SOCHOR, BRETISLAV

/6352" Examination of Melting Conditions and Testing of Refractory Materials in a Small Cupola With Inside Diameter of 100 mm. Sledování tavicích podmínek a zkoušky žáruvzdornin u modelu kuplovny o světlém průměru 100 mm. (Czech.) Břetislav Sochor. *Slévárenství*, v. 4, no. 2; Práce Československého Výzkumu Slévárenského, v. 3, no. 28, Feb. 1956, p. 197-202.

Details of its use and best charge size are discussed. Acid and basic linings are evaluated. Tables, diagram, photographs.

SOCHOR, B.

Operational Tests of Cast Iron Melting in the Basic Cupola. B. Sochor and J. Plachy. (*Problems and Perspectives of Czechoslovak Metallurgy and Foundry*, 1958, 392-404). Twelve basic melts in a 900 mm dia. cupola and in a 700 mm water-cooled cupola were examined, and the refractory resistance to slag determined. The basic process was found to enable inferior materials to be charged, use of basic slag did not cause difficulties, cooling had no ill effects on the melts and decreased refractory consumption by 40%. Insulating the forehearth raised the iron temperature 10-15% at the spout, removal of auxiliary tuyeres reduced refractories consumption, the saving occurs in the possibility of using lower grade materials as the cost of basic refractories is higher though consumption is lower.

SOCHOR, B.

16 15 1-4

A Study of Melting Variables and of Refractory Linings in a Model Cupola of 10 cm Internal Diameter. B. Sochor. (*Reports of Czechoslovak Foundry Research. Appendix to Slévárenství*, 1956, 4, (2). [In Czech]. Rammed acid linings were found superior to fire-clay. In the case of basic linings slag attack was found to penetrate deeply, this not being so with acid linings. The [illegible] of the [illegible] caused frequent trouble in the performance. The [illegible] of basic cupolas from the metallurgical point [illegible] confirmed, e.g. the sulphur content of iron [illegible] cupola is considerably below that of iron made in the acid cupola.—P. P.

PM MIT

SOCHOR, B.

18 18 18 7

Melting of Grey Iron in the Basic Cupola. B. Sochor. (*Slevarenství*, 1956, 4, July, 239–248). In an experimental 500 mm cupola melts were carried out with a CaO + MgO : SiO$_2$ ratio of 1·6–2. Desulphurization increases with basicity but melting becomes more difficult. Periclase-forsterite, magnesite-LID and chrome-magnesite were examined. Magnesite-LID was found most suitable and bonded unburnt brick was successful. It was found that the bottom could be dropped and the drop coke extinguished with water without damage to the lining.

SOCHOR, B.

SOCHOR, B. The fifth International Ceramic Congress in Austria. p. 749.

Vol. 11, no. 12, Dec. 1956
HUTNICKE LISTY
TECHNOLOGY
Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957

SOCHON, E.

Necessity of a more extensive application of the electrothermic apparatus in Polish industry.

p. 340 (Przegląd Techniczny. Vol. 77, no. 8, Aug. 1956. Warszawa, Poland)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2, February 1958

SOCHOR, B.

Influence of sodium and titanium slags on chemical, structural, mechanical and casting properties of grey cast iron. B. Sochor and L. Pavlik (*Slévárenství*, 1957, 5, *Rep. Czech. Foundry Res.*, 315—324).—Grey cast iron was melted in a cupola furnace, mainly by cold blast but in some cases with blast preheated to 430°. Acid and basic slags of varying basicity with Na or Ti compounds added were used. The melts with acid slag + Na compounds gave cast iron with an improvement of ~25% in mechanical properties. Those with Ti compounds added did not affect mechanical properties to any significant extent. Modification of basic slags with additional melting agents also gave a ~ 25% improvement in mechanical properties. With Na melting agents desulphuritation was improved with basic slags but no improvement in mechanical properties occurred. Increasing slag fluidity with hot blast led to a general improvement of melt course and cast iron quality. (From English summary.)

J. S. C.

SOCHOR, B.

SLEVARENSTVI
Vol 5, Nr 7, July, 1957

B. Sochor - I. Pavlik: Investigation on the Influence of Sodium and Titanium Slags on Chemical, Structural, Mechanical and Casting Properties of Gray Cast Iron

Investigation on the Influence of Sodium and Titanium Slags on Chemical, Structural, Mechanical and Casting Properties of Gray Cast Iron

The authors have made experimental melts in a cupola furnace of 160 mm inside diameter which had an output of 100 kg to 110 kg per hour with individual tapping operations by 10 kg to 15 kg. Melting was performed predominantly with cold blast and only in several melts the blast was preheated to 430 °C. Cast iron with 3,5 % C, 2,0 % Si, 0,45 % Mn, 0,50 % P and 0,08 % S average composition, was melted under acid and basic slags with differently graduated basicity which were partially dressed by means of sodium and titanium compound additions. These compounds were added into the cupola furnace in the form of additional melting agents. It has been ascertained what follows: 1. The refining ability of current acid slags is insignificant. However the quality of cast iron can be improved in a small extent on varying the chemical composition and raising the fluidity. 2. Approximately

Card 1/2

SLEVARENSTVI
Vol 5, Nr 7, July, 1957

Card 2/2

SOCHOR, B.; PAVLIK, I.

Investigation on the Influence of Sodium and Titanium Slags on Chemical, Structural, Mechanical and Casting Properties of Gray Cast Iron.

