

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

SK INNOVATION CO., LTD.,

Plaintiff,

v.

LG CHEM, LTD, LG CHEM MICHIGAN
INC., AND LG ELECTRONICS, INC.

Defendants.

C.A. No. _____

DEMAND FOR JURY TRIAL

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff SK Innovation Co., Ltd. (“SK Innovation”) files this Complaint for patent infringement under 35 U.S.C. § 271 against LG Chem, Ltd. and LG Chem Michigan Inc. (each a “Defendant” and collectively “LG Chem”), and LG Electronics, Inc. (a “Defendant” or “LGE”) (collectively “Defendants”), and alleges as follows:

OVERVIEW

1. This is a civil action for infringement of U.S. Patent No. 9,698,398 (“the ‘398 Patent”) under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq.*
2. SK Innovation was founded in 1962 in South Korea, known then as the Korea Oil Corporation. SK Innovation was Korea’s first and is currently Korea’s largest energy-chemical company. SK Innovation and its subsidiaries (including SK Battery America, Inc.) have over 6,500 employees world-wide. In a sign of its confidence in the United States’ burgeoning electric vehicle market, in 2018, SK Innovation announced that it was planning to spend over \$1 billion to build its first electric vehicle battery plant in the United States, with an annual capacity of 9.8

gigawatt-hours of batteries. The battery plant has been under construction in Georgia since the groundbreaking ceremony in March 2019.

3. Since its founding over 50 years ago, SK Innovation has led Korea's energy industry through ceaseless innovation and technology development and is recognized as a global leader in new energy technologies, in particular for electric vehicle ("EV") batteries. SK Innovation was the first company to successfully apply high energy density ternary materials to lithium-ion batteries for mass production in the EV battery industry. Based on its superior technological capabilities, SK Innovation has worked with major global automakers since 2010 to provide EV batteries for the global market. For example, SK Innovation was selected by Hyundai to provide batteries for its BlueOn, Korea's first electric vehicle, and for the KIA Ray. Mercedes-AMG, Daimler-AG's high-performance automobile division, selected SK Innovation to supply batteries for the SLS AMG E-cell vehicle, Mercedes-AMG's first electric car.

4. SK Innovation is a leading researcher and developer across the entire value chain for mid/large-sized battery production, ranging from electrodes and separators to battery cells, battery modules and battery packs. SK Innovation's battery products are used throughout the world in electric vehicles (EVs), plug-in hybrid electric vehicles (PHEVs), hybrid vehicles (HEVs), universal power supplies (UPS), renewable energy projects, and smart grids.

5. SK Innovation and its subsidiaries currently have over 1,000 U.S. patents and patent applications covering SK Innovation's various business areas. A part of SK Innovation's patent portfolio relates to chemical electrical technologies, and in particular the lithium-ion battery technology that is the subject of this Complaint.

PARTIES

6. Plaintiff SK Innovation is a corporation organized and existing under the laws of South Korea, and maintains its principal place of business at 26 Jong-ro, Jongno-gu, Seoul 03188, South Korea.

7. On information and belief, Defendant LG Chem, Ltd. is a South Korean corporation with its principal place of business at 128 Yeoui-daero, Yeongdeungpo-gu, Seoul 07336, South Korea.

8. On information and belief, Defendant LG Chem Michigan Inc. is a corporation organized under the laws of the State of Delaware, and maintains its principal place of business at 1 LG Way, Holland, Michigan 49423. On information and belief, LG Chem Michigan Inc. is a wholly-owned subsidiary of LG Chem, Ltd. On information and belief, LG Chem Michigan Inc. may be served with process through its registered agent Corporation Service Company at 251 Little Falls Drive, Wilmington, Delaware 19808.

9. On information and belief, Defendant LG Electronics, Inc. is a South Korean corporation with a principal place of business at LG Twin Towers, 128 Yeoui-daero, Yeongdungpo-gu, Seoul, 07366, South Korea.

