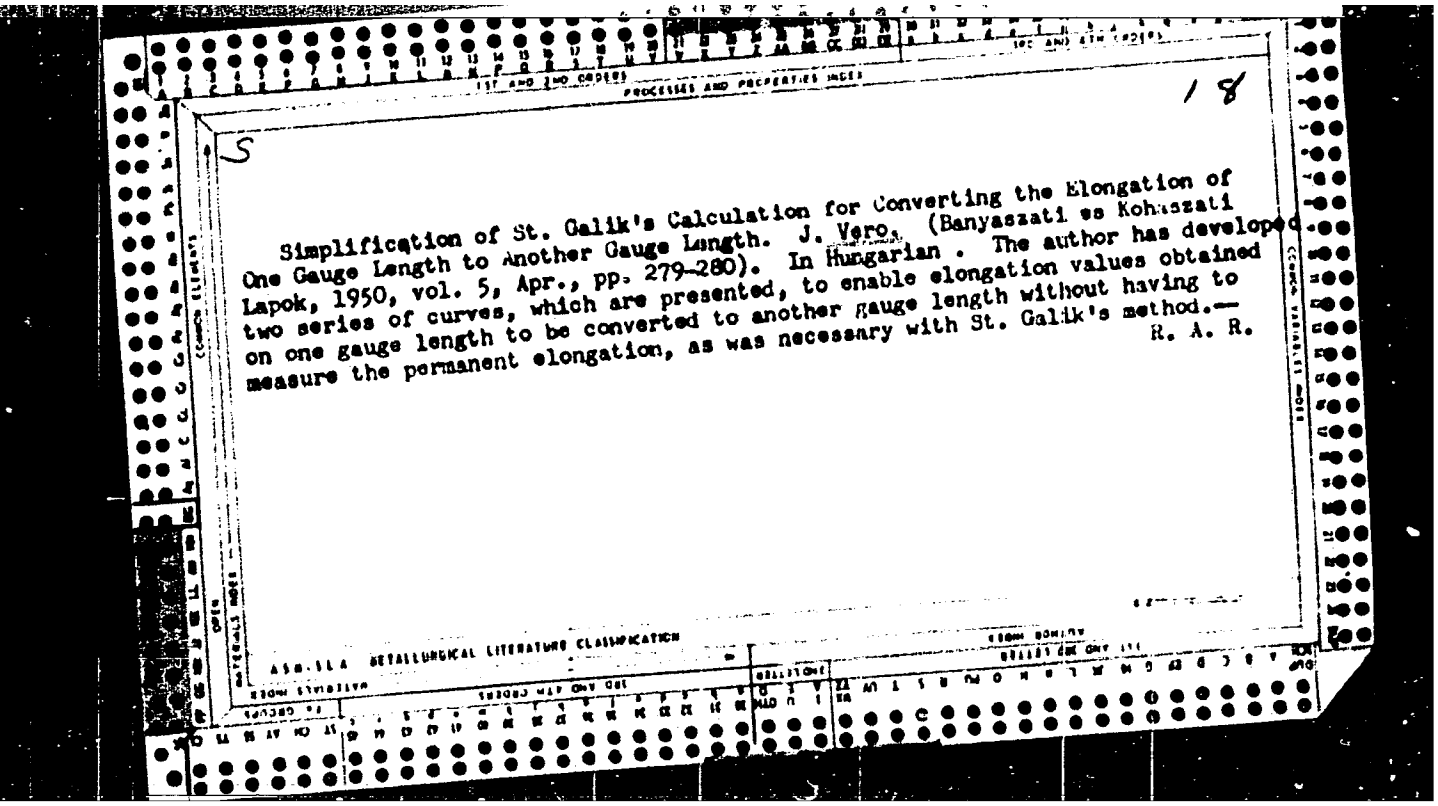


18

S

Simplification of St. Galik's Calculation for Converting the Elongation of One Gauge Length to Another Gauge Length. J. Vero. (Banyaszati es Kohaszati Lapok, 1950, vol. 5, Apr., pp. 279-280). In Hungarian. The author has developed two series of curves, which are presented, to enable elongation values obtained on one gauge length to be converted to another gauge length without having to measure the permanent elongation, as was necessary with St. Galik's method.— R. A. R.

