

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.

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}
	NOTE	25/02	. Details, e.g. for preventing foaming or for catching juice
	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	25/04	. . Heating equipment
20/002	. {using micro-organisms or enzymes}	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}
		30/02	. Crystallisation; Crystallising apparatus
		30/021	. . {using chemicals}

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- 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**