Peggy Shepard

It's difficult to assess how much damage to our health BESS fires have caused. Keep in mind that large lithium batteries are significantly more dangerous than smaller ones, and the smaller ones kill.

Lithium-Ion Hospitalizes Firefighters

https://youtu.be/lADLvwAJs-c?si=7r-lrbNNf3K6VDU7

Comments
@mojoneko8303
1 month ago
I was a firefighter for 28 years. I hired on in the mid 70's when SCBA's were first becoming a thing. A lot of the older guys wouldn't use them because the early SCBA's were very heavy and cumbersome. They would give me a hard time for using them. This was near the end of the "Leather Lung" era of Fire Fighting. These guys would come out of a structure fire after extinguishing it looking like they had just got off a shift in a coal mine sit down on the tailboard and light up a cigarette. When I hired on I was told that Fire Fighters typically died within 5 years of retirement. I was determined to beat those odds and wore my airpack at all structure and car fires. I've been retired for 22 years now and still have no health issues. It can be done. Thanks for the video. Glad I retired before the LiPo fire era..

@patricklockerby4308
1 month ago
I was on a safety course over 40 years ago where we were instructed about the dangers of hydrofluoric acid. The acid was being used in the factory to etch glass. It was kept in lead containers because it attacks just about everything else.
The biggest takeaway from that safety course was that hydrofluoric acid causes no pain on first contact. The damage is at first invisible but can be catastrophic. That is why we were instructed that if splashed with even a tiny amount of the acid we were to irrigate it copiously and then go directly to the infirmary.

@MrVeryCranky
1 month ago
Hydrofluoric acid also causes arrhythmia

@jeffn8218
1 month ago
I work on data center scale power backup systems and in training on lithium ion batteries, we were told to get as far as possible from batteries in thermal runaway because of hydrogen flouride. Everything else was secondary and hydrogen flouride was the primary danger of lithium ion battery fires. That was six years ago. This has been known for a long time. It's surprising it isn't a bigger deal.

@VeteranofthePsychicWars

1 month ago
I interned at a steel mill in college. I and three colleagues got a lung full of blast furnace gas, primarily CO. It felt like someone had wrapped a strap around my chest and used a team of horses to tighten it. Odorless, colorless, and lethal. [note: CO is also emitted from lithium battery offgassing]

@redrider7730
1 month ago
I do not understand the lack of legislation on these, and the fact they are coming utterly unregulated form a country that does not like us.

@Pab-B
1 month ago
This video possibly saved my house and me and my family. We love electric rc cars and have several high-capacity LiPo batteries. I keep them stored in ammo boxes but just learned that they need to be vented to allow for escape of expanding gasses. After watching this, I checked on them and two packs had swollen and broken open. I immediately took them outside and placed them in a metal container and covered them with dry sand. It's sitting on pea gravel in an open area. I will take it to my local county disposal site tomorrow in the bed of my truck. THANK YOU!!!

@JaniceVineyard-kf6wm
1 month ago
That this is being allowed to poisen and kill people is just evil.

@garymalone547
1 month ago
Those jump starter battery packs look lethal.

@boblatzer
1 month ago
3 E bike battery fires in a 24 hr period in Toronto yesterday in hi rise apartments. Unfortunately there are no regulations covering these batteries.

@greenthing99100
1 month ago
I had to use hydrogen fluoride [HF] for preparation of sediment, to remove the silica remains of diatoms, during my Ph D research nearly 50 years ago. It scared the living daylights out of me then and still does. Do not breathe anything that looks like smoke coming from any appliance containing lithium ion batteries; it isn't smoke in any conventional sense; it is a cloud of more or less toxic vapours and gases and particulates. The rule in my lab was simple - smoke or vapour of any sort, press the fire alarm, make sure all your colleagues are out of the lab. - drag them if necessary. Signage outside warned first responders. Stay out, no matter how important the thing you just remembered, it is not worth dying for. If the vapour touched your skin or clothes, don't be shy, strip them off and wash down with the shower provided for the purpose, until someone tells you to stop

so they can take you to hospital for assessment. HF will form hydrofluoric acid with any moisture including sweat and will pass into the body through skin. Shudder...

@greenthing99100
1 month ago
@VariantAEC HF and hydrofluoric acid cause deep skin burns and bone damage, enter the blood and bind with calcium and magnesium causing hypocalcemia. Dilute solutions are dangerous because the surface may not hurt for a day or two while underneath it is causing severe damage. Even small splashes may lead to cardiac arrest and seizures. Breathing in HF creates acid directly in the respiratory tract and lung tissue causing unsurvivable damage. Guaranteed HF and hydrofluoric acid proof whole body personal protective equipment including breathing apparatus is essential to avoid exposure. Calcium gluconate is used in treatment but will not prevent or reverse damage so exposure should be avoided. Long-term damage is not much of a risk if you are dead, and even if you survive, lifelong long term scarring, disability and pain may continue indefinitely.

@michaelk7111
1 month ago
Nothing is more irritating to me as watching fire scene videos with fire personnel working a fire without their SCBA gear in use. In today's world you have no idea what is in smoke, or what particles are floating in the air after a fire (asbestos is one). I'm known to pull folks off the line and have them properly gear up, even my chief has gotten an earful from me.. You only have one set of lungs, take good care of them, and save the macho stuff for something else...