25 % better mechanical properties of cast iron were obtained on melting with acid slags modified by means of sodium compounds. With titanium compound modified acid slags did not affect the mechanical properties of cast iron nearly at all. 3. The refining abilities of basic slags and their influence on the structure of cast iron were reconfirmed. The mechanical properties increase but insignificantly on using basic slags, However the fluidity increases substantially on an average of 28 % in cast irons melted with current slags and up to 65 % in those melted with sodium ones. 4. On modifying the properties of basic slags by means of additional melting agents an approximative 25 % increase of nearly all mechanical properties was obtained. On adding sodium melting agents an elevated desulphurization was observed; however the mechanical values did not improve. 5. With increasing slag fluidity on using hot blast a general improvement of melt course and of the quality of cast iron were obtained.

SCHOR, B.

Model cupola of the VUMT (Research Institute of Materiel and Technological Processes) in Brno with a preheated wind and water-cooled fusion zone.

p. 257 (Slevarenstvi) Vol. 5, no. 9, Sept. 1957, Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, 1958

SOCHOR, B.

Slevarenstvi, Vol. 6, Nr. 1, 1958

B. Sochor: Effect of Melting Process on the Malleable Iron Quality

Effect of Melting Process on the Malleable Iron Quality

p. 1

3

The author deals with the effect of slags of various compositions on the quality of cast iron for malleabilization. The cast iron was melted in an acid lined cupola. By experimental melts it was shown that small additions of soda and boric compositions in the charge increase the fluidity of slags and facilitate the melting process.

Soda additions (1 per cent of metallic charge) produced an increase of mechanical properties of the cast iron and additions of boric compositions (melted borax, glasses of the orthoboric acid and waste in the production of borax) deteriorate slightly the mechanical properties. Boron passed from the slag into the cast iron in quantities of thousandths to tenths of per cent and influenced clearly its structure. In thousandths quantities the boron had a favourable effect on the cementite decomposition and enabled thus a shortening of the malleabilizing cycle. The pre-heated wind used in several melts improved the results in all aspects.

SOCHOR, Bronislaw; KACKI, Edward

Heating of steel tapes in motion by means of the direct resistance method. Elektryka Lodz no.4:3-14 '58.

1. Department of Electric Heating, Institute of Technology, Lodz.

H

COUNTRY : CZECHOSLOVAKIA
CATEGORY : Chemical Technology. Chemical Products and Their Application. Pesticides.
ABS. JOUR. : RZKhim., No 17, 1959, No. 61095

AUTHOR : Sochor, R.
INSTITUTE : Not given
TITLE : Utilization of Naphthenic Acids and of Their Salts as Bacteriocides and Fungicides.
ORIG. PUB. : Textil (Ceskosl.), 1958, 13, No 5, 187-189

ABSTRACT : No abstract.

Card: 1/1

2
1

The study of the melting process in the cupola from the viewpoint of the slag quality and its effect on the quality of cast iron. Břetislav Sochor. *Slévárenství* 7, 33–40 (1959).—In an expt. cupola of 165 mm. diam. the formation of acid and basic modified slags as well as the effects of these slags on the melting process were studied. In order to eliminate the influence of melted-off lining on slag properties the cupola was provided in the melting zone with a cooling coil, the blast being preheated to 560°. High admixs. of limestone did not produce any basic medium in this cupola without lining with acid patching, and they did not offer any metallurgical advantages. The slags segregated at high CaO contents, and the difficultly fusible portion ran in the hearth. Modification of slags by Ti and Na compds. proved successful. The metallurgical advantages of basic slags were confirmed again even if the melting zone was intensively cooled. Acid and basic refractories applied for patching and ramming proved to be satisfactory. The carbonaceous (coke) rammed lining presented very advantageous properties for lining the cupola hearth. It is not convenient except for lining the space between tuyeres.
Petr Schneider

Distr: 4E2c

SOCHOR, E.

Research on experimental cupola-furnace operation with a pipe-type heat recuperator. p. 381.

SLEVARENSTVI. (Ministerstvo tezkeho strojirenstvi a Ceskoslovenska vedecka technicka spolecnost pro hutnictvi a slevarenstvi) Praha, Czechoslovakia. Vol. 7, no. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 12, Dec. 1959.
UNCL

SOCHOR, E.

The share of electrothermics in the consumption of electric power. p. 75.

PRZEGLAD ELEKTROTECHNICZNY. (Stowarzyszenie Elektrykow Polskich) Warszawa, Poland. Vol 35, no. 2, Feb. 1959.

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

Uncl.

SOCHOR, B.

Problem of the economy of electric heating in Poland, p. 192.

PRZEGLAD ELEKTROTECHNICZNY. (Stowarzyszenie Elektrykow Polskich) Warszawa, Poland, Vol. 35, no. 5, May 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, Jan. 1960.

Uncl.

SOCHOR, Bronislaw, prof., mgr., ins.

Electric accumulative heating of use water and of dwellings. Energetyka przem 9 no.10:350-353 '61.

1. Katedra Grzejnictwa Elektrycznego Politechniki Lodzkiej.

SOCHOR, Bretislav

Viscose properties of cupola slags. Slevarenstvi 9 no.11:426-428 N '61.

1. Statni vyzkumny ustav materialu a technologie, slevarensky vyzkum, Brno.

(Founding) (Cupola furnaces)

SOCHOR, Bronislaw, prof. inz.

Thermal storage heaters. Wiad elektrotechn 28 no.4:90-92 Ap '61.

1. Katedra Grzejnictwa Elektrycznego, Politechnika, Lodz.

SOCHOR, Bronislaw, prof.

