

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

TESLA, INC.,

Plaintiff,

v.

CAP-XX, LTD.,

Defendant.

Case No.

DEMAND FOR JURY TRIAL

**PLAINTIFF TESLA, INC.'S COMPLAINT FOR
PATENT INFRINGEMENT**

Plaintiff Tesla, Inc. ("Plaintiff" or "Tesla") hereby alleges for its Complaint against Defendant CAP-XX, Ltd. ("Defendant" or "CAP-XX") as follows:

NATURE OF ACTION

1. This is an action for infringement of United States Patent Nos. 8,279,580 (the "'580 patent") and 8,591,601 (the "'601 patent") (collectively, the "Asserted Patents") under the Patent Laws of the United States, 35 U.S.C. § 271, et seq. A true and accurate copy of the '580 patent is attached as **Exhibit A** and a true and accurate copy of the '601 patent is attached as **Exhibit B**.

2. CAP-XX previously filed suit against Maxwell Technologies, Inc. ("Maxwell"), which is a subsidiary of Tesla, alleging that Maxwell infringed U.S. Pat. Nos. 6,920,034 and 7,382,600. Maxwell has a history of innovation that has resulted in its own patents, now assigned to Tesla, and thus Tesla brings this suit against CAP-XX to protect its intellectual property rights.

PARTIES

3. Plaintiff Tesla is a multinational automotive and clean energy company, having a principal address at 13101 Tesla Road, Austin, Texas 78725.

4. Defendant CAP-XX is an Australian company with a principal place of business at Unit 9, 12 Mars Road, Lane Cove, NSW, 2066, Australia.

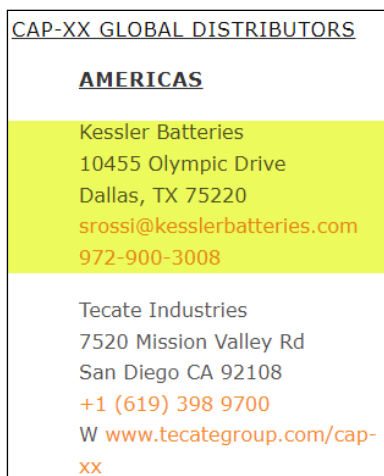
JURISDICTION AND VENUE

5. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 271, *et seq.* This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338.

6. This Court has personal jurisdiction over CAP-XX pursuant to the laws of the State of Texas, including Texas Civil Practice and Remedies Code § 17.042.10, because CAP-XX is engaged in substantial and not isolated activity within the State of Texas. This Court has specific jurisdiction over CAP-XX because CAP-XX (a) has committed acts of infringement in the State of Texas giving rise to this action; and (b) has established more than minimum contacts within the State of Texas, such that exercise of jurisdiction over CAP-XX in this Court would not offend traditional notions of fair play and substantial justice.

7. CAP-XX markets and distributes its infringing supercapacitor products throughout the world, including all fifty states of the United States, and throughout Texas, and has established distribution channels for its supercapacitor products in Texas.

8. For example, CAP-XX's website describes that its distributors are in the United States, including in Texas:



9. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391(c)(3) because CAP-XX is a foreign corporation and may be sued in any judicial district.

THE ASSERTED PATENTS

10. On October 2, 2012, the '580 patent, entitled "Electrode for Energy Storage Device with Microporous and Mesoporous Activated Carbon Particles," was duly and legally issued by the United States Patent and Trademark Office. The '580 patent names Linda Zhong and Xiaomei Xi as inventors.

11. On November 26, 2013, the '601 patent, entitled "Electrode for Energy Storage Device with Microporous and Mesoporous Activated Carbon Particles," was duly and legally issued by the United States Patent and Trademark Office. The '601 patent names Linda Zhong and Xiaomei Xi as inventors.

12. Drs. Zhong and Xi assigned their rights as inventors to the Asserted Patents to Maxwell Technologies, Inc. Maxwell Technologies Inc. later assigned its rights to the Asserted Patents to Tesla, Inc. Plaintiff is currently the owner of the entire right, title, and interest of the Asserted Patents.

13. The Asserted Patents are generally directed to an electrode for use in electrochemical double layer capacitors (EDLCs) (commonly known as “supercapacitors”), hybrid capacitors, and battery devices. A supercapacitor’s electrodes are the primary source of the device’s power capabilities – double layers of charges are formed at the interface between the electrodes and the electrolyte in which they are immersed.

14. Electrodes are often made from porous carbon materials whereby the pores help provide large effective surface areas for interaction with the electrolyte. The size of the pores impacts the overall effective surface area of the electrode. The electrodes according to the invention of the Asserted Patents use a combination of micropores and mesopores.

15. Claim 1 of the ’580 patent is exemplary and recites:

1. An electrode for an energy storage device comprising:
a current collector; and
a film of active electrode material attached to the current collector, wherein the total amount of activated carbon having between about 70 and 98 percent microporous activated carbon particles of the total amount of activated carbon by weight and between about 2 and 30 percent mesoporous activated carbon parties of the total amount of activated carbon by weight.

