

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

PLAINTIFF Individually and on Behalf  
of All Others Similarly Situated,

Plaintiff,

vs.

QUANTUMSCAPE CORPORATION,  
JAGDEEP SINGH, FRITZ PRINZ,  
TIMOTHY HOLME, KEVIN HETTRICH and  
VOLKSWAGEN GROUP OF AMERICA  
INVESTMENTS, LLC,

Defendants.

) Case No.

) CLASS ACTION

) COMPLAINT FOR VIOLATIONS OF THE  
) FEDERAL SECURITIES LAWS

) DEMAND FOR JURY TRIAL

Plaintiff, individually and on behalf of all others similarly situated, by plaintiff's undersigned counsel, alleges the following based upon personal knowledge as to plaintiff and plaintiff's own acts, and upon information and belief as to all other matters based on the investigation conducted by and through plaintiff's counsel, which included, among other things, a review of Securities and Exchange Commission ("SEC") filings by QuantumScape Corporation ("QuantumScape" or the "Company"), as well as media, conference call transcripts and analyst reports about the Company. Plaintiff believes that substantial additional evidentiary support will exist for the allegations set forth herein after a reasonable opportunity for discovery.

### **SUMMARY OF THE ACTION**

1. This is a securities fraud class action on behalf of all purchasers of QuantumScape publicly traded securities between November 27, 2020 and December 31, 2020, inclusive (the "Class Period") seeking remedies under §§10(b) and 20(a) of the Securities Exchange Act of 1934 (the "Exchange Act"), and SEC Rule 10b-5 promulgated thereunder. Defendants include QuantumScape, certain of its senior executives and directors, and Volkswagen Group of America Investments, LLC ("VGA"), its controlling shareholder.

2. Defendant QuantumScape develops and commercializes solid-state lithium-metal batteries for electric vehicles ("EVs"). The Company was founded in 2010 and is headquartered in San Jose, California. QuantumScape was taken public through a combination with a special purpose acquisition corporation ("SPAC"), Kensington Capital Acquisition Corp. ("Kensington"), in a transaction completed on November 27, 2020. Since then, QuantumScape's Class A common stock has traded on the New York Stock Exchange ("NYSE") under the ticker symbol "QS" and its publicly traded warrants have traded on the NYSE under the ticker symbol "QS.WS."

3. Throughout the Class Period, defendants made materially false and misleading statements about the strength of QuantumScape's business, operations and financial prospects. Among other things, in connection their claims that the Company was "developing next generation battery technology for EVs and other applications," defendants stated that they "believe[d] that [the Company's] technology [would] enable a new category of battery that meets the requirements for broader market adoption" and that the "lithium-metal solid-state battery technology that . . .

QuantumScape is developing is being designed to offer greater energy density, longer life, faster charging, and greater safety when compared to today's conventional lithium-ion batteries." Having overstated the value of the Company's business metrics and financial prospects, QuantumScape was able to complete the combination with the Kensington and to commence an underwritten secondary public stock offering (the "SPO") of its publicly traded securities "at market price," registering for resale more than 300 million shares of QuantumScape publicly traded securities by insiders beginning on December 31, 2020, including several QuantumScape senior executives and the Company's controlling shareholder VGA.

4. Truth in fact, defendants were concealing multiple known risks with QuantumScape's solid state battery development and design that rendered the batteries "completely unacceptable for real world field electric vehicle performance." Specifically, as would later be revealed, the power of QuantumScape batteries "will only last for 260 cycles or about 75,000 miles of aggressive driving" and, because solid state batteries are temperature sensitive, "power and cycle tests at 30 and 45 degrees above would have been significantly worse if run even a few degrees lower."

5. Only by virtue of a stock research report published by *Seeking Alpha* on January 4, 2021 would the investment community learn the truth. The market prices of QuantumScape publicly traded securities have since fallen precipitously on those disclosures, with the price of QuantumScape's Class A common stock declining more than 62% from its Class Period high of more than \$131 per share on December 22, 2020 to close down at \$49.96 per share on January 4, 2020, including a precipitous one-day decline of more than \$34 per share, or 41%, on January 4, 2020, on unusually high trading volume of more than 82 million shares traded, or four times the average daily volume over the already volatile preceding ten trading days.

#### **JURISDICTION AND VENUE**

6. The claims asserted herein arise under §§10(b) and 20(a) of the Exchange Act (15 U.S.C. §§78j(b) and 78t(a)) and Rule 10b-5 promulgated thereunder (17 C.F.R. §240.10b-5). This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §1331 and §27 of the Exchange Act (15 U.S.C. §78aa).

7. Venue is proper in this District pursuant to §27 of the Exchange Act, as QuantumScape is headquartered in this District and many of the false and misleading statements alleged herein were disseminated from this District.