JURISDICTION AND VENUE

10. This Court has exclusive subject matter jurisdiction over this case under 28 U.S.C. §§ 1331 and 1338.

11. Venue is proper in this Court under 28 U.S.C. §§ 1391 and 1400(b). Defendants LG Chem, Ltd. and LG Electronics, Inc. are foreign entities, and thus, venue is proper in this judicial district. On information and belief, all of the Defendants have committed acts of infringement in this judicial district, and have purposefully transacted business involving the accused products in the United States and this judicial district.

12. This Court has personal jurisdiction over the Defendants because (1) SK Innovation's claims arise in whole or in part from Defendants' conduct in the State of Delaware; (2) LG Chem, Ltd. has sought the protection and benefit from the laws of the State of Delaware and regularly conducts business in the State of Delaware by incorporating subsidiaries, including LG Chem Michigan Inc., in the State of Delaware; (3) All of the Defendants regularly conduct business throughout the United States, including the State of Delaware, and contract to supply services or things in Delaware; (4) All of the Defendants have contacts purposefully directed at the United States and the State of Delaware and have continuous and systematic contacts with the United States and the State of Delaware; (5) All of the Defendants have placed infringing products into the stream of commerce through an established distribution channel with the expectation or knowledge that they will be purchased by consumers in the United States and the State of Delaware; and (6) All of the Defendants have caused tortious injury in the State of Delaware.

13. LG Chem, Ltd. maintains a United States version of its website at <https://www.lgchem.com/us/main>. On this website, LG Chem, Ltd. provides information regarding its activities and products, including LG Chem, Ltd.'s Automotive Batteries, which include the infringing secondary batteries and systems. On information and belief, LG Chem, Ltd.'s website is directed to marketing, offering for sale, and sales of its products and services in the United States and in the State of Delaware.

14. LG Electronics, Inc. maintains a United States version of its website at <https://www.lg.com/us>. On this website, LG Electronics, Inc. provides information regarding its activities and products. On information and belief, LG Electronics, Inc.'s website is directed to

marketing, offering for sale, and sales of its products and services in the United States and in the State of Delaware.

15. Defendants LG Chem, Ltd., and LG Electronics, Inc. have also derived benefits from the laws of the United States. For example, Defendants LG Chem, Ltd. and LG Electronics, Inc. have filed litigations in the United States, including based on claims for patent infringement. On information and belief, Defendants LG Chem, Ltd., and LG Electronics, Inc. derive substantial revenues from their regularly conducted business activities throughout the United States and the State of Delaware. On information and belief, Defendants LG Chem, Ltd. and LG Electronics, Inc. receive substantial revenue from their activities and the activities of their U.S. subsidiaries in the United States. On information and belief, Defendants LG Chem, Ltd. and LG Electronics, Inc. are in regular contact with their subsidiaries and affiliates in the United States and direct communication into the United States.

THE ASSERTED PATENT

16. On July 4, 2017, the '398 Patent was duly and legally issued for an invention titled "Secondary Battery Module." The '398 Patent claims priority to Korean Patent Application 10-2012-0131733, filed November 20, 2012. SK Innovation owns all rights to the '398 Patent necessary to bring this action, including the exclusive right to recover for past infringement. A true and correct copy of the '398 Patent is attached as Exhibit 1.

17. The '398 Patent generally relates to a secondary battery module having a stable and reliable structure in which an adhesive pad is inserted between unit cells from one side of the secondary battery module. The invention of the '398 Patent solves the problems associated with the reliability in electrical properties of stacked secondary battery modules and stability in operation of devices that use the secondary battery modules. One embodiment of the invention of the '398 Patent provides a secondary battery module which includes a first unit cell and a second

unit cell, with each unit cell having a contact surface. In this embodiment, a partition member is disposed between the first and second unit cells and the partition member has a frame. In this embodiment, an adhesive pad is disposed only within the frame of the partition member so that the frame completely surrounds the adhesive pad. In this embodiment, the adhesive pad is coextensive and in contact with the contact surface of the first and second unit cells.

GENERAL ALLEGATIONS

18. The products that infringe one or more claims of the '398 Patent (the "Accused Products") include, but are not limited to, secondary battery cells that are made by LG Chem, and secondary battery modules and secondary battery packs that are made by LGE using components made by LG Chem.