Water heating with the use of electric batteries. Wiad elektrotechn 28 no.7:203-205 Jl '61.

1. Katedra Grzejnictwa Elektrycznego, Politechnika, Lodz.

SOCHOR, B.

Progress in founding in Great Britain. Slevarenstvi 10 no.3:122-123 Mr '62.

SOCHOR, B.

Cupola gas cleaning. Slevarenstvi 10 no.7:283 Jl '62.

SIROKICH, J.; SOCHOR, B.; KLABAN, J.; STRBIK, Jan

Informations on founding. Slevarenstvi 10 no.8:321-323 Ag '62.

SOCHOR, B.

"Cupola furnaces with preheated blast" by R. Chudzikiewicz. Reviewed by B. Sochor. Slevarenstvi 10 no.9:322-323 Ag '62.

SOCHOR, Bretislav

Present conditions of steel and grey iron melting in induction furnaces in Czechoslovakia and its outlook. Slevarenstvi 10 no.11:441-443 N '62.

1. Statni vyzkumny ustav materialu a technologie, slevarensky vyzkum, Brno.

SOCHOR, Bretislav; HRUBY, Karel

Some problems in using refractory materials in induction melting furnaces in foundries. Slevarenstvi 10 no.11:443-446 N '62.

1. Statni vyzkumny ustav materialu a technologie, slevarensky vyzkum, Brno.

SOCHOR, B., prof.

Choice of heating power of electric resistance furnaces.
Przegl elektrotechn 38 no.2:81-83 '62.

SOCHOR, B.

A lecture on recuperators. Slevarenstvi 11 no.2:85 F '63.

KLABAN, J.; GLOSROVA, M.; SOCHOR, B.; STRBIK, Jan

Information on founding. Slevarenstvi 11 no.2:90-94 F '63.

SOCHOR, B., prof.

Achievements and plans of the Polish Committee of Electrothermics.
Przegl elektrotechn 39 no.8:321 Ag '63.

1. Przewodniczacy Polskiego Komitetu Elektrotermii, Warszawa.

SOCHOR, Bronislaw, prof. mgr inz.

Possibilities of improving the daily load curve through developing storage heating. Gosp paliw 11 no.1:14-17 Je '63.

LEVICEK, P.; SOCHOR, B.

Reports. Slevarenstvi 11 no.7:300-303 Jl '63.

SOCHOR, B. prof.

Fifth International Congress on Electrothermics in Wiesbaden.
Przegl elektrotechn 11 no. 4: Supplement: Elektrotermia
7 no. 2:193-196 Ap '64.

1. Chairman of the Polish Committee on Electrothermics, Warsaw.

SOCHOR, Bronislaw, prof.

Resolution of the Economic Committee of the Council of Ministers concerning electric accumulator heating. Wiad elektrotechn 33 no.10:301-302 O '64.

1. Department of Electrothermics, Technical University, Lodz.

SOCHOR, Bronislaw, prof. mgr inz.

Scope of using electric accumulator heating in old-fashioned residential buildings in Poland. Gosp paliw 13 no.4:107-110 Ap '65.

1. Department of Electrothermics of Lodz Technical University.

SOCHOR, Bretislav, dr. inz.

The most frequent errors in cupola melting. Slevarenstvi 13 no.4:166-167 Ap '65.

Research on the rammed lining for melting nonferrous metals. Ibid.:171

SOCHOR, Bretislav

Correct use of rammed linings of induction melting and holding furnaces. Slevarenstvi 12 no.10:391-393 O '64.

New melting shop of the Lynchburg Special Foundry in the United States. Ibid.:41

1. State Research Institute of Material and Technology, Foundry Research, Brno.

SOCHOR, J.; BENESOVA, D.

New possibilities in tomographic diagnosis. Cas.lek.cesk. 89 no.22: 635-642 2 June 50. (CLML 19:4)

HESS, V. F; SOCHOR, J; SPACEK, B.

Selective bronchography with a new contrast medium. Cas. lek. cesk. 89 no.37:1011-1018 15 Sept. 1950. (CIML 20:1)

1. Of the Biochemical Department of the State District Hospital in Prague XII (Head--V. F. Hess, M. D.). 2. Of the Lung Department of the State District Hospital in Prague XII(Head--J. Sochor, M. D.). 3. Of the Second Surgical Clinic of the State Faculty in Prague (Head—Prof. Jiri Divis, M. D.).

BARDOS, A.; MASAR, I.; TEREN, L.; SOCHOR, J.

Does an influenza epidemic increase the incidence of intrauterine fetal death? Cesk.gynek. 28 no.8:545-547 O '63.

1. I. gyn.-por. klin. Lek. fak. UK v Bratislave (prednosta prof. dr. S. Stefanik); Zdravot. komisia SNR v Bratislave.; II. gyn.-por. klin. Lek. fak. UK v Bratislave (prednosta doc. dr. A. Hudcovic); Gyn.-por. odd. OUNZ Bratislava-okolie (veduci MUDr. J. Sochor).

SOCHOR,J.; VALENT,M.

Contribution to the surgical treatment of prolapse of the female genitalia. Bratisl. lek. listy 44 no.3:172-176 '64.

1. Gynekologicko-porodnicke odd. OUNZ, Bratislava-vidiek v Bratislave; veduci: MUDr. J.Sochor.

[redacted], František, and [redacted], Jiří, Ing.

Cement mortars with alcohol admixture for the work during winter. Poz stavby 12 no.11:478-481 '64.

1. Pražské stavební závody, Branch Motovane stavby.

SOCHOR, J ; SLEZAK, P.; HRUBISKOVA, K.

