UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 13D

UNDER THE SECURITIES EXCHANGE ACT OF 1934 (Amendment No. __)*

Amprius Technologies, Inc. (Name of Issuer)

Common Stock, par value \$0.0001 per share (Title of Class of Securities)

> 03214Q 108 (CUSIP Number)

Dr. Kang Sun Amprius, Inc. 1180 Page Avenue Fremont, California 94538 (800) 425-8803 (Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

Copies to:

Michael J. Danaher Mark B. Baudler Austin D. March Alexandra Perry Wilson Sonsini Goodrich & Rosati, P.C. 650 Page Mill Road Palo Alto, CA 94304 Tel: (650) 493-9300

September 14, 2022 (Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule13d-7 for other parties to whom copies are to be sent.

The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 03214Q 108

1	1 NAME OF REPORTING PERSONS				
	Amprius, Inc.				
2	2 Check the Appropriate Box if a Member of a Group (See Instructions) (a) □ (b) □				
3	SEC USE ONLY				
4	4 Source of Funds (See Instructions):				
	00				
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e):				
6	CITIZENSHIE	OR I	PLACE OF ORGANIZATION		
	Delaware				
		7	SOLE VOTING POWER		
N	NUMBER OF		65,515,552		
BE	SHARES ENEFICIALLY	8	SHARED VOTING POWER		
(OWNED BY EACH		0		
I	REPORTING	9	SOLE DISPOSITIVE POWER		
	PERSON WITH		65,515,552		
		10	SHARED DISPOSITIVE POWER		
11	AGGREGATE	E AMO	OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		
	65,515,552				
12	2 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES				
13	3 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)				
	77.8%(1)				
14	4 TYPE OF REPORTING PERSON (See Instructions)				
	СО				

⁽¹⁾ Based on 84,168,916 shares of common stock issued and outstanding as of September 14, 2022.

Item 1. Security and Issuer.

This statement on Schedule 13D (the "Schedule 13D") relates to the common stock, par value \$0.0001 per share (the "Common Stock"), of Amprius Technologies, Inc., a Delaware corporation (the "Issuer"), whose principal executive offices are located at 1180 Page Avenue, Fremont, California 94538.

Item 2. Identity and Background

(a)-(b), (f) This Schedule 13D is filed on behalf of Amprius, Inc., a Delaware corporation (the "Reporting Person").

The principal business address of the Reporting Person is 1180 Page Avenue, Fremont, California 94538.

The name, business address, present principal occupation or employment and citizenship of each director and each executive officer of the Reporting Person (each, a "Related Person") are set forth on Schedule A hereto and are incorporated by reference herein.

(c) The principal business of the Reporting Person is the holding of the Issuer's securities for the Reporting Person's own account.

(d)-(e) During the last five years, none of the Reporting Person or to the knowledge of the Reporting Person, any of the Related Persons, have been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Consideration.

On September 14, 2022 (the "Closing Date"), pursuant to a Business Combination Agreement, dated as of May 11, 2022 (the "Business Combination Agreement"), by and among the Issuer, Kensington Capital Merger Sub Corp., a Delaware corporation ("Merger Sub"), and Amprius Technologies Operating, Inc. ("Legacy Amprius"), a business combination between the Issuer and Legacy Amprius was effected through the merger of Merger Sub with and into Legacy Amprius, with Legacy Amprius surviving such merger as a wholly owned subsidiary of the Issuer (together with the other transactions contemplated by the Business Combination Agreement, the "Business Combination").

At the closing of the Business Combination (the "Closing"), and subject to the terms and conditions of the Business Combination Agreement, (i) each outstanding share of Legacy Amprius common stock was canceled and converted into the right to receive the number of shares of the Issuer's Common Stock equal to such number of shares multiplied by approximately 1.45590 (the "Exchange Ratio") and (ii) each option to purchase shares of Legacy Amprius common stock (a "Legacy Amprius Option") whether vested or unvested, converted into an option to purchase a number of shares of Common Stock equal to the product (rounded down to the nearest whole number) of (x) the number of shares of Legacy Amprius common stock subject to such Legacy Amprius Option immediately prior to the Closing and (y) the Exchange Ratio, at an exercise price per share (rounded up to the nearest whole cent) equal to (A) the exercise price per share of such Legacy Amprius Option immediately prior to the Closing divided by (B) the Exchange Ratio. All of the shares of Common Stock reported herein as beneficially owned by the Reporting Person were acquired in connection with the Closing.