19. On information and belief, LG Chem has and continues to at least indirectly infringe one or more claims of the '398 Patent in violation of 35 U.S.C. § 271 (b).

20. On information and belief, LG Chem may have directly infringed and/or contributed to the infringement of, and may continue to infringe and/or contribute to the infringement of, one or more claims of the '398 Patent in violation of 35 U.S.C. § 271 (a) and (c) at least based on its activities in Michigan, for which SK Innovation reserves the right to assert claims of direct and/or contributory infringement.

21. On information and belief, LGE has and continues to directly and indirectly infringe one or more claims of the '398 Patent in violation of 35 U.S.C. § 271(a), (b), and (c).

22. Defendants are knowledgeable about the '398 Patent and infringing acts at least as of the date on which they are properly served with this Complaint. During the prosecution of LG Chem's Korean Patent No. 1812753, the Korean Intellectual Property Office cited a Korean counterpart application of the '398 Patent (KR Patent Publication No. 10-2014-0064418) as prior art in an office action dated April 20, 2017.

23. Defendants' acts of infringement have caused damage to SK Innovation. SK Innovation is entitled to recover from Defendants the past damages sustained by SK Innovation as a result of Defendants' wrongful acts in an amount subject to proof at trial. SK Innovation is also entitled to recover from Defendants a compulsory future royalty payable on each infringing product sold by Defendants following trial or that is not captured in the damages awarded to SK Innovation.

CLAIMS FOR PATENT INFRINGEMENT

24. SK Innovation identifies below an exemplary claim for the '398 Patent to demonstrate infringement by exemplary products. However, the selection of exemplary claims and exemplary products should not be considered limiting, and additional infringing products and infringed claims of the '398 Patent will be disclosed in compliance with the Court's rules related to infringement contentions as discovery progresses.

COUNT I: PATENT INFRINGEMENT OF THE '398 PATENT

25. SK Innovation incorporates by reference the preceding paragraphs.

26. On information and belief, LGE directly infringes, induces the infringement of, and contributes to the infringement of one or more claims of the '398 Patent, including at least claim 1, either literally or under the doctrine of equivalents.

27. On information and belief, LGE directly infringes the '398 Patent by, for example, assembling, or causing to have assembled, the VISTA 2.0 Cell Module Assembly in its plant in Hazel Park, Michigan for use in GM's Chevrolet Bolt electrical vehicles.

28. On information and belief, LGE induces the infringement of the '398 Patent by third parties, including without limitation automobile manufactures, by actively encouraging third parties to make, use, offer to sell, sell, or import into the United States, electric vehicles containing the infringing secondary battery modules and battery packs. For example, LGE

instructs, offers, or encourages GM to use the VISTA 2.0 Cell Module Assembly in Chevrolet Bolt electrical vehicles.

29. On information and belief, LGE contributes to the infringement of the '398 Patent by offering to sell or selling within the United States or importing into the United States infringing secondary battery modules and battery packs for use in electric vehicles sold in the United States, knowing the infringing secondary battery modules and battery packs to be especially-made components that have no substantial non-infringing use. For example, LGE sells the VISTA 2.0 Cell Module Assembly to GM for use in its Chevrolet Bolt electric vehicles.

30. On information and belief, LG Chem at least induces the infringement of one or more claims of the '398 Patent, including at least claim 1, either literally or under the doctrine of equivalents.

31. On information and belief, LG Chem induces LGE to infringe the '398 Patent by instructing, offering, and encouraging LGE to use LG Chem's secondary battery cells in LGE's infringing secondary battery modules and secondary battery packs, including for example the VISTA 2.0 Cell Module Assembly. On information and belief, LG Chem designs battery cells for the United States EV market and competes for business that it knows is directed to downstream products designated for the United States market. For example, LG Chem maintains a website specifically tailored for the United States and notes that it supplies automotive batteries for automobiles that are sold and offered for sale in the United States. *See* <https://www.lgchem.com/us/vehicle-battery/car-batteries> (last accessed Aug. 28, 2019).

