

Title (en)

METHOD FOR THE PRODUCTION OF FATTY ACIDS BY HYDROLYTIC ESTER CLEAVAGE WITH HIGH TEMPERATURE WATER

Title (de)

VERFAHREN ZUM HERSTELLEN VON FETTSÄUREN DURCH HYDROLYTISCHE ESTERSPALTUNG IN WASSER BEI HOHEN TEMPERATUR

Title (fr)

PROCÉDÉ DE FABRICATION D'ACIDES GRAS PAR HYDROLYSE UTILISANT DANS L'EAU À HAUTE TEMPÉRATURE

Publication

EP 3266857 A1 20180110 (DE)

Application

EP 16400026 A 20160708

Priority

EP 16400026 A 20160708

Abstract (en)

[origin: WO2018007022A1] A process and a plant are specified, with which free fatty acids can be obtained in a simple manner by hydrolysis of fatty acid alkyl esters, especially fatty acid methyl esters (FAME), or alternatively of fatty acid triglycerides present in oils and fats of vegetable and animal origin. According to the invention, a portion of the free fatty acids already produced is recycled back into the reaction mixture, which results in self-acceleration of the hydrolysis reaction.

Abstract (de)

Es wird ein Verfahren und eine Anlage angegeben, mit denen freie Fettsäuren in einfacher Weise durch hydrolytisches Spalten von Fettsäurealkylestern, insbesondere Fettsäuremethylestern (FAME), oder alternativ von in Ölen und Fetten pflanzlicher und tierischer Herkunft enthaltenen Fettsäuretriglyceriden, erhalten werden können. Erfindungsgemäß wird dabei ein Teil der bereits erzeugten freien Fettsäuren wieder in das Reaktionsgemisch zurückgeführt, wodurch es zu einer Selbstbeschleunigung der Hydrolysereaktion kommt.

IPC 8 full level

C11C 1/04 (2006.01); **C11C 1/08** (2006.01); **C11C 3/00** (2006.01)

CPC (source: EP US)

C11C 1/04 (2013.01 - EP US); **C11C 1/08** (2013.01 - EP US); **C11C 3/003** (2013.01 - EP US)

Citation (applicant)

- DE 69321607 T2 19990318 - PROCTER & GAMBLE [US]
- US 4185027 A 19800122 - LOGAN TED J [US]
- "Ullmann's Encyclopedia of Industrial Chemistry", 1998, article "Fatty Acids"

Citation (search report)

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- [A] WO 9707187 A1 19970227 - POUL MOELLER LEDELSES OG INGEN [DK], et al
- [A] RUSSELL L. HOLLIDAY ET AL: "Hydrolysis of Vegetable Oils in Sub- and Supercritical Water", INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH., vol. 36, no. 3, 1 March 1997 (1997-03-01), US, pages 932 - 935, XP055333525, ISSN: 0888-5885, DOI: 10.1021/ie960668f
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SG 11201811694X A 20170627; US 201716316248 A 20170627