

Case Studies of Lithium-Ion Incidents and Products



Sara Cadden

Product Safety Investigator

U. S. Consumer Product Safety Commission

4330 East West Hwy

Bethesda, MD 20814

www.cpsc.gov

4 injured after battery catches fire on United flight

The FAA said it will investigate.



Background

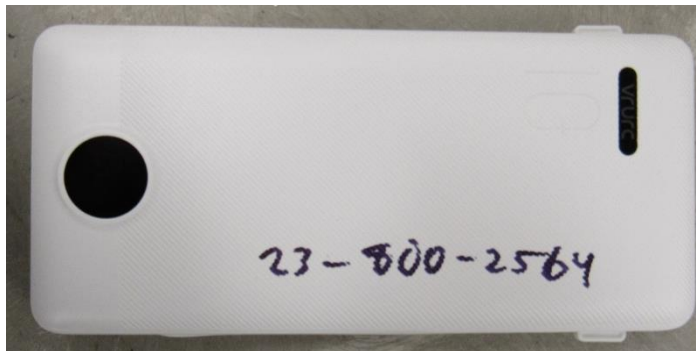
- High profile incident occurred on a plane with a power bank
 - Confined space
- Multiple agencies or organizations involved – FAA, Airport services, and Airline.
 - Incident sample stored in salt water as per FAA procedures
 - Limited availability to witnesses and occupant interviews
- Scene access
 - Scene secured, no access
 - Pictures from other sources
- Fire report
 - Interview with the owner of the phone
- Secured the incident phone

When his plane was ready to board, the consumer transferred the product from his bag gate the pas not from con gra the aisle beside him. The product combusted and fell apart into two pieces. The flight attendants used a fire extinguisher

