

Title (en)

Process for degumming vegetable oils with enzymes

Title (de)

Verfahren zum Entschleimen von Pflanzenöl mittels Enzymen

Title (fr)

Procédé de démulcination d'huiles végétales avec des enzymes

Publication

**EP 0654527 B1 19980114 (DE)**

Application

**EP 94203211 A 19941104**

Priority

DE 4339556 A 19931119

Abstract (en)

[origin: US5558781A] A process is disclosed for enzymatically degumming vegetable oil where the vegetable oil to be degummed is adjusted to a pH from 3 to 6 and is mixed with an aqueous enzyme solution, which contains one of the enzymes phospholipase A1, A2 or B. In a degumming reactor the enzymes are permitted to act on the oil at temperatures from 20 DEG to 90 DEG C. with stirring. Before or after a separation of the degummed oil a separation promoter or a solubilizer is added at temperatures from 20 DEG to 90 DEG C. to the liquid which has been withdrawn from the degumming reactor. A substantially sludgefree solution, which contains used enzymes, is thus recovered and is recycled at least in part to a location preceding the degumming reactor. The content of recycled used enzymes in the total amount of the enzymes dispersed in the oil is at least 10%.

IPC 1-7

**C11B 3/00**

IPC 8 full level

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Cited by

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**US 5558781 A 19960924**; AT E162210 T1 19980115; BR 9404496 A 19950711; CA 2136050 A1 19950520; CN 1046760 C 19991124; CN 1112156 A 19951122; DE 4339556 C1 19950202; DE 59405028 D1 19980219; DK 0654527 T3 19980316; EP 0654527 A1 19950524; EP 0654527 B1 19980114; ES 2111841 T3 19980316; GR 3026501 T3 19980731; JP H07188691 A 19950725; TW 279900 B 19960701

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**US 34082994 A 19941116**; AT 94203211 T 19941104; BR 9404496 A 19941118; CA 2136050 A 19941117; CN 94118887 A 19941119; DE 4339556 A 19931119; DE 59405028 T 19941104; DK 94203211 T 19941104; EP 94203211 A 19941104; ES 94203211 T 19941104; GR 980400684 T 19980403; JP 31113994 A 19941121; TW 83110409 A 19941110