No. 19-GSR-4287

**UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT**

BALLISTIC HOLDINGS, INC. and BALISTIC MEMORY, INC.

*Appellant,*

v.

CONSUMERCAM, LLC

*Appellee*.

*Appeal from the United States District Court   
for the District of Pennyston*

BRIEF FOR THE APPELLEE

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# TABLE OF AUTHORITIES

# STATEMENT OF RELATED CASES

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# STATEMENT OF JURISDICTION

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# STATEMENT OF ISSUES

## Exhaustion

## Invalidity for Lack of Enablement

Whether it was error for the district court to enter summary judgement of validity where patent-in-suit’s specification did not enable use of the invention at widths between 15 and 35 nm without undue experimentation.

# STATEMENT OF THE CASE

# STATEMENT OF THE FACTS

# SUMMARY OF THE ARGUMENT

# STANDARD OF REVIEW

## Exhaustion

## Invalidity for Lack of Enablement

Summary judgment is appropriate if there is no genuine dispute of material fact and the moving party is entitled to judgement as a matter of law. *AK Steel Corp. v. Sollac and Ugine*, 344 F.3d 1234, 1238 (Fed. Cir. 2003). Patents are presumed valid and invalidity must be proven by clear and convincing evidence. *Auto. Tech. Int’l, Inc. v. BMW of N. Am., Inc.*, 501 F.3d 1274, 1281 (Fed. Cir. 2007). Whether an invention would have required undue experimentation to practice is a question of law reviewed *de novo*, based on underlying factual inquiries reviewed for clear error. *ALZA Corp. v. Andrz Pharm., LLC*, 603 F.3d 935, 940 (Fed. Cir. 2014).

# ARGUMENT

## Exhaustion

## The District Court Erred by Denying Summary Judgement of Non-Enablement

### Relevant Legal Standards

An enabling patent specification must allow a person of reasonable skill in the art to make and use the full scope of the claimed invention without undue experimentation. Genentech at 1365; Wright at 1561. The specification must enable the full scope of the claims, meaning it must enable all embodiments of a claim. Genentech at 1365; Sitrick (ruling that because the asserted claims were broad enough to cover both movies and video games, it must enable both). The scope of claims must bear reasonable correlation to the scope of enablement within the specification. *In re Fisher*, at 839.Some experimentation is allowed and even expected, however the amount of experimentation must not be undue. ALZA at 940; Wands at 736-37. The Federal Circuit set forth factors in *In re Wands* determining whether undue experimentation would be required. *In re Wands* at 737. Each factor should, but not required, be considered to determine if a disclosure is sufficiently enabled. *Enzo*, at 1371. The specification need not disclose what is well known in the art but must disclose the novel aspects of the invention. Genentech at 1366.

[Relate Back to case at hand?]

### Practicing the Invention at All Claimed Widths and Lengths Requires Undue Experimentation

Practicing the invention would require undue experimentation.

The specification describes achieving switching speeds over 1 THz when width is greater than 5 nm and less than 15 nm when length is approximately 22 nm (5 nm < W < 15 nm; L ≈ 22 nm). (Fig. 2, Appx9, Appx6). The specification states that the width and length are tuned to “specific values”. (Appx6). Within the claimed range of width, a there is a smaller range of length that will allow for switching speeds of 1 T Hz or higher. As shown in Fig. 2 (Appx9), for widths between 5 and 15 nm, a length of 22 nm achieves switching speed of 1 T Hz or higher. However, for over 15 nm, 22 nm does not achieve the desired switching speed. (Appx9). Thus widths 5 to 15 nm are tuned to length of 22 nm, but widths greater than 15 are not. Ballistic’s expert, Professor Hendricks notes in his declaration that “As for 15 < W < 35 nm, a person of skill in the art would have been able to find the operative range of L through routine experimentation”. (Appx25). Or in other words, it would not require undue experimentation.

Such experimentation would likely require adjusting the length, as a person of ordinary skill in the art would recognize that switching speed increases as length decreases. (Appx25). Suggesting that all one would need make and use the claimed invention at widths between 15 and 35 nm would be to vary the length. However, this variation of length would require undue experimentation. The specification admits that it is not practicable to manufacture graphene nanoribbons shorter than 20 nm. (Appx6). Professor Hendricks also explains that a person of reasonable skill in the art would be aware that it is not practicable to manufacture graphene nanoribbons “having lengths significantly greater than 22nm”. (Appx3). If a person of ordinary skill in the art cannot manufacture the nanoribbons required to experiment because the knowledge to do so is outside of the current state of the art, making and using the invention would require undue experimentation.

The specification need not state what is well known in the art, but it must supply the novel aspects of the invention. Genentech at 1366. The use of this invention at widths between 15 and 35 nm is novel, and the specification and Ballistic’s expert admit the person of ordinary skill in the art would not know how to manufacture the graphene nanoribbons at the lengths required to make and use the invention. The specification must do more than provide a starting point for further research. *See* Genentech at 1366 (stating that when there is no disclosure of how a process can be carried out, undue experimentation is required, and there is lack of enablement). The invention must be enabled at the time of filing. ALZA at 940. According to Ballistic in the specification no one knew how to manufacture the lengths required to enable use of widths between 15 and 35 nm. Thus, the invention is not enabled across its entire scope because at the time of filing, it was not known how to make the invention and achieve switching speeds of 1 T Hz or higher at all widths. This creates a genuine issue of material fact regarding enablement the district court should not have granted summary judgement.

# CONCLUSION

For the foregoing reasons there is a genuine dispute of material fact that the full scope of the assert claims is not enabled. Appellees respectfully request that the Court should reverse the district court’s grant of summary judgement of validity of the ‘314 patent.

# CERTIFICATE OF SERVICE

I hereby certify that on this date, the 19 of February, 2019, a copy of the foregoing brief was served on Opposing Counsel via electronic delivery.

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Competitor Numbers