On the Closing Date, a number of investors (the "PIPE Investors") purchased from the Issuer an aggregate of 2,052,500 PIPE Units at a price of \$10.00 per PIPE Unit (such transaction, the "PIPE"), pursuant to separate subscription agreements (each, a "Subscription Agreement") entered into with the PIPE Investors. Each "PIPE Unit" consists of (i) one share of Common Stock and (ii) one warrant (each, a "PIPE Warrant") to purchase one share of Common Stock at an exercise price of \$12.50. The Dixon Revocable Trust, of which Mr. Dixon is co-trustee, the Yi Cui and Meng Sui Family Trust, of which Dr. Cui is co-trustee, Dr. Chu, and entities affiliated with VantagePoint Capital Partners purchased 100,000 PIPE Units, 25,000 PIPE Units, 2,500 PIPE Units and 200,000 PIPE Units, respectively, in the PIPE.

The information set forth in or incorporated by reference into Items 4, 5 and 6 of this Schedule 13D is hereby incorporated by reference in its entirety into this Item 3.

Item 4. Purpose of Transaction

The Reporting Person was the majority stockholder of Legacy Amprius. As a result of the Business Combination, which was effected for the purpose of providing funding to the Issuer, the Reporting Person became the majority stockholder of the Issuer. In such capacity, the Reporting Person may influence the corporate activities of the Issuer, including activities that may relate to items described in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

Certain of the Related Persons serve as executive officers of the Issuer and/or as a member of the Issuer's board of directors and, in such capacities, may influence the corporate activities of the Issuer, including activities that may relate to items described in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

From time to time, the Related Persons who currently serve as officers and/or directors of the Issuer may also acquire beneficial ownership of additional shares of Common Stock or other securities of the Issuer as compensation, by purchase or otherwise, including (a) pursuant to the exercise of any outstanding stock options currently owned by the Related Persons or (b) upon receipt from the Issuer of future compensatory equity incentive awards for which such Related Person qualifies, including, but not limited to, awards of Common Stock, options to purchase shares of Common Stock, and restricted stock units for Common Stock. In addition, from time to time, the Related Persons may determine to dispose of all or a portion of the shares of Common Stock that are beneficially owned by the Related Persons and over which the Related Persons have investment power.

The Reporting Person is currently evaluating its options to facilitate its stockholders holding the Issuer's Common Stock directly rather than holding it indirectly through the Reporting Person. Among the options that the Reporting Person is considering is a possible transaction whereby the Reporting Person would be acquired by or merge with a wholly owned subsidiary of the Issuer, whereby the Reporting Person's stockholder would receive Common Stock in exchange for their interests in the Reporting Person. The terms of any such transaction would be subject to negotiation and approval by the Issuer's board of directors. The Reporting Person may also decide to dividend or otherwise transfer the securities it owns in the Issuer to its stockholders, dispose of all or part of its investments in securities of the Issuer and/or enter into derivative transactions with institutional counterparties with respect to the Issuer's securities, in each case subject to applicable securities laws, the lock-up restrictions set forth in the Issuer's bylaws (the "Bylaws"), as described in Item 6 of this Schedule 13D, and any then-applicable policies of the Issuer.

Other than as described above in this Item 4 and Item 6, none of the Reporting Person or the Related Persons do not have any present plans or proposals that relate to, or would result in, any actions or events specified in clauses (a) through (j) of Item 4 to Schedule 13D.

Item 5. Interest in Securities of the Issuer

(a)-(b)

The following sets forth, as of the date of this Schedule 13D, the aggregate number of shares of Common Stock and percentage of Common Stock beneficially owned by the Reporting Person and each Related Person, as well as the number of shares of Common Stock as to which the Reporting Person or Related Person has the sole power to vote or to direct the vote, shared power to vote or to direct the vote, sole power to dispose or to direct the disposition of or shared power to dispose or to direct the disposition of, as of the date hereof, based on 84,168,916 shares of Common Stock outstanding as of September 14, 2022. Neither the Reporting Person nor any Related Person owns any public warrants of the Issuer.

To the Reporting Person's knowledge, no other Related Person beneficially owns any shares of Common Stock.

Name	Amount beneficially owned	Percent of class	Sole power to vote or to direct the vote	Shared power to vote or to direct the vote	Sole power to dispose or to direct the disposition	Shared power to dispose or to direct the disposition
Reporting Person	65,515,552	77.8%	65,515,552		65,515,552	
Dr. Kang Sun(1)	1,364,904	1.6%	1,364,904	_	1,364,904	_
William Deihl(1)	382,686	*	382,686	_	382,686	_
Donald R. Dixon(2)	256,301	*	56,301	200,000	56,301	200,000
Dr. Wen Hsieh(1)	56,301	*	56,301	_	56,301	_
Dr. Steven Chu(3)	61,301	*	61,301	_	61,301	_
Dr. Yi Cui(4)	777,950	*	727,950	50,000	727,950	50,000
Alan Salzman(5)	400,000		_	400,000	_	400,000

