

(12) **United States Patent**
Brummer et al.

(10) **Patent No.:** **US 9,409,837 B2**
(45) **Date of Patent:** **Aug. 9, 2016**

(54) **BUTADIENE EXTRACTION PROCESS**

(56) **References Cited**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 159 days.

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(21) Appl. No.: **14/034,822**

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(22) Filed: **Sep. 24, 2013**

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(65) **Prior Publication Data**

US 2014/0100399 A1 Apr. 10, 2014

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Related U.S. Application Data

Primary Examiner — Tam M Nguyen

(60) Provisional application No. 61/709,581, filed on Oct. 4, 2012.

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(51) **Int. Cl.**
C07C 5/09 (2006.01)
C07C 7/167 (2006.01)
C07C 7/00 (2006.01)

(57) **ABSTRACT**

A process for recovering butadiene from a C₄ fraction is disclosed. The process may include: contacting a mixed C₄ stream comprising butane, butene, and butadiene, with a solvent comprising an organic solvent and water in a butadiene pre-absorber column to recover an overheads fraction comprising at least a portion of the butane, butene, and water, and a first bottoms fraction comprising the organic solvent, butadiene, and at least a portion of the butene; and feeding the first bottoms fraction to a butadiene extraction unit to recover a butene fraction, a crude butadiene fraction, and a solvent fraction.

(52) **U.S. Cl.**
CPC . **C07C 5/09** (2013.01); **C07C 7/005** (2013.01); **C07C 7/167** (2013.01)

(58) **Field of Classification Search**
None
See application file for complete search history.

16 Claims, 4 Drawing Sheets