@davidbeem184
1 month ago
This is so far from "green"!

@marcusjones1088
1 month ago (edited)
The Sweedish military identified the gases from LFP and NMC batteries in TR. Chemicals found were similar to chemical warfare agents. HF is only part of the cocktail. SCBA is vital.

@brianm9962
1 month ago
I am sharing this with my model club as we use LiPo batteries almost exclusively, we dispose of old ones by discharging them, puncture them and placing into salty water. I didn't know the fumes could be so dangerous to health. Thank you.

@just-incase
1 month ago
Counterfeit products can sneak into the country. It's all the more concerning to think of how many shipping containers might have products with lithium battery packs inside, legitimately built to standards or not. Sigh, human lungs are precious!

@ainerush8942
1 month ago
Hi pat. I live in ireland and i'm so grateful to you for talking about these incidents. I live in the north and the police began a 'crackdown' on e- scooters and e-bikes being illegally used on public roads. There were pics uploaded of a lot of them and a post saying they would be destroyed. The psni,police service of ni, are not the best on health and safety so i hope the fire service are liasing with them to advise on storage safety etc. So many people are using e- transport and charging and storing them inside homes ,in rows of densely populated residential areas. Many houses of multiple occupancy have had e fires and residents have no control over what other residents bring inside the hmo. I believe that a public awareness and exposé should be done in every country. These e batteries and rechareable items are potential killers and people just are not aware of the risk. A family of 8 children and two parents were almost killed in an e-bike charging incident. The battery was charging in the garage and started a fire which caused an explosion and the fire ripped through the home. The family were left homeless but healthy. It was a christmas gift and the community rallied,a rental home was offered and toys ,gifts and replacements for
everything they had lost that could be replaced ,were offered to the family. Thank goodness everyone got out,stayed well away from the fire and their lives as well as their christmas were s a v e d .

@carlosgarrido4916
1 month ago
They sold us the safety of electric cars, liars

@garydargan6
1 month ago
I used to use HF at work in a dedicated fume cupboard which had a high face velocity to ensure removal of fumes. We were extremely vigilant on PPE. Wearing both safety glasses and face shields and using a plastic apron and triple gloving. We also has an emergency kit with neutralising gels containing calcium, Calcium tablet and ampoules of injectable calcium gluconate. The kit was packed with instructions to go with the patient to hospital after immediate first aid treatment. This included a recommendation to supplement magnesium intravenously. Apparently the acid also upsets the balance between calcium and magnesium in the bloodstream and can stop the heart as a result. Luckily we only had a couple of near misses because we were extremely vigilant. We had a colleague who spilt some on a small area of his thigh in his backyard lab. He dove straight into his swimming pool and called an ambulance. Unfortunately the hospital treated it as a normal acid burn and he died a few days later.

@rosswagner3021
1 month ago
Pat I am so glad you have this channel and you are willing to share your knowledge, you are awesome. I especially like when you share this information on batteries because this involves everyone and until I started watching your channel I did not realize how important it is to have this information and to be able to share it with others. I have passed on a lot of the things you have shared and about you channel because I feel it's that important for people to have this awareness. Thank you again.

@stevejagger8602
1 month ago
When I started watching your channel I searched for off gas products from Li ion battery in thermal runaway.
As soon as I saw Hydrogen Fluoride in the list it raised the alarm because I knew that breathed into the lungs it would form hydrofluoric acid - one of the most dangerous and corrosive acids, used to etch glass.
We urgently need more public information about the dangers posed by lithium (and sodium) batteries.

@YanestraAgain
1 month ago
HF is a catastrophe for the human body. It slowly kills you without telling you first.

@Armor_Strike
1 month ago
It is very unfortunate that the media fails to inform the public about the toxic fumes from batteries, as this poses a deadly threat to life and health

@edwarddavila3363
1 month ago
Pat, I appreciate the effort in making these videos. I am on the Haz Mat team at our fire department. Your videos help understand at FF level the challenges we all face. Presently, when we make any entry into a hot zone. Especially EV fires, we apply Flourine paper to our face mask. If I understood correctly, your saying the Flourine is so reactive, our monitors and F paper would not detect it. Is that for smaller batteries or all batteries. Thank you again. Your site provide me all sorts of information to help with all the challenges.
Ed

@Retrogamer71
1 month ago
Hydrogen Fluoride risk of death from battery fire on consumer products is really enough to ban the product on safety grounds.

@KrewOnyx
1 month ago (edited)
This video reminded me of the Illinios State Highway Patrol Ammonia Leak Training video, which has haunted me since watching it at training event over 30 years ago. Other things that have stuck with me from hazmat safety classes during the meth lab craze were to stay away from "methyl ethyl bad sh**," (a reference to part of the name of a family of very deadly chemicals) and "dilution is the solution to the pollution" (fire department washdowns are powerful tools in the hazmat game). I am hopeful that your outreach will help keep something like the Illinois fatal incident from happening

again. Love the "Live FD" video shorts. (Seems like something a good-humored cop would produce.) After the second one I recognized them as outstanding parodies. Firefighters have some great senses of humor. A Batallion Chief shared some good jokes with me two careers ago, in between serious moments, when I was a reporter at his incidents.

