

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

VF Outdoor, LLC
Petitioner

v.

Cocona, Inc.
Patent Owner

Patent No. 8,945,287
Inter Partes Review No. IPR2018-00190

DECLARATION OF DR. GREGORY W. HAGGQUIST

I, Gregory W. Haggquist, declare as follows:

1. I have personal knowledge of the matters set forth herein, and if I am called to testify, I could testify competently thereto.

2. I received a BS in Chemistry from the University of Connecticut in 1986 and a Ph.D. in Physical Chemistry from the University of Nevada in 1991.

3. I co-founded Cocona, Inc. (“Cocona”) in 2000 and am currently the Chief Technology Officer.

4. I am a named inventor on a number of patents and patent applications, including U.S. Patent No. 8,945,287 (the “’287 Patent”) and U.S. Patent Publication No. US 2004/0018359 (the “’359 Application”).

5. Cocona owns the ‘287 Patent and the ‘359 Application.

6. I understand that the validity of the ‘287 Patent has been challenged by VF Outdoor, LLC (“VF”) in a proceeding at the U.S. Patent and Trademark Office.

7. I have reviewed the ‘287 Patent and the ‘359 Application and consider myself a person of ordinary skill in the art with respect to the subject matter of the ‘287 Patent and the ‘359 Application (a “POSITA”).

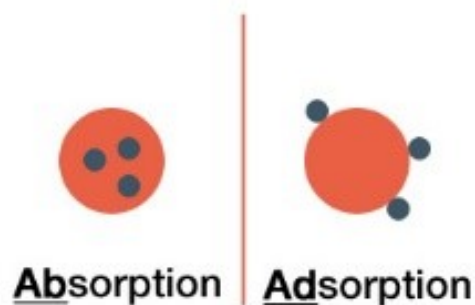
8. A POSITA understands that “active particles” are “active” because they have the ability to adsorb or trap substances at their surface. This surface-active property is the result of the large surface area of an active particle. The

large surface area is provided by numerous pores on the surface of an active particle, and it is these pores that provide an active particle with the ability to adsorb substances. Figure 1 of the '359 Application depicts the porosity of an active particle.

9. A POSITA understands that some particles naturally have pores, like volcanic rock, and that other particles such as carbon have to be treated with extreme temperature and an activating agent to create the pores (*e.g.*, to create “activated” carbon).

10. A POSITA understands that absorption is a bulk process that is very different from the surface-active process of adsorption. More specifically, absorption is a bulk-process where a fluid or gas is dissolved by a liquid or solid.

11. The image below depicts the difference between the surface-active process of adsorption (shown on the right) and the bulk dissolution process of absorption (shown on the left).

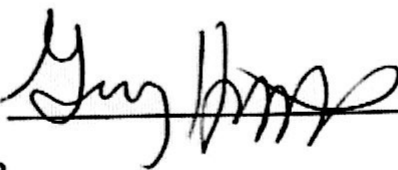


12. I have reviewed the ‘359 Application. The reference in claim 1 to “absorption by said active particle” is a clear and unintentional typographical error. A POSITA would readily understand based on a review of the claim (reciting “An encapsulated active particle ...”) that it should recite “adsorption by said active particle.”

13. Similarly, the words “absorption” and “absorbed” in paragraph 14 of the ‘359 Application are unintentional typographical errors that would be obvious to a POSITA. Paragraph 14 discusses deactivating active particles by blocking their pores, and a POSITA would readily understand that words “absorption” and “absorbed” should have been written as “adsorption” and “adsorbed,” respectively.

14. I have been informed that VF asserts that solid carbon particles such as “Black Pearls 2000 Carbon Black” are active particles. I disagree. A POSITA understands that particulate carbon, often referred to as “carbon soot” or “carbon black,” is not surface-active since it has not been processed to create the large number of pores necessary for surface-active chemistry. As explained in the ‘359 Application at paragraph 28, a POSITA understands that particulate carbon has to be specifically processed, such as by using high temperatures and an activating agent, to create pores for surface activity. *See* ‘359 Application at ¶ 28.

15. I declare that all statements made herein of my own knowledge are true, that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 or Title 18 of the United States Code.

By Gregory W. Haggquist: 
Date: March 7 2018