

EXHIBIT A TO THE PARTIES’ JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT

I. Proposed Constructions of Disputed Terms

Term	Claim(s)	RJ Technology’s Proposed Construction	RJ Technology’s Identification of Intrinsic and Extrinsic Evidence	Apple’s Proposed Construction	Apple’s Identification of Intrinsic and Extrinsic Evidence
1. “charge cut-off voltage”	5-7	No construction is needed. If this term needs construction, it should be afforded its plain and ordinary meaning, which is the maximum voltage to which the battery is configured to be charged.	Specification of the ’641 patent: Abstract; 1:36–2:67; 3:3–16; 3:55–6:67; 7:23–29; 9:49–55; Examples 1–28; Tables 2-4. Prosecution History of the ’641 patent: • October 21, 2008 Applicant’s Remarks at 5-6 • May 15, 2009 Applicant’s Remarks at 6 • November 13, 2009 Applicant’s Remarks at 8-11 • Notice of Allowance of the ’641 patent at 2-3 Prosecution History of US Patent Application No. 12/817,028 • February 9, 2011 Applicant’s Remarks at 4 • August 25, 2011 Applicant’s Remarks at 4-7 • February 26, 2013 Applicant’s Remarks at 4-6	the voltage at which the charging changes from constant current charging to constant voltage charging	’641 Patent at 2:38–41, 4:43–46, 5:62–6:34, 8:19–24. Dkt. 42 at 3. ’641 Patent File History at Nov. 13, 2009 Amendment and Reply at 2–3. CNIPA Case No. 4W112700 10/27/2022 Response and Supplemental Documents after Oral Hearing Proceeding at 26, 27, 29, 30, 49. CNIPA Case No. 4W107411 08/07/2018 Response to Invalidation Request at 2-3. CNIPA Case No. 4W107411 09/12/2018 Response to Supplemental Invalidation Request at 7. Linden, D. et al., Handbook of Batteries (3d ed. 2001).

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			November 27, 2013 Applicant’s Pre-Appeal Brief Request for Review at 1-4 <i>Zou et al., Synthesis of High-Voltage (4.5V) Cycling Doped LiCoO2 for Use in Lithium Rechargeable Cells</i>, Chemistry of Materials, Vol. 15, No. 25 (2003) The People’s Republic of China National Standard - General Specification of Lithium-Ion Battery for Cellular Phone (GB/T 18287-2000) David Linden, Handbook of Batteries, McGraw-Hill Handbooks (2001) G.G. Amatucci et al., <i>Cobalt dissolution in LiCoO2-based non-aqueous rechargeable batteries</i>, 83 Solid State Ionics, 167-173 (1996) K. Brandt, <i>Historical development of secondary lithium batteries</i>, 69 Solid State Ionics 173-183 (1994)		Graf, R., Modern Dictionary of Electronics (7th ed. 1999). Dr. Horn may offer expert testimony that a POSA would have understood this term to have Apple’s proposed construction.

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			B. Johnson et al., <i>Characterization of commercially available lithium ion batteries</i>, 70 J. Power Sources 48-54 (1998) B. Johnson, <i>An Examination of the Performance of the Lithium-Ion Battery System</i> (1998) (Ph.D. dissertation, University of South Carolina) Kim et al., <i>Effect of Capacity Ratios between Anode and Cathode on Electrochemical Properties for Lithium Polymer Batteries</i>, 155 Electrochimica Acta 431-36 (2015) Chen et al., <i>Effect of N/P ratios on performance of LiNi0.8Co0.15Al0.05O2 SiOx/Graphite lithium-ion batteries</i>, 439 J. Power Sources 227056 (2019) Mayer et al., <i>Cycle Life Testing of Lithium-Ion Batteries for Small Sattelite LEO Space Missions</i>, Lawrence Livermore National Laboratory (1993)		

