UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES - GENERAL

Case No.	8:22-CV-01874-JVS (JDEx)	Date	August 2, 2023
Title	RJ Technology, LLC v. Apple, Inc.		

Present: The Honorable	**James V. Selna, U.S. District Court Judge**

Elsa Vargas	Not Present
Deputy Clerk	Court Reporter
Attorneys Present for Plaintiffs:	Attorneys Present for Defendants:
Not Present	Not Present

Proceedings: **[IN CHAMBERS] Order Regarding Claim Construction**

I. INTRODUCTION

Plaintiff RJ Technology LLC ("RJ") filed this patent infringement action against Defendant Apple Inc. ("Apple") alleging infringement of U.S. Patent No. 7,749,641 (the "'641 Patent" or "Asserted Patent"). (Second Amended Complaint ("SAC"), Dkt. No. 51.) The parties now seek construction of five claim terms in the Asserted Patent and have submitted a Joint Claim Construction and Prehearing Statement with their proposed constructions. (Dkt. No. 67.) Both parties submitted opening briefs (Apple Op. Br., Dkt. No. 68; RJ Op. Br., Dkt. No. 70) and responsive briefs (Apple Resp. Br., Dkt. No. 73; RJ Resp. Br., Dkt. No. 74). The Court conducted a claim construction hearing on August 1, 2023.

The Court construes the disputed terms as stated herein.

II. TECHNICAL BACKGROUND

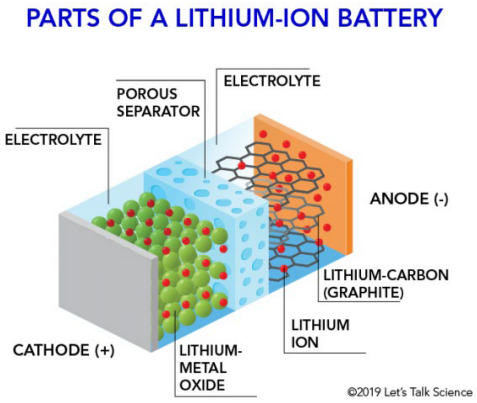
The '641 Patent concerns rechargeable, or secondary, lithium-ion batteries. At a base level, lithium-ion batteries consist of an anode, a cathode, an electrolyte, and a separator:

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES - GENERAL

Case No. 8:22-CV-01874-JVS (JDEx) Date August 2, 2023

Title RJ Technology, LLC v. Apple, Inc.



(RJ Op. Br. at 4; Declaration of Dr. Yan Yao ("Yao Decl."), Dkt. No. 70-1 ¶ 11–12; Declaration of Dr. Quinn Horn ("Horn Decl."), Dkt. No. 68-1 ¶ 22.) The anode (negative electrode) and the cathode (positive electrode) are composed of materials referred to as the "active materials." They are so named because the electrochemical reactions occur between these materials and ions in the electrolyte, which give rise to an electrical current (i.e., a flow of electrons). (Horn Decl. ¶ 22.) The anode is commonly composed of graphite, which is made of sheets of carbon. (Yao Decl. ¶ 11.) Cathodes are typically made of a compound of lithium, oxygen, and another element such as cobalt. (Id.) One common compound used for the positive electrode material at the time of the invention was lithium cobalt oxides. ('641 Patent at 1:64–66.)

The electrolyte, an ionically conducting material usually consisting of a salt dissolved in a solvent, permits lithium ions to flow between the anode and cathode. (Horn Decl. ¶ 22.) The separator physically separates the two electrodes within the cell. (Id.; Yao Decl. ¶ 12.) Batteries often contain other components such as current collectors which collect electrical current from the reactions taking place in the electrodes, the exterior case, and a battery management system which regulates charge and discharge of the battery. (Yao Decl. ¶ 12; Horn Decl. ¶ 26; '641 Patent at 1:10–11.)

When a lithium-ion battery is in a discharged state, most lithium ions are stored in the cathode. (Horn Decl. ¶ 25; Yao Decl. ¶ 14.) During charging, electrons flow from the cathode to the anode while lithium ions are simultaneously extracted from the cathode

electron that flows from the cathode to the anode corresponds to one lithium ion. (Id.) The electron then combines with a lithium ion in the electrolyte to form a lithium atom. (Id.) When the battery is discharged and is powering a device, the process reverses: electrons travel from the anode through the device, thereby powering it, and then arrive back at the cathode while lithium ions simultaneously leave the anode, travel across the separator, and settle back into the cathode. (Id.; Yao Decl. ¶ 15.)