Metallurgy & Metallography

CA

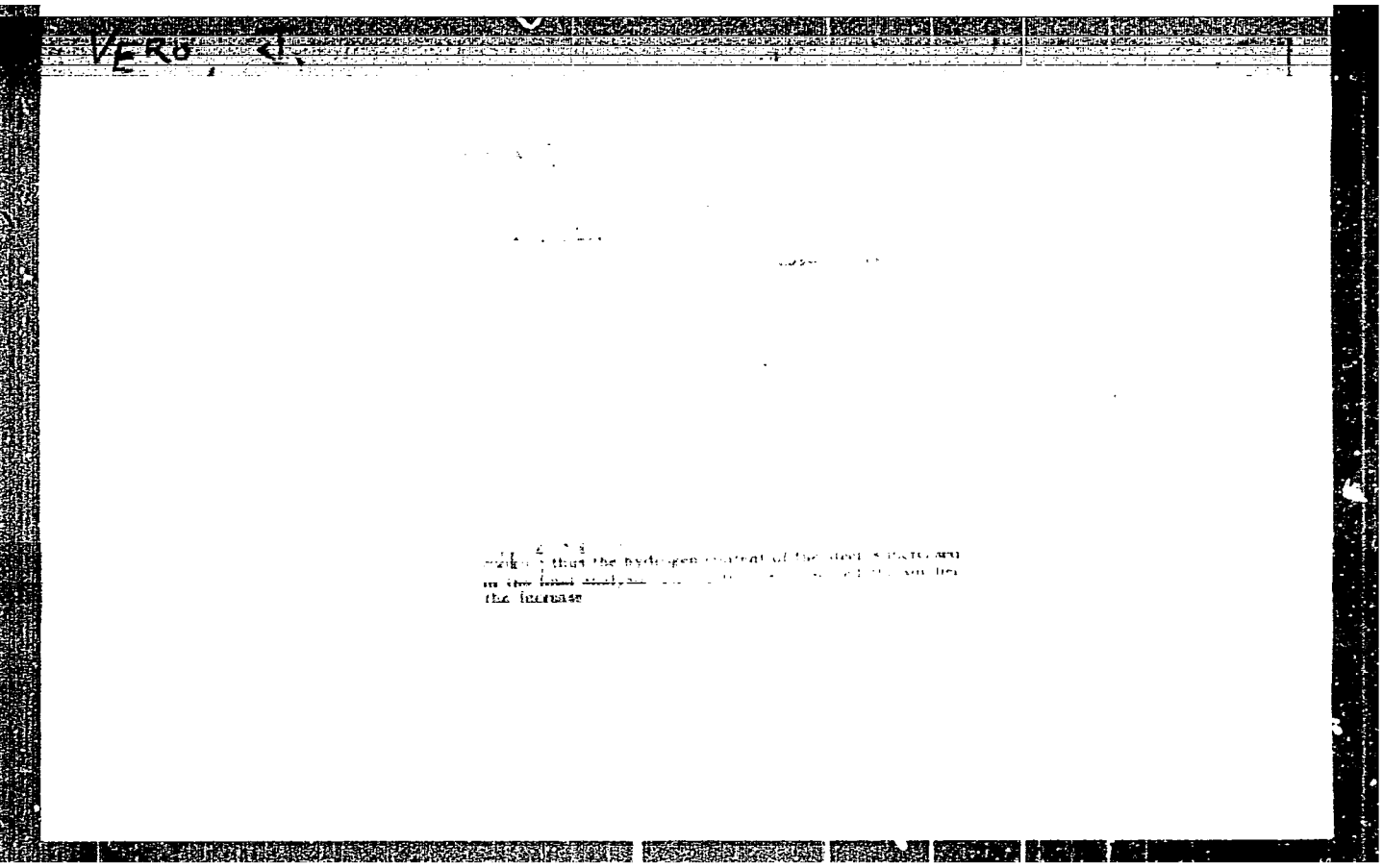
Dilatometric determination of the solidus temperature. J. A. Verő (Tech. Univ., Sopron, Hung.). *Acta Tech. Acad. Sci. Hung.* 2, No. 1, 97-113(1951)(in English).—The expansion owing to melting can be used to det. the solidus temp. of alloys with a dilatometer. Different types of Al alloys were examd. by this method and their solidus temp. detd. Alfred M. Pommer