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			RJ Technology's expert may offer expert testimony, consistent with the intrinsic evidence and from the perspective of one of ordinary skill in the art at the time of the invention, that "charge cut-off voltage" as used in this patent has the meaning that Plaintiff proposes.		
2. "ratio of positive electrode material to negative electrode material as calculated by a theoretic capacity with a charge cut-off voltage set at 4.2 V"	5	No construction is needed. If this term needs construction, it should be afforded its plain and ordinary meaning: the ratio calculated as the product of the capacity of the cathode active material per mass unit and the amount of the cathode active material in the same mass unit divided by the product of the capacity of the anode active material per mass unit and the amount of the anode active material in the same mass unit, when the charge cutoff voltage is 4.2 V.	Specification of the '641 patent: Abstract; 1:36–44; 1:64–2:3; 3:7–12; 4:5–9; 4:27–42; 6:43–67; 7:1–8; 7:22–50; Examples 1–28 Prosecution History of the '641 patent: - May 15, 2009 Applicant's Remarks at 7 - November 13, 2009 Applicant's Remarks at 8 - Notice of Allowance of the '641 patent Prosecution History of US Patent Application No. 12/817,028	Indefinite. In the alternative, the ratio calculated as the product of the theoretic capacity of the cathode active material per mass unit and the amount of the cathode active material in the same mass unit divided by the product of the capacity of the anode active material per mass unit and the amount of the anode active material in the same mass unit, when the cell charge cutoff voltage is set at 4.2 V, wherein "theoretic capacity" means "theoretical, rather than actual, capacity that assumes all of the active substances	'641 Patent at 1:24–30, 1:35–44, 1:64–67, 2:38–41, 3:7–12, 4:5–9, 4:32–36, 4:43–46, 6:50–53, 7:3–6, 8:4–24. '641 Patent File History at Nov. 13, 2009 Amendment and Reply at 7–8, 10–12. '641 Patent File History at Aug. 14, 2009 Office Action at 2–4. '641 Patent File History, Sept. 4, 2009 Office Action at 2–4. '641 Patent File History at May 15, 2009 Amendment and Reply at 7.

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			- February 9, 2011 Applicant's Remarks at 4 - August 25, 2011 Applicant's Remarks at 4-7 - February 26, 2013 Applicant's Remarks at 4-6 - November 27, 2013 Applicant's Pre-Appeal Brief Request for Review at 1-4 David Linden, Handbook of Batteries, McGraw-Hill Handbooks (2001) K. Brandt, <i>Historical development of secondary lithium batteries</i>, 69 Solid State Ionics 173-183 (1994) B. Johnson et al., <i>Characterization of commercially available lithium ion batteries</i>, 70 J. Power Sources 48-54 (1998) B. Johnson, An Examination of the Performance of the Lithium-Ion Battery System (1998) (Ph.D. dissertation, University of South Carolina)	participate in the reaction of the battery"	'641 Patent File History at Jan. 16, 2009 Office Action at 3-4. '641 Patent File History at July 21, 2008 Office Action at 2-4. U.S. Patent No. 5,260,148 at 2:14-19, 2:20-24, 3:14-19, 3:20-23, 9:15-16. U.S. Patent Pub. No. US 2003/0113613 A1 at Abstract, [0003], [0005], [0006], [0012], [0014], [0016], [0018], [0019], [0027], [0031], [0033], [0034]. CNIPA Case No. 4W112700 11/15/2021 Response to Evidence and Opinions issued on September 24, 2021 at 4. CNIPA Case No. 4W107411 09/12/2018 Response to Supplemental Invalidation Request at 8-9.

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			Kim et al., <i>Effect of Capacity Ratios between Anode and Cathode on Electrochemical Properties for Lithium Polymer Batteries</i>, 155 <i>Electrochimica Acta</i> 431-36 (2015) Chen et al., <i>Effect of N/P ratios on performance of LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ SiO_x/Graphite lithium-ion batteries</i>, 439 <i>J. Power Sources</i> 227056 (2019) Luo et al., <i>Examining Effects of Negative to Positive Capacity Ratios in Three-Electrode Lithium-Ion Cells with Layered Oxide Cathode and Si Anode</i>, 5 <i>Appl. Energy Mater.</i> 5513-18 (2022) RJ Technology’s expert may offer expert testimony, consistent with the intrinsic evidence and from the perspective of one of ordinary skill in the art at the time of the invention, that “as calculated by a theoretic capacity with a charge cut-off voltage set at 4.2 V” as		CNIPA Case No. 4W112700 10/27/2022 Response and Supplemental Documents after Oral Hearing Proceeding at 8, 14–15, 24. Dkt. 42 at 3, 7, 10–11, 14, 15. Linden, D. et al., <i>Handbook of Batteries</i> (3d ed. 2001). Graf, R., <i>Modern Dictionary of Electronics</i> (7th ed. 1999). Chambers, A. et al., <i>Power Industry Dictionary</i> (1996). Gibilisco, S., <i>The Illustrated Dictionary of Electronics</i> (7th ed. 1997). March 20, 2023 Hearing Transcript 22:6–23:14, 23:20–24:17, 25:2–25:10, 25:20–27:5, 27:18–28:8, 28:9–20, 35:17–36:11. Dr. Horn may offer expert testimony that the ’641 Patent does not contain sufficient