8. In connection with the acts alleged in this complaint, defendants, directly or indirectly, used the means and instrumentalities of interstate commerce, including, but not limited to, the mails, interstate telephone communications and the facilities of the national securities markets.

### **PARTIES**

9. Plaintiff Asha Gowda purchased QuantumScape publicly traded securities during the Class Period, as set forth in the accompanying certification incorporated by reference herein, and has been damaged thereby.

10. Defendant QuantumScape Corporation is a San Jose, California-based developer and manufacturer of EV batteries. QuantumScape Class A common stock and warrants are listed and trade on the NYSE, an active market, under the ticker symbols “QS” and “QS.WS,” respectively. As of December 23, 2020, the Company had approximately 208 million shares of its Class A common stock and 156 million shares of its Class B common stock issued and outstanding. Shares of Class B common stock have 10 votes per share, while shares of Class A common stock have one vote per share. As of December 23, 2020, the holders of the Class B common stock controlled approximately 88.3% of the voting power of the Company’s capital stock. Following the November 27, 2020 merger, VGA beneficially owned approximately 31% of the QuantumScape Class A common stock and 11.36% of the QuantumScape Class B common stock outstanding, representing 13.76% of the Company’s voting power, and the Company’s executive officers, directors and their affiliates as a group beneficially owned approximately 38% of the QuantumScape Class A common stock and 40.86% of the QuantumScape Class B common stock outstanding, representing 40.76% of the Company’s voting power.

11. Defendant Jagdeep Singh (“Singh”) is, and was at all relevant times, a co-founder and the Chief Executive Officer (“CEO”) of QuantumScape and the Chairman of its Board of Directors. Defendant Singh sold shares in the SPO.

12. Defendant Fritz Prinz (“Prinz”) is, and was at all relevant times, a co-founder and a member of QuantumScape’s Board of Directors. Defendant Prinz sold shares in the SPO.

13. Defendant Timothy Holme (“Holme”) is, and was at all relevant times, a co-founder and Chief Technology Officer of QuantumScape. Defendant Holme sold shares in the SPO.

14. Defendant Kevin Hettrich (“Hettrich”) is, and was at all relevant times, the Chief Financial Officer of QuantumScape. Defendant Holme sold shares in the SPO.

15. Defendant Volkswagen Group of America Investments, LLC (“VGA”) is a Delaware corporation based in Herndon, Virginia, that, as of November 27, 2020, beneficially owned approximately 31% of the QuantumScape Class A common stock and 11.36% of the QuantumScape Class B common stock outstanding, representing 13.76% of the Company’s voting power. VGA sold a significant amount of its holdings in the SPO.

16. Defendants Singh, Prinz, Holme and Hettrich are sometimes referred to herein as the “Individual Defendants.” QuantumScape, the Individual Defendants and VGA are sometimes referred to herein, collectively, as “defendants.”

### **BACKGROUND**

17. QuantumScape was founded in 2010 by defendants Singh, Prinz and Holme.

18. In 2012, QuantumScape began working with Volkswagen Group of America, Inc. (“Volkswagen”) and VGA to develop an EV battery. In 2018, VGA invested \$100 million in the Company, becoming its largest shareholder. That same year, Volkswagen, VGA and QuantumScape announced the establishment of a joint production project to prepare solid-state batteries for mass production. In June 2020, VGA made an additional \$200 million investment into the Company. As a result, VGA beneficially acquired approximately 25.53% of QuantumScape’s Class A common stock and 11.51% of its Class B common stock then outstanding, representing 13.15% of the Company’s total voting power.

19. On September 3, 2020, QuantumScape announced a merger with Kensington. Upon completion of the transaction, QuantumScape would receive \$1 billion in financing, including funding from VGA and the Qatar Investment Authority. At the same time, the Company’s Class A common stock and warrants to purchase Class A common stock would be listed on the NYSE,

respectively, under the ticker symbols “QS” and “QS.WS.” That transaction was completed on November 27, 2020.

**DEFENDANTS’ FALSE AND MISLEADING PRE-CLASS PERIOD STATEMENTS THAT REMAINED ALIVE AND UNCORRECTED DURING THE CLASS PERIOD**

20. On September 3, 2020, QuantumScape and Kensington issued a joint press release announcing the merger of QuantumScape with Kensington. The release described QuantumScape as “a leader in the development of next generation solid-state lithium-metal batteries for use in electric vehicles,” and stated that, “[i]n the decade since the company was founded, QuantumScape has been exclusively focused on developing solid-state batteries and designing a scalable manufacturing process to commercialize its battery technology for the automotive industry.” The release further stated that “QuantumScape believes the proceeds from this transaction will fully fund the company through the start of production via its joint venture with the Volkswagen Group.” The release also highlighted the strength of QuantumScape’s battery technology, stating in pertinent part as follows:

Jagdeep Singh, Founder and Chief Executive Officer of QuantumScape, commented, “Today marks an important milestone of advancing QuantumScape’s effort in developing *the next generation of solid-state batteries to meet the needs of all future electric vehicles* as the world transitions to zero emissions. Ten years ago, we embarked upon an ambitious goal that most thought was impossible. Through the tireless work of QuantumScape’s more than 200 scientists and engineers, and our partnership with Volkswagen since 2012, we have developed a new battery technology that is unlike anything else in the world. We are now excited to partner with Kensington’s unique team of world-class automotive executives, who share our vision of a cleaner and safer future powered by QuantumScape. This vote of confidence from investors, and the capital provided by this transaction, will drive a more sustainable future for generations to come.”