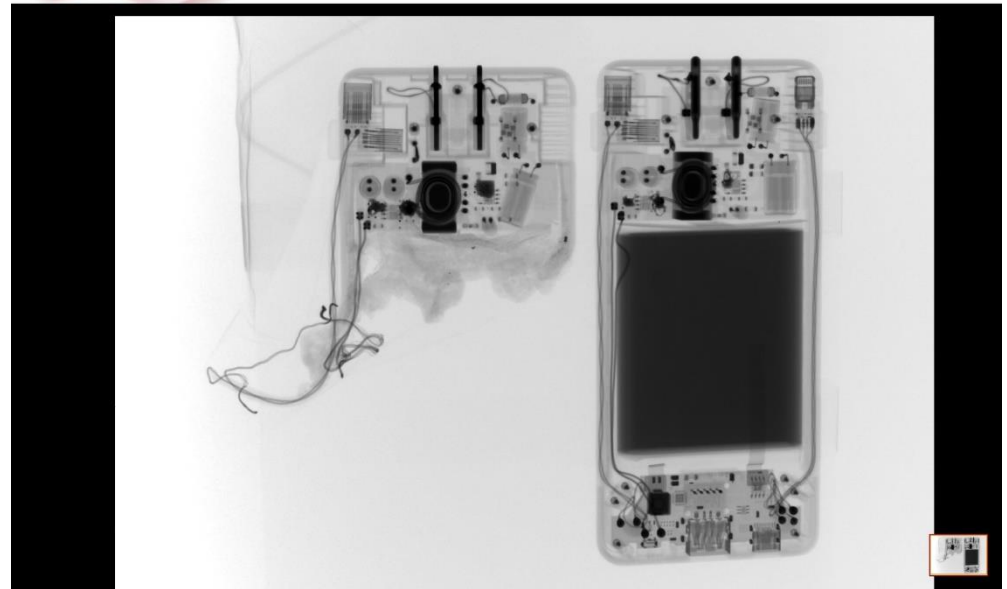


Outcome

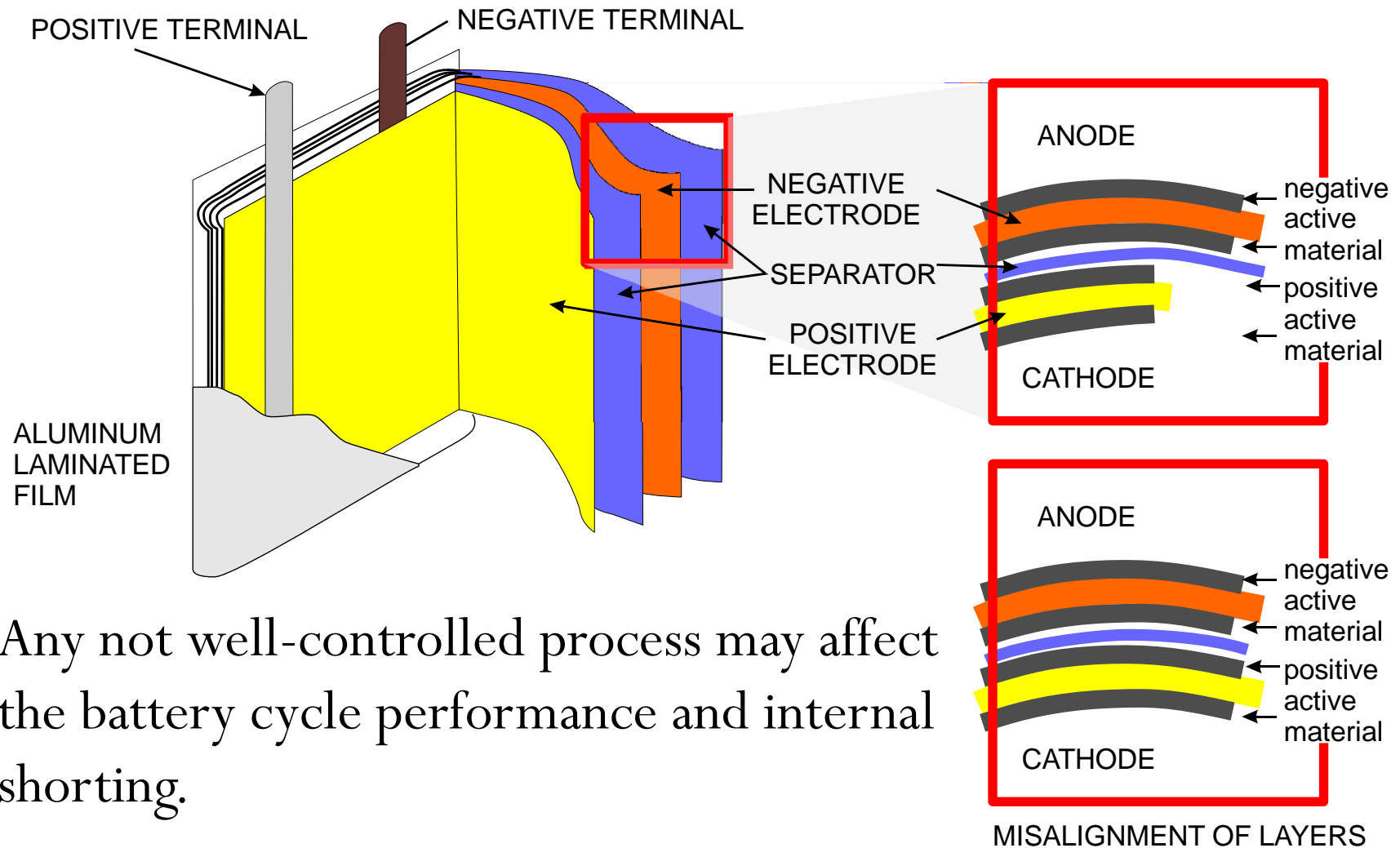
- Secured incident phone and exemplar for evaluation at CPSC lab, Rockville Maryland.



U.S. Consumer Product Safety Commission
National Product Testing and Evaluation Center
Rockville, Maryland

