

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re *Inter Partes* Review of:

U.S. Patent No. 6,886,956

Filed: Nov. 18, 2002

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Inventors: PARKER, Jeffery R., et al.

Assignee: Innovative Display Technologies,  
LLC

Title: LIGHT EMITTING PANEL  
ASSEMBLIES FOR USE IN  
AUTOMOTIVE APPLICATIONS AND  
THE LIKE

Trial No.: IPR2015-00829

Attorney Docket: 04305.9001

Panel: Not Yet Assigned

Mail Stop Patent Board  
Patent Trial and Appeal Board  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION OF JOHN L. WEST, Ph.D.**

I, John Lawton West, Ph.D., declare as follows:

I have been retained by Toyota Motor Corporation (“Petitioner”) to provide expert opinions in connection with the above-captioned inter partes review being requested by Petitioner. A summary of my opinions appears below.

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## **I. Introduction**

1. I have been retained by Toyota Motor Corporation (“Toyota” or “Petitioner”) as an independent expert consultant in this proceeding before the United States Patent and Trademark Office. Although I am being compensated at my standard rate of \$400.00 per hour for the time I spend on this matter, no part of my compensation depends on the outcome of this proceeding, and I have no other interest in this proceeding.

2. I understand that this proceeding involves U.S. Patent No. 6,886,956 (“the ’956 patent”) (attached as Ex. 1001).

3. I have been asked to render certain opinions regarding the ’956 patent and whether certain references would disclose or suggest certain features in the claims of the ’956 patent to a person of ordinary skill in the art. The substance and bases of my opinions appear below.

## **II. Background and Experience**

4. My curriculum vitae, which includes a more detailed summary of my background, experience, and publications, is attached as Appendix A.

5. I was awarded a B.S. in chemistry from the College of William and Mary in 1976, and an M.S. and Ph.D. in Chemistry from Carnegie Mellon-University in 1979 and 1980. I am a University Trustee Professor at Kent State University,

where I teach and conduct research in the fields of liquid crystal materials and devices.

6. My teaching includes a graduate-level course titled “Chemical Physics of Electro-Optic Polymers,” which covers subjects ranging from the basics of polymerization to the optics of polymer films, including edge-illuminated panels and light-emitting diodes (LEDs). I also teach an honors-level course titled “Be Smarter than Your Phone,” which surveys the technologies that make the smart phone possible and assesses the impact on business and communications.

7. My research includes developing a novel means of producing transparent conducting electrodes on plastic substrates required for displays and touch screens, developing responsive fibers used to integrate displays and electronics in clothing and medical sensors, and exploring the mechanism of chiral induction in liquid crystals.

8. I am named as an inventor on 19 separate patents and patent applications, which cover various technologies relating primarily to liquid crystal applications.

9. Since 1984, I have served as a Senior Research Fellow at the Liquid Crystal Institute (“LCI”) at Kent State University, also serving as Associate Director from 1990-1996, and as Director from 1997-2003. The LCI is recognized as the world’s leading research center in the field of liquid crystals. The LCI includes over 50 faculty members from departments across Kent State University, including

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chemistry, physics, biology, mathematics, and computer science. I concurrently served as Director of the Chemical Physics Interdisciplinary Program (“CPIP”) at Kent State from 1997-2003, and of the NSF Science and Technology Center for Advanced Liquid Crystalline Optical Materials (“ALCOM”) from 1997 to 2002. During my tenure as Director of the LCI, CPIP, and ALCOM, I established and oversaw an industrial partnership that engaged over 60 companies from across the nation and around the world, fostered the transfer of technology from lab to market, supervised the design of a 65,000 square-foot research and education facility and received an NSF Pioneer Award in 2003 for my leadership of ALCOM.

10. My work with the LCI covered a broad range of subjects, including subjects relating to automotive applications. For example, I collaborated with scientists from General Motors on research from June 1986 to May 1989 in a significant sponsored program. The research studied certain optics issues generally related to sun roofs for vehicles, and resulted in at least three papers coauthored by me and General Motors scientists.

### **III. Materials Reviewed**

11. The opinions set forth in this declaration are based on my education, my experience and the following documents, which I reviewed in forming my opinions.

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