Justin Mirro, Chairman and Chief Executive Officer of Kensington, who will join the combined company Board of Directors, added, “We are extremely excited and honored to partner with QuantumScape, as this represents a unique opportunity to invest in a pure-play battery company *that is positioned to transform the auto industry*. Kensington considered hundreds of automotive companies and QuantumScape stands out as *the leading company to play a pivotal role in the advancement of electric vehicles*. Through the vision and leadership of Jagdeep Singh, QuantumScape has created a world-class team that *is developing the next generation of solid-state batteries that will achieve the future performance requirements of leading vehicle manufacturers*. By combining QuantumScape with Kensington’s deep industry expertise and capital from this transaction, we are confident that QuantumScape’s investment thesis has been significantly enhanced.”

\* \* \*

Former Tesla Chief Technology Officer and current QuantumScape board member JB Straubel commented, “QuantumScape’s solid-state anode-less design

represents the most elegant architecture I've seen for a lithium-based battery system, and *the company has an opportunity to redefine the battery landscape.*"

Venture capitalist, co-founder of Sun Microsystems, and current QuantumScape board member Vinod Khosla added, "When we backed QuantumScape ten years ago, we knew it was a bold vision to transform one of the world's largest industries. We are therefore thrilled that the team *has developed technology that addresses the single largest cost component and deficiency of electric cars, the battery.* By *enabling greater range and much faster charge times,* we believe QuantumScape's technology will assist EVs in becoming significantly more competitive with traditional internal combustion engine vehicles, paving the way for greater adoption and a greener future."

"The merger with Kensington and associated PIPE transaction *allows us to fund our business plans to first production,*" continued Jagdeep Singh. "We look forward to executing on continued product development and validation *through to first revenue* and what we believe will be significant growth thereafter."<sup>1</sup>

21. Justin Mirro, the chairman and CEO of Kensington, opened a conference call held with investors and stock analyst that day stating in pertinent part as follows:

In our view, the single greatest mega-trend and structural paradigm shift in the automotive industry today is the advancement of electric mobility. Many global automobile manufacturers are accelerating their transition to electric vehicles, as reflected by the hundreds of billions of dollars expected to be invested into this sector over the next five years. Through the vision and leadership of founder and CEO, Jagdeep Singh, QuantumScape *is developing the next generation of solid-state lithium-metal batteries for use in these vehicles.* In doing so, QuantumScape is redefining the frontier of battery technology, and *positioning the company to play a pivotal role in the electrification of the global automotive fleet.*

Kensington is an automotive-focused SPAC with more than 300 combined years of automotive experience leading some of the largest automobile manufacturers and suppliers in the world. *It is with this significant expertise that we underwent an extensive due diligence process to identify the best long-term investment for Kensington's shareholders.* Our search involved hundreds of prospects, and after several rounds of narrowing our focus on investment opportunities, QuantumScape emerged as the most attractive partner for us and a company that we firmly believe *will shape the future of the auto industry.*

*Our process involved reviewing the technical, commercial, and financial results of QuantumScape and then using global automotive standards to validate the company's business plan.*

22. Defendant Singh opened his remarks at the September 3, 2020 conference stating in pertinent part as follows:

I know I speak on behalf of the entire QuantumScape team when I say that I am delighted to announce this transaction with Kensington that *we expect will allow us*

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<sup>1</sup> Emphasis has been added unless otherwise noted.

***to commercially deploy our disruptive battery technology*** for the benefit of many around the world.

We believe that a once-in-a-century event is in the early days of unfolding with the electrification of the automotive industry. Today, just 2% of all vehicles sold are electric. If electrification of the automotive powertrain were to reach its full potential, we see a battery industry that can generate hundreds of billions of dollars of revenue per year for the next several decades. Further, ***our business is at the core of sustainability and addresses key ESG attributes that are so critical to so many, as our technology enables a reduction in global CO2 emissions, is designed around abundant resources, and enables clean energy sources.***

To further evolve the global electric vehicle landscape, we see the availability of a better battery as mission critical. At QuantumScape, we believe ***we have developed the key enabling technology that will propel this generational shift towards its full potential. We have developed a proprietary solid-state separator, which forms the heart of a solid-state battery, to construct our solid-state cells. Over the past decade, my team and I have focused exclusively on identifying and engineering the right materials to develop this technology and position us to achieve successful commercialization.*** We have also dedicated significant time and resources in designing ***a scalable manufacturing processes for producing and commercially deploying this battery technology.***

In fact, there is probably no greater vote of confidence than Volkswagen's announcement that they have decided to enter into a manufacturing joint venture with QuantumScape to prepare for mass production of these solid-state batteries for use by their company. Based on our engagement with VW, we believe we are the only company to have successfully developed such a technology with automotive OEM validation.