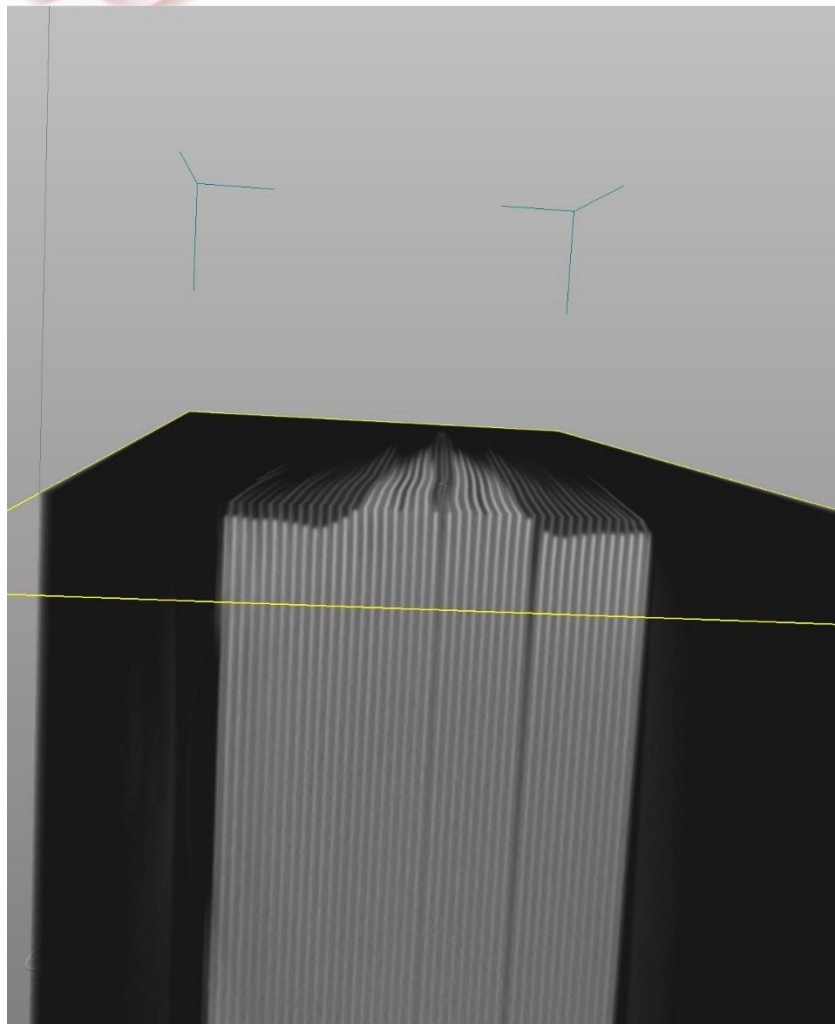


In the battery production process, the requirements for each step of the process are very strict.