32. On information and belief, LG Chem may have directly infringed and/or contributed the infringement of, and may continue to infringe and/or contribute to the infringement of, one or more claims of the '398 Patent at least based on its activities in

Michigan, for which SK Innovation reserves the right to assert claims of direct infringement and/or contributory infringement. *See, e.g., LG Chem, Ltd. v. SK Innovation Co., Ltd.*, 1:19-cv-00776 (D. Del. April 29, 2019), Complaint, ¶29 (“LGCMI also has research and development, testing and engineering, manufacturing, sales and marketing, and business offices in Troy, Michigan, where it has invested many millions of dollars and employs hundreds of workers. Through its facilities in Michigan, LGC supplies millions of battery cells each year to automotive manufacturers including General Motors and Chrysler.”).

33. Defendants are knowledgeable about the ’398 Patent and infringing acts at least as of the date on which they are properly served with this Complaint. In addition, during the prosecution of LG Chem’s Korean Patent No. 1812753, the Korean Intellectual Property Office cited a Korean counterpart application of the ’398 Patent (KR Patent Publication No. 10-2014-0064418) as prior art in an office action dated April 20, 2017.

34. Defendants’ infringing acts have been without the permission, consent, authorization, or license of SK Innovation.

35. Claim 1 of the ’398 Patent is recited below:

1. A secondary battery module, comprising:

a first unit cell and a second unit cell, each unit cell having a contact surface;

a partition member disposed between the first and second unit cells, the partition member having a frame; and

an adhesive pad disposed only within the frame of the partition member so that the frame completely surrounds the adhesive pad;

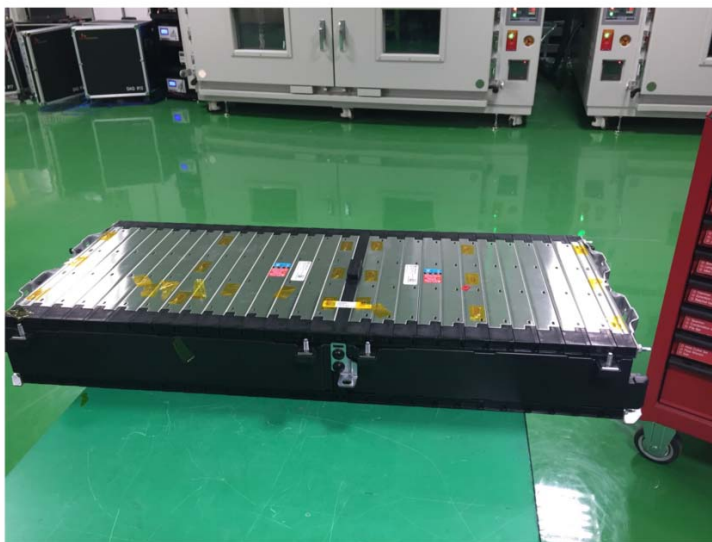
wherein the adhesive pad is coextensive and in contact with the contact surface of the first and second unit cells.

36. The Accused Products embody the patented invention of the '398 Patent and infringe at least claim 1 of the '398 Patent. For example, the GM Chevrolet Bolt uses the VISTA 2.0 Cell Module Assembly that infringes at least claim 1 of the '398 Patent.

37. On information and belief, the GM Chevrolet Bolt is an electric vehicle assembled in Michigan, United States, and uses the Vista 2.0 Cell Module Assembly containing battery cells made by LG Chem. *See, e.g.*, <http://gmauthority.com/blog/gm/chevrolet/bolt-ev/2019-chevrolet-bolt-ev/>; <http://gmauthority.com/blog/2018/10/gm-battery-supplier-issues-battery-challenge/> (“LG Chem notably supplies batteries for the 2019 Chevrolet Bolt EV.”).

38. The GM Chevrolet Bolt is offered for sale in the United States, including in the State of Delaware. A Chevrolet dealership in Wilmington, Delaware, for example, advertises GM Chevrolet Bolt vehicles for sale. *See* <https://www.diverchev.com/models/chevrolet-bolt+ev> (last accessed Aug. 26, 2019).

39. As shown below, the VISTA 2.0 Cell Module Assembly is a secondary battery module:



40. As shown below, the VISTA 2.0 Cell Module Assembly includes a first unit cell and a second unit cell, each unit cell having a contact surface.