Lithium-ion batteries are widely-used in modern electronic devices in part because they have a high energy capacity. (See '641 Patent at 1:21–27.) However, the batteries' volume limitations can restrict increased battery capacity, a goal for most manufacturers. (Id. at 1:27–30.) At the time of the Asserted Patent's invention, it was accepted in the battery industry that the charge cut-off voltage of a lithium-ion battery was limited to a maximum of 4.2 V. (Id. at 1:46–48.) Battery manufacturers did not raise the charge cut-off voltage beyond this maximum because doing so would produce deleterious effects, including "structural change" in the positive and negative electrode materials, decomposition of the electrolyte, and adverse effects to the recycle property of the cell. (Id. at 1:58–63.) However, the positive and negative electrode materials used in lithium ion batteries have higher "theoretical capacities," and therefore had the capability to store and release more lithium ions, than what was then used due mainly to the 4.2 V limitation. (Id. at 1:36–44.) Other industry members, largely unsuccessfully, attempted to increase battery capacity focused on changing the electrode materials, electrolyte, or battery shape. (Id. at 1:19–62; 2:63–74.) In contrast, the '641 Patent claims an invention that increases battery capacity by "increasing the charge cut-off voltage" above 4.2 V while "adjusting the ratio of positive electrode material to negative electrode material . . . from 1:1.0 to 1:2.5." (Id. at 3:7–12; 55–56.) In doing so, the Patentees discovered that the batteries could hold a higher charge without experiencing the poor recycle property or degradation of electrode materials that had come to be expected when the charge cut-off voltage was increased.

The '641 Patent has two independent claims sixteen dependent claims. (See id. at 16:53–18:28.) The parties request construction of five disputed terms which appear throughout the '641 Patent.

Independent Claim 5 of the '641 Patent recites:

> secondary lithium ion cell or battery has a charge cut-off voltage of greater than 4.2 V but less than 5.8 V, and a ratio of positive electrode material to negative electrode material of the secondary lithium ion cell or battery is from 1:1.0 to 1:2.5, as calculated by a theoretic capacity with a charge cut-off voltage set at 4.2 V.

(Id. at 17:5–11.)

Dependent Claims 9–15 recite:

> **9.** A secondary lithium ion cell or battery according to claim **5**, characterized in that the secondary lithium ion cell or battery has a first overcharging protection voltage of grater than 4.35 V, and an overcharging protection release voltage of greater than 4.15 V.
>
> **10.** A secondary lithium ion cell or battery according to claim **9**, characterized in that the secondary lithium ion cell or battery has a first overcharging protection voltage of greater than 4.45 V, and an overcharge protection release voltage of greater than 4.25 V.
>
> **11.** A secondary lithium ion cell or battery according to claim **5**, wherein the secondary lithium ion cell or battery maintains at least 7500 of capacity after 400 cycles.
>
> **12.** A secondary lithium ion cell or battery according to claim **5**, wherein the secondary lithium ion cell or battery maintains at least 75.83% of capacity over 400 cycles.
>
> **13.** A secondary lithium ion cell or battery according to claim **5**, wherein the secondary lithium ion cell or battery maintains at least 80% of capacity over 400 cycles.
>
> **14.** A secondary lithium ion cell or battery according to claim **5**, wherein the secondary lithium ion cell or battery maintains at least 80.72% of capacity over 400 cycles.

(Id. at 17:24–18:16.)

III. LEGAL STANDARD

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES - GENERAL

Case No. 8:22-CV-01874-JVS (JDEx) Date August 2, 2023

Title RJ Technology, LLC v. Apple, Inc.

It is well settled that claim construction is "exclusively within the province of the court." Markman v. Western Instruments, Inc., 517 U.S. 370, 372 (1996). Such construction "must begin and remain centered on" the claim language itself, Interactive Gift Express, Inc. v. Compuserve, Inc., 256 F.3d 1323, 1331 (Fed. Cir. 2001), but extrinsic evidence may also be consulted "if needed to assist in determining the meaning or scope of technical terms in the claims," Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1216 (Fed. Cir. 1995).

In construing the claim language, the Court begins with the principle that "the words of a claim are generally given their ordinary and customary meaning." Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). Further, this ordinary and customary meaning "is the meaning that the [claim] term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." Id. at 1313. "[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." Id.

"In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words. In such circumstances general purpose dictionaries may be helpful." Id. at 1314 (internal citation omitted). In other cases, "determining the ordinary and customary meaning of the claim requires examination of terms that have a particular meaning in a field of art." Id. In those cases, "the court looks to those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean." Id. (internal quotation marks omitted). These sources include "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." Id. (internal quotation marks omitted).

However, it is improper to read limitations from the specification into the claim. Callicrate v. Wadsworth Mfg., Inc., 427 F.3d 1361, 1368 (Fed. Cir. 2005) ("'[I]f we once begin to include elements not mentioned in the claim, in order to limit such claim . . . we should never know where to stop.'" (quoting Phillips, 415 F.3d at 1312)). "We do not

DOCKET ALARM

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.