\* \* \*

Turning back to our product and technology – ***we believe our lithium-metal battery technology is a game changer. Our solid-state battery technology addresses the key limitations of traditional lithium-ion battery technology,*** and we think this positions EVs to be much more competitive with internal combustion engine vehicles that today account for 98% of all vehicles sold. Our technology is supported by more than 200 patents, including patents pending, and extensive trade secrets. ***These will be instrumental in keeping us ahead of the competitive curve.***

We believe our battery technology provides five key benefits as compared to traditional lithium-ion technology that makes our offering the ideal solution for use in electric vehicles:

- ***Higher energy density***
- ***Faster charge times***
- ***Improved battery cycle life***
- ***Enhanced safety, and***
- ***Lower cost***

23. Defendant Singh then purportedly detailed each of those five “core factors,” providing more positive commentary about the combined Company’s business metrics and financial prospects. These statements remained alive and uncorrected in the market throughout the Class Period.

#### **FALSE AND MISLEADING CLASS PERIOD STATEMENTS**

24. The Class Period starts on November 27, 2020, the day that the QuantumScape and Kensington combination was completed and QuantumScape Class A common stock and warrants began trading on the NYSE. QuantumScape and Kensington issued a joint press release that day announcing the closing of the business combination and that QuantumScape securities would begin trading on the NYSE that day. The release again characterized QuantumScape as “a leader in the development of next generation solid-state lithium-metal batteries for use in electric vehicles,” further stating in pertinent part as follows:

Since the company was founded in 2010, QuantumScape has been exclusively focused on developing solid-state batteries and designing a scalable manufacturing process to commercialize its battery technology for the automotive industry. *Through its elegant “anode-less” design, QuantumScape’s solid-state lithium-metal batteries are designed to be safer, and to deliver greater range, faster charge times and improved cycle life, than today’s conventional lithium-ion battery technology.*

“Today marks a big step in the evolution of our company,” commented Jagdeep Singh, Founder and Chief Executive Officer of QuantumScape. *“This transaction allows QuantumScape to fund development and commercialization of our OEM-validated battery technology as we look forward to playing our part in the electrification of the automotive powertrain, helping transform one of the world’s largest industries and fostering a cleaner future for all.”*

Justin Mirro, Chairman and Chief Executive Officer of Kensington, added, “we are incredibly excited to complete our business combination with QuantumScape and to provide the company with significant capital and automotive guidance to accelerate its business plan. The adoption of electric vehicles has emerged as the global mega-trend in the automotive industry, and *QuantumScape is now well positioned to become a leading supplier of solid-state batteries for this next generation of electric powertrains.*”

25. On December 8, 2020, QuantumScape issued a press release further detailing the purported strength of its battery technology, stating in pertinent part as follows:

## QuantumScape Releases Performance Data for its Solid-State Battery Technology

*Data demonstrates high energy density solid-state lithium-metal battery technology that improves life, charging time, and safety*

... QuantumScape Corporation (NYSE: QS, or “QuantumScape”), a leader in the development of next generation solid-state lithium-metal batteries for use in electric vehicles (EVs), has released performance data ***demonstrating that its technology addresses fundamental issues holding back widespread adoption of high-energy density solid-state batteries, including charge time (current density), cycle life, safety, and operating temperature.***

A commercially-viable solid-state lithium-metal battery is an advancement that the battery industry has pursued for decades, as it holds the promise of a step function increase in energy density over conventional lithium-ion batteries, enabling electric vehicles with a driving range comparable to combustion engine based vehicles. ***QuantumScape’s solid-state battery is designed to enable up to 80% longer range compared to today’s lithium-ion batteries.*** Previous attempts to create a solid-state separator capable of working with lithium metal at high rates of power generally required compromising other aspects of the cell (cycle life, operating temperature, safety, cathode loading, or excess lithium in the anode).