41. As shown below, the VISTA 2.0 Cell Module Assembly includes a partition member disposed between the first and second unit cells, the partition member having a frame:

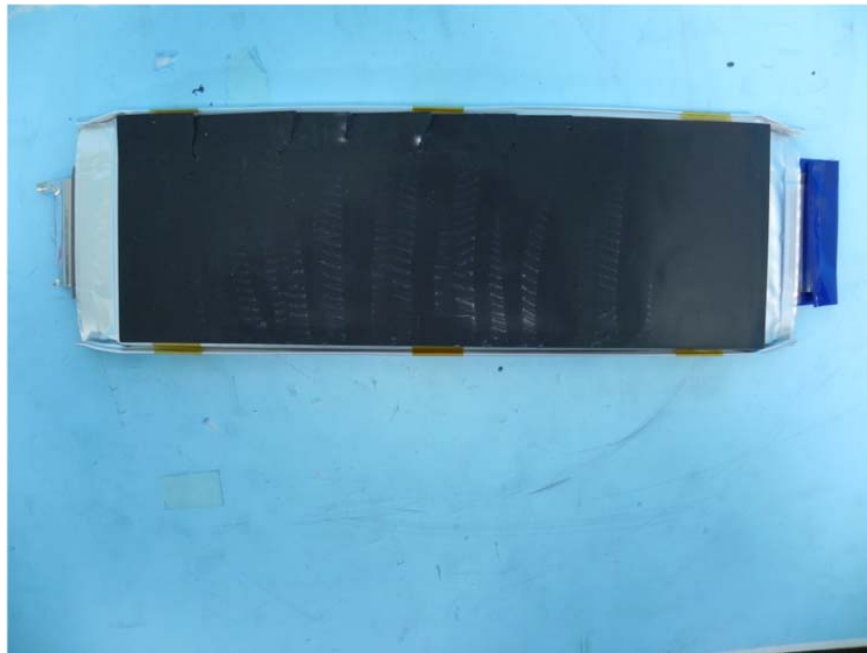


42. As shown below, the VISTA 2.0 Cell Module Assembly includes an adhesive pad disposed only within the frame of the partition member so that the frame completely surrounds the adhesive pad:

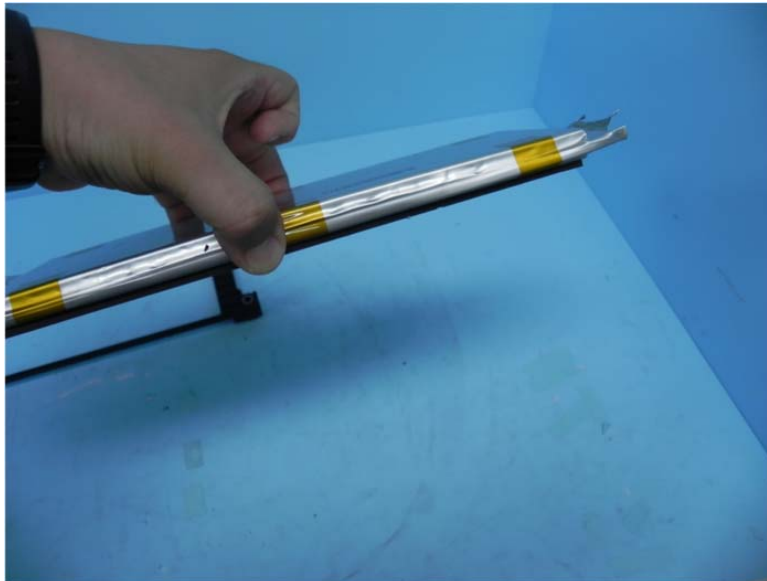
Frame completely surrounds the adhesive pad