(Ex. A (’580 patent), cl. 1.)

16. Claim 1 of the ’601 patent is also exemplary and recites:

1. A method of making an active electrode material, the method comprising:
providing activated carbon having between about 70 and 98 percent microporous activated carbon particles of a total amount of activated carbon by weight and between about 2 and 30 percent mesoporous activated carbon particles of the total amount of activated carbon by weight;
providing binder; and
mixing the activated carbon and the binder to form an active electrode material mixture.

(Ex. B (’601 patent), cl. 1.)

CAP-XX'S INFRINGING PRODUCTS

17. CAP-XX is a manufacturer and distributor of supercapacitor products.

18. CAP-XX's supercapacitor products use electrodes. For example, patents assigned to CAP-XX show that CAP-XX's products are "charge storage device[s]" that include electrodes. (*See, e.g.*, Ex. C (U.S. Patent No. 7,382,600), cl. 1 (describing a "charge storage device comprising: a first electrode; [and] a second electrode being spaced apart from the first electrode").)

19. Other of CAP-XX's public documents similarly describe the use of electrodes in CAP-XX supercapacitor products. (*See* Ex. D (Product Guide) at 14 (describing "failure modes" including from "misalignment of the separator between electrodes.").)

20. The electrodes of CAP-XX's supercapacitors include current collectors. Among other functions, the current collectors collect energy generated by the electrodes and conduct that energy to the device terminals, which transfer energy to applications external to the supercapacitor.

21. Patents assigned to CAP-XX inform that CAP-XX's supercapacitor products have current collectors. For example, U.S. Patent Application 2014/0098466, assigned to CAP-XX, describes:

"These supercapacitors developed by the Applicant ... include two opposed electrodes maintained in a predetermined spaced apart electrically isolated configuration by an intermediate electronically insulating separator. ***The electrodes consist of metal current collectors*** and a coating material typically formed from particulate carbon and a binder used for adhering the carbon to itself and to the associate current collector."

(Ex. E at [0021] (emphasis added).)

22. Publicly available research on current collectors also confirms that CAP-XX's supercapacitor products use current collectors. (*See* Ex. F ("Recent Advances and Challenges of Current Collectors for Supercapacitors") at 2 (describing that most companies, including CAP-

XX, “produce supercapacitors based on carbon electrodes with organic electrolytes and aluminum current collectors”).)

23. Electrodes in CAP-XX’s supercapacitor products contain a film of active electrode material, wherein the active electrode material comprises a total amount of activated carbon having between about 70% and 98% microporous activated carbon particles by weight and between about 2% and 30% mesoporous activated carbon particles by weight.

24. Testing of CAP-XX’s DMF3, GS206F, HS230F products demonstrate that CAP-XX’s supercapacitor products use an active electrode material made with a combination of microporous and mesoporous activated carbon particles within the ranges claimed by the Asserted Patents.

25. Other of CAP-XX’s products include similar ratios of microporous and mesoporous activated carbon particles that fall within the ranges claimed by the Asserted Patents.

26. CAP-XX has been selling, offering for sale, and/or importing products into the United States that infringe the Asserted Patents. On or about December 5, 2022, Tesla provided CAP-XX actual notice of its infringement of the Asserted Patents, explained that the claims of the Asserted Patents cover at least the supercapacitor products detailed in Appendix A accompanying Tesla’s December 5 letter, and offered to license the Asserted Patents to CAP-XX. CAP-XX refused to take a license to the Asserted Patents and willfully continued with its infringing activities.

27. At all relevant times since December 5, 2022, CAP-XX had actual knowledge of the Asserted Patents; it had knowledge that it uses, sells, offers for sale, and/or imports products that infringe the Asserted Patents; and it encouraged others to infringe those patents through its activities.

28. CAP-XX's actions, alone and in conjunction with others, constitute a willful infringement of the Asserted Patents and exceptional circumstances pursuant to 35 U.S.C. §§ 284 and 285.

COUNT 1
Infringement of the '580 patent

29. Plaintiff restates and realleges the preceding paragraphs of this Complaint.

30. In violation of 35 U.S.C. § 271, CAP-XX has infringed and/or induced others to infringe of one or more claims of the '580 patent, including but not limited to claim 1, literally and/or under the doctrine of equivalents, by among other things, making, using, offering for sale, selling, and/or importing into the United States unlicensed products in a manner that infringes the '580 patent. These products include the DMF3, GS206F, and HS230F supercapacitor products, as well as all of CAP-XX's prismatic supercapacitors, cylindrical supercapacitors, large supercapacitors, coin cell supercapacitors, lithium-ion/hybrid supercapacitors, and module product supercapacitors, as identified to CAP-XX in Tesla's December 5, 2022, letter.

31. CAP-XX's supercapacitors infringe at least exemplary claim 1 of the '580 patent.

32. CAP-XX's supercapacitor products are energy storage devices that contain electrodes.

33. The electrodes of CAP-XX's supercapacitor products comprise, in part, a current collector.

34. The electrodes of CAP-XX's supercapacitor products comprise a film of active electrode material attached to the current collector.

