

CPC**COOPERATIVE PATENT CLASSIFICATION****C13B**

PRODUCTION OF SUCROSE; APPARATUS SPECIALLY ADAPTED THEREFOR (chemically synthesised sugars or sugar derivatives [C07H](#) ; fermentation or enzyme-using processes for preparing compounds containing saccharide radicals [C12P 19/00](#))

NOTE

In this subclass, the following terms or expressions are used with the meanings indicated :

“sugar” is used in its non-scientific meaning and refers to sucrose, also called “table sugar” or saccharose”, a white crystalline disaccharide;

“sugar juices” are solutions of sugar, essentially comprising sucrose, which are derived from different plants, e.g. beet, cane or maple;

“syrops” are highly concentrated sugar juices.

C13B 5/00

Reducing the size of material from which sugar is to be extracted (for extraction of starch [C08B 30/02](#))

C13B 5/02

- . Cutting sugar cane

C13B 5/04

- . Shredding sugar cane

C13B 5/06

- . Slicing sugar beet

C13B 5/08

- . Knives; Adjustment or maintenance thereof

C13B 10/00

Production of sugar juices (tapping of tree-juices [A01G 23/10](#); tapping-spouts, receptacles for juices [A01G 23/14](#))

C13B 10/003

- . { using chemicals other than extracting agents}

C13B 10/006

- . { Conservation of sugar juices}

C13B 10/02

- . Expressing juice from sugar cane or similar material, e.g. sorghum saccharatum

C13B 10/025

- .. { Treatment of sugar cane before extraction ([C13B 5/00](#) takes precedence)}

C13B 10/04

- .. combined with imbibition

C13B 10/06

- .. Sugar-cane crushers

C13B 10/08

- . Extraction of sugar from sugar beet with water

C13B 10/083

- .. { Treatment of sugar beet before extraction ([C13B 5/00](#) takes precedence)}

C13B 10/086

- .. { Processes or apparatus with discontinuous loading}

C13B 10/10

- .. Continuous processes

C13B 10/102

- ... { having rotatable means for agitation or transportation}

C13B 10/105

- { Rotating apparatus}

C13B 10/107

- ... { with transportation in the form of thin layers, e.g. by endless chains}

C13B 10/12

- .. Details of extraction apparatus, e.g. arrangements of pipes or valves

C13B 10/14

- . using extracting agents other than water, e.g. alcohol or salt solutions

C13B 15/00 **Expressing water from material from which sugar has been extracted** (from starch-extracted material [C08B 30/10](#))

[C13B 15/02](#) . between perforated moving belts

C13B 20/00 **Purification of sugar juices**

NOTE

When classifying in this group, classification is also made in group [B01D 15/08](#) insofar as subject matter of general interest relating to chromatography is concerned

- [C13B 20/002](#) . { using micro-organisms or enzymes}
- [C13B 20/005](#) . { using chemicals not provided for in groups [C13B 20/02](#) to [C13B 20/14](#)}
- [C13B 20/007](#) . . { Saturation with gases or fumes, e.g. carbon dioxide}
- [C13B 20/02](#) . using alkaline earth metal compounds
- [C13B 20/04](#) . . followed by saturation
- [C13B 20/06](#) . . . with carbon dioxide or sulfur dioxide
- [C13B 20/08](#) . by oxidation or reduction
- [C13B 20/10](#) . . using sulfur dioxide or sulfites
- [C13B 20/12](#) . using adsorption agents, e.g. active carbon
- [C13B 20/123](#) . . { Inorganic agents, e.g. active carbon}
- [C13B 20/126](#) . . { Organic agents, e.g. polyelectrolytes}
- [C13B 20/14](#) . using ion-exchange materials
- [C13B 20/142](#) . . { Mixed bed ([C13B 20/148](#) takes precedence)}
- [C13B 20/144](#) . . { using only cationic ion-exchange material ([C13B 20/148](#) takes precedence)}
- [C13B 20/146](#) . . { using only anionic ion-exchange material ([C13B 20/148](#) takes precedence)}
- [C13B 20/148](#) . . { for fractionating, adsorption or ion exclusion processes combined with elution or desorption of a sugar fraction}
- [C13B 20/16](#) . by physical means, e.g. osmosis or filtration
- [C13B 20/165](#) . . { using membranes, e.g. osmosis, ultrafiltration ([electrodialysis C13B 20/18](#))}
- [C13B 20/18](#) . by electrical means

C13B 25/00 **Evaporators or boiling pans specially adapted for sugar juices; Evaporating or boiling sugar juices**

- [C13B 25/001](#) . { with heating tubes or plates}
- [C13B 25/003](#) . { with heating plates}
- [C13B 25/005](#) . { with heating coils}
- [C13B 25/006](#) . { rotating apparatus}
- [C13B 25/008](#) . { with direct contact between heating medium and sugar solution}
- [C13B 25/02](#) . Details, e.g. for preventing foaming or for catching juice
- [C13B 25/04](#) . . Heating equipment
- [C13B 25/06](#) . combined with measuring instruments for effecting control of the process

C13B 30/00	Crystallisation; Crystallising apparatus; Separating crystals from mother liquors; { Evaporating or boiling sugar juice}
C13B 30/002	. { Evaporating or boiling sugar juice}
C13B 30/005	.. { using chemicals}
C13B 30/007	.. { Multiple effect evaporation}
C13B 30/02	. Crystallisation; Crystallising apparatus
C13B 30/021	.. { using chemicals}
C13B 30/022	.. { Continuous processes, apparatus therefor (C13B 30/028 takes precedence)}
C13B 30/023	... { having rotatable means for agitation or transportation}
C13B 30/025	... { combined with measuring instruments for effecting control of the process}
C13B 30/026	.. { Discontinuous processes or apparatus therefor (C13B 30/028 takes precedence)}
C13B 30/027	... { combined with measuring instruments for effecting control of the process}
C13B 30/028	.. { obtaining sugar crystals by drying sugar syrup or sugar juice, e.g. spray-crystallisation}
C13B 30/04	. Separating crystals from mother liquor
C13B 30/06	.. by centrifugal force
C13B 30/08	.. Washing residual mother liquor from crystals
C13B 30/10	... in centrifuges
C13B 30/12	.. Recycling mother liquor or wash liquors
C13B 30/14	.. Dissolving or refining raw sugar
C13B 35/00	Extraction of sucrose from molasses
C13B 35/005	. { using micro-organisms or enzymes}
C13B 35/02	. by chemical means
C13B 35/04	.. by precipitation as alkaline earth metal saccharates
C13B 35/06	.. using ion exchange
C13B 35/08	. by physical means, e.g. osmosis
C13B 40/00	Drying sugar
C13B 40/002	. { Drying sugar or syrup in bulk}
C13B 40/005	.. { combined with agglomeration}
C13B 40/007	. { Drying sugar in compacted form, e.g. cubes}
C13B 45/00	Cutting machines specially adapted for sugar
C13B 45/02	. in combination with sorting and packing machines
C13B 50/00	Sugar products, e.g. powdered, lump or liquid sugar; Working-up of sugar (C13B 40/00, C13B 45/00 take precedence; confectionery A23G 3/00)
C13B 50/002	. { Addition of chemicals or other foodstuffs}
C13B 50/004	. { Agglomerated sugar products; Agglomeration}
C13B 50/006	. { Molasses; Treatment of molasses (extraction of sucrose C13B 35/00)}
C13B 50/008	.. { Drying}

C13B 50/02

. formed by moulding sugar

C13B 99/00

Subject matter not provided for in other groups of this subclass