QuantumScape’s newly-released results, based on testing of single layer battery cells, ***show its solid-state separators are capable of working at very high rates of power, enabling a 15-minute charge to 80% capacity, faster than either conventional battery or alternative solid-state approaches are capable of delivering.*** In addition, the data ***shows QuantumScape battery technology is capable of lasting hundreds of thousands of miles and is designed to operate at a wide range of temperatures, including results that show operation at -30 degrees Celsius.***

The tested cells were large-area single-layer pouch cells in the target commercial form factor with zero excess lithium on the anode and thick cathodes (>3mAh/cm<sup>2</sup>), running at rates of one-hour charge and discharge (1C charge and 1C discharge) at 30 degrees Celsius. These tests ***demonstrated robust performance of these single layer pouch cells even at these high rates, resulting in retained capacity of greater than 80% after 800 cycles (demonstrating high columbic efficiency of greater than 99.97%).***

“The hardest part about making a working solid-state battery is the need to simultaneously meet the requirements of high energy density (1,000 Wh/L), fast charge (i.e., high current density), long cycle life (greater than 800 cycles), and wide temperature-range operation. This data ***shows QuantumScape’s cells meet all of these requirements,*** something that has never before been reported. If QuantumScape can get this technology into mass production, ***it holds the potential to transform the industry,***” said Dr. Stan Whittingham, co-inventor of the lithium-ion battery and winner of the 2019 Nobel prize in chemistry.

***“These results blow away what was previously thought to be possible in a solid-state battery,”*** said Venkat Viswanathan, battery expert and professor of materials science at Carnegie-Mellon University. “Supporting high enough current density to enable fast charge without forming dendrites has long been a holy grail of the industry. This data ***shows the capability to charge to 80% capacity in 15 minutes, corresponding to an astonishingly high rate of lithium deposition of up to a micron per minute.***”

“We believe that the performance data we’ve unveiled today *shows that solid-state batteries have the potential to narrow the gap between electric vehicles and internal combustion vehicles and help enable EVs to become the world’s dominant form of transportation,*” said Jagdeep Singh, founder & CEO of QuantumScape. “Lithium-ion provided an important stepping stone to power the first generation of EVs. We believe QuantumScape’s lithium-metal solid-state battery technology *opens the automotive industry up to the next generation battery and creates a foundation for the transition to a more fully electrified automotive fleet.*”

\* \* \*

Beyond its ability to function at high rates of power while delivering high energy density, other key characteristics of QuantumScape’s solid-state lithium-metal battery technology include:

- **Zero excess lithium:** In addition to eliminating the carbon or carbon/silicon anode, QuantumScape’s solid-state design further increases energy density because it uses no excess lithium on the anode. Some previous attempts at solid-state batteries used a lithium foil or other deposited-lithium anode, which reduces energy density.
- **Long life:** Because it eliminates the side reaction between the liquid electrolyte and the carbon in the anode of conventional lithium-ion cells, QuantumScape’s battery technology is designed to last hundreds of thousands of miles of driving. Alternative solid-state approaches with a lithium metal anode typically have not demonstrated the ability to work reliably at close to room temperatures (30 degrees Celsius) with zero excess lithium at high current densities (>3mAh/cm<sup>2</sup>) for more than a few hundred cycles, and result in a short-circuit or capacity loss before the life target is met. By contrast, today’s test results show that QuantumScape’s battery technology is capable of running for over 800 cycles with greater than 80% capacity retention.
- **Low-temperature operation:** QuantumScape’s solid-state separator is designed to operate at a wide range of temperatures, and it has been tested to -30 degrees Celsius, temperatures that render some other solid-state designs inoperable.
- **Safety:** QuantumScape’s solid-state separator is noncombustible and isolates the anode from the cathode even at very high temperatures – much higher than conventional organic separators used in lithium-ion batteries.

26. On December 17, 2020, QuantumScape filed a registration statement with the SEC on Form S-1 registering for resale 305,114,065 shares of QuantumScape Class A common stock and another 6,650,000 warrants to purchase shares of QuantumScape Class A common stock. After several amendments, the registration statement was declared effective by the SEC on December 31, 2020 and the SPO commenced. Among other existing shareholders, the SPO registration statement registered for resale more than 49.5 million shares by defendants Singh and Prinz collectively, 2.6

million shares by defendant Hettrich, more than 15 million shares by defendant Holme, and approximately 71 million shares by VGA.

27. Each of defendants' statements set forth in ¶¶24-25 were materially false and misleading when made because they misrepresented and/or omitted material facts necessary to make the statements made not misleading. These material facts, which were known to or recklessly disregarded by each of the defendants, were:

(a) that the Company's battery technology was not sufficient for electric vehicle performance as it would not be able to withstand the aggressive automotive environment;

(b) that the Company's battery technology likely provided no meaningful improvement over existing battery technology;

(c) that the successful commercialization of the Company's battery technology was subject to much more significant risks and uncertainties than defendants had disclosed; and

(d) as a result of the foregoing, defendants materially overstated the value and prospects of the Company's battery technology.