@paultranchell8927
1 month ago
As an Industrial Hygienist, I took a deep breath at the mention of HF. Yikes. An earlier video mentioned a study of chemical exposures from EV fires. I have been watching with anticipation for results. Love your videos.

@AndrewZonenberg
1 month ago (edited)
Early recognition and treatment of HF inhalation injuries makes a big difference in outcomes.

See Zierold, Dustin, and Matthew Chauviere. "Hydrogen fluoride inhalation injury because of a fire suppression system." Military medicine 177.1 (2012): 108-112.

This paper is specifically about fluorinated fire suppression agent tanks (like FM-200) being hit by plasma jets from RPGs in combat, so totally different mechanism of generation for the HF. But very similar results - minimal external injuries, patient seems fine, then goes into massive and in some cases fatal respiratory failure a bit later. Once they realized what was going on and treated the asymptomatic patients after similar RPG hits to the fire extinguisher in the future, outcomes improved dramatically.

@jazzandbluesculturalheritage
1 month ago
OMG! THIS IS FOOKING SCARY! NOW I UNDERSTAND WHY AIRLINES ARE ASKING WHETHER YOU ARE CARRYING LITHIUM-ION BATTERIES! GEEZ! PASSENGERS CAN BE KILLED BY THE FAILURES OF OTHERS WHO LIE! SCARY SCARY SCARY!

@aspensulphate
1 month ago
EV and E-bike manufacturers have built a huge industry on this vile, unpredictable battery technology. A safer, more stable battery is needed more than ever.

@JustPeasant
1 month ago
1) How much of a gasses these men inhale?
2) Considering no responses from governing bodies around the world on Lithium-Ion batteries safety: Are we dealing with Lithium-Ion batteries cartel?

@karyncremeens9376
1 month ago
One would hope some the research and development dollars being siphoned off would have are

should be going toward increasing the protection and safety of our fire and rescue personnel.

@johnsmit5999
1 month ago
That is a lot of damage in a very short time.

@wendywaddell-hardy9853
1 month ago (edited)
I had a leaf blower. I was careful to charge it and to unplug it as soon as it charged. TWICE the battery OFF the charger, it's light showing it is charging turned on all by itself! It happened in the winter and I live in a place where I don't turn the heater on. I took it back to ACE and explained what happened. I was never told the reason. I prefer a plug in blower now, even though it is a pain. Just don't trust lithium ion batteries.

@exzactlyy
1 month ago
Another reason HF doesn't show up in the gas data for many battery fire tests is because tests like UL9540A are looking at flammability hazards rather than toxic exposure. So HF often isn't reported at all. Newer testing requirements are changing that

@cloud-dragon
1 month ago (edited)
1:38 Additional to fluoride in the batteries - many compressors today use PTFE sealing, and when PTFE is burning - a nasty gas is emitted which can cause all kinds of health hazards - teflon flu, etc...

@robbobtheplucker3082
1 month ago
How can they even put this crap out there without a UL listings?????? Should be ILLEGAL and people should be held severely accountable especially with the risk and Injuries we keep seeing and hearing about!!!! Because of the $$$$ grabbers [you know our elected officials] this is going to be more common!!!!

@kruelunusual6242
1 month ago
These fires should have their own classification and required training!

@Truckngirl
1 month ago
Police are first responders, too. And they don't have any breathing apparatus on hand to protect them. It's crucial that departments worldwide are educated on these hazards. My brother is a patrol officer in Hawaii. I am the one educating him. His department has no policy, education or training

for EV and lithium ion battery thermal runaway. There are a HUGE amount of electric vehicles here (bikes, E motorcycles, and scooters), most ridden by children. Not to mention the plethora of EV cars and trucks. It's a bad situation.

@hungarianaustralian
1 month ago
No way???? This is MADNESS!!!!

@michaeljohnson4947
1 month ago
ban lithium ion batteries

@voranartsirisubsoontorn
1 month ago
Do they have good enough filter mask?

@leslieprophetter5040
1 month ago
If you are on an airplane and someone's battery goes off... the cheaper ones are the most volatile of course.

@PaulC-pm3ub
1 month ago
Hydroflouric acid can't be stored in glass bottles because it dissolves them. We were warned in Chemistry class that any contact with skin is followed by deeper damage (and it can go very deep). These batteries need to be banned, no matter how useful they are.

@debbyrogers3722
1 month ago
Thank you for warning us! These dangerous batteries why aren't they banned?

@GladysBailey777
1 month ago
Why are they legal?

@EveryDayCompute
1 month ago
I am thinking we should have mandatory labeling of what gases will be emitted if something burns so people have that info

@jimbrewer2893
1 month ago
It's disturbing to me to see videos of firefighters not wearing SCBA on the job. Especially with so

many suffering cancer and other health problems. Retired VFF/EMT.

@zfloflo
1 month ago
It may be worth to have a systematic survey of ALL firefighters involved with Li ion incident. The results may be unsettling.

@paulh6395
1 month ago
The agenda is much more profitable than peoples lives .