Successful treatment of a case of afribinogenemia. Bratisl. lek. listy 44 no.7:429-432 15 O '64.

1. Gynekologicko-porodnicke oddelenie Obvodniho ustavu narodniho zdravi Bratislava-vidiek, (veduci MUDr. J. Sochor,) a Fakultna transfuzna stanica, (veduci doc. MUDr. M. Hrubisko, C. Sc.).

SOCHOR, Jaroslav, Dr.

Controlled pulmonary sound. Cas.lek.cesk. 91 no.40:1152-1155 3 Oct 52.

1. Prednosta plicniho oddeleni. Z Ustavu pro experimentalni chirurgii v Praze, reditel doc. dr. Spacek.

(LUNGS, blood supply,
catheterization)
(CATHETERIZATION,
of lung blood vessels)

SOCHOR, K.

"Formation of Women's Personal Names for Vocations and Functions." p. 1345 (ZA SOCIALISTICKE ZEMEDELSTVI, Vol. 3, No. 11, November 1953) Praha, Czechoslovakia

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4, April 1954. Unclassified.

SOCHOR, K.

"Do We Have Suitable Czech Expressions for the Delicacies and Dainties of Our Dairy Restaurants?" p. 121 (Vyziva Lidu, Vol. 8, no. 7/8, July/Aug. 1953, Praha)

SO: Monthly List of East European Accessions, Vol. 3, no. 2, Library of Congress, Feb. 1954, Uncl.

SOCHOR, K.

"Care for the Use of Correct Technical Terminology in Agriculture", P. 646, (ZA SOCIALISTICKE ZEMEDELSTVI, Vol. 4, No. 6, June 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

JOCHOR, K.

"Origin and Formation of Technical Terms", P. 867, (ZA SOCIALISTICKÉ [illegible] VI, Vol. 4, No. 7/8, July/Aug. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

SOCHER, F.

New rules of Czech orthography.

P. 100 (Ministry of Health, Research Institute for Organization of Health Service) Vol. 12, No. 7/8, July/Aug. 1957

SO: Monthly Index of East European Acessions (AMEI) Vol. 6, No. 11 November 1957.

[illegible]

Dr Karel [illegible] (Affiliation not stated)

"[illegible] Comments."

[illegible], Vol 112, No 1, [illegible] p 24.

Abstract: [illegible] outline of policy for [illegible] "international" technical terminology [illegible] adapted to Czech orthography; difference between medical jargon and literary terms; which textbook to use in case of doubt. Three Czech references.

1/1

SOCHOR, Milan; RAJCAN, Julius

Hydrothermic softening of the sessile oak wood (Quercus sessilis). Drevarsky vyskum no.4:307-318 '62.

1. Statny drevarsky vyskumny ustav, Bratislava.

SOCHOR, M.

Solution of the problem of stability of compression chords of bridges without an upper wind bracing by means of virtual work.

p. 429 (Inzenyrske Stavby) Vol. 5, no. 8, Aug. 1957, Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

SOCHOR, R.

TECHNOLOGY

periodicals: INSENYRSKE STAVBY Vol. 7, no. 3, Mar. 1959

SOCHOR, R. Solution of the stability of compression chords and of the stress of semiframes of open bridges. (Conclusion) p. 102

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5
May 1959, Unclass.

SOCHOR, V

9

26850
Z/038/61/000/004/005/005
D238/D305

21.3100 pl., 2406, 2606

AUTHORS: Petukhov, V.A., Habanec, J., Zhuravlev, A.A., Karmasin, M., Kotov, V.J., Myae, E.A., Obukhov, J.L., Sochor, V., Cirák, J., Honda, F., Dobiáš, J., Marek, M., Fukátlo, T., Svetov, L. V.

TITLE: A model of an annular cyclotron

PERIODICAL: Jaderná energie, no. 4, 1961, 136 - 137

TEXT: This is a translation of an Russian article entitled "Model' kol'tsevogo fazotrona" (Model of an Annular Cyclotron) originally published in the Soviet periodical "Atomnaya energiya", 9, (1960), no. 12, pp 491-493. It deals with the model of an annular cyclotron which is a fixed-field, alternating-gradient accelerator, built by Soviet and Czechoslovak physicists at the United Institute of Nuclear Research in Dubna. The proposal for an annular cyclotron was made for the first time in 1953 by A.A. Kolomenskiy, V.A. Petukhov and M.S. Rabinovich (Ref 1: Nekotoryye voprosy teoriyi tsiklicheskikh uskoriteley (Some Problems of the Theory of Cyclic Accelerators), AN SSSR, 1955; Pribory i tekhnika eksperimenta (1956), no. 2, p. 26). The elec-

Card 1/2

9

26850
Z/038/61/000/004/005/005
D238/D305

A model of an annular cyclotron

tromagnet of the accelerator consists of eight similar, alternately reserved parts, each of which has two sectors with opposite orientation of the magnetic field, and two straight sections. The accelerator is used for electron acceleration. Electrons with energies of 20-40 kev can be injected either continuously or in pulses. Using a combination of eddy and radio-frequency fields, a beam energy up to 2MEV can be obtained with this model. Preliminary results obtained during test runs have shown the high accuracy of the machine and the great stability of its principal magnetic characteristics. Also, in agreement with the theory, a number of various resonances was observed which have a substantial influence on the intensity of the accelerated beam. There are 2 figures and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: K. Symon, Phys. Rev. 98 (1952), 1152; T. Okhawa, Rev. Scient. Instrum. 29, (1958), 108.