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			used in this patent has the meaning that Plaintiff proposes.		written description to demonstrate to a POSA that the inventor had possession of the invention at the time the application was filed. Dr. Horn may further offer expert testimony that a POSA would not understand how to make and use the invention. Dr. Horn may further offer expert testimony that, to the extent the term has any definite meaning within the context of the patent, a POSA would have understood this term to have Apple’s proposed construction.
3. “A secondary lithium ion cell or battery”	5	No construction is needed. <i>See</i> RJ Technology’s proposed construction for the term “as calculated by a theoretic capacity with a charge cut-off voltage set at 4.2 V”	<i>See</i> RJ Technology’s evidence for the term “as calculated by a theoretic capacity with a charge cut-off voltage set at 4.2 V”	A lithium ion battery, wherein the battery electrode materials must not be substantially changed from what was available in the art and made without substantially decomposing the electrolyte, which can be recharged to its original capacity, without any decreased capacity or cycle life at a charge cut-off voltage above 4.2V	’641 Patent at 1:24–30, 1:64–67, 2:38–41, 3:7–12, 4:43–46, 6:50–53, 7:3–6. ’641 Patent File History at Nov. 13, 2009 Amendment and Reply at 7–8, 10–12. ’641 Patent File History at Aug. 14, 2009 Office Action at 2–4.

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					’641 Patent File History at May 15, 2009 Amendment and Reply at 6–10. ’641 Patent File History at Jan. 16, 2009 Office Action at 3–4. ’641 Patent File History at Oct. 21, 2008 Amendment and Reply at 5–6. ’641 Patent File History at July 21, 2008 Office Action at 2–4. Linden, D. et al., Handbook of Batteries (3d ed. 2001). Graf, R., Modern Dictionary of Electronics (7th ed. 1999). Chambers, A. et al., Power Industry Dictionary (1996). Gibilisco, S., The Illustrated Dictionary of Electronics (7th ed. 1997).

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					U.S. Patent No. 5,260,148 at 2:14–19, 2:20–24, 3:14–19, 3:20–23, 9:15–16. U.S. Patent Pub. No. US 2003/0113613 A1 at Abstract, [0003], [0005], [0006], [0012], [0014], [0016], [0018], [0019], [0027], [0031], [0033], [0034]. CNIPA Case No. 4W112700 11/15/2021 Response to the Invalidation Request at 5. Dkt. 42 at 3, 7, 10–11, 14, 15. March 20, 2023 Hearing Transcript 17:10–17:15, 17:22–18:19, 19:1–3, 19:23–25, 20:4–7, 27:18–28:8, 35:17–36:11. Dr. Horn may offer expert testimony that a POSA would have understood this term to have Apple’s proposed construction.