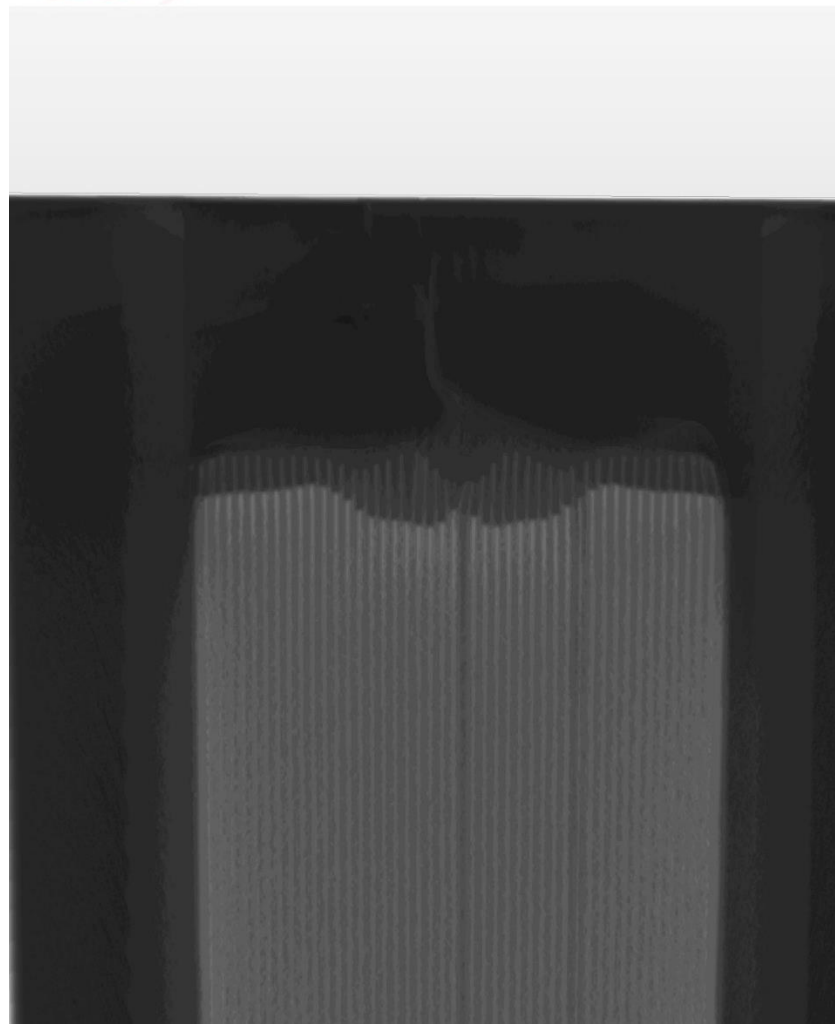




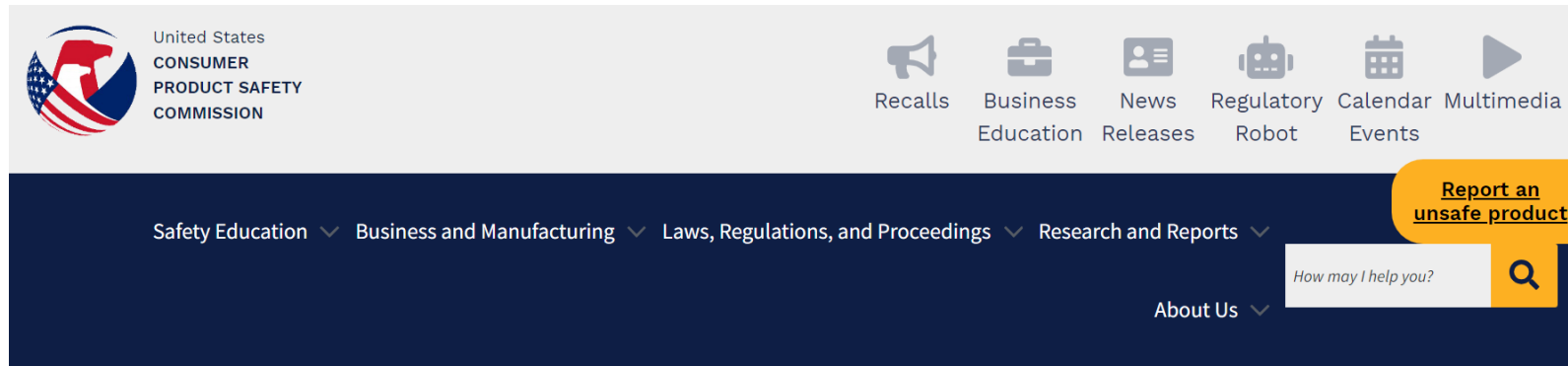
U.S. Consumer Product Safety Commission
National Product Testing and Evaluation Center
Rockville, Maryland



U.S. Consumer Product Safety Commission
National Product Testing and Evaluation Center
Rockville, Maryland



190,000 Portable Power Banks Recalled



VRURC Portable Chargers Recalled Due to Fire Hazard; Sold Exclusively on Amazon.com by VRURC; Caught Fire on Commercial Flight

vrurc 5000MAH POWER BANK 10000MAH POWER BANK 20000MAH POWER BANK WALL CHARGER ^{NEW} NEW RELEASE ABOUT VRURC



Popular portable chargers sold exclusively on Amazon recalled due to fire hazard



Friday, July 7, 2023



There is a [nationwide recall of VCURC portable chargers](#) after one of the devices caught fire on a commercial flight.

