

**UNITED STATES PATENT AND TRADEMARK OFFICE**

---

**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

---

APPLIED MATERIALS, INC.  
Petitioner,

v.

DEMARAY LLC  
Patent Owner.

---

Case IPR2021-00106  
Patent No. 7,381,657

---

**PATENT OWNER'S PRELIMINARY RESPONSE**

***Mail Stop "PATENT BOARD"***  
Patent Trial and Appeal Board  
U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TABLE OF CONTENTS**

	<b><u>Page</u></b>
I. Introduction.....	1
II. <i>Fintiv</i> Factors Favor Discretionary Denial Of Institution Under 35 U.S.C. § 314(a) .....	4
A. <i>Fintiv</i> Factor #1: No Evidence That The District Court Would Grant A Stay If A Proceeding Is Instituted .....	4
B. <i>Fintiv</i> Factor #2: Jury Trial Is Expected To Occur Before The Final Written Decision .....	5
C. <i>Fintiv</i> Factor #3: There Has Been Immense “Investment In The Parallel Proceeding By The Court And Parties” .....	6
D. <i>Fintiv</i> Factor #4: There Is Substantial “Overlap Between Issues Raised In The Petition And In The Parallel Proceeding” .....	7
E. <i>Fintiv</i> Factor #5: The Defendants In The Texas Litigations Are Real-Parties-In-Interest .....	8
F. <i>Fintiv</i> Factor #6: “Other circumstances that impact the Board’s exercise of discretion, including the merits” favor non-institution. ....	8
III. Technology Background.....	8
A. The ’657 Invention Describes A Unique Combination That Solves A Problem Unique To Reactive Sputtering.....	8
B. Prior Art Fails To Teach The Solution Claimed By the ’657 Patent .....	13
1. Licata Does Not Disclose A Pulsed DC Alternating Between Negative And Positive Voltages Or A Narrow Band Rejection Filter .....	14
2. Kelly Does Not Disclose A Filter Coupled Between The Target And Its Pulsed DC Power Supply To The Target .....	18

	<b><u>Page</u></b>
3. Collins Does Not Suggest The Use Of The Claimed Filter Type Or The Claimed Reactor Process .....	19
IV. The Petition Fails To Show A Likelihood Of Success.....	22
A. Petitioner’s Proposed Inclusion Of A Bipolar Pulsed DC Power Source In Licata And Poisoned Mode Fails To Consider Licata’s Mechanism For Forming TiN Film (Elements 1(c), 1(f), 2(c) and 2(f)).....	22
B. Petitioner Fails To Explain Why A POSITA Would Have Used Licata-Kelly System For Depositing Films On An Insulating Substrate (Claims 2 And Dependent Claims) .....	31
C. Prior Art Does Not Disclose Or Suggest Using A Claimed Filter With The Claimed Reactor Process (Elements 1(c)-(d) and 2(c)-(d)) .....	32
1. Collins does not suggest using a narrow band rejection filter for the Kelly-Licata combination. ....	33
2. None of the other references suggests using a narrow band rejection filter for the Kelly-Licata combination .....	38
3. Petitioner has failed to articulate a reason to combine Collins with Licata-Kelly .....	56
D. Petitioner’s analysis of other claims do not cure the deficiencies above .....	61
V. The Petition Should Be Denied Under 35 U.S.C. § 325(d).....	62
A. The Petition Relies On The Same Or Substantially The Same Arguments Overcome During Prosecution .....	62
B. The Petition Fails To Show That The Office Erred In A Manner Material To The Patentability Of The Challenged Claims.....	69
VI. Conclusion .....	70

**TABLE OF AUTHORITIES**

	<b><u>Page(s)</u></b>
<b>Cases</b>	
<i>ActiveVideo Networks, Inc. v. Verizon Comm’ns, Inc.</i> , 694 F.3d 1312 (Fed. Cir. 2012) .....	24, 27, 28, 44
<i>Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH</i> , IPR2019-01469, Paper 6 (Feb. 13, 2020) .....	62, 66
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 15 (P.T.A.B. May 13, 2020) .....	<i>passim</i>
<i>Arendi</i> , 832 F.3d at 1362-66 .....	60
<i>Becton, Dickinson &amp; Co. v. B. Braun Melsungen AG</i> , IPR2017-01586, Paper 8 (P.T.A.B. Dec. 15, 2017) .....	62
<i>Belden Inc. v. Berk-Tek LLC</i> , 805 F.3d 1064 (Fed. Cir. 2015) .....	29, 32, 60
<i>Bentley Motors Ltd. v. Jaguar Land Rover Ltd.</i> , IPR2019-01539, Paper 16 (P.T.A.B. Oct. 2, 2020) .....	6
<i>Cont’l Intermodal Grp. – Trucking LLC v. Sand Revolution LLC</i> , Case No. 7:18-cv-00147-ADA (July 22, 2020) .....	4
<i>InTouch Techs., Inc. v. VGO Communications, Inc.</i> , 751 F.3d 1327 (Fed. Cir. 2014) .....	60
<i>In re Kahn</i> , 441 F.3d 977 (Fed. Cir. 2006) .....	30
<i>KSR Int’l Co. v. Teleflex, Inc.</i> , 550 U.S. 398 (2007) .....	27, 30, 44, 46
<i>Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH</i> , 139 F.3d 877 (Fed. Cir. 1998) .....	27

**Page(s)**

*Polaris Indus., Inc. v. Arctic Cat, Inc.*,  
882 F.3d 1056 (Fed. Cir. 2018) .....30

*Securus Techs., Inc. v. Global Tel\*Link Corp.*,  
701 F. App'x 971 (Fed. Cir. 2017) .....23, 32

*Star Sci., Inc. v. R.J. Reynolds Tobacco Co.*,  
655 F.3d 1364 (Fed. Cir. 2011) .....30

*In re Van Os*,  
844 F.3d 1359 (Fed. Cir. 2017) .....45

*VLSI Tech. LLC v. Intel Corp.*,  
Case No. 1:19-cv-00977-ADA .....5

*William Wesley Carnes, SR., Inc. v. Seaboard Int'l Inc.*,  
IPR2019-00133, Paper 10 (PTAB May 8, 2019) .....24

**Statutes**

35 U.S.C. § 314(a) .....4

35 U.S.C. § 325(d) .....2, 62

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.