28. On January 4, 2021, prior to the open of trading, *Seeking Alpha* published a research report entitled "QuantumScape's Solid State Batteries Have Significant Technical Hurdles To Overcome." The introduction of the *Seeking Alpha* report emphasized that "QuantumScape's science is very good," "[b]ut their batteries are small and unproven – not yet as big as an iWatch battery, and never tested outside a lab," adding that "[t]here are significant risks associated with solid state batteries that have not been overcome – a list below," and emphasizing that "[t]hey will likely never achieve the performance they claim."

29. Detailing the "Areas of Overstated Success," the *Seeking Alpha* report stated:

All of these areas below are described as successful, because they are much better than has been achieved with solid state batteries in the past. But they are completely unacceptable for real world field electric vehicle performance.

- **Power:** They have done 1200 cycles of a 90 second OEM specified track simulation, which pulled pulses of 6C. In this track, 9 laps is full depth of discharge, when the battery was heated to 45 degrees C (113 degrees F) and charged to 80% in 15 minutes. The cell lost about 10% of its capacity in this 130 cycle test, meaning the battery will only last for 260 cycles or about 75,000 miles of aggressive driving. There is a note on the slide that it occurs at 3.4 atm, which likely means at high pressure. I'll comment on this later.

- **Range:** In much gentler, 1C / 1C cycling at 30 degrees C, the cell makes it for 800 cycles, or 240,000 miles. Respectable, but not better than the vehicles on the road today.
- **Low Temperature Operation:** They show discharge curves at 0 to -30 degrees Celsius, achieving 90 - 130 Wh/kg. Since their battery has >400 Wh/kg, the range is from 25 - 30% of the battery capacity available in the winter, or about 75-100 miles at full capacity. Also, note that the temperature capability of solid state batteries is VERY temperature sensitive – thus the power and cycle tests at 30 and 45 degrees above would have been significantly worse if run even a few degrees lower.
- **Low Temperature Life:** They show 100 or so cycles at -10 degrees C. Respectable, except that these cycles are at C/5 charge and C/3 discharge. Thus, not 80% in 15 minutes, but rather 5% charge in 15 minutes.
- **Energy Density:** They talk about being able to get to an energy density of 400 Wh/kg, which would be great. However, they clearly have not yet, as all their graphs are normalized to 100%, not to an actual capacity. And Amprius is already making cells with 450 Wh/kg, and Tesla claimed on their Battery Day that they could achieve 350 Wh/kg. So, while nice, this energy density they hope to achieve in 2028 will not beat today's state of the art, and will not be state of the art when it is achieved.

30. Detailing certain “Other Significant Challenges,” the *Seeking Alpha* report stated in pertinent part as follows:

There are other challenges they do not mention, which will have to be overcome before they can put the first car in the field. Remember that they have spent \$300 million so far, so these are not challenges that they didn't have the resources to address, but rather ones they have not solved yet and so remain silent about. Many of these are related, and come from the fact that they are using a brittle, ceramic electrolyte. These include:

- **Multi-layer cells:** They have been unable to make multi-layer cells. My expectation is that it is because of the unstable interface between the cathode, which expands as much as 10% on discharge, and the solid state electrolyte, which will not expand at all. They likely do their cycling under high isostatic pressure (remember the 3.4 atm mentioned earlier?), which will not flow through to inner layers. The inner layers will also be more rigidly constrained, so suffer more from the interfacial decay with cycling. Needless to say, 100,000 of their tiny pouch cells will never make a practical vehicle. It's important to mention here that, if your technology works, making a multilayer pouch cell is an easy afternoon's work.
- **Vibration and Dendrites:** The electrolyte is very, very stiff. It is well documented that dendrites will not grow through solid, single crystal garnet electrolytes. However, they grow freely at grain boundaries and defects. In their pristine, temperature and pressure controlled and vibration-free labs, they can get the cells to cycle. But in a rugged SUV or on our terrible South Carolina roads, cracks and other defects will become plentiful and dendrites will grow. This will in the best case destroy cycle life, and in the worst cause the battery to explode.

- **Lithium Metal Ignition:** They tout using lithium metal to increase energy density. But they don't mention that lithium metal auto-ignites at 179 degrees Celsius, generating 200 - 300 kJ/mol, or 30 - 40 kJ/g, a massive amount of energy – about *three times higher* than ethylene carbonate, a common component of lithium ion electrolytes. Pure lithium is the second most energetic element behind beryllium, and could be used as a component of rocket fuel (with an oxidant). In essence, they have replaced a burning separator and electrolyte for a much more flammable and energetic burning anode. There is plenty enough energy in the battery to raise the lithium to its ignition temperature, and if exposed to oxygen or water, it will likely ignite itself. There is plenty of oxygen available in the cathode materials.
- **Cost:** They claim lower cost, but are actually eliminating only one of the least expensive components – graphite. While this is true, they will have the added cost of building up their thin ceramic electrolyte and sintering it at high temperatures. My guess is that early on, their yields will be just terrible, if they can achieve production scale at all.