- Represents less than 1%.
- (1) Consists of shares of Common Stock underlying options that are exercisable within 60 days of September 14, 2022.
- (2) Consists of (i) 56,301 shares of Common Stock underlying options that are exercisable within 60 days of September 14, 2022 over which Mr. Dixon has the sole power to vote or to direct the vote and sole power to dispose or direct the disposition, (ii) 100,000 shares of Common Stock issued in the PIPE held by The Dixon Revocable Trust, over which Mr. Dixon and his spouse, as co-trustees, have shared power to vote or to direct the vote and shared power to dispose or to direct the disposition and (iii) 100,000 shares of Common Stock issuable upon the exercise of PIPE Warrants held by The Dixon Revocable Trust, over which Mr. Dixon and his spouse, as co-trustees, have shared power to vote or to direct the vote and shared power to dispose or to direct the disposition.
- (3) Consists of (i) 56,301 shares of Common Stock underlying options that are exercisable within 60 days of September 14, 2022, (ii) 2,500 shares of Common Stock issued in the PIPE and (ii) 2,500 shares of Common Stock issued upon the exercise of PIPE Warrants.
- (4) Consists of (i) 727,950 shares of Common Stock underlying options that are exercisable within 60 days of September 14, 2022 over which Dr. Cui has the sole power to vote or to direct the vote and sole power to dispose or direct the disposition, (ii) 25,000 shares of Common Stock issued in the PIPE held by the Yi Cui and Meng Sui Family Trust, over which Dr. Cui and his spouse, as co-trustees, have shared power to vote or to direct the vote and shared power to dispose or to direct the disposition and (iii) 25,000 shares of Common Stock issuable upon the exercise of PIPE Warrants held by the Yi Cui and Meng Sui Family Trust, over which Dr. Cui and his spouse, as co-trustees, have shared power to vote or to direct the vote and shared power to dispose or to direct the disposition.
- (5) Consists of (i) 100,000 shares of Common Stock issued in the PIPE held by VantagePoint CleanTech Partners II, L.P. ("VP CleanTech"), (ii) 100,000 shares of Common Stock issuable upon the exercise of PIPE Warrants held by VP CleanTech, (iii) 100,000 shares of Common Stock issuable in the PIPE held by VantagePoint Venture Partners 2006 (Q), L.P. ("VP Venture") and (iv) 100,000 shares of Common Stock issuable upon the exercise of PIPE Warrants held by VP Venture. Mr. Salzman is the managing member of VantagePoint Venture Associates 2006, L.L.C., the general partner for VP Venture and the Chief Executive Officer of VantagePoint CleanTech Management, Ltd., the general partner for VantagePoint CleanTech Associates II, L.P., the general partner for VP CleanTech and may be deemed to beneficially own the shares held by VP Venture and VP CleanTech. Mr. Salzman disclaims beneficial ownership of all such shares.

- (c) Neither the Reporting Person nor, to the Reporting Person's knowledge, any Related Person has effected any transactions of the Issuer's Common Stock during the 60 days preceding the date of this report, except as described in Item 3 of this Schedule 13D, which information is incorporated herein by reference.
- (d) No person has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of Common Stock reported herein as beneficially owned by the Reporting Person or, to the Reporting Person's knowledge, any Related Person.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

Registration Rights Agreement

In connection with the Closing, on September 14, 2022, the Issuer entered into a Registration Rights Agreement (the "Registration Rights Agreement") with the holders named therein, including the Reporting Person. Pursuant to the Registration Rights Agreement, among other things, the Issuer is obligated to file a registration statement to register the resale of certain securities of the Issuer held by, among others, the Reporting Person. In addition, pursuant to the terms of the Registration Rights Agreement and subject to certain requirements and customary conditions, including with regard to the number of demand rights that may be exercised, the Reporting Person may demand, at any time or from time to time, that the Issuer file a registration statement on Form S-3 (or on Form S-1 if Form S-3 is not available) to register the securities of the Issuer held by the Reporting Person. The Registration Rights Agreement also provides the Reporting Person with "piggy-back" registration rights, subject to certain requirements and customary conditions.

This summary is qualified by the actual terms of the Registration Rights Agreement, a copy of which is attached as an exhibit to this Schedule 13D and is incorporated herein by reference.

Lock-Up Restrictions

The Bylaws provide that, without the prior unanimous consent of the Issuer's board of directors and subject to certain customary exceptions, including the exclusion of transactions relating to the component parts of the PIPE Units, each holder of Common Stock issued (i) as consideration pursuant to the Business Combination Agreement, (ii) upon the exercise of warrants or other convertible securities outstanding following the Effective Time in respect of warrants or convertible securities of the Issuer outstanding immediately prior to the Effective Time or (iii) to directors, officers and employees upon the settlement or exercise of stock options, restricted stock units, or other equity awards outstanding as of immediately following the Closing in respect of awards of the Issuer outstanding immediately prior to the Effective Time, will not, for a period ending on September 14, 2023, directly or indirectly, lend, sell, offer to sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of or agree to dispose of, their shares of Common Stock.

