

Title (en)  
ENZYMATIC METHOD FOR REDUCING THE AMOUNT OF PHOSPHOROUS-CONTAINING COMPONENTS IN VEGETABLE AND ANIMAL OILS

Publication  
**EP 0513709 A3 19921230 (DE)**

Application  
**EP 92107888 A 19920511**

Priority  
DE 4115938 A 19910516

Abstract (en)  
[origin: US5264367A] The content of phosphorus-containing components and the iron content of an edible vegetable or animal oil, preferably an oil such as soybean oil which has been wet-refined to remove mucilage, are reduced by enzymatic decomposition by contacting the oil with an aqueous solution of phospholipases A1, A2, or B and then separating the aqueous phase from the treated oil.

IPC 1-7  
**C11B 3/00**

IPC 8 full level  
**C11B 3/00** (2006.01); **C12S 3/18** (2006.01)

CPC (source: EP US)  
**C11B 3/003** (2013.01 - EP US)

Citation (search report)  
• [A] EP 0328789 A1 19890823 - UNILEVER NV [NL], et al  
• [X] DATABASE WPIL Week 9030, Derwent Publications Ltd., London, GB; AN 90-226962 & JP-A-2 153 997 (SHOWA SANGYO KK) 13. Juni 1990  
• [X] DATABASE WPIL Week 9013, Derwent Publications Ltd., London, GB; AN 90-096521 & JP-A-2 049 593 (SHOWA SANGYO KK) 19. Februar 1990

Cited by  
DE102010055159A1; WO2013121047A1; WO2012001153A1; WO2012079663A1; WO2011051322A1; EP2853593A1; EP2216403A2; WO2008036863A2; EP2298871A1; WO2011046812A1; EP3190182A1; WO2011046815A1; US6001640A; US6025171A; US6127137A; EP0622446A3; US5532163A; US6162623A; DE4339556C1; EP0654527A1; US5558781A; WO2009046988A3; WO2015173426A1; US7943360B2; DE102009006921A1; EP2910129A1; DE102010025764A1; WO2006009676A2; EP2468853A1; EP2799531A1; DE102009006920A1; WO03089620A2; WO9705219A1; WO9818912A1; US7226771B2; US7977080B2; US9677027B2; EP4163354A2; US8557551B2; US9034612B2; US9243267B2; US9499844B2; WO2010025395A2; US8198062B2; US8202715B2; US8507241B2; US9238804B2; WO2008040466A1; US7713727B2; DE102009051013A1; US7993876B2; US8653241B2; US9017990B2; US9045713B2; US9322003B2

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AT BE CH DE DK ES FR GB GR IT LI LU NL SE

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**EP 0513709 A2 19921119; EP 0513709 A3 19921230; EP 0513709 B1 19950329; EP 0513709 B2 19991006;** AR 245193 A1 19931230; AT E120482 T1 19950415; BR 9201859 A 19930105; CA 2068933 A1 19921117; CA 2068933 C 19951219; CN 1034587 C 19970416; CN 1066679 A 19921202; DE 4115938 A1 19921119; DE 59201753 D1 19950504; DK 0513709 T3 19950724; DK 0513709 T4 19991227; ES 2072043 T3 19950701; ES 2072043 T5 20000201; GR 3015920 T3 19950731; GR 3031804 T3 20000229; HU 213754 B 19970929; HU 9201630 D0 19920828; HU T64578 A 19940128; PL 170548 B1 19961231; PL 294543 A1 19930125; RU 2033422 C1 19950420; TW 203625 B 19930411; US 5264367 A 19931123

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**EP 92107888 A 19920511;** AR 32233792 A 19920515; AT 92107888 T 19920511; BR 9201859 A 19920515; CA 2068933 A 19920519; CN 92103459 A 19920512; DE 4115938 A 19910516; DE 59201753 T 19920511; DK 92107888 T 19920511; ES 92107888 T 19920511; GR 950401041 T 19950425; GR 990402897 T 19991110; HU 9201630 A 19920515; PL 29454392 A 19920514; SU 5011752 A 19920514; TW 81103810 A 19920515; US 88271092 A 19920514