

# 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.

<b>5/00</b>	<b>Reducing the size of material from which sugar is to be extracted (for extraction of starch <a href="#">C08B 30/02</a>)</b>	<b>20/005</b>	. {using chemicals not provided for in groups <a href="#">C13B 20/02</a> - <a href="#">C13B 20/14</a> }
5/02	. Cutting sugar cane	<b>20/007</b>	. . {Saturation with gases or fumes, e.g. carbon dioxide}
5/04	. Shredding sugar cane	<b>20/02</b>	. using alkaline earth metal compounds
5/06	. Slicing sugar beet	<b>20/04</b>	. . followed by saturation
5/08	. Knives; Adjustment or maintenance thereof	<b>20/06</b>	. . . with carbon dioxide or sulfur dioxide
<b>10/00</b>	<b>Production of sugar juices (tapping of tree-juices <a href="#">A01G 23/10</a>; tapping-spouts, receptacles for juices <a href="#">A01G 23/14</a>)</b>	<b>20/08</b>	. by oxidation or reduction
10/003	. {using chemicals other than extracting agents}	<b>20/10</b>	. . using sulfur dioxide or sulfites
10/006	. {Conservation of sugar juices}	<b>20/12</b>	. using adsorption agents, e.g. active carbon
10/02	. Expressing juice from sugar cane or similar material, e.g. sorghum saccharatum	<b>20/123</b>	. . {Inorganic agents, e.g. active carbon}
10/025	. . {Treatment of sugar cane before extraction ( <a href="#">C13B 5/00</a> takes precedence)}	<b>20/126</b>	. . {Organic agents, e.g. polyelectrolytes}
10/04	. . combined with imbibition	<b>20/14</b>	. using ion-exchange materials
10/06	. . Sugar-cane crushers	<b>20/142</b>	. . {Mixed bed ( <a href="#">C13B 20/148</a> takes precedence)}
10/08	. Extraction of sugar from sugar beet with water	<b>20/144</b>	. . {using only cationic ion-exchange material ( <a href="#">C13B 20/148</a> takes precedence)}
10/083	. . {Treatment of sugar beet before extraction ( <a href="#">C13B 5/00</a> takes precedence)}	<b>20/146</b>	. . {using only anionic ion-exchange material ( <a href="#">C13B 20/148</a> takes precedence)}
10/086	. . {Processes or apparatus with discontinuous loading}	<b>20/148</b>	. . {for fractionating, adsorption or ion exclusion processes combined with elution or desorption of a sugar fraction}
10/10	. . Continuous processes	<b>20/16</b>	. by physical means, e.g. osmosis or filtration
10/102	. . . {having rotatable means for agitation or transportation}	<b>20/165</b>	. . {using membranes, e.g. osmosis, ultrafiltration ( <a href="#">electrodialysis <a href="#">C13B 20/18</a></a> )}
10/105	. . . . {Rotating apparatus}	<b>20/18</b>	. by electrical means
10/107	. . . {with transportation in the form of thin layers, e.g. by endless chains}	<b>25/00</b>	<b>Evaporators or boiling pans specially adapted for sugar juices; Evaporating or boiling sugar juices</b>
10/12	. . Details of extraction apparatus, e.g. arrangements of pipes or valves	<b>25/001</b>	. {with heating tubes or plates}
10/14	. using extracting agents other than water, e.g. alcohol or salt solutions	<b>25/003</b>	. {with heating plates}
<b>15/00</b>	<b>Expressing water from material from which sugar has been extracted (from starch-extracted material <a href="#">C08B 30/10</a>)</b>	<b>25/005</b>	. {with heating coils}
15/02	. between perforated moving belts	<b>25/006</b>	. {rotating apparatus}
<b>20/00</b>	<b>Purification of sugar juices</b>	<b>25/008</b>	. {with direct contact between heating medium and sugar solution}
	<b>NOTE</b>	<b>25/02</b>	. Details, e.g. for preventing foaming or for catching juice
	When classifying in this group, classification is also made in group <a href="#">B01D 15/08</a> insofar as subject matter of general interest relating to chromatography is concerned	<b>25/04</b>	. . Heating equipment
20/002	. {using micro-organisms or enzymes}	<b>25/06</b>	. combined with measuring instruments for effecting control of the process
		<b>30/00</b>	<b>Crystallisation; Crystallising apparatus; Separating crystals from mother liquors; {Evaporating or boiling sugar juice}</b>
		<b>30/002</b>	. {Evaporating or boiling sugar juice}
		<b>30/005</b>	. . {using chemicals}
		<b>30/007</b>	. . {Multiple effect evaporation}
		<b>30/02</b>	. Crystallisation; Crystallising apparatus
		<b>30/021</b>	. . {using chemicals}

## C13B

- 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**