(Emphasis in original.)

31. The *Seeking Alpha* report provided a “Summary,” stating in pertinent part as follows:

Given their success so far and their access to capital, I do think QuantumScape will succeed in getting a battery to market. However:

- It will have lower energy density than Amprius has achieved today.
- It will likely first show up in watches and wearables, then maybe phones.
- It will take much longer and cost much more to scale than they think.
- It will not be able to withstand the aggressive automotive environment.
- It will be far more expensive than today's lithium ion batteries, and will likely never achieve lower cost than contemporary lithium ion batteries.
- Once a suitable cell size is made, it may not be any safer than today's lithium ion batteries.

32. The *Seeking Alpha* report was authored by Dr. Brian Morin, who is currently CEO of Soteria Battery Innovation Group, a company that also makes lithium ion batteries. He also serves as Director and Vice President of the National Alliance for Advanced Technology Batteries. Dr. Morin has a PhD in materials physics from the Ohio State University, and has authored over 250 global patent applications on subjects including molecular magnets, plastics additives, textiles, advanced fibers, textiles and lithium ion batteries. Applying his specialized education, training, experience and specialized knowledge of science, Dr. Morin examined QuantumScape's

technological claims and statements about its technological and manufacturing strategies and offerings to arrive at his conclusions.

33. The market prices of QuantumScape publicly traded securities have fallen precipitously on these disclosures, with the price of QuantumScape's Class A common stock declining more than 63% from its Class Period high of more than \$131 per share on December 22, 2020 to close down at \$49.96 per share on January 4, 2020, including a precipitous one-day decline of more than \$34 per share, or 41%, on January 4, 2020, on unusually high trading volume of more than 82 million shares traded, or four times the average daily volume over the already volatile preceding ten trading days.

**APPLICATION OF PRESUMPTION OF RELIANCE:  
FRAUD ON THE MARKET**

34. Plaintiff and the Class (as defined below) are entitled to a presumption of reliance under *Affiliated Ute Citizens v. United States*, 406 U.S. 128 (1972), because the claims asserted herein against defendants are predicated in large part upon omissions of material fact for which there was a duty to disclose.

35. Plaintiff will also rely upon the presumption of reliance established by the fraud on the market doctrine in that, among other things:

(a) Defendants made public misrepresentations or failed to disclose material facts during the Class Period;

(b) The omissions and misrepresentations were material;

(c) QuantumScape publicly traded securities traded in an efficient market;

(d) The misrepresentations alleged would tend to induce a reasonable investor to misjudge the value of QuantumScape publicly traded securities; and

(e) Plaintiff and other members of the Class purchased QuantumScape publicly traded securities between the time defendants misrepresented or failed to disclose material facts and the time the true facts were disclosed, without knowledge of the misrepresented or omitted facts.

36. At all relevant times, the market for QuantumScape publicly traded securities was efficient for the following reasons, among others:

(a) As a regulated issuer, QuantumScape filed periodic public reports with the SEC; and

(b) QuantumScape regularly communicated with public investors via established market communication mechanisms, including through the regular dissemination of press releases on major news wire services and through other wide-ranging public disclosures, such as communications with the financial press, securities analysts, and other similar reporting services.

### **LOSS CAUSATION/ECONOMIC LOSS**

37. During the Class Period, as detailed herein, defendants made false and misleading statements and engaged in a scheme to deceive the market and a course of conduct that artificially inflated the prices of QuantumScape publicly traded securities and operated as a fraud or deceit on Class Period purchasers of QuantumScape publicly traded securities. As defendants' misrepresentations and fraudulent conduct became apparent to the market, the prices of QuantumScape publicly traded securities fell precipitously, as the prior artificial inflation came out of the securities' prices. As a result of their purchases of QuantumScape publicly traded securities during the Class Period, plaintiff and other members of the Class suffered economic loss, *i.e.*, damages, under the federal securities laws.

### **CLASS ACTION ALLEGATIONS**

38. Plaintiff brings this action as a class action pursuant to Federal Rule of Civil Procedure 23(a) and (b)(3) on behalf of a class consisting of all purchasers of QuantumScape publicly traded securities during the Class Period (the "Class"). Excluded from the Class are defendants and their families, the officers and directors of the Company, at all relevant times, members of their immediate families, and the legal representatives, heirs, successors or assigns of any of the foregoing and any entity in which defendants have or had a controlling interest.

39. The members of the Class are so numerous that joinder of all members is impracticable. Throughout the Class Period, QuantumScape publicly traded securities were actively traded on the NYSE. While the exact number of Class members is unknown to plaintiff at this time and can only be ascertained through appropriate discovery, plaintiff believes that there are hundreds or thousands of members in the proposed Class. Record owners and other members of the Class

may be identified from records maintained by QuantumScape and/or its transfer agent and may be notified of the pendency of this action by mail, using the form of notice similar to that customarily used in securities class actions.

