

# CPC COOPERATIVE PATENT CLASSIFICATION

## C CHEMISTRY; METALLURGY

(NOTES omitted)

### CHEMISTRY

## C12 BIOCHEMISTRY; BEER; SPIRITS; WINE; VINEGAR; MICROBIOLOGY; ENZYMOLOGY; MUTATION OR GENETIC ENGINEERING

(NOTES omitted)

## C12C BEER; PREPARATION OF BEER BY FERMENTATION (ageing or ripening by storing [C12H 1/22](#); methods for reducing the alcohol content after fermentation [C12H 3/00](#); methods for increasing the alcohol content after fermentation [C12H 6/00](#); venting devices for casks, barrels or the like [C12L 9/00](#)); PREPARATION OF MALT FOR MAKING BEER; PREPARATION OF HOPS FOR MAKING BEER

### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

<b>1/00</b>	<b>Preparation of malt</b>	5/006	. . {Beta-glucanase or functionally equivalent enzymes}
1/02	. Pretreatment of grains, e.g. washing, steeping	5/008	. {Hop surrogates}
1/027	. Germinating	5/02	. Additives for beer
1/0275	. . {on single or multi-stage floors}	5/023	. . {enhancing the vitamin content}
1/033	. . in boxes or drums	5/026	. . {Beer flavouring preparations}
1/047	. . Influencing the germination by chemical or physical means	5/04	. . Colouring additives
1/053	. . . by irradiation or electric {or wave energy} treatment	<b>7/00</b>	<b>Preparation of wort (malt extract <a href="#">C12C 1/18</a>)</b>
1/067	. Drying	7/01	. Pretreatment of malt, e.g. malt grinding
1/073	. . Processes or apparatus specially adapted to save or recover energy	7/04	. Preparation or treatment of the mash
1/10	. . Drying on fixed supports	7/042	. . {Mixing malt with water}
1/12	. . Drying on moving supports	7/044	. . {Cooling the mash ( <a href="#">C12C 7/067</a> takes precedence)}
1/125	. Continuous or semi-continuous processes for steeping, germinating or drying	7/047	. . part of the mash being unmalted cereal mash
1/13	. . with vertical transport of the grains	7/053	. . part of the mash being non-cereal material
1/135	. . with horizontal transport of the grains	7/06	. . Mashing apparatus
1/15	. Grain or malt turning, charging or discharging apparatus	7/062	. . . {with a horizontal stirrer shaft}
1/16	. After-treatment of malt, e.g. malt cleaning, detachment of the germ	7/065	. . . {with a vertical stirrer shaft}
1/18	. Preparation of malt extract or of special kinds of malt, e.g. caramel, black malt (malt products for use as foodstuffs <a href="#">A23L</a> )	7/067	. . . {with cooling means}
<b>3/00</b>	<b>Treatment of hops</b>	7/14	. Clarifying wort (Läuterung)
3/02	. Drying	7/16	. . by straining
3/04	. Conserving; Storing; Packing	7/161	. . . {in a tub with a perforated false bottom}
3/06	. . Powder or pellets from hops	7/163	. . . {with transport of the mash by or relative to a filtering surface}
3/08	. . Solvent extracts from hops	7/165	. . . in mash filters
3/085	. . . {Extraction of hops with beerwort}	7/17	. . . in lautertuns {, e.g. in a tub with perforated false bottom}
3/10	. . . using carbon dioxide	7/175	. . by centrifuging
3/12	. Isomerised products from hops	7/20	. Boiling the beerwort (brew kettles <a href="#">C12C 13/02</a> )
<b>5/00</b>	<b>Other raw materials for the preparation of beer</b>	7/205	. . {Boiling with hops}
5/002	. {Brewing water}	7/22	. . . Processes or apparatus specially adapted to save or recover energy
5/004	. {Enzymes}	7/24	. Clarifying beerwort between hop boiling and cooling
		7/26	. Cooling beerwort; Clarifying beerwort during or after the cooling