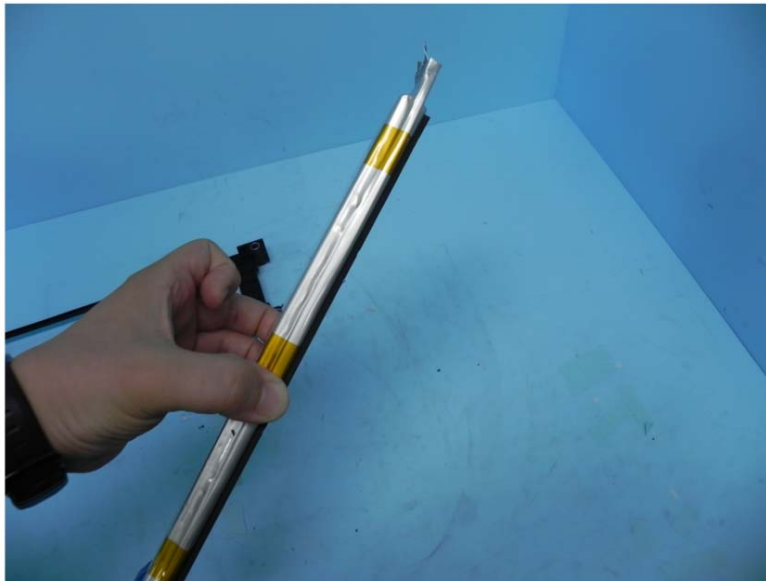


The adhesive pad with the partition member removed



43. As shown below, in the VISTA 2.0 Cell Module Assembly, the adhesive pad is coextensive and in contact with the contact surface of the first and second unit cells.





44. On information and belief, the batteries shown in paragraphs 38-42 above represent the batteries to be found in the Chevrolet Bolt vehicles on sale in the United States.

PRELIMINARY AND PERMANENT INJUNCTION

45. As a result of Defendants' unlawful activities, SK Innovation has suffered and will continue to suffer irreparable harm for which there is no adequate remedy at law. Defendants' continued infringement of the '398 Patent causes harm to SK Innovation in the form of price erosion, loss of goodwill, damage to reputation, loss of business opportunities, inadequacy of money damages, and direct and indirect competition. Monetary damages are insufficient to compensate SK Innovation for these harms. Accordingly, SK Innovation is entitled to preliminary and permanent injunctive relief.

DAMAGES

46. Under the law, SK Innovation is also entitled to compensation for Defendants' infringement described above. However, the full compensation owed to SK Innovation cannot be ascertained except through discovery and special accounting. To the fullest extent permitted by

law, SK Innovation seeks recovery of at least reasonable royalties. SK Innovation further seeks any other damages to which SK Innovation is entitled under law or in equity.

ATTORNEYS' FEES

47. SK Innovation is entitled to recover reasonable attorneys' fees under applicable law, including 35 U.S.C. § 285 given the exceptional nature of this case.

DEMAND FOR JURY TRIAL

48. SK Innovation hereby demands a trial by jury.

PRAYER FOR RELIEF

WHEREFORE, SK Innovation respectfully requests that this Court enter judgment in its favor that:

- A. declares that Defendants infringe the '398 Patent;
- B. declares that Defendants' continued infringement of this patent is willful;
- C. orders an accounting of damages;
- D. awards SK Innovation damages in an amount adequate to compensate SK Innovation for Defendants' infringement of the '398 Patent, but in no event less than a reasonable royalty under 35 U.S.C. § 284, including supplemental damages for any continuing post-verdict infringement up until entry of the final judgment;
- E. awards enhanced damages under 35 U.S.C. § 284;
- F. awards SK Innovation pre-judgment and post-judgment interest to the full extent allowed under the law, as well as its costs;
- G. awards a compulsory future royalty payable on each infringing product sold by Defendants following trial or that is not captured in the damages awarded to SK Innovation;
- H. enters an order finding that this is an exceptional case and awarding SK Innovation its reasonable attorneys' fees under 35 U.S.C. § 285;

I. enters an order that preliminarily and permanently enjoins the Defendants and their officers, employees, agents, servants, attorneys, instrumentalities, and/or those in privity with them, from continuing to infringe the '398 Patent and for all further and proper injunctive relief under 35 U.S.C. § 283; and

J. awards such other relief as the Court may deem appropriate and just under the circumstances.

Dated: September 3, 2019

/s/ Adam W. Poff
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