Card 2/2

3

CZECHOSLOVAKIA

RICHTER, M; NEUWIRT, V., MD; SOCHOR, V.

1. Internal Medicine Ward of ZUNZ-VZKG (Vnitrni oddeleni ZUNZ-VZKG), Ostrava-Vitkovice (for Neuwirt); 2. Internal Medicine Ward OUNZ (Vnitrni oddeleni OUNZ), Karvina

Brno, Vnitrni lekarstvi, No 5, 1963, pp 461-463

"Circulatory Dynamics in Arterio-Venous Fistula."

ACCESSION NR: AP4019092 Z/0038/64/000/003/0076/0078

AUTHOR: Sochor, Vaclav (Sokhor, V.)

TITLE: Effect of preliminary particle bunching upon capture phase width in a linear high-frequency electron accelerator

SOURCE: Jaderna energie, no. 3, 1964, 76-78

TOPIC TAGS: electron accelerator, high-frequency electron accelerator, linear electron accelerator, particle bunching, electron bunching, electron physics, klystron

ABSTRACT: The number of electrons captured under accelerated conditions is determined by the shape of the potential energy of particle motion curve with respect to the sunchronous part. The capture phase width is always less than 2π. The capture volume can be expressed by:

$$V = \frac{3}{4}\pi R^2 l, \qquad (1)$$

where R and l are the major and minor axes of the ellipsoid, respectively. The electric field

Card 1/4

ACCESSION NR: AP4019092

$$E_{i0} = 4\pi\rho k(z - z_0), \qquad (2)$$

will act on an electron deflected from the center of the capture at a distance of $z - z_0$. In this case,

$$k = \frac{1 - l_1^2}{2l_1^2}\left(\lg\frac{1 + l_1}{1 - l_1} - 2l_1\right).$$

The course of k as a function of the ratio R/λ is shown in Figure 1 of the enclosure. A part of the electrons injected remain uncaptured during the extent of the entire high-frequency period. The use of aklystron-type buncher will enable the formation of bunched particles by velocity modulation. The phase width of this bunched particle beam is equal to the capture phase width. Hence, the number of captured particles will increase substantially. Particle bunching also has some negative consequences. The phase width decreases under the effect of a space charge and velocity straggling of the particles in the beam. The parameters of the buncher should be selected in such a way that these above-mentioned undesirable effects would be held to a minimum. "Authors wish to thank Eng. H. Topinkov for valuable discussions." Orig. art. has: 3 figures and 22 equations.

Card 2/4

ACCESSION NR: AP4019092

ASSOCIATION: Fakulta technicke a jaderne fyziky CVUT, Prague (Department of technical and nuclear physics CVUT)

SUBMITTED: 00	DATE ACQ: 23Mar64	ENCL: 01
SUB CODE: PH, NS	NO REF SOV: 002	OTHER: 001

Card 3/4

ACCESSION NR: AP4034666 Z/0038/64/000/004/0111/0113

AUTHOR: Sochor, Vaclav (Sokhor, V.)

TITLE: The effect of the space charge of the beam on the phase velocity of an accelerating wave

SOURCE: Jaderna energie, no. 4, 1964, 111-113

TOPIC TAGS: accelerator, linear accelerator, electron accelerator, space charge, space charge density, phase velocity, phase change, agglomeration, modulation, angular frequency, continuity equation, wave equation, vector potential, scalar potential, Bessel function

ABSTRACT: The present work was an investigation of the dependence of the phase velocity of an accelerating wave in a high frequency electron accelerator on the space charge of the beam. A continuously injected and velocity-modulated beam was studied. At velocities close to the velocity of light the influence of the space charge in a continuously injected beam appears to be negligible. Modulation of the beam in clusters even at non-relativistic velocities causes a substantial decrease in this effect. The calculation was made for a 3 MeV

Card 1/2

ACCESSION NR: AP4034666

high frequency linear electron accelerator. Orig. art. has: 23 formulas and 2 figures.

ASSOCIATION: Faculta technicke a jaderne fyziky CVUT, Prague (Technical and Nuclear Physics Faculty, CVUT)

SUBMITTED: 00	DATE ACQ: 11May64	ENCL: 00
SUB CODE: NS	NO REF SOV: 001	OTHER: 002

Card 2/2

SOCHOR, Vaclav

"Principles of cyclic particle accelerators"by John J. Livingood. Reviewed by Vaclav Sochor. Cs cas fys 14 no. 1:69-71 '64.

1. Fakulta technicke a jaderne fysiky, Ceske vysoke uceni technicke, Praha.

SOCHOR, V.

Modeling an electron-optic system with axial symmetry by means of a resistance network. Chekhosl fiz zhurnal 14 no.10:786-795 '64.