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859520009-2"

J. VERO.

"On the stability of muclei in metallic melts." p. 209 (ACTA TECHNICA ACADEMIAE SCIENTIARUM HUNGARICAE, Vol 6, no. 1/2, 1953, Budapest, Hungary)

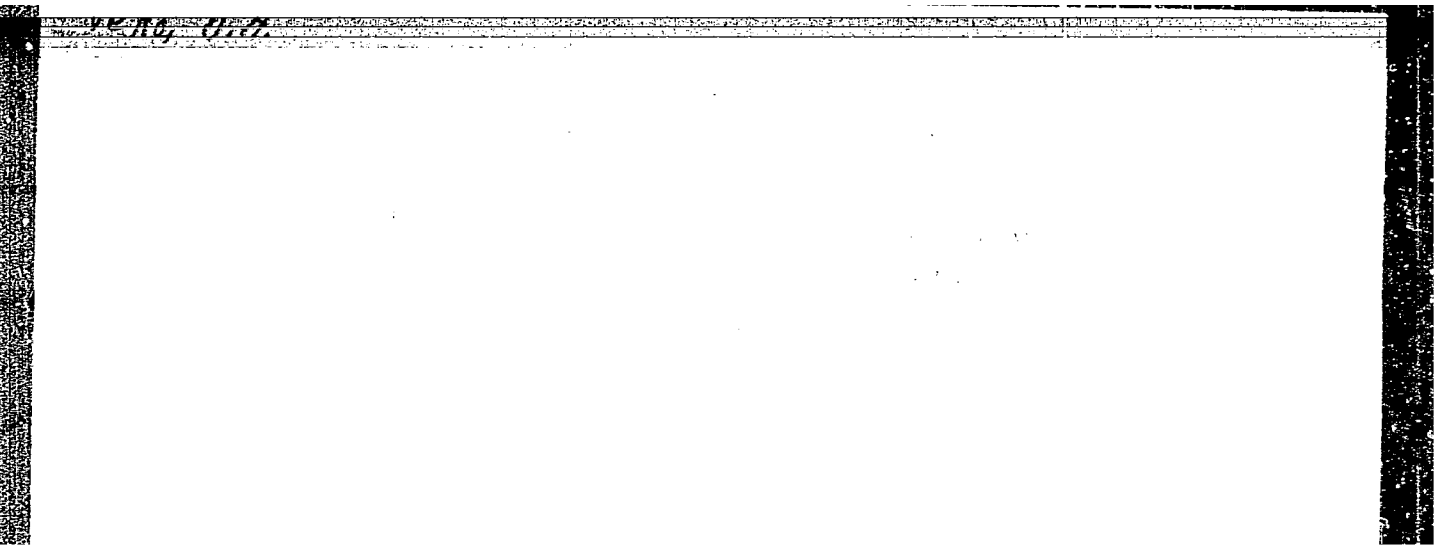
SO: Monthly List of East European Accessions, L.C., Vol. 2 No. 7, July 1953, Uncl.



VIRO, J.

Institutes in Moscow for the training of metallurgical engineers. p. 47.
KOHASZATI LAPOK. Vol.12, no. 3, Mar. 1957, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957.
Uncl.