@TheRustyLM
1 month ago
Would love a website database of battery fires, national and worldwide.

@drzeng-ie8eb
1 month ago (edited)
How many people have to die before these Lithium batteries are Ban .

@drzeng-ie8eb
1 month ago
Lithium batteries are extremely dangerous and are toxic bombs. They should be BAN worldwide before they poison our Environment

@dpose6525
1 month ago
Do you have a simple video we can all send to our family members who know nothing about the dangers of these batteries and what to in a thermal runaway situation

@skdsky0
1 month ago (edited)
I had a 50lb lifepo4 (one of the safest chemistry!!) battery blow up and got a lung full of the smoke, + an additional 3 minutes of exposure as I dragged the flaming pack outside. ... Lungs Immediately burned for hours, and I felt strangely unwell for the whole day. It's been now months, and fortunately didn't die. Probably caused permanent damage to something I can't see. Would NOT recommend... Do everything you can to make sure if a pack catches fire it's not around anything AND the smoke goes outside.

@jim-t4q
1 month ago
I thought the hydroflouric acid thing was primarily a result of lithium metal batteries exploding? There's been multiple stories of people who have ruined their lungs by breathing a cloud of this from lithium metal battery failures

@silent1967
1 month ago (edited)
I would say after watching Pat talk about so many of these (it should only take one report though) that everyone should have some type of portable air supply to use (in their home, garage or shop) if they have to deal with these batteries. Other than that just GET OUT and let it burn.

@randomidiot8142
1 month ago
It didn't take that long for r12 to be replaced. How many people need to die before we stop pushing these li's?

@DeeDee-pw9pm
1 month ago
I have a 12v 2000a battery booster for my car.
Chose it because it only has a small laptop sized (50-80Wh) Li-ion battery while the rest of the capacity is lead-acid.
Li-ion battery capacity is now my #1 consideration when i buy any electrical device with internal power storage.

@tg-zr6iq
1 month ago
A lot of ebikes can be criticaly seized means throw the whole bike out fire extinguisher won't work each cell burns

@andrewjohnson4021
1 month ago
I think a lot of people told them that it was dangerous and unstable and then they used it anyways.

@frankroper3274
1 month ago
I am not a firefighter per se but I tried to get the battery out of a cell phone to re-boot it and it sparked and you have no time to think. It is extremely hot in a flash and you drop it and hope your house doesn't burn down! I know now why they don't want them on planes! Mine did not smoke or give a warning it was just a small battery that was a large hot ball of fire about the size of a bowling ball in a millisecond! Don't mess with them!

@allen423100
1 month ago
dang scary we have 2 E moto bikes and some electric Skate boards most fun iv ever had. but now im thinking if we should get rid of them

@MajorKenshy
1 month ago

Nothing to worry about! This is mostly eco friendly lung damage!

@vladimus9749
1 month ago
I know you've discussed the explosion hazards of lithium iron chemistry. Can you do one on sodium ion hazards?

@crackerede
1 month ago
what I would have wanted to learn is:
how much direct cloud you need to breath in, buts it's hard to do those tests.

I guess that at different stages of battery fires- different gases are released, some require few pufs, some require proper inhale to do damage. The battery chemestry and specific OEM cells are built with a bit different materials, right?

But anyway- see smoke- cover mouth - use proper ppe!

@Ja_Mes
1 month ago
We literally don't need this stuff we lived fine without all this electricity and energy. Sad. And modern humans think theyre smart.

@AndrewChristophersen
1 month ago
Fascinating and very concerning! Is there any treatment (eg a gas) that can neutralise the acid in the lungs and prevent the ongoing damage ?

@TomTsuji
1 month ago
How about a video on what Civilians can use. Are Filtered Respirators a Safe option - as you attempt to remove a smoking battery to outside the house? Is Holding your breath the Only option?

@dedr4m
1 month ago
Li-Ion battery fires:
Expanding/hot: Hold Breath, Get far away up wind, Begin breathing, Call Emergency.
Exploding: Breathe out, Get far away up wind, Regain breath, Call Emergency.
Those are the safest things to do in both these cases to protect your lungs or reduce chances of injury.
.
If one absolutely has to be around a Lithium fire for even a second, HOLD YA BREATH and DON'T BREATH IN until completely clear from the battery!
In situations such as this, recharge outside where possible, if it begins to thermal runaway, get away

from it!
If one is inside and next to a door, especially an open door, if it's looking heated up or swollen Immediately take in a breath BEFORE any fumes are emitted and use as much of that breath to decide to either leave the building or evict the battery from the building, whichever is the safest to do. But once committed, one MUST commit to that decision, no thinking, "Oh, I can just hold my breath and go back in to remove the burning battery", all it takes is for a gag-reflex to open the air-ways for the toxic fumes to enter the lungs and that's not going to be a pleasant experience, survival or not.
Also, once the fumes escape the battery, keep as far and up-stream from the gases as reasonably possible to achieve as little to no exposure.