VRURC Recalls OD-B7 Power Bank

Spirit Airlines flight lands safely after crew reported a battery fire in the overhead bin

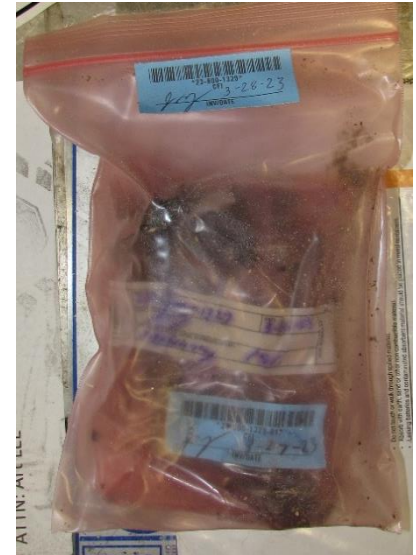


IDI Information

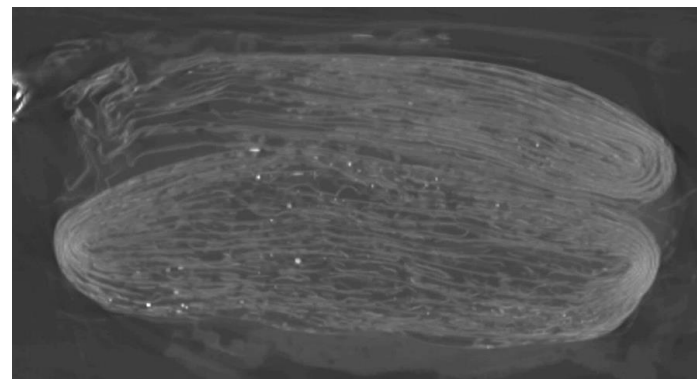
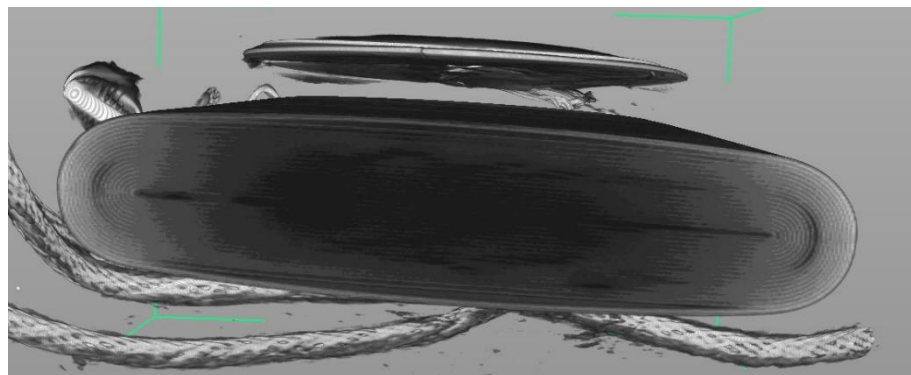
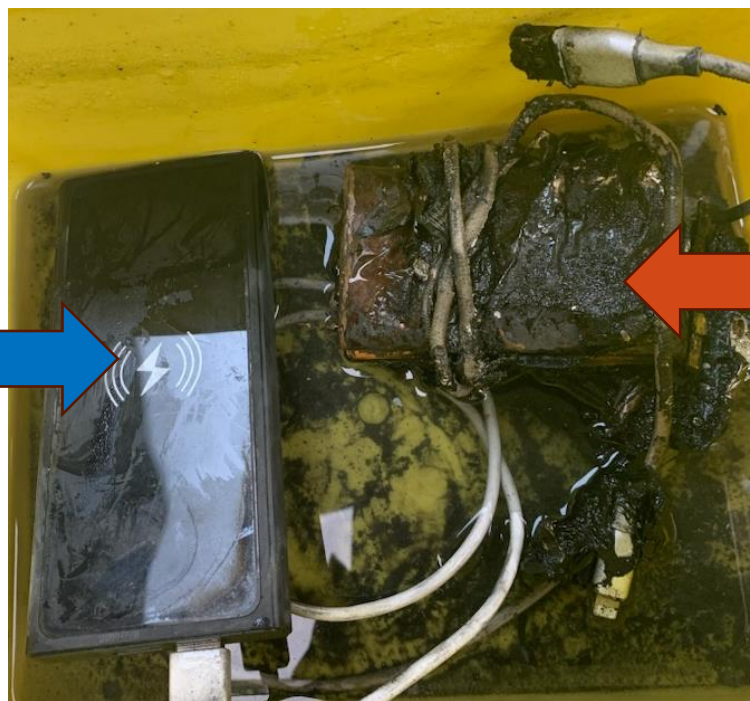
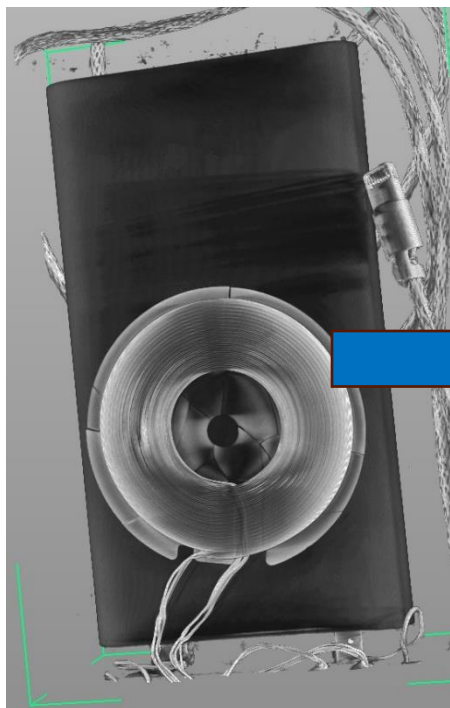
- Pre-Incident
 - Consumer claimed that both battery banks were turned off and stored in a mesh pocket inside carry-on luggage in the overhead bin compartment.
- Incident
 - Flight attendant (FA) noticed smoke emitting from the overhead bin (OHB) near row 17.
 - OHB compartment was opened, and bag was pulled out by a passenger (firefighter).
 - The flight crew in retrieving the battery packs and placed them in a container submerged in water until flight landed.
- Post Incident
 - On 3/2/2023, FAA special agent spoke with consumer who stated he owned the portable power banks involved in the incident.
 - The incident power bank was purchased at a national retailer. **The consumer reported that was all he remembered. No make or model was identified.**