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4. "overcharging protection voltage" / "overcharging protection release voltage" / "overcharge protection release voltage"	9, 10	No construction is needed. If this term needs construction, "overcharging protection voltage" should be afforded its plain and ordinary meaning, which is the voltage level at which the battery's protection mechanism(s) engages to prevent the battery from being charged to a higher voltage. No construction is needed. If this term needs construction, it should be afforded its plain and ordinary meaning, which is the voltage level at which a battery's protection mechanism(s) disengages or resets.	Specification of the '641 patent: 1:51–55; 3:34–44; 9:24–48; 16:7–10. David Linden, Handbook of Batteries, McGraw-Hill Handbooks (2001) B. Johnson et al., <i>Characterization of commercially available lithium ion batteries</i>, 70 J. Power Sources 48-54 (1998) B. Johnson, An Examination of the Performance of the Lithium-Ion Battery System (1998) (Ph.D. dissertation, University of South Carolina) Kim et al., <i>Effect of Capacity Ratios between Anode and Cathode on Electrochemical Properties for Lithium Polymer Batteries</i>, 155 Electrochimica Acta 431-36 (2015) Chen et al., <i>Effect of N/P ratios on performance of LiNi0.8Co0.15Al0.05O2</i>	Overcharging protection voltage / release voltage, implemented in the secondary lithium ion cell or battery, and not in a protection circuit	'641 Patent at 9:24–48. '641 Patent File History at Nov. 13, 2009 Amendment and Reply at 2–3. '641 Patent File History at Aug. 14, 2009 Office Action at 2–4. '641 Patent File History at Jan. 16, 2009 Office Action at 4. '641 Patent File History at June 20, 2008 Response at 1. '641 Patent File History at May 23, 2008 Office Action at 2. Dkt. 42 at 7, 12. Dr. Horn may further offer expert testimony that a POSA would have understood this term to have Apple's proposed construction.

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			<i>SiOx/Graphite lithium-ion batteries</i>, 439 J. Power Sources 227056 (2019) Luo et al., <i>Examining Effects of Negative to Positive Capacity Ratios in Three-Electrode Lithium-Ion Cells with Layered Oxide Cathode and Si Anode</i>, 5 Appl. Energy Mater. 5513-18 (2022) RJ Technology’s expert may offer expert testimony, consistent with the intrinsic evidence and from the perspective of one of ordinary skill in the art at the time of the invention, that “overcharging protection voltage” and “overcharging protection release voltage” as used in this patent has the meaning that Plaintiff proposes.		
5. “maintains at least 7500 of capacity after 400 cycles”; “maintain at least 75% of capacity after 400 cycles”; “maintains at least 75.83% of capacity after	11-14	No construction is needed. If this term needs construction, it should be afforded its plain and ordinary meaning, which means “maintains at least 75%/75.83%/80%/80.72% of	Specification of the ’641 patent: 3:2–7; 5:13–15; Examples 1–28 Prosecution History of the ’641 patent:	Indefinite	Dr. Horn may offer expert testimony that the ’641 Patent does not contain sufficient written description to demonstrate to a POSA that the inventor had possession of

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400 cycles”; “maintains at least 80% of capacity after 400 cycles”; “maintains at least 80.72% of capacity after 400 cycles”		capacity after 400 complete charge and discharge cycles of the battery”	- May 15, 2009 Applicant’s Remarks at 10–11 - November 13, 2009 Applicant’s Remarks at 8–12 David Linden, Handbook of Batteries, McGraw-Hill Handbooks (2001) B. Johnson et al., <i>Characterization of commercially available lithium ion batteries</i>, 70 J. Power Sources 48-54 (1998) B. Johnson, An Examination of the Performance of the Lithium-Ion Battery System (1998) (Ph.D. dissertation, University of South Carolina) Kim et al., <i>Effect of Capacity Ratios between Anode and Cathode on Electrochemical Properties for Lithium Polymer Batteries</i>, 155 Electrochimica Acta 431-36 (2015) Chen et al., <i>Effect of N/P ratios on performance of</i>		the invention at the time the application was filed. Dr. Horn may further offer expert testimony that a POSA would not understand how to make and use the invention.

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			<i>LiNi0.8Co0.15Al0.05O2 SiOx/Graphite lithium-ion batteries</i>, 439 J. Power Sources 227056 (2019) Luo et al., <i>Examining Effects of Negative to Positive Capacity Ratios in Three-Electrode Lithium-Ion Cells with Layered Oxide Cathode and Si Anode</i>, 5 Appl. Energy Mater. 5513-18 (2022) RJ Technology’s expert may offer expert testimony, consistent with the intrinsic evidence and from the perspective of one of ordinary skill in the art at the time of the invention, that these terms as used in this patent have the meaning that Plaintiff proposes.		