@TehPwnerer
1 month ago
wonder if inhaling sodium bicarb would be effective postphaxis

@ChristinaAderena
1 month ago
How do we know what things have lithium ion batteries? Is there a comprehensive list

@christiantroy7722
1 month ago
They don't want this information to be public it goes against the net zero bull there trying to ram down your throat you won't see any of this ever mentioned in the News channel

@laurarandolph5600
1 month ago
These operate like a deadly, high tech landmine.

You step on it in your own home by charging your bike, which you assume is a non-deadly eco-friendly transportation vehicle.

And you get a delayed stealth, deadly explosion of your insides.

These things have to be outlawed.

@JimboP-Outside
1 month ago
These videos are very important and I appreciate that you make them so that we're well informed. However, what are we supposed to do? Anything I buy from Amazon, Walmart, Best Buy, you name it has a lithium ion battery in it. Also, you had mentioned in a prior video that the worst place to store them is in the basement. Well, I can't put them in my garage or my shed because both heat up to over 100° in the summer and less than 0° in the winter and my understanding is lithium ion batteries don't like temperature extremes. So what do we do about this and where do we store them? About the only thing I could figure out so far was I buy some fire resistant and explosion resistant bags off of Amazon that are allegedly designed to house these batteries and hopefully reduce the

effect of a lithium ion runway. But I have no frigging idea, and I don't know what else to do.

@mikecolby
1 month ago
It just occured to me, when dealing with these smaller packs, what if you were to submerge it in water, say a toilet, sink, or bathtub of water? Wouldn't that solve most issues? Perhaps just need to vent the area ?

@bobclarke5913
1 month ago
Say you have a battery vent in your garage - how long before it's safe to go back in?
Hours, days, years?

@Jon-uj2uw
1 month ago (edited)
I was stuck in a garage with a 30ah 52v ebike battery explosion, the air was completely white my lungs are 100% ok, it's gotta be because of God protecting me or praying about it afterwards either way it was thanks to god

@autodogdact3313
1 month ago
I have 2 sets of recalled handwamers with these batteries. The problem is how do you dispose of them? Nobody takes the recalled ones that I can find.

@Myneckofthewoods7
1 month ago
Are this batteries blowing up due to the extreme heat we are having... if that is the case we have another bigger problem

@iain3411
1 month ago
But there are fake UL listings out there. I'm a retired UL-508A wireman and did all the UL tagging. When the UL inspector comes in and wants to see all our wire because of fake UL markings in the early 2000's . That was back then , how many fake ETL , CSA , UL , CE markings out there ?

@darkseid8481
1 month ago
Funny enough 15 years or 20 years ago my old laptop battery popped but didn't emit smoke just a chemical smell. Maybe a faint smoke for very short time. It was lion

@LoFiNic2025
1 month ago

I couldn't believe firefighters were spraying water on lithium fires? I mean?

@richardmeo2503
1 month ago
Must detox the gear after the fire. Including the SCBA

@imnotusingmyrealname4566
1 month ago
Wow shocked how small the battery was. Scary stuff.

@Eduardo_Espinoza
1 month ago
Lead acid batteries have scary warning labels

& these batteries turn into acid in your lungs on contact.

@Milosz_Ostrow
1 month ago
(1:43) A UL mark on an electrical product made in China may be meaningless. Chinese manufacturers are known to forge UL stickers, as I was told years ago by an engineer who worked at UL in Santa Clara, California.

@trevorwilliams1783
1 month ago
Hey Stach I was directly down wind of the spokane fires in the mountains 20-30 miles away. The night that the 600 homes burned my dog got sick and my lungs also experanced the worst pain I have ever felt for them, I got no sleep that night from the lung pain. I am recovered as far as my lungs go but my dog has only been getting worse. Shes very old so I understand to a point but I do have a question. It started out with vomiting and diahrea for her that night and the following days. That got beter however she started to display diabetes like symtoms after this that have only got worse, and some neurological symtoms that have not resloved. What did we breath in from those homes burning?

@drwork2491
1 month ago
People go into hysterics about nuclear power but shrug their shoulders about lithium battery fires. Absolute insanity

@jojobaker1764
1 month ago (edited)
Most of us already knew that these batteries were extremely toxic. Some of us chose to except the risk .I personally I wouldn't own a electric car. And I absolutely wouldn't park one in my garage.

And after seeing an electric bike catch fire and the fire department not being able to put it out that ruined my thoughts of buying an electric bike .

@sqr2026
1 month ago
These should be banned as they are dangerous.

@anthonyvalenti9093
1 month ago
How can a non UL battery be sold?

@VictorLarsen-fy9ls
1 month ago
Because manufacturers are silent about the dangers of their products, and new, safer batteries, such as sodium batteries, are not being developed or mass-produced yet. Although sodium battery technology was developed and tested six years ago, they are more fire-safe, only lose part of their charge when damaged, and are less toxic.
These corporations are lobbied by the same people who lobbied for DuPont and other chemical companies involved in scandals.

@wiregold8930
1 month ago (edited)
Fluoride ion, F- , is the most reactive of all common ions.
It's electronegativity is equaled only by cyanide ion, CN- .

@schragervogel8018
1 month ago
Lithium batteries should actually produce an odorant, just like town gas used to because of the carbon monoxide.

@JoeyBlogs007
1 month ago
Do sodium batteries present similar problems during thermal runaway? all be it less likely.