7/28	<ul style="list-style-type: none"> <li>After-treatment {, e.g. sterilisation (<a href="#">C12C 11/00 takes precedence</a>)}</li> </ul>	2200/35	<ul style="list-style-type: none"> <li>Dissolving, reconstituting or diluting concentrated or dried wort</li> </ul>
7/282	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Concentration or beerwort}</li> </ul> </li> </ul>		
7/285	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Drying beerwort}</li> </ul> </li> </ul>		
7/287	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Treating beerwort with hopextract (<a href="#">C12C 7/205 takes precedence</a>)}</li> </ul> </li> </ul>		
<b>9/00</b>	<b>{Methods specially adapted for the making of beerwort}</b>		
9/02	<ul style="list-style-type: none"> <li>{Beerwort treatment; Boiling with hops; Hop extraction}</li> </ul>		
9/025	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Preparation of hop extracts (<a href="#">extraction with beerwort C12C 9/02</a>); Isomerisation of these extracts; Treatment of beerwort with these extracts; Surrogates of the hop}</li> </ul> </li> </ul>		
<b>11/00</b>	<b>Fermentation processes for beer (<a href="#">preparation of wine C12G 1/00</a>)</b>		
11/003	<ul style="list-style-type: none"> <li>{Fermentation of beerwort}</li> </ul>		
11/006	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Fermentation tanks therefor}</li> </ul> </li> </ul>		
11/02	<ul style="list-style-type: none"> <li>Pitching yeast</li> </ul>		
11/06	<ul style="list-style-type: none"> <li>Acidifying the wort</li> </ul>		
11/07	<ul style="list-style-type: none"> <li>Continuous fermentation</li> </ul>		
11/075	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Bioreactors for continuous fermentation}</li> </ul> </li> </ul>		
11/09	<ul style="list-style-type: none"> <li>Fermentation with immobilised yeast</li> </ul>		
11/11	<ul style="list-style-type: none"> <li>Post fermentation treatments, e.g. carbonation, or concentration (<a href="#">methods for reducing the alcohol content after fermentation C12H 3/00</a>; <a href="#">methods for increasing the alcohol content after fermentation C12H 6/00</a>)</li> </ul>		
<b>12/00</b>	<b>Processes specially adapted for making special kinds of beer</b>		
12/002	<ul style="list-style-type: none"> <li>{using special microorganisms}</li> </ul>		
12/004	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Genetically modified microorganisms}</li> </ul> </li> </ul>		
12/006	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Yeasts (<a href="#">processes for seeding C12C 11/02</a>)}</li> </ul> </li> </ul>		
12/008	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Lactic acid bacteria}</li> </ul> </li> </ul>		
12/02	<ul style="list-style-type: none"> <li>Beer with low calorie content (<a href="#">C12C 12/04 takes precedence</a>)</li> </ul>		
12/04	<ul style="list-style-type: none"> <li>Beer with low alcohol content (<a href="#">methods for reducing the alcohol content after fermentation C12H 3/00</a>)</li> </ul>		
	<b><u>WARNING</u></b>		
	Group <a href="#">C12C 12/04</a> is impacted by reclassification into groups <a href="#">C12H 3/00</a> , <a href="#">C12H 3/02</a> , and <a href="#">C12H 3/04</a> .		
	All groups listed in this Warning should be considered in order to perform a complete search.		
<b>13/00</b>	<b>Brewing devices, not covered by a single group of <a href="#">C12C 1/00</a> - <a href="#">C12C 12/04</a></b>		
13/02	<ul style="list-style-type: none"> <li>Brew kettles {(<a href="#">C12C 11/075 takes precedence</a>)}</li> </ul>		
13/025	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{heated with steam}</li> </ul> </li> </ul>		
13/06	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>heated with fire</li> </ul> </li> </ul>		
13/08	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>with internal heating elements</li> </ul> </li> </ul>		
13/10	<ul style="list-style-type: none"> <li>Home brew equipment</li> </ul>		
<b>2200/00</b>	<b>Special features</b>		
2200/01	<ul style="list-style-type: none"> <li>Use of specific genetic variants of barley or other sources of fermentable carbohydrates for beer brewing</li> </ul>		
2200/05	<ul style="list-style-type: none"> <li>Use of genetically modified microorganisms in the preparation of beer</li> </ul>		
2200/31	<ul style="list-style-type: none"> <li>Clarifying wort before or during or after cooling</li> </ul>		