35. The active electrode material comprises a total amount of activated carbon having between about 70 and 98 percent microporous activated carbon particles of the total amount of

activated carbon by weight and between about 2 and 30 percent mesoporous activated carbon particles of the total amount of activated carbon by weight.

36. In view of the foregoing, CAP-XX has infringed and continues to infringe the '580 patent in violation of 35 U.S.C. § 271.

37. CAP-XX has had knowledge of the '580 patent and that its activities infringe the '580 patent long before the filing of this action. For example, CAP-XX has had knowledge of the '580 patent and its infringement thereof due to its research into Maxwell's technology and patent filings. CAP-XX received further notice of its infringement when Tesla sent CAP-XX a letter on December 5, 2022.

38. CAP-XX takes active steps to knowingly induce infringement of the '580 patent by directing, encouraging, promoting, and instructing others to make, use, offer for sale, sell, and/or import the infringing products in the United States.

39. Plaintiff is entitled to the relief provided by 35 U.S.C. § 284, including, *inter alia*, damages adequate to compensate Plaintiff for the infringement, but not less than a reasonable royalty and/or lost profits for the use made of the invention of the '580 patent by CAP-XX, together with interest and costs.

40. Despite having actual notice of the '580 patent, CAP-XX continued to actively infringe the '580 patent in disregard of Plaintiff's rights, making this case exceptional and entitling Plaintiff to reasonable attorney's fees pursuant to 35 U.S.C. § 285.

COUNT 2
Infringement of the '601 patent

41. Plaintiff restates and realleges the preceding paragraphs of this Complaint.

42. In violation of 35 U.S.C. § 271, CAP-XX has infringed and/or induced others to infringe of one or more claims of the '601 patent, including but not limited to claim 1, literally and/or under the doctrine of equivalents, by among other things, making, using, offering for sale, selling, and/or importing into the United States unlicensed products made by the claimed method in a manner that infringes the '601 patent. These products include the DMF3, GS206F, and HS230F supercapacitor products, as well as all of CAP-XX's prismatic supercapacitors, cylindrical supercapacitors, large supercapacitors, coin cell supercapacitors, lithium-ion/hybrid supercapacitors, and module product supercapacitors, as identified to CAP-XX in Tesla's December 5, 2022, letter.

43. CAP-XX's supercapacitors have electrodes that are made by a method that infringes at least exemplary claim 1 of the '601 patent.

44. CAP-XX makes the active electrode material used in its supercapacitor products by mixing activated carbon and a binder to form an active electrode material mixture.

45. The active electrode material comprises a total amount of activated carbon having between about 70 and 98 percent microporous activated carbon particles of the total amount of activated carbon by weight and between about 2 and 30 percent mesoporous activated carbon particles of the total amount of activated carbon by weight.

46. In view of the foregoing, CAP-XX has infringed and continues to infringe the '601 patent in violation of 35 U.S.C. § 271.

47. CAP-XX has had knowledge of the '601 patent and that its activities infringe the '601 patent long before the filing of this action. For example, CAP-XX has had knowledge of

the '601 patent and its infringement thereof due to research into Maxwell's technology and patent filings. CAP-XX received further notice of its infringement when Tesla sent CAP-XX a letter on December 5, 2022.

48. CAP-XX takes active steps to knowingly induce infringement of the '601 patent by directing, encouraging, promoting, and instructing others to make, use, offer for sale, sell, and/or import the products made by the infringing method in the United States.

49. Plaintiff is entitled to the relief provided by 35 U.S.C. § 284, including, *inter alia*, damages adequate to compensate Plaintiff for the infringement, but not less than a reasonable royalty and/or lost profits for the use made of the invention of the '601 patent by CAP-XX, together with interest and costs.

50. Despite having actual notice of the '601 patent, CAP-XX continued to actively infringe the '601 patent in disregard of Plaintiff's rights, making this case exceptional and entitling Plaintiff to reasonable attorney's fees pursuant to 35 U.S.C. § 285.

DEMAND FOR JURY TRIAL

51. Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiff hereby demands a trial by jury on all issues triable to a jury.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully request that this Court:

- A. Enter judgment that CAP-XX has infringed one or more claims of the '580 patent;
- B. Enter judgment that CAP-XX has infringed one or more claims of the '601 patent;
- C. Award Plaintiff damages in an amount sufficient to compensate it for CAP-XX's infringement of one or more claims of the '580 patent and the '601 patent, together with pre-judgment and post-judgment interest costs, and all other damages permitted under 35 U.S.C. § 284;
- D. Declare that this be an exceptional case within the meaning of 35 U.S.C. § 285;
- E. Award Plaintiff its costs in this action, together with reasonable attorneys' fees and pre-judgment and post-judgment interest;
- F. Perform an accounting of CAP-XX's infringing activities through trial and judgment;
- G. Award Plaintiff such other and further relief, including other monetary and equitable relief, as this Court deems just and proper.

Dated: July 14, 2023

FISH & RICHARDSON P.C.

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