@thomaslabantt6625
1 month ago
THEY WANTED TO BE A FIREMAN AND DIDNT KNOW ITS DANGEROUS ??

@yellingintothewind
1 month ago (edited)
Carbon monoxide is not a major long term threat from this sort of source. It either hits a level to cause acute distress (and is likely lethal within minutes), or it doesn't. The long term prognosis for short duration acute exposure to CO is good. You'll need to replace a bunch of red blood cells, with all the associated issues, but after that you'll probably be fine. It's the metals that will mess you up

permanently. Or you HF, that'll do you too. I didn't realize these suckers produced that, yikes.

@InTheGarden1960
1 month ago
Lithium batteries is what brought down mh370. I investigated that accident, just think how bad it was mixing those with salt water. Huge explosion.

@Spiethstar
1 month ago
Wow, that's pretty shocking.

Even with the knowledge, convenience is so hard to counteract that most people won't care about the risk till it's too late.

I'm a bit worried about my mom and her ebike that's in a storage room when she's not using it..
But there isn't a place to put besides there..
Now I know what my mom used to feel when I was testing my bulletproofness all these years..

@mobilecommunicationsnetwor5268
1 month ago
This video discusses the severe health risks associated with lithium-ion battery failures, focusing on a recent incident in Wyoming and medical research regarding lung injuries from toxic vapor inhalation.

Key takeaways:

The Wyoming Incident: A volunteer firefighter named Jack was hospitalized after a SMARTECH jump starter went into thermal runaway (0:00-0:50). Despite quickly moving the device outdoors, he later developed neurological symptoms, vision changes, confusion, and a stutter (0:54-1:13).
Toxic Vapor Hazards: When batteries enter thermal runaway, they release a highly toxic cloud containing carbon monoxide and other hazardous materials (1:16-1:26, 2:06-2:16, 3:15-3:28). The SMARTECH unit involved lacked a UL safety certification (1:39-1:53).
The Danger of Hydrogen Fluoride: A 2026 study from Dublin highlights how hydrogen fluoride gas, released during battery fires, binds with moisture in human airways to form hydrofluoric acid (4:18-4:31). This acid causes severe, often delayed, destruction of lung tissue, as documented in two e-bike battery fire cases (4:47-6:30).
Safety Recommendations: Because the damage from toxic inhalation may not appear immediately (6:31-6:49), the host stresses the importance of using SCBA (Self-Contained Breathing Apparatus) when dealing with any lithium-ion fire, even after the flames are extinguished (7:28-7:44).

@ronfarnsworth7074
1 month ago
What kind of Li batteries or electrolyte release hydrogen flouride?

@billsmith9249

1 month ago
Almost every cell phone uses lithium ion battery.. not sure if those would have the same effect.. what about power tools? I have dozens of Dewalt, Milwaukee, Kobalt, Ryobi batteries. ARe they emitting HF even if they're not on fire? Very scary stuff!

@franksmall1313
1 month ago
GOOD POINT..... LOT'S OF CHEM IN THINGS NOW DAYS. A LITTLE GOES A LONG WAYS. YOU ..... YES YOU . NOT GOING TO GO FAR WITHOUT YOUR LUNGS..... PERIOD.

@hohenzollern6025
1 month ago
Wait, so you are saying even firefighters have no clue how dangerous these are?

Heads should start rolling.

@POOKISTAN
1 month ago
So if you are in an apartment, should you just pull the fire alarm if/when there's a battery that does that so that people in other rooms are not exposed?

@mattcook3671
1 month ago
what is a basic level of filtration that would give even 1 minute of protection here? Is it just a airplane hood or can a AC filter mask get you out?

@mart0225
1 month ago
Are batteries with a CE label safe?

I have a jump starter - air compressor battery combo like in the video. No UL listing. Has a CE label. How should I dispose it?

@MarthaSchleuder
1 month ago
Why were lithium batteries allowed to be sold to consumers to begin with?

@grumpydrummer8960
1 month ago
There must be stricter Fire safety reviews of imported new power storage products being prepared for consumer markets. Strangely current systems. Alot of other Lithium-ion batteries produced for cameras and popular power tools are and have been the most safest with no dangers imposed. Even my own Hearing aids have lithium ion batteries,albeit tiny. Of course the manufacturing of these hazardous versions must come under scrutiny . How are we going to cope when tiny nuclear

batteries enter the market, in the future?

@Evsmart-w8n
1 month ago
Trade one pollutant for another. Lithium batteries are highly toxic to people and our environment, a constant fire danger adding one more thing to an all ready polluted environment . EMF Radiation is another concern from these EVs

@ChRoNoS132
1 month ago (edited)
who's betting her charger/jumpbox/compressor was bought on like Tik-Tox shop or Temu

@Rk_Dark94
1 month ago
Check out not sure what the load was maybe up your alley. Posted 4hrs ago incident from August 11 yesterday. Arkansas: Flatbed Truck Load Falls Off Truck & Catches Fire For HOURS (10x speed)

@StacheDTraining
1 month ago
I'm aware of the incident. It was a Megapack. Is there video out somewhere?