If, following the 150th day after the Effective Time, the closing price per share of Common Stock for any 20 trading days within any 30 consecutive trading day period is at least \$12.50, the lock-up restrictions will no longer apply.

This summary is qualified by the actual terms of the Bylaws, a copy of which are attached as exhibits to this Schedule 13D and are incorporated herein by reference.

Tax Sharing Agreement

Concurrently with the execution of the Business Combination Agreement, Legacy Amprius and the Reporting Person entered into the Tax Sharing Agreement. The Tax Sharing Agreement generally provides that, with respect to any U.S. federal consolidated group of which the Reporting Person and Legacy Amprius were members, the Reporting Person will be responsible for and will indemnify the Issuer for the tax liability of such group. In addition, the Reporting Person will be responsible for and will indemnify the Issuer for state taxes of any consolidated, combined or unitary tax group for state tax purposes that included the Reporting Person and Legacy Amprius. The Tax Sharing Agreement also provides that the Reporting Person will generally control any tax returns and any tax audits or other proceedings for the taxes addressed by the Tax Sharing Agreement.

PIPE Subscription Agreement

As disclosed in Item 3, The Dixon Revocable Trust, the Yi Cui and Meng Sui Family Trust, Dr. Chu and entities affiliated with VantagePoint Capital Partners entered into separate Subscription Agreements with the Issuer, pursuant to which The Dixon Revocable Trust and Dr. Chu subscribed for 100,000 PIPE Units, 25,000 PIPE Units, 2,500 PIPE Units and 200,000 PIPE Units, respectively.

Pursuant to the Subscription Agreements, the Issuer agreed, among other things, that, within 30 calendar days after the consummation of the Business Combination, the Issuer will file with the SEC, at the Issuer's sole cost and expense, a registration statement registering the resale of the PIPE Shares and the Common Stock and issuable upon exercise of the PIPE Warrants (the "Resale Registration Statement"), and the Issuer will use its commercially reasonable efforts to have the Resale Registration Statement declared effective as soon as practicable after the filing thereof.

This summary is qualified by the actual terms of the Subscription Agreements, a form of which is attached as an exhibit to this Schedule 13D and is incorporated herein by reference.

Item 7. Materials to be Filed as Exhibits

Exhibit <u>Number</u>	Description		
1	Registration Rights Agreement, dated September 14, 2022, by and among the Issuer and other parties thereto (incorporated by reference to Exhibit 10.1 to the Issuer's Current Report on Form 8-K filed September 16, 2022)		
2	Bylaws of the Issuer (incorporated by reference to Exhibit 3.2 to the Issuer's Current Report on Form8-K filed September 16, 2022)		
3	Tax Sharing Agreement, dated May 11, 2022, by and between Amprius Technologies, Inc. and Amprius, Inc. (incorporated by reference to Exhibit 99.1 to the Issuer's Current Report on Form 8-K filed May 12, 2022)		
4	Form of Subscription Agreement (incorporated by reference to Exhibit 10.1 to the Issuer's Current Report on Form8-K filed September 7, 2022)		

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: September 16, 2022

AMPRIUS, INC. a Delaware corporation

By: /s/ Kang Sun

Name: Kang Sun Title: Chief Executive Officer

SCHEDULE A

AMPRIUS, INC.

The name, title, present principal occupation or employment of each of the directors and executive officers of Amprius, Inc., are set forth below. The business address of each of the individuals listed below is c/o Amprius, Inc., 1180 Page Avenue, Fremont, California 94538. All of the individuals listed below are citizens of the United States.

Directors:

Name	Position at Amprius, Inc.	Present Principal Occupation or Employment	Citizenship
Dr. Kang Sun	President, Chief Executive Officer and	Chief Executive Officer, Amprius	United States
-	Director	Technologies, Inc.	
Donald R. Dixon	Director	Managing Director, Trident Capital	United States
		Managing Director, ForgePoint Capital	
Dr. Wen Hsieh	Director	General Partner, Kleiner Perkins	United States
		Caufield & Byers	
Dr. Steven Chu	Director	Professor of Physics and Professor of	United States
		Molecular & Cellular Physiology,	
		Stanford University	
Dr. Yi Cui	Director	Fortinet Founders Professor of Materials	United States
		Science and Engineering and Professor of	
		Energy Science and Engineering, Stanford	
		University	
Alan Salzman	Director	Managing Partner, VantagePoint Capital	Canada
		Partners	

Executive Officers (Who Are Not Directors):

Name	Present Principal Occupation or Employment	Citizenship		
William Deihl	Chief Financial Officer of Amprius, Inc.	United States		