1. Faculty of Technical and Nuclear Physics of the Czech Higher School of Technology, Prague 1, Brehova 7.

L 22168-66 EWT(m) IJP(c)
ACC NR: AP6010695 SOURCE CODE: CZ/0037/65/000/005/0422/0437

AUTHOR: Sochor, Vaclav 27 B

ORG: Faculty of Engineering and Nuclear Physics, CVUT, Prague (Fakulta technicke a jaderne fyziky CVUT)

TITLE: Microton, an effective accelerator 19

SOURCE: Ceskoslovensky casopis pro fysiku, no. 5, 1965, 422-437

TOPIC TAGS: particle accelerator, nuclear physics apparatus

ABSTRACT: A survey of the literature on the microton, describing the principle of its operation, the problems not yet solved, and new design proposals which enhance the effectiveness of this accelerator. The data of some microtons in operation in Europe (including Hungary and the USSR) and Canada are tabulated. Orig. art. has: 11 figures, 3 formulas, and 5 tables. [JPRS]

SUB CODE: 20 / SUBM DATE: 12Feb64 / ORIG REF: 001 / OTH REF: 013
SOV REF: 010

Card 1/1 dda

L 22913-66 IJP(c)

ACC NR: AP6014801 SOURCE CODE: CZ/0038/65/000/011/0415/0418

AUTHOR: Sochor, Vaclav--Sokhor, V.; Hamal, Karel--Gamal, K. 32 B

ORG: Department of Technical and Nuclear Physics, CVUT, Prague (Fakulta technicke a jaderne fyziky CVUT)

TITLE: Experimental evaluation of characteristics of a linear high-frequency electron accelerator 19

SOURCE: Jaderna energie, no. 11, 1965, 415-418

TOPIC TAGS: electron accelerator, spectrometer, frequency characteristic

ABSTRACT: With the use of a sector magnet spectrometer, the characteristics of a linear high frequency electron accelerator were measured as follows: the mean total energy E, the spectrum width delta E, the dependence of the spectrum shape of high frequency input power and on injection voltage, the frequency characteristic and the current characteristic. At nominal frequency, the maximum energy was found to be achievable at minimum spectrum width. The spectrum splitting was observed at higher input power than nominal. This paper was presented by K. Rytina. Orig. art. has: 10 figures and 3 formulas. [NA]

SUB CODE: 20, 09 / SUBM DATE: none / ORIG REF: 003

Card 1/1 UDC: 621.384.64

L 36160-66 EWP(e) WH
ACC NR: AP6018079 SOURCE CODE: CZ/0055/65/015/012/0933/0936

AUTHOR: Daricek, T.; Hamal, K.; Novotny, A.; Sochor, V.

ORG: Faculty of Technical and Nuclear Physics, Czech Technical University, Prague

TITLE: The character of oscillation spikes during quasicontinuous operation of a ruby laser

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 15, no. 12, 1965, 933-936 and insert pages 942a and 942b

TOPIC TAGS: ruby laser, threshold energy, laser energy, laser optics

ABSTRACT: The authors discuss the quasi-continuous room-temperature operation of a ruby laser with a crystal placed in a spherical cavity and a minimum threshold pumping energy of 48 J. The pulse of stimulated emission lasted 2700 μsec. The character of the spikes was observed and was found to be far from sinusoidal. The authors discuss the results of threshold-energy measurements for other pumping configurations and compare them with results obtained by other authors. The authors thank Professor B. Havelka of Palacky University, Olomouc, for very valuable consultations in optics. Orig. art. has: 3 figures and 1 table. [GC]

SUB CODE: 20/ SUBM DATE: 31May65/ ORIG REF: 002/ OTH REF: 007/ SOV REF: 003

Card 1/1

ACC NR: AP6032386 4

thank Ing. Nebrensky for helpful discussion, the associates of Dioptra Turnov, a national enterprise, for making the filters and grinding the plates, and T. Daricek and A. Novotny for help in the measurements. Orig. art. has: 2 figures, 1 table, and 6 formulas. [Based on authors' abstract]

SUB CODE: 20/ SUBM DATE: 01Oct65/ ORIG REF: 004/ SOV REF: 001/ OTH REF: 004

Card 2/2

621.395.74

6002. ECONOMIC CONDITIONS FOR THE USE OF LAID CABLES IN LOCAL TELEPHONE NETWORKS. Z.Sochor. Slaboproudý Obzor, Vol. 19, No. 6, 365-8 (1958). In Czech.

The economics of cable laying are considered on the basis of the annual financial outlay and quantity of copper required. An expression is derived which gives the optimum "waiting" period (or the number of pairs) for a cable in terms of the annual increase in the occupancy of the pairs. The optimum periods are calculated and plotted, as a function of the annual occupancy increase, for two types of cable for various values of initial occupancy. The resulting curves can be used to calculate the optimum number of lines (pairs). It is found that the optimum initial occupancy is about 33%, and the copper expenditure is greatly reduced if the line wires have a diameter of 0.4 mm.

R.S.Sidorowicz

SOCHOR, Zdenek, inz.

Development of telephone operations. Cs spoje 7 no.8:11-14 Ag '62.

1. Vyzkumny ustav spoju.

SOCHR K, Zdenek, inz.

Solution of damping in Prague. Cs spoje 9 no.1 23 F'64.

1. Vyzkumny ustav spoju.

Z/003/60/000/010/002/002
A201/A126

AUTHOR: Sochorek, Otakar

TITLE: Radio sets for our airplanes

PERIODICAL: Křídla vlasti, no, 10, 1960, 10 - 11

TEXT: The article contains the description and technical data on the Czechoslovak VKP LUN 10 3521 airborne and ground VHF radio sets, developed and produced by the Mikrotechna n.p. (Mikrotechna, National Enterprise) in Uherské Hradiště. The set has been tested with satisfactory results in the C-105 and C-205 aircraft for about 22 h each, and with the K-75 aircraft for about 60 h. The dimensions of the set proper are 245 x 125 x 205 mm, with controls on the front panel. The converter-filter coil assembly requires a mounting space of 185 x 300 x 215 mm. The entire equipment, including cables, antenna, earphones and microphone, weighs about 13 kg. The input of the set is about 150 - 200 w. The Mikrotechna plant is preparing a transistorized converter for the set, which will reduce the weight to 7 kg and the input to 60 - 70 w. The guaranteed range of the set is 75 km from an altitude of 1,500 m. In practical tests, however, reliable communication was achieved to a distance of 200 km in level areas, and