@Rk_Dark94
1 month ago
@StacheDTraining The only video I saw was from that traffic camera time lapse. Video on YouTube with that title from earlier comment

@christophersmith5303
1 month ago
The gases are a serious health threat but wait until we start to see the long-term impacts of the heavy metal nanoparticulates that are emitted in both venting and active fire in thermal runaway. Mutagenic, cytotoxic, carcinogens, genotoxic, and they can cause direct DNA strand breaks - they can pass through your skin, membranes, and of course easily enter your respiratory system and many of them are not readily shed by our bodies. It's going to be much worse than "PFAS"

@doesentmatter
1 month ago
I knew it was an hf injury hf acid can dissolve bone or rocks (silica) pulmonary tissue doesn't stand a chance

@emiliofimbrez1671

1 month ago
And these things are supposed to be safer for the environment?!

@Archangelm127
1 month ago
As if the cancer risk to firefighters from burning artificial materials of all sorts wasn't bad enough...

@HankPA1
1 month ago
I watch a lot of firefighting videos. It seems that European firefighters are much faster to mask up than Americans.

@fountainvalley100
1 month ago
It's almost like you need to put the charging battery in a dry metal bucket. Next to it is a bucket of water. If it goes into runaway pour the water into the dry bucket and walk away.

Better would be for a company to make a bucket in a bucket. The customer fills the outer bucket with water. The water filled outer bucket would prevent the fire from spreading beyond the bucket.

@ernestyeagley512
1 month ago (edited)
Retired volunteer firefighter here. As long as these batteries are mfg. and available this unfortunate firefighter won't be the last to suffer from these unpredictable and dangerous power sources. Just a matter of time once again there will be a victim (or victims) and another house that burns to the ground. Sadly these lithium ion batteries won't go away, because they mean billions of dollars for the mfg. and for those that sell them (that power lazy kids' means of transportation such as bicycles and scooters). These wholesalers and retailers don't care about public safety. By the way I live near Amish country, and yet have I heard of an Amish child or young Amish adult die from overexertion pedaling a bike or pushing a scooter.

Reply

@anthropicandroid4494
1 month ago
> Hydrogen Flouride
Say no more; if F- were any happier holding that frank negative charge, it would be Noble!

Reply

@Wheresthabeef
1 month ago
This all sounds wonderful. Let's put lithium ion batteries in everything and ban every alternative.

Reply

@Eduardo_Espinoza
1 month ago
EV people gas light people saying that they don't give you lung damage.

Reply

@SalemikTUBE
1 month ago
How are these things legal? We seem to be just accepting that they are in every house and yet they want to ban my gas stove instead.

4

Reply

1 reply

@Eduardo_Espinoza
1 month ago
Instant asbestos lungs
So green like a leaf!

Reply

@matthewsocal2540
1 month ago
RUN TO THE SOURCE! No, don't dawn that. Ignore your training. RUSH IN! Dumbfounding in 2026...no?

Reply

@russellhltn1396
1 month ago
I'll bet this battery was bought on Amazon. I overheard the conversation of someone who lost a house to a battery fire. He tried to sue Amazon, but it turns out because Amazon doesn't have a "presence" (a retail store) in any state, they couldn't be sued. Trying to sue the maker (in China) was pointless.

If true, this is a major loophole in the consumer protection laws that needs to be closed. Consumers expect to be protected by consumer laws when they buy something from a US retailer.

Reply

@shockingguy
1 month ago
Wow, this channel does provide some good information
The guy who runs it, Pat
Is an absolute slug at responding or engaging anyone on any of his platforms?

I have sent him private messages about specific questions I had from his videos and all I got was crickets

I'm not impressed with this guy at all. He's definitely full of himself unless he starts to say that he's not by showing that he's not.

Reply

StacheD Training
·

2 replies

@Eduardo_Espinoza
1 month ago
So green
so clean
0 emissions
Good for the environment.

Reply

1 reply

@LoFiNic2025
1 month ago
The whole world becomes TEMU...

Reply

@billsElitetrucking349
1 month ago
I feel sorry for the firefighters that have to deal with these Deadly Lithium batteries.... batteries need to be Ban

Reply

@avlisk
1 month ago
If you had 4 BattleBorn batteries sitting in your bedroom (for backup power during grid outages), would you get rid of them? What kind of battery would you replace them with? I'm thinking of taking the financial hit of $3600, and replacing them with AGM. Advice wanted, and thanks.

Reply

1 reply

@dave3657
1 month ago
Lithium ion batteries are the new asbestos.

Reply

@boerbiet237
1 month ago
Welke opties zijn er (veilig) als je ziet dat het fout gaat?🤦‍♂️

Reply

1 reply

@BryanTorok
1 month ago
I have a friend who tells me that he uses LiFePo4 (Lithium Iron Phosphate) batteries for radio communication backup systems. He claims when used with a proper battery management system (BMS) for charging and discharging they have no chance of catching on fire or going into thermal runaway. Is he correct?

Reply

StacheD Training
.

1 reply

@partidaportet27
1 month ago
Progress? Lithium Ion seems to be a technology we should consign to the garbage

Reply

@romanseleven
1 month ago
Thank you for the sobering information. Due to the lack of reporting on the dangers of EVs and lithium ion batteries, it makes one wonder whether this is part of the depopulation agenda of the powers that be.

