

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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AKERMIN, INC.,  
Petitioner

v.

CO<sub>2</sub> SOLUTIONS INC.,  
Patent Owner

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Case IPR2015-00880  
Patent 8,329,458

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**DECLARATION OF DR. LOUIS FRADETTE**

CO<sub>2</sub> Solutions Inc.  
Exhibit 2004  
Akermin, Inc. v. CO<sub>2</sub> Solutions Inc.

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## DECLARATION OF DR. LOUIS FRADETTE

I, Louis Fradette, Ph.D. declare that:

1. I am an Associate Professor of Chemical Engineering at Polytechnique Montréal, where I teach courses in, for example, Fluid Mechanics, Multi-phase Systems, and Separations Processes to students majoring in Chemical Engineering, and Fluid Mixing courses at the graduate level (M.Sc. and Ph.D.). I am also a Senior Vice President, Process Engineering and Chief Technology Officer at CO<sub>2</sub> Solutions Inc. These and other positions I have held are further described below, as are my other qualifications.

2. I understand that this declaration is being submitted to the Patent Trial and Appeal Board (“Board”) at the U.S. Patent and Trademark Office together with a Patent Owner’s response to Akermin Inc.’s “Corrected Petition” for inter partes review of claims 1-4, 15-19, 22-28, and 40-43 of U.S. Patent No. 8,329,458 B2 (the ’458 patent, Ex. 1001). I am over the age of eighteen years, and otherwise competent to make this declaration.

### I. MY QUALIFICATIONS

3. My education experience is summarized as follows:

(a) I received a Bachelor’s degree (B.Sc.) in Chemical Engineering from the Université of Laval in 1989.

(b) I received a Master's degree (M.Sc.A) in Chemical Engineering from the Université Laval in 1994.

(c) I received a Doctorate degree (Ph.D.) in Chemical Engineering from the Institute National Polytechnique de Lorraine and École Polytechnique de Montréal in 2000.

(d) From August 1999 to August 2001, I was engaged in post-doctoral research at Algoysis Inc.

4. My professional experience is summarized as follows:

(a) From May of 1989-May of 1992, I worked as a Process Engineer at Raffinerie de Montréal, Pétrol-Canada Inc.

(b) From August 1999 to December 2002, I was the Director of Exploitation and Research and Development at Algoysis Inc.

(c) From December 2002 to August 2003, I was the Director of Research and Development at Mafor Composites Inc.

(d) From January 2004 to July 2006, I was employed full time as a Research Associate at École Polytechnique de Montréal in the general field of process development.

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