Outcome

- Secured incident phone and exemplar for evaluation at CPSC lab, Rockville Maryland.
- Strict guidelines for shipping damaged Lithium-ion batteries.

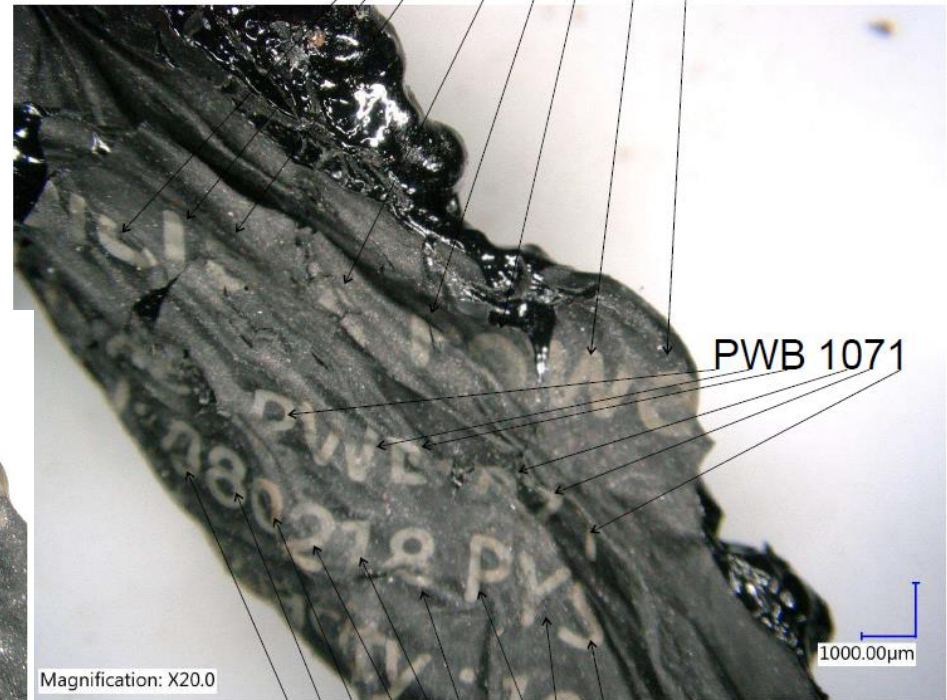


Analysis of the Incident Samples

