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**Tonkovich et al.**

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(54) **DISTILLATION PROCESS USING MICROCHANNEL TECHNOLOGY**

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(76) Inventors: **Anna Lee Tonkovich**, Dublin, OH (US); **Wayne W. Simmons**, Dublin, OH (US); **Laura J. Silva**, Dublin, OH (US); **Dongming Qiu**, Bothell, WA (US); **Steven T. Perry**, Galloway, OH (US); **Thomas Yuschak**, Dublin, OH (US); **Thomas P. Hickey**, Dublin, OH (US); **Ravi Arora**, Dublin, OH (US); **Amanda Smith**, Galloway, OH (US); **Robert Dwayne Litt**, Westerville, OH (US); **Paul Neagle**, Westerville, OH (US)

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Correspondence Address:  
**NEIL A. DUCHEZ (VELOCYS)**  
**RENNER, OTTO, BOISSELLE & SKLAR, LLP**  
**1621 EUCLID AVENUE**  
**19TH FLOOR**  
**CLEVELAND, OH 44115 (US)**

(57) **ABSTRACT**

The disclosed invention relates to a distillation process for separating two or more components having different volatilities from a liquid mixture containing the components. The process employs microchannel technology for effecting the distillation and is particularly suitable for conducting difficult separations, such as the separation of ethane from ethylene, wherein the individual components are characterized by having volatilities that are very close to one another.

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