

Title (en)

IMPROVED METHOD FOR PROCESSING LIQUEFIED WASTE PLASTICS

Title (de)

VERBESSERTES VERFAHREN ZUM VERARBEITEN VON VERFLÜSSIGTEN KUNSTSTOFFABFÄLLEN

Title (fr)

PROCÉDÉ AMÉLIORÉ DE TRAITEMENT DES MATIÈRES PLASTIQUES DE RÉCUPÉRATION LIQUÉFIÉES

Publication

**EP 4306619 A1 20240117 (EN)**

Application

**EP 22184301 A 20220712**

Priority

EP 22184301 A 20220712

Abstract (en)

The invention relates to an improved method for processing liquefied waste plastics. The method comprises providing a liquefied waste plastic (LWP) feedstock for heat treatment (HT processing) with an aqueous solution containing a basic substance, subjecting the LWP feedstock to the heat treatment with the aqueous solution, followed by phase separation to result in at least a treated LWP material and an aqueous phase, determining the quality of the LWP feedstock by measuring at least one property of the LWP feedstock, the at least one property including at least the total acid number (TAN) of the LWP feedstock, and calculating an amount of the basic substance that needs to be added in HT processing to reach a target pH level of the aqueous phase based on the at least one property of the LWP feedstock and the water-oil-ratio, and adding the calculated amount of basic substance in the form of aqueous solution to be in contact with the LWP feedstock.

IPC 8 full level

**C10G 1/00** (2006.01); **C10G 1/10** (2006.01); **C10G 19/02** (2006.01)

CPC (source: EP)

**C10G 1/002** (2013.01); **C10G 1/10** (2013.01); **C10G 19/02** (2013.01)

Citation (applicant)

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- US 2016264874 A1 20160915 - NARAYANASWAMY RAVICHANDER [IN], et al
- FI 128848 B 20210129 - NESTE OYJ [FI]
- FI 128069 B 20190913 - NESTE OYJ [FI]
- LARSEN ET AL.: "Determining the PE fraction in recycled PP", POLYMER TESTING, vol. 96, April 2021 (2021-04-01), pages 107058

Citation (search report)

- [Y] WO 2021105326 A1 20210603 - NESTE OYJ [FI]
- [Y] US 2006054538 A1 20060316 - HSU EDWARD C [US], et al
- [Y] JP 5693057 B2 20150401
- [Y] FEKHAR B. ET AL: "Pyrolysis of chlorine contaminated municipal plastic waste: In-situ upgrading of pyrolysis oils by Ni/ZSM-5, Ni/SAPO-11, red mud and Ca(OH)<sub>2</sub> containing catalysts", JOURNAL OF THE ENERGY INSTITUTE, vol. 92, no. 5, 21 October 2018 (2018-10-21), pages 1270 - 1283, XP055920904, ISSN: 1743-9671, DOI: 10.1016/j.joei.2018.10.007

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