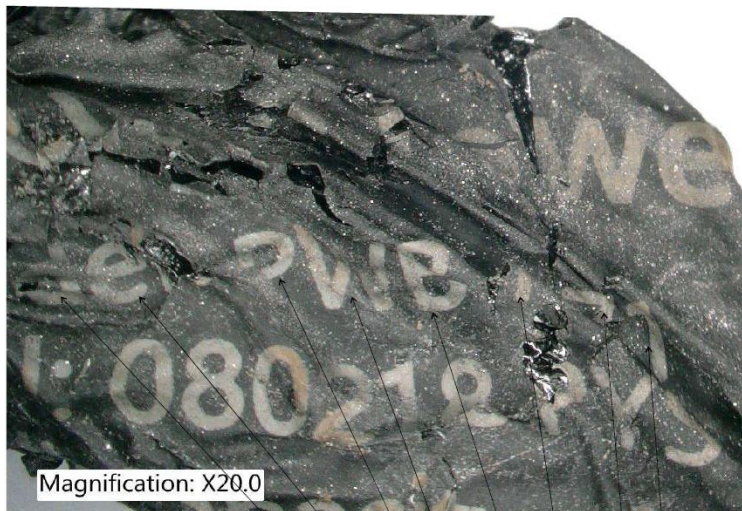


Incident Sample Identification

Ubiolabs Power Bank



B/N: 080218 PYS



Model: PWB1071

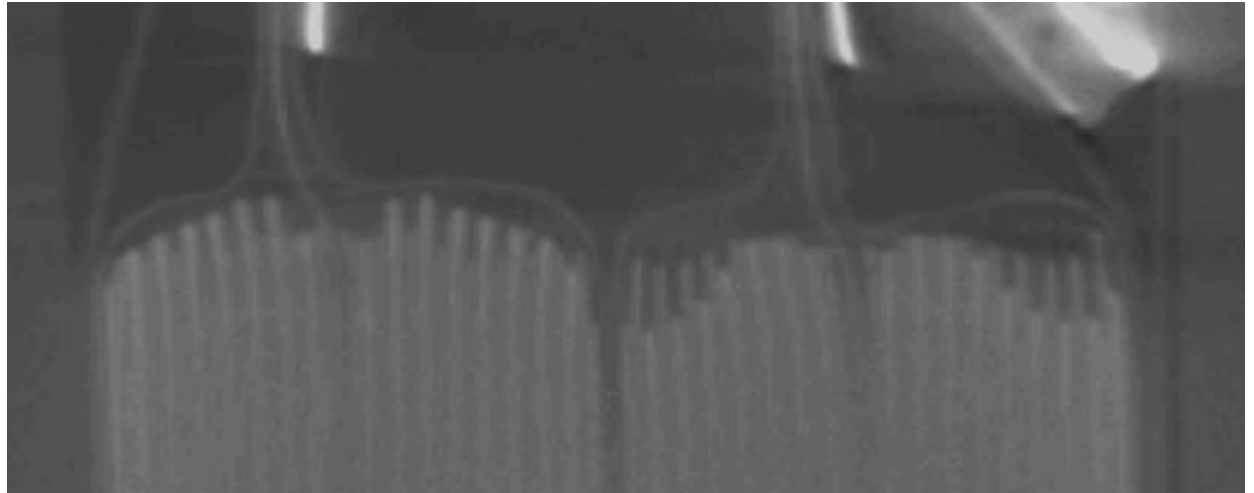
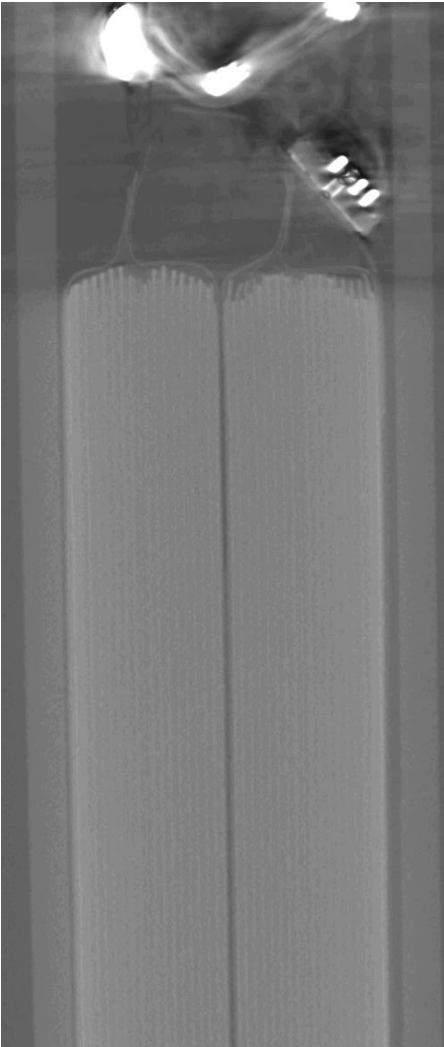
Sample Ubiolabs Power Bank Label