Reply

@MapleMAGA1963
1 month ago
It's unfortunate that anyone that seriously tries to get rid of this danger will be attacked by all the ignorant people that think these batteries are saving the planet. Saving the planet one huge open pit mine at a time. That's just the cobalt you don't want to look into the water use to produce lithium.

Reply

@davidhamtaro
1 month ago
What's a little sacrifice compared to saving the "environment" says the "How Dare You" green warriors .

Reply

@barneyrubble9309
1 month ago (edited)
its all safe...trust me im a politician.
Weve put our safety in the hands of Chinese quality control...thats not gonna end well.

1

Reply

@georgewills-ek1gg
1 month ago
What's with the poem? L0L.

l never trusted any of these dubious "Smartech" things, let alone anything with a lithium ion battery.

Reply

@shortstoryteller-i5p
1 month ago
Hydrogen fluoride. It is one of the toxic gases produced by defective lithium ion batteries.

Reply

@Aprilsraven629
1 month ago
The law needs to change. Home owners, renters, and businesses need to know this, so a push for mandatory installation of carbon monoxide detectors in every property becomes law along side smoke alarms...

Reply

@Cave5Critter
1 month ago
Lithium-Ion is way too general of an description. I bet is wasn't LiFePO4. Lithium-Ion is what you say if you hate all lithium batteries.

Reply

2 replies

@leonardkellum6984
1 month ago
Corporate amerika is selling them everywhere, I think they are a terrorists dream come true, and expect arson attacks involving them.

Reply

@AntisocialRedNeckNerd
1 month ago
Lithium-ion batteries are in lots of products. They have become common. The potential danger is not talked about.

How do we know when to dispose of one of these batteries? How do we dispose of a lithium-ion battery correctly?

Ignorance is widespread on this topic. . .

Reply

@matthewphair2469
1 month ago
'Lipo's" of any sort are lethal. I always charge ebike batteries outside. EV's total joke just one in the right place is going to kill hundreds not counting what they are doing to water aquifiers.

Reply

@joescott6469
1 month ago
hear no eval .... speak no eval ..... Government cover up .....

Reply

@solarlaura3355
1 month ago
We are surrounded by LI batteries everywhere we go. I've started carrying painters masks everywhere I go. I will load one for every passenger. If there is a cloud of smoke the masks go on. LI is so dangerous.

Reply

@gerardwood4059
1 month ago
Lithium battery technologies are far more dangerous that the problem they are stupidly trying to solve, climet change.
Man made global warming is a disputed fact, natural global warming is a fact. Absolutely nothing man can do to stop the planet warming, all we can do is not speed it up, but thousands of toxic battery fires is making the air we breath poisonous to us. Time to ban them before the atmosphere is irrevocably made toxic.

Reply

@HML-it7te
1 month ago
It's time we switch to sodium batteries.

Testing with steel rods rammed though them passed the tests.

They say these are much harder to combustion spontaneously.

I'm remember a firefighter in a southern Australian state having exposures resulting in loss of job, severe neurological damage FOR LIFE.

For christs sake, it's not worth it.
The battery industry needs to change over now, not in ten years.
Salt batteries can take much higher and cold-even extreme cold and function with extra wasted heating.
It's a no brainer.
It's also much more environmentally friendly and salt is so plentiful.
But we all know that "environmentally friendly" is just a term for politics.

I'm a retired dual trade (actually triple trade) Electrician Fitter/Mechanic, Linesman and Instrumentation Technician with a keen interest in solar and increasingly battery storage, but not for commercial reasons, only my own personal interest and increasing concerns that unintended consequences for Li battery storage on people's lives.
Home owners and well as Firefighters.

They shouldn't be sacrificed for something that can be changed for the better.

Reply

@khriswildt5633
1 month ago
In other words made in China He's such a blowhard he loves her and himself talk it was made in China

Reply

@georgevanheerden3563
1 month ago
Great pocast! Governments were quick on Covid! No reaction on EV battery fires! Statastical analysis- politicians only reacts positively to who is paying money into their political funds. We need to start using crypto. This will give a better audit trail on the flow of currency!

Reply

@H-River_with_MR
1 month ago (edited)
Be careful with the dual smoke/CO detectors... The proper location is different for both fumes. Smoke goes Up, Carbon Dioxide goes down & will form Carbon Monoxide. Fire detector near the ceilings. CO detectors low on lowest level...

4

Reply

5 replies

@josh_gossett
1 month ago
H2OFl= awful if u look at it. Lol

Reply

@josh_gossett
1 month ago
Hydrogen flouride...the thing they give us to drink and call water? Killing people? Nobody else thinks thats odd? I don't think adding oxygen fixes anything just saying

Reply

@FrankFrankston-kj4sx
1 month ago
So who took names at the LA Fires. The largest single turnoff of EVs, Scooters and home batteries in the USA to date?
Answer? No one. This is a repeat. An example of "we learnt nothing!" From ASBESTOS and THALIDOMIDE.
Li-ion Batteries do more than burn.
20 years from now this generation of fire experts aren't going to be looked upon kindly.

Reply