Distr: 4E2c

Development of a weldable manganese-titanium-aluminum alloyed steel of the St 52 type in Hungary. G. Kristóf, P. Szücs, J. A. Vető, and B. Zorkóczy. *Neue Hütte* 3, 425–32 (1958). Confronted with the need to formulate St 52 steel (tensile strength, 52; yield point, 35 kg./sq. mm.) by using alloying materials available in Hungary, the authors investigated the properties of steel contg. Mn, Si, Al, and Ti. They found that Ti steels (0.02–0.17% Ti) show up favorably in tests (notched-bar shock resistance at −50° to +30°, tensile strength, Jominy hardness), comparing their mech. properties with those of other St 52 steels. Loss of tensile strength on cooling to −40°, on aging, and in the brittlest portion of the welding zone is less for steel contg. Ti than for Ti-free St 52. This compensating effect of Ti is the more marked the higher the content. The fine-grained state of Ti steel is more stable than that of Al steels or of other fine-grained steels. Charts and photomicrographs illustrate these points. J. G. S.

VERO, J.

Methods for investigating inclusions in steel [illegible] 2

VERO, J.

Methods of investigating steel impurities. p.449

KOHASZATI LAPOK. (Magyar Banyaszati es Kohaszati Egyesulet)
Budapest, Hungary
Vol. 13, no.10/11, Oct./Nov. 1958

Monthly List of East European Accessions (EEAI) LC., Vol. 8, no.7, July 1959
Uncl.

VERO, J.

Distr: 4E2c

// The influence of austenitic grain size on the M. temperature. Josef A. Vero and M. Szikszai. *Acta Tech. Acad. Sci. Hung.* 27, 419-27(1959)(in English).—Four steels contg. C 0.3-0.5, Mn 1.02-1.6, Si 0.11-1.03, and Cr 0-0.83% were tested, 1 being a com. eutectoid Mn-Si steel without Cr, and 1 with highest Cr being a lab. hypoeutectoid melt with low Si. In these steels the Cr:C ratio was sufficiently low to prevent the presence of any difficultly sol. Cr carbides, and hence insure that the austenite transforming to martensite would always have the same compn. in a given steel, irrespective of the austenizing temp. used for producing the desired grain size. The dilatometric results on all 4 steels, except for 2 detns. at the coarsest grain size, showed a linear relation of M_s temp. to grain size, with coarsening by 1 no. raising the temp. 12-13°. George F. Comstock.

VERO, Jozsef, akademikus

Regularity in the change of the hydrogen content in the open-hearth steel. Koh lap 9 no. 3: 100-101 Mr '54.

SZELE, Mihaly, egyetemi tanar; MARTOS, Ferenc; CLAUS, Alajos; HARGITTAY, Sandor; VERO, Jozsef, dr.

An account of the Executive Committee session held on May 24, 1957.
Koh lap 12 no. 4/5 199-208 Ap-My '57.

1. Orszagos Magyar Banyaszati es Kohaszati Egyesulet elnoke (for Szele).
2. Orszagos Magyar Banyaszati es Kohaszati Egyesulet fotitkara (for Martos).

VERO, Jozsef

Ivan Pavlovich Bardin (1883-1960): an obituary. Magy tud 67 no.4: 229-231 Ap '60. (EEAI 9:9)
(Bardin, Ivan Pavlovich)
(Russia--Metallurgy)

VERO, Jozsef

Dr. Aladar Schleicher; on the occasion of his 80th birthday. Muszaki kozl MTA 19 no.1/4:39-42 '61.

KALDOR, M., candidat of eng.sc.; VERO, J. A., member of the Hungarian Academy of Sciences

A method to reveal austenitic grain size in hardenable steels; Report No.18 of the Working Community for Metallurgy of the Hungarian Academy of Sciences. Acta techn Hung 34 no.1/2:177-184 '61.