40. Plaintiff's claims are typical of the claims of the members of the Class as all members of the Class are similarly affected by defendants' wrongful conduct in violation of federal law that is complained of herein.

41. Plaintiff will fairly and adequately protect the interests of the members of the Class and has retained counsel competent and experienced in class and securities litigation.

42. Common questions of law and fact exist as to all members of the Class and predominate over any questions solely affecting individual members of the Class. Among the questions of law and fact common to the Class are:

- (a) whether the Exchange Act was violated by defendants as alleged herein;
- (b) whether statements made by defendants misrepresented material facts about the business and operations of QuantumScape; and
- (c) to what extent the members of the Class have sustained damages and the proper measure of damages.

43. A class action is superior to all other available methods for the fair and efficient adjudication of this controversy since joinder of all members is impracticable. Furthermore, as the damages suffered by individual Class members may be relatively small, the expense and burden of individual litigation make it impossible for members of the Class to individually redress the wrongs done to them. There will be no difficulty in the management of this action as a class action.

## COUNT I

### **For Violation of §10(b) of the Exchange Act and Rule 10b-5 Against All Defendants**

44. Plaintiff incorporates ¶¶1-43 by reference.

45. During the Class Period, defendants disseminated or approved the false statements specified above, which they knew or deliberately disregarded were misleading in that they contained

misrepresentations and failed to disclose material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading.

46. Defendants violated §10(b) of the Exchange Act and Rule 10b-5 in that they: (a) employed devices, schemes and artifices to defraud; (b) made untrue statements of material fact or omitted to state material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading; or (c) engaged in acts, practices and a course of business that operated as a fraud or deceit upon plaintiff and others similarly situated in connection with their purchases of QuantumScape publicly traded securities during the Class Period.

47. Plaintiff and the Class have suffered damages in that, in reliance on the integrity of the market, they paid artificially inflated prices for QuantumScape publicly traded securities. Plaintiff and the Class would not have purchased QuantumScape publicly traded securities at the prices they paid, or at all, if they had been aware that the market prices had been artificially and falsely inflated by defendants' misleading statements.

## COUNT II

### For Violation of §20(a) of the Exchange Act Against All Defendants

48. Plaintiff incorporates ¶¶1-47 by reference.

49. The Individual Defendants and VGA acted as controlling persons of QuantumScape within the meaning of §20(a) of the Exchange Act. By reason of their positions with the Company, and their ownership of QuantumScape common stock, the Individual Defendants and VGA had the power and authority to cause QuantumScape to engage in the wrongful conduct complained of herein. Indeed, defendants admitted in the registration statement used to conduct the December 31, 2020 SPO that QuantumScape is a controlled company, stating in pertinent part as follows:

***Concentration of ownership among Volkswagen and our executive officers, directors and their affiliates may prevent new investors from influencing significant corporate decisions.***

As of December 23, 2020, Volkswagen beneficially owns approximately 25.53% of the Class A Common Stock and 11.51% of Class B Common Stock outstanding, representing 13.15% of the vote, and our executive officers, directors and their affiliates as a group beneficially own approximately 39.49% of Class A Common Stock and 61.52% Class B Common Stock outstanding, representing 58.79% of the vote. ***As a result, these stockholders will be able to exercise a***

*significant level of control over all matters requiring stockholder approval, including the election of directors, any amendment of our amended and restated certificate of incorporation (the “Certificate of Incorporation”) and approval of significant corporate transactions.* In addition, Volkswagen holds the right to designate two directors to our board of directors (our “Board”). *This control* could have the effect of delaying or preventing a change of control of or changes in our management and will make the approval of certain transactions difficult or impossible without the support of these stockholders and of their votes.

QuantumScape controlled the Individual Defendants and all of the Company’s employees. By reason of their control and the conduct detailed herein, defendants are liable pursuant to §20(a) of the Exchange Act.

### **PRAYER FOR RELIEF**

WHEREFORE, plaintiff prays for relief and judgment as follows:

A. Determining that this action is a proper class action, designating plaintiff as Lead Plaintiff and certifying plaintiff as a Class representative under Rule 23 of the Federal Rules of Civil Procedure and plaintiff’s counsel as Lead Counsel;

B. Awarding compensatory damages in favor of plaintiff and the other Class members against all defendants, jointly and severally, for all damages sustained as a result of defendants’ wrongdoing, in an amount to be proven at trial, including interest thereon;

C. Awarding plaintiff and the Class their reasonable costs and expenses incurred in this action, including counsel fees and expert fees; and

D. Awarding such equitable/injunctive or other relief as deemed appropriate by the Court.

### **JURY DEMAND**