Card 1/ 3

Z/003/60/000/010/002/002
A201/A126

Radio set for our airplanes

100-120 km in mountainous areas. The set has 10 channels with easily exchangeable crystals. Five channels are tuned on the frequencies of the Prague, Holesov, Kosice, Sliac, Bratislava, Brno and Ostrava airfields, one channel is reserved for emergency frequency and four channels are free. The reception tuning is automatic with optional fine tuning. Non-directional earphones and a crystal microphone are used with the set. Technical data of the receiver: Range: from 108 to 132 Mc, including 108 - 112 Mc for ILS, 112 - 118 Mc for VOR and 118 - 132 Mc for communication; sensitivity: less than 10 μv for a 10 db signal-to-noise ratio, and 15 v output voltage on 4,000 ohm earphones; regulation of HF sensitivity: from threshold sensitivity to 500 μv; selectivity: attenuation of the adjacent channel ± 200 kc better than a minimum of 50 db, band width 45 kc at 6 db; intermediate frequency: 13.4 Mc; power feed: 27 v ± 10%. The receiver has a low-resistance output for connection of navigation instruments, a very sensitive VHF amplifier, an interference limiter and HF sensitivity attenuation. The transmitter has a frequency range from 118 to 132 Mc, an output of 2 w, a frequency stability of ± 0.01%, a temperature range from -45 to + 50°C, an 80% amplitude modulation for medium frequency bands. The operation of the set is cyclical: 1 minute transmission, 2 minutes reception; maximum continuous transmission is 10 minutes to be followed by a minimum of 5 minutes of cooling during

Card 2/3

Z/003/60/000/010/002/002
A201/A126

Radio set for our airplanes

reception. The price of a complete airborne set is 19,000 Czech Crowns. The ground station, adapted for 220 v grid, has a built-in loudspeaker. Its output is 5 w, and the price 28 - 30,000 Czech Crowns. The warranty for either set is 2 years. About 600 sets have been exported so far. There are 5 photographs.

ASSOCIATION: KA Ostrava

✓

Card 3/3

HEYROVSKY, A; SOCHOROVA, I.

Urine protein determination. Cas. lek. cesk. 89 no.49:1390-1391 8 Dec 50. (CLML 20:4)

1. Of the Second Internal Clinic.

HEYROVSKY, A.;SOCHOROVA, I.

Clinical studies on blood proteins; possibilities of determination of albumin and α-, β- and γ- globulin in blood serum. I. Possibility of determination of albumin and globulin subfractions in blood serum. Cas. lek. cesk. 92 no.23:619-623 5 June 1953. (CIML 24:5)

1. Of the Second Internal Clinic (Head--Prof. A. Vancura, M.D.) of Charles University, Prague.

VANO, Frantisek; KARABELLI, Jan; TOTH, Jan; SOCHOROVA, Viera

Liquid inflow control by a floating flowmeter with a photoelectric sensing device. Kvasny prum 10 no.5:105-109 My '64.

1. Research Institute of the Distillation and Canning Industry, Bratislava.

SOCHOVA, V.B.; ISACHENKO, T.I.; LIPATOVA, V.V.

Work done by the V.L. Komarov Botanical Institute of the Academy of Sciences of the U.S.S.R. in the Amur basin in 1957. Bot. zhur. 43 no.7:1069-1075 Jl '58. (MIRA 11:9)

1. Botanicheskiy institut im. V.L. Komarova Akademii nauk SSSR, Leningrad.
(Amur Valley--Botany--Ecology)

SOCHOVSKY, Josef; MIKSAN, Vojtech

Semiautomatic apparatus for the control of turbine blades.
Stroj vyr 11 no. 12: 631 '63.

1. Zavody V.I. Lenina, n.p., Plzen.

SOCHUREK, A.

"Determining the Crystallic and Amorphous Parts of Cellulose." p. 84, Praha, Vol. 9, no. 4, Apr. 1954.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

SOCHUREK, K.

"Flights Over Mountainous Terrain", P. 296, (KRIDLA VLASTI, No. 13, June 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

SOCHUREK, K.

Two long waves. p. 591

KRIDLA VLASTI No. 25, Dec. 1955

Czechoslovakia

Source: EAST EUROPEAN LISTS Vol. 5, no. 7 July 1956

SOCI, A.; SZMUK, A.

Nuclear energy and its prospective bearing upon the development of electric-power engineering in Rumania, p. 163

Academia Republicii Populare Romine. Institutul de Energetica. STUDII SI CERCETARI DE ENERGETICA. Bucuresti, Rumania. Vol. 8, no. 2, 1958.

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

Uncl.

S/262/62/000/015/002/011
I007/I207

AUTHORS: Grecov, D., Haiduc, C. and Soci, A.

TITLE: Determination of coolant optimum-temperature at the inlet into the nuclear power reactor

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustanovki, no. 15, 1962, 14, abstract 42.15.60 (Studii şi cercetări energ. Acad. RPR, v 11, no. 3, 1961, 455–467 [Rumanian])

TEXT: The dual-cycle system in which the primary coolant ensures heat removal, while the secondary coolant (water) is intended to carry the thermodynamic cycle of power generation, is widely used in nuclear power plants. Proceeding from theoretical considerations, the authors study the influence of the temperature t_1 of different primary coolants at the inlet into the nuclear reactor circuit, on the net efficiency of the power plant As coolants CO_2, helium, polyphenil or water may be used. A formula is suggested for determining the optimum value of t_1. There are 5 figures and 4 references.