Ubiolabs Power Bank
Model: PWB1071
B/N: 070218 PYS
Cell Capacity: 10,000mAh/3.7V, 37Wh
Type-C Input: DC 5V/2.4A, 12W
Type-C Output: DC 5V/2.4A, 12W
USB-A Output: DC 5V/2.4A, 12W
Type-C and USB-A Output: 5V/4.8A, 24W

Twin Pack Sold at Costco



Misalignment of cell layers



- The top of the cells shows the layers of the anode and cathode are misaligned in both cells.

350,000 Portable Power Banks Recalled



United States
CONSUMER PRODUCT
SAFETY COMMISSION

Recalls

Business
Education

News
Releases

Regulatory
Robot

Calendar
Events

Multime

Safety Education ▾

Business and Manufacturing ▾

Laws, Regulations, and Proceedings ▾

Research and Reports ▾

About Us ▾

How may I help you?

Costco Recalls Ubio Labs Power Banks Due to Fire Hazard; Caught Fire on Commercial Flight (Recall Alert)

English

Chinese, Simplified

Chinese, Traditional

Share: [f](#) [t](#) [r](#) [p](#) [+](#)

Re
unsaf



Recalled power banks in dual pack

Name of Product:

Ubio Labs power banks

Hazard:

The recalled po

Remedy:

Refund

Recall Date:

August 17, 2023



Welcome to Costco Customer Service

What can we help you with?

Membership Costco.com Warehouse Returns & Exchanges Products & Services Payment & Tax Info Technical Help & Warranties Business Delivery

Customer Service Home Page

Ubio Labs 10,000mAh Slim Portable Power Banks Recall

IMPORTANT RECALL NOTICE

Costco is recalling select Ubio Labs 10,000mAh Slim Portable Power Banks purchased between September 2018 and December 2020. Members who purchased the Ubio Labs 10,000mAh Slim Portable Power Banks during this timeframe will receive an email or mailed letter.

If you have one of the recalled power banks listed below in your possession, please immediately stop using it. The lithium-ion battery inside the power bank can overheat and ignite posing a fire hazard. Costco has notified the U.S. Consumer Product Safety Commission about this issue.

UBIO Labs 10,000mAh Slim Power Bank FAQs

My Ubio Labs 10,000mAh Slim Power Bank still works; can I keep it?

Our highest priority is the safety of our members; for this reason, we are urging all Ubio Labs 10,000mAh Slim Power Bank users to stop using their device, and return it to Costco for a full refund.

I don't want a refund. What other options do I have?

Our highest priority is the safety of our members; for this reason, we are urging all Ubio Labs 10,000mAh Slim Power Bank users to stop using their device, and return it to Costco for a full refund.

How do I return my Ubio Labs 10,000mAh Slim Power Bank?

Please bring it to your local Costco warehouse for a full refund.



My Orders



Membership
Auto-Renewal



Return/Replace
Order



Price
Adjustment



Cancel Order



Verify
Membership



Update Account



Edit Shipping



United States
CONSUMER PRODUCT SAFETY COMMISSION

Sara Cadden

Product Safety Investigator

Scadden@CPSC.gov

(240)534-9046

FAX: 855-219-8225

Saferproducts.GOV

CPSC.GOV