ADAM, Antal (Sopron); VERO, Jozsef (Sopron)

Tellurium prospecting in a strongly cracked tectonic area. Muszaki kozl MTA 28 no.1/4:437-446 '61. (EEAI 10:9)

1. Magyar Tudomanyos Akademia Geofizikai Kutato Laboratoriuma, Sopron.

(Tellurium)

VERO, Jozsef, akademikus, egyetemi tanar

Conference of the Baykov Institute in Moscow. Magy tud 68 no.12:766-769 D '61.

1. Intezeti igazgato, Vasipari Kutato Intezet.

VERO, Jozsef, dr.

Appraisal of microscopic methods for inclusion testing. Koh lap 95 no.1:9-13 Ja '62.

(Steel)

VERO, Jozsef, dr., akademikus; TRANTANE SZIKSZAI, Marta

Studying the phase changes of steels by a dilatometer. Koh lap 95 no.9:398-402 S '62.

1. Nehezipari Muszaki Egyetem Metallografiai Tanszek.

VERO, Jozsef, dr

On the brittleness of MTA 50 steels. Koh lap 97 no.9: 402-407 S '64.

VERO, Jozsef, dr.

On the brittleness of MTA 50 steels. Koh lap 97 no.10: 456-463 O '64.

ACC NR: AP7003588 (A,v) SOURCE CODE: HU/9001/66/007/004/0157/0162

AUTHOR: Hollo, Lajos; Vero, Jozsef

ORG: none

TITLE: New investigations regarding variations in the Earth's electromagnetic field and sun-physics data, recurring at 27-day intervals

SOURCE: Magyar geofizika, v. 7, no. 4, 1966, 157-162

TOPIC TAGS: magnetic field, magnetic field intensity, Earth magnetic field, alternating magnetic field, sunspot, sunspot cycle, telluric current, astronomic observatory, telluric current reading

ABSTRACT: The authors compared data based on velocity readings of telluric currents at the Nagycenk Observatory [Hungary] during 1960—1962 with readings made during 1957—1959. They found a significant change in the degree of correlation. This seemed to confirm that during periods of low solar activity and gradually starting magnetic storms pulsation shows increasing periodicity. The readings also showed that pulsations which do not depend on magnetic activity have a lesser

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ACC NR: AP7003588

tendency to recur at 27-day periods. The paper was presented in a lecture on 24 February 1964. Orig. art. has: 3 figures and 4 tables. [KS]

SUB CODE: 08/SUBM DATE: none/ORIG REF: 001/OTH REF: 002/

Card 2/2

L 30212-66 FCC

ACC NR: AT6020297 SOURCE CODE: HU/2504/65/052/01-/0065/0076

43

B+1

AUTHOR: Vero, J.--Vere, I.

ORG: Research Laboratory for Geophysics, MTA, Sopron

TITLE: Possibility for the determination of the telluric tensor

SOURCE: Academiae scientiarum hungaricae. Acta technica, v. 52, no. 1-2, 1965, 65-76

TOPIC TAGS: telluric current, geometry

ABSTRACT: It was shown that the relative ellipse method has certain disadvantages for evaluating telluric measurements. A method in which a parallelogram is used in lieu of the ellipse was developed and it was shown that most of the disadvantages are thereby eliminated. The parallelograms involved are easier to construct and the uncertainty of the great axis of the ellipse is eliminated. The method will not eliminate the uncertainty of the small axis; however, it is applicable even in cases where the ellipse is a prolate one. Another slight disadvantage of the new method is that the parallelogram is less illustrative than is the ellipse in the determination of the telluric tensor. Orig. art. has: 6 figures, 9 formulas, and 1 table. [Orig. art. in Eng.] [JPRS]

SUB CODE: 08, 12 / SUBM DATE: 02Nov63 / OTH REF: 003

Card 1/1 CC

VERO, Jozsef

A possibility for telluric tension determination. Muszaki kozl MTA 34 no.4:443-453 '65.

