

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;
- “syrups” are highly concentrated sugar juices.

| | | | |
|--------------|--|--------------|--|
| 5/00 | Reducing the size of material from which sugar is to be extracted (for extraction of starch C08B 30/02) | 20/005 | . {using chemicals not provided for in groups C13B 20/02 - C13B 20/14 } |
| 5/02 | . Cutting sugar cane | 20/007 | . . {Saturation with gases or fumes, e.g. carbon dioxide} |
| 5/04 | . Shredding sugar cane | 20/02 | . using alkaline earth metal compounds |
| 5/06 | . Slicing sugar beet | 20/04 | . . followed by saturation |
| 5/08 | . Knives; Adjustment or maintenance thereof | 20/06 | . . . with carbon dioxide or sulfur dioxide |
| 10/00 | Production of sugar juices (tapping of tree-juices A01G 23/10; tapping-spouts, receptacles for juices A01G 23/14) | 20/08 | . by oxidation or reduction |
| 10/003 | . {using chemicals other than extracting agents} | 20/10 | . . using sulfur dioxide or sulfites |
| 10/006 | . {Conservation of sugar juices} | 20/12 | . using adsorption agents, e.g. active carbon |
| 10/02 | . Expressing juice from sugar cane or similar material, e.g. sorghum saccharatum | 20/123 | . . {Inorganic agents, e.g. active carbon} |
| 10/025 | . . {Treatment of sugar cane before extraction (C13B 5/00 takes precedence)} | 20/126 | . . {Organic agents, e.g. polyelectrolytes} |
| 10/04 | . . combined with imbibition | 20/14 | . using ion-exchange materials |
| 10/06 | . . Sugar-cane crushers | 20/142 | . . {Mixed bed (C13B 20/148 takes precedence)} |
| 10/08 | . Extraction of sugar from sugar beet with water | 20/144 | . . {using only cationic ion-exchange material (C13B 20/148 takes precedence)} |
| 10/083 | . . {Treatment of sugar beet before extraction (C13B 5/00 takes precedence)} | 20/146 | . . {using only anionic ion-exchange material (C13B 20/148 takes precedence)} |
| 10/086 | . . {Processes or apparatus with discontinuous loading} | 20/148 | . . {for fractionating, adsorption or ion exclusion processes combined with elution or desorption of a sugar fraction} |
| 10/10 | . . Continuous processes | 20/16 | . by physical means, e.g. osmosis or filtration |
| 10/102 | . . . {having rotatable means for agitation or transportation} | 20/165 | . . {using membranes, e.g. osmosis, ultrafiltration (electrodialysis C13B 20/18)} |
| 10/105 | {Rotating apparatus} | 20/18 | . by electrical means |
| 10/107 | . . . {with transportation in the form of thin layers, e.g. by endless chains} | 25/00 | Evaporators or boiling pans specially adapted for sugar juices; Evaporating or boiling sugar juices |
| 10/12 | . . Details of extraction apparatus, e.g. arrangements of pipes or valves | 25/001 | . {with heating tubes or plates} |
| 10/14 | . using extracting agents other than water, e.g. alcohol or salt solutions | 25/003 | . {with heating plates} |
| 15/00 | Expressing water from material from which sugar has been extracted (from starch-extracted material C08B 30/10) | 25/005 | . {with heating coils} |
| 15/02 | . between perforated moving belts | 25/006 | . {rotating apparatus} |
| 20/00 | Purification of sugar juices | 25/008 | . {with direct contact between heating medium and sugar solution} |
| | | 25/02 | . Details, e.g. for preventing foaming or for catching juice |
| | | 25/04 | . . Heating equipment |
| | | 25/06 | . combined with measuring instruments for effecting control of the process |
| | | 30/00 | Crystallisation; Crystallising apparatus; Separating crystals from mother liquors; {Evaporating or boiling sugar juice} |
| | | 30/002 | . {Evaporating or boiling sugar juice} |
| | | 30/005 | . . {using chemicals} |
| | | 30/007 | . . {Multiple effect evaporation} |
| 20/002 | . {using micro-organisms or enzymes} | 30/02 | . Crystallisation; Crystallising apparatus |

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

- 30/021 . . {using chemicals}
- 30/022 . . {Continuous processes, apparatus therefor
([C13B 30/028 takes precedence](#))}
- 30/023 . . . {having rotatable means for agitation or
transportation}
- 30/025 . . . {combined with measuring instruments for
effecting control of the process}
- 30/026 . . {Discontinuous processes or apparatus therefor
([C13B 30/028 takes precedence](#))}
- 30/027 . . . {combined with measuring instruments for
effecting control of the process}
- 30/028 . . {obtaining sugar crystals by drying sugar syrup or
sugar juice, e.g. spray-crystallisation}
- 30/04 . Separating crystals from mother liquor
- 30/06 . . by centrifugal force
- 30/08 . . Washing residual mother liquor from crystals
- 30/10 . . . in centrifuges
- 30/12 . . Recycling mother liquor or wash liquors
- 30/14 . . Dissolving or refining raw sugar

35/00 Extraction of sucrose from molasses

- 35/005 . {using micro-organisms or enzymes}
- 35/02 . by chemical means
- 35/04 . . by precipitation as alkaline earth metal
saccharates
- 35/06 . . using ion exchange
- 35/08 . by physical means, e.g. osmosis

40/00 Drying sugar

- 40/002 . {Drying sugar or syrup in bulk}
- 40/005 . . {combined with agglomeration}
- 40/007 . {Drying sugar in compacted form, e.g. cubes}

45/00 Cutting machines specially adapted for sugar

- 45/02 . in combination with sorting and packing machines

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](#))

- 50/002 . {Addition of chemicals or other foodstuffs}
- 50/004 . {Agglomerated sugar products; Agglomeration}
- 50/006 . {Molasses; Treatment of molasses (extraction of
sucrose [C13B 35/00](#))}
- 50/008 . . {Drying}
- 50/02 . formed by moulding sugar

99/00 Subject matter not provided for in other groups of this subclass