[Abstracter's note: Complete translation.]

Card 1/1

SOCI, A.

RUMANIA

GUTU, O.

Bucharest, Studii si Cercetari de Energetica/Seria A Energetica Generala si Electroenergetica, No 2, 1962, pp. 229-247.

"Damages Caused by the Interruption of Electric Power in the Manufacture of Polyamido Synthetic Fibers."

Co-authors:

PETCU, M.

SOCI, A.

GUTU, Constantin; PETCUM, Mihai; SOCI, Antoaneta

Determining damages provoked by interruption of electric power supply. Studii cerc enetget 11 no.4:613-625 '61.

GUTU, G., ing.; PETCU, M., ing.; SOCI, A., ing.

Calculation of the economic effects of electric accidental interruptions. Energetica Rum 11 no.10:525-531 0'63.

GUTU, C., ing.; PETCU, M., ing.; SOCI, Antoaneta, ing.

Calculation of the economic effects of the electric interruptions in cotton spinning mills and in cotton fabric finishing. Ind text Rum 13 no.8:309-314 Ag '62.

GUTU, Constantin; PETCU, Mihai; SOCI, Antoaneta

Criteria for estimating economic effects caused by voltage variations. Rev electrotechn energet 9 no.3:357-366 '64

SOCIAVA, V.

"The basic principles of geobotanical zoning. Tr. from the Russian", p.111 (Analele Romano-Sovietice. Seria Biologie, Series a II-a, v. 8, no. 1, Jan./Mar. 1953, Bucuresti)

SO: Monthly List of East European Accessions, Vol. 2, No 9 Library of Congress, September 1953, Uncl.

SOCIU, Maria; POPESCU, Alexandrina

Intestinal parasites in three species of murines and in Citellus citellus of the Dobruja region. Comunicarile AR 12 no.5:559-564 My '62.

1. Comunicare prezentata de M. A. Ionescu, membru corespondent al Academiei R.P.R.

SOCKO, D.

Deep drawing by the force of friction, a new technological process. p. 29.
(MECHANIK. Poland, Vol. 30, no. 1. Jan. 1957)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957, Uncl.

Socol, S.

A continuous method of paraffin removal from oil wells. C. Evghenide and S. Socol. *Petrol şi Gaze* (Bucharest) 7, 75-82(1956)(German summary).—A discussion of the mech. methods used in the U.S. and in the U.S.S.R. is given. A new scraper is described which can be mounted in various positions depending upon local conditions. Gary Gerard

COCOL, S.; EVGHENIDE, C.

A new method of studying the flow of gas-crude oil mistrues through vertical pipes. Pt. 1. p. 260

PETROL SI GAZE. (Asociatia Stiintifica a Inginerilor si Tehnicienlor din Rominiasi Ministerul Industriel Petrolului si Chimiei) Bucuresti, Romania. Vol. 10, no. 6, June 1959

Monthly List of East European Accessions (EEAI) LC Vol. 9, no. 2, Jan 1960 Uncl.

SOCOL,S: EVGHENIDE,C

A new method of sutdying the flow of gas--crude oil mixtures through vertical pipes. Pt.2. p.304

PETROL SI GAZE. (Asociatia Stiintificia a Inginerilor si Tehnicienilor din Romînia si Ministerul Industriei Petrolului si Chimiei) Bucuresti Rumania Vol.10, no.7 July 1959

Monthly list of East European Accessions (EEAI) LC, Vol 9, no.2 Feb. 1960

Uncl.

SCCOL, S.; IONASCUT, A.

Systems of automation in the petrolium extractive industry. I. p. 401.

PETROL SI GAZE, (Asociatia Stiintificia a Ingineri or si Technicienilor din Rominia si Ministerul Industriei Petrolului si Chimiei) Bucuresti Rumania. Vol. 10, no. 9, 1959

Montly list of East European Accessions (EEAI) LC Vol. 9, no. 2 Feb. 1960

Uncl.

SOCOL, S. ; IONASCUT, AL

Systems of automation in the petroleum extractive industry. II. p. 449.

PERTOL SI GAZE. (Asociatia Stiintifica a Inginerilor si Tehnicienlor din Rominiasi Ministerul Industriel Pertolului si Chimiei) Bucuresti, Romania. Vol. 10, no. 10, Oct 1959

Monthly List of East European Accessions (FEAI) LC Vol. 9, no. 2, Jan 1960

Uncl.

EVGHENIDE, C., ing.; IONASCUT, A., ing.; SOCOL, S., ing.

Possibilities of using semiconductors in the industry of gas and crude oil. Petrol si gaze 11 no.3:134-140 Mr '60.

1. Institutul de Cercetari pentru Foraj si Extractie.

(Petroleum industry) (Gas industry)
(Semiconductors)

CEGOLEA, A., ing.; EVGHENIDE, C., ing.; SOCOL, S., ing.

Automation in collecting and conveying the crude oil by main pipelines. Petrol si gaze 12 no.3:119-126 Mr '61.

1. Institutul de Cercetari pentru Foraj si Extractie (for Cegolea, Evghenide). 2. Ministerul Industriei Petrolului si Chimiei (for Socol).

EVGHENIDE, C., ing.; SOCOL, S., ing.

Additional explanations of the simultaneous employment of several hydraulic bottom hole compensators in the same well. Petrol si gaze 12 no.8:376 Ag '61.