1. Research Laboratory of Geophysics of the Hungarian Academy of Sciences, Sopron.

VERO, Jozsef, dr., akademikus, tanszekvezeto egyetemi tanar; [illegible], Pecs, egyetemi tanarseged

Effect of nitrogen on some properties of the MTA 50 steel. Koh lap 97 no.8:353-359 Ag '64.

VERO, Jozsef, akademikus

Reaction kinetics of the decarbonization of unalloyed steel.
Muszaki kozl MTA 34 no. 1/2: 127-141 '64.

1. Metallurgical Working Group, Hungarian Academy of Sciences.

SZUCS, Endre; KOVACS, Sandor; MESTER, Istvan; JUNG, Bela; LELKES, Gabor; SCHUSSLER; HAJTO, Nandor, dr.; VERO, Jozsef, dr.

Remarks about Nandor Hajto's lecture entitled "Mn-Ti containing casehardened steels." Koh lap 9 no. 3: 102-108 Mr '54.

1. Darutervezo Iroda (for Schussler).

VERO, Jozsef, dr.

Aleksandr Mikhailovich Samarin at 60. Muszaki kozl MTA 32 no.1/4:3-5 '63.

VERO, Jozsef, dr.

Stylistic errors in Hungarian technical texts. Koh lap 96 no.11:501-503 N'63.

VERO, J.A., member of the Hungarian Academy of Sciences

The disintegration of eutectic carbide in high-speed steel during forging. Acta techn Hung 44 no. 3/4:419-436 '63.

1. Working Community for Metallurgy of the Hungarian Academy of Sciences.

VERO, Jozsef, prof.

Hungarian technical terminology. Musz elet 18 no.13:3
20 Je '63.

VERO, Jozsef, dr.

Hungarian and foreign weldable steels alloyed by titánium. Koh lap 96 no.4:161-163 Ap '63.

VERO, J.

Distr: 4E2c

343/60. 669.14.069.84

Degassing of steel in vacuum. J. Vero. *Kohaszati Lapok*, Vol. 92, 1959, No. 12, pp. 569—583, 19 figs., 3 tabs.

A molten metal loses gas in vacuum by two different mechanisms, by the formation of gas bubbles and by diffusion. The formation of gas bubbles occurs in a measurable quantity only in a small layer near the surface of the melt because of the metallostatic pressure of the melt and because of surface-tension; gas losses by this mechanism are low when referred to the entire volume of the melt. The rate of gas discharge by diffusion is slow, the process requires more than an hour.

An analysis of the probable results of these two mechanisms shows that — besides melting in vacuum — successful and quick degassing is preferably effected by casting in vacuum. The conclusions of this theoretical analysis are corroborated by laboratory and field tests. Equipments designed for the melting, casting and degassing of steel are evaluated on the basis of the degree of degassing obtained and on the possibility of handling considerable quantities of steel.

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ADAM, Antal; VERO, Jozsef

A preliminary report on the national measurements of telluric currents by the Geophysical Research Laboratory of the Hungarian Academy of Sciences. Geofiz kozl 10 no.1/4:27-37 '62.

VERO, Jozsef

Calculation of the telluric station ellipse. Geofiz kozl 10 no.1/4: 155-161 '62.

VERO, Jozsef, dr.

Disaggregation of the eutectic carbide of high-speed steels during forging. Koh lap 96 no.2.49-56 F '63.

ADAM, Antal (Sopron); VERO, Jozsef (Sopron)

Changes in the earth's electromagnetic field and their utilization in the research on terrestrial structure. Fiz szemle 14 no.7:207-214 Jl '64.

VERO, Sandor

Cultural competition between the socialist brigades of the Aron Gabor Iron Foundry. Munka 10 no.1:17 Ja '60.

1. Szakszervezeti bizottsagi titkar, Gabor Aron Vasontode es Gepgyar.